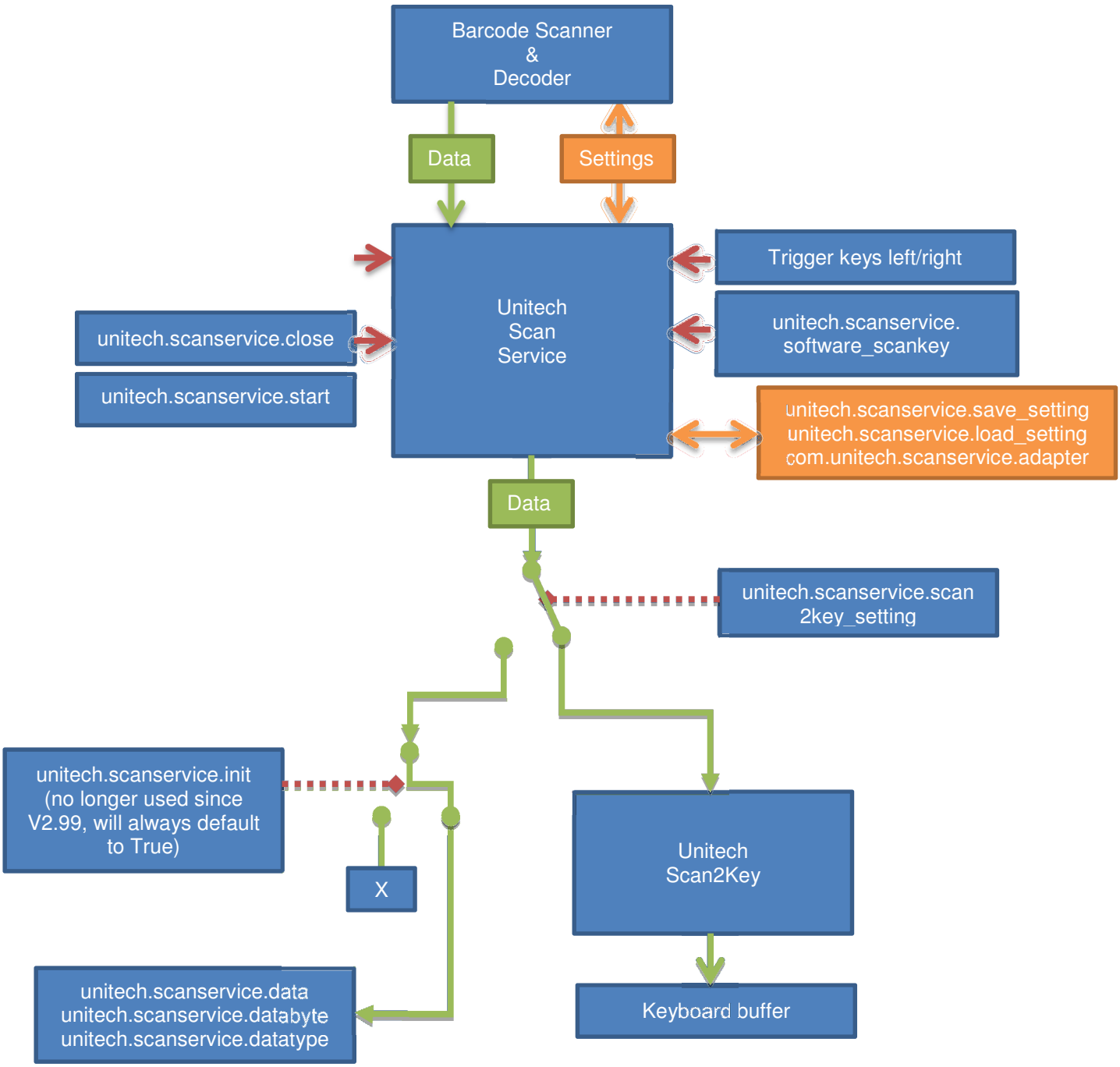
Android Programming Manual

Contents

1. ScanService/USS Communication

All USI cross application communications are done by broadcast intent between USI and user applications.
ScanServer V1.95 and above (as integrated in OS Built 3230 and above)
The intent action of the internal unitech scan service is "unitech.scanservice.xxx", and the intent action of the external unitech scanservice is "unitech.scanservice.external.xxx".
For example, if you want to start the unitech scan service :
The start intent action of internal USS : unitech.scanservice.start
The start intent action of external USS : unitech.scanservice.external.start
The below schematic sketches the scanner integration.



1.1. Enable/disable Scan2Key

Description: Enable/Disable the Scan2Key which supports keyboard emulation features.
Action: “unitech.scanservice.scan2key_setting”
Extended data: Name: “scan2key”
Type: Boolean (true=ON, false= OFF)
Example:
Disable Scan2Key:

```
Bundle bundle = new Bundle();
bundle.putBoolean("scan2key", false);
Intent mIntent = new Intent().setAction("unitech.scanservice.scan2key_setting")
                             .putExtras(bundle);
sendBroadcast(mIntent);
```

Enable Scan2Key:

```
Bundle bundle = new Bundle();
bundle.putBoolean("scan2key", true);
Intent mIntent = new Intent().setAction("unitech.scanservice.scan2key_setting")
                             .putExtras(bundle);
sendBroadcast(mIntent);
```

1.2. Scan2Key output method

Description: Choosing output method when using Scan2Key.
Action: "unitech.scanservice.scan2key_outputmethod "
Extended data: Name: “outputmethod”
Type: int
Note:

Method	
0	Key Event
1	Copy/Paste
2	Auto

Example:
Set Scan2Key output method to “Key Event”

```
Bundle bundle = new Bundle();
bundle.putInt("outputmethod", 0);
Intent mIntent = new Intent().setAction("unitech.scanservice.scan2key_outputmethod").putExtras(bundle);
sendBroadcast(mIntent);
```

Set Scan2Key output method to “Auto”

```
Bundle bundle = new Bundle();
bundle.putInt("outputmethod", 2);
Intent mIntent = new Intent().setAction("unitech.scanservice.scan2key_outputmethod").putExtras(bundle);
sendBroadcast(mIntent);
```

1.3. Trigger software scan

Description: Start or stop scanning
Action: "unitech.scanservice.software_scankey"
Extended data: Name: “scan”
Type: Boolean (true=start scanning, false=stop scanning)
Example:
Start decoding

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.software_scankey");
intent.putExtra("scan", true);
sendBroadcast(intent);
```

Stop decoding

```
Intent intent = new Intent();
```

```
intent.setAction("unitech.scanservice.software_scankey");
intent.putExtra("scan", false);
sendBroadcast(intent);
```

1.4. Receive scanned data

User can receive the scanned barcode data via intent. This section lists all the intents user can registered in their application for getting specific information from scanned barcode data.

Note: Must set scan2key to false in order for data to send through intent. Otherwise data will be sent via Scan2Key feature..

1.4.1. Receive scanned data text

Receiver Action: "unitech.scanservice.data"
Receiver Extended data: Name: "text"
Type: String

Example:
Register and receive String barcode data

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);

   IntentFilter intentFilter = new IntentFilter();
   intentFilter.addAction("unitech.scanservice.data");

   registerReceiver(mUssReceiver , intentFilter);
}
private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
   @Override
   public void onReceive(Context context, Intent intent) {
      Log.d(LOG_TAG, "Received intent: " + intent.getAction());
      if(intent.getAction().equals("unitech.scanservice.data")){
         Log.d(LOG_TAG, "Received data in intent: " + intent.getStringExtra("text"));
      }
   }
};
```

Note: Customer can change the Intent Action and Extended data Name. Please refer to Chap. "1.19.6. Set custom intent action for receiving scanned data" and Chap. "1.19.7. Set custom intent extra for receiving scanned data"

1.4.2. Received scanned data text length

Receiver Action: "unitech.scanservice.datalength"
Receiver Extended data: Name: "text"
Type: int

Example:
Register and receive length of String barcode data

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);

   IntentFilter intentFilter = new IntentFilter();
   intentFilter.addAction("unitech.scanservice.datalength");
```

```
    registerReceiver(mUssReceiver , intentFilter);
}
private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.d(LOG_TAG, "Received intent: " + intent.getAction());
        if(intent.getAction().equals("unitech.scanservice.datalength")){
            Log.d(LOG_TAG, "Received data length in intent: " + intent.getIntExtra("text", 0));
        }
    }
};
```

1.4.3. Received scanned data raw bytes

Receiver Action: "unitech.scanservice.databyte"
Receiver Extended data: Name: "text"
Type: byte[]
Example:
Register and receive raw barcode data

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    IntentFilter intentFilter = new IntentFilter();
    intentFilter.addAction("unitech.scanservice.databyte");

    registerReceiver(mUssReceiver , intentFilter);
}
private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.d(LOG_TAG, "Received intent: " + intent.getAction());
        if(intent.getAction().equals("unitech.scanservice.databyte")){
            byte [] rawDatas = intent.getByteArrayExtra("text");
            StringBuilder strRawDatas = new StringBuilder();
            for(byte rawData:rawDatas){
                strRawDatas.append('[');
                strRawDatas.append(String.valueOf(rawData));
                strRawDatas.append(']');
            }
            Log.d(LOG_TAG, "Received raw data in intent: " + strRawDatas.toString());
        }
    }
};
```

Note: "databyte" will return unmodified raw data from the engine, which might be different from the String "data". Thus need to use “databytelength” to get the correct length.

1.4.4. Received scanned data raw bytes length

Receiver Action: "unitech.scanservice.databytelength"
Receiver Extended data: Name: "text"
Type: int
Example:
Register and receive length of raw barcode data

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    IntentFilter intentFilter = new IntentFilter();
    intentFilter.addAction("unitech.scanservice.databytelength");

    registerReceiver(mUssReceiver , intentFilter);
}
private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.d(LOG_TAG, "Received intent: " + intent.getAction());
        if(intent.getAction().equals("unitech.scanservice.databytelength")){
            Log.d(LOG_TAG, "Received raw data length in intent: " + intent.getIntExtra("text", 0));
        }
    }
};
```

1.1. Receive symbology data

Description: Receive the type of scanned barcode symbology.
Receiver Action: "unitech.scanservice.datatype"
Receiver Extended data: Name: "text"
Type: Integer
Example:
Register and receive barcode type data

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    IntentFilter intentFilter = new IntentFilter();
    intentFilter.addAction("unitech.scanservice.datatype");

    registerReceiver(mUssReceiver , intentFilter);
}
private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.d(LOG_TAG, "Received intent: " + intent.getAction());
        if(intent.getAction().equals("unitech.scanservice.datatype")){
            Log.d(LOG_TAG, "Received barcode type in intent: " + intent.getIntExtra("text", 0));
        }
    }
};
```

Note: Must set "scan2key" to false in order for symbology data to send through intent.

Note2: USS send intent by below sequences
unitech.scanservice.data (barcode data)
unitech.scanservice.databytelength (barcode length)
unitech.scanservice.datatype (symbologies code type)

1.2. Save scanner settings

Description: Save the scanner's setting.
Action: "unitech.scanservice.save_setting"
Extended data: Name: "Path"
Type: String
Example:

Save current settings to "/storage/emulated/0/Documents" path

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.save_setting");
intent.putExtra("Path", "/storage/emulated/0/Documents");
sendBroadcast(intent);
```

Note: File name is fixed: USISETTING.CFG
And default "Path" is /sdcard/ if "Path" is left empty. Make sure path exist.

1.3. Load scanner settings

Description: Load the scanner's setting.
Action: "unitech.scanservice.load_setting"
Extended data: Name: "Path"
Type: String
Example:
Load settings from "/storage/emulated/0/Documents/USISETTING.CFG" file

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.load_setting");
intent.putExtra("Path", "/storage/emulated/0/Documents/USISETTING.CFG");
sendBroadcast(intent);
```

Note: File name is fixed: USISETTING.CFG.
And default "Path" is /sdcard/ if "Path" is left empty. Make sure path exist.

1.4. Load default settings

Description: Load the scanner's default setting.
Action: "unitech.scanservice.load_default_setting"
Example:

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.load_default_setting");
sendBroadcast(intent);
```

1.5. Close scan service

Description: Close the scan service.
Action: "unitech.scanservice.close"
Extended data: Name: "close"
Type: Boolean
Example:

```
Bundle bundle = new Bundle();
bundle.putBoolean("close", true);
Intent mIntent = new Intent().setAction("unitech.scanservice.close").putExtras(bundle);
sendBroadcast(mIntent);
```

1.6. Start Scan Service

Description: Start the scan service.
Action: "unitech.scanservice.start"
Example:

```
Intent mIntent = new Intent().setAction("unitech.scanservice.start");
sendBroadcast(mIntent);
```

1.7. Set Preamble

Description: set preamble to the output data
Action: "unitech.scanservice.preamble"
Extended data: Name: "preamble"
Type: String
Example:
Set character 'a' as preamble

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.preamble");
```

```
intent.putExtra("preamble", "a");
sendBroadcast(intent);
```

1.8. Set Postamble

Description: set postamble to the output data
Action: “unitech.scanservice.postamble”
Extended data: Name: “postamble”
Type: String

Example:
Set character ‘b’ as postamble

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.postamble");
intent.putExtra("postamble", "b");
sendBroadcast(intent);
```

1.9. Set Terminator

Description: set terminator to the output data
Action: “unitech.scanservice.terminator”
Extended data: Name: “terminator”
Type: String

Note: Terminator

<TAB>	Tab
<LF>	Newline
<CR>	Newline
<CR><LF>	Newline

Example:
Set double “Tab” as terminator

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.terminator");
intent.putExtra("terminator", "<TAB><TAB>");
sendBroadcast(intent);
```

1.10. Set EAN128 Field Separator

Description: set EAN128 Field Separator
Action: “unitech.scanservice.fieldseparator”
Extended data: Name: “fieldseparator”
Type: String

Example:
Set character ‘@’ as EAN128 Field Separator

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.fieldseparator");
intent.putExtra("fieldseparator", "@");
sendBroadcast(intent);
```

1.11. Apply GS to all Symbologies feature enable/disable

Description: Enable/Disable the feature to apply GS to all Symbologies
Action: “unitech.scanservice.apply_gs_to_all”
Extended data: Name: “apply_gs_to_all”
Type: Boolean

Example:
Enable apply GS to all Symbologies

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.apply_gs_to_all");
intent.putExtra("apply_gs_to_all", true);
sendBroadcast(intent);
```

1.12. Set Intercharacter Delay

Description: set intercharacter delay (ms)
Action: “unitech.scanservice.interchar_delay”
Extended data: Name: “intercharDelay”

Type: Integer

Example:
Set intercharacter delay to 0.1 seconds

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.interchar_delay");
intent.putExtra("intercharDelay", 100);
sendBroadcast(intent);
```

1.13. Enable All Symbologies

Description: Enable all symbologies. Except Trioptic Code 39, Composite CC-C, Composite CC-A/B, and Composite TLC-39.
Action: "unitech.scanservice.enable_all"
Example:

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.enable_all");
sendBroadcast(intent);
```

Note: This API only worked for device with Zebra engine.

1.14. Disable All Symbologies

Description: Disable all symbologies.
Action: "unitech.scanservice.disable_all"
Example:

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.disable_all");
sendBroadcast(intent);
```

1.15. Send param command

Description: Send parameter command to engine.
Action: "unitech.scanservice.setting"

Extended data 1:	Name: "INDEX" Type: Integer
Extended data 2:	Name: "EXTEND" Type: Boolean
Extended data 3:	Name: "EXT" Type: Byte
Extended data 4:	Name: "NUM" Type: Byte
Extended data 5:	Name: "VALUE" Type: Byte/Integer/String (Based on "TYPE" extended data)
Extended data 6:	Name: "TYPE" Type: Integer

Note: **INDEX**

1	1D engine
2	2D engine

EXTEND

True	Parameter number is bigger than 0x00EF
False	Parameter number is less than 0x00EF

EXT
The higher byte of the parameter number

NUM
The lower byte of the parameter number

VALUE
The value to be set to the given parameter number

TYPE	
1	VALUE is a byte data
4	VALUE is an Integer data
5	VALUE is a String data

For information about supported parameter number and default value for different engine, please refered to chapter 9.2.

For more details about the usage of each parameter, please refere to chapter 9.3.

Example:
Enable UPC-A (parameter: 1[0x0001]; value: 1; value type: byte)

```
// Enable/disable UPC-A
public static final String SETTING = "unitech.scanservice.setting";

Bundle bundle = new Bundle();
bundle.putInt("INDEX", 1);                    // 1 = 1D engine, 2 = 2D engine
bundle.putBoolean("EXTEND", false);           // false if NUM <= 0xEF, otherwise true
bundle.putByte("NUM", (byte) 0x01);           // <param_num> or <param_num offset>, from "Hex" value
bundle.putByte("VALUE", (byte) 1);            // 1 = Enable, 0 = Disable

Intent mIntent = new Intent().setAction(SETTING).putExtras(bundle);
sendBroadcast(mIntent);
```

Example:
Set UpperLeftWindowX to 550 (parameter: 3025[0x0BD1]; value: 550; value type: Integer)

```
// Set UpperLeftWindowX to 550
public static final String SETTING = "unitech.scanservice.setting";

Bundle bundle = new Bundle();
bundle.putInt("TYPE", 4);                    // Type 4 = integer value
bundle.putInt("INDEX", 2);                    // 1 = 1D engine, 2 = 2D engine
bundle.putBoolean("EXTEND", true);           // false if NUM <= 0xEF, otherwise true
bundle.putByte("EXT", (byte) 0x0B);           // <param_num> or <param_num offset>, from "Hex" value
bundle.putByte("NUM", (byte) 0xD1);           // <param_num> or <param_num offset>, from "Hex" value
bundle.putInt("VALUE", 550);             // Set “VALUE” as integer extra

Intent mIntent = new Intent().setAction(SETTING).putExtras(bundle);
sendBroadcast(mIntent);
```

Example:
Set OCR User Template to "1,3,5,5,5,5,5,5,5,5,0" (parameter: 547[0x0223]; value: "1,3,5,5,5,5,5,5,5,5,0"; value type: String)

```
// Set OCR User Template to "1,3,5,5,5,5,5,5,5,5,0"
public static final String SETTING = "unitech.scanservice.setting";

Bundle bundle = new Bundle();
bundle.putInt("TYPE", 5);                    // Type 5 = string value
bundle.putInt("INDEX", 2);                    // 1 = 1D engine, 2 = 2D engine
bundle.putBoolean("EXTEND", true);           // false if NUM <= 0xEF, otherwise true
bundle.putByte("EXT", (byte) 0x02);           // <param_num> or <param_num offset>, from "Hex" value
bundle.putByte("NUM", (byte) 0x23);           // <param_num> or <param_num offset>, from "Hex" value
bundle.putString("VALUE", "1,3,5,5,5,5,5,5,5,5,0");            // Set “VALUE” as string extra

Intent mIntent = new Intent().setAction(SETTING).putExtras(bundle);
sendBroadcast(mIntent);
```

1.16. Set Device Options

1.16.1. On screen button enable/disable

Description: enable or disable the on screen button:
Action: “unitech.scanservice.on_screen_button”
Extended data: Name: “on_screen_button”
Type: Boolean
Example:
Enable scan ok sound

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.on_screen_button");
intent.putExtra("on_screen_button", true);
sendBroadcast(intent);
```

1.16.2. Scan ok sound enable/disable

Description: set sound:
Action: “unitech.scanservice.sound”
Extended data: Name: “sound”
Type: Boolean
Example:
Enable scan ok sound

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.sound");
intent.putExtra("sound", true);
sendBroadcast(intent);
```

1.16.3. Set scan ok sound frequency

Description: set sound frequency:
Action: “unitech.scanservice.frequency”
Extended data: Name: “frequency”
Type: Integer

Note:	**Frequency**
0	Bass
1	Normal
2	Sharp

Example:
Set scan ok sound frequency to “Sharp”

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.frequency");
intent.putExtra("frequency", 2);
sendBroadcast(intent);
```

1.16.4. Set scan ok sound duration

Description: set sound duration:
Action: “unitech.scanservice.duration”
Extended data: Name: “duration”
Type: Integer

Note:	**Duration**
0	Short
1	Medium
2	Long

Example:
Set scan ok sound duration to “Long”

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.duration");
intent.putExtra("duration", 2);
sendBroadcast(intent);
```

1.16.5. Scan ok vibration enable/disable

Description: set vibration:
Action: “unitech.scanservice.vibration”
Extended data: Name: “vibration”
Type: Boolean

Example:
Enable scan ok vibration

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.vibration");
intent.putExtra("vibration", true);
sendBroadcast(intent);
```

1.16.6. Set custom intent action for receiving scanned data

Description: set intent action for the receive data:
Action: “unitech.scanservice.intent_action”
Extended data: Name: “intentaction”
Type: String
Example:
Change receiving barcode data intent to “com.unitech.scanservice.action.DATA”

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.intent_action");
intent.putExtra("intentaction", "com.unitech.scanservice.action.DATA");
sendBroadcast(intent);
```

1.16.7. Set custom intent extra for receiving scanned data

Description: set intent extra for the receive data:
Action: “unitech.scanservice.intent_extra”
Extended data: Name: “intentextra”
Type: String
Example:
Change receiving barcode data intent extra to “com.unitech.scanservice.extra.MULTI_DATA”

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.intent_extra");
intent.putExtra("intentextra", "com.unitech.scanservice.extra.MULTI_DATA");
sendBroadcast(intent);
```

1.16.8. Set scanned data encoding

Description: set encoding:
Action: “unitech.scanservice.encoding”
Extended data: Name: “encoding”
Type: Integer

Note:

Encoding	
0	UTF-8
1	GBK
2	BIG-5
3	Shift_JIS
4	Unicode

Example:
Set barcode encoding to “Unicode”

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.encoding");
intent.putExtra("encoding", 4);
sendBroadcast(intent);
```

1.16.9. GS1-128 AI feature enable/disable

Description: enable or disable GS1-128 AI feature:
Action: “unitech.scanservice.aienable”
Extended data: Name: “aienable”

Type: Boolean

Example:

Enable GS1-128 AI feature

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.aienable");
intent.putExtra("aienable", true);
sendBroadcast(intent);
```

1.16.10. Apply AI to Data Matrix feature enable/disable

Description: enable or disable apply AI to Data Matrix symbology feature:
Action: “unitech.scanservice.apply_ai_to_data_matrix”
Extended data: Name: “apply_ai_to_data_matrix”
Type: Boolean

Example:

Enable apply AI to Data Matrix Symbology feature

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.apply_ai_to_data_matrix");
intent.putExtra("apply_ai_to_data_matrix", true);
sendBroadcast(intent);
```

1.16.11. Apply AI to All Symbology feature enable/disable

Description: enable or disable apply AI to all symbology feature:
Action: “unitech.scanservice.apply_ai_to_all”
Extended data: Name: “apply_ai_to_all”
Type: Boolean

Example:

Enable apply AI to All Symbology feature

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.apply_ai_to_all");
intent.putExtra("apply_ai_to_all", true);
sendBroadcast(intent);
```

1.16.12. Set character before GS1-128 AI

Description: set character shows before GS1-128 AI:
Action: “unitech.scanservice.preai”
Extended data: Name: “preai”
Type: String

Example:

Set character ‘(’ to be shown before GS1-128 AI

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.preai");
intent.putExtra("preai", "(");
sendBroadcast(intent);
```

1.16.13. Set character after GS1-128 AI

Description: set character shows after GS1-128 AI:
Action: “unitech.scanservice.postai”
Extended data: Name: “postai”
Type: String

Example:

Set character ‘)’ to be shown after GS1-128 AI

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.postai");
intent.putExtra("postai", ")");
```

```
sendBroadcast(intent);
```

1.16.14. HIBC LIC feature enable/disable

Description: enable or disable HIBC LIC feature:
Action: “unitech.scanservice.hibclicenable”
Extended data: Name: “hibclicenable”
Type: Boolean
Example:
Enable HIBC LIC feature

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.hibclicenable");
intent.putExtra("hibclicenable ", true);
sendBroadcast(intent);
```

1.16.15. HIBC LIC header enable/disable

Description: enable or disable HIBC LIC header feature:
Action: “unitech.scanservice.hibclicheader”
Extended data: Name: “hibclicheader”
Type: Boolean
Example:
Enable HIBC LIC header feature

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.hibclicheader");
intent.putExtra("hibclicheader", true);
sendBroadcast(intent);
```

1.16.16. Set character for HIBC LIC group separator

Description: set character to replace HIBC LIC group separator:
Action: “unitech.scanservice.hibclicgs”
Extended data: Name: “hibclicgs”
Type: String
Example:
Set character ‘@’ to replace the HIBC LIC group separator

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.hibclicgs");
intent.putExtra("hibclicgs", "@");
sendBroadcast(intent);
```

1.16.17. Set character for HIBC LIC record separator

Description: set character to replace HIBC LIC record separator:
Action: “unitech.scanservice.hibclicrs”
Extended data: Name: “hibclicrs”
Type: String
Example:
Set character ‘#’ to replace the HIBC LIC group separator

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.hibclicrs");
intent.putExtra("hibclicrs", "#");
sendBroadcast(intent);
```

1.16.18. Set character for HIBC LIC end of transmission

Description: set character to replace HIBC LIC end of transmission:

Action: “unitech.scanservice.hibcliceot”
Extended data: Name: “hibcliceot”
Type: String
Example:
Set character ‘$’ to replace the HIBC LIC end of transmission

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.hibcliceot");
intent.putExtra("hibcliceot", "$");
sendBroadcast(intent);
```

1.17. Multi Profile

USS V3.XX.XX and above provides multi profile feature, where user can assign more than one application to be associated with one profile, then USS will automatically switch to the specific profile when associated application were launched. For example, if user want to disable “UPC-A” whenever certain browser Apps were being launched, user can create a new profile named “browser”, change the “UPC-A” settings in “browser” profile being disabled, and then associated the desired browser App with “browser” profile. If an application is not being associated with any profile, USS will use the default one (i.e., “Default” profile).

1.17.1. Add Profile

Description: add new profile with specified name:
Action: “com.unitech.scanservice.action.ADD_PROFILE”
Extended data: Name: “com.unitech.scanservice.extra.PROFILE_NAME”
Type: String
Example:
Add a new profile named “apiTest”

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.ADD_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
sendBroadcast(intent);
```

1.17.2. Remove Profile

Description: remove an existing profile with specified name:
Action: “com.unitech.scanservice.action.REMOVE_PROFILE”
Extended data: Name: “com.unitech.scanservice.extra.PROFILE_NAME”
Type: String
Example:
Remove an existing profile named “apiTest”

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.REMOVE_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
sendBroadcast(intent);
```

1.17.3. Export Profile

Description: export an existing profile setting:
Action: “com.unitech.scanservice.action.EXPORT_PROFILE”
Extended data: Name: “com.unitech.scanservice.extra.PROFILE_NAME”
Type: String
Example:
Exporting “apiTest” profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.EXPORT_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
```

sendBroadcast(intent);

Note: The path which USS exports the profile into is different between PA760 and EA520. For PA760, profile setting will be exported to “/storage/emulated/0/Android/data/com.unitech.scanservice/files/Profile/”; for EA520, profile setting will be exported to “/storage/emulated/0/Profile/”.

1.17.4. Import Profile

Description: import a profile setting from file:
Action: “com.unitech.scanservice.action.IMPORT_PROFILE”
Extended data: Name: “com.unitech.scanservice.extra.PATH”
Type: String
Example:
Importing profile from “apiTest_uss_profile.profile” file under "/storage/emulated/0/Android/data/com.unitech.scanservice/files/Profile/"

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.IMPORT_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PATH",
"/storage/emulated/0/Android/data/com.unitech.scanservice/files/Profile/apiTest_uss_profile.profile");
sendBroadcast(intent);
```

1.17.5. Export All Profile

Description: export all existing profile settings:
Action: “com.unitech.scanservice.action.EXPORT_ALL_PROFILES”
Example:

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.EXPORT_ALL_PROFILES");
sendBroadcast(intent);
```

Note: The path which USS exports the profile into is different between PA760 and EA520. For PA760, profile setting will be exported to “/storage/emulated/0/Android/data/com.unitech.scanservice/files/Profile/”; for EA520, profile setting will be exported to “/storage/emulated/0/Profile/”.

