

# MSR 210U SERIES

## Magnetic Stripe Card Reader

### Keyboard Interface

Thank you for purchasing the MSR210U series products. The MSR210U Series USB HID Keyboard Interface Magnetic Card Reader is ideal for retail systems, time keeping systems, security systems and the card reader related systems. The MSR210 series are designed to offer the user a card reader solution that will complement many applications. Triple track MSR210 reader is uniquely designed to read both credit cards and Driver Licenses (AAMVA and California standard).

#### FEATURES

1	LED and Buzzer indicators indicate the status of reader.
2	Single, dual, or triple track versions allow to reading ISO, AAMVA and DMV cards.
3	User-friendly setting application.
4	PC could be powered on with MSR210U
5	Programmable data output.
6	Compact size that can be mounted on keyboard or any flat surface.
7	Firmware download (Note: It can't be executed via Notebook PC.)

#### CONFIGURATION

MSR210U-12 Dual track 1&2

MSR210U-23 Dual track 2&3

MSR210U-33 Triple track 1&2&3

Note: Optional configuration is available.

#### AGENCY APPROVED

-- Comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules.

-- Comply with CE mark Class A, UL, and cUL

-- This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### WARRANTY

This product is served under one-year warranty of defects in material and functionality to the original purchasers. Within the warranty period, if the product found to be defective will be repaired or replaced. This warranty applies to the products only under the normal use of the original purchasers, and in no circumstances covers incidental or consequential damages through consumers' misuse or modification of the product.

#### WARNING

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

#### SET-UP

- 1) Turn the system power off.
- 2) Insert USB connector to the USB port of your system.
- 3) Turn the system power on.

#### SPECIFICATIONS

Recording Method: Two-frequency coherent phase (F2F), compatible with ISO 7811 and AAMVA.  
 Swipe Speed: 5 to 55 in/sec (worst case with  $\pm 12\%$  jitter card)  
 Power Requirements: Reader is low-power CMOS. The computer supplies power.  
 Communication: USB interface  
 Operating Temp: - 10°C to + 50°C  
 Storage Temp: -30°C to +70°C  
 Humidity: Operating: 10-85% (non condensing); Storage: 10-90% (non condensing)  
 Magnetic Head Life: 500K swipes Min. (1M swipes optional)  
 Dimensions: 100L x 34W x 27H mm (3.94L x 1.34W x 1.10H inch)  
 Weight: 170g (6.0oz)

## OUTPUT DATA FORMAT

SINGLE TRACK: <SS><TRACK1 or 2 or 3 DATA><ES><CARRIAGE RETURN>

DUAL TRACKS: <SS><TRACK1 or 2 DATA><ES><CARRIAGE RETURN>

<SS><TRACK2 or 3 DATA><ES><CARRIAGE RETURN>

TRIPLE TRACKS: <SS><TRACK1 DATA><ES><CARRIAGE RETURN><SS><TRACK2 DATA><ES><CARRIAGE RETURN><SS><TRACK3 DATA><ES><CARRIAGE RETURN>

SS = START SENTINEL TRACK1 “%” (ISO, DMV & AAMVA)

TRACK2 “;” (ISO, DMV & AAMVA)

TRACK3 “:” (ISO) “0” (AAMVA) “!” (DMV)

ES = END SENTINEL TRACK1 & 2 & 3 “?” (ISO, DMV & AAMVA)

Data characters *in italics* are optional!

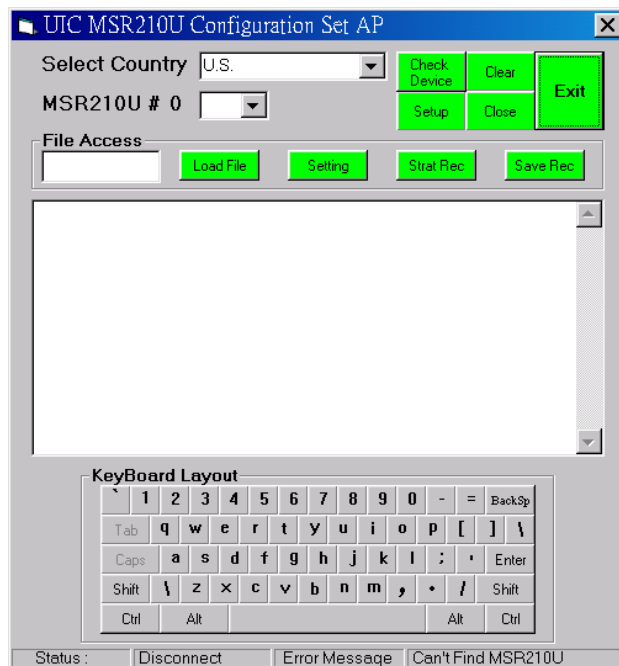
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## Using the Configuration Mode to Configure the Card Reader

