# **MSR213U SERIES**

# Magnetic Stripe Card Reader USB Interface

# Setting AP User Guide

Document No.: TM072 Revision E Aug. 11, 2009

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#### NOTE

The version number of your software may be different. This is just an example.

# Section1: Setup

- 1) Run the setup file **213CS641.exe** to launch installation procedure.
- 2) Click on the **Next** button.

🌄 MSR213U Setting AP Setup	×
	Welcome Welcome to the installer for MSR213U Setting AP (213CS641). It is strongly recommended that you exit all Windows programs before continuing with this installation. If you have any other programs running, please click Cancel, close the programs, and run this setup again. Otherwise, click Next to continue.
	< Back

3) Please enter User information.

🎭 MSR213U Setting AP Setup	×
User Information	
Enter your user information and click Next to continue.	
Name:	
ID0001	
Company:	
UICWorld	
< Back Next > Cancel	

### 4) Choose install location then click Next to Stating AP Setur

#### begin installation.





#### 5) Click **Finish** to exit Setup.

🛼 MSR213U Setting AP Setup	×
	Installation Successful The MSR213U Setting AP (213CS641) installation is complete. Thank you for choosing MSR213U Setting AP! Please click Finish to exit this installer.
	< Back Finish Cancel

# Section2: Using the Setting AP

(Please note that this program doesn't support 640 x 480 screen resolution.)

- 1) Connect the device to the host computer.
- 2) Start MSR213U Setting AP.
- 3) In the **Select Device Interface** panel, choose reader type.
- 4) You first have to Read from EEPROM. You'll also view the F/W version if successfully.
  Note: Every time you run the Setting AP, the "Read from EEPROM" or "Load File" function must be executed first.
  Otherwise, the "Write to EEPROM" and "Save File" buttons are disabled.
- 5) Select the items you want to modify, and then click Write to EEPROM to write data to the reader.
- 6) Close program then re-plug the device to have new settings take effect.

#### **IMPORTANT NOTICE!**

Once the EEPROM value is changed, please exit Setting program then re-plug the device to have new configurations take effect.

# **Section3: Program Features**

## 3-1: Set USB Interface

MSR213U Setting AP (213CS63A)
Test Monitor         Set Suffix       Set SS/ES         Set USB Interface       Set Configuration
Select Device Interface       1            • HID Keyboard         • M_Mode         • L_Mode         • Total On-Line Device:         [2]         Select Device         1         2         1         2
Set Device Interface 3   Set Interface Interrupt Polling Time   Interrupt Packet Size 8
Load File Read from EEPROM Write to EEPROM Get Version 13 6 Default 9 Default Al Reset 12 EXIT
File name 21301651.bin Version 2130165A 14 Msg

- 1 Chooses the appropriate type of your device, or you'll see an error message "Can't Find Device".
- 2 Detects and lists the reader(s) connected to your computer. In the Select Device list, select the reader you want to operate.
- 3 Click the reader mode you want to change.Once been selected, its values last time read will be loaded.
- **4** Sets USB driver Polling Time, 1~255 ms.

The Packet Size is only available for M\_Mode, 1~64 bytes.

- **5** To load configurations setting that have been previously saved click **Load File**.
- **6** Settings on the given pages can be saved to a file(\*.bin) by pressing **Save File**.
- 7 Gets reader's current settings, along with firmware version.

#### It is recommended that perform this function whenever the device is plugged.

- 8 Updates the configuration settings to the reader, followed by a device reset.
- 9 Resets current operating mode to default values without affecting the rest of reader modes.
- **10** Returns **all** reader settings to factory default values.
- 11 Reports MSR213U firmware version, for example "2130165A".
- **12** This function allows you to reset the currently selected device.
- **13** Closes and quits the program.
- 14 Status bar, which displays loaded file, reader's firmware and operation messages.