1.17.6. Import All Profile

Description: import profile settings from dedicated path:
Action: “com.unitech.scanservice.action.IMPORT_ALL_PROFILES”
Example:

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.IMPORT_ALL_PROFILES");
sendBroadcast(intent);
```

Note: The path which USS import the profiles within this API is different between PA760 and EA520. For PA760, profile setting will be imported from “/storage/emulated/0/Android/data/com.unitech.scanservice/files/Profile/”; for EA520, profile setting will be imported from to “/storage/emulated/0/Profile/”.

1.17.7. Enable/Disable Profile

Description: enable or disable an existing profile:
Action: “com.unitech.scanservice.action.ENABLE_PROFILE”
Extended data 1: Name: “com.unitech.scanservice.extra.PROFILE_NAME”
Type: String
Extended data 2: Name: “com.unitech.scanservice.extra.PROFILE_ENABLE”
Type: Boolean

Example:
Enable “apiTest” profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.ENABLE_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_ENABLE", true);
sendBroadcast(intent);
```

Disable "apiTest" profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.ENABLE_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_ENABLE", false);
sendBroadcast(intent);
```

1.17.8. Duplicate Profile

Description: duplicate an existing profile settings into a new profile:
Action: "com.unitech.scanservice.action.DUPLICATE_PROFILE"
Extended data 1: Name: "com.unitech.scanservice.extra.PROFILE_NAME"
Type: String
Extended data 2: Name: "com.unitech.scanservice.extra.NEW_PROFILE_NAME"
Type: String

Example:
Duplicate "apiTest" profile into "apiTest2" profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.DUPLICATE_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
intent.putExtra("com.unitech.scanservice.extra.NEW_PROFILE_NAME", "apiTest2");
sendBroadcast(intent);
```

1.17.9. Rename Profile

Description: rename an existing profile setting:
Action: "com.unitech.scanservice.action.RENAME_PROFILE"
Extended data 1: Name: "com.unitech.scanservice.extra.PROFILE_NAME"
Type: String
Extended data 2: Name: "com.unitech.scanservice.extra.NEW_PROFILE_NAME"
Type: String

Example:
Rename "apiTest2" profile into "apiTestRenamed" profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.RENAME_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest2");
intent.putExtra("com.unitech.scanservice.extra.NEW_PROFILE_NAME", "apiTestRenamed");
sendBroadcast(intent);
```

1.17.10. Reset Profile

Description: reset an existing profile to default:
Action: "com.unitech.scanservice.action.RESET_PROFILE"
Extended data: Name: "com.unitech.scanservice.extra.PROFILE_NAME"
Type: String
Example:
Rename "apiTest" profile settings to default

```
Intent intent = new Intent();
```

```
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.RESET_PROFILE");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
sendBroadcast(intent);
```

1.17.11. Add/Remove Associate Application

Description: add or remove associate application with an existing profile:
Action: "com.unitech.scanservice.action.ASSOCIATED_APP"
Extended data 1: Name: "com.unitech.scanservice.extra.PROFILE_NAME"
Type: String
Extended data 2: Name: "com.unitech.scanservice.extra.ASSOCIATED_PACKAGE"
Type: String
Extended data 3: Name: "com.unitech.scanservice.extra.ASSOCIATED_PACKAGE_ENABLE"
Type: Boolean

Example:
Associate "com.unitech.ussintenttest" with "apiTest" profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.ASSOCIATED_APP");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
intent.putExtra("com.unitech.scanservice.extra.ASSOCIATED_PACKAGE", "com.unitech.ussintenttest");
intent.putExtra("com.unitech.scanservice.extra.ASSOCIATED_PACKAGE_ENABLE", true);
sendBroadcast(intent);
```

Remove the association of "com.unitech.ussintenttest" from "apiTest" profile

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.ASSOCIATED_APP");
intent.putExtra("com.unitech.scanservice.extra.PROFILE_NAME", "apiTest");
intent.putExtra("com.unitech.scanservice.extra.ASSOCIATED_PACKAGE", "com.unitech.ussintenttest");
intent.putExtra("com.unitech.scanservice.extra.ASSOCIATED_PACKAGE_ENABLE", false);
sendBroadcast(intent);
```

1.17.12. List Profiles

Description: request and receive list of existing profiles:
Action: "com.unitech.scanservice.action.LIST_PROFILES"
Receiver Action: "com.unitech.scanservice.action.RECEIVE_LIST_PROFILES"
Receiver Extended data: Name: "com.unitech.scanservice.extra.PROFILE_NAME_ARRAY"
Type: String Array
Example:
Send "List Profiles" request

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.LIST_PROFILES");
sendBroadcast(intent);
```

Register and receive result of "List Profiles" request

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);

   IntentFilter intentFilter = new IntentFilter();
   intentFilter.addAction("com.unitech.scanservice.action.RECEIVE_LIST_PROFILES");

   registerReceiver(mUssReceiver , intentFilter);
```

```
}

private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
   @Override
   public void onReceive(Context context, Intent intent) {
      Log.d(LOG_TAG, "Received intent: " + intent.getAction());
      if(intent.getAction().equals("com.unitech.scanservice.action.RECEIVE_LIST_PROFILES")){
            String[] profiles =
intent.getStringArrayExtra("com.unitech.scanservice.extra.PROFILE_NAME_ARRAY");
            Log.d(LOG_TAG, "Received profile list in intent: " + Arrays.toString(profiles));
      }
   }
};
```

1.17.13. List Enabled Profiles

Description: request and receive list of enabled profiles:
Action: “com.unitech.scanservice.action.LIST_ENABLE_PROFILES”
Receiver Action: “com.unitech.scanservice.action.RECEIVE_LIST_ENABLE_PROFILES”
Receiver Extended data: Name: “com.unitech.scanservice.extra.PROFILE_NAME_ARRAY”
Type: String Array
Example:
Send “List Enabled Profiles” request

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
intent.setAction("com.unitech.scanservice.action.LIST_ENABLE_PROFILES");
sendBroadcast(intent);
```

Register and receive result of “List Enabled Profiles” request

```
private static final String LOG_TAG = "USSIntentTest";

@Override
protected void onCreate(Bundle savedInstanceState) {
   super.onCreate(savedInstanceState);
   setContentView(R.layout.activity_main);

   IntentFilter intentFilter = new IntentFilter();
   intentFilter.addAction("com.unitech.scanservice.action.RECEIVE_LIST_ENABLE_PROFILES");

   registerReceiver(mUssReceiver , intentFilter);
}

private BroadcastReceiver mUssReceiver = new BroadcastReceiver() {
   @Override
   public void onReceive(Context context, Intent intent) {
      Log.d(LOG_TAG, "Received intent: " + intent.getAction());
      if(intent.getAction().equals("com.unitech.scanservice.action.RECEIVE_LIST_ENABLE_PROFILES")){
            String[] profiles =
intent.getStringArrayExtra("com.unitech.scanservice.extra.PROFILE_NAME_ARRAY");
            Log.d(LOG_TAG, "Received enabled profile list in intent: " + Arrays.toString(profiles));
      }
   }
};
```

1.17.14. Factory Reset Profile

Description: remove all profiles except “Default” profile, and reset “Default” profile settings:
Action: “com.unitech.scanservice.action.FACTORY_RESET”
Example:

```
Intent intent = new Intent();
intent.setPackage("com.unitech.scanservice");
```

```
intent.setAction("com.unitech.scanservice.action.FACTORY_RESET");
sendBroadcast(intent);
```

1.18. Programming example

Programming Source-code example is available as “keypad-test” at
http://w3.tw.ute.com/pub/cs/manual/Android_Programming_Manual/keypad_test.zip (Not worked)
For ScanServer V1.99 and above
https://portal.unitech.eu/Files/Technical/PA-Series-Scannertest-Src_1.0.zip

1.19. Enable/Disable keyboard output

```
Intent intent = new Intent();
intent.setAction("unitech.scanservice.scan2key_setting");
intent.putExtra("scan2key", true);
sendBroadcast(intent);
```

1.20. Receive scanned data and datatype

```
public void onReceive(Context context, Intent intent) {
      if("unitech.scanservice.data" .equals(intent.getAction()))
      {
            Bundle bundle = intent.getExtras();
            if(bundle != null )
            {
                  String text = bundle.getString("text");
                  inst.setViewText(text);
            }
      }
      if("unitech.scanservice.datatype" .equals(intent.getAction()))
      {
            Bundle bundle = intent.getExtras();
            if(bundle != null )
            {
//    code error                  int type = bundle.getString("text");
                  int type = bundle.getInt("text");
                  String text = “”;
                  if(type == 0x01)
                        text = “This is Code 39.”;
                  else if(type == 0x02)
                        text = “This is Code 39.”;
                  inst.setViewText(text);

            }
      }

}
PS. Must set scan2key to false in order for data to send through intent.
Otherwise data will sent to keyboard buffer
```

1.21. Programming example

Programming Source-code example is available as “keypad-test” at
http://w3.tw.ute.com/pub/cs/manual/Android_Programming_Manual/keypad_test.zip
For ScanServer V1.99 and above
https://portal.unitech.eu/Files/Technical/PA-Series-Scannertest-Src_1.0.zip

2. Tips using Scan2Key

2.1. Want to know the barcode symbology ?

Open the ScanService
Select the tab “Settings”
Select “Data Options”
Select “Transmit Code ID character” and select “AIM Code ID character”
The Barcode symbology will be transmitted as in
http://mdn.morovia.com/kb/AIM-Symbology-Identifiers-SI-10639.html
so a Code128 label with data 097050214112 the barcode will have display 097050214112
About the barcode symbology AIM Code ID, please refer to chapter 5.

2.2. The received data is longer the barcode data

Open the ScanService, press the third h/w key
Select “Device Option”
Select “Terminator” and remove the text <LF>
Select OK

2.3. Enable/Disable barcode scanning through HTML5

Prerequisites

ScanOff DisableScan2Key.apk (https://12manage.unitech.eu/RDM/tools/DisableScan2Key.apk)
ScanOn EnableScan2Key.apk (https://12manage.unitech.eu/RDM/tools/EnableScan2Key.apk)

For example and code visit http://portal.unitech.eu/tools/android.aspx#

2.1. Enable data editings

To enable data editing, first generate a text file called rule.txt at /sdcard/ folder. ScanService will read this file when it starts, and apply rules in the file to the final output of the data when using Scan2Key feature or sending data via intent. If you want to stop using the data editing feature, just remove rule.txt from /sdcard/ folder.

2.2. Basic of data editing rules

For each data editing rule, it contains at least one ***qualifier*** and a ***modifier***, where ***qualifier*** indicate the "criteria for incoming barcode data to apply this rule", and ***modifier*** indicate "the way the incoming barcode data should be modified when the rule applied". For example, user can set a rule like "When it is Code 39 barcode and the data length is longer than 6, insert 'A' at the start of the barcode data", where "Code 39 barcode" and "data length is longer than 6" being the ***qualifier***, and "insert 'A' at the start of the barcode data" being the ***modifier***.

2.3. The way ScanService applying the rules

Currently, ScanService supports max of 10 sets of rules, which labled from '0' to '9'. When user provided data editing rules, ScanService will check the rules through rule '0' to rule '9', whenever a barcode were scanned. If the barcode data meets the ***qualifier*** defined in a rule, ScanService will applied the ***modifier*** defined in that rule to the barcode data and skip checking the rest of the rules; if the barcode data didn't meets any ***qualifier*** defined in provided rules, ScanService will not output any string.

Note: If user want to apply ***modifier*** for certain barcode data, and need ScanService to output other barcode data normally, user must add a rule which its ***qualifier*** applied to all the barcode data, with a ***modifier*** didn't do anything to the barcode data.

2.4. Qualifier format

The ***qualifier*** act as a finder to search for barcode data which meet the criteria it defined, it is a string contains informations of identifier, rule label, control codes and parameters for each control codes, where those informations were separated by the comma (',') symbol. The basic format of the ***qualifier*** is looks like the following:

q,<Label of the Rule>,<Control Code X>,<Control Code X Parameter N>,…

Where the first letter 'q' is an identifier which indicates this line is a ***qualifier***; <Label of the Rule> is the label of the rule this ***qualifier*** belongs, <Control Code X> being the "criteria X of this ***qualifier*** is looking for", and <Control Code X Parameter N> being the "parameters for criteria X".

For control codes of the ***qualifier***, please refer to the following table.

Control Code	Value	Parameter(s)
Target Symbology	t	[Numbers (N) of the target code type][Code Type 1][Code Type 2]…[Code Type N]
Size of Barcode	s	[0: Equal; 1: Less then; 2: Greater then][Size to compare]
Regular Expression	e	[Java regular expression]

Example: define a ***qualifier*** which belongs to rule 1, and the criteria being "barcode data length larger than 5":

q,1,s,2,5

The breakdown:

Information	Type	Description
q	Identifier	This line of rule is a ***qualifier***
1	Label of the Rule	This line belongs to rule 1
s	Control Code	Looking for barcode with certain length
2	Control Code Parameter	Barcode data length is greater then the value to be compared
5	Control Code Parameter	Compare to value 5

Example: define a ***qualifier*** which belongs to rule 0, and the criteria being "Data Matrix barcode data":

q,0,t,1,27

The breakdown:

Information	Type	Description
q	Identifier	This line of rule is a ***qualifier***
0	Label of the Rule	This line belongs to rule 0
t	Control Code	Looking for certain barcode type
1	Control Code Parameter	Looking for 1 barcode type
27	Control Code Parameter	Barcode type is Data Matrix (ID "27")

Note: for the ID of the barcode type, please refered to Table A-8.

2.5. Modifier format

The ***modifier*** act as an instruction to alter the barcode data which meet the criteria defined in the ***qualifier*** with the same rule label, it is a string contains informations of identifier, rule label, operation codes and parameters for each operation codes, where those informations were separated by the comma (',') symbol. The basic format of the ***modifier*** is looks like the following:

m,<Label of the Rule>,<Operation Code X>,<Operation Code X Parameter N>,…

Where the first letter 'm' is an identifier which indicates this line is a ***modifier***; <Label of the Rule> is the label of the rule this ***modifier*** belongs, <Operation Code X> means "this ***modifier*** will applied operation X to the barcode data", and <Operation Code X Parameter N> are the "parameters for operation X".

For operation codes of the ***modifier***, please refer to the following table.

Operation Code	Value	Parameter(s)
Selection	s	[Start position] [Selection length (0 for all the remains character)]
Replace	r	[Java regular expression][Replace string]
Insertion	i	[Insertion position (0 for beginning of the barcode; -1 for the end of the barcode)][Inserting string]
Lower/Upper Case	c	[1: Lower case; 2: Upper case]

Example: define a ***modifier*** which belongs to rule 0, and will insert character 'aa' to the end of the barcode data:

m,0,i,-1,aa

The breakdown:

Information	Type	Description
m	Identifier	This line of rule is a ***modifier***
0	Label of the Rule	This line belongs to rule 0
i	Operation Code	The operation is insertion
-1	Operation Code Parameter	The position of the insertion is "at the end of barcode data"
aa	Operation Code Parameter	Insert string "aa"

2.6. ASCII Character

Data editing support using ASCII character as string parameter, to define an ASCII character, user need to wrap the ASCII character (represented by hexadecimal) with square brackets ("[]") and curly brackets ("{}"). The format of an ASCII character looks like the following:

{[<HEX of the ASCII Character>]}

Where the "<HEX of the ASCII Character>" is the two-digit hexadecimal of the ASCII character.

Example: define a single "GS" (hexadecimal: 0x1D) character:

{[1D]}

Example: define a ***modifier*** which belongs to rule 2, and will replace string “1<EOT>EOT” with “END”, where “<EOT>” is an ASCII character “EOT” (hexadecimal: 0x04):

m,2,r,1{[04]}EOT,END

The breakdown:

Information	Type	Description
m	Identifier	This line of rule is a ***modifier***
2	Label of the Rule	This line belongs to rule 2
r	Operation Code	The operation is replace
1{[04]}EOT	Operation Code Parameter	The Java regular expression is “1<EOT>EOT”
END	Operation Code Parameter	Replace with string “END”

2.7. rule.txt

The “rule.txt” file contains all the rules user want ScanService to applied, both ***qualifier*** and ***modifier*** are writing in a single line.

Following is a sample content of the “rule.txt” file, which contains four rules in it:

q,1,t,1,11
m,1,i,-1,abc
q,2,t,1,10
m,2,i,3,xyz
q,3,t,1,3
m,3,r,\s.+,
q,4,t,0,0
m,4,s,0,0

The four rules of the above sample are described below:

Rule 1: If incoming barcode type is EAN-13, insert “abc” to the end of EAN-13 barcode data.
Rule 2: If incoming barcode type is EAN-8, insert “xyz” after the third position of EAN-8 barcode data.
Rule 3: If incoming barcode type is Code 128, replace space with “”.
Rule 4: For any barcode type, output all the barcode data.

Following is another sample content of the “rule.txt” file, which contains only one rules in it:

q,1,t,0
m,1,r,{[04]}|{[1d]}|{[1e]},

The rule of the above sample is described below:

Rule 1: For any barcode type, replace <EOT>(0x04), <GS>(0x1D), and <RS>(0x1E) with “”.

Following is another sample content of the “rule.txt” file, which contains two rules in it:

q,1,t,1,27
m,1,i,0,]d1
q,2,t,0,0
m,2,s,0,0

The rule of the above sample is described below:

Rule 1: If incoming barcode type is Data Matrix, add “]d1” at the beginning of the barcode data.
Rule 2: For any barcode type, output all the barcode data.

Table A-8. Code Types by SSI ID

Code Type	ID	Code Type	ID	Code Type	ID
Code 39	1	*Reserved*	76	*Reserved*	151
Codabar	2	*Reserved*	77	*Reserved*	152
Code 128	3	*Reserved*	78	*Reserved*	153
Discrete 2 of 5	4	*Reserved*	79	*Reserved*	154
Reserved	5	UPC-E1 with 2 Supps	80	*Reserved*	155
Interleaved 2 of 5	6	Composite CC-A + GS1-128	81	*Reserved*	156
Code 93	7	*Reserved*	82	*Reserved*	157
UPC-A	8	*Reserved*	83	*Reserved*	158
UPC-E	9	Composite CC-A + GS1 DataBar Expanded	84	*Reserved*	159
EAN-8	10	Composite CC-A + GS1 DataBar Limited	85	*Reserved*	160
EAN-13	11	Composite CC-A + GS1 DataBar	86	OCR	161
Code 11	12	*Reserved*	87	*Reserved*	162
Reserved	13	*Reserved*	88	*Reserved*	163
MSI	14	Composite CC-C	89	*Reserved*	164
GS1-128	15	Composite TLC-39	90	*Reserved*	165
UPC-E1	16	*Reserved*	91	*Reserved*	166
PDF417	17	*Reserved*	92	*Reserved*	167
Reserved	18	*Reserved*	93	*Reserved*	168
Code 39 (Full ASCII)	19	*Reserved*	94	*Reserved*	169
Reserved	20	*Reserved*	95	*Reserved*	170
Trioptic Code 39	21	*Reserved*	96	*Reserved*	171
Bookland EAN	22	Composite CC-B + GS1-128	97	*Reserved*	172
UCC Coupon Extended Code	23	*Reserved*	98	*Reserved*	173
Reserved	24	*Reserved*	99	*Reserved*	174
ISBT 128	25	Composite CC-B + GS1 DataBar Expanded	100	*Reserved*	175
MicroPDF417	26	Composite CC-B + GS1 DataBar Limited	101	*Reserved*	176
Data Matrix	27	Composite CC-B + GS1 DataBar	102	*Reserved*	177
QR Code	28	*Reserved*	103	*Reserved*	178
Reserved	29	*Reserved*	104	*Reserved*	179
US Postnet	30	*Reserved*	105	Databar Coupon Code	180
US Planet	31	*Reserved*	106	*Reserved*	181

Code 32	32	*Reserved*	107	*Reserved*	182
Reserved	33	*Reserved*	108	Han Xin	183
Japan Postal	34	*Reserved*	109	*Reserved*	184
Australian Postal	35	*Reserved*	110	*Reserved*	185
Netherlands KIX Code	36	*Reserved*	111	*Reserved*	186
Maxicode	37	*Reserved*	112	*Reserved*	187
Reserved	38	*Reserved*	113	*Reserved*	188
UK Postal	39	Chinese 2 of 5	114	*Reserved*	189
Reserved	40	*Reserved*	115	*Reserved*	190
Reserved	41	*Reserved*	116	*Reserved*	191
Reserved	42	*Reserved*	117	*Reserved*	192
Reserved	43	*Reserved*	118	*Reserved*	193
Micro QR Code	44	*Reserved*	119	*Reserved*	194
Aztec	45	*Reserved*	120	*Reserved*	195
Reserved	46	*Reserved*	121	*Reserved*	196
Reserved	47	*Reserved*	122	*Reserved*	197
GS1 DataBar	48	*Reserved*	123	*Reserved*	198
GS1 DataBar Limited	49	*Reserved*	124	*Reserved*	199
GS1 DataBar Extended	50	*Reserved*	125	Grid Matrix	200
Reserved	51	*Reserved*	126	*Reserved*	201
USPS 4CB/One Code/Intelligent Mail	52	*Reserved*	127	*Reserved*	202
UPU FICS Postal	53	*Reserved*	128	*Reserved*	203
ISSN EAN	54	*Reserved*	129	*Reserved*	204
Reserved	55	*Reserved*	130	*Reserved*	205
Reserved	56	*Reserved*	131	*Reserved*	206
Matrix 2 of 5	57	*Reserved*	132	*Reserved*	207
Reserved	58	*Reserved*	133	*Reserved*	208
Reserved	59	*Reserved*	134	*Reserved*	209
Reserved	60	*Reserved*	135	*Reserved*	210
Reserved	61	UPC-A with 5 Supps	136	*Reserved*	211
Reserved	62	UPC-E with 5 Supps	137	*Reserved*	212

Reserved	63	EAN-8 with 5 Supps	138	*Reserved*	213
Reserved	64	EAN-13 with 5 Supps	139	*Reserved*	214
Reserved	65	*Reserved*	140	*Reserved*	215
Reserved	66	*Reserved*	141	*Reserved*	216
Reserved	67	*Reserved*	142	*Reserved*	217
Reserved	68	*Reserved*	143	*Reserved*	218
Reserved	69	UPC-E1 with 5 Supps	144	*Reserved*	219
Reserved	70	*Reserved*	145	Dot Code	220
Reserved	71	*Reserved*	146	*Reserved*	221
UPC-A with 2 Supps	72	*Reserved*	147	*Reserved*	222
UPC-E with 2 Supps	73	*Reserved*	148	*Reserved*	223
EAN-8 with 2 Supps	74	*Reserved*	149	*Reserved*	224
EAN-13 with 2 Supps	75	*Reserved*	150	*Reserved*	225

3. Unitech SDK

Overview

UnitechSDK for Android Apps is the development toolkit for unitech Android mobile devices. It is a Java "JAR" based API allowing developers to integrate Unitech-specific device features into their business applications.
The SDK offers the following benefits to developers creating apps for the unitech devices:

- Configure unitech-specific firmware capabilities
- Configure unitech applications
- Call system functions without being the system app
- Works with the mainstream Android Studio IDE
- Licensed free of charge to eligible partners

Configure Unitech-specific firmware features

List of Unitech-specific firmware features, developers can use the APIs to configure these features:

Feature	Descriptions
Device Info	Get the device serial number, OS build number, IMEI & IMSI (V1.2)
Programmable Keys	Remap a key to emulate another key code, or to launch an app. For example, you can reprogram the "VOLUM reprogram the "FUNCTION" key to launch a voice chat app for instant group audio chat.
DMI Device Capability Restrictions	Disable a certain device capability to restrict the device users in using that function on device. For example, c system. Depending on the model, the capability may include one or more of the followings: Camera, Flashlig Keys, Touch Panel etc.
OS Update via File	Update the OS via a FOTA ZIP file placed in the device internal or external storage. The ZIP file can be plac
Safe Mode Lock	Lock out the device users if the device is booted into the Android Safe Mode. By enabling the Safe Mode Lo and prevent the device users in interacting further with the device unless the device is rebooted normally.
Glove Mode	Enable or disable the glove mode touch sensitivity configuration. This function is supported on selected Unit
WLAN Advanced	Configure advanced Wi-Fi roaming parameters

Configure Unitech Applications

List of Unitech-specific firmware features, developers can use the APIs to configure these features:

Unitech App	Types of configuration
MoboLink	Configure MoboLink server and app settings
StageGO	Configure StageGO app settings
Unitech Scanner Utility (USU)	Configure USU app settings and MS652Plus scanner firmware settings. Get Info on the connected MS652Plu
Unitech Scan Service	Import and Export settings
Startup	Configure apps to auto start on boot
ELauncher	Configure ELauncher app settings
Software Update	Import, Export and Reset Software Update app settings
RFID2KEY	Import, Export and Reset RFID2KEY app settings
WLANAdvanced	Import and Export WLAN Advanced app settings

Call system functions without being the system app

Apps calling these standard Android APIs usually would need to prompt the users to grant permissions. With UntiechSDK, your apps can call these proxy functions without prompting to grant permission, nor the need to sign with the device platform key. Making the GUI of your enterprise applications flow more unobtrusively.

Functional Area	Proxy Android API functions available
Application Controls	Apps install, remove, run, close, enable, disable, clear data, Get App List, Get App Info, etc.
File Controls	File operations such as read, write, delete, copy, create, list directory, rename, etc.
Audio	Configure volumes, set ringtones and sounds, etc.
Clock	Set date & time, timezone, NTP Server address etc.
Display	Set display timeout, screen brightness, orientation, auto rotation, font size
Cellular & Wi-Fi	Configure APN profiles, connect to WiFi, configure proxy, captive portal, static IP, etc.
Security	Configure Lockscreen, IME, USB Debugging, Save ADB logs
System	Configure language, location, Bluetooth, NFC, Factory Reset (System Wipe), Reboot
Developer Options	Access to developer options settings (V1.2)

Works with mainstream IDE Android Studio

Android Studio is the mainstream IDE used by developers worldwide, developers can develop their Android apps on Windows, MAC, Linux, as long as the following prerequisites are satisfied:**- Android Studio Version 4.1 or later**

Release Information

VERSION 1.2.28

http://w3.tw.ute.com/pub/sw/UnitechSDK/UnitechSDK_V1.2.28.zip

support model

Device Model	Minimum OS Version
PA760 Android 9	MR6
PA760 Android 10	MR1
EA630 Android 9	173
EA630 Android 10	092
WD200 Android 10	CR3
HT730 Android 10	1.0.13
TB85Plus Android 10	RU.00.53.84.09
EA630Plus Android 11	V0.33.0_20220323
EA520 Android 11	V003
HT330 Android 12	V04.0_2_20220428
PA768 Android 12	V05.00.05_20221221
EA660 Android 13	V10.00_20231112
RT112 Android 13	V05.00.04_20231026_user

4. Unitech Battery API

This section described all the extra battery information which can be retrieved from the extra values in the ***Intent.ACTION_BATTERY_CHANGED*** intent. Developer will need to register a BroadcastReceiver to wait for the ***Intent.ACTION_BATTERY_CHANGED*** intent and get the information when the intent occurred.

4.1. State of Health

Description:
This information shows the current battery's state-of-health (SOH) information in percentage of design capacity. It can be retrieved from the ***"state_of_health"*** extra value in received ***Intent.ACTION_BATTERY_CHANGED*** Intent.

Value Format:
String, From "0" to "100"

Sample:

```
private BroadcastReceiver mBroadcastReceiver = new BroadcastReceiver() {
@Override
    public void onReceive(Context context, Intent intent) {
        String action = intent.getAction();
        if (action.equals(Intent.ACTION_BATTERY_CHANGED)) {
                String state_of_health = intent.getStringExtra("state_of_health");
        }
    }
};
```

4.2. Cycle Count

Description:
This information shows the number of discharge cycles the battery has experienced. It can be retrieved from the ***"cycle"*** extra value in received ***Intent.ACTION_BATTERY_CHANGED*** Intent.

Value Format:
String, From "0" to "65535"

Sample:

```
private BroadcastReceiver mBroadcastReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        String action = intent.getAction();
        if (action.equals(Intent.ACTION_BATTERY_CHANGED)) {
                String cycle_count = intent.getStringExtra("cycle");
        }
    }
};
```

4.3. Serial Number

Description:
This information shows the serial number of current using battery. It can be retrieved from the ***"serial_number"*** extra value in received ***Intent.ACTION_BATTERY_CHANGED*** Intent

Value Format:
String, From "00000" to "65535"

Sample:

```
private BroadcastReceiver mBroadcastReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
```

```
        String action = intent.getAction();
        if (action.equals(Intent.ACTION_BATTERY_CHANGED)) {
            String serial_number = intent.getStringExtra("serial_number");
        }
    }
 };
```

4.4. Manufacture Date

Description:

This information shows the manufacturer date of current using battery. It can be retrieved from the ***"manufacture_date"*** extra value in received ***Intent.ACTION_BATTERY_CHANGED*** Intent

Value Format:

String of date in “YYYY-MM-DD” format

Sample:

```
 private BroadcastReceiver mBroadcastReceiver = new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        String action = intent.getAction();
        if (action.equals(Intent.ACTION_BATTERY_CHANGED)) {
                String manufacture_date = intent.getStringExtra("manufacture_date");
        }
    }
};
```

5. Others API

5.1. Serial Number

Description:
This is the way to get device's serial number for PA726 only.
Exapmle:

```
Class<?> c = Class.forName("android.os.SystemProperties");
Method get = c.getMethod("get", String.class, String.class );
String value = (String)(get.invoke(c, "persist.sys.unitech.ro.serialno", "unknown" ));
```

6. Appendix of Scanservice

6.1. Code ID Table

Table 9-1A. Zebra Engine Code ID

Symbology Name	Code ID	Symbology Name	Code ID
Code 39	0x01	USPS 4CB/One Code/Intelligent Mail	0x34
Codabar	0x02	UPU FICS Postal	0x35
Code 128	0x03	ISSN EAN	0x36
Discrete 2 of 5	0x04	Matrix 2 of 5	0x39
Interleaved 2 of 5	0x06	UPC-A with 2 Supps	0x48
Code 93	0x07	UPC-E with 2 Supps	0x49
UPC-A	0x08	EAN-8 with 2 Supps	0x4A
UPC-E	0x09	EAN-13 with 2 Supps	0x4B
EAN-8	0x0A	UPC-E1 with 2 Supps	0x50
EAN-13	0x0B	Composite CC-A + GS1-128	0x51
Code 11	0x0C	Composite CC-A + EAN-13	0x52
MSI	0x0E	Composite CC-A + EAN-8	0x53
GS1-128	0x0F	Composite CC-A + GS1 DataBar Expanded	0x54
UPC-E1	0x10	Composite CC-A + GS1 DataBar Limited	0x55
PDF417	0x11	Composite CC-A + GS1 DataBar	0x56
Code 39 (Full ASCII)	0x13	Composite CC-A + UPC-A	0x57
Trioptic Code 39	0x15	Composite CC-A + UPC-E	0x58
Bookland EAN	0x16	Composite CC-C	0x59
UCC Coupon Extended Code	0x17	Composite TLC-39	0x5A
ISBT 128	0x19	Composite CC-B + GS1-128	0x61
MicroPDF417	0x1A	Composite CC-B + EAN-13	0x62

Data Matrix	0x1B	Composite CC-B + EAN-8	0x63
QR Code	0x1C	Composite CC-B + GS1 DataBar Expanded	0x64
US Postnet	0x1E	Composite CC-B + GS1 DataBar Limited	0x65
US Planet	0x1F	Composite CC-B + GS1 DataBar	0x66
Code 32	0x20	Composite CC-B + UPC-A	0x67
Japan Postal	0x22	Composite CC-B + UPC-E	0x68
Australian Postal	0x23	Chinese 2 of 5	0x72
Netherlands KIX Code	0x24	UPC-A with 5 Supps	0x88
Maxicode	0x25	UPC-E with 5 Supps	0x89
UK Postal	0x27	EAN-8 with 5 Supps	0x8A
Micro QR Code	0x2C	EAN-13 with 5 Supps	0x8B
Aztec	0x2D	UPC-E1 with 5 Supps	0x90
GS1 DataBar	0x30	OCR	0xA1
GS1 DataBar Limited	0x31	Databar Coupon Code	0xB4
GS1 DataBar Extended	0x32	Han Xin	0xB7

Table 9-1B. Honeywell Engine Code ID

Symbology Name	Code ID	Symbology Name	Code ID
UPC-A	0x63	GS1 DataBar Expanded	0x7D
UPC-E	0x45	US Postnet	0x50
UPC-E1	0x45	US Planet	0x4C
EAN-8	0x44	Japan Postal	0x4A
EAN-13	0x64	Australian Postal	0x41
Code 128	0x6A	Netherlands KIX Code	0x4B
GS1-128	0x49	USPS 4CB/One Code/Intelligent Mail	0x4D
ISBT 128	0x5F	UPU FICS Postal	0x4E
Code 39	0x62	PDF417	0x72
Code 32	0x3C	MicroPDF417	0x52
Trioptic Code 39	0x3D	Data Matrix	0x77
Code 93	0x69	Maxicode	0x78
Code 11	0x68	QR and Micro QR Code	0x73

Interleaved 2 of 5	0x65	Aztec	0x7A
Codabar	0x61	Han Xin	0x48
MSI	0x67	Dot Code	0x2E
Matrix 2 of 5	0x6D	Composite TLC-39	0x54
GS1 DataBar	0x79	UCC Coupon Extended Code	0x3B
GS1 DataBar Limited	0x7B	OCR	0x4F

Table 9-1C. EX25 Engine Code ID

Symbology Name	Code ID	Symbology Name	Code ID
UPC-A	0x03	GS1 DataBar Limited	0x26
UPC-E	0x04	GS1 DataBar Expanded	0x27
EAN-8	0x02	US Postnet	0x3D
EAN-13	0x01	US Planet	0x3E
Code 128	0x17	Japan Postal	0x42
GS1-128	0x22	Australia Postal	0x41
ISBT 128	0x23	Netherlands KIX Code	0x43
Code 39	0x0D	PDF417	0x21
Code 32	0x1D	MicroPDF417	0x24
Trioptic Code 39	0x47	Data Matrix	0x28
Code 93	0x19	Maxicode	0x2A
Code 11	0x1A	QR Code	0x29
Interleaved 2 of 5	0x0F	Aztec	0x4A
Codabar	0x13	Han Xin	0x50
MSI	0x15	Composite CC-C	0x3B
Matrix 2 of 5	0x11	TLC-39	0x46
GS1 DataBar	0x25		

Table 9-1D. Newland CM30 Engine Code ID

Symbology Name	Code ID	Symbology Name	Code ID
UPC-A	0x000A	RSS Limited	0x001F
UPC-E	0x0009	RSS Expanded	0x0020
EAN-8	0x0007	US Postnet	0x0200
EAN-13	0x0008	US Planet	0x0203
ISBN	0x000B	Royal Mail Customer Bar Code	0x0202
ISSN	0x000C	Japanese Post	0x03E7
Code 128	0x0002	Australia Post	0x0208
UCC/EAN-128	0x0003	KIX Code	0x0204

Code 39	0x000D	USPS Intelligent Mail	0x0201
Code 32	0x0023	China Post	0x0016
Code 93	0x000E	PDF417	0x0100
Code 11	0x001B	MicroPDF417	0x0101
Interleaved 2 of 5	0x0011	Data Matrix	0x0105
Codabar	0x0010	Maxicode	0x0106
UK Plessey	0x001D	QR Code	0x0102
MSI Plessey	0x001C	MicroQR Code	0x0103
Matrix 2 of 5	0x0018	Aztec	0x0104
Industrial 2 of 5	0x0019	Han Xin	0x0107
Standard 2 of 5	0x0017	Dot Code	0x0113
ITF-6	0x0012	Code 16K	0x0028
ITF-14	0x0013	Code 49	0x0027
AIM 128	0x0004	Grid Matrix	0x0108
RSS	0x001E		

