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OPERATION

MANUAL

Magnetic Stripe Reader JC-1290 SERIES

Version 1.0

This equipment has been tested and found to comply with the limits for Class A digital device. Pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in aresidential installation. This equipment generates, uses, and if not installed and used in accordance with the instructions may cause harmful interference will not occur in a particular installation. If this equipment does causeharmful interference to radio or television reception, which can be determined by turning the equipment off and on.

The user is encouraged to try correct 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. This booklet is available from the U.S. government Printing Office, Washington, DC 20402, Stock NO.004-000-00345-4.

CAUTION:

Any changes of modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received including interference that may cause undesired operation.







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CHAPTER 2 Installation

2-1. JC-1290 KB series

The MD-6M side of KB cable, shall be connected to PC PS/2 Keyboard port. The MD-6F side of KB cable can be connected to normal PC keyboard, PC keyboard can work with the product together.



2-2. JC-1290 RS232 series

The DB-9F side of RS232 cable connects to PC COM port (COM 1 or COM 2 or other COMs) , and power connects to USB .



2-3. JC-1290 USB series (USB-KB & USB-RS232)

Step 1: Connect to the computer

Plug the USB-connector into the USB port of your computer.



MSR USB will have "Beep" sound to indicate that it is ready for operation.

MSR USB simulates RS232 and Keyboard interface by USB with COM port selected. Following sections are MSR USB driver, utilities installation.

MSR USB Driver:

- a. Download MSR USB Driver from CD, and extract them to your hard disk.
- b. When you plug-in the USB device, WINDOWS operating system will detect the new Hardware automatically.
- c. Follow indicated steps to install the driver and finish the installation.

CHAPTER 3 Driver Installation

JC-1290 KB series : Standard PS/2 keyboard interface.(no driver needed) JC-1290 RS232 series : Standard com port interface.(no driver needed) JC-1290 USB-KB series : Standard usb keyboard interface.(no driver needed in Win2K/XP/2003/Vista)

JC-1290 USB-RS232 series : CP210x Visual COM V5.0 for Win2K/XP/2003/Vista

Please refer to the following picture to install USB-RS232 driver

1290 USB Driver for Windows

Specification .:

- 1. Support Microsoft Windows 2K/XP/2003/Vista
- 2. Support Visual COM port.
- 3. Plug and Play.

How to Install:

1.When you plug-in 1290 USB, Windows operating system will detect new hardware.

a. Follow indicated steps to install the drivers (Please select the driver in the disk) and finish the installation.

How to Test Visual COM:

- After you installed 1290USB driver, then hardware will assign an USB simulated COM for 1290USB. So, you have to check the USB assigned COM port from "Device Manager" of windows operating system before you starting to get data from 1290USB.
- Use COM test software to open simulated com port . Setting COM port as 9600-N-8-1.
- 3. Swiping the magnetic card, tracks data will be shown on the screen.



Insert CD-ROM and select "CP210x windows_2K_XP_S2K3_Vista" folder.



Please select the "CP210xVCPInstaller.exe"

Silicon Laboratories	
Silicon Laboratories CP210× USB to	o UART Bridge
stallation Location:	Driver Version 5.0
C:\Program Files\Silabs\MCU\CP210x\	

When the setup screen appears than to select "Install" step.

Silicon La Su Silicon La	ccess 2	<u>s</u>
Installation Locat	Installation completed successfully	Version 5.0
C:\Program Fi		

After installation complete select "OK".



Please connect the 1290 USB-RS232 to computer, then check the device installed normally in device manager.

"Silicon Labs CP210x USB to UART Bridge(COM6)"

Notes: COM number may be different on each computer.

CHAPTER 4 Programming Tool

4-1. Install Programming Tool

Note: Please install Microsoft .NET Framework 2.0 first.

<u>Download Web site:</u> <u>http://www.microsoft.com/downloads/details.aspx?</u> familyid=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=zh-tw



Insert CD-ROM and select "1290_Programming_Tool_V1.exe".



When the setup screen appears than to select "Next" step.

📥 1290_Programming_Tool Install Program	
Information Please read the information below.	0
1290 Programming Tool ∨1.0, Release Date: 2008/12/26	
< Back	E⊻it

When the setup screen appears than to select "Next" step.

