

# AY-H6355BT

## CSN SMART™ Smart Card Readers (Rev. A)

Installation and User Manual



BLE 4.1



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SECURITY PRODUCTS

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# Notice and Disclaimer

This manual's sole purpose is to assist installers and/or users in the safe and efficient installation and usage of the system and/or product, and/or software described herein.

**BEFORE ATTEMPTING TO INSTALL AND/OR USE THE SYSTEM, THE INSTALLER AND THE USER MUST READ THIS MANUAL AND BECOME FAMILIAR WITH ALL SAFETY REQUIREMENTS AND OPERATING PROCEDURES.**

- The system must not be used for purposes other than those for which it was designed.
- The use of the software associated with the system and/or product, if applicable, is subject to the terms of the license provided as part of the purchase documents.
- ROSSLARE exclusive warranty and liability is limited to the warranty and liability statement provided in an appendix at the end of this document.
- This manual describes the maximum configuration of the system with the maximum number of functions, including future options. Therefore, not all functions described in this manual may be available in the specific system and/or product configuration you purchased.
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- All wiring diagrams are intended for reference only, the photograph or graphic of the PCB(s) are intended for clearer illustration and understanding of the product and may differ from the actual PCB(s).

# 1. Introduction

The CSN SMART™ AY-H6355BT is an innovative reader from Rosslare geared for quad-play operation: backlit PIN keypad, smart card CSN (13.56 MHz) card reader, NFC-ID read, and BLE-ID smartphone ID read capabilities. Designed with premium components and IP65 mechanicals, it works well indoors and outdoors. The reader also features OSDP support and configuration card operation programming.

The following list shows the credential technologies for which we have confirmed compatibility:

- ISO14443A – MIFARE® Ultralight® Nano / EV1/ C, MIFARE Classic® / Classic EV1, MIFARE Plus® S / SE / X / EV1, MIFARE DESFire® EV1 / EV2, N-TAG NFC / Card Emulation
- ISO14443B - China National ID
- ISO15693 – HID® iClass®, PicoPass, iCode, LEGIC
- ISO18092 – SONY® FeliCa® (Hong Kong Octopus)
- Rosslare's CS-ECA NFC app (HCE) for Android smartphones  
Scan the QR code to download Rosslare's NFC app.
- Android app and BLE-ID for Android and iPhone



This list is continuously updated, for the latest compatibility list contact your sales representative.

The standard reader outputs the Wiegand CSN data in Wiegand 26-Bit format. Other Wiegand formats are selectable using the *CS-CCT Configuration Card Tool for the DR-6255* application.

### **1.1 Installation Kit**

The installation kit consists of the following items to be used during the installation procedure:

- 1 self-adhesive mounting label template
- 2 mounting screws and 2 screw anchors
- 1 Torx key tool
- 1 Torx security screw



## 2. Technical Specifications

### Electrical Characteristics

<b>Power Supply Type</b>	Regulated
<b>Operating Voltage Range</b>	8 to 16 VDC
<b>Current @ 12 V</b>	Standby: 120 mA, max: 220 mA
<b>Read Range*</b>	Contactless 13.56 MHz and NFC: Up to 7 cm (2.8 in.) Bluetooth BLE 4.1: Up to 10 m ( 32 ft) open air
<b>Green LED Control</b>	Dry Contact, N.O.
<b>Red LED Control</b>	Dry Contact, N.O.
<b>Buzzer Control</b>	Dry Contact, N.O.
<b>Tamper Output</b>	Open collector, active low, max. sink current 16 mA
<b>Maximum Cable Distance to Controller</b>	Wiegand: 150 m (500 ft) with 18-AWG cable OSDP (RS-485): 1,200 m (4,000 ft) with 2x2 18-AWG twisted shielded cable

### Environmental Characteristics

<b>Operating Temp. Range</b>	-35°C to 66°C (-31°F to 150°F)
<b>Operating Humidity Range</b>	0 to 95% (non-condensing)
<b>Outdoor Usage</b>	Weather-resistant, UV-resistant, epoxy-potted, suitable for indoor and outdoor use

\* Measured using a Rosslare MIFARE Classic EV1 (ISO card). Read range with other credential technologies may vary. Range also depends on electrical environment and proximity to metal.

