MSR 120 SERIES
Magnetic Stripe Card Reader
Universal Serial Bus (USB) Interface

Thank you for purchasing the MSR120 series products. The MSR120 Series USB Interface Magnetic Card Reader is ideal for retail systems, time keeping systems, security systems and the card reader related systems. The MSR120 series are designed to offer the user a card reader solution that will complement many applications. Triple track MSR120 reader is uniquely designed to read both credit cards and Driver Licenses (AAMVA and California standard).

FEATURES

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>Light weight: 120g</td>
</tr>
<tr>
<td>2</td>
<td>Compact size: 100L<em>34W</em>28H (mm)</td>
</tr>
<tr>
<td>3</td>
<td>LED and Buzzer indicators indicate card status</td>
</tr>
<tr>
<td>4</td>
<td>Low power consumption</td>
</tr>
<tr>
<td>5</td>
<td>Single, dual, or triple track versions allow for reading all types of magnetic cards, including credit cards and drivers licenses.</td>
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</tbody>
</table>

CONFIGURATION

MSR120-33 Triple track 1&2&3

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

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) Connect PC and MSR120 USB connector of signal cable to a free USB port
3) Turn the system power on.
4) Install USB driver (ref: to Appendix A)

SPECIFICATIONS

Recording Method: Two-frequency coherent phase (F2F), compatible with ISO 7811 and AAMVA.

Swipe Speed: 5 to 50 in/sec (worst case with +/- 12% jitter card)

Power Requirements: 5VDC/120mA
Communication: Standard USB signal levels (comply with USB specification v 1.1)
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 Min. 1M option
Dimensions: 100mm in L x 34mm in W x 28mm in H
Weight: 120g
Signal Cable Length: 1.7M

OUTPUT DATA FORMAT
DUAL TRACKS: <SS><TRACK1 or 2 DATA><ES><SS><TRACK2 or 3 DATA><ES>
TRIPLE TRACKS: <SS><TRACK1 DATA><ES><SS><TRACK2 DATA><ES><SS><TRACK3 DATA><ES>
For ISO card: SS (Start Sentinel)="%" (Track 1), and ";" (Track 2 & 3); ES (End Sentinel)="!" (Track 1, 2, & 3)

SETTING OPTION by USING utility disk

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Default Setting</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS, ES CODE</td>
<td>Exist*</td>
<td>Non-exist</td>
</tr>
<tr>
<td>Buzzer</td>
<td>Enable*</td>
<td>Disable</td>
</tr>
</tbody>
</table>

* FACTORY SETTING AT TIME OF SHIPPING

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Appendix A USB Driver Installation

This section illustrates instructions in the USB driver installation guide for Windows 95/98.

System Requirements

Before you use the MSR120, make sure your computer is an IBM PC-compatible with the following minimum system requirements:
1. Intel-compatible 486DX-66 MHz CPU or higher
2. One standard USB port (4-pin) and has the symbol
3. Either the following operating systems:

Driver Installation

Follow the steps below on installing the MSR120 for the first time:

1. Power on computer where you will connect the MSR120 and make sure that the USB port is enabled and working properly.
2. Plug in the USB cable into the USB port and Windows will detect an USB Device and run the Add New Hardware Wizard to assist you in setting up the new USB Composite Device.
3. Insert the USB driver diskette (DISK 2) into the floppy drive and click **Next** to continue:

   a. Select **Search for the best driver for your device** and click **Next**.

   b. Select **Specify a location** and click **Browse**. Change the folder of your floppy drive (i.e.: `A:\Driver\Windows`) and click **OK**.

   c. Double-check the directory that Windows prompts. Click **Next**.
d. Windows will detect the driver (SER9PL.inf) and shows the USB Card Reader.

   Click **Next** to continue until installation is complete.

![Add New Hardware Wizard](image1.png)

![Add New Hardware Wizard](image2.png)

e. Click **Next** to continue and let Windows copy the needed files to your hard disk.

   Click **Finish** while installation is complete.

![Add New Hardware Wizard](image3.png)

f. After installing, the System will generate an additional COM Port, USB Card Reader (e.g.: COM3) for the connection to RS232 Serial Device.

![Add New Hardware Wizard](image4.png)
Driver Un-installation

You can uninstall the MSR120 driver by executing **Uninstall Program: Dremover98.exe** in the driver diskette and click the **Remove** button to accomplish the un-installation.