

BVT UI DEVELOP KIT DESCRIPTION

BVT-UI

MULTI-SOUND EFFECT MODULE DESIGN

TOOLS

Introduction

BVT UI is a most professional quality and easy-to-use audio module which is also a concept combination with a core module and main board (or evaluation board, EVB). Besides, BVT series is designed by TrigAudio Corp. to meet most professional quality standard, easy-to-use application requirements and many possible end-equipment configurations from customers in order to offer the groundbreaking music creation programs. That also can be applied as mixer / DJ /guitar amp. / Karaoke equipments and other devices which need sound effects.

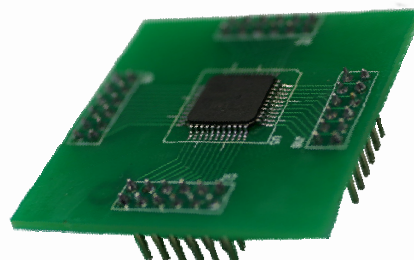
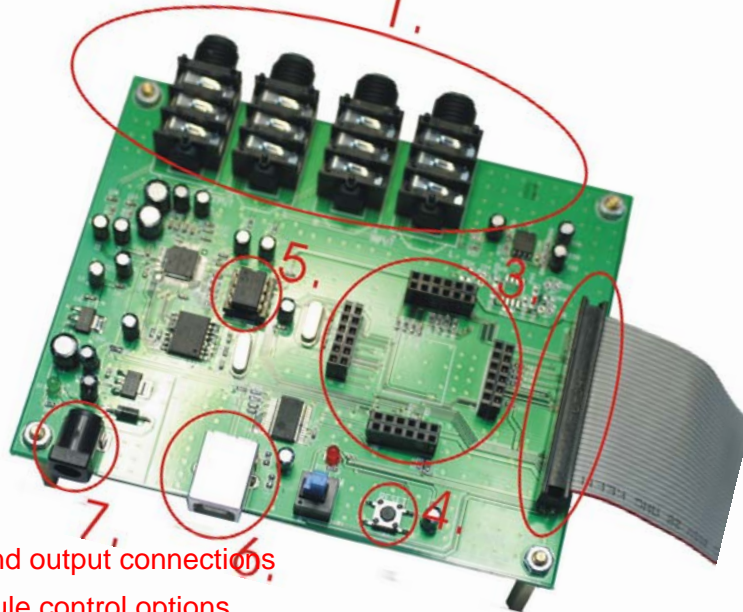
Based on this universal core module, what BVT UI gives you is the freedom to expand your production capability and amounts of development easily and with total integration intact which no need to worry about the performance or integrating problems, since the core module already covers most functions and features for the audio applications. In other words, BVT series gives you an entire audio production package and optimize the greatest positive advantages that virtually have no limits

BVT UI Instruction

Hardware:

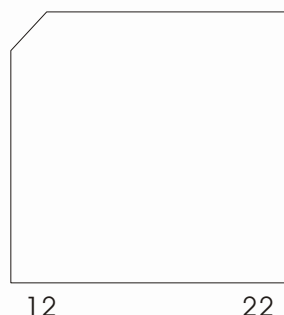
1.1 BVT-UI EVB layout→

1. Platform provides quick and easy audio input and output connections
2. Jumpers on the platform select power and module control options
3. Effect preset programs
4. Reset
5. Control data save eeprom
6. USB Serial Peripheral Interface (SPI) Port Configuration
7. DC jack
8. Plate algorithms and location indicator



8.