### Physical Characteristics

<b>Dimensions (H x W x D)</b>	110.7 × 75.0 × 18.2 mm (4.4 x 3.0 x 0.7 in.)
<b>Weight</b>	190 g (6.7 oz)

### 3. Mounting

Before mounting, you should determine the best location for the reader.

***To mount the units:***

1. Peel off the back of the self-adhesive mounting label template and place it at the required mounting location.
2. Using the template as a guide, drill two holes (sizes indicated on the template) used for mounting the back plate onto the surface.
3. Insert a suitable wall plug into each screw hole.
4. Drill a 10-mm (7/16") hole for the cable. If mounting on metal, place a grommet or electrical tape around the edge of the hole.
5. Wire the reader as described in Chapter 4. A linear type power supply is recommended.
6. Remove the reader's snap-off front cover to reveal the two screw holes (see Figure 1).

**Figure 1: Removing the Top Cover**



The location of the screws varies depending on the model number of the reader.

## Mounting

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7. Align the two holes of the reader with those drilled in the wall and firmly attach the reader to the wall with two screws, whose size is indicated on the template.
8. Relocate the front cover onto the reader.



The reader can also be mounted using strong epoxy glue. After application, the reader should be firmly held in place until the glue dries

### 4. Wiring Instructions

The units are supplied with a 10-conductor 5-m (16-ft) pigtail with exposed wires coated with solder.

***To connect the unit as a reader to an access control unit:***

1. Select the appropriate connections according to Table 1.
2. Prepare the controller cable by cutting its jacket back about 3 cm (1¼") and strip the insulation from the wires about 1.3 cm (½").
3. Splice the reader's pigtail wires to the corresponding controller wires and cover each joint with insulating tape.

**Table 1: Wiring the Unit as a Reader to a Control Panel**

<b>Wire Color</b>	<b>Output</b>
Red	Power
Black	Ground
Green	Data 0 / Data / C2
White	Data 1 / Clock / C1
Orange	Green LED Control*
Brown	Yellow LED Control*
Purple	Tamper Output
Yellow	Buzzer Control*
Blue	RS-485 - A / OSDP**
Gray	RS-485 - B / OSDP**

\* These wires have programmable functions that may be adjusted by presenting a configuration card within 10 seconds upon powering on the unit. See the *CS-CCT Configuration Card Tool for the DR-6255 Software Manual* for how you can create a configuration card.

\*\* RS-485 is used for firmware update.

## Wiring Instructions

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4. Trim and insulate the ends of all unused conductors individually. Do not short any unused wires together.



Note

- The individual wires from the reader are color coded according to the Wiegand standard.
- When using a separate power supply for the reader, this supply and that of the controller must have a common ground.
- The reader's cable shield wire should be preferably attached to an earth ground, or a signal ground connection at the panel, or the power supply end of the cable. This configuration is best for shielding the reader cable from external interference.

### 5. OSDP Operation



Note

- In OSDP mode, all control lines (Inputs/Outputs) are disabled.
- In OSDP mode, if a connection is not established or lost with the controller, the right LED flashes yellow continuously.

The reader is compatible with all reader-related OSDP commands. The reader address is set using DIP switches on the back of the reader.

Release the screw on the back of the reader to remove the door to access the DIP switches (Figure 2).

