

**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:** Keyboard simulator 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:** 90.6L x 22W x 24H mm (3.56L x 0.86W x 0.94H inch)

**Weight:** 60g

**OUTPUT DATA FORMAT****Tw**

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

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

<SS><TRACK 2 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)

Data characters *in italics* are optional!

**NOTICE:**

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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. (or re-connect MSR with PC.)
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 EDITIN
- 4. SET BUZZER
- 5. RESET TO DEFAULT
- 6. SHOW STATUS
- 0. EXIT SET UP 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:**

Key	Category	Options	Remark
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1	SET INTERFACE	1:Set Keyboard Country 2:Set Transmit Speed 3:Firmware Version and Date 0:Back	<p><b>1**Set Keyboard Country**</b></p> <p>1:U.S. 2:Deutsch 3:French 4:U.K. English 5:Spanish 6:Italy 7:Dutch 8:Japanese 9:Swedish 0:Back</p> <p>READER STATUS = U.S.</p> <p><b>2***Set Transmit Speed ***</b></p> <p>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.</p> <p><b>3***Firmware version and date</b></p> <p>*** MSR 2.1</p>
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<p>2</p>	<p>SET MAGNETIC STRING</p>	<p>1:Set Enable Tracks 2:Set Require Tracks 3:Carriage Return 4:Transmit SS/ES 5:Caps Lock 6:Track Output Order 7:Changes Carriage Return Code 8:No Data Output 0:Back</p>	<p><b>1***Enable Tracks***</b> 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 <b>2**Set Require Tracks**</b> 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 <b>3**Carriage Return**</b> 1:Don't Send Carriage Return 2:After All Tracks 3:After Each Track 4:After All Data (includes Preamble &amp; Postamble) 0:Back Reader Status =After Each Track <b>4**SS/ES Send**</b> 1:Send 2:No Send 0:Back Reader Status = Enable <b>5**Caps Lock**</b> 1:Enable 2:Disable 0:Back</p>		<p>3</p> <p>SET STRING EDITING</p>	<p>1:Set Prefix 2:Set Suffix 3:Set Magnetic Stripe Preamble 4:Set Magnetic Stripe Postamble  PS. Capitals and lowercase letters setting: (CR &amp; String Editing) When type any key, MSR will show "Press 1 to Add Shift" to set for caps or lowercase letters. i.e. When type "a", MSR will show "Press 1 to Add Shift (aA)", and then press "1", the MSR will save "a" to be "A". If not, and MSR will save it as "a".</p>	<p><b>1*** Set Prefix ***</b> The track 1, 2, 3 prefix are 1~6 character strings that are transmitted prior to the track data. "Enter prefix (6 chars max.) then press ` when finished." <b>2*** Set Suffix ***</b> The track 1, 2, 3 suffix are 1~6 character strings that are transmitted after to the track data. "Enter suffix (6 chars max.) then press ` when finished." <b>3***Set Magnetic Stripe Preamble***</b> The preamble is a 1~6 character string that is transmitted before all card data. "Enter preamble (6 chars max.) then press ` when finished." <b>4***Set Magnetic Stripe Postamble***</b> The postamble is a 1~6 character string that is transmitted before all card data. "Enter preamble (6 chars max.) then press ` when finished."</p>
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4	ET BUZZER	<p><b>***Set Buzzer Enable/Disable***</b></p> <p>1:Enable 2:Disable 0:Back Reader Status = Enable</p>	
5	<p>RESET TO DEFAULT</p>	<p>1:Reset to Default 0:Back</p>	
6	<p>SHOW STATUS</p>	<p>Keyboard country= U.S.* Transmit speed= 80 Character/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* Press 0 to back</p>	<p>* Default Setting</p>
0	<p>EXIT SETUP MODE</p>		