



JUNE 2017, Version 1.3

### Congratulations! .....

Thanks for purchasing the IR-712A - Universal IR Learning Remote Module. This Quick Start Guide will provide related information which needed to get started with the IR-712A module. Please also consult the user manual for detailed information on the setup and usage of the IR-712A module.

### What's In the Box!------

In addition to this guide, the package includes the following items:

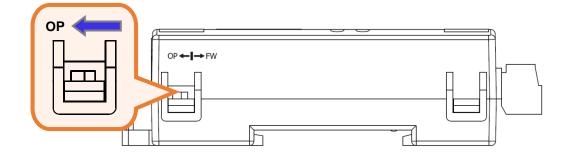
Туре		0	- Too	R	$\bigcirc$	
Item	IR-712A	CD	CA-IR- SH2251	CA-IR- SH2251-5	CA-0910	Screw- driver
IR-712A	X1	X1	X2		X1	X1
IR-712A-5	X1	X1		X2	X1	X1

## Technical Support .....

- IR-712A User Manual
   <u>http://ftp.icpdas.com.tw/pub/cd/usbcd/napdos/ir/ir-712a/manual/</u>
- IR-712A Website <a href="http://m2m.icpdas.com/IR-712A.html">http://m2m.icpdas.com/IR-712A.html</a>
- ICP DAS Website http://www.icpdas.com/

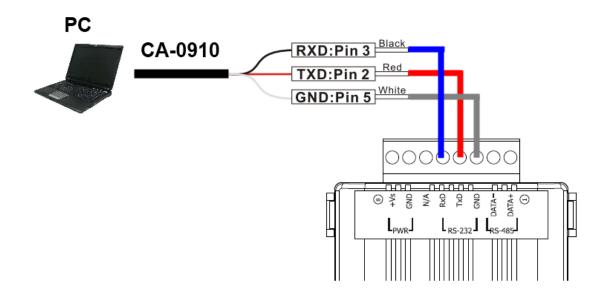
# **1** Check operation mode of the IR-712A

Push DIP switch to the position of normal operation mode (OP).



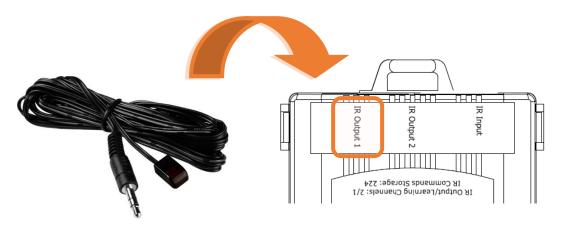
# **2** Serial wire connection between IR-712A and PC

Use the RS-232 cable (CA-0910) to establish the wire connection between IR-712A and PC as shown in the following figure. The DB9 (9-pin) connector of CA-0910 is for PC COM port.



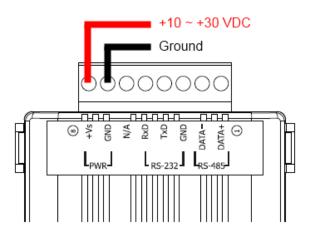
# **3** Plug in an IR Emitter Cable

Plug the IR emitter cable CA-IR-SH2251 into the 3.5 mm jack of the IR Output 1.



## **4** Power Wire Connection

Connect the power supply cable (+10  $\sim$  +30 VDC) to the power connector.



# 5 Install IR Utility

Please get the installation file of the IR Utility(IR\_Util\_Setup\_v#\_#\_#\_zip) from the accompanied CD or Web. After installation, lauch the IR utility.

#### CD: \napdos\ir\ir\_utility\

Web: ftp://ftp.icpdas.com/pub/cd/usbcd/napdos/ir/ir\_utility/

## **6** Serial Communication to the IR-712A

Select "IR-712A" in the Module combobox. Select the default communication settings: Baud rate = 115200 bps, Parity = None, Data bits = 8, Stop bits = 1, and Modbus Net ID = 1. Then, click "Connect" button to connect to the IR-712A and open the main window of the IR-712 utility.