**Figure 2: DIP Switch Compartment**

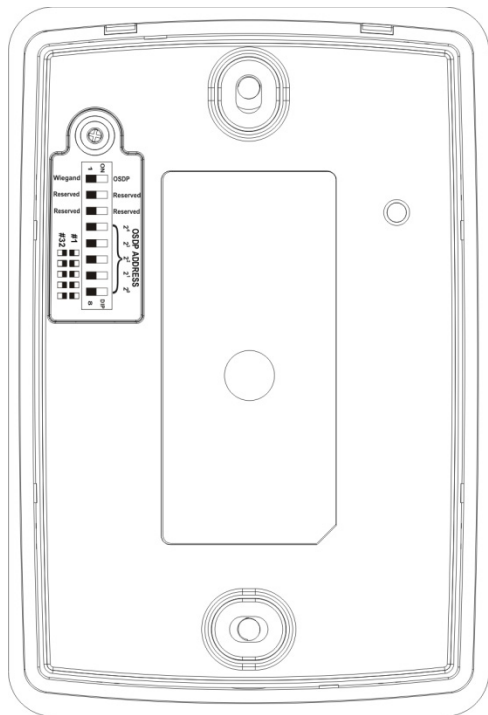
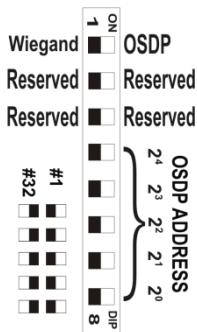


Figure 3 shows the DIP switch settings, which are also described below.

**Figure 3: DIP Switch Settings**



### **DIP Switch 1**

This switch is used to select the reader output (Wiegand or OSDP):

- Off = Wiegand
- On = OSDP

### **DIP Switch 2**

This switch is reserved for future use.

### **DIP Switch 3**

This switch is reserved for future use.

### **DIP Switches 4 to 8**

These switches set the address of the reader for OSDP protocol.

DIP Switch 4 is MSB and DIP Switch 8 is LSB. The address is the DIP switch state +1.

Examples:

- All the DIP switches in Off position, address = 1
- All the DIP switches in On position, address = 32



# 6. Reader Functionality

Upon power on, the unit flashes yellow, then blue, and then orange, each for 1 second and a beep is heard for each color.

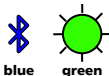
## 6.1 Standby Mode

The default mode of the reader is Standby mode. In Standby mode, the unit is ready to receive data from an entered PIN code or from a presented proximity card, NFC-ID, and BLE-ID.

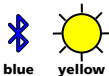
When the reader is in Standby mode, both LEDs are blue.



When a contactless card or an NFC-ID device is presented or a keypad entry is being transmitted, the right LED flashes green and you hear a beep.



When a BLE-ID device or smartphone app is received by the reader, the right LED flashes yellow and you hear two short beeps.



Keypad data can be sent via one of eight different keypad transmission formats (see Section 6.2.3).

Proximity cards presented to the reader are sent in either various Wiegand formats or Clock & Data format (see Section 6.2.4).

## 6.2 Programming

Programming is done solely via the unit's keypad driven Programming Menu System. During the manufacturing process, certain codes and settings are pre-programmed. These settings are called the default factory settings.

Table 2 shows the names of all the reader menus.

Default factory settings are marked by a "\*" sign.

**Table 2: Reader Programming Menus**

<b>Menu Description</b>	<b>Default</b>
<b>1 Selecting Keypad Transmission Format</b> Single Key, 6-Bit Wiegand (Rosslare Format) Single Key, 6-Bit Wiegand with Nibble + Parity Bits Single Key, 8-Bit Wiegand, Nibbles Complemented 4 Keys Binary + Facility Code, Wiegand 26-Bit 1 to 5 Keys + Facility Code, Wiegand 26-Bit 6 Keys BCD and Parity Bits, Wiegand 26-Bit 1 to 8 Keys BCD, Clock & Data Single Key, Wiegand 4-Bit	*
<b>2 Selecting Card Transmission Format</b> Wiegand 26-Bit Clock & Data Wiegand 32-Bit Wiegand 32-Bit Reversed Byte Wiegand 34-Bit Wiegand 40-Bit Wiegand 56-Bit Wiegand 64-Bit	*
<b>3 Changing the Programming Code</b>	<b>1234</b>
<b>4 Changing the Facility Code</b>	<b>0</b>
<b>5 Selecting Credential Technology</b>	<b>0</b>
<b>6 Backlight Options</b> Off On (Default) Off until key press when on for 10 seconds Dimmed until key press when on for 10 seconds	*
<b>0 Return to Factory Default Settings</b>	

### 6.2.1 Entering Programming Mode

To reach the Programming Menu System, the unit must first be placed into Programming mode.