📥 1290_Programming_Tool Install Program	
License Please read the license agreement below.	0
Please read the license agreement below and select "I Agree" if you agree with its te and conditions.	rms
CopyRight,Jaritech.inc.	
 I agree with the above terms and conditions 	
🔿 I do not agree	
< Back Next >	Exit

Please select "I agree.." than to select "Next"step.

📥 1290_Programming_Tool Install Program		
Directory Choose an installation folder and click Next to continue.		0
1290_Programming_Tool's files will be installed in the follow	ving directory:	
C:\1290_Programming_Tool		
Disk space needed :	1 Mb	
Available disk space :	287 Mb	
Click 'Next' to continue.		
< Back	Next >	Exit

When the setup screen appears than to select "Next" step.

🜲 1290_Programming_Tool Install Program	
Directory Choose an installation folder and click Next to continue.	•
1290_Programming_Tool's files will be installed in the following directory:	
C:\1290_Programming_Tool	
Disk : 1290_Programming_Tool Install Program Avail: The destination directory doesn't exist. Do you want it to be created? Yes No Click 'Next' to continue.	
< Back Next > Ex	cit

When the setup screen appears than to select "Yes".

📥 1290_Programming_Tool Install Program	
Confirmation You are now ready to install 1290_Programming_Tool.	0
This program will install 1290_Programming_Tool into C:\1290_Programming_Tool.	
Click 'Start' to install 1290_Programming_Tool.	Exit

When the setup screen appears than to select "Start" step.

📥 1290_Programming_Tool Install Program	_ 🗆 🗙
End Installation completed.	0
1290_Programming_Tool has been successfully installed.	
< Back	Exit

When the setup screen appears than to select "**Next"** step.

🚣 1290_Programming_Tool Install Program 📃 🗖	Ľ
Clickteam Install Creator Copyright © 1999-2003 Clickteam http://www.clickteam.com	
This install program has been created with a freeware version of Clickteam Install Creator, a simple and powerful install maker.	
This screen does not appear in install programs created with a registered version. You can register online on the <u>Clickteam Web site</u> .	
Thank you for using Install Creator!	
<u> </u>	

After installation complete select "Exit".

4-2. Execution Programming Tool

Administrator			
	💋 My Doc	uments	
	🛅 Touchkit	→ Documents →	
6	Accessories	<u> </u>	
6	🛅 Startup	→ [
le la constante de la constante	🛅 Touchkit	, er	
	🎒 Internet Explorer		
C.	Outlook Express		
<u> </u>	Windows Media Player	Faxes	
le le	1000Test9	•	
le le	APS Softwares	▶ port	
	🔟 Flash Memory Toolkit		
6	HD Tune		
	🔟 Lavalys		
All Programs 🕨	1290 Programming Tool	1200 Progra	amming Tool
	1290_Programming_roor	X Upinstall 129	0 Programmin
	🔑 Log 🤇	Off	
👭 Start 🖉 🚱 💽			

Please Executive the "1290_programming_Tool"

1290	Porgramming Tools Version V1.0	_ 8 ×
File	Programming	
	New	
5	Open Config File DMSR Programming Tools (USB K/B mode)	
	Save	
	Save As	
Devi	ce Type Option [MSR Setting Firmware Update	,
	Device Type Selection	
	C RS232 (COM Port)	
	© USB (RS232 Mode)	
	✤ USB (Keyboard Mode)	
	 PS2 (Keyboard Port) 	
🍂 Start	🍘 🚱 📀 😼 📴 1290 Porgramming T 🔰 01.JPG - 🗆 🗆 🔍) 🃸 11:33 AM

Please click the"File" on the functionality.

1290 🔜	Porgrammir	ng Tools Version V1.0	_ 8 ×
File	Program	nming	
	New		
	Open Co	nfig File MSR Programming Tools (USB K/B mode)	
	Save		
	Save As		
Devi	ice Type Op	ption MSR Setting Firmware Update	1
		- Device Type Selection	
		RS232 (COM Port)	
		C LISE (PS232 Mode)	
		OUSB (Keyboard Mode)	
		C DS2 (Keybeard Port)	
		S F 52 (Reyboard Foll)	
al Star	t 🥖 🔂 🤆	PT	« 🕂 🖱 🍇 11:34 AM

Please choose the device type first, **USB(Keyboard)** is for example. Please Click "**New**" to create a new file.