### How to enter Configuration Mode

1. Power off PC, connect the reader with PC and then power on.
2. Execute MSR210U setup program.
3. Select correct keyboard layout country.
4. Choose device number to set.
5. Press SETUP button to get into Configuration Mode.

Note. The setup application only accepts the key input by clicking on the virtual keyboard in the setup application. It ignores any key input physical keyboard such as external PS2 keyboard. The MSR210U Configuration Set AP could be used in Windows2000 or above.



\*\*\*\* CONFIGURATION MODE \*\*\*\*

- 1:SET INTERFACE
- 2:SET MAGNETIC STRING
- 3:SET STRING EDITING
- 4:SET BUZZER
- 5:RESET TO DEFAULT
- 6:SHOW STATUS
- 7:SET KEYBOARD CONFIGURATION
- 0:EXIT SETUP MODE

## How to exit Configuration Mode

Once user choose "0" to exit **Configuration Mode**, the reader will be reset and execute the modified settings.

### The Setting Selections are as below:

#### 1:SET INTERFACE

```
1:SET KEYBOARD COUNTRY
**** SET KEYBOARD COUNTRY ****
1:U.S.
2:GERMAN
3:FRANCE
4:UK ENGLISH
5:SPANISH
6:ITALY
7:DUTCH
8:PORTUGUESE
9:SWEDISH
A: DANISH
0:BACK
READER STATUS = U.S.
2:SET TRANSMIT SPEED
**** SET TRANSMIT SPEED ****
1:25 CHARACTER/SEC
2:40 CHARACTER/SEC
3:60 CHARACTER/SEC
4:80 CHARACTER/SEC
5:120 CHARACTER/SEC
0:BACK
READER STATUS = 80 CHAR/SEC
3:FIRMWARE VERSION AND DATE
2100124A 27-JUN-2002 NICK
```

0:BACK

#### 2:SET MAGNETIC STRING

```
1:SET ENABLE TRACKS
**** ENABLE TRACKS ****
1:TRACK 1
2:TRACK 2
3:TRACK 1,2
4:TRACK 3
5:TRACK 1,3
6:TRACK 2,3
7:TRACK 1,2,3
0:BACK
READER STATUS = TRACK 1,2,3
2:SET REQUIRE TRACKS
**** REQUIRE TRACKS ****
1:TRACK 1
2:TRACK 2
3:TRACK 1,2
4:TRACK 3
5:TRACK 1,3
6:TRACK 2,3
7:TRACK 1,2,3
8:ANY TRACK
0:BACK
READER STATUS = ANY TRACK
```

```

3:CARRIAGE RETURN
**** CARRIAGE RETURN ****
1:DON'T SEND CARRIAGE RETURN
2:AFTER ALL TRACKS
3:AFTER EACH TRACK
4:AFTER ALL DATA
0:BACK
READER STATUS = AFTER EACH TRACK
4:TRANSMIT SS/ES
**** SS/ES SEND ****
1:SEND
2:NO SEND
0:BACK
READER STATUS = ENABLE
5:CAPS LOCK
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = ENABLE
6:TRACK OUTPUT ORDER
1:TRACK 1
2:TRACK 2
3:TRACK 3
0:BACK
READER STATUS = 1,2,3
7:CHANGE CARRIAGE RETURN CODE
1:CHANGE
2:RESET
0:BACK
READER STATUS = [ENTER]
8:OUTPUT CR IF READ NOTHING
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
0:BACK

