

# MSR 120D SERIES

## Magnetic Stripe Card Reader

### USB Interface

Thank you for purchasing the MSR120D series products.

The MSR120D USB Magnetic Card Reader series is ideal for retail systems, time keeping systems, security systems and other card reader related systems. The MSR120D series are designed to offer the user a card reader solution that will complement many applications.

Triple track of MSR120D is uniquely designed to read both credit cards and Driver Licenses (AAMVA and California standard).

### FEATURES

- Compact size - can be mounted on keyboard or any flat surface
- Software and hardware modification not required
- Single, dual and triple track decoding
- Bi-directional card swipe and read capability
- Audible response for good read "1 beep", missing data "2 beeps" and non-successful read "3 beeps"
- LED indications, LED Off: sending card data; Green: stand-by/good read; Yellow: missing data; Red: error
- Baud rate: 9600 (fixed)
- Firmware download

### CONFIGURATION

- MSR120D-12 Dual track 1&2
- MSR120D-23 Dual track 2&3
- MSR120D-33 Triple track 1&2&3

Note: Optional configuration is available.

### AGENCY APPROVAL

- Specification for FCC Class B
- Specification for CE Class B
- Certificate by Taiwan BSMI

NOTE: 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.

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.

### SETUP

1. Power off your PC system.
2. Connect USB connector of signal cable to a free USB port. Connect the connector to MSR120D.
3. Power on your PC system.

## SPECIFICATIONS

Recording Method	Two-frequency coherent phase (F2F), compatible with ISO 7811 and AAMVA.
Swipe Speed	5 to 5p in/sec (worst case with +/- 12% jitter card)
Power Requirements	5VDC +/- 10%
Power consumption	98mA Max. in normal condition
Operating Temp	-10°C to +50°C, storage temp: -30°C to +70°C
Operating Humidity	10% to 85% relative humidity
Magnetic Head Life	500K swipes minimum, 1M optional.
Dimensions	100 mm L x 34 mm W x 28 mm H
Weight	120g
Connector	USB series "A" plugs

## CHARACTER FRAME

START BIT = ONE, DATA BIT = 8, PARITY = NONE, STOP BIT = ONE

## OUTPUT DATA FORMAT

Dual track	<SS>< TRACK1 or TRACK2 DATA><ES>
	<SS><TRACK2 or TRACK3 DATA><ES>
Triple track	<SS ><TRACK1 DATA><ES><SS><TRACK2 DATA><ES><SS><TRACK3 DATA><ES>

Remarks:

SS = START SENTINEL

TRACK1= "%" (ISO, DMV & AAMVA)

TRACK2= ";" (ISO, DMV & AAMVA)

TRACK3= "!" (ISO) "!" (AAMVA) "!" (CA old DMV)

ES = END SENTINEL

TRACK1, 2 & 3= "?" (ISO, CA old DMV & AAMVA)

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