6.2. Command Table

Table 9-2A. Zebra Engine Command Table

Prameter Number	Command Name	Default Value	Type	Range
0	Enable/Disable Code 39	1	byte	0: disable 1: enable
1	Enable/Disable UPC-A	1	byte	0: disable 1: enable
2	Enable/Disable UPC-E	1	byte	0: disable 1: enable
3	Enable/Disable EAN-13/JAN-13	1	byte	0: disable 1: enable
4	Enable/Disable EAN-8/JAN-8	1	byte	0: disable 1: enable
5	Enable/Disable Discrete 2 of 5	0	byte	0: disable 1: enable
6	Enable/Disable Interleaved 2 of 5	1	byte	0: disable 1: enable
7	Enable/Disable Codabar	0	byte	0: disable 1: enable

8	Enable/Disable Code 128	1	byte	0: disable 1: enable
9	Enable/Disable Code 93	1	byte	0: disable 1: enable
10	Enable/Disable Code 11	0	byte	0: disable 1: enable
11	Enable/Disable MSI	0	byte	0: disable 1: enable
12	Enable/Disable UPC-E1	0	byte	0: disable 1: enable
13	Enable/Disable Trioptic Code 39	0	byte	0: disable 1: enable
14	Enable/Disable GS1-128	1	byte	0: disable 1: enable
15	Enable/Disable PDF417	1	byte	0: disable 1: enable
16	Decode UPC/EAN/JAN Supplementals	0	byte	0: Ignore UPC/EAN With Supplementals 1: Decode UPC/EAN With Supplementals 2: Autodiscriminate UPC/EAN Supplementals 3: Enable Smart Supplemental Mode 4: Enable 378/379 Supplemental Mode 5: Enable 978/979 Supplemental Mode 6: Enable 414/419/434/439 Supplemental Mode 7: Enable 977 Supplemental Mode 8: Enable 491 Supplemental Mode
17	Code 39 Full ASCII	0	byte	0: disable

	Conversion			1: enable
18	Set Lengths for Code 39 Length1 Parameter	2	byte	0 - 55
19	Set Lengths for Code 39 Length2 Parameter	55	byte	0 - 55
20	Set Lengths for Discrete 2 of 5 Length1 Parameter	12	byte	0 - 55
21	Set Lengths for Discrete 2 of 5 Length2 Parameter	0	byte	0 - 55
22	Set Lengths for Interleaved 2 of 5 Length1 Parameter	14	byte	0 - 55
23	Set Lengths for Interleaved 2 of 5 Length2 Parameter	0	byte	0 - 55
24	Set Lengths for Codabar Length1 Parameter	5	byte	0 - 55
25	Set Lengths for Codabar Length2 Parameter	55	byte	0 - 55
26	Set Lengths for Code 93 Length1 Parameter	4	byte	0 - 55
27	Set Lengths for Code 93 Length2 Parameter	55	byte	0 - 55
28	Set Lengths for Code 11 Length1 Parameter	4	byte	0 - 55
29	Set Lengths for Code 11 Length2 Parameter	55	byte	0 - 55
30	Set Lengths for MSI Length1 Parameter	4	byte	0 - 55
31	Set Lengths for MSI Length2 Parameter	55	byte	0 - 55
34	UPC-A Preamble	1	byte	0: Transmit no preamble (<DATA>)

				1: Transmit System Character Only (<SYSTEM CHARACTER> <DATA>) 2: Transmit System Character and Country Code (“0” for USA) (< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
35	UPC-E Preamble	1	byte	0: Transmit no preamble (<DATA>) 1: Transmit System Character Only (<SYSTEM CHARACTER> <DATA>) 2: Transmit System Character and Country Code (“0” for USA) (< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
36	UPC-E1 Preamble	1	byte	0: Transmit no preamble (<DATA>) 1: Transmit System Character Only (<SYSTEM CHARACTER> <DATA>) 2: Transmit System Character and Country Code (“0” for USA) (< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
37	Convert UPC-E to UPC-A	0	byte	0: disable 1: enable
38	Convert UPC-E1 to UPC-A	0	byte	0: disable 1: enable
39	EAN-8/JAN-8 Extend	0	byte	0: disable 1: enable
40	Transmit UPC-A Check Digit	1	byte	0: disable

				1: enable
41	Transmit UPC-E Check Digit	1	byte	0: disable 1: enable
42	Transmit UPC-E1 Check Digit	1	byte	0: disable 1: enable
43	Transmit Code 39 Check Digit	0	byte	0: disable 1: enable
44	Transmit Interleaved 2 of 5 Check Digit	0	byte	0: disable 1: enable
45	Transmit Code ID Character	0	byte	0: None 1: AIM Code ID Character 2: Symbol Code ID Character
46	Transmit MSI Check Digit(s)	0	byte	0: disable 1: enable
47	Transmit Code 11 Check Digits	0	byte	0: disable 1: enable
48	Code 39 Check Digit Verification	0	byte	0: disable 1: enable
49	Interleaved 2 of 5 Check Digit Verification	0	byte	0: Disable 1: USS Check Digit 2: OPCC Check Digits
50	MSI Check Digits	0	byte	0: No MSI Check Digits 1: One MSI Check Digit 2: Two MSI Check Digits
51	MSI Check Digit Algorithm	1	byte	0: MOD 10/MOD 11 1: MOD 10/MOD 10
52	Code 11 Check Digit Verification	0	byte	0: Disable 1: 1 Check Digit 2: 2 Check Digits
54	CLSI Editing	0	byte	0: disable 1: enable
55	NOTIS Editing	0	byte	0: disable 1: enable
78	Redundancy Level	1	byte	1: Redundancy Level 1 2: Redundancy Level 2

				3: Redundancy Level 3 4: Redundancy Level 4
82	Convert Interleaved 2 of 5 to EAN-13	0	byte	0: disable 1: enable
83	Enable/Disable Bookland EAN	1	byte	0: disable 1: enable
84	Enable/Disable ISBT 128	1	byte	0: disable 1: enable
85	UCC Coupon Extended Code	0	byte	0: disable 1: enable
86	Convert Code 39 to Code 32	0	byte	0: disable 1: enable
89	US Postnet	1	byte	0: disable 1: enable
90	US Planet	1	byte	0: disable 1: enable
91	UK Postal	1	byte	0: disable 1: enable
94	Transmit “No Read” Message	0	byte	0: disable 1: enable
95	Transmit US Postal Check Digit	1	byte	0: disable 1: enable
96	Transmit UK Postal Check Digit	1	byte	0: disable 1: enable
123	Code 128 Emulation	0	byte	0: disable 1: enable
136	Decode Session Timeout	99	byte	5 - 99
137	Timeout Between Decodes, Same Symbol	0	byte	0 - 99
138	Trigger Mode	0	byte	0: Level 7: Continuous Mode 8: Presentation Mode 9: Auto Aim 10: Read On Second Scan

209	Set Lengths for Code 128 Length1 Parameter	0	byte	0 - 55
210	Set Lengths for Code 128 Length2 Parameter	0	byte	0 - 55
227	Enable/Disable MicroPDF417	0	byte	0: disable 1: enable
231	Code 32 Prefix	0	byte	0: disable 1: enable
290	Japan Postal	0	byte	0: disable 1: enable
291	Australia Post	0	byte	0: disable 1: enable
292	Data Matrix	1	byte	0: disable 1: enable
293	QR Code	1	byte	0: disable 1: enable
294	Maxicode	1	byte	0: disable 1: enable
326	Netherlands KIX Code	0	byte	0: disable 1: enable
338	GS1 DataBar	1	byte	0: disable 1: enable
339	GS1 DataBar Limited	1	byte	0: disable 1: enable
340	GS1 DataBar Expanded	1	byte	0: disable 1: enable
341	Composite CC-C	0	byte	0: disable 1: enable
342	Composite CC-A/B	0	byte	0: disable 1: enable
371	Composite TLC-39	0	byte	0: disable 1: enable
397	Convert GS1 DataBar to UPC/EAN	0	byte	0: disable 1: enable
402	Picklist Mode	0	byte	0: disable

				1: enable
408	Enable/Disable Chinese 2 of 5	0	byte	0: disable 1: enable
547	OCR User Template	“99999999”	String	Less than 70 characters
573	MicroQR	1	byte	0: disable 1: enable
574	Aztec	1	byte	0: disable 1: enable
576	Bookland ISBN Format	0	byte	0: Bookland ISBN-10 1: Bookland ISBN-13
586	Inverse 1D	0	byte	0: Regular Only 1: Inverse Only 2: Inverse Autodetect
588	Data Matrix Inverse	0	byte	0: Regular Only 1: Inverse Only 2: Inverse Autodetect
589	Aztec Inverse	0	byte	0: Regular Only 1: Inverse Only 2: Inverse Autodetect
592	USPS 4CB/One Code/Intelligent Mail	0	byte	0: disable 1: enable
611	UPU FICS Postal	0	byte	0: disable 1: enable
617	ISSN EAN	1	byte	0: disable 1: enable
618	Enable/Disable Matrix 2 of 5	0	byte	0: disable 1: enable
619	Set Lengths for Matrix 2 of 5 Length1 Parameter	14	byte	0 - 55
620	Set Lengths for Matrix 2 of 5 Length2 Parameter	0	byte	0 - 55
622	Matrix 2 of 5 Check Digit Verification	0	byte	0: disable 1: enable
623	Transmit Matrix 2 of 5 Check Digit	0	byte	0: disable 1: enable

680	OCR-A	0	byte	0: disable 1: enable
681	OCR-B	0	byte	0: disable 1: enable
682	MICR E13B	0	byte	0: disable 1: enable
683	US Currency	0	byte	0: disable 1: enable
684	OCR-A Variant	0	byte	0: OCR-A Full ASCII 1: OCR-A Reserved 1 2: OCR-A Reserved 2 3: OCR-A Banking
685	OCR-B Variant	0	byte	0: OCR-B Full ASCII 1: OCR-B Banking 2: OCR-B Limited 3: OCR-B Travel Document Version 1 (TD1) 3-Line ID Cards 4: OCR-B Passport 6: OCR-B ISBN 10-Digit Book Numbers 7: OCR-B ISBN 10 or 13-Digit Book Numbers 8: OCR-B Travel Document Version 2 (TD2) 2-Line ID Cards 9: OCR-B Visa Type A 10: OCR-B Visa Type B 11: OCR-B ICAO Travel Documents 20: OCR-B Travel Document 2 or 3-Line ID Cards Auto-Detect
686	OCR Subset	“”	String	Less than 70 characters
687	OCR Orientation	0	byte	0: 0 degree 1: 270 degree (clockwise) 2: 180 degree (clockwise) 3: 90 degree (clockwise)

				4: Omnidirectional
688	OCR Check Digit Modulus	1	byte	1 - 99
689	OCR Minimum Characters	3	byte	3 - 100
690	OCR Maximum Characters	100	byte	3 - 100
691	OCR Lines	1	byte	1: Decode OCR 1 Line 2: Decode OCR 2 Lines 3: Decode OCR 3 Lines
694	OCR Check Digit Validation	0	byte	0: No Check Digit 1: Product Add Right to Left 2: Digit Add Right to Left 3: Product Add Left to Right 4: Digit Add Left to Right 5: Product Add Right to Left Simple Remainder 6: Digit Add Right to Left Simple Remainder 9: Health Industry - HIBCC43
695	OCR Quiet Zone	50	byte	20 - 99
700	OCR Check Digit Multiplier	“121212121212”	String	Less than 70 characters
716	Mobile Phone/Display Mode	0	byte	0: disable 1: enable
764	Illumination Power Level	2	byte	0 - 10
856	Inverse OCR	0	byte	0: Regular Only 1: Inverse Only 2: Autodiscriminate
900	Multi Decode Mode	0	byte	0: disable 1: enable
901	Multi Decode Full Read	1	byte	0: disable 1: enable
902	Multi Decode Count	1	byte	1 - 10
1167	Han Xin	0	byte	0: disable 1: enable
1168	Han Xin Inverse	0	byte	0: Regular Only 1: Inverse Only 2: Inverse Autodetect

1208	Code 128 Reduced Quiet Zone	0	byte	0: disable 1: enable
1209	Code 39 Reduced Quiet Zone	0	byte	0: disable 1: enable
1210	Interleaved 2 of 5 Reduced Quiet Zone	0	byte	0: disable 1: enable
1288	1D Quiet Zone Level	1	byte	0: Level 0 1: Level 1 2: Level 2 3: Level 3
1289	UPC Reduced Quiet Zone	0	byte	0: disable 1: enable
3017	EAN-8 Transmit Check Digit	1	byte	0: disable 1: enable
3018	EAN-13 Transmit Check Digit	1	byte	0: disable 1: enable

Table 9-2B. Honeywell Engine Command Table

Prameter Number	Command Name	Default Value	Type	Range
0	Enable/Disable Code 39	1	byte	0: disable 1: enable
1	Enable/Disable UPC-A	1	byte	0: disable 1: enable
2	Enable/Disable UPC-E	1	byte	0: disable 1: enable
3	Enable/Disable EAN-13	1	byte	0: disable 1: enable
4	Enable/Disable EAN-8	1	byte	0: disable 1: enable
6	Enable/Disable Interleaved 2 of 5	1	byte	0: disable 1: enable
7	Enable/Disable Codabar	1	byte	0: disable 1: enable
8	Enable/Disable Code 128	1	byte	0: disable

				1: enable
9	Enable/Disable Code 93	0	byte	0: disable 1: enable
10	Enable/Disable Code 11	0	byte	0: disable 1: enable
11	Enable/Disable MSI	0	byte	0: disable 1: enable
12	Enable/Disable UPC-E1	0	byte	0: disable 1: enable
13	Enable/Disable Trioptic Code 39	0	byte	0: disable 1: enable
14	Enable/Disable GS1-128	1	byte	0: disable 1: enable
15	Enable/Disable PDF417	1	byte	0: disable 1: enable
17	Code 39 Full ASCII Conversion	0	byte	0: disable 1: enable
18	Code 39 Min Length	0	byte	0 - 48 (<= Code 39 Max Length)
19	Code 39 Max Length	48	byte	0 - 48 (>= Code 39 Min Length)
22	Interleaved 2 of 5 Min Length	4	byte	2 - 80 (<= Interleaved 2 of 5 Max Length)
23	Interleaved 2 of 5 Max Length	80	byte	2 - 80 (>= Interleaved 2 of 5 Min Length)
24	Codabar Min Length	4	byte	2 - 60 (<= Codabar Max Length)
25	Codabar Max Length	60	byte	2 - 60 (>= Codabar Min Length)
26	Code 93 Min Length	0	byte	0 - 80 (<= Code 93 Max Length)
27	Code 93 Max Length	80	byte	0 - 80 (>= Code 93 Min Length)

28	Code 11 Min Length	4	byte	1 - 80 (<= Code 11 Max Length)
29	Code 11 Max Length	80	byte	1 - 80 (>= Code 11 Min Length)
30	MSI Min Length	4	byte	4 - 48 (<= MSI Max Length)
31	MSI Max Length	48	byte	4 - 48 (>= MSI Min Length)
34	UPC-A Preamble	1	byte	0: disable 1: enable
35	UPC-E Preamble	1	byte	0: disable 1: enable
37	Convert UPC-E to UPC-A	0	byte	0: disable 1: enable
40	Transmit UPC-A Check Digit	1	byte	0: disable 1: enable
41	Transmit UPC-E Check Digit	1	byte	0: disable 1: enable
45	Transmit Code ID Character	0	byte	0: None 1: AIM Code ID Character 2: Symbol Code ID Character
48	Code 39 Check Digit Verification	0	byte	0: No check 1: Check Digit 2: Check and Strip Digit
49	Interleaved 2 of 5 Check Digit Verification	0	byte	0: No check 1: Check Digit 2: Check and Strip Digit
51	MSI Check Digit Algorithm	0	byte	0: No check 1: Check Modulo 10 2: Check Modulo 11 plus 10 3: Double Check Modulo 10 5: Check and Strip Modulo 10 6: Check and Strip Modulo 11 plus 10 7: Double Check and Strip

				Modulo 10
52	Code 11 Check Digit Verification	2	byte	0: Double Check 1: Single Check 2: Double Check and Strip Digit 3: Single Check and Strip Digit
55	NOTIS Editing	1	byte	0: disable 1: enable
84	Enable/Disable ISBT 128	1	byte	0: disable 1: enable
85	UCC Coupon Extended Code	0	byte	0: disable 1: enable
86	Convert Code 39 to Code 32	0	byte	0: disable 1: enable
89	US Postnet	0	byte	0: disable 1: enable
90	US Planet	0	byte	0: disable 1: enable
94	Transmit “No Read” Message	0	byte	0: disable 1: enable
136	Decode Session Timeout	99	byte	1 - 99
138	Trigger Mode	0	byte	0: Level 7: Continuous Mode 9: Aim Only 10: Read On Second Scan
209	Code 128 Min Length	0	byte	0 - 80 (<= Code 128 Max Length)
210	Code 128 Max Length	80	byte	0 - 80 (>= Code 128 Min Length)
227	Enable/Disable MicroPDF417	0	byte	0: disable 1: enable
290	Japan Postal	0	byte	0: disable 1: enable
291	Australia Post	0	byte	0: disable 1: enable
292	Data Matrix	1	byte	0: disable

				1: enable
293	QR Code	1	byte	0: disable 1: enable
294	Maxicode	1	byte	0: disable 1: enable
326	Netherlands KIX Code	0	byte	0: disable 1: enable
338	GS1 DataBar	1	byte	0: disable 1: enable
339	GS1 DataBar Limited	1	byte	0: disable 1: enable
340	GS1 DataBar Expanded	1	byte	0: disable 1: enable
341	Composite CC-C	0	byte	0: disable 1: enable
371	Composite TLC-39	0	byte	0: disable 1: enable
402	Picklist Mode	0	byte	0: disable 1: enable
547	OCR User Template	“1,3,7,7,7,7,7,7,7,0”	String	
574	Aztec	1	byte	0: disable 1: enable
592	USPS 4CB/One Code/Intelligent Mail	0	byte	0: disable 1: enable
611	UPU FICS Postal	0	byte	0: disable 1: enable
618	Enable/Disable Matrix 2 of 5	0	byte	0: disable 1: enable
619	Matrix 2 of 5 Min Length	4	byte	1 - 80 (<= Matrix 2 of 5 Max Length)
620	Matrix 2 of 5 Max Length	80	byte	1 - 80 (>= Matrix 2 of 5 Min Length)
900	Multi Decode Mode	0	byte	0: disable 1: enable
902	Multi Decode Count	2	byte	1 - 10

1167	Han Xin	0	byte	0: disable 1: enable
3001	UPC-A 2 Digit Addenda	0	byte	0: disable 1: enable
3002	UPC-A 5 Digit Addenda	0	byte	0: disable 1: enable
3003	UPC-A Addenda Required	0	byte	0: disable 1: enable
3004	UPC-A Addenda Separator	0	byte	0: disable 1: enable
3005	UPC-E 2 Digit Addenda	0	byte	0: disable 1: enable
3006	UPC-E 5 Digit Addenda	0	byte	0: disable 1: enable
3007	UPC-E Addenda Required	0	byte	0: disable 1: enable
3008	UPC-E Addenda Separator	0	byte	0: disable 1: enable
3009	EAN-8 2 Digit Addenda	0	byte	0: disable 1: enable
3010	EAN-8 5 Digit Addenda	0	byte	0: disable 1: enable
3011	EAN-8 Addenda Required	0	byte	0: disable 1: enable
3012	EAN-8 Addenda Separator	0	byte	0: disable 1: enable
3013	EAN-13 2 Digit Addenda	0	byte	0: disable 1: enable
3014	EAN-13 5 Digit Addenda	0	byte	0: disable 1: enable
3015	EAN-13 Addenda Required	0	byte	0: disable 1: enable
3016	EAN-13 Addenda Separator	0	byte	0: disable 1: enable
3017	EAN-8 Transmit Check	1	byte	0: disable

	Digit			1: enable
3018	EAN-13 Transmit Check Digit	1	byte	0: disable 1: enable
3019	Dot Code	1	byte	0: disable 1: enable
3020	OCR Enable	0	byte	0: disable 1: enable
3021	OCR Mode	3	byte	1: OCR Normal Video 2: OCR Inverse 3: OCR Both
3022	OCR Template	2	byte	1: User Defined 2: Passport 4: ISBN 8: Price Field 16: MICR E13B 17: OCR A 18: OCR B 19: OCR A + B
3023	Convert UPC-A to EAN-13	0	byte	0: disable 1: enable
3024	Picklist Mode Configuration	*Varied by engine*	byte	1: Around Aimer 2: Field of View
3025	UpperLeftWindowX	*Varied by engine*	Integer	*Varied by engine*
3026	UpperLeftWindowY	*Varied by engine*	Integer	*Varied by engine*
3027	LowerRightWindowX	*Varied by engine*	Integer	*Varied by engine*
3028	LowerRightWindowX	*Varied by engine*	Integer	*Varied by engine*
3029	Data Matrix Symbol Size	1	byte	0: Normal 1: Small 2: Very Small
3030	Decode Aiming Pattern	1	byte	0: disable 1: enable
3031	Decoding Illumination	1	byte	0: disable 1: enable

Table 9-2C. EX25 Engine Command Table

Prameter Number	Command Name	Default Value	Type	Range
0	Enable/Disable Code 39	1	byte	0: disable 1: enable
1	Enable/Disable UPC-A	1	byte	0: disable 1: enable
2	Enable/Disable UPC-E	1	byte	0: disable 1: enable
3	Enable/Disable EAN-13	1	byte	0: disable 1: enable
4	Enable/Disable EAN-8	1	byte	0: disable 1: enable
6	Enable/Disable Interleaved 2 of 5	1	byte	0: disable 1: enable
7	Enable/Disable Codabar	1	byte	0: disable 1: enable
8	Enable/Disable Code 128	1	byte	0: disable 1: enable
9	Enable/Disable Code 93	0	byte	0: disable 1: enable
10	Enable/Disable Code 11	0	byte	0: disable 1: enable
11	Enable/Disable MSI	0	byte	0: disable 1: enable
12	Enable/Disable UPC-E1	0	byte	0: disable 1: enable
14	Enable/Disable GS1-128	1	byte	0: disable 1: enable
15	Enable/Disable PDF417	1	byte	0: disable 1: enable
17	Code 39 Full ASCII Conversion	0	byte	0: disable 1: enable
18	Code 39 Min Length	0	byte	0 - 48 (<= Code 39 Max Length)

19	Code 39 Max Length	48	byte	0 - 48 (>= Code 39 Min Length)
22	Interleaved 2 of 5 Min Length	4	byte	2 - 80 (<= Interleaved 2 of 5 Max Length)
23	Interleaved 2 of 5 Max Length	80	byte	2 - 80 (>= Interleaved 2 of 5 Min Length)
24	Codabar Min Length	4	byte	2 - 60 (<= Codabar Max Length)
25	Codabar Max Length	60	byte	2 - 60 (>= Codabar Min Length)
26	Code 93 Min Length	0	byte	0 - 80 (<= Code 93 Max Length)
27	Code 93 Max Length	80	byte	0 - 80 (>= Code 93 Min Length)
28	Code 11 Min Length	4	byte	1 - 80 (<= Code 11 Max Length)
29	Code 11 Max Length	80	byte	1 - 80 (>= Code 11 Min Length)
30	MSI Min Length	4	byte	4 - 48 (<= MSI Max Length)
31	MSI Max Length	48	byte	4 - 48 (>= MSI Min Length)
34	UPC-A Preamble	1	byte	0: disable 1: enable
35	UPC-E Preamble	1	byte	0: disable 1: enable
37	Convert UPC-E to UPC-A	0	byte	0: disable 1: enable
40	Transmit UPC-A Check Digit	1	byte	0: disable 1: enable
41	Transmit UPC-E Check Digit	1	byte	0: disable 1: enable
43	Transmit Code 39 Check	0	byte	0: disable

	Digit			1: enable
44	Transmit Interleaved 2 of 5 Check Digit	0	byte	0: disable 1: enable
45	Transmit Code ID Character	0	byte	0: None 2: AIM Code ID Character
46	Transmit MSI Check Digit	0	byte	0: disable 1: enable
47	Transmit Code 11 Check Digits	0	byte	0: disable 1: enable
48	Code 39 Check Digit Verification	0	byte	0: No check 1: Modulo 43 2: French CIP 3: Italian CIP(Code 32)
49	Interleaved 2 of 5 Check Digit Verification	0	byte	0: No Check 1: Modulo 10 2: French CIP HR
51	MSI Check Digit Algorithm	1	byte	1: Modulo 10 2: Double Modulo 10
52	Code 11 Check Digit Verification	1	byte	1: 1 Check Digit 2: 2 Check Digit
54	CLSI Editing	0	byte	0: disable 1: enable
84	Enable/Disable ISBT 128	1	byte	0: disable 1: enable
89	US Postnet	0	byte	0: disable 1: enable
90	US Planet	0	byte	0: disable 1: enable
94	Transmit “No Read” Message	0	byte	0: disable 1: enable
136	Decode Session Timeout	10	byte	1 - 99
138	Trigger Mode	2	byte	0: Continuous 2: pulse 6: presentation
209	Code 128 Min Length	0	byte	0 - 80

				(<= Code 128 Max Length)
210	Code 128 Max Length	80	byte	0 - 80 (>= Code 128 Min Length)
227	Enable/Disable MicroPDF417	0	byte	0: disable 1: enable
290	Japan Postal	0	byte	0: disable 1: enable
291	Australia Post	0	byte	0: disable 1: enable
292	Data Matrix	1	byte	0: disable 1: enable
293	QR Code	1	byte	0: disable 1: enable
294	Maxicode	1	byte	0: disable 1: enable
326	Netherlands KIX Code	0	byte	0: disable 1: enable
338	GS1 DataBar-14	1	byte	0: disable 1: enable
339	GS1 DataBar Limited	1	byte	0: disable 1: enable
340	GS1 DataBar Expanded	1	byte	0: disable 1: enable
341	Composite CC-C	0	byte	0: disable 1: enable
371	Composite TLC-39	0	byte	0: disable 1: enable
574	Aztec	1	byte	0: disable 1: enable
618	Enable/Disable Matrix 2 of 5	0	byte	0: disable 1: enable
619	Matrix 2 of 5 Min Length	4	byte	4 - 80 (<= Matrix 2 of 5 Max Length)
620	Matrix 2 of 5 Max Length	80	byte	4 - 80 (>= Matrix 2 of 5 Min Length)

1167	Han Xin	0	byte	0: disable 1: enable
3001	UPC-A 2 Digit Addenda	0	byte	0: disable 1: enable
3002	UPC-A 5 Digit Addenda	0	byte	0: disable 1: enable
3003	UPC-A Addenda Required	0	byte	0: disable 1: enable
3005	UPC-E 2 Digit Addenda	0	byte	0: disable 1: enable
3006	UPC-E 5 Digit Addenda	0	byte	0: disable 1: enable
3007	UPC-E Addenda Required	0	byte	0: disable 1: enable
3009	EAN-8 2 Digit Addenda	0	byte	0: disable 1: enable
3010	EAN-8 5 Digit Addenda	0	byte	0: disable 1: enable
3011	EAN-8 Addenda Required	0	byte	0: disable 1: enable
3013	EAN-13 2 Digit Addenda	0	byte	0: disable 1: enable
3014	EAN-13 5 Digit Addenda	0	byte	0: disable 1: enable
3015	EAN-13 Addenda Required	0	byte	0: disable 1: enable
3017	EAN-8 Transmit Check Digit	1	byte	0: disable 1: enable
3018	EAN-13 Transmit Check Digit	1	byte	0: disable 1: enable

Table 9-2D. Newland CM30 Engine Command Table

Prameter Number	Command Name	Default Value	Type	Range
0	Enable/Disable Code 39	1	byte	0: disable

				1: enable
1	Enable/Disable UPC-A	1	byte	0: disable 1: enable
2	Enable/Disable UPC-E	1	byte	0: disable 1: enable
3	Enable/Disable EAN-13	1	byte	0: disable 1: enable
4	Enable/Disable EAN-8	1	byte	0: disable 1: enable
6	Enable/Disable Interleaved 2 of 5	1	byte	0: disable 1: enable
7	Enable/Disable Codabar	1	byte	0: disable 1: enable
8	Enable/Disable Code 128	1	byte	0: disable 1: enable
9	Enable/Disable Code 93	0	byte	0: disable 1: enable
10	Enable/Disable Code 11	0	byte	0: disable 1: enable
11	Enable/Disable MSI Plessey	0	byte	0: disable 1: enable
14	Enable/Disable UCC/EAN-128	1	byte	0: disable 1: enable
15	Enable/Disable PDF417	1	byte	0: disable 1: enable
17	Code 39 Full ASCII Conversion	0	byte	0: disable 1: enable
18	Code 39 Min Length	4	byte	4 - 127 (<= Code 39 Max Length)
19	Code 39 Max Length	127	byte	4 - 127 (>= Code 39 Min Length)
22	Interleaved 2 of 5 Min Length	6	byte	6 - 127 (<= Interleaved 2 of 5 Max Length)

23	Interleaved 2 of 5 Max Length	127	byte	6 - 127 (>= Interleaved 2 of 5 Min Length)
24	Codabar Min Length	4	byte	4 - 127 (<= Codabar Max Length)
25	Codabar Max Length	127	byte	4 - 127 (>= Codabar Min Length)
26	Code 93 Min Length	2	byte	2 - 127 (<= Code 93 Max Length)
27	Code 93 Max Length	127	byte	2 - 127 (>= Code 93 Min Length)
28	Code 11 Min Length	6	byte	6 - 127 (<= Code 11 Max Length)
29	Code 11 Max Length	127	byte	6 - 127 (>= Code 11 Min Length)
30	MSI Plessey Min Length	4	byte	4 - 127 (<=MSI Plessey Max Length)
31	MSI Plessey Max Length	127	byte	4 - 127 (>=MSI Plessey Min Length)
34	UPC-A Preamble	0	byte	0: Transmit no preamble (<DATA>) 1: Transmit System Character Only (<SYSTEM CHARACTER> <DATA>) 2: Transmit System Character and Country Code (“0” for USA) (< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
35	UPC-E Preamble	0	byte	0: Transmit no preamble (<DATA>) 1: Transmit System Character Only (<SYSTEM CHARACTER> <DATA>) 2: Transmit System Character

				and Country Code (“0” for USA) (< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
37	UPC-E Extended	0	byte	0: disable 1: enable
40	Transmit UPC-A Check Digit	0	byte	0: disable 1: enable
41	Transmit UPC-E Check Digit	0	byte	0: disable 1: enable
43	Transmit Code 39 Check Digit	0	byte	0: disable 1: enable
44	Transmit Interleaved 2 of 5 Check Digit	0	byte	0: disable 1: enable
45	Transmit Code ID Character	0	byte	0: None 1: AIM Code ID Character
46	Transmit MSI Plessey Check Digit	0	byte	0: disable 1: enable
47	Transmit Code 11 Check Digit	0	byte	0: disable 1: enable
48	Code 39 Check Digit Verification	0	byte	0: disable 1: enable
49	Interleaved 2 of 5 Check Digit Verification	0	byte	0: disable 1: enable
51	MSI Plessey Check Mode	0	byte	0: Disable 1: One Check Character, MOD10 2: Two Check Characters, MOD10/MOD10 3: Two Check Characters, MOD10/MOD11
52	Code 11 Check Mode	0	byte	0: Disable Code 11 Check Digit Verification 1: One Check Character, MOD11

				2: Two Check Characters, MOD11/MOD11 3: Two Check Characters, MOD11/MOD9 4: One Check Character, MOD11 (Len<=10) Two Check Characters, MOD11/MOD11 (Len>10) 5: One Check Character, MOD11 (Len<=10) Two Check Characters, MOD11/MOD9 (Len>10)
55	Transmit Codabar Start/Stop Characters	0	byte	0: disable 1: enable
83	Enable/Disable ISBN	0	byte	0: disable 1: enable
85	Allow UPC-A + Coupon	0	byte	0: disable 1: enable
86	Code 32 escape process	0	byte	0: disable 1: enable
89	Enable/Disable USPS Postnet	0	byte	0: disable 1: enable
90	Enable/Disable USPS Planet	0	byte	0: disable 1: enable
91	Enable/Disable Royal Mail Customer Bar Code	0	byte	0: disable 1: enable
94	Transmit “No Read” Message	0	byte	0: disable 1: enable
95	Transmit USPS Postnet Check Digit	0	byte	0: disable 1: enable
136	Decode Session Timeout	50	byte	1 - 99
138	Trigger Mode	0	byte	0: Level 7: Continuous Mode
209	Code 128 Min Length	1	byte	1 - 127 (<= Code 128 Max Length)