🕌 1290 Porgramr	ming Tools Version V1.	.0						×
File Progra	amming							
Mew New								
S Open (Config File	MSR P	rogrammi	ing Tools (USB K/B mo	de)		
Save		$\backslash $						
		Ope	≥n					?×
Dave A	45	1	Look jn:	C 1290_Progr	ramming_Tool	• 0	🏂 📂 🛄 -	
	Device Type S C RS232 C USB (R: C USB (Ke C PS2 (Ke	Belection (COM S232 N eyboar eyboar	My Recent Documents Desktop In Documents My Computer	Test.INF				
			My Network Places	File <u>n</u> ame:	Test.INF			<u>O</u> pen
			10003	Files of type:	INF File		•	Cancel

Please Click "Open config File" to open the saved file.

1290	Porgramming Tools Version ¥1.0	_ 8 ×
File	Programming	
	New	
-	MSR Programming Tools (USB K/B mode)	
	Open Coning File Structure Trogramming Foods (COD TVD mode)	
	Save	
-	Sana Aa	
	Save As	
Devi	ce Type Option MSR Setting Firmware Update	1
	Device Type Selection	
	© RS232 (COM Port)	
	C LISB (RS232 Mode)	
	O PS2 (Keyboard Port)	
者 Start	😸 🞯 🕑 🐙 1290 Porgramming T 🦉 04-1.3PG - 🗆 🗆 🕞 PT 🛛 🔍 🗮 🕈 🎬	1:35 AM

Please Click "Save" to save the file.

1290) Porgramming Tools Version ¥1.0						_ 8 ×
File	Programming						
	New						
5	Open Config File	Programming	Tools (U	SB K/B mode)			
H	Save						
H	Save As	Save Ac					21 21
Dev	ice Type Option MSR Setting Firmer	e Save in:	1290_Progra	mming_Tool	- O D		
	 Device Type Selection RS232 (COM F USB (RS232 M USB (Keyboard PS2 (Keyboard 	My Recent Documents Desktop My Decentains lett My Decentains lett My Decentains My Decentains My Decentains My Network Places	Test.INF ers, reports, and file name: Save as type:	l other documents and files.) Test.INF INF File		▼ Save	2 e
all Star	t 🎒 🔞 💽 🕡 1290 Porgramming T	9 06.JPG - 000	PT	1		« 📫	1 📆 11:36 AM

Please Click "Save As" to save a another file.

J Tools Version V1.0						_ 8 ×
ning						
gramming Device From a Confi	g File					
ve Device Settings To a Config F	ile ng	Tools (U	SB K/B mode)			
set Device to Default Value		1				
	Save As					? ×
tion MSR Setting Firmware U	Save in:	C 1290_Progr	amming_Tool	• 0	🌶 📂 🖽 -	
Device Type Selection C RS232 (COM Port) USB (RS232 Mode USB (Keyboard Mo PS2 (Keyboard Pol	My Recent Desktop My Documents My Documents My Computer My Network Places	File name: Save as type:	INF File		× [Save Cancel
	Iools Version V1.0 ing pramming Device From a Config a Device Settings To a Config F et Device to Default Value Ion MSR Setting Firmware UI Device Type Selection C RS232 (COM Port) USB (RS232 Mode USB (Keyboard Mo PS2 (Keyboard Poi	Tools Version V1.0 ing pramming Device From a Config File a Device Settings To a Config File at Device to Default Value ion MSR Setting Device Type Selection © RS232 (COM Port) © USB (RS232 Mode • USB (Keyboard Mo ● PS2 (Keyboard Poi Wy Documents My Computer Wy Documents Wy Nortwork Places	Tools Version V1.0 ing pramming Device From a Config File a Device Settings To a Config File at Device to Default Value ion MSR Setting Firmware U Save in: © 1290_Progr My Recent Wy Recent © USB (RS232 Mode • USB (RS232 Mode • USB (Keyboard Mo • PS2 (Keyboard Poi Wy Documents Wy Network File name: Save as type:	Tools Version V1.0 ing pramming Device From a Config File a Device Settings To a Config File at Device to Default Value on MSR Setting Firmware U Save As Save Type Selection Pevice Type Selection Wy Recent Occuments Wy Documents Save as type: INF File	Tools Version V1.0 ing pramming Device From a Config File a Device Settings To a Config File a Device to Default Value Save in: Image: Save As Image: Save As Image: Save Type Selection Oevice Type Selection Image: Operation of the selection	Tools Version V1.0 ing previce From a Config File a Device Settings To a Config File at Device to Default Value Ion MSR Setting Firmware U Save in: Save in: Ion MSR Setting Firmware U Save in: Ion MSR Setting Firmware U Save in: Ion MSR Setting Pervice Type Selection Wy Recent Vocuments Wy Recent Vocuments Wy Documents Save as type: INF File