```

### 3:SET STRING EDITING

```

1:SET PREFIX
1:TRACK 1
2:TRACK 2
3:TRACK 3
0:BACK
1(or 2,3)
**** SET TRACK 1(or 2,3) PREFIX ****
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
1
ENTER PREFIX (6 CHARS MAX) THEN PRESS `
WHEN FINISHED
IMPORTANT! [CAPS] KEY IS NOT ALLOWED
2:SET SUFFIX
1:TRACK 1
2:TRACK 2
3:TRACK 3
0:BACK
1(or 2,3)
**** SET TRACK 1(or 2,3) SUFFIX ****
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
1
ENTER PREFIX (6 CHARS MAX) THEN PRESS `
WHEN FINISHED
IMPORTANT! [CAPS] KEY IS NOT ALLOWED

```

```

3:SET MAGNETIC STRIPE PREAMBLE
**** SET PREAMBLE ****
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
1
ENTER PREAMBLE (6 CHARS MAX) THEN
PRESS ` WHEN FINISHED
IMPORTANT! [CAPS] KEY IS NOT ALLOWED
4:SET MAGNETIC STRIPE POSTAMBLE
**** SET POSTAMBLE ****
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
1
ENTER POSTAMBLE (6 CHARS MAX) THEN
PRESS ` WHEN FINISHED
IMPORTANT! [CAPS] KEY IS NOT ALLOWED
5:BLOCK OUTPUT ORDER
**** SET BLOCK OUTPUT ORDER ****
1:TRACK 1
2:TRACK 2
3:TRACK 3
0:BACK
1
1:BLOCK A
2:BLOCK B
3:BLOCK C
0:BACK
1
** SET TRACK1 BLOCK A **
READER STATUS = ISO
START=01
END=90
1:DMV
2:AAMVA
3:ISO
9:DISABLE
0:BACK
3
START=1
END=90
6:SEND CONTROL
1:SET KEY
2:ANY KEY
3:DISABLE
0:BACK
READER STATUS = DISABLE (ANY KEY)
7:FIELD OUTPUT ORDER
1:ENABLE
2:DISABLE
0:BACK
READER STATUS = DISABLE
8:EXP DATE FORMAT
1:YYMM
2:MMYY
0:BACK
READER STATUS = YYMM
9:EXP DATE SEPARATOR
1:CHANGE
2:RESET
0:BACK
READER STATUS = DISABLE
0:BACK

```

**4:SET BUZZER**

\*\*\* SET BUZZER ENABLE/DISABLE \*\*\*\*\*

1:ENABLE

2:DISABLE

0:BACK

READER STATUS = ENABLE

**5:RESET TO DEFAULT**

1:RESET TO DEFAULT

0:BACK

**6:SHOW STATUS**

KEYBOARD COUNTRY=U.S.\*

TRANSMIT SPEED=80 CHAR/SEC\*

ENABLE TRACKS=TRACK 1,2,3\*

REQUIRE TRACKS=ANY TRACK\*

CARRIAGE RETURN=AFTER EACH TRACK\*

SS/ES SEND=ENABLE\*

CAPS LOCK=ENABLE\*

BUZZER=ENABLE\*

DATA OUTPUT=1,2,3\*

KEYBOARD=STANDARD CONFIGURATION\*

PRESS 0 TO BACK

TRACK 1 PREFIX=DISABLE\*

TRACK 2 PREFIX=DISABLE\*

TRACK 3 PREFIX=DISABLE\*

TRACK 1 SUFFIX=DISABLE\*

TRACK 2 SUFFIX=DISABLE\*

TRACK 3 SUFFIX=DISABLE\*

PREAMBLE=DISABLE\*

POSTAMBLE=DISABLE\*

PRESS 0 TO BACK

TRACK1 BLOCK A=ISO (DISABLE\*)

START=01

END=90

TRACK1 BLOCK B=DISABLE

TRACK1 BLOCK C=DISABLE

TRACK2 BLOCK A=DISABLE

TRACK2 BLOCK B=DISABLE

TRACK2 BLOCK C=DISABLE

TRACK3 BLOCK A=DISABLE

TRACK3 BLOCK B=DISABLE

TRACK3 BLOCK C=DISABLE

**7:SET KEYBOARD CONFIGURATION**

1:KEYBOARD STANDARD CONFIGURATION\*

2:KEYBOARD SPECIFIC CONFIGURATION

0:BACK

KEYBOARD = STANDARD CONFIGURATION

0:EXIT SETUP MODE

\* Default Setting