210	Code 128 Max Length	127	byte	1 - 127 (>= Code 128 Min Length)
227	Enable/Disable MicroPDF417	0	byte	0: disable 1: enable
231	Code 32 Prefix	0	byte	0: disable 1: enable
290	Enable/Disable Japanese Post	0	byte	0: disable 1: enable
291	Enable/Disable Australia Post	0	byte	0: disable 1: enable
292	Enable/Disable Data Matrix	1	byte	0: disable 1: enable
293	Enable/Disable QR Code	1	byte	0: disable 1: enable
294	Enable/Disable Maxicode	0	byte	0: disable 1: enable
298	Decoding Illumination	1	byte	0: disable 1: enable
326	Enable/Disable KIX Code	0	byte	0: disable 1: enable
338	Enable/Disable RSS	1	byte	0: disable 1: enable
537	Data Matrix Image Mirror	1	byte	0: disable 1: enable
573	Enable/Disable Micro QR Code	1	byte	0: disable 1: enable
574	Enable/Disable Aztec	0	byte	0: disable 1: enable
576	ISBN Length	0	byte	0: 10DIGIT 1: 13DIGIT
587	QR Inversion Mode	0	byte	0: Normal 1: Inverse 2: Inversion Mode
588	Data Matrix Inversion Mode	0	byte	0: Normal 1: Inverse

				2: Inversion Mode
589	Aztec Inversion Mode	0	byte	0: Normal 1: Inverse 2: Inversion Mode
592	Enable/Disable USPS Intelligent Mail	0	byte	0: disable 1: enable
617	Enable/Disable ISSN	0	byte	0: disable 1: enable
618	Enable/Disable Matrix 2 of 5	0	byte	0: disable 1: enable
619	Matrix 2 of 5 Min Length	6	byte	6 - 127 (<= Matrix 2 of 5 Max Length)
620	Matrix 2 of 5 Max Length	127	byte	6 - 127 (>= Matrix 2 of 5 Min Length)
622	Matrix 2 of 5 Check Digit Verification	0	byte	0: disable 1: enable
623	Transmit Matrix 2 of 5 Check Digit	0	byte	0: disable 1: enable
764	Illumination Brightness	80	byte	1 - 255
900	Batch Scan	0	byte	0: disable 1: enable
1167	Enable/Disable Han Xin	0	byte	0: disable 1: enable
1168	Han Xin Inversion Mode	0	byte	0: Normal 1: Inverse 2: Inversion Mode
1718	Enable/Disable Grid Matrix	1	byte	0: disable 1: enable
3001	UPC-A 2 Digit Add-On Code	0	byte	0: disable 1: enable
3002	UPC-A 5 Digit Add-On Code	0	byte	0: disable 1: enable
3003	UPC-A Add-On Code Required	0	byte	0: disable 1: enable

3005	UPC-E 2 Digit Add-On Code	0	byte	0: disable 1: enable
3006	UPC-E 5 Digit Add-On Code	0	byte	0: disable 1: enable
3007	UPC-E Add-On Code Required	0	byte	0: disable 1: enable
3009	EAN-8 2-Digit Add-On Code	0	byte	0: disable 1: enable
3010	EAN-8 5 Digit Add-On Code	0	byte	0: disable 1: enable
3011	EAN-8 Add-On Code Required	0	byte	0: disable 1: enable
3013	EAN-13 2 Digit Add-On Code	0	byte	0: disable 1: enable
3014	EAN-13 5 Digit Add-On Code	0	byte	0: disable 1: enable
3015	EAN-13 Add-On Code Required	0	byte	0: disable 1: enable
3017	Transmit EAN-8 Check Digit	0	byte	0: disable 1: enable
3018	Transmit EAN-13 Check Digit	0	byte	0: disable 1: enable
3019	Enable/Disable Dot Code	0	byte	0: disable 1: enable
3063	UCC/EAN-128 Min Length	1	byte	1 - 127 (<=UCC/EAN-128 Max Length)
3064	UCC/EAN-128 Max Length	127	byte	1 - 127 (>=UCC/EAN-128 Min Length)
3073	Enable/Disable ITF-14	0	byte	0: disable 1: enable
3074	Enable/Disable ITF-6	0	byte	0: disable 1: enable
3075	Transmit Code 39 Start/Stop Characters	0	byte	0: disable 1: enable
3076	Transmit Code 32	0	byte	0: disable

	Start/Stop Characters			1: enable
3077	Transmit Code 32 Check Digit	0	byte	0: disable 1: enable
3082	Enable/Disable AIM 128	0	byte	0: disable 1: enable
3083	AIM 128 Min Length	1	byte	1 - 127 (<=AIM 128 Max Length)
3084	AIM 128 Max Length	127	byte	1 - 127 (>=AIM 128 Min Length)
3085	Enable/Disable Industrial 2 of 5	0	byte	0: disable 1: enable
3086	Industrial 2 of 5 Min Length	6	byte	6 - 127 (<=Industrial 2 of 5 Max Length)
3087	Industrial 2 of 5 Max Length	127	byte	6 - 127 (>=Industrial 2 of 5 Min Length)
3088	Industrial 2 of 5 Check Digit Verification	0	byte	0: disable 1: enable
3089	Enable/Disable Standard 2 of 5	0	byte	0: disable 1: enable
3090	Standard 2 of 5 Min Length	6	byte	6 - 127 (<=Standard 2 of 5 Max Length)
3091	Standard 2 of 5 Max Length	127	byte	6 - 127 (>=Standard 2 of 5 Min Length)
3092	Standard 2 of 5 Check Digit Verification	0	byte	0: disable 1: enable
3093	UK Plessey	0	byte	0: disable 1: enable
3094	UK Plessey Min Length	2	byte	2 - 127 (<=UK Plessey Max Length)
3095	UK Plessey Max Length	127	byte	2 - 127 (>=UK Plessey Min Length)
3096	UK Plessey Check Digit Verification	0	byte	0: disable 1: enable
3097	Transmit RSS Application Identifier	0	byte	0: disable 1: enable

3098	PDF417 Min Length	1	Integer	1 - 2710 (<=PDF417 Max Length)
3099	PDF417 Max Length	2710	Integer	1 - 2710 (>=PDF417 Min Length)
3101	PDF417 Close ECI Output	1	byte	0: disable 1: enable
3102	QR Code Min Length	1	Integer	1 - 7089 (<=QR Code Max Length)
3103	QR Code Max Length	7089	Integer	1 - 7089 (>=QR Code Min Length)
3105	QR Code Close ECI Output	1	byte	0: disable 1: enable
3106	Aztec Min Length	1	Integer	1 - 3832 (<=Aztec Max Length)
3107	Aztec Max Length	3832	Integer	1 - 3832 (>=Aztec Min Length)
3108	Aztec Close ECI Output	1	byte	0: disable 1: enable
3109	Data Matrix Min Length	1	Integer	1 - 3116 (<=Data Matrix Max Length)
3110	Data Matrix Max Length	3116	Integer	1 - 3116 (>=Data Matrix Min Length)
3112	Data Matrix Rectangle Code Decoding	0	byte	0: disable 1: enable
3113	Data Matrix Close ECI Output	1	byte	0: disable 1: enable
3114	Micro QR Code Min Length	1	Integer	1 - 35 (<=Micro QR Code Max Length)
3115	Micro QR Code Max Length	35	Integer	1 - 35 (>=Micro QR Code Min Length)
3119	Need UPC-A + Coupon	0	byte	0: disable 1: enable
3120	Only GS1	0	byte	0: disable 1: enable

3121	UPC-A number of codes when multiple codes are in the sa	1	byte	1 - 10
3122	UPC-A fixed number of codes	0	byte	0: disable 1: enable
3123	UPC-E number of codes when multiple codes are in the sa	1	byte	1 - 10
3124	UPC-E fixed number of codes	0	byte	0: disable 1: enable
3125	EAN-8 number of codes when multiple codes are in the sa	1	byte	1 - 10
3126	EAN-8 fixed number of codes	0	byte	0: disable 1: enable
3127	EAN-13 number of codes when multiple codes are in the sa	1	byte	1 - 10
3128	EAN-13 fixed number of codes	0	byte	0: disable 1: enable
3129	ISBN 2 Digit Add-On Code	0	byte	0: disable 1: enable
3130	ISBN 5 Digit Add-On Code	0	byte	0: disable 1: enable
3131	ISBN Add-On Code Required	0	byte	0: disable 1: enable
3132	ISBN number of codes when multiple codes are in the sa	1	byte	1 - 10
3133	ISBN fixed number of codes	0	byte	0: disable 1: enable
3134	ISSN 2 Digit Add-On Code	0	byte	0: disable 1: enable
3135	ISSN 5 Digit Add-On Code	0	byte	0: disable 1: enable

3136	ISSN Add-On Code Required	0	byte	0: disable 1: enable
3137	ISSN number of codes when multiple codes are in the sa	1	byte	1 - 10
3138	ISSN fixed number of codes	0	byte	0: disable 1: enable
3139	Code 128 number of codes when multiple codes are in the sa	1	byte	1 - 10
3140	Code 128 fixed number of codes	0	byte	0: disable 1: enable
3141	UCC/EAN-128 number of codes when multiple codes are in the sa	1	byte	1 - 10
3142	UCC/EAN-128 fixed number of codes	0	byte	0: disable 1: enable
3143	Code 39 number of codes when multiple codes are in the sa	1	byte	1 - 10
3144	Code 39 fixed number of codes	0	byte	0: disable 1: enable
3145	Code 93 number of codes when multiple codes are in the sa	1	byte	1 - 10
3146	Code 93 fixed number of codes	0	byte	0: disable 1: enable
3147	Code 11 number of codes when multiple codes are in the sa	1	byte	1 - 10
3148	Code 11 fixed number of codes	0	byte	0: disable 1: enable
3149	Interleaved 2 of 5 number of codes when multiple codes are in the sa	1	byte	1 - 10

3150	Interleaved 2 of 5 fixed number of codes	0	byte	0: disable 1: enable
3151	Codabar number of codes when multiple codes are in the sa	1	byte	1 - 10
3152	Codabar fixed number of codes	0	byte	0: disable 1: enable
3153	Transmit UK Plessey Check Digit	0	byte	0: disable 1: enable
3154	UK Plessey number of codes when multiple codes are in the sa	1	byte	1 - 10
3155	UK Plessey fixed number of codes	0	byte	0: disable 1: enable
3156	MSI Plessey number of codes when multiple codes are in the sa	1	byte	1 - 10
3157	MSI Plessey fixed number of codes	0	byte	0: disable 1: enable
3158	Matrix 2 of 5 number of codes when multiple codes are in the sa	1	byte	1 - 10
3159	Matrix 2 of 5 fixed number of codes	0	byte	0: disable 1: enable
3160	Transmit Industrial 2 of 5 Check Digit	0	byte	0: disable 1: enable
3161	Industrial 2 of 5 number of codes when multiple codes are in the sa	1	byte	1 - 10
3162	Industrial 2 of 5 fixed number of codes	0	byte	0: disable 1: enable
3163	Transmit Standard 2 of 5 Check Digit	0	byte	0: disable 1: enable
3164	Standard 2 of 5 number of codes when multiple codes	1	byte	1 - 10

	are in the sa			
3165	Standard 2 of 5 fixed number of codes	0	byte	0: disable 1: enable
3166	Transmit ITF-6 Check Digit	0	byte	0: disable 1: enable
3167	ITF-6 number of codes when multiple codes are in the sa	1	byte	1 - 10
3168	ITF-6 fixed number of codes	0	byte	0: disable 1: enable
3169	Transmit ITF-14 Check Digit	0	byte	0: disable 1: enable
3170	ITF-14 number of codes when multiple codes are in the sa	1	byte	1 - 10
3171	ITF-14 fixed number of codes	0	byte	0: disable 1: enable
3172	AIM 128 number of codes when multiple codes are in the sa	1	byte	1 - 10
3173	AIM 128 fixed number of codes	0	byte	0: disable 1: enable
3174	Enable/Disable Code 16K	0	byte	0: disable 1: enable
3175	Code 16K Min Length	1	byte	1 - 127 (<=Code 16K Max Length)
3176	Code 16K Max Length	127	byte	1 - 127 (>=Code 16K Min Length)
3177	Code 16K number of codes when multiple codes are in the sa	1	byte	1 - 10
3178	Code 16K fixed number of codes	0	byte	0: disable 1: enable
3179	Enable/Disable Code 49	0	byte	0: disable 1: enable

3180	Code 49 Min Length	1	byte	1 - 127 (<=Code 49 Max Length)
3181	Code 49 Max Length	127	byte	1 - 127 (>=Code 49 Min Length)
3182	Code 49 number of codes when multiple codes are in the sa	1	byte	1 - 10
3183	Code 49 fixed number of codes	0	byte	0: disable 1: enable
3184	RSS number of codes when multiple codes are in the sa	1	byte	1 - 10
3185	RSS fixed number of codes	0	byte	0: disable 1: enable
3186	Transmit USPS Planet Check Digit	0	byte	0: disable 1: enable
3187	Transmit Japanese Post Check Digit	0	byte	0: disable 1: enable
3188	Enable/Disable China Post	0	byte	0: disable 1: enable
3189	China Post Check Digit Verification	0	byte	0: disable 1: enable
3190	Transmit China Post Check Digit	0	byte	0: disable 1: enable
3191	China Post Min Length	1	byte	1 - 127 (<=China Post Max Length)
3192	China Post Max Length	127	byte	1 - 127 (>=China Post Min Length)
3193	China Post number of codes when multiple codes are in the sa	1	byte	1 - 10
3194	China Post fixed number of codes	0	byte	0: disable 1: enable
3195	PDF417 number of codes when multiple codes are in	1	byte	1 - 10

	the sa			
3196	PDF417 fixed number of codes	0	byte	0: disable 1: enable
3197	PDF417 Inversion Mode	0	byte	0: Normal 1: Inverse 2: Inversion Mode
3198	PDF417 Image Mirror	1	byte	0: disable 1: enable
3199	MicroPDF417 Min Length	1	Integer	1 - 366 (<=MicroPDF417 Max Length)
3200	MicroPDF417 Max Length	366	Integer	1 - 366 (>=MicroPDF417 Min Length)
3201	MicroPDF417 number of codes when multiple codes are in the sa	1	byte	1 - 10
3202	MicroPDF417 fixed number of codes	0	byte	0: disable 1: enable
3203	MicroPDF417 Image Mirror	1	byte	0: disable 1: enable
3204	MicroPDF417 Close ECI Output	1	byte	0: disable 1: enable
3205	Data Matrix number of codes when multiple codes are in the sa	1	byte	1 - 10
3206	Data Matrix fixed number of codes	0	byte	0: disable 1: enable
3207	Maxicode Min Length	1	Integer	1 - 150 (<=Maxicode Max Length)
3208	Maxicode Max Length	150	Integer	1 - 150 (>=Maxicode Min Length)
3209	Maxicode number of codes when multiple codes are in the sa	1	byte	1 - 10
3210	Maxicode fixed number of codes	0	byte	0: disable 1: enable

3211	Maxicode Image Mirror	1	byte	0: disable 1: enable
3212	QR Code number of codes when multiple codes are in the sa	1	byte	1 - 10
3213	QR Code fixed number of codes	0	byte	0: disable 1: enable
3214	QR Code Image Mirror	1	byte	0: disable 1: enable
3215	Micro QR Code number of codes when multiple codes are in the sa	1	byte	1 - 10
3216	Micro QR Code fixed number of codes	0	byte	0: disable 1: enable
3217	Micro QR Code Image Mirror	1	byte	0: disable 1: enable
3218	Aztec number of codes when multiple codes are in the sa	1	byte	1 - 10
3219	Aztec fixed number of codes	0	byte	0: disable 1: enable
3220	Aztec Image Mirror	1	byte	0: disable 1: enable
3221	Han Xin Min Length	1	Integer	1 - 7827 (<=Han Xin Max Length)
3222	Han Xin Max Length	7827	Integer	1 - 7827 (>=Han Xin Min Length)
3223	Han Xin number of codes when multiple codes are in the sa	1	byte	1 - 10
3224	Han Xin fixed number of codes	0	byte	0: disable 1: enable
3225	Han Xin Image Mirror	1	byte	0: disable 1: enable
3226	Han Xin Close ECI Output	1	byte	0: disable

				1: enable
3227	Grid Matrix Min Length	1	Integer	1 - 2751 (<=Grid Matrix Max Length)
3228	Grid Matrix Max Length	2751	Integer	1 - 2751 (>=Grid Matrix Min Length)
3229	Grid Matrix Close ECI Output	1	byte	0: disable 1: enable

6.3. Command information

6.3.1. Zebra Engine

UPC/EAN

Enable/Disable UPC-A

SSI # 01h
Parameter # 1
To enable or disable UPC-A.

***Enable UPC-A**
(01h)
Disable UPC-A
(00h)

Enable/Disable UPC-E

SSI # 02h
Parameter # 2
To enable or disable UPC-E.

***Enable UPC-E**
(01h)
Disable UPC-E
(00h)

Enable/Disable UPC-E1

SSI # 0Ch
Parameter # 12
To enable or disable UPC-E1.
UPC-E1 is disabled by default.
Enable UPC-E1
(01h)

***Disable UPC-E1**
(00h)
NOTE UPC-E1 is not a UCC (Uniform Code Council) approved symbology.

Enable/Disable EAN-8/JAN-8

SSI # 04h
Parameter # 4
To enable or disable EAN-8/JAN-8.

***Enable EAN-8/JAN-8**
(01h)
Disable EAN-8/JAN-8
(00h)

Enable/Disable EAN-13/JAN-13

SSI # 03h
Parameter # 3
To enable or disable EAN-13/JAN-13.

***Enable EAN-13/JAN-13**
(01h)
Disable EAN-13/JAN-13
(00h)

Enable/Disable Bookland EAN

SSI # 53h
Parameter # 83
To enable or disable Bookland EAN.

***Enable Bookland EAN**
(01h)
Disable Bookland EAN
(00h)

Bookland ISBN Format

SSI # F1h 40h
Parameter # 576
If Bookland EAN is enabled, select one of the following formats for Bookland data:
• **Bookland ISBN-10** - The decoder reports Bookland data starting with 978 in traditional 10-digit format with the special Bookland check digit for backward-compatibility. Data starting with 979 is not considered Bookland in this mode.
• **Bookland ISBN-13** - The decoder reports Bookland data (starting with either 978 or 979) as EAN-13 in 13-digit format to meet the 2007 ISBN-13 protocol.
***Bookland ISBN-10**
(00h)
Bookland ISBN-13
(01h)

Decode UPC/EAN/JAN Supplementals

SSI # 16
Parameter # 10h
Supplementals are bar codes appended according to specific format conventions (e.g., UPC A+2, UPC E+2, EAN 13+2). Select one of the following options:
***Ignore Supplementals -** When presented with a UPC/EAN/JAN plus supplemental symbol, the engine decodes UPC/EAN/JAN and ignores the supplemental characters.
(00h)
Decode UPC/EAN/JAN Only With Supplementals - The engine only decodes UPC/EAN/JAN symbols with supplemental characters, and ignores symbols without supplementals.
(01h)
Autodiscriminate UPC/EAN/JAN Supplementals - If the symbol does not have a supplemental, the engine must decode the bar code serveral times before transmitting its data to confirm that there is no supplemental.
(02h)
Select one of the following Supplemental Mode options to immediately transmit EAN-13 bar codes starting with that prefix that have supplemental characters. If the symbol does not have a supplemental, the engine must decode the bar code several times before transmitting the data to confirm that there is no supplemental. The engine transmits UPC/EAN/JAN bar codes that do not have that prefix immediately.
Enable 378/379 Supplemental Mode
(04h)
Enable 978/979 Supplemental Mode
(05h)
Enable 977 Supplemental Mode
(07h)
Enable 414/419/434/439 Supplemental Mode
(06h)
Enable 491 Supplemental Mode
(08h)
Enable Smart Supplemental Mode - This applies to EAN-13 bar codes starting with any prefix listed previously.
(03h)

Transmit UPC-A Check Digit

SSI # 28h
Parameter # 40
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-A Check Digit**
(01h)
Do Not Transmit UPC-A Check Digit
(00h)

Transmit UPC-E Check Digit

SSI # 29h
Parameter # 41
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-E Check Digit**
(01h)
Do Not Transmit UPC-E Check Digit
(00h)

Transmit UPC-E1 Check Digit

SSI # 2Ah
Parameter # 42
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-E1 Check Digit**
(01h)
Do Not Transmit UPC-E1 Check Digit
(00h)

UPC-A Preamble

SSI # 22h
Parameter # 34
Preamble characters are part of the UPC symbol, and include Country Code and System Character. There are three options for transmitting a UPC-A preamble to the host device: transmit System Character only, transmit System Character and Country Code ("0" for USA), and transmit no preamble. Select the appropriate option to match the host system.
No Preamble (<DATA>)
(00h)

***System Character (<SYSTEM CHARACTER> <DATA>)**
(01h)
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

UPC-E Preamble

SSI # 23h
Parameter # 35
Preamble characters are part of the UPC symbol, and include Country Code and System Character. There are three options for transmitting a UPC-E preamble to the host device: transmit System Character only, transmit System Character and Country Code ("0" for USA), and transmit no preamble. Select the appropriate option to match the host system.
No Preamble (<DATA>)
(00h)

***System Character (<SYSTEM CHARACTER> <DATA>)**
(01h)
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

UPC-E1 Preamble

SSI # 24h
Parameter # 36
Preamble characters are part of the UPC symbol, and include Country Code and System Character. There are three options for transmitting a UPC-E1 preamble to the host device: transmit System Character only, transmit System Character and Country Code

("0" for USA), and transmit no preamble. Select the appropriate option to match the host system.
No Preamble (<DATA>)
(00h)

***System Character (<SYSTEM CHARACTER> <DATA>)**
(01h)
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

Convert UPC-E to UPC-A

SSI # 25h
Parameter # 37
Enable this to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, the data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).
Disable this to transmit UPC-E decoded data as UPC-E data, without conversion.
Convert UPC-E to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E to UPC-A (Disable)**
(00h)

Convert UPC-E1 to UPC-A

SSI # 26h
Parameter # 38
Enable this to convert UPC-E1 decoded data to UPC-A format before transmission. After conversion, the data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).
Disable this to transmit UPC-E1 decoded data as UPC-E1 data, without conversion.
Convert UPC-E1 to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E1 to UPC-A (Disable)**
(00h)

EAN-8/JAN-8 Extend

SSI # 27h
Parameter # 39
Enable this parameter to add five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.
Disable this to transmit EAN-8 symbols as is.
Enable EAN/JAN Zero Extend
(01h)

***Disable EAN/JAN Zero Extend**
(00h)

UCC Coupon Extended Code

SSI # 55h
Parameter # 85
Enable this parameter to decode UPC-A bar codes starting with digit '5', EAN-13 bar codes starting with digit '99', and UPC-A/GS1-128 Coupon Codes. UPCA, EAN-13, and GS1-128 must be enabled to scan all types of Coupon Codes.
Enable UCC Coupon Extended Code
(01h)

***Disable UCC Coupon Extended Code**
(00h)

ISSN EAN

SSI # F1h 69h
Parameter # 617
To enable or disable ISSN EAN.

***Enable ISSN EAN**
(01h)
Disable ISSN EAN
(00h)

EAN-8 Transmit Check Digit

SSI # FA C9h

Parameter # 3017

***Transmit EAN-8 Check Digit**
(01h)
Do Not Transmit EAN-8 Check Digit
(00h)

EAN-13Transmit Check Digit

SSI # FA CAh
Parameter # 3018

***Transmit EAN-13 Check Digit**
(01h)
Do Not Transmit EAN-13 Check Digit
(00h)

UPC Reduced Quiet Zone

SSI # F8h 05h 09h
Parameter # 1289
Enable or disable decoding UPC bar codes with reduced quiet zones. If you select **Enable**, select a *1D Quiet Zone Level* to take effect.

***Disable UPC Reduced Quiet Zone**
(00h)
Enable UPC Reduced Quiet Zone
(01h)

Code 128

Enable/Disable Code 128

SSI # 08h
Parameter # 8
To enable or disable Code 128.

***Enable Code 128**
(01h)
Disable Code 128
(00h)

Set Lengths for Code 128

L1 = Parameter # 209
SSI # D1h
[Range: 0..55]
Default: 0
L2 = Parameter # 210
SSI # D2h
[Range: 0..55]
Default: 0
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Code 128 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Code 128 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Code 128 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Code 128 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Code 128 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Code 128 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Enable/Disable GS1-128

SSI # 0Eh
Parameter # 14
To enable or disable GS1-128.

***Enable GS1-128**
(01h)
Disable GS1-128
(00h)

Enable/Disable ISBT 128

SSI # 54h
Parameter # 84
ISBT 128 is a variant of Code 128 used in the blood bank industry. If necessary, the host must perform concatenation of the ISBT data.

***Enable ISBT 128**
(01h)
Disable ISBT 128
(00h)

Code 128 Reduced Quiet Zone

SSI # F8h 04h B8h
Parameter # 1208
Enable or disable decoding Code 128 bar codes with reduced quiet zones. If you select **Enable**, select a *1D Quiet Zone Level* to take effect.

* **Disable Code 128 Reduced Quiet Zone**
(00h)
Enable Code 128 Reduced Quiet Zone
(01h)

Code 39

Enable/Disable Code 39

SSI # 00h
Parameter # 0
To enable or disable Code 39.

***Enable Code 39**
(01h)
Disable Code 39
(00h)

Enable/Disable Trioptic Code 39

SSI # 0Dh
Parameter # 13
Trioptic Code 39 is a variant of Code 39 used in the marking of computer tape cartridges. Trioptic Code 39 symbols always contain six characters. To enable or disable Trioptic Code 39.
Enable Trioptic Code 39
(01h)

***Disable Trioptic Code 39**
(00h)
NOTE You cannot enable Trioptic Code 39 and Code 39 Full ASCII simultaneously.

Convert Code 39 to Code 32

SSI # 56h
Parameter # 86
Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry.
Enable Convert Code 39 to Code 32
(01h)

***Disable Convert Code 39 to Code 32**
(00h)
NOTE Code 39 must be enabled for this parameter to function.

Code 32 Prefix

SSI # E7h
Parameter # 231
Enable or disable adding the prefix character "A" to all Code 32 bar codes.
Enable Code 32 Prefix
(01h)
***Disable Code 32 Prefix**
(00h)
NOTE Convert Code 39 to Code 32 must be enabled for this parameter to function.

Set Lengths for Code 39

L1 = Parameter # 18
SSI # 12h
[Range: 0..55]
Default: 2
L2 = Parameter # 19
SSI # 13h
[Range: 0..55]
Default: 55
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Code 39 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Code 39 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Code 39 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Code 39 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Code 39 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Code 39 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Code 39 Check Digit Verification

SSI # 30h
Parameter # 48
Enable this feature to check the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only Code 39 symbols which include a modulo 43 check digit are decoded. Enable this feature if the Code 39 symbols contain a Modulo 43 check digit.
Enable Code 39 Check Digit
(01h)
***Disable Code 39 Check Digit**
(00h)

Transmit Code 39 Check Digit

SSI # 2Bh
Parameter # 43
Transmit Code 39 data with or without the check digit.
Transmit Code 39 Check Digit (Enable)
(01h)
***Do Not Transmit Code 39 Check Digit (Disable)**
(00h)
NOTE Code 39 Check Digit Verification must be enabled for this parameter to function.

Code 39 Full ASCII Conversion

SSI # 11h
Parameter # 17
Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.
Enable Code 39 Full ASCII
(01h)
***Disable Code 39 Full ASCII**

(00h)
NOTE You cannot enable Trioptic Code 39 and Code 39 Full ASCII simultaneously.

Code 39 Reduced Quiet Zone

SSI # F8h 04h B9h
Parameter # 1209
Enable or disable decoding Code 39 bar codes with reduced quiet zones. If you select **Enable**, select a *1D Quiet Zone Level* to take effect.

*** Disable Code 39 Reduced Quiet Zone**
(00h)
Enable Code 39 Reduced Quiet Zone
(01h)

Code 93

Enable/Disable Code 93

SSI # 09h
Parameter # 9
To enable or disable Code 93.

***Enable Code 93**
(01h)
Disable Code 93
(00h)

Set Lengths for Code 93

L1 = Parameter # 26
SSI # 1Ah
[Range: 0..55]
Default: 4
L2 = Parameter # 27
SSI # 1Bh
[Range: 0..55]
Default: 55
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Code 93 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Code 93 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Code 93 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Code 93 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Code 93 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Code 93 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Code 11

Enable/Disable Code 11

SSI # 0Ah
Parameter # 10
To enable or disable Code 11.
Enable Code 11
(01h)
***Disable Code 11**
(00h)

Set Lengths for Code 11

L1 = Parameter # 28

SSI # 1Ch
[Range: 0..55]
Default: 4
L2 = Parameter # 29
SSI # 1Dh
[Range: 0..55]
Default: 55
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Code 11 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Code 11 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Code 11 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Code 11 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Code 11 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Code 11 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Code 11 Check Digit Verification

SSI # 34h
Parameter # 52
This feature allows the decoder to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for one check digit, check for two check digits, or disable the feature.

***Disable**
(00h)
One Check Digit
(01h)
Two Check Digits
(02h)

Transmit Code 11 Check Digits

SSI # 2Fh
Parameter # 47
This feature selects whether or not to transmit the Code 11 check digit(s).
Transmit Code 11 Check Digit(s) (Enable)
(01h)
***Do Not Transmit Code 11 Check Digit(s) (Disable)**
(00h)
NOTE Code 11 Check Digit Verification must be enabled for this parameter to function.

Interleaved 2 of 5 (ITF)

Enable/Disable Interleaved 2 of 5

SSI # 06h
Parameter # 6
To enable or disable Interleaved 2 of 5.
***Enable Interleaved 2 of 5**
(01h)
Disable Interleaved 2 of 5
(00h)

Set Lengths for Interleaved 2 of 5

L1 = Parameter # 22
SSI # 16h
[Range: 0..55]
Default: 14
L2 = Parameter # 23

SSI # 17h
[Range: 0..55]
Default: 0
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for I 2 of 5 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of I 2 of 5 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of I 2 of 5 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode I 2 of 5 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only I 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode I 2 of 5 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Interleaved 2 of 5 Check Digit Verification

SSI # 31h
Parameter # 49
Enable this feature to check the integrity of all I 2 of 5 symbols to verify the data complies with either the specified Uniform Symbology Specification (USS), or the Optical Product Code Council (OPCC) check digit algorithm.

***Disable**
(00h)
USS Check Digit
(01h)
OPCC Check Digit
(02h)

Transmit Interleaved 2 of 5 Check Digit

SSI # 2Ch
Parameter # 44
Transmit I 2 of 5 data with or without the check digit.
Transmit I 2 of 5 Check Digit (Enable)
(01h)

***Do Not Transmit I 2 of 5 Check Digit (Disable)**
(00h)

Convert Interleaved 2 of 5 to EAN-13

SSI # 52h
Parameter # 82
Enable this parameter to convert 14-character I 2 of 5 codes to EAN-13, and transmit to the host as EAN-13. To accomplish this, the I 2 of 5 code must be enabled, and the code must have a leading zero and a valid EAN-13 check digit.
Convert I 2 of 5 to EAN-13 (Enable)
(01h)

***Do Not Convert I 2 of 5 to EAN-13 (Disable)**
(00h)

Interleaved 2 of 5 Reduced Quiet Zone

SSI # F8h 04h BAh
Parameter # 1210
Enable or disable decoding I 2 of 5 bar codes with reduced quiet zones. If you select **Enable**, select a *1D Quiet Zone Level* to take effect.