Note

- The factory 4-digit Programming code is 1234.
- If a Programming code is not entered within 20 seconds, the unit returns to Standby mode.

#### *To enter Programming mode:*

1. Press # four times.

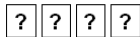
The left LED turns yellow and the right LED turns off.



yellow

2. Enter your 4-digit Programming code.

If the Programming code is valid, the left LED turns green.



green

If the Programming code is invalid, you hear a long beep and the reader returns to Standby mode.

### 6.2.2 Exiting Programming Mode

#### *To exit Programming mode:*

1. Press # to exit Programming mode at any time.

- You hear a beep.
- Both LEDs are blue.



blue blue

This indicates that the unit has returned to Standby mode.

Wrong entries may reset the reader back to Standby mode. If no key is pressed for 20 seconds while in Programming mode, the unit exits Programming mode and returns to Standby mode.

### 6.2.3 Selecting Keypad Transmission Format

The AYC-x6355 has nine different keypad transmission formats.

See Table 3 in Section 6.2.3.1 for more information on keypad transmission formats.



Note

- Only one keypad transmission format can be active at any one time.
- When using the keypad transmission format "1 to 8 keys BCD, Clock & Data" (Option 8), an additional input is required to specify the number of keys in the PIN code.

#### *To select the keypad transmission format:*

1. Enter Programming mode.



green

2. Press **1** to enter Menu 1.

1

The right LED turns yellow.



green

yellow

3. Enter the appropriate option number for the keypad transmission format that you wish to select.

?

You hear three beeps.



blue

blue

If an incorrect option number is entered, the reader returns to Standby mode and the keypad transmission format remains unchanged.

### 6.2.3.1 Keypad Transmission Format Option Number

Table 3 presents the eight different keypad transmission formats.

**Table 3: Keypad Transmission Format Option Number**

<b>Keypad Transmission Format</b>	<b>Option Number</b>
Single Key, Wiegand 6-Bit (Rosslare Format)	1*
Single Key, Wiegand 6-Bit with Nibble + Parity Bits	2
Single Key, Wiegand 8-Bit, Nibbles Complemented	3
4 Keys Binary + Facility Code, Wiegand 26-Bit	4
1 to 5 Keys + Facility Code, Wiegand 26-Bit	5
6 Keys BCD and Parity Bits, Wiegand 26-Bit	6
1 to 8 Keys BCD, Clock & Data Single Key	8
Single Key, Wiegand 4-Bit	9

\* Option 1 is the default factory setting.

More information on each of the different keypad transmission formats is available below and on the following pages.

#### **Option 1: Single Key, Wiegand 6-Bit (Rosslare Format)**

Each key press immediately sends 4 bits with 2 parity bits added – even parity for the first 3 bits and odd parity for the last 3 bits.

0 = 1 1010 0 = "A" in Hexadecimal

1 = 0 0001 0

2 = 0 0010 0

3 = 0 0011 1

4 = 1 0100 1

5 = 1 0101 0

6 = 1 0110 0

7 = 1 0111 1

8 = 1 1000 1

9 = 1 1001 0

\* = 1 1011 1 = "B" in Hexadecimal

# = 0 1100 1 = "C" in Hexadecimal

### Option 2: Single Key, Wiegand 6-Bit Nibble and Parities

Each key press immediately sends 4 bits with 2 parity bits added – even parity for the first 3 bits and odd parity for the last 3 bits.

