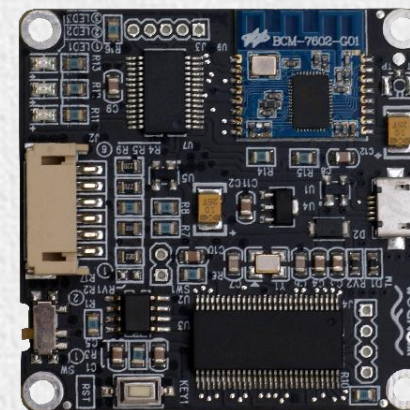


How to realize APP control of APM2/JAB3 with WONDOM ICP3?



Miumax



ICP3

In-Circuit Programmer with Bluetooth BLE for APP Control

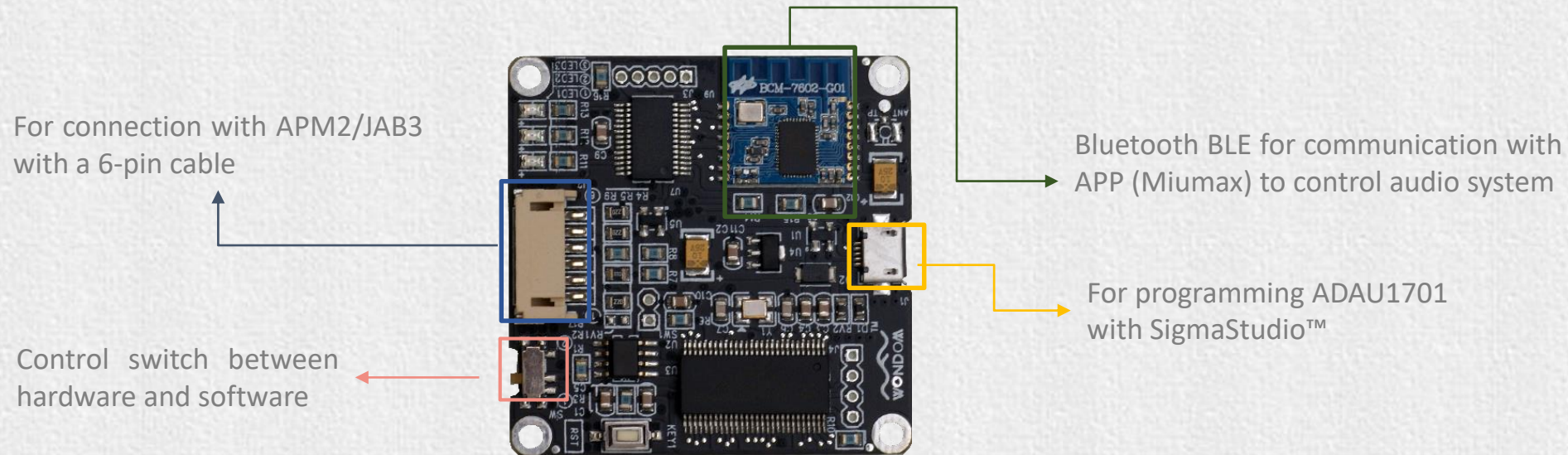
Overview

WONDOM ICP3 is an in-circuit programmer inheriting all functions of ICP1. We had implemented firmware upgrade and control data transmission from Bluetooth BLE, this means, with ICP3, customers can adjust the basic parameters like volume, gain, EQ through APP.

As for programming ADAU1701 with SigmaStudio™, please take reference to the corresponding documents.

<How to program APM2 with ICP3> <How to program JAB3 with ICP3>

With Bluetooth integrated, customers can control audio system with DSP through APP (Miumax), which is a quick and simple start for customers who are not familiar with SigmaStudio™ software. This document is used as guide for how to realize APP control of whole audio system built with WONDOM APM2/JAB3 via WONDOM ICP3.