# 3-2: Set Configuration

Test Monitor		~~~~
Set Suffix	Set SS/ES	Set Preamble/Postamble
Set USB Interface	Set Configuration	Set Prefix
	- Block Output Order 7	
Set Enable Tracks 1 TK1 & TK2 & TK	3 TK1 Block A Enable	- Start D End D
Set Require Tracks 2 Any tracks	TK1 Block B Enable	Start End O
Carriage Return 3 Each track	TK1 Block C Enable	- Start D End D
Select Country	TK2 Block A Enable	Start 0 End 0
4 100	TK2 Block B Enable	Start 0 End 0
	TK2 Block C Enable	Start 0 End 0
- Track Output Order 5	TK3 Block A Enable	- Start 0 End 0
First Track 1	TK3 Block B Enable	Start D End D
Second Track 2	TK3 Block C Enable	Start 0 End 0
Third Track 3	Note: If both "START" and "E feature will not come into effect	ND" settings fill in "0", the block output t and the card track data will be all sent out.
Field Output Order	Exp Date Format	▼ Transmit SS/ES <sup>9</sup> ▼ Beep Enable 10
3rd No SEND	Break Code Enable 13	Caps Lock 11 □ Read ISO only 12

- **1** Use this selection if you want to enable or disable track(s).
- 2 The data read from the required track(s) must be error-free, otherwise output nothing.
- 3 Use this selection to control when to send a Carriage Return.
- 4 \* Select keyboard language.
- **5** Controls the output orders for data track.
- **6** Used for setting Name/Account/Expire Date output order when reading credit cards.
- 7 Specifies the data output range for different card types.

# Note that if both "Start" and "End" settings fill in "0", the block output feature will not come to effect.

- **8** The expiration date format for credit cards.
- 9 Send or don't send SS/ES.
- **10** Enable/ disable reader's beep sound.
- 11 \* In HID Keyboard mode sends Caps Lock key before data output.
- 12 \* If this option is checked, the reader decodes ISO format only.
- 13 \* Sends Break Code enable/ disable.
- **14** \* Enable/ disable raw data output.

\* Select Country, Caps Lock, Break Code and RAWdata options are for HID KB only; Read ISO only is for M\_Mode only.

### 3-3: Set Prefix

Sets the Prefix code for Track 1/2/3, six characters max.

Note: Set Prefix, Set Suffix and Set Preamble/Postamble features are not supported for M\_Mode.

#### 3-3-1: Set Prefix in HID mode

- Track Tr	Prenx	V.		Cl	Marken.	1Z-sec		ci	Markhan	12 million	
Char I	Modifier	Key		Unar 2	Modifier	Key		Unar 3	Modifier	Key	
LShift	▼ 1		•	LShift		▼ 2	•	LShift		◄ 3	-
Char 4	Modifier	Key		Char 5	Modifier	Key		Char 6	Modifier	Key	
Null	- N	lull	-	Null		▼ Null	-	Null		▼ Null	-

Modifier key modifies the normal Key when the two are set in combination.

i.e. LShift (Modifier) + 1 (Key) means the "!" key.

#### **3-3-2: Set Prefix in I\_Mode**



Printable Hex will be converted to ASCII character. (i.e. 73H = "s")

## 3-4: Set Suffix

Sets the Suffix code for Track 1/2/3, six characters max.

#### **3-4-1: Set Suffix in HID mode**

<ul> <li>Irack1</li> </ul>	Suffix										
Char 1	Modifier	Key		Char 2	Modifier	Key		Char 3	Modifier	Key	
Null		▼ M	-	Null		▼ S	-	Null		▼ R	-
Char 4	Modifier	Key		Char 5	Modifier	Key		Char 6	Modifier	Key	
Null		▼ 2	-	Null		▼ 1	-	Null		- 3	-

#### **3-4-2: Set Suffix in I\_Mode**

Char 1	Modifier	Kev		Char 2	Modifier	Kev		Char 3	Modifier	Kev	
Null		Hex(FA)	-	Null		Hex(FB)	-	Null		Hex(FC)	-
, Char 4	Modifier	Key		, Char 5	Modifier	Key	_	, Char 6	Modifier	Key	
Null		Hex(FD)	-	Null		Hex(FE)	-	Null		Hex(FF)	-

## **3-5: Set Preamble/Postamble**

Sets the start/end characters you wish to use for MSR data, nine characters maximum.