0 = 0 0000 1	6 = 1 0110 0
1 = 0 0001 0	7 = 1 0111 1
2 = 0 0010 0	8 = 1 1000 1
3 = 0 0011 1	9 = 1 1001 0
4 = 1 0100 1	* = 1 1010 0 = "A" in Hexadecimal
5 = 1 0101 0	* = 1 1011 1 = "B" in Hexadecimal

### Option 3: Single Key, Wiegand 8-Bit Nibbles Complemented

This option inverts the most significant bits in the message leaving the least 4 significant bits as a Binary Coded Decimal (BCD) representation of the key. The host system receives an 8-bit message.

0 = 11110000	6 = 10010110
1 = 11100001	7 = 10000111
2 = 11010010	8 = 01111000
3 = 11000011	9 = 01101001
4 = 10110100	* = 01011010 = "A" in Hexadecimal
5 = 10100101	# = 01001011 = "B" in Hexadecimal

### Option 4: 4 Keys Binary + Facility Code, Wiegand 26-Bit

This option buffers 4 keys and outputs keypad data with a 3-digit Facility code like a standard 26-Bit card output.

The Facility code is set in Programming Menu number four and can be in the range 000 to 255. The factory default setting for the Facility code is 000 (see Section 6.2.6).

The keypad PIN code is 4-digit long and can range between 0000 and 9999. On the fourth key press of the 4-digit PIN code, the data is sent across the Wiegand Data lines as binary data in the same format as a 26-Bit Card.

If \* or # are pressed during PIN code entry, the keypad clears the PIN code entry buffer, generate a beep and is ready to receive a new 4-digit keypad PIN code.

If the entry of the 4-digit keypad PIN code is disrupted and no number key is pressed within 5 seconds, the keypad clears the PIN code entry buffer, generates a beep and is ready to receive a new 4-digit keypad PIN code.

(EP) FFFF FFFF AAAA AAAA AAAA AAAA (OP)

Where:

EP = Even parity for first 12 bits

OP = Odd parity for last 12 bits

F = 8-bit Facility code

A = 16-bit code generated from keypad

### **Option 5: 1 to 5 Keys + Facility Code, Wiegand 26-Bit**

Option 5 buffers up to 5 keys and outputs keypad data with a Facility code like a 26-Bit card output.

The Facility code is set in Programming Menu number four and can be in the range 000 to 255. The factory default setting for the Facility code is 000 (see Section 6.2.6).

The keypad PIN code can be one to five digits in length and can range between 1 and 65,535. When entering a keypad PIN code that is less than 5 digits in length, # must be pressed to signify the end of PIN code entry. For keypad PIN codes that are 5 digits in length, on the fifth key press of the 5-digit PIN code, the data is sent across the Wiegand Data lines as binary data in the same format as a 26-Bit Card.

If \* is pressed during PIN code entry or a PIN code greater than 65,535 is entered, the keypad clears the PIN code entry buffer, generates a beep and is ready to receive a new 5-digit keypad PIN code.

If the entry of the 1- to 5-digit keypad PIN code is disrupted and a number key or # is not pressed within 5 seconds, the keypad clears the PIN code entry buffer, generates a medium length beep and is ready to receive a new 1- to 5-digit keypad PIN code.

(EP) FFFF FFFF AAAA AAAA AAAA AAAA (OP)

Where:

EP = Even parity for first 12 bits

OP = Odd parity for last 12 bits

F = 8-bit Facility code

A = 16-bit code generated from keypad

### **Option 6: 6 Keys BCD and Parity Bits, Wiegand 26-Bit**

Option 6 sends buffer of 6 keys, adds parity and sends a 26-Bit Binary BCD message. Each key is a four bit equivalent of the decimal number.

The keypad PIN code must be 6 key presses long. On the sixth key press of the 6-digit PIN code, the data is sent across the Wiegand Data lines as a BCD message.