* **Disable I 2 of 5 Reduced Quiet Zone**
(00h)
Enable I 2 of 5 Reduced Quiet Zone
(01h)

Discrete 2 of 5 (DTF)

Enable/Disable Discrete 2 of 5

SSI # 05h
Parameter # 5
To enable or disable Discrete 2 of 5.
Enable Discrete 2 of 5
(01h)
***Disable Discrete 2 of 5**
(00h)

Set Lengths for Discrete 2 of 5

L1 = Parameter # 20
SSI # 14h
[Range: 0..55]
Default: 12
L2 = Parameter # 21
SSI # 15h
[Range: 0..55]
Default: 0
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for D 2 of 5 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of D 2 of 5 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of D 2 of 5 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode D 2 of 5 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only D 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode D 2 of 5 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Codabar (NW - 7)

Enable/Disable Codabar

SSI # 07h
Parameter # 7
To enable or disable Codabar.
Enable Codabar
(01h)
***Disable Codabar**
(00h)

Set Lengths for Codabar

L1 = Parameter # 24
SSI # 18h
[Range: 0..55]
Default: 5
L2 = Parameter # 25
SSI # 19h
[Range: 0..55]
Default: 55
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Codabar to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Codabar to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Codabar to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Codabar codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Codabar codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Codabar codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

CLSI Editing

SSI # 36h
Parameter # 54
Enable this parameter to strip the start and stop characters and insert a space after the first, fifth, and tenth characters of a 14-character Codabar symbol. Enable this feature if the host system requires this data format.
Enable CLSI Editing
(01h)
***Disable CLSI Editing**
(00h)
NOTE Symbol length does not include start and stop characters.

NOTIS Editing

SSI # 37h
Parameter # 55
Enable this parameter to strip the start and stop characters from a decoded Codabar symbol. Enable this feature if the host system requires this data format.
Enable NOTIS Editing
(01h)
***Disable NOTIS Editing**
(00h)

MSI

Enable/Disable MSI

SSI # 0Bh
Parameter # 11
To enable or disable MSI.
Enable MSI
(01h)
***Disable MSI**
(00h)

Set Lengths for MSI

L1 = Parameter # 30
SSI # 1Eh
[Range: 0..55]
Default: 4
L2 = Parameter # 31
SSI # 1Fh
[Range: 0..55]
Default: 55
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for MSI to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of MSI to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of MSI to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode MSI codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only MSI codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode MSI codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

MSI Check Digits
SSI # 32h
Parameter # 50
With MSI symbols, one check digit is mandatory and always verified by the reader. The second check digit is optional. If the MSI codes include two check digits, select **Two MSI Check Digits** to enable verification of the second check digit.

***No MSI Check Digits**
(00h)
One MSI Check Digit
(01h)
Two MSI Check Digits
(02h)

Transmit MSI Check Digit(s)
SSI # 2Eh
Parameter # 46
Select whether to transmit MSI data with or without the check digit.
Transmit MSI Check Digit(s) (Enable)
(01h)

***Do Not Transmit MSI Check Digit(s) (Disable)**
(00h)

MSI Check Digit Algorithm
SSI # 33h
Parameter # 51
Two algorithms are possible for the verification of the second MSI check digit.
MOD 10/MOD 11
(00h)

***MOD 10/MOD 10**
(01h)

Chinese 2 of 5

Enable/Disable Chinese 2 of 5
SSI # F0h 98h
Parameter # 408
To enable or disable Chinese 2 of 5.
Enable Chinese 2 of 5
(01h)

***Disable Chinese 2 of 5**
(00h)

Matrix 2 of 5

Enable/Disable Matrix 2 of 5
SSI # F1h 6Ah
Parameter # 618
To enable or disable Matrix 2 of 5.
Enable Matrix 2 of 5
(01h)

***Disable Matrix 2 of 5**
(00h)

Set Lengths for Matrix 2 of 5
L1 = Parameter # 619
SSI # F1h 6Bh
[Range: 0..55]
Default: 14
L2 = Parameter # 620
SSI # F1h 6Ch

[Range: 0..55]
Default: 0
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Assign lengths for Matrix 2 of 5 to decode either one or two discrete lengths, or a length within a specific range.

- **One Discrete Length** - To limit the decoding of Matrix 2 of 5 to one specific length, assign this length to the **Length1** parameter and 0 to the **Length2** parameter. For example, for fixed length 14, set **Length1 = 14**, **Length2 = 0**.

- **Two Discrete Lengths** - To limit the decoding of Matrix 2 of 5 to either of two specific lengths, assign the greater length to the **Length1** parameter and the lesser to **Length2**. For example, to decode Matrix 2 of 5 codes of either 2 or 14 characters only, set **Length1 = 14, Length2 = 2**.

- **Length Within Range** - To decode only Matrix 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Length1** parameter and the greater to the **Length2** parameter. For example, to decode Matrix 2 of 5 codes of length 4 through 12 characters, set **Length1 = 4, Length2 = 12**.

Matrix 2 of 5 Check Digit

SSI # F1h 6Eh
Parameter # 622
The check digit is the last character of the symbol used to verify the integrity of the data.
Enable Matrix 2 of 5 Check Digit
(01h)
***Disable Matrix 2 of 5 Check Digit**
(00h)

Transmit Matrix 2 of 5 Check Digit

SSI # F1h 6Fh
Parameter # 623
Transmit Matrix 2 of 5 data with or without the check digit.
Transmit Matrix 2 of 5 Check Digit
(01h)
***Do Not Transmit Matrix 2 of 5 Check Digit**
(00h)

Inverse 1D

SSI # F1h 4Ah
Parameter # 586
Set the 1D inverse decoder setting:
***Regular Only** - the decoder decodes regular 1D bar codes only.
(00h)
Inverse Only - the decoder decodes inverse 1D bar codes only.
(01h)
Inverse Autodetect - the decoder decodes both regular and inverse 1D bar codes.
(02h)

1D Quiet Zone Level

SSI # F8h 05h 08h
Parameter # 1288
This feature sets the level of aggressiveness in decoding bar codes with a reduced quiet zone (the area in front of and at the end of a bar code), and applies to symbologies enabled by a Reduced Quiet Zone parameter. Because higher levels increase the decoding time and risk of misdecodes, we strongly recommends enabling only the symbologies which require higher quiet zone levels, and leaving Reduced Quiet Zone disabled for all other symbologies. Options are:
1D Quiet Zone Level 0 - the decoder performs normally in terms of quiet zone.
(00h)
***1D Quiet Zone Level 1** - the decoder performs more aggressively in terms of quiet zone.
(01h)
1D Quiet Zone Level 2 - the decoder only requires one side EB (end of bar code) for decoding.
(02h)
1D Quiet Zone Level 3 - the decoder decodes anything in terms of quiet zone or end of bar code.
(03h)

Postal Codes

US Postnet
SSI # 59h
Parameter # 89
To enable or disable US Postnet.

***Enable US Postnet**
(01h)
Disable US Postnet
(00h)

US Planet
SSI # 5Ah
Parameter # 90
To enable or disable US Planet.

***Enable US Planet**
(01h)
Disable US Planet
(00h)

Transmit US Postal Check Digit
SSI # 5Fh
Parameter # 95
Select whether to transmit US Postal data, which includes both US Postnet and US Planet, with or without the check digit.

***Transmit US Postal Check Digit**
(01h)
Do Not Transmit US Postal Check Digit
(00h)

UK Postal
SSI # 5Bh
Parameter # 91
To enable or disable UK Postal.

***Enable UK Postal**
(01h)
Disable UK Postal
(00h)

Transmit UK Postal Check Digit
SSI # 60h
Parameter # 96
Select whether to transmit UK Postal data with or without the check digit.

***Transmit UK Postal Check Digit**
(01h)
Do Not Transmit UK Postal Check Digit
(00h)

Japan Postal
SSI # F0h, 22h
Parameter # 290
To enable or disable Japan Postal.
Enable Japan Postal
(01h)

***Disable Japan Postal**
(00h)

Australia Post
SSI # F0h, 23h
Parameter # 291

To enable or disable Australia Post.
Enable Australia Post
(01h)
***Disable Australia Post**
(00h)

Netherlands KIX Code

SSI # F0h, 46h
Parameter # 326
To enable or disable Netherlands KIX Code.
Enable Netherlands KIX Code
(01h)
***Disable Netherlands KIX Code**
(00h)

USPS 4CB/One Code/Intelligent Mail

SSI # F1h 50h
Parameter # 592
To enable or disable USPS 4CB/One Code/Intelligent Mail.
Enable USPS 4CB/One Code/Intelligent Mail
(01h)
***Disable USPS 4CB/One Code/Intelligent Mail**
(00h)

UPU FICS Postal

SSI # F1h 63h
Parameter # 611
To enable or disable UPU FICS Postal.
Enable UPU FICS Postal
(01h)
***Disable UPU FICS Postal**
(00h)

GS1 DataBar

SSI # F0h 52h
Parameter # 338
Enable or disable GS1 DataBar:
***Enable GS1 DataBar**
(01h)
Disable GS1 DataBar
(00h)

GS1 DataBar Limited

SSI # F0h 53h
Parameter # 339
Enable or disable GS1 DataBar Limited:
***Enable GS1 DataBar Limited**
(01h)
Disable GS1 DataBar Limited
(00h)

GS1 DataBar Expanded

SSI # F0h 54h
Parameter # 340
Enable or disable GS1 DataBar Expanded:
***Enable GS1 DataBar Expanded**
(01h)
Disable GS1 DataBar Expanded
(00h)

Convert GS1 DataBar to UPC/EAN

SSI # F0h, 8Dh

Parameter # 397
This parameter only applies to GS1 DataBar and GS1 DataBar Limited symbols not decoded as part of a Composite symbol. Enable this to strip the leading '010' from DataBar and DataBar Limited symbols encoding a single zero as the first digit, and report the bar code as EAN-13.
For bar codes beginning with two or more zeros but not six zeros, this parameter strips the leading '0100' and reports the bar code as UPC-A. The UPC-A Preamble parameter that transmits the system character and country code applies to converted bar codes. Note that neither the system character nor the check digit can be stripped.
Enable Convert GS1 DataBar to UPC/EAN
(01h)
***Disable Convert GS1 DataBar to UPC/EAN**
(00h)

Composite

Composite CC-C
SSI # F0h 55h
Parameter # 341
Enable or disable Composite bar codes of type CC-C.
Enable CC-C
(01h)
***Disable CC-C**
(00h)

Composite CC-A/B
SSI # F0h 56h
Parameter # 342
Enable or disable Composite bar codes of type CC-A/B.
Enable CC-A/B
(01h)
***Disable CC-A/B**
(00h)

Composite TLC-39
SSI # F0h 73h
Parameter # 371
Enable or disable Composite bar codes of type TLC-39.
Enable TLC39
(01h)
***Disable TLC39**
(00h)

2D Symbologies

Enable/Disable PDF417
SSI # 0Fh
Parameter # 15
To enable or disable PDF417.
***Enable PDF417**
(01h)
Disable PDF417
(00h)

Enable/Disable MicroPDF417
SSI # E3h
Parameter # 227
To enable or disable MicroPDF417.
Enable MicroPDF417
(01h)
***Disable MicroPDF417**
(00h)

Code 128 Emulation

SSI # 7Bh
Parameter # 123
Enable this parameter to transmit data from certain MicroPDF417 symbols as if it was encoded in Code 128 symbols. Transmit AIM Symbology Identifiers must be enabled for this parameter to work.

***Disable Code 128 Emulation** - transmits these MicroPDF417 symbols with one of the following prefixes:

]L3 if the first codeword is 903-905

]L4 if the first codeword is 908 or 909

]L5 if the first codeword is 910 or 911

(00h)

Enable Code 128 Emulation - transmits these MicroPDF417 symbols with one of the following prefixes:

]C1 if the first codeword is 903-905

]C2 if the first codeword is 908 or 909

]C0 if the first codeword is 910 or 911

(01h)
NOTE Linked MicroPDF codewords 906, 907, 912, 914, and 915 are not supported. Use GS1 Composites instead.

Data Matrix

SSI # F0h, 24h
Parameter # 292
To enable or disable Data Matrix.

***Enable Data Matrix**
(01h)
Disable Data Matrix
(00h)

Data Matrix Inverse

SSI # F1h 4Ch
Parameter # 588
This parameter sets the Data Matrix inverse decoder setting. Options are:
***Regular** - the decoder decodes regular Data Matrix bar codes only.
(00h)
Inverse Only - the decoder decodes inverse Data Matrix bar codes only.
(01h)
Inverse Autodetect - the decoder decodes both regular and inverse Data Matrix bar codes.
(02h)

Maxicode

SSI # F0h 26h
Parameter # 294
To enable or disable Maxicode.

***Enable Maxicode**
(01h)
Disable Maxicode
(00h)

QR Code

SSI # F0h 25h
Parameter # 293
To enable or disable QR Code.

***Enable QR Code**
(01h)
Disable QR Code
(00h)

MicroQR

SSI # F1h 3Dh

Parameter # 573
To enable or disable MicroQR.

***Enable MicroQR**
(01h)
Disable MicroQR
(00h)

Aztec

SSI # F1h 3Eh
Parameter # 574
To enable or disable Aztec.

***Enable Aztec**
(01h)
Disable Aztec
(00h)

Aztec Inverse

SSI # F1h 4Dh
Parameter # 589
This parameter sets the Aztec inverse decoder setting. Options are:
***Regular Only** - the decoder decodes regular Aztec bar codes only.
(00h)
Inverse Only - the decoder decodes inverse Aztec bar codes only.
(01h)
Inverse Autodetect - the decoder decodes both regular and inverse Aztec bar codes.
(02h)

Han Xin

SSI # F8h 04h 8Fh
Parameter # 1167
To enable or disable Han Xin.
Enable Han Xin
(01h)

***Disable Han Xin**
(00h)

Han Xin Inverse

SSI # F8h 04h 90h
Parameter # 1168
Select a Han Xin inverse decoder setting:
***Regular Only** - the decoder decodes Han Xin bar codes with normal reflectance only.
(00h)
Inverse Only - the decoder decodes Han Xin bar codes with inverse reflectance only.
(01h)
Inverse Autodetect - the decoder decodes both regular and inverse Han Xin bar codes.
(02h)

OCR-A

SSI # F1h A8h
Parameter # 680
Enable or disable OCR-A:
Enable OCR-A
(01h)
***Disable OCR-A**
(00h)

OCR-B

SSI # F1h A9h
Parameter # 681
Enable or disable OCR-B:
Enable OCR-B
(01h)
***Disable OCR-B**
(00h)

MICR E13B

SSI # F1h AAh
Parameter # 682
Enable or disable MICR E13B.
Enable MICR E13B
(01h)
***Disable MICR E13B**
(00h)

US Currency

SSI # F1h ABh
Parameter # 683
Enable or disable US Currency Serial Number.
Enable US Currency
(01h)
***Disable US Currency**
(00h)

OCR-A Variant

SSI # F1h ACh
Parameter # 684
Font variant sets a processing algorithm and default character subset for the given font. Select one of the following supported variants. Selecting the most appropriate font variant optimizes performance and accuracy.
***OCR-A Full ASCII**
!"#$()*+,-./0123456789<>ABCDEFGHIJKLMNOPQRSTUVWXYZ\^
(00h)
OCR-A Reserved 1
$*+-./0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ
(01h)
OCR-A Reserved 2
$*+-./0123456789<>ABCDEFGHIJKLMNOPQRSTUVWXYZ
(02h)
OCR-A Banking
-0123456789<>
(03h)
NOTE Enable OCR-A before setting this parameter. If disabling OCR-A, set the variant to its default (OCR-A Full ASCII).

OCR-B Variant

SSI # F1h ADh
Parameter # 685
Font variant sets a processing algorithm and default character subset for the given font. Selecting the most appropriate font variant affects performance and accuracy.
***OCR-B Full ASCII**
!#$%()*+,-./0123456789<>ABCDEFGHIJKLMNOPQRSTUVWXYZ^|Ñ
(00h)
OCR-B Banking
#+-0123456789<>JNP|
(01h)
OCR-B Limited
+,-./0123456789<>ACENPSTVX
(02h)
OCR-B Travel Document Version 1 (TD1) 3-Line ID Cards
-0123456789<ABCDEFGHIJKLMNOPQRSTUVWXYZ
(03h)
OCR-B Passport
-0123456789<ABCDEFGHIJKLMNOPQRSTUVWXYZÑ
(04h)
OCR-B ISBN 10-Digit Book Numbers
-0123456789>BCEINPSXz
(06h)
OCR-B ISBN 10 or 13-Digit Book Numbers
-0123456789>BCEINPSXz
(07h)
OCR-B Travel Document Version 2 (TD2) 2-Line ID Cards
-0123456789<ABCDEFGHIJKLMNOPQRSTUVWXYZ

(08h)
OCR-B Visa Type A
-0123456789<ABCDEFGHIJKLMNOPQRSTUVWXYZ
(09h)
OCR-B Visa Type B
-0123456789<ABCDEFGHIJKLMNOPQRSTUVWXYZÑ
(0Ah)
OCR-B ICAO Travel Documents - This allows reading either TD1, TD2, Passport, Visa Type A, or Visa Type B without switching between these options. It automatically recognizes the travel document read.
(0Bh)
OCR-B Travel Document 2 or 3-Line ID Cards Auto-Detect
!#$%()*+,-./0123456789<>ABCDEFGHIJKLMNOPQRSTUVWXYZ^|Ñ
(14h)

OCR Subset

SSI # F1h AEh
Parameter # 686
Set an OCR subset to define a custom group of characters in place of a preset font variant. For example, if scanning only numbers and the letters A, B, and C, create a subset of just these characters to speed decoding. This applies a designated OCR Subset across all enabled OCR fonts.
To set or modify the OCR font subset, first enable the appropriate OCR font(s). Next, for this parameter, set a string of numbers and letters in the application to form the desired OCR Subset.
To cancel an OCR subset, for OCR-A or OCR-B, set OCR-A variant Full ASCII or OCR-B variant Full ASCII, and clear any previously set subsets to a null string.
For MICR E13B or US Currency Serial Number, create a subset which includes all allowed characters in that character set.

OCR Orientation

SSI # F1h AFh
Parameter # 687
Select one of five options to specify the orientation of an OCR string to be read. Setting an incorrect orientation can cause misdecodes.
***0 degree to the imaging engine**
(00h)
270 degrees clockwise to the imaging engine
(01h)
180 degrees to the imaging engine
(02h)
90 degrees clockwise to the imaging engine
(03h)
Omnidirectional
(04h)

OCR Check Digit Modulus

SSI # F1h B0h
Parameter # 688
This option sets OCR module check digit calculation. The check digit is the last digit (in the right most position) in an OCR string and improves the accuracy of the collected data. The check digit is the end product of a calculation made on the incoming data. For check digit calculation, for example Modulus 10, alpha and numeric characters are assigned numeric weights. The calculation is applied to the character weights and the resulting check digit is added to the end of the data. If the incoming data does not match the check digit, the data is considered corrupt.
To select the Check Digit Modulus, such as 10 for modulo 10, set this parameter to a three-digit number from 001 to 099 representing the check digit. The default is **1**.

OCR Minimum Characters

SSI # F1h B1h
Parameter # 689
Set the minimum number of OCR characters (not including spaces) per line to decode from 3 and 100. Strings of OCR characters less than the minimum are ignored. The default is **3**.

OCR Maximum Characters

SSI # F1h B2h
Parameter # 690
Set the maximum number of OCR characters (including spaces) per line to decode from 3 and 100. Strings of OCR characters greater than the maximum are ignored. The default is **100**.

OCR Lines

SSI # F1h B3h

Parameter # 691

Select the specific number of OCR lines to decode. Selecting Visas, TD1, or TD2 ID cards automatically sets the appropriate number of OCR Lines.

NOTE This parameter sets the exact number of lines to decode, not the minimum.

***Decode OCR 1 Line**
(01h)
Decode OCR 2 Lines
(02h)
Decode OCR 3 Lines
(03h)

OCR Check Digit Validation

SSI # F1h B6h

Parameter # 694

Use OCR Check Digit Validation to protect against scanning errors by applying a check digit validation scheme. Select one of the following options. See the remainder of this section for explanations of options.

***No Check Digit**
(00h)
Product Add Right to Left
(01h)
Digit Add Right to Left
(02h)
Product Add Left to Right
(03h)
Digit Add Left to Right
(04h)
Product Add Right to Left Simple Remainder
(05h)
Digit Add Right to Left Simple Remainder
(06h)
Health Industry - HIBCC43
(09h)

OCR Quiet Zone

SSI # F1h B7h

Parameter # 695

This option sets the OCR quiet zone. The decoder stops scanning a field when it detects a sufficiently wide blank space. The width of this space is defined by the End of Field option. Used with parsers that tolerate slanted characters, the End of Field count is roughly a count of 8 for a character width.

For example if set to 15, then two character widths are an end of line indicator for the parser. Larger end of field numbers require bigger quiet zones at each end of text line.

Set a quiet zone in the range of 20 - 99. The default is **50**, indicating a six character width quiet zone.

OCR Check Digit Multiplier

SSI # F1h BCh

Parameter # 700

This option sets OCR check digit multipliers for the character positions. For check digit validation, each character in scanned data has an equivalent weight used in the check digit calculation. Zebra device OCR ships with the following weight equivalents:

0 = 0	A = 10	K = 20	U = 30
1 = 1	B = 11	L = 21	V = 31
2 = 2	C = 12	M = 22	W = 32
3 = 3	D = 13	N = 23	X = 33
4 = 4	E = 14	O = 24	Y = 34
5 = 5	F = 15	P = 25	Z = 35
6 = 6	G = 16	Q = 26	Space = 0
7 = 7	H = 17	R = 27	
8 = 8	I = 18	S = 28	
9 = 9	J = 19	T = 29	

All other characters are equivalent to one (1).

To set the check digit multiplier, set numbers and letters to form the multiplier string. The default is **121212121212**.

Inverse OCR

SSI # F2h 58h

Parameter # 856
Inverse OCR is white or light words on a black or dark background. Set an option for decoding inverse OCR.
***Regular Only -** decode regular OCR (black on white) strings only.
(00h)
Inverse Only - decode inverse OCR (white on black) strings only.
(01h)
Autodiscriminate - decodes both regular and inverse OCR strings.
(02h)

OCR User Template

SSI # F1h 23h
Parameter # 547
This option creates a template for precisely matching scanned OCR characters to a desired input format.
Carefully constructing an OCR template eliminates scanning errors.
To set or modify the OCR decode template, select the following numbers and letters to form the template expression. The default is **99999999** which accepts eight digit character OCR strings. See the remainder of this section for explanations of options.

- **9 - Required Digit**
- **A - Required Alpha**
- **1 - Optional Alphanumeric**
- **2 - Optional Alpha**
- **3 - Alpha or Digit**
- **4 - Any Including Space & Reject**
- **5 - Any Except Space & Reject**
- **7 - Optional Digit**
- **8 - Digit or Fill**
- **F - Alpha or Fill**
- ( ) [space] **- Optional Space**

Other template operators:

- **" - Literal String**
- **+ - Literal String**
- **E - New Line**
- **C - String Extract**
- **D - End of Field**
- **P1 - Skip Until**
- **P0 - Skip Until Not**
- **R - Repeat Previous**
- **S - Scroll Until Match**

Trigger Modes
SSI # 8Ah
Parameter # 138

Select a trigger mode:
***Level -** A trigger event activates decode processing, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(00h)
Continuous Mode - A trigger event activates activates decode processing, which continues until the trigger event ends.
(07h)
Presentation Mode - When the imager engine detects an object in its field of view, it triggers and attempts to decode. The range of object detection does not vary under normal lighting conditions. This applies to decode mode only.
(08h)
Auto Aim - This trigger mode turns on the red laser aiming pattern when the imager engine senses motion. A trigger pull activates decode processing. After 2 seconds of inactivity the red laser aiming pattern automatically shuts off.
(09h)
Read On Second Scan – When the first trigger event occurred, it only truns on the red laser aiming pattern, the decode processing will be started after the second trigger event occurred, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(0Ah)

Picklist Mode
SSI # F0h 92h
Parameter # 402

Picklist mode enables the decoder to decode only bar codes aligned under the center of the aiming pattern. Select one of the following picklist modes:

***Disabled Always** - Picklist mode is always disabled.
(00h)
Enabled Always - Picklist mode is always enabled.
(01h)

Decode Session Timeout
SSI # 88h
Parameter # 136

This parameter sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.5 to 9.9 seconds. The default timeout is 9.9 seconds.

Mobile Phone/Display Mode
SSI # F1h CCh
Parameter # 716

This mode improves bar code reading performance with target bar codes displayed on mobile phones and electronic displays.

***Disable Mobile Phone/Display Mode**
(00h)
Enable Mobile Phone/Display Mode
(01h)

Multi Decode Mode
SSI # F2h 84h
Parameter # 900

This mode enables decoding multiple bar codes within the scanner's field of view. Select one of the following options:

***Disable Multi Decode Mode**
(00h)
Enable Multi Decode Mode
(01h)

Multi Decode Full Read
SSI # F2h 85h
Parameter # 901

Select when to generate a decode event to the calling application when **Multi Decode Mode** is enabled.
One or more bar codes
(00h)

At least the number of bar codes set in *Multi Decode Count
(01h)

Multi Decode Count
SSI # F2h 86h
Parameter # 902

This parameter sets the number of bar codes to read when **Multi Decode Mode** is enabled. The range is 1 to 10 bar codes. The default is **1**.

Timeout Between Decodes, Same Symbol
SSI # 89h
Parameter # 137

Use this option in presentation mode to prevent multiple reads of a symbol left in the imager engine's field of view. The timeout begins when you remove the symbol from the field of view.
Set the timeout between decodes for the same symbol, available in 0.1 second increments from 0.0 to 9.9 seconds. The default interval is 0.6 seconds. For example, to set this timeout to 0.5 seconds, enter a value

of 5. To set a timeout of 2.5 seconds, enter the value 25.

Transmit “No Read” Message
SSI # 5Eh
Parameter # 94

Select whether or not to transmit a No Read message.

***Disable No Read -** the decoder sends nothing to the host if a symbol does not decode.
(00h)
Enable No Read - the decoder sends the characters No Read when a successful decode does not occur before trigger release or the **Decode Session Timeout** expires.
(01h)

Illumination Power Level
SSI # F1h FCh
Parameter # 764

This parameter sets the level of illumination by altering laser/LED power. For values from 0 to 10, illumination varies from lowest to highest level. This parameter affects both decoding and motion illumination.
The default is 2.

Transmit Code ID Character

SSI # 2Dh
Parameter # 45

A Code ID character identifies the code type of a scanned bar code. This is useful when decoding more than one code type. In addition to any single character prefix already selected, the Code ID character is inserted between the prefix and the decoded symbol.
Symbol Code ID Character
(02h)
AIM Code ID Character
(01h)
***None**
(00h)

Redundancy Level

SSI # 4Eh
Parameter # 78

The decoder offers four levels of decode redundancy. Select higher redundancy levels for decreasing levels of bar code quality. As redundancy levels increase, the decoder’s aggressiveness decreases.
Select the redundancy level appropriate for the bar code quality:

***Redundancy Level 1 -** The decoder must read the following code types twice before decoding:

- Codabar (8 characters or less)
- MSI (4 characters or less)
- D 2 of 5 (8 characters or less)
- I 2 of 5 (8 characters or less)

(01h)
Redundancy Level 2 - The decoder must read all code types twice before decoding.
(02h)
Redundancy Level 3 - The decoder must read code types other than the following twice before decoding, but must read the following codes three times:

- Codabar (8 characters or less)
- MSI (4 characters or less)
- D 2 of 5 (8 characters or less)
- I 2 of 5 (8 characters or less)

(03h)
Redundancy Level 4 - The decoder must read all code types three times before decoding.
(04h)

6.3.2. Honeywell Engine

UPC/EAN

Enable/Disable UPC-A
SSI # 01h
Parameter # 1
To enable or disable UPC-A.

***Enable UPC-A**
(01h)
Disable UPC-A
(00h)

Enable/Disable UPC-E
SSI # 02h
Parameter # 2
To enable or disable UPC-E.

***Enable UPC-E**
(01h)
Disable UPC-E
(00h)

Enable/Disable UPC-E1
SSI # 0Ch
Parameter # 12
UPC-E1 is disabled by default.
To enable or disable UPC-E1.
Enable UPC-E1
(01h)

***Disable UPC-E1**
(00h)

Enable/Disable EAN-8
SSI # 04h
Parameter # 4
To enable or disable EAN-8.

***Enable EAN-8**
(01h)
Disable EAN-8
(00h)

Enable/Disable EAN-13
SSI # 03h
Parameter # 3
To enable or disable EAN-13.

***Enable EAN-13**
(01h)
Disable EAN-13
(00h)

Transmit UPC-A Check Digit
SSI # 28h
Parameter # 40
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-A Check Digit**
(01h)
Do Not Transmit UPC-A Check Digit
(00h)

Transmit UPC-E Check Digit
SSI # 29h

Parameter # 41
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-E Check Digit**
(01h)
Do Not Transmit UPC-E Check Digit
(00h)

UPC-A Preamble

SSI # 22h
Parameter # 34
To enable or disable transmit System Character along with the UPC-A bar code data.
Disable transmit System Character
(00h)

***Enable transmit System Character**
(01h)

UPC-E Preamble

SSI # 23h
Parameter # 35
To enable or disable transmit System Character along with the UPC-E bar code data.
Disable transmit System Character
(00h)

***Enable transmit System Character**
(01h)

Convert UPC-E to UPC-A

SSI # 25h
Parameter # 37
Enable this to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, the data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).
Disable this to transmit UPC-E decoded data as UPC-E data, without conversion.
Convert UPC-E to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E to UPC-A (Disable)**
(00h)

UCC Coupon Extended Code

SSI # 55h
Parameter # 85
Enable this parameter to decode UPC-A bar codes starting with digit '5', EAN-13 bar codes starting with digit '99', and UPC-A/GS1-128 Coupon Codes. UPCA, EAN-13, and GS1-128 must be enabled to scan all types of Coupon Codes.
Enable UCC Coupon Extended Code
(01h)

***Disable UCC Coupon Extended Code**
(00h)

UPC-A 2 Digit Addenda

SSI # FA B9h
Parameter # 3001
To enable or disable UPC-A 2 digit addenda.
Enable UPC-A 2 digit Addenda
(01h)
***Disable UPC-A 2 digit Addenda**
(00h)

UPC-A 5 Digit Addenda

SSI # FA BAh
Parameter # 3002
To enable or disable UPC-A 5 digit addenda.
Enable UPC-A 5 digit Addenda
(01h)
***Disable UPC-A 5 digit Addenda**

(00h)

UPC-A Addenda Required

SSI # FA BBh
Parameter # 3003
To enable or disable UPC-A addenda required.
Enable UPC-A Addenda Required
(01h)
***Disable UPC-A Addenda Required**
(00h)

UPC-A Addenda Separator

SSI # FA BCh
Parameter # 3004
To enable or disable UPC-A addenda separator.
Enable UPC-A Addenda Separator
(01h)
***Disable UPC-A Addenda Separator**
(00h)

UPC-E 2 Digit Addenda

SSI # FA BDh
Parameter # 3005
To enable or disable UPC-E 2 digit addenda.
Enable UPC-E 2 digit Addenda
(01h)
***Disable UPC-E 2 digit Addenda**
(00h)

UPC-E 5 Digit Addenda

SSI # FA BEh
Parameter # 3006
To enable or disable UPC-E 5 digit addenda.
Enable UPC-E 5 digit Addenda
(01h)
***Disable UPC-E 5 digit Addenda**
(00h)

UPC-E Addenda Required

SSI # FA BFh
Parameter # 3007
To enable or disable UPC-E addenda required.
Enable UPC-E Addenda Required
(01h)
***Disable UPC-E Addenda Required**
(00h)

UPC-E Addenda Separator

SSI # FA C0h
Parameter # 3008
To enable or disable UPC-E addenda separator.
Enable UPC-E Addenda Separator
(01h)
***Disable UPC-E Addenda Separator**
(00h)

EAN-8 2 Digit Addenda

SSI # FA C1h
Parameter # 3009
To enable or disable EAN-8 2 digit addenda.
Enable EAN-8 2 digit Addenda
(01h)

***Disable EAN-8 2 digit Addenda**
(00h)

EAN-8 5 Digit Addenda

SSI # FA C2h
Parameter # 3010
To enable or disable EAN-8 5 digit addenda.
Enable EAN-8 5 digit Addenda
(01h)
***Disable EAN-8 5 digit Addenda**
(00h)

EAN-8 Addenda Required

SSI # FA C3h
Parameter # 3011
To enable or disable EAN-8 addenda required.
Enable EAN-8 Addenda Required
(01h)
***Disable EAN-8 Addenda Required**
(00h)

EAN-8 Addenda Separator

SSI # FA C4h
Parameter # 3012
To enable or disable EAN-8 addenda separator.
Enable EAN-8 Addenda Separator
(01h)
***Disable EAN-8 Addenda Separator**
(00h)

EAN-13 2 Digit Addenda

SSI # FA C5h
Parameter # 3013
To enable or disable EAN-13 2 digit addenda.
Enable EAN-13 2 digit Addenda
(01h)
***Disable EAN-13 2 digit Addenda**
(00h)

EAN-13 5 Digit Addenda

SSI # FA C6h
Parameter # 3014
To enable or disable EAN-13 5 digit addenda.
Enable EAN-13 5 digit Addenda
(01h)
***Disable EAN-13 5 digit Addenda**
(00h)

EAN-13 Addenda Required

SSI # FA C7h
Parameter # 3015
To enable or disable EAN-13 addenda required.
Enable EAN-13 Addenda Required
(01h)
***Disable EAN-13 Addenda Required**
(00h)

EAN-13 Addenda Separator

SSI # FA C8h
Parameter # 3016
To enable or disable EAN-13 addenda separator.
Enable EAN-13 Addenda Separator

(01h)
***Disable EAN-13 Addenda Separator**
(00h)

EAN-8 Transmit Check Digit

SSI # FA C9h
Parameter # 3017
To enable or disable EAN-8 transmit Check Digit.
***Enable EAN-8 Transmit Check Digit**
(01h)
Disable EAN-8 Transmit Check Digit
(00h)

EAN-13 Transmit Check Digit

SSI # FA CAh
Parameter # 3018
To enable or disable EAN-13 transmit Check Digit.
***Enable EAN-13 Transmit Check Digit**
(01h)
Disable EAN-13 Transmit Check Digit
(00h)

Convert UPC-A to EAN-13

SSI # FA CFh
Parameter # 3023
Enable this to convert UPC-A decoded data to EAN-13 format before transmission.
Convert UPC-A to EAN-13 (Enable)
(01h)
***Do Not Convert UPC-A to EAN-13 (Disable)**
(00h)

Code 128

Enable/Disable Code 128

SSI # 08h
Parameter # 8
To enable or disable Code 128.