This function can programming device form a config file.



This function can save device setting to a config file.

1290 Porgra	mming Tools Version V1.0			_ 8
File Prog	gramming			
*	Programming Device From a Config File			
	Save Device Settings To a Config File	ools (USB K/B m	ode)	
1	Reset Device to Default Value			
Device Tvo	e Ontion MSP Setting Firmware Undate			
501100 Typ	o option [more detailing] i minware optiate]			
	Device Type Selection			
	C RS232 (COM Port)			
	C LISE (ES232 Mode)			
	6 00B (N0232 Mode)			
	• USB (Keyboard Mode)			
	C BS2 (Koyboard Bort)			
	F32 (Reyboard Polt)			
tart 🦝 f				
				······································

This function can reset device to default value.

I 1290 Porgramming Tools Version VI.0 File Programming I290 MSR Programming Tools (USB K/B mode) I290 MSR Programming Tools (USB K/B mode)	<u>-</u> BX
Device Type Option MSR Setting Firmware Update	
🐮 Start 🧑 🚱 📀 🖷 1290 Porgramming Tools 🙀 Reset Memory To Def 🦉 09.3PG - 🗆 🗆 🏠 PT 🖉 🥵 👘	11:38 AM

Please choose whether to reset in this screen.

4-3. Main Setting

📰 1290 Porgramming Tools Version V1.0	_ 8 ×
File Programming	
Image: Programming Tools Version V1.0 Image: Programming Tools Version V1.0 Image: Programming Tools (USB K/B mode) Image: Programming Tools (USB K/B mode) Image: Programming Tools (USB K/B mode) Image: Programming Track1 Track2 Track3 MSR ISO Standard Setting Image: Prefix 0 Image: Prefix 0	

Error Beep Sound:

Enable / disable sound when MSR reading error.

Prefix / Suffix:

Enable or disable prefix / suffix for MSR data

When the check box on, you can edit the prefix / suffix, every fields in up to 7 characters.

Note: The format of output data is:

[MSR Prefix] [Track1 data] [Track2 data] [Track3 data] [MSR Suffix]

4-4. MSR right side button function

🔜 1290 Porgramming Tools Ver	rsion ¥1.0	_ 8 ×
File Programming		
End 2290 Porgramming Tools Ver File Programming Device Type Option MSF Main Setting Track1 USB K/B Mode USB	I290 MSR Programming Tools (USB K/B mode) I290 MSR Programming Tools (USB K/B mode) IR Setting Firmware Update IR Setting Firmware Update Image: Ck2 Track3 MSR ISO Standard Setting Image: Ck2 Track3 MSR ISO Standard Setting	
	Test	

MSR Write:

This Button is for write the data settings to MSR JC-1290.

Set Default:

This Button is for set the data to default.

Load Key Setting:

This Button is for load the setting from MSR device.

Test:

This button is for show test window.

4-5. Track1~3 Setting

1290 Porgramming Tools Version V1.0			
File Programming			
1290 MS	R Programming Tools (l	JSB K/B mode)	
Sevice Type Option More detailing [111	iiwai e opuate		
Main Setting Track1 Track2 Track3 M	3R ISO Standard Setting		
USB K/B Mode			MSR Write
e Enable	Beep Sound Prefix TK1 3 Suffix 0 Start Sentinel END Sentinel LRC Sentinel	☞ Enter(CR/LF)	Get Defult Setting Load Setting Test
	 ✓ Left to Right decode ✓ Right to Left decode 	Select All Clear All	
	✓ Right to Left decode	Clear All	

Beep Sound

Enable / disable sound when MSR reads the data of card track.