IR I	R Utility - v1.:	2.3.0		×
<u>F</u> ile	About			
	Module:	IR-712A 🔹		
	COM Port:	COM6 •	2	
	Baud Rate:	115200 🗸	Crewet	
	Parity:	None 👻	Connect	
	Data Bits:	8		
	Stop Bits:	1 •	Open Interface	
	Net ID:	1 •		

# **7** Set Device and IR Command Quantity

Please click the "Set Device & IR Command Quantity" button to open the setup window. Three steps to bet set:

IR-712A Utility - COM6 <u>File D</u> ownload <u>S</u> etting <u>T</u> ool <u>H</u> elp		
Open / Close COM port COM Port COM6 v 2 Parity Baud Rate 115200 v Data Bi	None v Stop Bits 1 v ts 8 v Net ID 1 v Open	Close Set IR Cmds Quantity Close R Command Quantity
Test and Save Learned IR Commands Device Name : 1_LDevice Run Command Save this Cmd	Command Name : 1_LCommand   Clear this Cmd Clear All Cmds	IR Learning Mode : Learn On Learn Off Output Channel : 1

#### Step 1: Set device quantity.

- (1) Set the Device Quantity to be 1.
- (2) Press the "Set" button.
- (3) Press the Next (right arrow) button.

Configure Device and Command Quantity	<b>.</b>
Set Device Quantity Device Quantity	
Cance	

**Step 2: Configure the IR device names and its IR command quantity.** 

- (1) Enter Device Name and IR Command Quantity.
- (2) Press the "Set" button.
- (3) Press the Next (right arrow) button.

Configure Device and Command Quantity	8
Step 1 Step 2 Step 3	
Set Command Device Name & Command Quantity	
Device Name 1_DVD -	
Enter Device Name DVD	
IR Command Quantity 18 🔻	
Set	+2
Cancel 🔶 🔶	+3

☞ Step 3: Set each IR command name. The prefix number (e.g. 1\_Play) is the number of an IR command stored in the IR-712A. Click OK button to go back to main window of the IR-712A utility.

Con	figure Device and Comm	and Quantity	
	Step 1 Step 2 Step 3		
	Set Command Name		
	Device Name	1_DVD •	
	IR Command Name		<b>3</b>
	2 Enter IR Cmd Name	Play	
		Cancel Cancel OK	

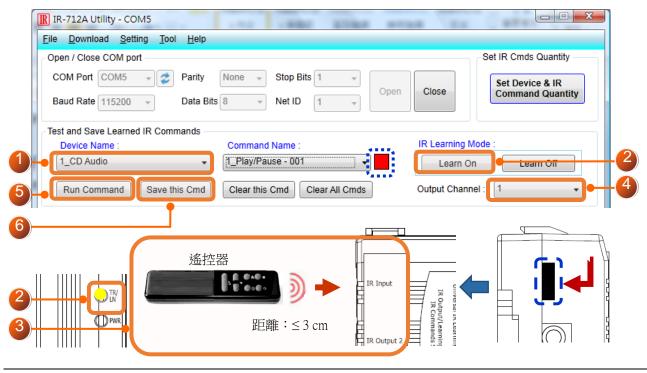
## 8 Learn IR Commands

# In the section "Test and Save Learned IR Commands" of the IR-712A utility:

- (1) Select the item in "Device Name" and "Command Name" combobox.
- (2) Click "Learn On" button to enable IR learning mode (TR/LN LED is ON).
- (3) Aim the emitter head of the remote control (RC) to the "IR Input" hole on IR-712A (distance less than 3 cm) and press the remote control button which is to be learned in a short time. After IR learning is finished, the TR/LN LED is OFF.
- (4) Select IR Output 1 in the output channel combobox.
- (5) Aim the IR emitter, which is plugged in IR Output 1 jack, to the IR receiver of the controlled device. Click "Run Command" button to check the effectiveness of the IR learning command. Repeat (2) and (3) if no action on the device.
- (6) Click "Save this Cmd" button.
- (7) Repeat the above  $(1)\sim(6)$  to finish IR learning.

#### Besides, the color rectangle (marked a blue dotted frame) means:

- Red: Learning data is saved in the item of "Command Name".
- Yellow: Get learning data form IR-712A. The data is buffered and lost when selecting other item of "Command Name".
- White: No learning data saved in the current item of "Command Name".



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# **9** Download IR Commands to the IR-712A

After IR learning finishes, click Menu [Download]-> [Download IR Commands to IR-712A] to download the IR commands to the IR-712A.

[	Downlo	ad IR commands to IR-712A	
	0 %	Downloading Please wait. 22 commands sent.	100 %
		Cancel	

# **10** Test IR Commands in IR-712A

Go to the "Test IR Commands in IR-712A" section:

- (1) Select IR Command No.
- (2) Select Output Channel to 1. Aim the IR emitter head to the appliance.
- (3) Press "Transmit from IR-712A" button. The appliance reacts means success.

IR Command No.: 1 Output Channel: 1	Transmit from IR-712A
Modbus/RTU message (with CRC16) sent to IR-712A:	
01 10 04 4F 00 02 04 00 01 00 01 15 1F	Show Copy