Checklist

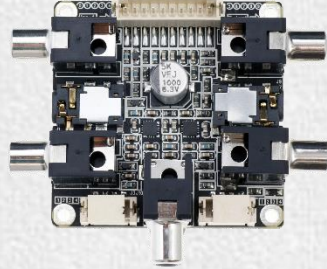
Before starting, please make sure you have the following items on hand.

1

WONDOM APM2+Extension Kit (APM3)/JAB3



+



OR



3

'Miumax' APP



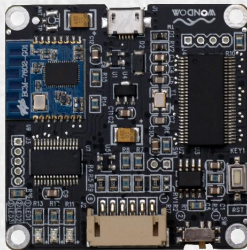
Android



iOS

2

WONDOM ICP3 with a 6-pin cable



4

Accessories

Speakers

Cables

Phone

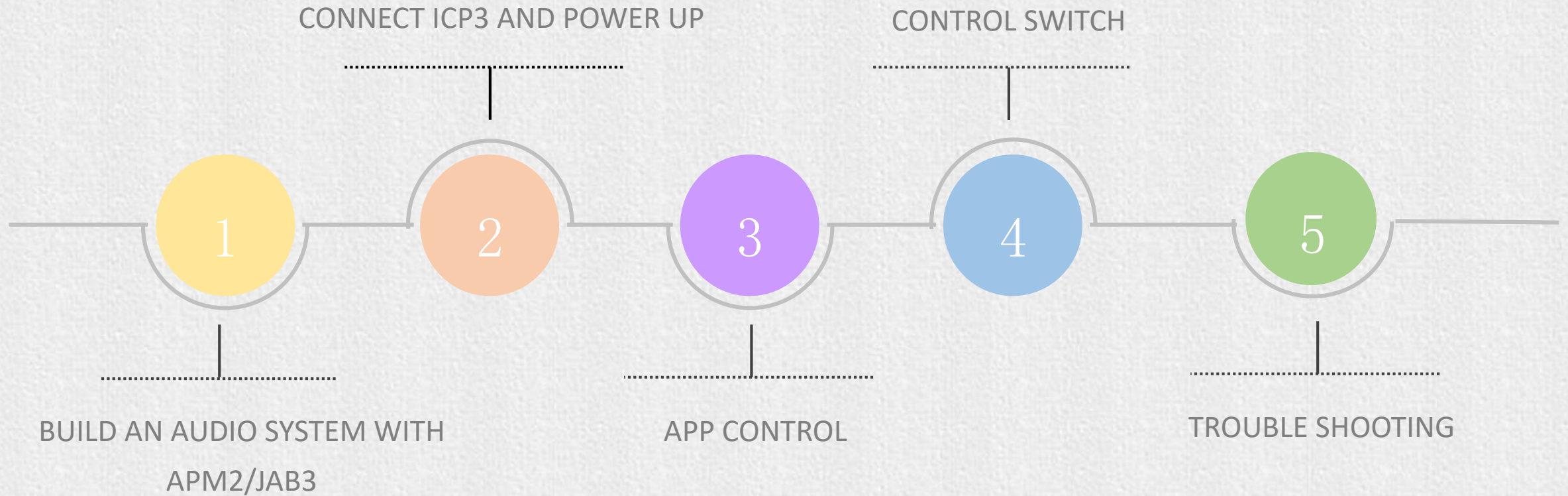
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Product List

Model	SKU	Description	Basic Cables Included
ICP1		In-circuit Programmer for ADAU1701 Digital Signal	6Pin cable x 1
ICP3	DB-DP11224	WONDOM In-circuit Programmer with BLE Bluetooth for APP control	6Pin cable x 1
APM2	AA-AP23122	ADAU1701 Audio Digital Signal Processor Kernel Board	-
APM3	AA-AA11428	ADAU1701 Audio Digital Signal Processor Interface Extension Kit	10Pin cable x 1
JAB3-1100	AA-JA31181	1x 100 Watt Class D Audio Amplifier Board with Audio DSP - JAB3-1100	Power cable x 1 Speaker cable x 1 3.5mm AUX IN cable x 1
JAB3-160	AA-JA31211	1 x 60 Watt Class D Audio Amplifier Board with Audio DSP - JAB3-160	
JAB3-250	AA-JA32172	2 x 50 Watt Class D Audio Amplifier Board with Audio DSP - JAB3-250	
JAB3-230	AA-JA32473	2 x 30 Watt Class D Audio Amplifier Board with Audio DSP - JAB3-230	