If the entry of the 6-digit keypad PIN code is disrupted and no number key is pressed within 5 seconds, the keypad clears the PIN code entry buffer, generates a medium length beep and is ready to receive a new 6-digit keypad PIN code.

(EP) AAAA BBBB CCCC DDDD EEEE FFFF (OP)

Where:

EP = Even parity for first 12 bits

OP = Odd parity for last 12 bits

A = The first key entered

D = Fourth key entered

B = Second key entered

E = Fifth key entered

C = Third key entered

F = Sixth key entered

### **Option 8: 1 to 8 Keys BCD, Clock & Data**

Buffers up to 8 keys and outputs keypad data without a Facility code like standard Clock and Data card output.

The keypad PIN code can be one to eight digits in length. The PIN code length is selected while programming the reader for Option 8. The reader transmits the data when it receives the last key press of



the PIN code. The data is sent across the two data output lines as binary data in Clock & Data format.

If \* or # key is pressed during PIN code entry, the keypad clears the PIN code entry buffer, generates a beep, and is ready to receive a new keypad PIN code.

If the entry of the digit keypad PIN code is disrupted and a number key or # is not pressed within 5 seconds, the keypad clears the PIN code entry buffer, generates a medium length beep, and is ready to receive a new keypad PIN code.



When using the keypad transmission format "1 to 8 keys BCD, Clock & Data" (Option 8) an additional input is required to specify the number of keys in the PIN code.

### Option 9: Single Key, Wiegand 4-Bit

Each key press immediately sends 4 bits of data, with no parity bits added.

0 = 0000

6 = 0110

1 = 0001

7 = 0111

2 = 0010

8 = 1000

3 = 0011

9 = 1001

4 = 0100

\* = 1010 = "A" in Hexadecimal

5 = 0101

# = 1011 = "B" in Hexadecimal

## 6.2.4 Selecting Proximity Card Transmission Format

There are eight different proximity card transmission formats.

See Table 3 in Section 6.2.3.1 for more information on keypad transmission formats.

*To select the proximity card transmission format:*

1. Enter Programming mode.



green

2. Press **2** to enter Menu 2.

2

The right LED turns yellow.



green yellow

3. Enter the appropriate option number for the proxy card transmission format that you wish to select:
  - **1** – Wiegand 26-Bit
  - **2** – Clock & Data
  - **3** – Wiegand 32-Bit
  - **4** – Wiegand 32-Bit Reversed Byte
  - **5** – Wiegand 34-Bit
  - **6** – Wiegand 40-Bit
  - **7** – Wiegand 56-Bit
  - **8** – Wiegand 64-Bit

You hear three beeps.

The system returns to Standby mode.



### 6.2.4.1 Proximity Card Transmission Format Option Number

Table 4 presents the nine different keypad transmission formats.

**Table 4: Proximity Card Transmission Format Option Number**

<b>Proximity Card Transmission Format</b>	<b>Option Number</b>
Wiegand 26-Bit	1*
Clock & Data	2
Wiegand 32-Bit	3
Wiegand 32-Bit Reversed Byte	4
Wiegand 34-Bit	5
Wiegand 40-Bit	6
Wiegand 56-Bit	7
Wiegand 64-Bit	8

\* Option 1 is the default factory setting.

More information on each of the different keypad transmission formats is available below and on the following pages.

### Option 1: Wiegand 26-Bit

In this mode, 3 LSB bytes from the card serial number (UID) are transmitted in Wiegand 26-Bit format. Two parity bits are added. An even parity bit is sent first, followed by three bytes of card data, and by an odd parity bit.

(EP) AAAA AAAA AAAA AAAA AAAA AAAA (OP)

Where:      EP = Even parity for first 12 bits  
              OP = Odd parity for last 12 bits  
              A = 3 bytes code generated from card data

### Option 2: Clock and Data

In this mode, up to 6 bytes of the card serial number are transmitted in Clock & Data format.