***Enable Code 128**
(01h)
Disable Code 128
(00h)

Set Lengths for Code 128

Min = Parameter # 209
SSI # D1h
[Range: 0..80]
Default: 0
Max = Parameter # 210
SSI # D2h
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 128 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 128 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Enable/Disable GS1-128

SSI # 0Eh
Parameter # 14
To enable or disable GS1-128.

***Enable GS1-128**

(01h)
Disable GS1-128
(00h)

ISBT 128

SSI # 54h
Parameter # 84
ISBT 128 is a variant of Code 128 used in the blood bank industry. If necessary, the host must perform concatenation of the ISBT data.

***Enable ISBT 128**
(01h)
Disable ISBT 128
(00h)

Code 39

Enable/Disable Code 39

SSI # 00h
Parameter # 0
To enable or disable Code 39.

***Enable Code 39**
(01h)
Disable Code 39
(00h)

Enable/Disable Trioptic Code 39

SSI # 0Dh
Parameter # 13
Trioptic Code 39 is a variant of Code 39 used in the marking of computer tape cartridges. Trioptic Code 39 symbols always contain six characters. To enable or disable Trioptic Code 39.
Enable Trioptic Code 39
(01h)

***Disable Trioptic Code 39**
(00h)
NOTE You cannot enable Trioptic Code 39 and Code 39 Full ASCII simultaneously.

Convert Code 39 to Code 32

SSI # 56h
Parameter # 86
Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry.
Enable Convert Code 39 to Code 32
(01h)

***Disable Convert Code 39 to Code 32**
(00h)
NOTE Code 39 must be enabled for this parameter to function.

Set Lengths for Code 39

Min = Parameter # 18
SSI # 12h
[Range: 0..48]
Default: 0
Max = Parameter # 19
SSI # 13h
[Range: 0..48]
Default: 48
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 39 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 39 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 39 Check Digit Verification

SSI # 30h

Parameter # 48
Enable this feature to check the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only Code 39 symbols which include a modulo 43 check digit are decoded. Enable this feature if the Code 39 symbols contain a Modulo 43 check digit.
Enable Code 39 Check Digit
(01h)
***Disable Code 39 Check Digit**
(00h)

Code 39 Full ASCII Conversion

SSI # 11h
Parameter # 17
Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.
Enable Code 39 Full ASCII
(01h)
***Disable Code 39 Full ASCII**
(00h)
NOTE You cannot enable Trioptic Code 39 and Code 39 Full ASCII simultaneously.

Code 93

Enable/Disable Code 93

SSI # 09h
Parameter # 9
To enable or disable Code 93.
Enable Code 93
(01h)
***Disable Code 93**
(00h)

Set Lengths for Code 93

Min = Parameter # 26
SSI # 1Ah
[Range: 0..80]
Default: 0
Max = Parameter # 27
SSI # 1Bh
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 93 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 93 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 11

Code 11

SSI # 0Ah
Parameter # 10
To enable or disable Code 11.
Enable Code 11
(01h)
***Disable Code 11**
(00h)

Set Lengths for Code 11

Min = Parameter # 28
SSI # 1Ch
[Range: 0..80]
Default: 4

Max = Parameter # 29
SSI # 1Dh
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 11 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 11 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 11 Check Digit Verification

SSI # 34h
Parameter # 52
This feature allows the decoder to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for single check digit, check for double check digits, check for single check digit but not transmit the check digit, or check for double check digits but not transmit the check digits.
Double Check
(00h)
Single Check
(01h)
***Double Check and Strip Digit**
(02h)
Single Check and Strip Digit
(03h)

Interleaved 2 of 5 (ITF)

Enable/Disable Interleaved 2 of 5

SSI # 06h
Parameter # 6
To enable or disable Interleaved 2 of 5.
***Enable Interleaved 2 of 5**
(01h)
Disable Interleaved 2 of 5
(00h)

Set Lengths for Interleaved 2 of 5

Min = Parameter # 22
SSI # 16h
[Range: 2..80]
Default: 4
Max = Parameter # 23
SSI # 17h
[Range: 2..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only I 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode I 2 of 5 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Interleaved 2 of 5 Check Digit Verification

SSI # 31h
Parameter # 49
Enable this feature to check the integrity of all I 2 of 5 symbols to verify that the data complies with the check digit algorithm. This selects the check digit mechanism for the decoded I 2 of 5 bar code. The options are to not check for check digit, check for single check digit, or check for single check digit but not transmit the check digit.

***No check**
(00h)
Check Digit
(01h)
Check and Strip Digit
(02h)

Codabar (NW - 7)

Enable/Disable Codabar

SSI # 07h
Parameter # 7
To enable or disable Codabar.

***Enable Codabar**
(01h)
Disable Codabar
(00h)

Set Lengths for Codabar

Min = Parameter # 24
SSI # 18h
[Range: 2..60]
Default: 4
Max = Parameter # 25
SSI # 19h
[Range: 2..60]
Default: 60
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Codabar codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Codabar codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

NOTIS Editing

SSI # 37h
Parameter # 55
Enable this parameter to strip the start and stop characters from a decoded Codabar symbol. Enable this feature if the host system requires this data format.

***Enable NOTIS Editing**
(01h)
Disable NOTIS Editing
(00h)

MSI

Enable/Disable MSI

SSI # 0Bh
Parameter # 11
To enable or disable MSI.
Enable MSI
(01h)

***Disable MSI**
(00h)

Set Lengths for MSI

Min = Parameter # 30
SSI # 1Eh
[Range: 4..48]
Default: 4
Max = Parameter # 31
SSI # 1Fh
[Range: 4..48]
Default: 48
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only MSI codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode MSI codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

MSI Check Digit Algorithm

SSI # 33h
Parameter # 51
Enable this feature to check the integrity of all MSI symbols to verify that the data complies with the check digit algorithm. This selects the check digit mechanism for the decoded MSI bar code. The options are to not check for check digit, check for modulo 10 check digit, check for modulo 11 plus modulo 10 check digits, check for double modulo 10 check digits, check for modulo 10 check digit but not transmit the check digit, check for modulo 11 plus modulo 10 check digits but not transmit the check digits, or check for double modulo 10 check digits but not transmit the check digits.

***No check**
(00h)
Check Modulo 10
(01h)
Check Modulo 11 plus 10
(02h)
Double Check Modulo 10
(03h)
Check and Strip Modulo 10
(05h)
Check and Strip Modulo 11 plus 10
(06h)
Double Check and Strip Modulo 10
(07h)

Matrix 2 of 5

Enable/Disable Matrix 2 of 5

SSI # F1h 6Ah
Parameter # 618
To enable or disable Matrix 2 of 5.
Enable Matrix 2 of 5
(01h)

***Disable Matrix 2 of 5**
(00h)

Set Lengths for Matrix 2 of 5

Min = Parameter # 619
SSI # F1h 6Bh
[Range: 1..80]
Default: 4
Max = Parameter # 620
SSI # F1h 6Ch
[Range: 1..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Matrix 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Matrix 2 of 5 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Postal Codes

US Postnet

SSI # 59h
Parameter # 89
To enable or disable US Postnet.
Enable US Postnet
(01h)

***Disable US Postnet**
(00h)

US Planet

SSI # 5Ah
Parameter # 90

To enable or disable US Planet.
Enable US Planet
(01h)
***Disable US Planet**
(00h)

Japan Postal

SSI # F0h, 22h
Parameter # 290
To enable or disable Japan Postal.
Enable Japan Postal
(01h)
***Disable Japan Postal**
(00h)

Australia Post

SSI # F0h, 23h
Parameter # 291
To enable or disable Australia Post.
Enable Australia Post
(01h)
***Disable Australia Post**
(00h)

Netherlands KIX Code

SSI # F0h, 46h
Parameter # 326
To enable or disable Netherlands KIX Code.
Enable USPS 4CB/One Code/Intelligent Mail
(01h)
***Disable USPS 4CB/One Code/Intelligent Mail**
(00h)

USPS 4CB/One Code/Intelligent Mail

SSI # F1h 50h
Parameter # 592
To enable or disable USPS 4CB/One Code/Intelligent Mail.
Enable Netherlands KIX Code
(01h)
***Disable Netherlands KIX Code**
(00h)

UPU FICS Postal

SSI # F1h 63h
Parameter # 611
To enable or disable UPU FICS Postal.
Enable UPU FICS Postal
(01h)
***Disable UPU FICS Postal**
(00h)

GS1 DataBar

SSI # F0h 52h
Parameter # 338
Enable or disable GS1 DataBar:
***Enable GS1 DataBar**
(01h)
Disable GS1 DataBar
(00h)

GS1 DataBar Limited
SSI # F0h 53h
Parameter # 339
Enable or disable GS1 DataBar Limited:

***Enable GS1 DataBar Limited**
(01h)
Disable GS1 DataBar Limited
(00h)

GS1 DataBar Expanded
SSI # F0h 54h
Parameter # 340
Enable or disable GS1 DataBar Expanded:

***Enable GS1 DataBar Expanded**
(01h)
Disable GS1 DataBar Expanded
(00h)

Composite

Composite CC-C
SSI # F0h 55h
Parameter # 341
Enable or disable Composite bar codes of type CC-C.
Enable CC-C
(01h)

***Disable CC-C**
(00h)

Composite TLC-39
SSI # F0h 73h
Parameter # 371
Enable or disable Composite bar codes of type TLC-39.
Enable TLC39
(01h)

***Disable TLC39**
(00h)

2D Symbologies

Enable/Disable PDF417
SSI # 0Fh
Parameter # 15
To enable or disable PDF417.

***Enable PDF417**
(01h)
Disable PDF417
(00h)

Enable/Disable MicroPDF417
SSI # E3h
Parameter # 227
To enable or disable MicroPDF417.
Enable MicroPDF417
(01h)

***Disable MicroPDF417**
(00h)

Data Matrix
SSI # F0h, 24h

Parameter # 292
To enable or disable Data Matrix.

***Enable Data Matrix**
(01h)
Disable Data Matrix
(00h)

Data Matrix Symbol Size

SSI # FA D5h
Parameter # 3029
This feature controls how aggressiveness the decoder is toward Data Matrix bar codes to help decoding small Data Matrix bar codes bit easier. Options are:
Normal
(00h)

***Small**
(01h)
Very Small
(02h)

Maxicode

SSI # F0h 26h
Parameter # 294
To enable or disable Maxicode.

***Enable Maxicode**
(01h)
Disable Maxicode
(00h)

QR Code

SSI # F0h 25h
Parameter # 293
To enable or disable QR Code.

***Enable QR Code**
(01h)
Disable QR Code
(00h)

Aztec

SSI # F1h 3Eh
Parameter # 574
To enable or disable Aztec.

***Enable Aztec**
(01h)
Disable Aztec
(00h)

Han Xin

SSI # F8h 04h 8Fh
Parameter # 1167
To enable or disable Han Xin.
Enable Han Xin
(01h)

***Disable Han Xin**
(00h)

Dot Code

SSI # FA CBh
Parameter # 3019
To enable or disable Dot Code.
***Enable Dot Code**
(01h)
Disable Dot Code
(00h)

Trigger Modes
SSI # 8Ah
Parameter # 138
Select a trigger mode:
***Level -** A trigger event activates aimer and illumination and start decode processing, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(00h)
Continuous Mode - A trigger event activates activates decode processing, which continues until the trigger event ends.
(07h)
Aim Only – Similar to **Level**, but illumination will not be activated when starting decode process.
(09h)
Read On Second Scan – When the first trigger event occurred, it only truns on the red laser aiming pattern, the decode processing will be started after the second trigger event occurred, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(0Ah)

Picklist Mode
SSI # F0h 92h
Parameter # 402
Picklist mode enables the decoder to decode only bar codes touched by the decode window defined by **UpperLeftWindowX**, **UpperLeftWindowY**, **LowerRightWindowX**, and **LowerRightWindowY**, or the bar codes aligned near the center of the aiming pattern. Select one of the following picklist modes:

***Disabled Always** - Picklist mode is always disabled.
(00h)
Enabled Always - Picklist mode is always enabled.
(01h)

Picklist Mode Configuration
SSI # FA D0h
Parameter # 3024
This feature controls the behavior of the decoder when **Picklist Mode** is enabled. Select one of the following picklist mode configurations:
Around Aimer - pick the bar code aligned near the center of the aiming pattern to be outputed.
(00h)
Field of View - pick the bar code touched by the decode window defined by **UpperLeftWindowX**, **UpperLeftWindowY**, **LowerRightWindowX**, and **LowerRightWindowY** to be outputed.
(01h)

UpperLeftWindowX
SSI # FA D1h
Parameter # 3025
To set the X axis of the upper left corner of the decode window.
NOTE in order to take effect, this value must set between the UpperLeft_X_Min (0) and UpperLeft_X_Max (830), and can not be bigger than LowerRightWindowX.

UpperLeftWindowY
SSI # FA D2h
Parameter # 3026
To set the Y axis of the upper left corner of the decode window.
NOTE in order to take effect, this value must set between the UpperLeft_Y_Min (0) and UpperLeft_Y_Max (638), and can not be bigger than LowerRightWindowY.

LowerRightWindowX
SSI # FA D3h
Parameter # 3027
To set the X axis of the lower right corner of the decode window.
NOTE in order to take effect, this value must set between the LowerRight_X_Min (1) and LowerRight_X_Max (831), and can not be smaller than UpperLeftWindowX.

LowerRightWindowY
SSI # FA D4h
Parameter # 3028
To set the Y axis of the lower right corner of the decode window.
NOTE in order to take effect, this value must set between the LowerRight_Y_Min (1) and LowerRight_Y_Max (639), and can not be smaller than UpperLeftWindowY.

Decode Session Timeout
SSI # 88h
Parameter # 136
This parameter sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.1 to 9.9 seconds. The default timeout is 9.9 seconds.

Multi Decode Mode
SSI # F2h 84h
Parameter # 900
This mode enables decoding multiple bar codes within the scanner's field of view. Select one of the following options:

***Disable Multi Decode Mode**
(00h)
Enable Multi Decode Mode
(01h)

Multi Decode Count
SSI # F2h 86h
Parameter # 902
This parameter sets the number of bar codes to read when **Multi Decode Mode** is enabled. The range is 1 to 10 bar codes. The default is 2.

Transmit "No Read" Message
SSI # 5Eh
Parameter # 94
Select whether or not to transmit a No Read message.

***Disable No Read -** the decoder sends nothing to the host if a symbol does not decode.
(00h)
Enable No Read - the decoder sends the characters No Read when a successful decode does not occur before trigger release or the **Decode Session Timeout** expires.
(01h)

Transmit Code ID Character
SSI # 2Dh
Parameter # 45
A Code ID character identifies the code type of a scanned bar code. This is useful when decoding more than one code type. In addition to any single character prefix already selected, the Code ID character is inserted between the prefix and the decoded symbol.
Symbol Code ID Character
(02h)
AIM Code ID Character
(01h)
***None**
(00h)

OCR Enable
SSI # FA CCh
Parameter # 3020
To enable or disable OCR.
Enable OCR
(01h)
***Disable OCR**
(00h)

OCR Mode

SSI # FA CDh
Parameter # 3021
To selsct OCR mode.
OCR Normal Video
(01h)
OCR Inverse
(02h)
***OCR Both**
(03h)

OCR Template

SSI # FA CEh
Parameter # 3022
To select OCR template.
User Defined
(01h)
***Passport**
(02h)
ISBN
(04h)
Price Field
(08h)
MICR E13B
(10h)
OCR A
(11h)
OCR B
(12h)
OCR A + B
(13h)

OCR User Template

SSI # F1h 23h
Parameter # 547
This option creates a custom template, or character string that defines the length and content of OCR strings that will be read with the scanner. The templates define the OCR font as well as the layout of the text in a row and column format. Each row can have up to 50 characters, with up to 18 rows in a template, with a maximum of 320 characters. Within each character position, the allowable characters can be specified either through explicit ASCII values, groups of ASCII values, wildcard characters, or combinations of these types. To achieve better OCR results, limit each character position's values to the specific expected values in your application. The default is **1,3,7,7,7,7,7,7,7,0** which accepts seven digit or alpabet character OCR A + B strings. The following table shows the accept control code value and argument.

Control Code	Value	Argument
End of Template	0	N/A
New Template	1	Font: 1 - OCR-A 2 - OCR-B 3 - Both A & B 4 - MICR 5 - Semi
New Line	2	N/A
Define Group Start	3	ID [001-255]
Define Group End	4	N/A
Wildcard: Numeric [0-9]	5	Repeat: E - Fixed Character Repeat (refer to "Fixed Character Repeat" below) F - Variable Character Repeat (refer to "Variable Character Repeat" below) No argument – no repeat
Wildcard: Alpha [A-Z uppercase]	6	Repeat: E - Fixed Character Repeat (refer to "Fixed Character Repeat" below) F - Variable Character Repeat (refer to "Variable Character Repeat" below) No argument – no repeat
Wildcard: Alphanumeric [0-9]	7	Repeat:

[A-Z uppercase]		E - Fixed Character Repeat (refer to “Fixed Character Repeat” below) F - Variable Character Repeat (refer to “Variable Character Repeat” below) No argument – no repeat
Wildcard: Any (including space)	8	Repeat: E - Fixed Character Repeat (refer to “Fixed Character Repeat” below) F - Variable Character Repeat (refer to “Variable Character Repeat” below) No argument – no repeat
Defined Group	A	ID [001-255]
In Line Group Start	B	N/A
In Line Group End	C	N/A
Checksum	D	Weights, Type, MOD
Fixed Character Repeat	E	[01-50]
Variable Character Repeat	F	Range Low [01-50], Range High [01-50]
ASCII Hex Value (2 digits)	x##	N/A

NOTE For USS V2.XX.XX, use singed byte for ASCII Hex Value; for USS V3.XX.XX, use unsigned byte for ASCII Hex Value.

6.3.3. EX25 Engine

UPC/EAN

Enable/Disable UPC-A

SSI # 01h
Parameter # 1
To enable or disable UPC-A.

***Enable UPC-A**
(01h)
Disable UPC-A
(00h)

Enable/Disable UPC-E

SSI # 02h
Parameter # 2
To enable or disable UPC-E.

***Enable UPC-E**
(01h)
Disable UPC-E
(00h)

Enable/Disable UPC-E1

SSI # 0Ch
Parameter # 12
UPC-E1 is disabled by default.
To enable or disable UPC-E1.
Enable UPC-E1
(01h)
***Disable UPC-E1**
(00h)

Enable/Disable EAN-8

SSI # 04h
Parameter # 4
To enable or disable EAN-8.

***Enable EAN-8**
(01h)
Disable EAN-8
(00h)

Enable/Disable EAN-13

SSI # 03h
Parameter # 3

To enable or disable EAN-13.

***Enable EAN-13**
(01h)
Disable EAN-13
(00h)

Transmit UPC-A Check Digit

SSI # 28h
Parameter # 40
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-A Check Digit**
(01h)
Do Not Transmit UPC-A Check Digit
(00h)

Transmit UPC-E Check Digit

SSI # 29h
Parameter # 41
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.

***Transmit UPC-E Check Digit**
(01h)
Do Not Transmit UPC-E Check Digit
(00h)

UPC-A Preamble

SSI # 22h
Parameter # 34
To enable or disable transmit System Character along with the UPC-A bar code data.
Disable transmit System Character
(00h)

***Enable transmit System Character**
(01h)

UPC-E Preamble

SSI # 23h
Parameter # 35
To enable or disable transmit System Character along with the UPC-E bar code data.
Disable transmit System Character
(00h)

***Enable transmit System Character**
(01h)

Convert UPC-E to UPC-A

SSI # 25h
Parameter # 37
Enable this to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, the data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).
Disable this to transmit UPC-E decoded data as UPC-E data, without conversion.
Convert UPC-E to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E to UPC-A (Disable)**
(00h)

UPC-A 2 Digit Addenda

SSI # FA B9h
Parameter # 3001
To enable or disable UPC-A 2 digit addenda.
Enable UPC-A 2 digit Addenda
(01h)
***Disable UPC-A 2 digit Addenda**

(00h)

UPC-A 5 Digit Addenda

SSI # FA BAh
Parameter # 3002
To enable or disable UPC-A 5 digit addenda.
Enable UPC-A 5 digit Addenda
(01h)
***Disable UPC-A 5 digit Addenda**
(00h)

UPC-A Addenda Required

SSI # FA BBh
Parameter # 3003
To enable or disable UPC-A addenda required.
Enable UPC-A Addenda Required
(01h)
***Disable UPC-A Addenda Required**
(00h)

UPC-E 2 Digit Addenda

SSI # FA BDh
Parameter # 3005
To enable or disable UPC-E 2 digit addenda.
Enable UPC-E 2 digit Addenda
(01h)
***Disable UPC-E 2 digit Addenda**
(00h)

UPC-E 5 Digit Addenda

SSI # FA BEh
Parameter # 3006
To enable or disable UPC-E 5 digit addenda.
Enable UPC-E 5 digit Addenda
(01h)
***Disable UPC-E 5 digit Addenda**
(00h)

UPC-E Addenda Required

SSI # FA BFh
Parameter # 3007
To enable or disable UPC-E addenda required.
Enable UPC-E Addenda Required
(01h)
***Disable UPC-E Addenda Required**
(00h)

EAN-8 2 Digit Addenda

SSI # FA C1h
Parameter # 3009
To enable or disable EAN-8 2 digit addenda.
Enable EAN-8 2 digit Addenda
(01h)
***Disable EAN-8 2 digit Addenda**
(00h)

EAN-8 5 Digit Addenda

SSI # FA C2h
Parameter # 3010
To enable or disable EAN-8 5 digit addenda.
Enable EAN-8 5 digit Addenda
(01h)

***Disable EAN-8 5 digit Addenda**
(00h)

EAN-8 Addenda Required

SSI # FA C3h
Parameter # 3011
To enable or disable EAN-8 addenda required.
Enable EAN-8 Addenda Required
(01h)
***Disable EAN-8 Addenda Required**
(00h)

EAN-13 2 Digit Addenda

SSI # FA C5h
Parameter # 3013
To enable or disable EAN-13 2 digit addenda.
Enable EAN-13 2 digit Addenda
(01h)
***Disable EAN-13 2 digit Addenda**
(00h)

EAN-13 5 Digit Addenda

SSI # FA C6h
Parameter # 3014
To enable or disable EAN-13 5 digit addenda.
Enable EAN-13 5 digit Addenda
(01h)
***Disable EAN-13 5 digit Addenda**
(00h)

EAN-13 Addenda Required

SSI # FA C7h
Parameter # 3015
To enable or disable EAN-13 addenda required.
Enable EAN-13 Addenda Required
(01h)
***Disable EAN-13 Addenda Required**
(00h)

EAN-8 Transmit Check Digit

SSI # FA C9h
Parameter # 3017
To enable or disable EAN-8 transmit Check Digit.
***Enable EAN-8 Transmit Check Digit**
(01h)
Disable EAN-8 Transmit Check Digit
(00h)

EAN-13 Transmit Check Digit

SSI # FA CAh
Parameter # 3018
To enable or disable EAN-13 transmit Check Digit.
***Enable EAN-13 Transmit Check Digit**
(01h)
Disable EAN-13 Transmit Check Digit
(00h)

Code 128

Enable/Disable Code 128

SSI # 08h

Parameter # 8
To enable or disable Code 128.

***Enable Code 128**
(01h)
Disable Code 128
(00h)

Set Lengths for Code 128

Min = Parameter # 209
SSI # D1h
[Range: 0..80]
Default: 0
Max = Parameter # 210
SSI # D2h
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 128 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 128 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Enable/Disable GS1-128

SSI # 0Eh
Parameter # 14
To enable or disable GS1-128.

***Enable GS1-128**
(01h)
Disable GS1-128
(00h)

ISBT 128

SSI # 54h
Parameter # 84
ISBT 128 is a variant of Code 128 used in the blood bank industry. If necessary, the host must perform concatenation of the ISBT data.

***Enable ISBT 128**
(01h)
Disable ISBT 128
(00h)

Code 39

Enable/Disable Code 39

SSI # 00h
Parameter # 0
To enable or disable Code 39.

***Enable Code 39**
(01h)
Disable Code 39
(00h)

Set Lengths for Code 39

Min = Parameter # 18
SSI # 12h
[Range: 0..48]
Default: 0
Max = Parameter # 19
SSI # 13h
[Range: 0..48]
Default: 48
The length of a code refers to the number of characters (i.e., human readable characters), including check

digit(s) the code contains. To decode only Code 39 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 39 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 39 Check Digit Verification

SSI # 30h
Parameter # 48
Select which method the decoder will be calculating the check digit for Code 39 bar codes.

***No check**
(00h)
Modulo 43
(01h)
French CIP
(02h)
Italian CIP(Code 32)
(03h)

Transmit Code 39 Check Digit

SSI # 2Bh
Parameter # 43
Transmit Code 39 data with or without the check digit.
Transmit Code 39 Check Digit (Enable)
(01h)

***Do Not Transmit Code 39 Check Digit (Disable)**
(00h)
NOTE Code 39 Check Digit Verification must be enabled for this parameter to function.

Code 39 Full ASCII Conversion

SSI # 11h
Parameter # 17
Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.
Enable Code 39 Full ASCII
(01h)

***Disable Code 39 Full ASCII**
(00h)
NOTE You cannot enable Trioptic Code 39 and Code 39 Full ASCII simultaneously.

Code 93

Enable/Disable Code 93

SSI # 09h
Parameter # 9
To enable or disable Code 93.
Enable Code 93
(01h)

***Disable Code 93**
(00h)

Set Lengths for Code 93

Min = Parameter # 26
SSI # 1Ah
[Range: 0..80]
Default: 0
Max = Parameter # 27
SSI # 1Bh
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 93 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 93 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 11

Code 11
SSI # 0Ah
Parameter # 10
To enable or disable Code 11.
Enable Code 11
(01h)
***Disable Code 11**
(00h)

Set Lengths for Code 11
Min = Parameter # 28
SSI # 1Ch
[Range: 0..80]
Default: 4
Max = Parameter # 29
SSI # 1Dh
[Range: 0..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 11 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 11 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 11 Check Digit Verification
SSI # 34h
Parameter # 52
This feature allows the decoder to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for 1 check digit, or check for 2 check digits.

***1 Check Digit**
(01h)
2 Check Digits
(02h)

Transmit Code 11 Check Digits
SSI # 2Fh
Parameter # 47
This feature selects whether or not to transmit the Code 11 check digit(s).
Transmit Code 11 Check Digit(s) (Enable)
(01h)
***Do Not Transmit Code 11 Check Digit(s) (Disable)**
(00h)
NOTE Code 11 Check Digit Verification must be enabled for this parameter to function.

Interleaved 2 of 5 (ITF)

Enable/Disable Interleaved 2 of 5
SSI # 06h
Parameter # 6
To enable or disable Interleaved 2 of 5.
***Enable Interleaved 2 of 5**
(01h)
Disable Interleaved 2 of 5
(00h)

Set Lengths for Interleaved 2 of 5
Min = Parameter # 22
SSI # 16h

[Range: 2..80]
Default: 4
Max = Parameter # 23
SSI # 17h
[Range: 2..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only I 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode I 2 of 5 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

I 2 of 5 Check Digit Verification

SSI # 31h
Parameter # 49
Select which method the decoder will be calculating the check digit for I 2 of 5 bar codes.

***No check**
(00h)
Modulo 10
(01h)
French CIP HR
(02h)

Transmit Interleaved 2 of 5 Check Digit

SSI # 2Ch
Parameter # 44
Transmit I 2 of 5 data with or without the check digit.
Transmit I 2 of 5 Check Digit (Enable)
(01h)

***Do Not Transmit I 2 of 5 Check Digit (Disable)**
(00h)

Codabar (NW - 7)

Enable/Disable Codabar

SSI # 07h
Parameter # 7
To enable or disable Codabar.

***Enable Codabar**
(01h)
Disable Codabar
(00h)

Set Lengths for Codabar

Min = Parameter # 24
SSI # 18h
[Range: 2..60]
Default: 4
Max = Parameter # 25
SSI # 19h
[Range: 2..60]
Default: 60
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Codabar codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Codabar codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

CLSI Editing

SSI # 36h
Parameter # 54
Enable this parameter to strip the start and stop characters and insert a space after the first, fifth, and tenth characters of a 14-character Codabar symbol. Enable this feature if the host system requires this data format.
Enable CLSI Editing
(01h)

***Disable CLSI Editing**
(00h)
NOTE Symbol length does not include start and stop characters.

MSI

Enable/Disable MSI

SSI # 0Bh
Parameter # 11
To enable or disable MSI.
Enable MSI
(01h)
***Disable MSI**
(00h)

Set Lengths for MSI

Min = Parameter # 30
SSI # 1Eh
[Range: 4..48]
Default: 4
Max = Parameter # 31
SSI # 1Fh
[Range: 4..48]
Default: 48
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only MSI codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode MSI codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Transmit MSI Check Digit(s)

SSI # 2Eh
Parameter # 46
Select whether to transmit MSI data with or without the check digit.
Transmit MSI Check Digit(s) (Enable)
(01h)
***Do Not Transmit MSI Check Digit(s) (Disable)**
(00h)

MSI Check Digit Algorithm

SSI # 33h
Parameter # 51
Enable this feature to check the integrity of all MSI symbols to verify that the data complies with the check digit algorithm. This selects the check digit mechanism for the decoded MSI bar code. The options are check for modulo 10 check digit, or check for double modulo 10 check digits.