Notes:
- Represents no basic cable

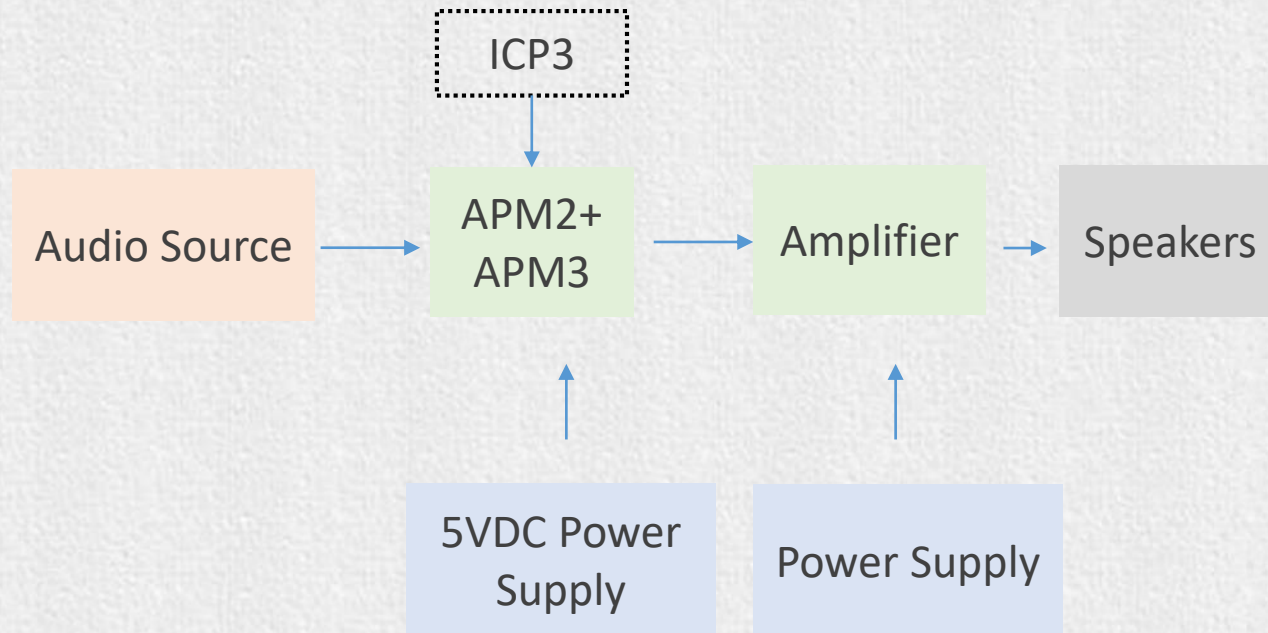
CONTENTS



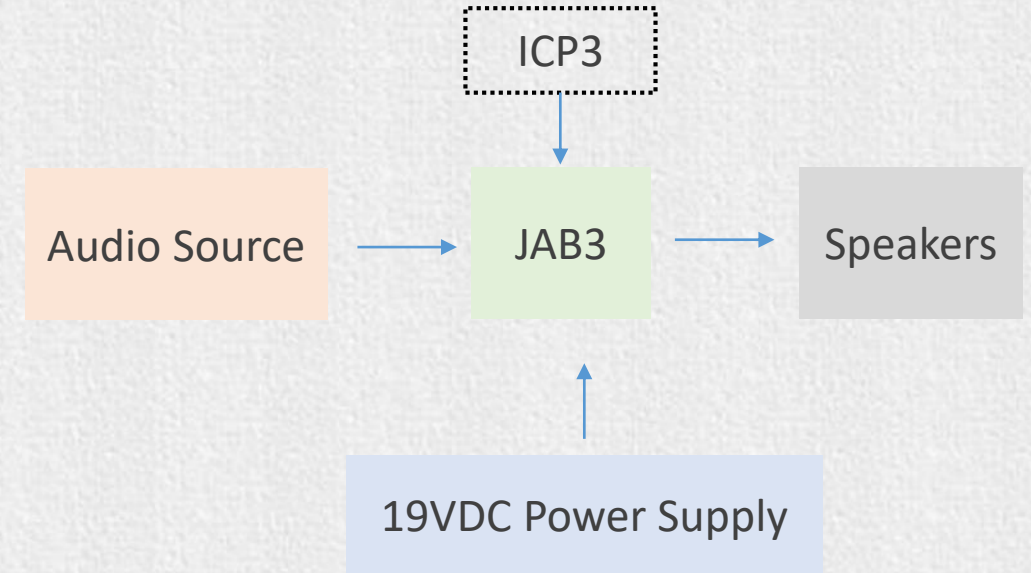
AUDIO SYSTEM

WONDOM provides two solution for DSP,

- APM2 + Extension Kit (APM3) + Amplifier
- JAB3, an audio amplifier with ADAU1701 integrated



Build an audio system with WONDOM APM2



Build an audio system with WONDOM JAB3

Note:

As for the detail information about connection, please take reference to document <How to program APM2 with ICP3> <How to program JAB3 with ICP3>.