Set USB Interface	Set Configuration	Set Prefix
Test Monitor		<u> </u>
Set Suffix	Set SS/ES	Set Preamble/Postamble
- Set Preamble		
Char 1 Modifier Key	Char 2 Modifier Key C	har 3 Modifier Key
Null 🔻 U 💌	Null  Null	
Char 4 Modifier Key	Char 5 Modifier Key C	har 6 Modifier Key
Null 🔻 F 💌		Vull 💌 R 💌
Char 7 Modifier Key	Char 8 Modifier Key C	har 9 Modifier Key
Null 💌 M 💌	Null 💌 Null 💌 🏌	Auli 💌 Nuli 💌
F A		
H =		
Set Postamble J	Char 2 Modifier Key O	bar 3 Modifier Key
Null VIL		
M		

#### 3-5-1: Set Preamble/Postamble in HID mode

#### 3-5-2: Set Preamble/Postamble in I\_Mode

Set USB Interface	Set Configuration	Set Prefix			
Test Monitor	]				
Set Suffix	Set SS/ES	Set Preamble/Postamble			
Set Preamble					
Char 1 Modifier Key	Char 2 Modifier Key	Char 3 Modifier Key			
Null Hex(FA)	Null Hex(FB)	Null Hex(FC)			
Char 4 Modifier Key	Char 5 Modifier Key	Char 6 Modifier Key			
Null Hex(FD)	Null Hex(FE)	Null Vertex(FF)			
Char 7 Modifier Key	Char 8 Modifier Key	Char 9 Modifier Key			
Null Vertex(00)	Null Vertex Hex(00)	Null Hex(00)			
Hex(00)         A           Hex(01)         Hex(02)           Hex(03)         L					
Char 1 Modifier Hex(04) J Hex(05)	Char 2 Modifier Key	Char 3 Modifier Key			
Null Hex(06) -	Null Verk(00)	Null Hex(00)			
Hex(U7) •					

## 3-6: Set SS/ES

#### **3-6-1: Set SS/ES in HID mode**

Set USB Interface	Set Configuration	Set Prefix
Set Suffix	Set SS/ES	Set Preamble/Postamble
TK1 SS Change       Modifier       Key         ISO       Null       ▼         DMV       Null       ▼         Backspace       Tab         Space       •         TK2 SS Change       ■         Modifier       [         ISO       Null       ▼         DMV       Null       ▼         Null       ▼       Null	<ul> <li>AAMVA</li> <li>Null</li> <li>Tradeshow</li> <li>Null</li> <li>Modifier</li> <li>AAMVA</li> <li>Mull</li> <li>Tradeshow</li> <li>Tradeshow</li> <li>Null</li> </ul>	Key Null V Null V Key Null V Null V
TK3 SS Change Modifier Key ISO Null V Null DMV Null V Null	AAMVA Null      Tradeshow Null	Key Null 🔽 Null 🔽 2
Change Carriage Return 4 Null	er Key Null All ES Nu Exp Date Sepa Null 5 Nu	Modifier Key II VII V rator II VII V

#### 3-6-2: Set SS/ES in M\_Mode/ I\_mode

Set USB Interface	Set Configuration	Set Prefix
Test Monitor Set Suffix	Set SS/ES	Set Preamble/Postamble
TK1 SS Change Modifier Key ISO Null V Hex(00) DMV Null Hex(00)	AAMVA Null Tradeshow Null	Key ▼ Hex(00) ▼ Hex(00) ▼ 1
TK2 SS Change Modifier Key ISO Null V Hex(00) DMV Null Hex(00)	AAMVA Null Tradeshow Null	Key Hex(00)
TK3 SS Change Modifier Key ISO Null V Hex(00) DMV Null Hex(00)	Modifier AAMVA Null Tradeshow Null	Key ▼ Hex(00) ▼ ▼ Hex(00) ▼
3 I✓ Output Char If Read Error Null	r Key Hex(00) V All ES	Modifier Key Null VHex(00)
4 Change Carriage Return	Exp Date Se	parator Null Hex(00)

- **1** Sets the Track 1/2/3 start sentinel for specified cards.
- **2** Changes the end sentinel for each track.
- **3** Sends a code to indicate read error/ no data read.

