MSR210D SERIES
Magnetic Stripe Card Reader
Keyboard Interface

Thank you for purchasing the MSR210D series products. The MSR210D Series Keyboard Interface Magnetic Card Reader is ideal for retail systems, time keeping systems, security systems and the card reader related systems. The MSR210D series are designed to offer the user a card reader solution that will complement many applications. Triple track MSR210D 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 directly by keyboard.
4	PC could be powered on with MSR210D attached and without keyboard connected.
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

MSR210-12 Dual track 1&2
MSR210-23 Dual track 2&3
MSR210-33 Triple track 1&2&3
Note: Optional configuration is available.

AGENCY APPROVED

- Specification for FCC Class A
- Specification for CE Class A
- Product Certificate by Taiwan BSMI (Bureau of Standards, Metrology and Inspection)

NOTE: 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.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

BSMI Class A Notice:

警告使用者： 這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下， 使用者會被要求採取某些適當的對策。

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.

SETUP

1) Turn the system power off.
2) Connect one connector of Y cable to the keyboard cable.
3) Connect another one of Y cable to the keyboard port of your system.
4) 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 ±12% jitter card)
Power Requirements:	Reader is low-power CMOS. The computer supplies power.
Communication:	Keyboard simulator interface
Temp:	Operating: -10°C to +50°C; Storage: -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

Preamble	Card Data			Postamble
Preamble	TRACK1 Prefix	TRACK1 Data	TRACK1 Suffix	Postamble
	TRACK2 Prefix	TRACK2 Data	TRACK2 Suffix	
	TRACK3 Prefix	TRACK3 Data	TRACK3 Suffix	

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) "%" (AAMVA) "!" (DMV)
ES = END SENTINEL TRACK1 & 2 & 3 "?" (ISO, DMV & AAMVA)
Note: Data characters *in italics* are optional!

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 text editor program such as Microsoft Word, Notepad, DOS PE2, Edit, …etc.
3. Press and hold [Left-Ctrl], [Left-Alt] and [F10] keys in order to enter **Configuration Mode**.
4. Operating step-by-step following instructions as shown on the screen.
5. While in **Configuration Mode**, the green LED is always blinking. After exiting this **Configuration Mode**, the reader will be reset automatically.
6. The main menu of **Configuration Mode** is as below:

```
**** 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 2:SET TRANSMIT SPEED 3:FIRMWARE VERSION AND DATE 0:BACK	1:SET KEYBOARD COUNTRY **** SET KEYBOARD COUNTRY **** 1:U.S. 2:GERMAN 3:FRENCH 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 **** FIRMWARE VERSION AND DATE **** 2100124A 27-JUN-2002 NICK
2:SET MAGNETIC STRING	1:SET ENABLE TRACKS 2:SET REQUIRE TRACKS 3:CARRIAGE RETURN 4:TRANSMIT SS/ES 5:CAPS LOCK 6:TRACK OUTPUT ORDER 7:CHANGE CARRIAGE RETURN CODE 8:OUTPUT CR IF READ NOTHING 9:RAW DATA OUTPUT 0:BACK	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 NO DATA, OUTPUT CARRIAGE RETURN 1:ENABLE 2:DISABLE 0:BACK READER STATUS = DISABLE 9:RAW DATA OUTPUT **** SET RAW DATA OUTPUT **** 1:ENABLE 2:DISABLE 0:BACK READER STATUS = DISABLE
3:SET STRING EDITING	1:SET PREFIX 2:SET SUFFIX 3:SET MAGNETIC STRIPE PREAMBLE 4:SET MAGNETIC STRIPE POSTAMBLE 5:BLOCK OUTPUT ORDER 6:SEND CONTROL 7:FIELD OUTPUT ORDER 8:EXP DATE FORMAT 9:EXP DATE SEPARATOR 0:BACK	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 SUFFIX (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 = DISABLE 1:DMV 2:AAMVA 3:ISO 4:TRADE SHOW 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 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
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* RAW DATA OUTPUT=DISABLE* 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* Note: ‘*’ means default setting	
7:SET KEYBOARD CONFIGURATION	1:KEYBOARD STANDARD CONFIGURATION 2:KEYBOARD SPECIFIC CONFIGURATION 0:BACK KEYBOARD=STANDARD CONFIGURATION	
8:EXIT SETUP MODE		