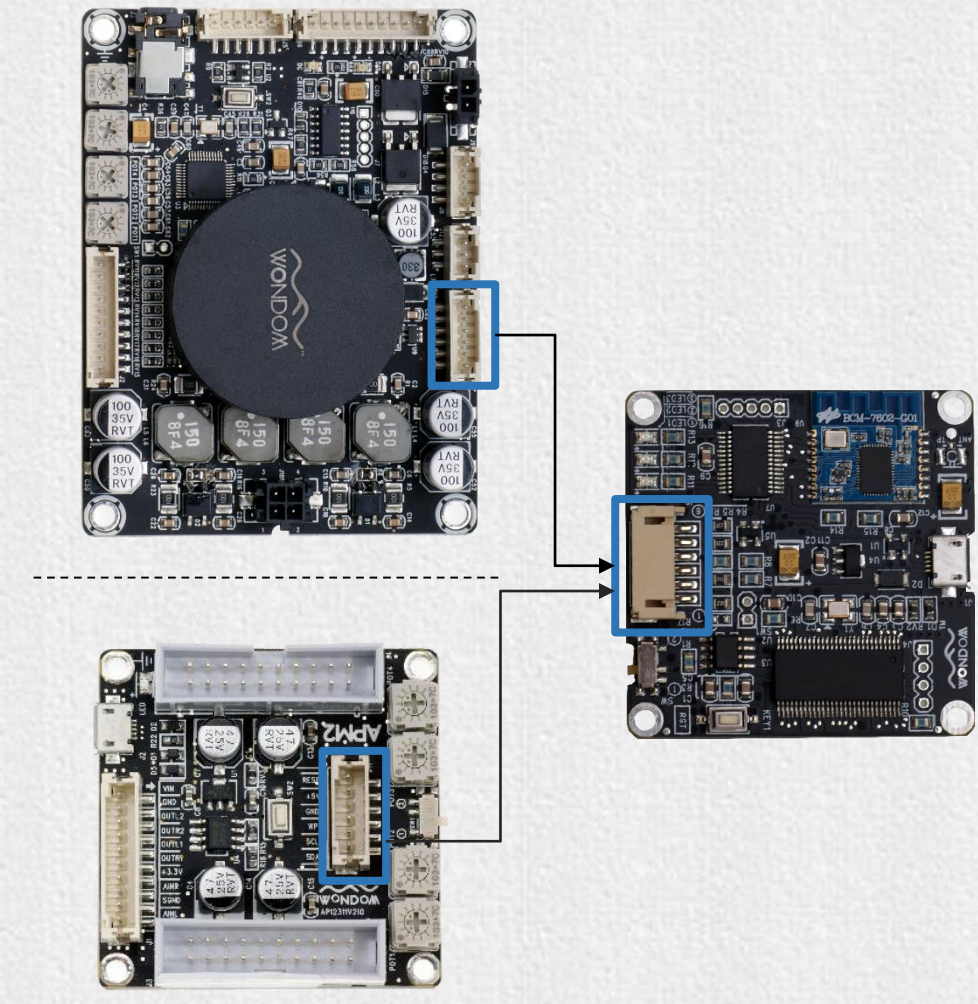
CONNECT ICP3

1. Connect ICP3 to the APM2/JAB3 through the programming port with a 6-pin cable. Please disconnect the power supply when operating for safety.

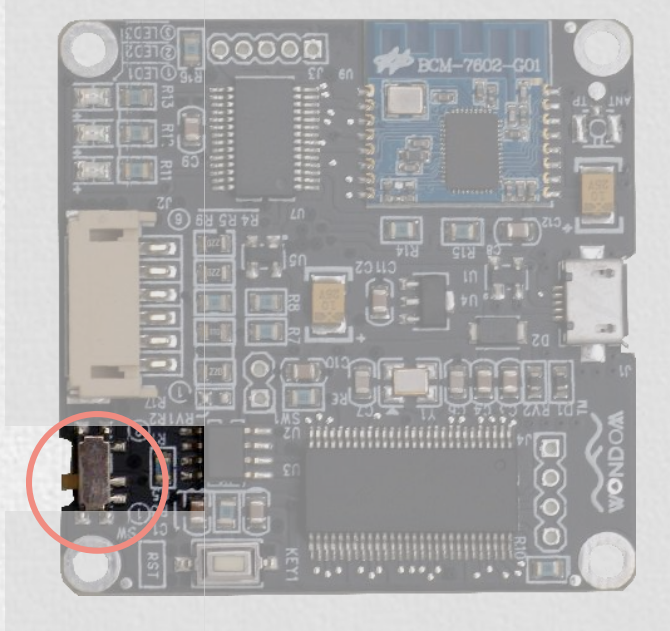


Note:

When ICP3 is connected to APM2/JAB3 pin to pin, it will be powered by APM2/JAB3 directly. No extra power supply is needed.

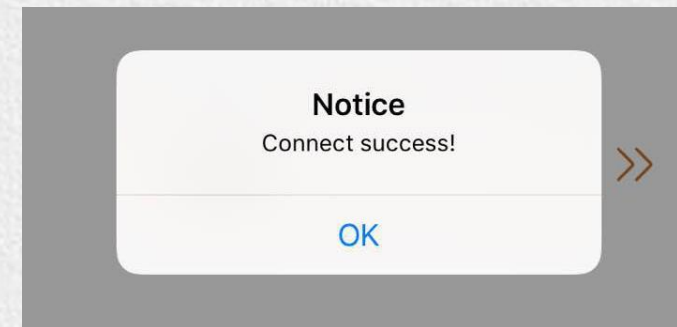


CONNECT ICP3



2. Set switch of ICP3 at ② 'REMOTE' before running 'Miumax' APP.
3. Connect whole system with power supply, in which condition, the LED3 on ICP3 will be blinking.
4. Make sure the Bluetooth of your device is on and click 'Miumax' APP and they will pair automatically within several seconds. When the connection succeeds, you can see the prompt box.