Note: If this option is checked with no Key set(00h or Null), the default "E" character is used.

- 4 Use this selection to change the CR code, the default is "Enter".
- **5** Changes the separate character for expiration date of credit cards.

## 3-7: Test Monitor

Set Suffix	Set SS/ES	Set Preamble/Postamble
Set USB Interface	Set Configuration	Set Prefix
Test Monitor		
·		
in altre totanse billeouelui		~
Card Type = ISO		
TIVWXY7 <iso all="" char="">&lt;0D&gt;</iso>	=D+E\F[G]H;I:JK"L/M.N>O,P <q rs<="" td=""><td></td></q>	
Track 2 = =22222222222222222222222222222222	2222222222222=<0D>	
Track 3 = :333333333333333333333333333333333	33333333333333333333333333333333333	
333333333333333333333333333333333333333	33333333333333333:<0D>	
	For M Mode & I Mode aligh	this button before
	For wi_wiode & i_wiode, click	this button before
	swiping cards.	
		<u>~</u>
1 Clear 2 Start Tes	Close 3	
	72	

- **1** Clears the text window.
- 2 For M\_Mode and I\_Mode make sure you have pressed the **Start Test** button before swiping cards, otherwise no track data will be displayed.
- ${\bf 3}$  Ends the test state for M\_Mode and I\_Mode.

# **Section4: Operation Example**

Following example demonstrates the configuration sequence for writing data to the device.

To configure a HID Keyboard reader as follows:

Device Mode	M mode
Polling Time	255ms
Enable Tracks	Track 1/2
Transmit SS/ES	Disable
Read ISO only	Yes

#### Steps:

#### 1) Run the program. Select HID Keyboard, and then click Read from EEPROM.

MSR213U Settin	ng AP (213CS63A)			
T	est Monitor			
S	et Suffix	Set SS/ES	Set Preamb	ole/Postamble
Set USI	3 Interface	Set Configuration	Set P	refix
- Select Device	Interface eyboard C M_M Line Device : [1]	ode CI_Mode SelectDevice 1	<u> </u>	
- Set Device Inte Set Interface Interrupt Po Interrupt Pa	erface ce	/board C M_Mode	⊂ I_Mode	
Load File	Read from EEPRO	Write to EEPROM	Get Version	
Save File	Default	Default All	Reset	EXIT
File name	N/A Version	n 2130165A Msg		

2) Select **M\_Mode** interface. This may take a few seconds to load M\_Mode values, which was read in Step 1.

MSR213U Setting	AP (213CS63A	)				
Te	st Monitor					
Set	t Suffix	<u> </u>	Set SS/ES	20 20	Set Pream	ble/Postamble
Set USB	Interface		Set Configuratio	n Y	Set F	Prefix
Select Device Ir	iteiface /board ine Device :	⊂ M_Mode [1]	C I_Mode Select Device	, 1	<b>•</b>	
Set Device Inter Set Interface Interrupt Pol	face ing Time 1 ket Size [	HID Keyboar	d • <u>M_Mod</u>	C I	_Mode	P
			<u>.</u>			
Load File	Read from I	EEPROM	Write to EEP	ROM	Get Version	
Save File	Defa	ult	Default A	ľ	Reset	EXIT
File name	N/A	Version	2130165A	Msg	Loading Valu	e

3) Enter "255" in the **Interrupt Polling Time** text box.