***Modulo 10**
(01h)
Double Modulo 10
(02h)

Matrix 2 of 5

Enable/Disable Matrix 2 of 5

SSI # F1h 6Ah
Parameter # 618
To enable or disable Matrix 2 of 5.
Enable Matrix 2 of 5
(01h)
***Disable Matrix 2 of 5**
(00h)

Set Lengths for Matrix 2 of 5

Min = Parameter # 619
SSI # F1h 6Bh
[Range: 4..80]
Default: 4
Max = Parameter # 620
SSI # F1h 6Ch
[Range: 4..80]
Default: 80
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Matrix 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Matrix 2 of 5 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Postal Codes

US Postnet

SSI # 59h
Parameter # 89
To enable or disable US Postnet.
Enable US Postnet
(01h)
***Disable US Postnet**
(00h)

US Planet

SSI # 5Ah
Parameter # 90
To enable or disable US Planet.
Enable US Planet
(01h)
***Disable US Planet**
(00h)

Japan Postal

SSI # F0h, 22h
Parameter # 290
To enable or disable Japan Postal.
Enable Japan Postal
(01h)
***Disable Japan Postal**
(00h)

Australia Post

SSI # F0h, 23h
Parameter # 291
To enable or disable Australia Post.
Enable Australia Post
(01h)
***Disable Australia Post**
(00h)

Netherlands KIX Code

SSI # F0h, 46h
Parameter # 326
To enable or disable Netherlands KIX Code.
Enable Netherlands KIX Code
(01h)
***Disable Netherlands KIX Code**
(00h)

GS1 DataBar
SSI # F0h 52h
Parameter # 338
Enable or disable GS1 DataBar:

***Enable GS1 DataBar**
(01h)
Disable GS1 DataBar
(00h)

GS1 DataBar Limited
SSI # F0h 53h
Parameter # 339
Enable or disable GS1 DataBar Limited:

***Enable GS1 DataBar Limited**
(01h)
Disable GS1 DataBar Limited
(00h)

GS1 DataBar Expanded
SSI # F0h 54h
Parameter # 340
Enable or disable GS1 DataBar Expanded:

***Enable GS1 DataBar Expanded**
(01h)
Disable GS1 DataBar Expanded
(00h)

Composite

Composite CC-C
SSI # F0h 55h
Parameter # 341
Enable or disable Composite bar codes of type CC-C.
Enable CC-C
(01h)

***Disable CC-C**
(00h)

Composite TLC-39
SSI # F0h 73h
Parameter # 371
Enable or disable Composite bar codes of type TLC-39.
Enable TLC39
(01h)

***Disable TLC39**
(00h)

2D Symbologies

Enable/Disable PDF417
SSI # 0Fh
Parameter # 15
To enable or disable PDF417.

***Enable PDF417**
(01h)
Disable PDF417
(00h)

Enable/Disable MicroPDF417

SSI # E3h
Parameter # 227
To enable or disable MicroPDF417.
Enable MicroPDF417
(01h)
***Disable MicroPDF417**
(00h)

Data Matrix
SSI # F0h, 24h
Parameter # 292
To enable or disable Data Matrix.
***Enable Data Matrix**
(01h)
Disable Data Matrix
(00h)

Maxicode
SSI # F0h 26h
Parameter # 294
To enable or disable Maxicode.
***Enable Maxicode**
(01h)
Disable Maxicode
(00h)

QR Code
SSI # F0h 25h
Parameter # 293
To enable or disable QR Code.
***Enable QR Code**
(01h)
Disable QR Code
(00h)

Aztec
SSI # F1h 3Eh
Parameter # 574
To enable or disable Aztec.
***Enable Aztec**
(01h)
Disable Aztec
(00h)

Han Xin
SSI # F8h 04h 8Fh
Parameter # 1167
To enable or disable Han Xin.
Enable Han Xin
(01h)
***Disable Han Xin**
(00h)

Trigger Modes
SSI # 8Ah
Parameter # 138
Select a trigger mode:
Continuous - A trigger event activates activates decode processing, which continues until the trigger event ends.
(00h)
***pulse -** A trigger event activates aimer and illumination and start decode processing, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(02h)

presentation – When the imager engine detects an object in its field of view, it triggers and attempts to decode. The range of object detection does not vary under normal lighting conditions. This applies to decode mode only.
(06h)

Decode Session Timeout
SSI # 88h
Parameter # 136
This parameter sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.1 to 9.9 seconds. The default timeout is 1.0 seconds.

Transmit "No Read" Message
SSI # 5Eh
Parameter # 94
Select whether or not to transmit a No Read message.

***Disable No Read -** the decoder sends nothing to the host if a symbol does not decode.
(00h)
Enable No Read - the decoder sends the characters No Read when a successful decode does not occur before trigger release or the **Decode Session Timeout** expires.
(01h)

Transmit Code ID Character
SSI # 2Dh
Parameter # 45
A Code ID character identifies the code type of a scanned bar code. This is useful when decoding more than one code type. In addition to any single character prefix already selected, the Code ID character is inserted between the prefix and the decoded symbol.

***None**
(00h)
AIM Code ID Character
(02h)

6.3.4. Newland Engine

UPC/EAN

Enable/Disable UPC-A
SSI # 01h
Parameter # 1
To enable or disable UPC-A.

***Enable UPC-A**
(01h)
Disable UPC-A
(00h)

Transmit UPC-A Check Digit
SSI # 28h
Parameter # 40
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.
Transmit UPC-A Check Digit
(01h)

***Do Not Transmit UPC-A Check Digit**
(00h)

UPC-A 2 Digit Add-On Code
SSI # FA B9h

Parameter # 3001
To enable or disable UPC-A 2 digit add-on.
Enable UPC-A 2 digit Add-On Code
(01h)
***Disable UPC-A 2 digit Add-On Code**
(00h)

UPC-A 5 Digit Add-On Code

SSI # FA BAh
Parameter # 3002
To enable or disable UPC-A 5 digit add-on.
Enable UPC-A 5 digit Add-On Code
(01h)
***Disable UPC-A 5 digit Add-On Code**
(00h)

UPC-A Add-On Code Required

SSI # FA BBh
Parameter # 3003
To enable or disable UPC-A add-on required.
Enable UPC-A Add-On Required
(01h)
***Disable UPC-A Add-On Required**
(00h)

UPC-A Preamble

SSI # 22h
Parameter # 34
Preamble characters are part of the UPC symbol, and include Country Code and System Character. There are three options for transmitting a UPC-A preamble to the host device: transmit System Character only, transmit System Character and Country Code ("0" for USA), and transmit no preamble. Select the appropriate option to match the host system.

***No Preamble (<DATA>)**
(00h)
System Character (<SYSTEM CHARACTER> <DATA>)
(01h)
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

Allow UPC-A + Coupon

SSI # 55h
Parameter # 85
Enable this parameter to decode UPC-A/GS1-128 Coupon Codes.
Enable UPC-A + Coupon
(01h)

***Disable UPC-A + Coupon**
(00h)

Need UPC-A + Coupon

SSI # FB 2Fh
Parameter # 3119
Enable this option will endure UPC-A/GS1-128 Coupon Codes be decoded as a whole; disable this option will make the engine be able to decod only the UPC-A part of the UPC-A/GS1-128 Coupon Codes.

***Disable Need UPC-A + Coupon**
(00h)
Enable Need UPC-A + Coupon
(01h)

Only GS1

SSI # FB 30h
Parameter # 3120
Enable or disable only output the GS1-128 part of the UPC-A/GS1-128 Coupon Codes.

*** Disable Only GS1**
(00h)
Enable Only GS1
(01h)

UPC-A number of codes when multiple codes are in the sa

SSI # FB 31h
Parameter # 3121
[Range: 1..10]
Default: 1
Set how many UPC-A barcodes can be decoded as a single barcode when exposed to the scanner.

UPC-A fixed number of codes

SSI # FB 32h
Parameter # 3122
When enabled, only the number of UPC-A barcodes set by the *UPC-A number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable UPC-A fixed number of codes
(01h)
***Disable UPC-A fixed number of codes**
(00h)

Enable/Disable UPC-E

SSI # 02h
Parameter # 2
To enable or disable UPC-E.
***Enable UPC-E**
(01h)
Disable UPC-E
(00h)

Transmit UPC-E Check Digit

SSI # 29h
Parameter # 41
The check digit is the last character of the symbol used to verify the integrity of the data. It is always verified to guarantee the integrity of the data.
Transmit UPC-E Check Digit
(01h)
***Do Not Transmit UPC-E Check Digit**
(00h)

UPC-E 2 Digit Add-On Code

SSI # FA BDh
Parameter # 3005
To enable or disable UPC-E 2 digit add-on.
Enable UPC-E 2 digit Add-On Code
(01h)
***Disable UPC-E 2 digit Add-On Code**
(00h)

UPC-E 5 Digit Add-On Code

SSI # FA BEh
Parameter # 3006
To enable or disable UPC-E 5 digit add-on.
Enable UPC-E 5 digit Add-On Code
(01h)
***Disable UPC-E 5 digit Add-On Code**
(00h)

UPC-E Extended

SSI # 25h

Parameter # 37
Enable this to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission without change the code type. Disable this to transmit UPC-E decoded data as UPC-E data, without conversion.
Enable UPC-E Extended
(01h)
***Disable UPC-E Extended**
(00h)

UPC-E Add-On Code Required

SSI # FA BFh
Parameter # 3007
To enable or disable UPC-E add-on required.
Enable UPC-E Add-On Required
(01h)
***Disable UPC-E Add-On Required**
(00h)

UPC-E Preamble

SSI # 23h
Parameter # 35
Preamble characters are part of the UPC symbol, and include Country Code and System Character. There are three options for transmitting a UPC-E preamble to the host device: transmit System Character only, transmit System Character and Country Code ("0" for USA), and transmit no preamble. Select the appropriate option to match the host system.
***No Preamble (<DATA>)**
(00h)
System Character (<SYSTEM CHARACTER> <DATA>)
(01h)
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

UPC-E number of codes when multiple codes are in the sa

SSI # FB33h
Parameter # 3123
[Range: 1..10]
Default: 1
Set how many UPC-E barcodes can be decoded as a single barcode when exposed to the scanner.

UPC-E fixed number of codes

SSI # FB34h
Parameter # 3124
When enabled, only the number of UPC-E barcodes set by the *UPC-E number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable UPC-E fixed number of codes
(01h)
***Disable UPC-E fixed number of codes**
(00h)

Enable/Disable EAN-8

SSI # 04h
Parameter # 4
To enable or disable EAN-8.
***Enable EAN-8**
(01h)
Disable EAN-8
(00h)

EAN-8 Transmit Check Digit

SSI # FA C9h
Parameter # 3017
To enable or disable EAN-8 transmit Check Digit.
Enable EAN-8 Transmit Check Digit
(01h)

***Disable EAN-8 Transmit Check Digit**
(00h)

EAN-8 2 Digit Add-On Code

SSI # FA C1h
Parameter # 3009
To enable or disable EAN-8 2 digit add-on.
Enable EAN-8 2 digit Add-On Code
(01h)
***Disable EAN-8 2 digit Add-On Code**
(00h)

EAN-8 5 Digit Add-On Code

SSI # FA C2h
Parameter # 3010
To enable or disable EAN-8 5 digit add-on.
Enable EAN-8 5 digit Add-On Code
(01h)
***Disable EAN-8 5 digit Add-On Code**
(00h)

EAN-8 Add-On Code Required

SSI # FA C3h
Parameter # 3011
To enable or disable EAN-8 add-on required.
Enable EAN-8 Add-On Required
(01h)
***Disable EAN-8 Add-On Required**
(00h)

EAN-8 number of codes when multiple codes are in the sa

SSI # FB35h
Parameter # 3125
[Range: 1..10]
Default: 1
Set how many EAN-8 barcodes can be decoded as a single barcode when exposed to the scanner.

EAN-8 fixed number of codes

SSI # FB36h
Parameter # 3126
When enabled, only the number of EAN-8 barcodes set by the *EAN-8 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable EAN-8 fixed number of codes
(01h)
***Disable EAN-8 fixed number of codes**
(00h)

Enable/Disable EAN-13

SSI # 03h
Parameter # 3
To enable or disable EAN-13.
***Enable EAN-13**
(01h)
Disable EAN-13
(00h)

EAN-13 Transmit Check Digit

SSI # FA CAh
Parameter # 3018
To enable or disable EAN-13 transmit Check Digit.
Enable EAN-13 Transmit Check Digit
(01h)

***Disable EAN-13 Transmit Check Digit**
(00h)

EAN-13 2 Digit Add-On Code

SSI # FA C5h
Parameter # 3013
To enable or disable EAN-13 2 digit add-on.
Enable EAN-13 2 digit Add-On Code
(01h)
***Disable EAN-13 2 digit Add-On Code**
(00h)

EAN-13 5 Digit Add-On Code

SSI # FA C6h
Parameter # 3014
To enable or disable EAN-13 5 digit add-on.
Enable EAN-13 5 digit Add-On Code
(01h)
***Disable EAN-13 5 digit Add-On Code**
(00h)

EAN-13 Add-On Code Required

SSI # FA C7h
Parameter # 3015
To enable or disable EAN-13 add-on required.
Enable EAN-13 Add-On Required
(01h)
***Disable EAN-13 Add-On Required**
(00h)

EAN-13 number of codes when multiple codes are in the sa

SSI # FB37h
Parameter # 3127
[Range: 1..10]
Default: 1
Set how many EAN-13 barcodes can be decoded as a single barcode when exposed to the scanner.

EAN-13 fixed number of codes

SSI # FB38h
Parameter # 3128
When enabled, only the number of EAN-13 barcodes set by the *EAN-13 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable EAN-13 fixed number of codes
(01h)
***Disable EAN-13 fixed number of codes**
(00h)

Enable/Disable ISBN

SSI # 53h
Parameter # 83
To enable or disable ISBN.
Enable ISBN
(01h)
***Disable ISBN**
(00h)

ISBN Length

SSI # F1h 40h
Parameter # 576
If ISBN is enabled, select one of the following formats for ISBN data:
•10DIGIT - The decoder reports Bookland data starting with 978 in traditional 10-digit format with the special ISBN check digit for backward-compatibility. Data starting with 979 is not considered ISBN in this mode.

•13DIGIT - The decoder reports ISBN data (starting with either 978 or 979) in 13-digit format to meet the 2007 ISBN-13 protocol.
***10DIGIT**
(00h)
13DIGIT
(01h)

ISBN 2 Digit Add-On Code

SSI # FB 39h
Parameter # 3129
To enable or disable ISBN 2 digit add-on.
Enable ISBN 2 digit Add-On Code
(01h)
***Disable ISBN 2 digit Add-On Code**
(00h)

ISBN 5 Digit Add-On Code

SSI # FB 3Ah
Parameter # 3130
To enable or disable ISBN 5 digit add-on.
Enable ISBN 5 digit Add-On Code
(01h)
***Disable ISBN 5 digit Add-On Code**
(00h)

ISBN Add-On Code Required

SSI # FB 3Bh
Parameter # 3131
To enable or disable ISBN add-on required.
Enable ISBN Add-On Required
(01h)
***Disable ISBN Add-On Required**
(00h)

ISBN number of codes when multiple codes are in the sa

SSI # FB 3Ch
Parameter # 3132
[Range: 1..10]
Default: 1
Set how many ISBN barcodes can be decoded as a single barcode when exposed to the scanner.

ISBN fixed number of codes

SSI # FB 3Dh
Parameter # 3133
When enabled, only the number of ISBN barcodes set by the *ISBN number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable ISBN fixed number of codes
(01h)
***Disable ISBN fixed number of codes**
(00h)

Enable/Disable ISSN

SSI # F1h 69h
Parameter # 617
To enable or disable ISSN.
Enable ISSN
(01h)
***Disable ISSN**
(00h)

ISSN 2 Digit Add-On Code

SSI # FB 3Eh

Parameter # 3134
To enable or disable ISSN 2 digit add-on.
Enable ISSN 2 digit Add-On Code
(01h)
***Disable ISSN 2 digit Add-On Code**
(00h)

ISSN 5 Digit Add-On Code

SSI # FB 3Fh
Parameter # 3135
To enable or disable ISSN 5 digit add-on.
Enable ISSN 5 digit Add-On Code
(01h)
***Disable ISSN 5 digit Add-On Code**
(00h)

ISSN Add-On Code Required

SSI # FB 40h
Parameter # 3136
To enable or disable ISSN add-on required.
Enable ISSN Add-On Required
(01h)
***Disable ISSN Add-On Required**
(00h)

ISSN number of codes when multiple codes are in the sa

SSI # FB 41h
Parameter # 3137
[Range: 1..10]
Default: 1
Set how many ISSN barcodes can be decoded as a single barcode when exposed to the scanner.

ISSN fixed number of codes

SSI # FB 42h
Parameter # 3138
When enabled, only the number of ISSN barcodes set by the *ISSN number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable ISSN fixed number of codes
(01h)
***Disable ISSN fixed number of codes**
(00h)

Code 128

Enable/Disable Code 128

SSI # 08h
Parameter # 8
To enable or disable Code 128.
***Enable Code 128**
(01h)
Disable Code 128
(00h)

Set Lengths for Code 128

Min = Parameter # 209
SSI # D1h
[Range: 1..127]
Default: 1
Max = Parameter # 210
SSI # D2h
[Range: 1..127]
Default: 127

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 128 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 128 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 128 number of codes when multiple codes are in the sa

SSI # FB 43h
Parameter # 3139
[Range: 1..10]
Default: 1
Set how many Code 128 barcodes can be decoded as a single barcode when exposed to the scanner.

Code 128 fixed number of codes

SSI # FB 44h
Parameter # 3140
When enabled, only the number of Code 128 barcodes set by the *Code 128 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 128 fixed number of codes
(01h)
***Disable Code 128 fixed number of codes**
(00h)

UCC/EAN-128

Enable/Disable UCC/EAN-128

SSI # 0Eh
Parameter # 14
To enable or disable UCC/EAN-128.
***Enable UCC/EAN-128**
(01h)
Disable UCC/EAN-128
(00h)

Set Lengths for UCC/EAN-128

Min = Parameter # 3063
SSI # FA F7h
[Range: 1..127]
Default: 1
Max = Parameter # 3064
SSI # FA F8h
[Range: 1..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only UCC/EAN-128 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode UCC/EAN-128 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

UCC/EAN-128 number of codes when multiple codes are in the sa

SSI # FB 45h
Parameter # 3141
[Range: 1..10]
Default: 1
Set how many UCC/EAN-128 barcodes can be decoded as a single barcode when exposed to the scanner.

UCC/EAN-128 fixed number of codes

SSI # FB 46h
Parameter # 3142
When enabled, only the number of UCC/EAN-128 barcodes set by the *UCC/EAN-128 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable UCC/EAN-128 fixed number of codes
(01h)

***Disable UCC/EAN-128 fixed number of codes**
(00h)

Code 39

Enable/Disable Code 39

SSI # 00h
Parameter # 0
To enable or disable Code 39.

***Enable Code 39**
(01h)
Disable Code 39
(00h)

Code 39 Check Digit Verification

SSI # 30h
Parameter # 48
Enable this feature to check the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only Code 39 symbols which include a modulo 43 check digit are decoded. Enable this feature if the Code 39 symbols contain a Modulo 43 check digit.
Enable Code 39 Check Digit Verification
(01h)

***Disable Code 39 Check Digit Verification**
(00h)

Transmit Code 39 Check Digit

SSI # 2Bh
Parameter # 43
Transmit Code 39 data with or without the check digit.
Transmit Code 39 Check Digit (Enable)
(01h)

***Do Not Transmit Code 39 Check Digit (Disable)**
(00h).

Transmit Code 39 Start/Stop Characters

SSI # FB 03h
Parameter # 3075
Transmit Code 39 data with or without the start and stop characters.
Transmit Code 39 Start/Stop Characters (Enable)
(01h)

***Do Not Transmit Code 39 Start/Stop Characters (Disable)**
(00h).

Code 39 Full ASCII Conversion

SSI # 11h
Parameter # 17
Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.
Enable Code 39 Full ASCII
(01h)

***Disable Code 39 Full ASCII**
(00h)

Set Lengths for Code 39

Min = Parameter # 18
SSI # 12h
[Range: 4..127]
Default: 4
Max = Parameter # 19
SSI # 13h
[Range: 4..127]
Default: 127

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 39 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 39 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 32 Prefix

SSI # E7h
Parameter # 231
Enable or disable adding the prefix character "A" to all Code 32 bar codes.
Enable Code 32 Prefix
(01h)
***Disable Code 32 Prefix**
(00h)
NOTE Convert Code 32 escape process must be enabled for this parameter to function.

Code 32 escape process

SSI # 56h
Parameter # 86
Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry.
Enable Code 32 escape process
(01h)
***Disable Code 32 escape process**
(00h)
NOTE Code 39 must be enabled for this parameter to function.

Transmit Code 32 Check Digit

SSI # FB 05h
Parameter # 3077
Transmit Code 32 data with or without the check digit.
Transmit Code 32 Check Digit (Enable)
(01h)
***Do Not Transmit Code 32 Check Digit (Disable)**
(00h).

Transmit Code 32 Start/Stop Characters

SSI # FB 04h
Parameter # 3076
Transmit Code 32 data with or without the start and stop characters.
Transmit Code 32 Start/Stop Characters (Enable)
(01h)
***Do Not Transmit Code 32 Start/Stop Characters (Disable)**
(00h).

Code 39 number of codes when multiple codes are in the sa

SSI # FB 47h
Parameter # 3143
[Range: 1..10]
Default: 1
Set how many Code 39 barcodes can be decoded as a single barcode when exposed to the scanner.

Code 39 fixed number of codes

SSI # FB 48h
Parameter # 3144
When enabled, only the number of Code 39 barcodes set by the *Code 39 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 39 fixed number of codes
(01h)
***Disable Code 39 fixed number of codes**
(00h)

Code 93

Enable/Disable Code 93

SSI # 09h
Parameter # 9
To enable or disable Code 93.
Enable Code 93
(01h)
***Disable Code 93**
(00h)

Set Lengths for Code 93

Min = Parameter # 26
SSI # 1Ah
[Range: 2..127]
Default: 2
Max = Parameter # 27
SSI # 1Bh
[Range: 2..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 93 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 93 codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Code 93 number of codes when multiple codes are in the sa

SSI # FB 49h
Parameter # 3145
[Range: 1..10]
Default: 1
Set how many Code 93 barcodes can be decoded as a single barcode when exposed to the scanner.

Code 93 fixed number of codes

SSI # FB 4Ah
Parameter # 3146
When enabled, only the number of Code 93 barcodes set by the *Code 93 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 93 fixed number of codes
(01h)
***Disable Code 93 fixed number of codes**
(00h)

Code 11

Enable/Disable Code 11

SSI # 0Ah
Parameter # 10
To enable or disable Code 11.
Enable Code 11
(01h)
***Disable Code 11**
(00h)

Set Lengths for Code 11

Min = Parameter # 28
SSI # 1Ch
[Range: 6..127]
Default: 6
Max = Parameter # 29
SSI # 1Dh
[Range: 6..127]
Default: 127

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 11 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 11 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Code 11 number of codes when multiple codes are in the sa

SSI # FB 4Bh
Parameter # 3147
[Range: 1..10]
Default: 1
Set how many Code 11 barcodes can be decoded as a single barcode when exposed to the scanner.

Code 11 fixed number of codes

SSI # FB 4Ch
Parameter # 3148
When enabled, only the number of Code 11 barcodes set by the *Code 11 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 11 fixed number of codes
(01h)
***Disable Code 11 fixed number of codes**
(00h)

Code 11 Check Mode

SSI # 34h
Parameter # 52
This feature allows the decoder to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are not checking the check digit, check for single check digit with MOD 11, check for double check digits with MOD 11/MOD 11, check for double check digits with MOD 11/MOD 9, check for single check digit with MOD 11 when the barcode length is less than or equal to 10 or check for double check digits with MOD 11/MOD 11 when the barcode length is greater than 10, or check for single check digit with MOD 11 when the barcode length is less than or equal to 10 or check for double check digits with MOD 11/MOD 9 when the barcode length is greater than 10.

***Disable Code 11 Check Digit Verification**
(00h)
One Check Character, MOD11
(01h)
Two Check Characters, MOD11/MOD11
(02h)
Two Check Characters, MOD11/MOD9
(03h)
One Check Character, MOD11 (Len<=10)Two Check Characters, MOD11/MOD11 (Len>10)
(04h)
One Check Character, MOD11 (Len<=10)Two Check Characters, MOD11/MOD9 (Len>10)
(05h)

Transmit Code 11 Check Digits

SSI # 2Fh
Parameter # 47
This feature selects whether or not to transmit the Code 11 check digit(s).
Transmit Code 11 Check Digit(s) (Enable)
(01h)
***Do Not Transmit Code 11 Check Digit(s) (Disable)**
(00h)

Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5

SSI # 06h
Parameter # 6
To enable or disable Interleaved 2 of 5.
***Enable Interleaved 2 of 5**
(01h)

Disable Interleaved 2 of 5
(00h)

Interleaved 2 of 5 Check Digit Verification

SSI # 31h
Parameter # 49
Enable this feature to check the integrity of all Interleaved 2 of 5 symbols to verify that the data complies with the check digit algorithm. This selects the check digit mechanism for the decoded Interleaved 2 of 5 bar code. The options are to not check for check digit, check for single check digit, or check for single check digit but not transmit the check digit.

***No check**
(00h)
Check Digit
(01h)

Transmit Interleaved 2 of 5 Check Digit

SSI # 2Ch
Parameter # 44
Transmit Interleaved 2 of 5 data with or without the check digit.
Transmit Interleaved 2 of 5 Check Digit (Enable)
(01h)

***Do Not Transmit Interleaved 2 of 5 Check Digit (Disable)**
(00h)

Set Lengths for Interleaved 2 of 5

Min = Parameter # 22
SSI # 16h
[Range: 6..127]
Default: 6
Max = Parameter # 23
SSI # 17h
[Range: 6..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Interleaved 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Interleaved 2 of 5 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Interleaved 2 of 5 number of codes when multiple codes are in the sa

SSI # FB 4Dh
Parameter # 3149
[Range: 1..10]
Default: 1
Set how many Interleaved 2 of 5 barcodes can be decoded as a single barcode when exposed to the scanner.

Interleaved 2 of 5 fixed number of codes

SSI # FB 4Eh
Parameter # 3150
When enabled, only the number of Interleaved 2 of 5 barcodes set by the *Interleaved 2 of 5 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Interleaved 2 of 5 fixed number of codes
(01h)

***Disable Interleaved 2 of 5 fixed number of codes**
(00h)

Codabar

Enable/Disable Codabar

SSI # 07h
Parameter # 7
To enable or disable Codabar.
***Enable Codabar**
(01h)

Disable Codabar
(00h)

Transmit Codabar Start/Stop Characters

SSI # 37h
Parameter # 55
Enable this parameter to strip the start and stop characters from a decoded Codabar symbol. Enable this feature if the host system requires this data format.
Transmit Codabar Start/Stop Characters (Enable)
(01h)
***Do not Transmit Codabar Start/Stop Characters (Disable)**
(00h)

Set Lengths for Codabar

Min = Parameter # 24
SSI # 18h
[Range: 4..127]
Default: 4
Max = Parameter # 25
SSI # 19h
[Range: 4..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Codabar codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Codabar codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

Codabar number of codes when multiple codes are in the sa

SSI # FB 4Fh
Parameter # 3151
[Range: 1..10]
Default: 1
Set how many Codabar barcodes can be decoded as a single barcode when exposed to the scanner.

Codabar fixed number of codes

SSI # FB 50h
Parameter # 3152
When enabled, only the number of Codabar barcodes set by the *Codabar number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Codabar fixed number of codes
(01h)
***Disable Codabar fixed number of codes**
(00h)

UK Plessey

Enable/Disable UK Plessey

SSI # FB 15h
Parameter # 3093
To enable or disable UK Plessey.
Enable UK Plessey
(01h)
***Disable UK Plessey**
(00h)

UK Plessey Check Digit Verification

SSI # FB 18h
Parameter # 3096
Enable this feature to check the integrity of all UK Plessey symbols to verify that the data complies with the check digit algorithm.
***No check**
(00h)

Check Digit
(01h)

Transmit UK Plessey Check Digit

SSI # FB 51h
Parameter # 3153
Transmit UK Plessey data with or without the check digit.
Transmit UK Plessey Check Digit (Enable)
(01h)
***Do Not Transmit UK Plessey Check Digit (Disable)**
(00h)

Set Lengths for UK Plessey

Min = Parameter # 3094
SSI # FB 16h
[Range: 2..127]
Default: 2
Max = Parameter # 3095
SSI # FB 17h
[Range: 2..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only UK Plessey codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode UK Plessey codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

UK Plessey number of codes when multiple codes are in the sa

SSI # FB 52h
Parameter # 3154
[Range: 1..10]
Default: 1
Set how many UK Plessey barcodes can be decoded as a single barcode when exposed to the scanner.

UK Plessey fixed number of codes

SSI # FB 53h
Parameter # 3155
When enabled, only the number of UK Plessey barcodes set by the *UK Plessey number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable UK Plessey fixed number of codes
(01h)
***Disable UK Plessey fixed number of codes**
(00h)

MSI Plessey

Enable/Disable MSI Plessey

SSI # 0Bh
Parameter # 11
To enable or disable MSI Plessey.
Enable MSI Plessey
(01h)
***Disable MSI Plessey**
(00h)

Set Lengths for MSI Plessey

Min = Parameter # 30
SSI # 1Eh
[Range: 4..127]
Default: 4
Max = Parameter # 31
SSI # 1Fh
[Range: 4..127]

Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only MSI Plessey codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode MSI Plessey codes of length 4 through 12 characters, set **Min = 4, Max = 12**.

MSI Plessey number of codes when multiple codes are in the sa

SSI # FB 54h
Parameter # 3156
[Range: 1..10]
Default: 1
Set how many MSI Plessey barcodes can be decoded as a single barcode when exposed to the scanner.

MSI Plessey fixed number of codes

SSI # FB 55h
Parameter # 3157
When enabled, only the number of MSI Plessey barcodes set by the *MSI Plessey number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable MSI Plessey fixed number of codes
(01h)
***Disable MSI Plessey fixed number of codes**
(00h)

MSI Plessey Check Mode

SSI # 33h
Parameter # 51
Enable this feature to check the integrity of all MSI Plessey symbols to verify that the data complies with the check digit algorithm. This selects the check digit mechanism for the decoded MSI Plessey bar code. The options are to not check for check digit, check for one check character with MOD 10, check for two check characters with MOD 10/MOD 10, or check for two check characters with MOD 10/MOD 11.

***Disable**
(00h)
One Check Character, MOD10
(01h)
Two Check Characters, MOD10/MOD10
(02h)
Two Check Characters, MOD10/MOD11
(03h)

Transmit MSI Plessey Check Digit

SSI # 2Eh
Parameter # 46
Transmit MSI Plessey data with or without the check digit.
Transmit MSI Plessey Check Digit (Enable)
(01h)
***Do Not Transmit MSI Plessey Check Digit (Disable)**
(00h)

Matrix 2 of 5

Enable/Disable Matrix 2 of 5

SSI # F1h 6Ah
Parameter # 618
To enable or disable Matrix 2 of 5.
Enable Matrix 2 of 5
(01h)
***Disable Matrix 2 of 5**
(00h)

Matrix 2 of 5 Check Digit

SSI # F1h 6Eh
Parameter # 622

The check digit is the last character of the symbol used to verify the integrity of the data.
Enable Matrix 2 of 5 Check Digit
(01h)
***Disable Matrix 2 of 5 Check Digit**
(00h)

Transmit Matrix 2 of 5 Check Digit

SSI # F1h 6Fh
Parameter # 623
Transmit Matrix 2 of 5 data with or without the check digit.
Transmit Matrix 2 of 5 Check Digit
(01h)
***Do Not Transmit Matrix 2 of 5 Check Digit**
(00h)

Set Lengths for Matrix 2 of 5

Min = Parameter # 619
SSI # F1h 6Bh
[Range: 6..127]
Default: 6
Max = Parameter # 620
SSI # F1h 6Ch
[Range: 6..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Matrix 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Matrix 2 of 5 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Matrix 2 of 5 number of codes when multiple codes are in the sa

SSI # FB 56h
Parameter # 3158
[Range: 1..10]
Default: 1
Set how many Matrix 2 of 5 barcodes can be decoded as a single barcode when exposed to the scanner.