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1.2 BVT-UI Control Panel : (16 program acoustic effects)

	GRAY CODE	BCD CODE
J2、J3、J4、J5	Connect PIN2 and PIN3	Connect PIN1 and PIN2

1. LCM display
2. Dual 7-segment LED display
3. JUMPER
4. GRAY CODE Encoder
5. BCD CODE Encoder
6. Adjustments of the parameters



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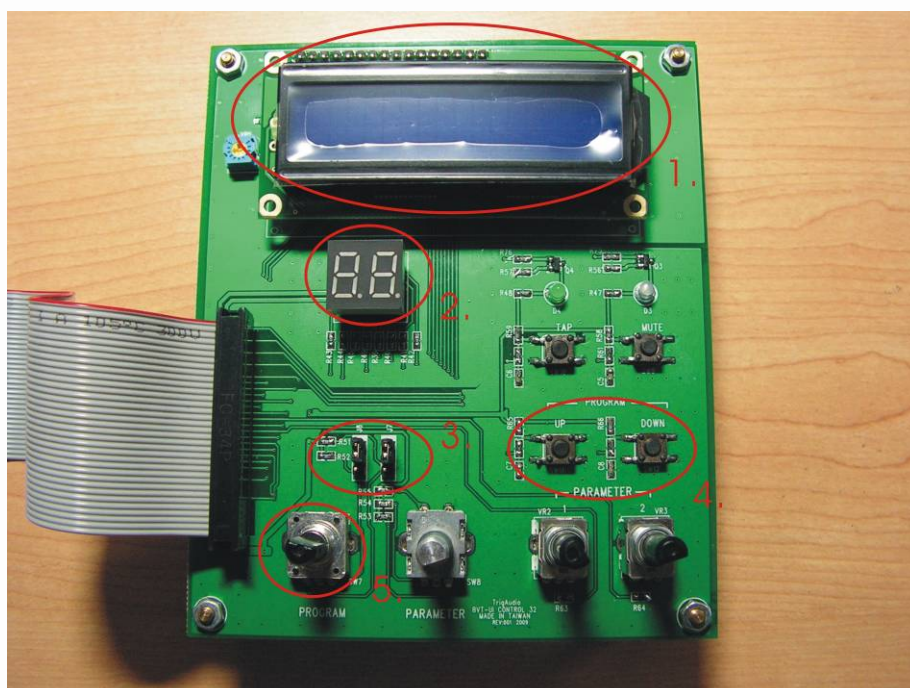
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1.3 BVT-UI Control Panel : (32/99 program acoustic effects)

	FUNCTION SELECTED	FUNCTION SELECTED
J7 、 J8	Connect PIN1 and PIN2	Connect PIN2 and PIN3

1. LCM display
2. Dual 7-segment LED display
3. JUMPER
4. Tact Switch select
5. Program select



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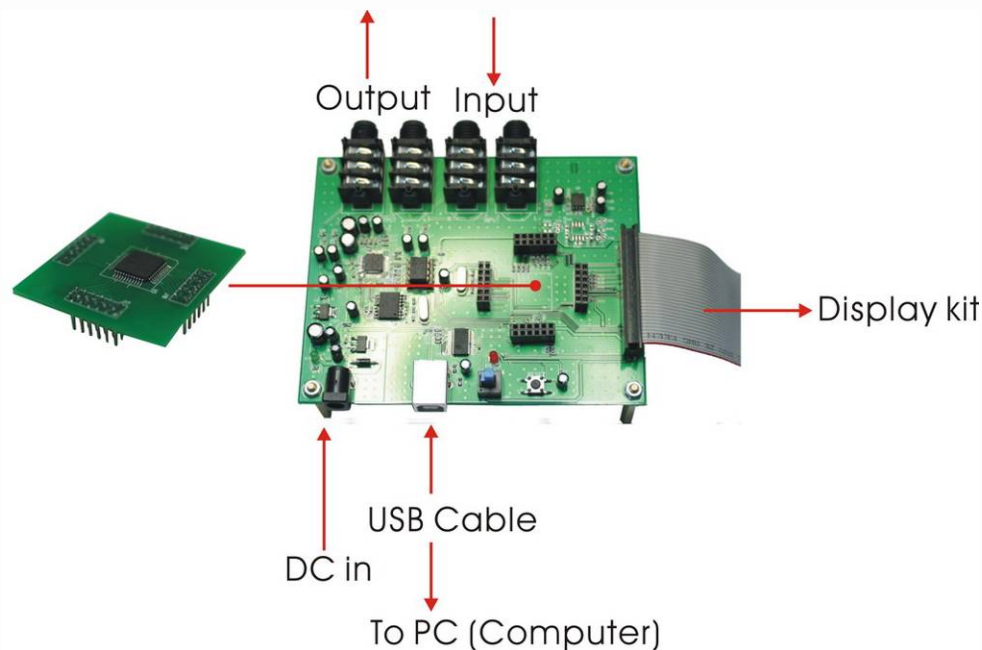
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2. Installation Procedures:

1.1 Hardware connect

1. Connecting the daughterboard and motherboard first, then, connect to the control panel (Do not connect LED display yet. It only can be connected till proceed the testing procedure of the completion for
2. Plug in the USB cable
3. Connecting a 3.5 mm miniature stereo phone jack with max. input/output 0dB
4. If no power supply for USB, then, connect DC5V
5. Quick Installation

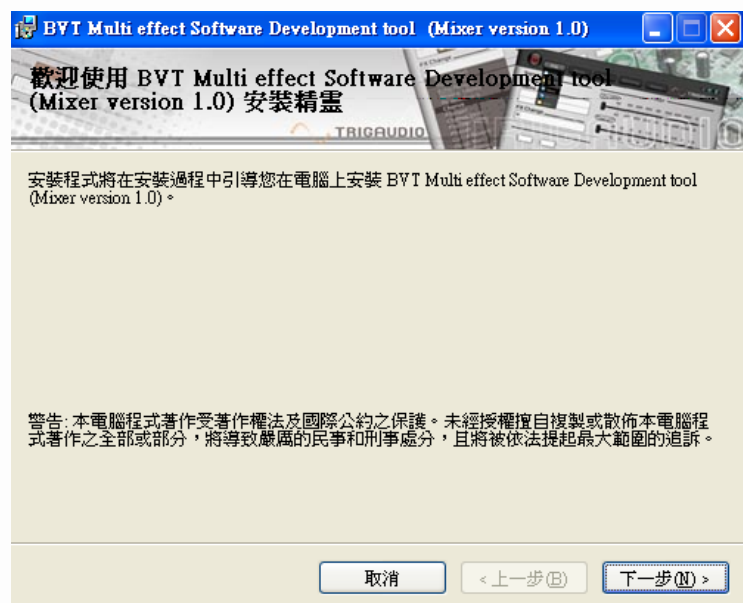


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1.2 Software Operating Installations

1. Insert the accompanying CD-ROM disc into the PC CD-ROM drive.
2. Locate the directory named BVT_UI DEVELOP KIT software on the CD-ROM disc. Follow the instructions and prompts given by the installer program.
3. Follow the instruction procedure to install the software.
4. Click Next.