Prefix / Suffix

Enable or disable prefix / suffix for the data of card track.

Start Sentinel

Enable / Disable track start sentinel

(Track 1 start sentinel is "% ", Track 2 / 3 start sentinel is "; ")

End sentinel

Enable / Disable track end sentinel (The end sentinel is "? " for all tracks)

LRC sentinel

Enable / Disable the LRC sentinel is the checksum character for the data of card track.

Left to Right decode and Right to Left decode

You can make choice to decide the user to swipe card and read data only from left to right or from right to left or both ways

i.e: Track1 data output.

[Track1 Prefix][Start][Track1 Data][END][LRC][Track1 Suffix]

Track2 & Track3 so on..

4-6. MSR ISO Standard Setting

3 File Programming	
1290 MSR Programming Tools (USB K/B mode)	
Device Type Option MSR Setting Firmware Update	-
Main Setting Track1 Track2 Track3 MSR ISO Standard Setting	
Field Splitting Enable	
Image: Very send CR Image: Very send CR Image: Very send CR	
Send LF Send LF Coad Setting	
V Additional Data	
Test lest	
Image: CC/NAME Data Image: PAN Data	
☑ FC/PAN Data	
Select All Clear All	

For the ISO standard field settings, you need to set the check box of "Field Splitting Enable" for ON, then the data of card track will be outputted and follow the ISO standard fields.

You can set the "Send CR" or/and "Send LF" for every ISO fields.

Block Format i.e: Track1 data output when ISO Field Splitting Enable. [Additional Data][CC/NAME Data][FC/PAN Data][CR][LF] Track2 &Track3 so on..

4-7. Firmware Update

	Open Look in: 🗁 1290_Pro	gramming_Tool	. G 🕸 🖻 🛙	<u>?</u> ×	
evice Type Option MSR Settin	My Diocuments My Diocuments My Diocuments My Computer My Network File name:	SS-1290001-10.BIN		Open	1
	Files of type:	BIN File		Cancel	

Special Note:

The JC-1290 provides new features update or modification from the programming tool, please visit <u>Jarltech web site</u> or contacts the suppliers for the information.

Step 1.

When you click "Open File" button will pop up the window, select the BIN file then click "Open". (Picture on the "SS-1290001-10.bin" is an example)

Step 2.

When the picture show on F/W Version after the press "Flash Firmware" button to update.

1290 Porgramming Tools Version V1.0	<u>_ 8</u>
File Programming	
1290 MSR Programming Tools (USB K/B mode)	
Device Type Option MSR Setting Firmware Update	
- Open Bin File	
Open File C:\1290_Programming_Tool\SS-1290001-10.BIN	
F/W Version: JC-1290 ISO MSR v1.0 2008/12/18	
Flash FirmWare	
Start FlaFirmWare Flash.	
Start 🧭 🚱 📀 😼 1290 Porgramming T 🦉 19.JPG - 🗆 🗆 🗁 PT	« 🍕 🖱 🎽 11:41 A

Note:

Please do not power off the JC-1290 or removal the usb cable when updating firmware.

4-8. Switch Settings

This switch is provides the user for fast settings.

Default is all OFF

	OFF	ON	
SW1	Track data sets by software	vare Fixed track data output:	
		1. Fully track data.	
		2. Fixed prefix: Track1 "%", Track2 ";", Track3 "+"	
		3. Send [ENTER] (KB mode)	
		or <0Dh><0Ah> (RS232 mode) after each track.	
SW2	Normal ISO Track 2	Track2 for Credit Card (Only Show Card number)	
SW3	Auto Caps lock ON (USB-KB) when	Disable Auto caps lock ON	
	Card data output		
SW4	Prefix/suffix output in ASCII mode	Prefix/Suffix output in Scan code mode	
SW5	Enable Buzzer	Disable Buzzer	
SW6	Software sets RS232 Baud	RS232 Baud rate fix to 9600	
SW7	Normal Operation	Reset all settings to default	
SW8	Card Data output in ASCII mode	Card Data output in Scan code mode	