### Option 3: Wiegand 32-Bit

In this mode, 4 LSB bytes from the card serial number are transmitted in Wiegand 32-Bit format. No parity bits are added.

AAAA AAAA BBBB BBBB CCCC CCCC DDDD DDDD

Where:      A = 4<sup>th</sup> (MSB) byte of card serial number  
              B = 3<sup>rd</sup> byte of card serial number  
              C = 2<sup>nd</sup> byte of card serial number  
              D = 1<sup>st</sup> (LSB) byte of card serial number

### Option 4: Wiegand 32-Bit Reversed Byte

In this mode, 4 LSB bytes from card serial number are transmitted in Wiegand 32-bit format. Bytes are sent in reversed order. The LSB part of the card serial number is sent first and the MSB byte is sent last. No parity bits are added.

DDDD DDDD BBBB BBBB CCCC CCCC AAAA AAAA

Where:        D = 1<sup>st</sup> (LSB) byte of card serial number  
                  C = 2<sup>nd</sup> byte of card serial number  
                  B = 3<sup>rd</sup> byte of card serial number  
                  A = 4<sup>th</sup> (MSB) byte of card serial number

### Option 5: Wiegand 34-Bit

In this mode, 4 LSB bytes of card serial number are transmitted in Wiegand 34-Bit format. Bytes are sent in reversed order. The LSB part of the card serial number is sent first and the MSB byte is sent last. An even parity is sent first, followed by 32-Bit data and an odd parity bit.  
(EP) AAAA AAAA BBBB BBBB CCCC CCCC DDDD DDDD (OP)

Where:        EP = Even parity for first 16 data bits  
                  OP = Odd parity for last 16 data bits  
                  A = 4<sup>th</sup> (MSB) byte of card serial number  
                  B = 3<sup>rd</sup> byte of card serial number  
                  C = 2<sup>nd</sup> byte of card serial number  
                  D = 1<sup>st</sup> (LSB) byte of card serial number

### Option 6: Wiegand 40-Bit

In this mode, 4 LSB bytes of card serial number are transmitted in Wiegand 40-Bit format. Bytes are sent in reversed order. The LSB part of card serial number is sent first. The last byte sent is a Checksum byte generated by adding 4 data bytes and discarding the remainder beyond 8 bytes.

AAAA AAAA BBBB BBBB CCCC CCCC DDDD DDDD (CSUM)

Where:        A = 4<sup>th</sup> (MSB) byte of card serial number  
                  B = 3<sup>rd</sup> byte of card serial number  
                  C = 2<sup>nd</sup> byte of card serial number  
                  D = 1<sup>st</sup> (LSB) byte of card serial number  
                  CSUM = Checksum value, 1 byte (A+B+C+D)

### Option 7: Wiegand 56-Bit

In this mode, 7 bytes of card serial number are transmitted in Wiegand 56-Bit format. No parity bits are added.

AAAA AAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEEEEE  
FFFFFFF GGGGGGGG

### Option 8: Wiegand 64-Bit

In this mode, 8 bytes of card serial number are transmitted in Wiegand 64-Bit format. No parity bits are added.

AAAA AAAA BBBBBBBB CCCCCCCC DDDDDDDD EEEEEEEE  
FFFFFFF GGGGGGGG HHHHHHHH

## 6.2.5 Changing the Programming Code



- The Programming code cannot be erased, meaning the code 0000 is invalid and does not erase the Programming code.
- The factory default 4-digit Programming code is 1234.

### *To change the Programming code:*

1. Enter Programming mode.

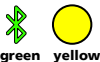


green

2. Press **3** to enter Menu 3.

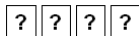
3

The right LED turns yellow.



green yellow

3. Enter the new 4-digit code you wish to set as the Programming code.



You hear three beeps.

The system returns to Standby mode.



blue blue

### 6.2.6 Changing the Facility Code



- The Facility code can be in the range of 000 to 255.
- The default Facility code is 0.