5. Create a folder to the program file. Click Next.



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6. Click on Next



7. Complete the main installation of the BVT UI application software.



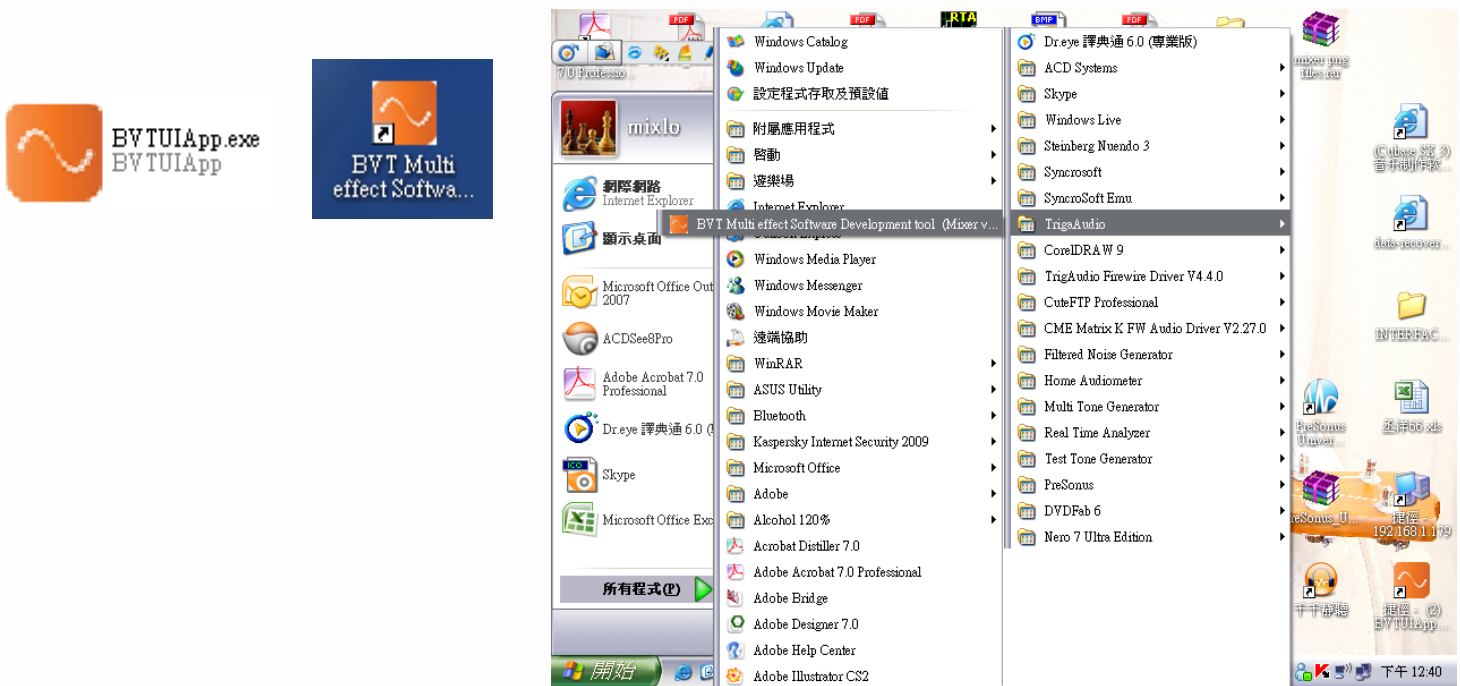
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- When the main installation is complete, a dialog box will come up informing you about installing BVTUIApp.exe or will be executed by double-clicking on the desktop shortcut created during the installation process of BVT Multi effect Software Development tool (Mixer version 1.0)



- This file is a self-extracting archive. Click OK to proceed. You will then be presented with a WinZip dialog. Simply click Unzip; the archive self-extracts and automatically runs the installer.