Appendix I : Specifications

Model	MSR JC-1290					
Decoding Capability	Triple-tracks: Tracks 1 & 2 & 3					
Cond Deeding Creed	7.5 to 125 cm/sec					
Card Reading Speed	Bi-directional					
Magnetic Head Life	300,000 passes					
Card Format Supports	ISO standard 7810,7811,7812,7813					
Status Indicator	Audible beep for each					
	Successful reading					
	Track selection					
	Prefix (7 characters max.)					
	Suffix (7 characters max.)					
	Field selection					
Programming Capabilities	Start and end sentinel					
	LRC selection					
	Inter-character delay					
	Inter-scan code delay					
	RS232 parameters (baud rate,)					
	RS232C interface : IBM AT, Compatibles.					
System Compatibilities	USB interface : USB port on IBM AT or compatibles					
	Keyboard Wedge Interface : IBM AT, PS/2					
latarfaaa	Standard RS232					
	Standard PS/2 Keyboard					
Interrace	USB-KB (USB Keyboard Mode)					
	USB-RS232 (USB RS232 Mode)					
Power Consumption	During operation: max 100 mA					
	While idle: 30 mA					
Physical Dimension						
Dimension	Physical: 115mm x 46mm x 34mm					
(L)x(W)x(H)mm	Package: 238mm x 146nn x 47mm					
Woight	N.W: 100g					
weight	G.W: 110g					
Color	Black, White					
Environment						
Operating Temperature	0°C∼ 45°C (32°F ~ 113°F)	Storage Temperature	-20 °C ~ 60°C (-4°F ~ 140°F)			
Operating Humidity	0% ~ 80% RH non condensing	Storage Humidity	10% ~ 90% RH non condensing			
Certification						
EMC & Safety FCC, CE, RoHS, Class A						

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Troubleshooting

- Q1. When 1290 USB plug-in the USB port, the operating system will require to install the driver?
- Ans: It needs to install the specialized driver of 1290 USB. After installation, it will produce a virtual COM port in the administrator.
- Q2: 1290 USB swipes with "Beep" sound, but the data can't show up on the screen.
- Ans: Step 1. Confirm the 1290 driver installation properly.
 - Step 2. Confirm the testing program of RS232 or COM operating properly and the opened COM port is correct.
 - Step 3. Confirm the Baud Rate of opening COM port is 9600.
 - Step 4. Confirm there is no application program using the COM port.
 - Step 5. If the "Beep" sound is long-short-short, it means the card reader can't read the data from the card. Please check the card status in advance is available or change new card for testing.
- Q3.1290 USB plug-in to USB port, there is no reaction.
- Ans: A. Use other USB devices for testing the USB port is available or not.B. If the USB port is ok, use new 1290 USB for testing the unit is available or not. If not available, it means the 1290 USB is damaged.
- Q4. The 1290 USB transmission speed?
- Ans: Please note the USB communication Interface is 1.1 Version. The transmission Baud Date of the virtual RS232 COM port is 9600bps-N-8-1.
- Q5. Why 1290 RS232 needs to connect the 5V Power supply?

Ans: Because the PC Standard COM port doesn't provide the output of power.

- Q6. After connecting the cable of 1290 K keyboard to PC, the swiping data can't show up on the screen?
- Ans: A. The connection of 1290 K keyboard cable should be ready before you turn on the computer. Otherwise, the keyboard device is no action.

B. Please use the software which can receive from the keyboard data for testing, such as Note pad, Microsoft Word...so on.

- Q7. Installation of 1290 Series, how about the normal "Beep" sound?
- Ans: Plug-in the power supply, it will have the response of sound, "Beep". After 1290 device automatically checks, 1290 will have 2 short sounds, 1290 USB/R will have 2 long sounds. The led indicator will present "Green." If the sound is 1 short and 1 long sound, the led indicator is glimmering and exchanging. It means the 1290 firmware is wrong. Please check the firmware version and upgrade it. (Please return Jarltech and make tough body to upgrade firmware)

Jarltech Internaional Inc.