#### *To change the Facility code:*

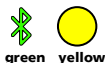
1. Enter Programming mode.



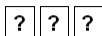
2. Press **4** to enter Menu 4.



The right LED turns yellow.



3. Enter the new 3-digit code you wish to set as the Facility code.



You hear three beeps.

The system returns to Standby mode.



### 6.2.7 Selecting Credential Technology

#### *To select the credential technology:*

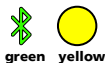
1. Enter Programming mode.



2. Press **5** to enter Menu 5.



The right LED turns yellow.



3. Enter one of the following codes:

- **0** – All formats (default)
- **1** – 14443A
- **2** – 14443B
- **3** – 15693
- **4** – Felica
- **5** – China ID
- **6** – Topaz

You hear three beeps.

The system returns to Standby mode.



### 6.2.8 Setting the Backlight Behavior

*To set the backlight behavior:*

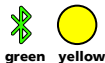
1. Enter Programming mode.



2. Press **6** to enter Menu 6.



The right LED turns yellow.



3. Enter one of the following codes:

- **0** for always off
- **1** for always on
- **2** for 10 sec. backlight after a key is pressed otherwise off
- **3** for 10 sec. backlight after a key is pressed otherwise dimmed

You hear three beeps.

The system returns to Standby mode.



### 6.2.9 Return to Factory Default Settings



You must be very careful before using this command! This erases the entire memory and return all codes to their factory default setting.

#### *To return to factory default settings:*

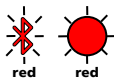
1. Enter Programming mode.



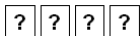
2. Press **0** to enter Menu 0.



Both LEDs flash red.



3. Enter your 4-digit Programming code.



If the Programming code is valid, all memory is erased. You hear three beeps and the reader returns to Standby mode.

If the Programming code is invalid, you hear a long beep and the reader returns to Standby mode without erasing the memory of the reader.

### 6.2.10 Replacing a Lost Programming Code

In the event that the Programming code is forgotten, the AYC-x6355 can be reprogrammed in the field using the following instructions:

1. Remove power from the reader.
2. Activate tamper by removing the reader from the wall or removing the reader's case.
3. Apply power to the reader.
4. You now have 10 seconds to enter Programming mode using the factory default Programming code 1234.



### A. Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.**

### B. Limited Warranty

The full ROSSLARE Limited Warranty Statement is available in the Quick Links section on the ROSSLARE website at [www.rosslaresecurity.com](http://www.rosslaresecurity.com).

Rosslare considers any use of this product as agreement to the Warranty Terms even if you do not review them.



# AY-H6355BT

## Asia Pacific, Middle East, Africa

Rosslare Enterprises Ltd.  
Kowloon Bay, Hong Kong  
Tel: +852-2795-5630  
Fax: +852-2795-1508  
support.apac@rosslaresecurity.com

## United States and Canada

Rosslare Security Products, Inc.  
Southlake, TX, USA  
Toll Free: +1-866-632-1101  
Local: +1-817-305-0006  
Fax: +1-817-305-0069  
support.na@rosslaresecurity.com

## Europe

Rosslare Israel Ltd.  
22 Ha'Melacha St., P.O.B. 11407  
Rosh HaAyin, Israel  
Tel: +972-3-938-6838  
Fax: +972-3-938-6830  
support.eu@rosslaresecurity.com

## Latin America

Rosslare Latin America  
Buenos Aires, Argentina  
Tel: +54-11-4001-3104  
support.la@rosslaresecurity.com

## China

Rosslare Electronics (Shenzhen) Ltd.  
Shenzhen, China  
Tel: +86-755-8610 6842  
Fax: +86-755-8610 6101  
support.cn@rosslaresecurity.com

## India

Rosslare Electronics India Pvt Ltd.  
Tel/Fax: +91-20-40147830  
Mobile: +91-9975768824  
sales.in@rosslaresecurity.com



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