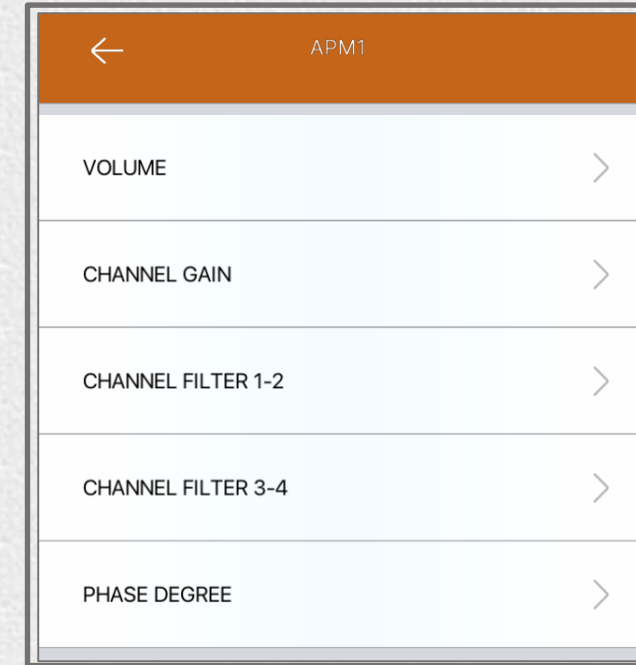
State of SW on ICP3	Function
①	PROGRAM
②	REMOTE



APP CONTROL



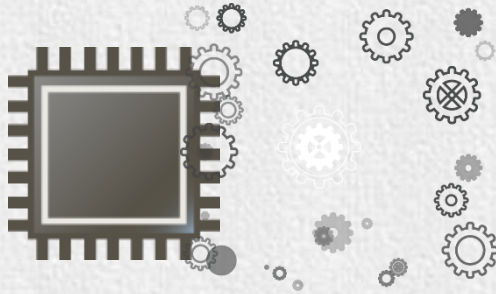
Play music and choose your device to start



Choose the corresponding items for adjustment

- ✓ VOLUME
- ✓ CHANNEL GAIN
- ✓ CHANNEL FILTER
- ✓ PHASE DEGREE
- ✓ EQ SET

CONTROL SWITCH



Power-off Memory Function of APP Control

Power-off Memory Function is integrated in ICP3 for APP control, namely even if customers use the potentiometers on board for control, when they connect ICP3 for APP control, the last setting will be saved in ICP3 and be employed automatically. Please be noticed that it only works with JAB3.



Switch to hardware control

When customers want to switch to hardware control (potentiometers on board) from APP control mode, please do as follows.

Press the Reset switch on APM2/JAB3

POINTS OF ATTENTION

1

Connection

Please make sure the Bluetooth of your device is on and the SW of ICP3 is set at ② REMOTE before clicking APP.

2

Adjustment

The adjustment through APP control is irreversible. Please pay attention to the limitation of your devices in case of permanent damage.

3

Control Switch

Setting of SW on ICP3

①	PROGRAM
②	REMOTE

Setting of SW1 on DSP

①	RUN
②	PROGRAM

Make sure the SW1 on DSP is set at ① (RUN) when playing music.

When switching from APP control to potentiometer control, do not forget to press the reset switch on APM2/JAB3.

TROUBLE SHOOTING

The connection between ICP3 and APP is unsuccessful or the APP control malfunctions.



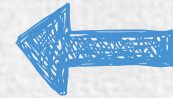
Firstly, check the following items.

1. Switch of ICP3 is set at ② (Remote)
2. Bluetooth of your device is on

If all settings are OK but there is still problem with connection, please try as follows.

1. Press the RST switch on ICP3
2. Restart the APP

When the ICP3 and the APP disconnect in use, a prompt box for reminding of reconnection appears. Press OK for reconnection and it will repair immediately.



The ICP3 and APP disconnect in use.