Matrix 2 of 5 fixed number of codes

SSI # FB 57h
Parameter # 3159
When enabled, only the number of Matrix 2 of 5 barcodes set by the *Matrix 2 of 5 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Matrix 2 of 5 fixed number of codes
(01h)
***Disable Matrix 2 of 5 fixed number of codes**
(00h)

Industrial 2 of 5

Enable/Disable Industrial 2 of 5

SSI # FB 0Dh
Parameter # 3085
To enable or disable Industrial 2 of 5.
Enable Industrial 2 of 5
(01h)
***Disable Industrial 2 of 5**
(00h)

Industrial 2 of 5 Check Digit Verification

SSI # FB 10h
Parameter # 3088

Enable this feature to check the integrity of all Industrial 2 of 5 symbols to verify that the data complies with the check digit algorithm.

***No check**
(00h)
Check Digit
(01h)

Transmit Industrial 2 of 5 Check Digit

SSI # FB 58h
Parameter # 3160
Transmit Industrial 2 of 5 data with or without the check digit.
Transmit Industrial 2 of 5 Check Digit (Enable)
(01h)

***Do Not Transmit Industrial 2 of 5 Check Digit (Disable)**
(00h)

Set Lengths for Industrial 2 of 5

Min = Parameter # 3086
SSI # FB 0Eh
[Range: 6..127]
Default: 6
Max = Parameter # 3087
SSI # FBh 0Fh
[Range: 6..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Industrial 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Industrial 2 of 5 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Industrial 2 of 5 number of codes when multiple codes are in the sa

SSI # FB 59h
Parameter # 3161
[Range: 1..10]
Default: 1
Set how many Industrial 2 of 5 barcodes can be decoded as a single barcode when exposed to the scanner.

Industrial 2 of 5 fixed number of codes

SSI # FB 5Ah
Parameter # 3162
When enabled, only the number of Industrial 2 of 5 barcodes set by the *Industrial 2 of 5 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Industrial 2 of 5 fixed number of codes
(01h)

***Disable Industrial 2 of 5 fixed number of codes**
(00h)

Standard 2 of 5

Enable/Disable Standard 2 of 5

SSI # FB 11h
Parameter # 3089
To enable or disable Standard 2 of 5.
Enable Standard 2 of 5
(01h)
***Disable Standard 2 of 5**
(00h)

Standard 2 of 5 Check Digit Verification

SSI # FB 14h
Parameter # 3092
Enable this feature to check the integrity of all Standard 2 of 5 symbols to verify that the data complies with the check digit algorithm.

***No check**
(00h)
Check Digit
(01h)

Transmit Standard 2 of 5 Check Digit

SSI # FB 5Bh
Parameter # 3163
Transmit Standard 2 of 5 data with or without the check digit.
Transmit Standard 2 of 5 Check Digit (Enable)
(01h)

***Do Not Transmit Standard 2 of 5 Check Digit (Disable)**
(00h)

Set Lengths for Standard 2 of 5

Min = Parameter # 3090
SSI # FB 12h
[Range: 6..127]
Default: 6
Max = Parameter # 3091
SSI # FBh 13h
[Range: 6..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Standard 2 of 5 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Standard 2 of 5 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Standard 2 of 5 number of codes when multiple codes are in the sa

SSI # FB 5Ch
Parameter # 3164
[Range: 1..10]
Default: 1
Set how many Standard 2 of 5 barcodes can be decoded as a single barcode when exposed to the scanner.

Standard 2 of 5 fixed number of codes

SSI # FB 5Dh
Parameter # 3165
When enabled, only the number of Standard 2 of 5 barcodes set by the *Standard 2 of 5 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Standard 2 of 5 fixed number of codes
(01h)

***Disable Standard 2 of 5 fixed number of codes**
(00h)

ITF-6

Enable/Disable ITF-6

SSI # FB 02h
Parameter # 3074
To enable or disable ITF-6.
Enable ITF-6
(01h)
***Disable ITF-6**
(00h)

Transmit ITF-6 Check Digit

SSI # FB 5Eh
Parameter # 3166
Transmit ITF-6 data with or without the check digit.
Transmit ITF-6 Check Digit (Enable)
(01h)
***Do Not Transmit ITF-6 Check Digit (Disable)**
(00h)

ITF-6 number of codes when multiple codes are in the sa

SSI # FB 5Fh
Parameter # 3167
[Range: 1..10]
Default: 1
Set how many ITF-6 barcodes can be decoded as a single barcode when exposed to the scanner.

ITF-6 fixed number of codes

SSI # FB 60h
Parameter # 3168
When enabled, only the number of ITF-6 barcodes set by the *ITF-6 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable ITF-6 fixed number of codes
(01h)
***Disable ITF-6 fixed number of codes**
(00h)

ITF-14

Enable/Disable ITF-14

SSI # FB 01h
Parameter # 3073
To enable or disable ITF-14.
Enable ITF-14
(01h)
***Disable ITF-14**
(00h)

Transmit ITF-14 Check Digit

SSI # FB 61h
Parameter # 3169
Transmit ITF-14 data with or without the check digit.
Transmit ITF-14 Check Digit (Enable)
(01h)
***Do Not Transmit ITF-14 Check Digit (Disable)**
(00h)

ITF-14 number of codes when multiple codes are in the sa

SSI # FB 62h
Parameter # 3170
[Range: 1..10]
Default: 1
Set how many ITF-14 barcodes can be decoded as a single barcode when exposed to the scanner.

ITF-14 fixed number of codes

SSI # FB 63h
Parameter # 3171

When enabled, only the number of ITF-14 barcodes set by the *ITF-14 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable ITF-14 fixed number of codes
(01h)
***Disable ITF-14 fixed number of codes**
(00h)

AIM 128

Enable/Disable AIM 128
SSI # FB 0Ah
Parameter # 3082
To enable or disable AIM 128.
Enable AIM 128
(01h)
***Disable AIM 128**
(00h)

Set Lengths for AIM 128
Min = Parameter # 3083
SSI # FB 0Bh
[Range: 1..127]
Default: 1
Max = Parameter # 3084
SSI # FBh 0Ch
[Range: 1..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only AIM 128 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode AIM 128 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

AIM 128 number of codes when multiple codes are in the sa
SSI # FB 64h
Parameter # 3172
[Range: 1..10]
Default: 1
Set how many AIM 128 barcodes can be decoded as a single barcode when exposed to the scanner.

AIM 128 fixed number of codes
SSI # FB 65h
Parameter # 3173
When enabled, only the number of AIM 128 barcodes set by the *AIM 128 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable AIM 128 fixed number of codes
(01h)
***Disable AIM 128 fixed number of codes**
(00h)

RSS

Enable/Disable RSS
SSI # F0h 52h
Parameter # 338
To enable or disable RSS.
***Enable RSS**
(01h)
Disable RSS
(00h)

Transmit RSS Application Identifier

SSI # FB 19h
Parameter # 3097
Transmit RSS data with or without the application identifier.
Transmit RSS Application Identifier (Enable)
(01h)
***Do Not Transmit RSS Application Identifier (Disable)**
(00h)

RSS number of codes when multiple codes are in the sa

SSI # FB 70h
Parameter # 3184
[Range: 1..10]
Default: 1
Set how many RSS barcodes can be decoded as a single barcode when exposed to the scanner.

RSS fixed number of codes

SSI # FB 71h
Parameter # 3185
When enabled, only the number of RSS barcodes set by the *RSS number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable RSS fixed number of codes
(01h)
***Disable RSS fixed number of codes**
(00h)

Postal Codes

Enable/Disable USPS Postnet

SSI # 59h
Parameter # 89
To enable or disable USPS Postnet.
Enable USPS Postnet
(01h)
***Disable USPS Postnet**
(00h)

Transmit USPS Postnet Check Digit

SSI # 5Fh
Parameter # 95
Select whether to transmit USPS Postnet data with or without the check digit.
Transmit USPS Postnet Check Digit
(01h)
***Do Not Transmit USPS Postnet Check Digit**
(00h)

Enable/Disable USPS Planet

SSI # 5Ah
Parameter # 90
To enable or disable USPS Planet.
Enable USPS Planet
(01h)
***Disable USPS Planet**
(00h)

Transmit USPS Planet Check Digit

SSI # FB 72h
Parameter # 3186

Select whether to transmit USPS Planet data with or without the check digit.
Transmit USPS Planet Check Digit
(01h)
***Do Not Transmit USPS Planet Check Digit**
(00h)

Enable/Disable Royal Mail Customer Bar Code

SSI # 5Bh
Parameter # 91
To enable or disable Royal Mail Customer Bar Code.
Enable Royal Mail Customer Bar Code
(01h)
***Disable Royal Mail Customer Bar Code**
(00h)

Enable/Disable Japanese Post

SSI # F0h, 22h
Parameter # 290
To enable or disable Japanese Post.
Enable Japanese Post
(01h)
***Disable Japanese Post**
(00h)

Transmit Japanese Post Check Digit

SSI # FB 73h
Parameter # 3187
Select whether to transmit Japanese Post data with or without the check digit.
Transmit Japanese Post Check Digit
(01h)
***Do Not Transmit Japanese Post Check Digit**
(00h)

Enable/Disable Australia Post

SSI # F0h, 23h
Parameter # 291
To enable or disable Australia Post.
Enable Australia Post
(01h)
***Disable Australia Post**
(00h)

Enable/Disable KIX Code

SSI # F0h, 46h
Parameter # 326
To enable or disable KIX Code.
Enable KIX Code
(01h)
***Disable KIX Code**
(00h)

Enable/Disable USPS Intelligent Mail

SSI # F1h 50h
Parameter # 592
To enable or disable USPS Intelligent Mail.
Enable USPS Intelligent Mail
(01h)
***Disable USPS Intelligent Mail**
(00h)

Enable/Disable China Post

SSI # FB 74h

Parameter # 3188
To enable or disable China Post.
Enable China Post
(01h)
***Disable China Post**
(00h)

China Post Check Digit Verification

SSI # FB 75h
Parameter # 3189
Enable this feature to check the integrity of all China Post symbols to verify that the data complies with the check digit algorithm.
***No check**
(00h)
Check Digit
(01h)

Transmit China Post Check Digit

SSI # FB 76h
Parameter # 3190
Transmit China Post data with or without the check digit.
Transmit China Post Check Digit (Enable)
(01h)
***Do Not Transmit China Post Check Digit (Disable)**
(00h)

Set Lengths for China Post

Min = Parameter # 3191
SSI # FB 77h
[Range: 1..127]
Default: 1
Max = Parameter # 3192
SSI # FB 78h
[Range: 1..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only China Post codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode China Post codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

China Post number of codes when multiple codes are in the sa

SSI # FB 79h
Parameter # 3193
[Range: 1..10]
Default: 1
Set how many China Post barcodes can be decoded as a single barcode when exposed to the scanner.

China Post fixed number of codes

SSI # FB 7Ah
Parameter # 3194
When enabled, only the number of China Post barcodes set by the *China Post number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable China Post fixed number of codes
(01h)
***Disable China Post fixed number of codes**
(00h)

2D Symbologies

Enable/Disable PDF417

SSI # 0Fh
Parameter # 15

To enable or disable PDF417.

***Enable PDF417**
(01h)
Disable PDF417
(00h)

Set Lengths for PDF417

Min = Parameter # 3098
SSI # FB 1Ah
[Range: 1..2710]
Default: 1
Max = Parameter # 3099
SSI # FB 1Bh
[Range: 1..2710]
Default: 2710
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only PDF417 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode PDF417 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

PDF417 number of codes when multiple codes are in the sa

SSI # FB 7Bh
Parameter # 3195
[Range: 1..10]
Default: 1
Set how many PDF417 barcodes can be decoded as a single barcode when exposed to the scanner.

PDF417 fixed number of codes

SSI # FB 7Ch
Parameter # 3196
When enabled, only the number of PDF417 barcodes set by the *PDF417 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable PDF417 fixed number of codes
(01h)
***Disable PDF417 fixed number of codes**
(00h)

PDF417 Inversion Mode

SSI # FB 7Dh
Parameter # 3197
Select a PDF417 inverse decoder setting:
***Normal** - the decoder decodes PDF417 bar codes with normal reflectance only.
(00h)
Inverse - the decoder decodes PDF417 bar codes with inverse reflectance only.
(01h)
Inversion Mode - the decoder decodes both regular and inverse PDF417 bar codes.
(02h)

PDF417 Image Mirror

SSI # FB 7Eh
Parameter # 3198
Enable or disable for decoding mirrored PDF417 bar codes.
Do not decoding mirrored PDF417 bar codes (disable)
(00h)
***Decoding mirrored PDF417 bar codes (enable)**
(01h)

PDF417 Close ECI Output

SSI # FB 1Dh
Parameter # 3101
Choose if the output data should strip out the ECI data in the PDF417 bar codes.
***Strip out the ECI data from the output(enable)**
(01h)

Do not striping out the ECI data from the output (disable)
(00h)

Enable/Disable MicroPDF417

SSI # E3h
Parameter # 227
To enable or disable MicroPDF417.
Enable MicroPDF417
(01h)
***Disable MicroPDF417**
(00h)

Set Lengths for MicroPDF417

Min = Parameter # 3199
SSI # FB 7Fh
[Range: 1..366]
Default: 1
Max = Parameter # 3200
SSI # FB 80h
[Range: 1..366]
Default: 366
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only MicroPDF417 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode MicroPDF417 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

MicroPDF417 number of codes when multiple codes are in the sa

SSI # FB 81h
Parameter # 3201
[Range: 1..10]
Default: 1
Set how many MicroPDF417 barcodes can be decoded as a single barcode when exposed to the scanner.

MicroPDF417 fixed number of codes

SSI # FB 82h
Parameter # 3202
When enabled, only the number of MicroPDF417 barcodes set by the *MicroPDF417 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable MicroPDF417 fixed number of codes
(01h)
***Disable MicroPDF417 fixed number of codes**
(00h)

MicroPDF417 Image Mirror

SSI # FB 83h
Parameter # 3203
Enable or disable for decoding mirrored MicroPDF417 bar codes.
Do not decoding mirrored MicroPDF417 bar codes (disable)
(00h)
***Decoding mirrored MicroPDF417 bar codes (enable)**
(01h)

MicroPDF417 Close ECI Output

SSI # FB 84h
Parameter # 3204
Choose if the output data should strip out the ECI data in the MicroPDF417 bar codes.
***Strip out the ECI data from the output(enable)**
(01h)
Do not striping out the ECI data from the output (disable)
(00h)

Enable/Disable Data Matrix

SSI # F0h, 24h

Parameter # 292
To enable or disable Data Matrix.

***Enable Data Matrix**
(01h)
Disable Data Matrix
(00h)

Set Lengths for Data Matrix

Min = Parameter # 3109
SSI # FB 25h
[Range: 1..3116]
Default: 1
Max = Parameter # 3110
SSI # FB 26h
[Range: 1..3116]
Default: 3116
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Data Matrix codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Data Matrix codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Data Matrix number of codes when multiple codes are in the sa

SSI # FB 85h
Parameter # 3205
[Range: 1..10]
Default: 1
Set how many Data Matrix barcodes can be decoded as a single barcode when exposed to the scanner.

Data Matrix fixed number of codes

SSI # FB 86h
Parameter # 3206
When enabled, only the number of Data Matrix barcodes set by the *Data Matrix number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Data Matrix fixed number of codes
(01h)
***Disable Data Matrix fixed number of codes**
(00h)

Data Matrix Rectangle Code Decoding

SSI # FB 28h
Parameter # 3112
When enabled, only the rectangle Data Matrix barcodes can be decoded; otherwise non-rectangle Data Matrix barcodes can also be decoded.
Decode only rectangle Data Matrix barcodes (enable)
(01h)
***Allow decoding non-rectangle Data Matrix barcodes (disable)**
(00h)

Data Matrix Inversion Mode

SSI # F1h 4Ch
Parameter # 588
This parameter sets the Data Matrix inverse decoder setting. Options are:
***Normal** - the decoder decodes regular Data Matrix bar codes only.
(00h)
Inverse - the decoder decodes inverse Data Matrix bar codes only.
(01h)
Inversion Mode - the decoder decodes both regular and inverse Data Matrix bar codes.
(02h)

Data Matrix Image Mirror

SSI # F1 19h
Parameter # 537
Enable or disable for decoding mirrored Data Matrix bar codes.

Do not decoding mirrored Data Matrix bar codes (disable)
(00h)
***Decoding mirrored Data Matrix bar codes (enable)**
(01h)

Data Matrix Close ECI Output

SSI # FB 29h
Parameter # 3113
Choose if the output data should strip out the ECI data in the Data Matrix bar codes.
***Strip out the ECI data from the output(enable)**
(01h)
Do not striping out the ECI data from the output (disable)
(00h)

Enable/Disable Maxicode

SSI # F0h 26h
Parameter # 294
To enable or disable Maxicode.
Enable Maxicode
(01h)
***Disable Maxicode**
(00h)

Set Lengths for Maxicode

Min = Parameter # 3207
SSI # FB 87h
[Range: 1..150]
Default: 1
Max = Parameter # 3208
SSI # FB 88h
[Range: 1..150]
Default: 150
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Maxicode codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Maxicode codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Maxicode number of codes when multiple codes are in the sa

SSI # FB 89h
Parameter # 3209
[Range: 1..10]
Default: 1
Set how many Maxicode barcodes can be decoded as a single barcode when exposed to the scanner.

Maxicode fixed number of codes

SSI # FB 8Ah
Parameter # 3210
When enabled, only the number of Maxicode barcodes set by the *Maxicode number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Maxicode fixed number of codes
(01h)
***Disable Maxicode fixed number of codes**
(00h)

Maxicode Image Mirror

SSI # FB 8Ah
Parameter # 3211
Enable or disable for decoding mirrored Maxicode bar codes.
Do not decoding mirrored Maxicode bar codes (disable)
(00h)
***Decoding mirrored Maxicode bar codes (enable)**
(01h)

Enable/Disable QR Code

SSI # F0 25h
Parameter # 293
To enable or disable QR Code.

***Enable QR Code**
(01h)
Disable QR Code
(00h)

Set Lengths for QR Code

Min = Parameter # 3102
SSI # FB 1Eh
[Range: 1..7089]
Default: 1
Max = Parameter # 3103
SSI # FB 1Fh
[Range: 1..7089]
Default: 7089
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only QR Code codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode QR Code codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

QR Code Inversion Mode

SSI # F1h 4Bh
Parameter # 587
This parameter sets the QR Code inverse decoder setting. Options are:
***Normal** - the decoder decodes regular QR Code bar codes only.
(00h)
Inverse - the decoder decodes inverse QR Code bar codes only.
(01h)
Inversion Mode - the decoder decodes both regular and inverse QR Code bar codes.
(02h)

QR Code Close ECI Output

SSI # FB 21h
Parameter # 3105
Choose if the output data should strip out the ECI data in the QR Code bar codes.
***Strip out the ECI data from the output(enable)**
(01h)
Do not striping out the ECI data from the output (disable)
(00h)

QR Code number of codes when multiple codes are in the sa

SSI # FB 8Ch
Parameter # 3212
[Range: 1..10]
Default: 1
Set how many QR Code barcodes can be decoded as a single barcode when exposed to the scanner.

QR Code fixed number of codes

SSI # FB 8Dh
Parameter # 3213
When enabled, only the number of QR Code barcodes set by the *QR Code number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable QR Code fixed number of codes
(01h)
***Disable QR Code fixed number of codes**
(00h)

QR Code Image Mirror

SSI # FB 8Eh

Parameter # 3214
Enable or disable for decoding mirrored QR Code bar codes.
Do not decoding mirrored QR Code bar codes (disable)
(00h)
***Decoding mirrored QR Code bar codes (enable)**
(01h)

Enable/Disable MicroQR Code

SSI # F1h 3Dh
Parameter # 573
To enable or disable MicroQR.
***Enable MicroQR**
(01h)
Disable MicroQR
(00h)

Set Lengths for MicroQR Code

Min = Parameter # 3114
SSI # FB 2Ah
[Range: 1..35]
Default: 1
Max = Parameter # 3115
SSI # FB 2Bh
[Range: 1..35]
Default: 35
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only MicroQR Code codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode MicroQR Code codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

MicroQR Code number of codes when multiple codes are in the sa

SSI # FB 8Fh
Parameter # 3215
[Range: 1..10]
Default: 1
Set how many MicroQR Code barcodes can be decoded as a single barcode when exposed to the scanner.

MicroQR Code fixed number of codes

SSI # FB 90h
Parameter # 3216
When enabled, only the number of MicroQR Code barcodes set by the *MicroQR Code number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable MicroQR Code fixed number of codes
(01h)
***Disable MicroQR Code fixed number of codes**
(00h)

MicroQR Code Image Mirror

SSI # FB 91h
Parameter # 3217
Enable or disable for decoding mirrored MicroQR Code bar codes.
Do not decoding mirrored MicroQR Code bar codes (disable)
(00h)
***Decoding mirrored MicroQR Code bar codes (enable)**
(01h)

Enable/Disable Aztec

SSI # F1h 3Eh
Parameter # 574
To enable or disable Aztec.
Enable Aztec
(01h)

***Disable Aztec**
(00h)

Set Lengths for Aztec

Min = Parameter # 3106
SSI # FB 22h
[Range: 1..3832]
Default: 1
Max = Parameter # 3107
SSI # FB 23h
[Range: 1.. 3832]
Default: 3832
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Aztec codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Aztec codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Aztec number of codes when multiple codes are in the sa

SSI # FB 92h
Parameter # 3218
[Range: 1..10]
Default: 1
Set how many Aztec barcodes can be decoded as a single barcode when exposed to the scanner.

Aztec fixed number of codes

SSI # FB 93h
Parameter # 3219
When enabled, only the number of Aztec barcodes set by the *Aztec number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Aztec fixed number of codes
(01h)
***Disable Aztec fixed number of codes**
(00h)

Aztec Inversion Mode

SSI # F1h 4Dh
Parameter # 589
This parameter sets the Aztec inverse decoder setting. Options are:
***Normal** - the decoder decodes regular Aztec bar codes only.
(00h)
Inverse - the decoder decodes inverse Aztec bar codes only.
(01h)
Inversion Mode - the decoder decodes both regular and inverse Aztec bar codes.
(02h)

Aztec Image Mirror

SSI # FB 94h
Parameter # 3220
Enable or disable for decoding mirrored Aztec bar codes.
Do not decoding mirrored Aztec bar codes (disable)
(00h)
***Decoding mirrored Aztec bar codes (enable)**
(01h)

Aztec Close ECI Output

SSI # FB 24h
Parameter # 3108
Choose if the output data should strip out the ECI data in the Aztec bar codes.
***Strip out the ECI data from the output(enable)**
(01h)
Do not striping out the ECI data from the output (disable)
(00h)

Enable/Disable Han Xin

SSI # F8h 04h 8Fh
Parameter # 1167
To enable or disable Han Xin.
Enable Han Xin
(01h)
***Disable Han Xin**
(00h)

Set Lengths for Han Xin

Min = Parameter # 3221
SSI # FB 95h
[Range: 1..7827]
Default: 1
Max = Parameter # 3222
SSI # FB 96h
[Range: 1..7827]
Default: 7827
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Han Xin codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Han Xin codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Han Xin number of codes when multiple codes are in the sa

SSI # FB 97h
Parameter # 3223
[Range: 1..10]
Default: 1
Set how many Han Xin barcodes can be decoded as a single barcode when exposed to the scanner.

Han Xin fixed number of codes

SSI # FB 98h
Parameter # 3224
When enabled, only the number of Han Xin barcodes set by the *Han Xin number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Han Xin fixed number of codes
(01h)
***Disable Han Xin fixed number of codes**
(00h)

Han Xin Inversion Mode

SSI # F8h 04h 90h
Parameter # 1168
Select a Han Xin inverse decoder setting:
***Normal** - the decoder decodes regular Han Xin bar codes only.
(00h)
Inverse - the decoder decodes inverse Han Xin bar codes only.
(01h)
Inversion Mode - the decoder decodes both regular and inverse Han Xin bar codes.
(02h)

Han Xin Image Mirror

SSI # FB 99h
Parameter # 3225
Enable or disable for decoding mirrored Han Xin bar codes.
Do not decoding mirrored Han Xin bar codes (disable)
(00h)
***Decoding mirrored Han Xin bar codes (enable)**
(01h)

Han Xin Close ECI Output

SSI # FB 9Ah

Parameter # 3226
Choose if the output data should strip out the ECI data in the Han Xin bar codes.
***Strip out the ECI data from the output(enable)**
(01h)
Do not striping out the ECI data from the output (disable)
(00h)

Enable/Disable Dot Code

SSI # FA CBh
Parameter # 3019
To enable or disable Dot Code.
Enable Dot Code
(01h)
***Disable Dot Code**
(00h)

Enable/Disable Code 16K

SSI # FB 66h
Parameter # 3174
To enable or disable Code 16K.
Enable Code 16K
(01h)
***Disable Code 16K**
(00h)

Set Lengths for Code 16K

Min = Parameter # 3175
SSI # FB 67h
[Range: 1..127]
Default: 1
Max = Parameter # 3176
SSI # FB 68h
[Range: 1..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 16K codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 16K codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Code 16K number of codes when multiple codes are in the sa

SSI # FB 69h
Parameter # 3177
[Range: 1..10]
Default: 1
Set how many Code 16K barcodes can be decoded as a single barcode when exposed to the scanner.

Code 16K fixed number of codes

SSI # FB 6Ah
Parameter # 3178
When enabled, only the number of Code 16K barcodes set by the *Code 16K number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 16K fixed number of codes
(01h)
***Disable Code 16K fixed number of codes**
(00h)

Enable/Disable Code 49

SSI # FB 6Bh
Parameter # 3179
To enable or disable Code 49.
Enable Code 49
(01h)

***Disable Code 49**
(00h)

Set Lengths for Code 49

Min = Parameter # 3180
SSI # FB 6Ch
[Range: 1..127]
Default: 1
Max = Parameter # 3181
SSI # FB 6Dh
[Range: 1..127]
Default: 127
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Code 49 codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Code 49 codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Code 49 number of codes when multiple codes are in the sa

SSI # FB 6Eh
Parameter # 3182
[Range: 1..10]
Default: 1
Set how many Code 49 barcodes can be decoded as a single barcode when exposed to the scanner.

Code 49 fixed number of codes

SSI # FB 6Fh
Parameter # 3183
When enabled, only the number of Code 49 barcodes set by the *Code 49 number of codes when multiple codes are in the sa* can be decoded as a single barcode.
Enable Code 49 fixed number of codes
(01h)
***Disable Code 49 fixed number of codes**
(00h)

Enable/Disable Grid Matrix

SSI # F8h 06h B6h
Parameter # 1718
To enable or disable Grid Matrix.
***Enable Grid Matrix**
(01h)
Disable Grid Matrix
(00h)

Set Lengths for Grid Matrix

Min = Parameter # 3227
SSI # FB 9Bh
[Range: 1..2751]
Default: 1
Max = Parameter # 3228
SSI # FB 9Ch
[Range: 1..2751]
Default: 2751
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. To decode only Grid Matrix codes that fall within a specific length range, assign the lesser length to the **Min** parameter and the greater to the **Max** parameter. For example, to decode Grid Matrix codes of length 6 through 12 characters, set **Min = 6, Max = 12**.

Grid Matrix Close ECI Output

SSI # FB 9Dh
Parameter # 3229
Choose if the output data should strip out the ECI data in the Grid Matrix bar codes.
***Strip out the ECI data from the output(enable)**
(01h)

Do not striping out the ECI data from the output (disable)
(00h)

Trigger Modes
SSI # 8Ah
Parameter # 138

Select a trigger mode:
***Level -** A trigger event activates aimer and illumination and start decode processing, which continues until the trigger event ends, a valid decode, or the decode session time-out occurs.
(00h)
Continuous Mode - A trigger event activates activates decode processing, which continues until the trigger event ends.
(07h)

Batch Scan
SSI # F2h 84h
Parameter # 900

This mode enables decoding multiple bar codes within the scanner's field of view. Select one of the following options:

***Disable Batch Scan**
(00h)
Enable Batch Scan
(01h)

Decode Session Timeout
SSI # 88h
Parameter # 136

This parameter sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.1 to 9.9 seconds. The default timeout is 5.0 seconds.

Transmit Code ID Character

SSI # 2Dh
Parameter # 45

A Code ID character identifies the code type of a scanned bar code. This is useful when decoding more than one code type. In addition to any single character prefix already selected, the Code ID character is inserted between the prefix and the decoded symbol.
AIM Code ID Character
(01h)
***None**
(00h)

Decoding Illumination

SSI # F0h 2Ah
Parameter # 298

Selecting **Enable Decoding Illumination** causes the engine to turn on illumination every image capture to aid decoding. Select **Disable Decoding Illumination** to prevent the engine from using decoding illumination. Enabling illumination usually results in superior images. The effectiveness of illumination decreases as the distance to the target increases

***Enable Decoding Illumination**
(01h)
Disable Decoding Illumination
(00h)

Illumination Brightness
SSI # F1h FCh
Parameter # 764

This parameter sets the level of illumination by altering laser/LED power. For values from 1 to 255, illumination varies from lowest to highest level. This parameter affects both decoding and motion illumination.
The default is 80.

Transmit "No Read" Message
SSI # 5Eh
Parameter # 94

Select whether or not to transmit a No Read message.

***Disable No Read -** the decoder sends nothing to the host if a symbol does not decode.
(00h)
Enable No Read - the decoder sends the characters No Read when a successful decode does not occur before trigger release or the **Decode Session Timeout** expires.
(01h)

Update History	
Version	**Update list**
V2.6.3	**Add Shake Scan API.**
V2.6.4	**Added Disable All Symbologies API.** **Added Enable/Disable NFC API.** **Added NFC Output Order API.** **Added NFC Ignore Rate API.** **Update send settings API.**
V2.6.8	**Update diagram in section 1.** **Update how trigger work in HW trigger OS.** **Added note on which OS the API will work on.** **Update Intercharacter delay API.** **Added example of how to recevie scanned data.** **Added insertion rule to data editing API and an example.**
V2.6.9	**Update example of how to receive scanned data.**
V2.7.0	**Added Appendix A to list all parameter and settings.**
V2.7.1	**Added information about receiving data as byte in section 1.3.**
V2.7.2	**Fixed the error of saying EXTENT instead EXT for PA720 2D engine in section 1.24.**
V2.7.3	**Added Scan2Key output method API.**
V2.7.5	**Added databytelength for updated databyte output.**
V2.7.6	**Added Sound Frequency API** **Added Sound Duration API** **Added set intent action for the receive data API** **Added set intent extra for the receive data APU** **Added Code ID Table** **Added AIM ID Table** **Added Command Table** **Added command for PA760 in Command information**
V2.7.7	**Added description for external USS** **Updated Code ID Table and Command Table**
V2.7.8	**Fixed the error of description in section 3.1**
V2.8	**Add USS for PA760**
V2.8.1	**1.9 No need extra parameter** **1.30 sample code error (see red color in 1.30)**
V2.8.2	**Add** "Trigger software scan" on 1.3
V2.8.3	**Update 1.32 Keypad testing code**
V2.8.4	**page 13 - Update 1.28 send param command – type 4 explanation –** **page 14 – Sample2 code** **page 31 – parameter** **page 93**
V2.8.5	**Page 8 -** Receive scanned data – reference to Set Device Options **Page 13 – Add "**For more details please reference **chapter 9.5** instead." **Page 67 – Add ""V" It means that the options are visible on supported devices"**
V2.8.6	**Page 8 - reference error Set Device Options** **Page 67 – Add ""V" It means that the options are visible on supported devices"**
V2.8.8	**Page 12 : Remove 1.23 enable all symbology**
V3.1	**Page 38~39 : Upgrade UnitechSDK version and support EA520/HT330**

V3.2	**Support** Newland CM30
V3.3	**Update UnitechSDK to from 1.2.13 to 1.2.25**
V3.4	**Add 3030 Decode Aiming Pattern and 3031 Decoding Illumination on table 9-2B. Honeywell Engine Command Table on page 54**
V3.5	**Page 31 : update UnitechSDK download URL (remove BETA)**
V3.6	**Update unitechSDK to** V1.2.28 and add EA660/RT112 supporting