Set Device Interface				
Set Interface	C HID Keyboard	M_Mode	⊂ I_Mode	
Interrupt Polling Time	255			
Interrupt Packet Size	8 💌			

**Test Monitor** Set Suffix Set SS/ES Set Preamble/Postamble Set USB Interface Set Prefix Set Configuration Block Output Order Set Enable Tracks TK1 & TK2 1 Start 0 End 0 TK1 Block A Enable w. TK1 Block B Enable Start 0 End 0 Set Require Tracks w. Any tracks • TK1 Block C Enable Start 0 End 0 w. Carriage Return Each track • TK2 Block A Enable Start 0 End 0 Ŧ Select Country US w. TK2 Block B Enable Start 0 End 0 w. TK2 Block C Enable Start 0 End 0 w. Track Output Order TK3 Block A Enable Start 0 End 0 w. First Track 1 TK3 Block B Enable Start 0 End 0 w. Second TK3 Block C Enable Start 0 End 0 Track 2 -\* Note: If both "START" and "END" settings fill in "0", the block output feature will not come into effect and the card track data will be all sent out Third Track 3 -Field Output Order Exp Date Format Transmit SS/ES F Enable 1st No SEND -C MMYY ✓ Beep Enable 2nd No SEND -🔽 Break Code Enable Caps Lock 3rd No SEND + F RAWdata output Read ISO only

4) Turn to **Set Configuration** tab. Select **TK1 & TK2**, check **Read ISO only** and un-check the **SS/ES** option.

#### 5) When you are finished, click Write to EEPROM.

MSR213U Setting AF	(213C\$63A)			
Test N	Aonitor	ר		
Set Su	uffix	Set SS/ES	Set Preamb	le/Postamble
Set USB Inte	erface	Set Configuration	Set P	refix
Set Enable Tracks Set Require Tracks Carriage Retum Select Country	TK1 & TK2 Any tracks Each track US	Block Output Order TK1 Block A Enable TK1 Block B Enable TK1 Block C Enable TK2 Block A Enable TK2 Block B Enable	✓     Start [0	End [0 End [0 End [0 End [0 End [0
Track Output Order First Second Third	Track 1 Track 2 Track 3	TK2 Block C Enable  TK3 Block A Enable  TK3 Block B Enable  TK3 Block C Enable  K4 Block C Enable  Note: If both "START" and "feature will not come into effect	Start jo St	End J0 End J0 End J0 End J0 End J0 ck output be all sent out.
Field Output Order Enable 1st 2n 3rc	t No SEND d No SEND d No SEND	Exp Date Format     YYMM     YYMM     MMYY     Break Code Enable     RAWdata output	<ul> <li>☐ Transmit SS/ES</li> <li>☑ Beep Enable</li> <li>☑ Caps Lock</li> <li>☑ Read ISO only</li> </ul>	
Load File R Save File	lead from EEPF Default	ROM Write to EEPROM	Get Version Reset	EXIT
ile name	V/A Vers	sion 2130165A M	sg Writing	

#### While operation is in progress, DO NOT:

- Disconnect the reader
- Close the program

6) When the reader resets successfully, the write procedures are completed.

7) Close the program then re-plug the device to have new configurations take effect. (Refer to Page 4)

- 8) Open the program again and select M\_Mode interface for your reader.
- 9) Don't forget to **Read from EEPROM** to check the reader settings.

MSR213U Setting AP (213C	(63 <b>∆</b> )			
Test Monitor				
Set Suffix	Set S	S/ES	Set Preamble/Po	ostamble
Set USB Interface	Set Config	Juration	Set Prefix	
- Select Device Interface		I_Mode vice 1	-	
Set Device Interface Set Interface Interrupt Polling Time Interrupt Packet Size	C HID Keyboard	1_Mode C I_	Mode	
Load File Read fr Save File	om EEPROM Write to befault Def	EEPROM	Get Version Reset	EXIT
File name N/A	Version 2130165A	Msg	Loading Value	

10) Now the reader is in the M\_Mode and ready for further operation.