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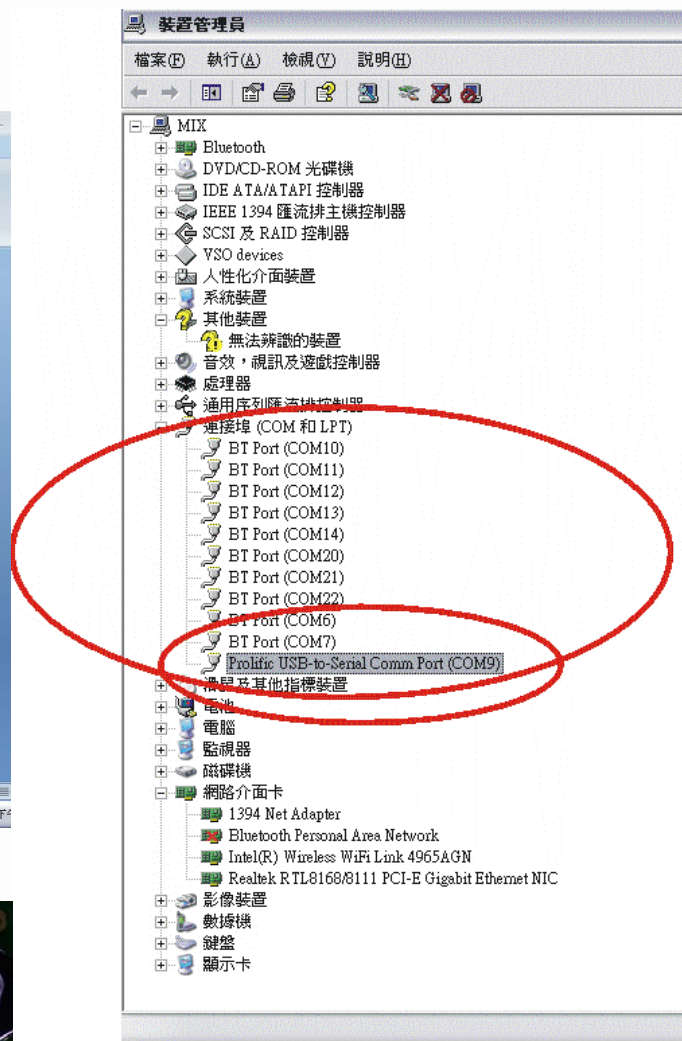
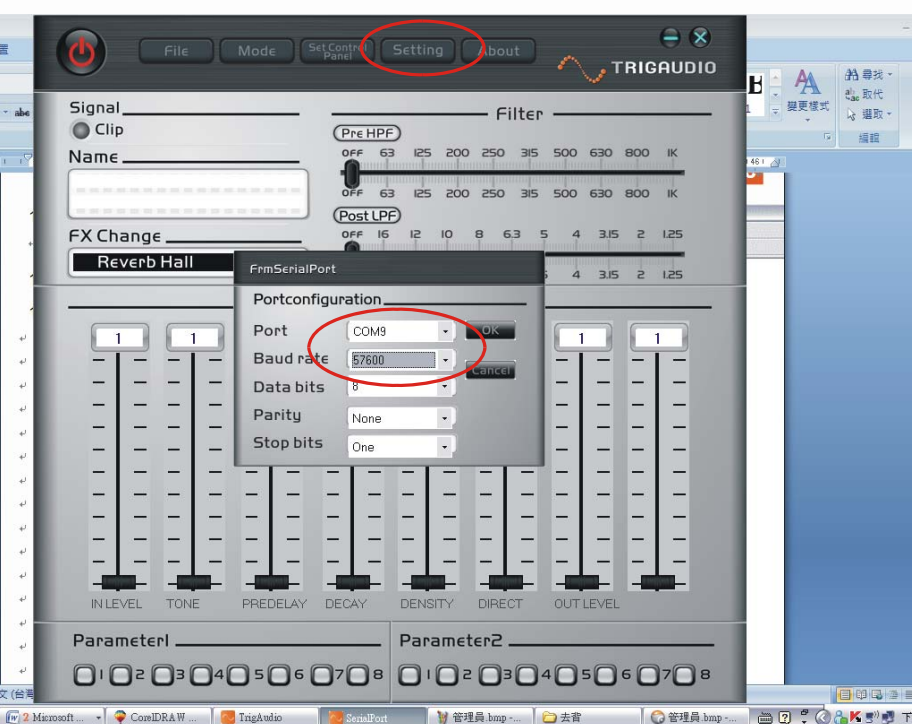


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10. Check system manager to ensure COM port position

11. Go to **Setting** the parallel port to address Baud Rate set up as 57600. Then, click OK to proceed and complete the set up. (When this completes, click Finish on the commander installer window and restart your computer.)



12. When your computer is restarted, connect the module to the host PC using the supplied cable. Windows should recognize the new device or interface device.

If the new device does not exist in the C:\\ directory, press the reset button and close all the programs, then, repeat step 10, 11, and 12 carefully.

****Attention:** Do not connect LED/display on this step. Proceed the installation steps:

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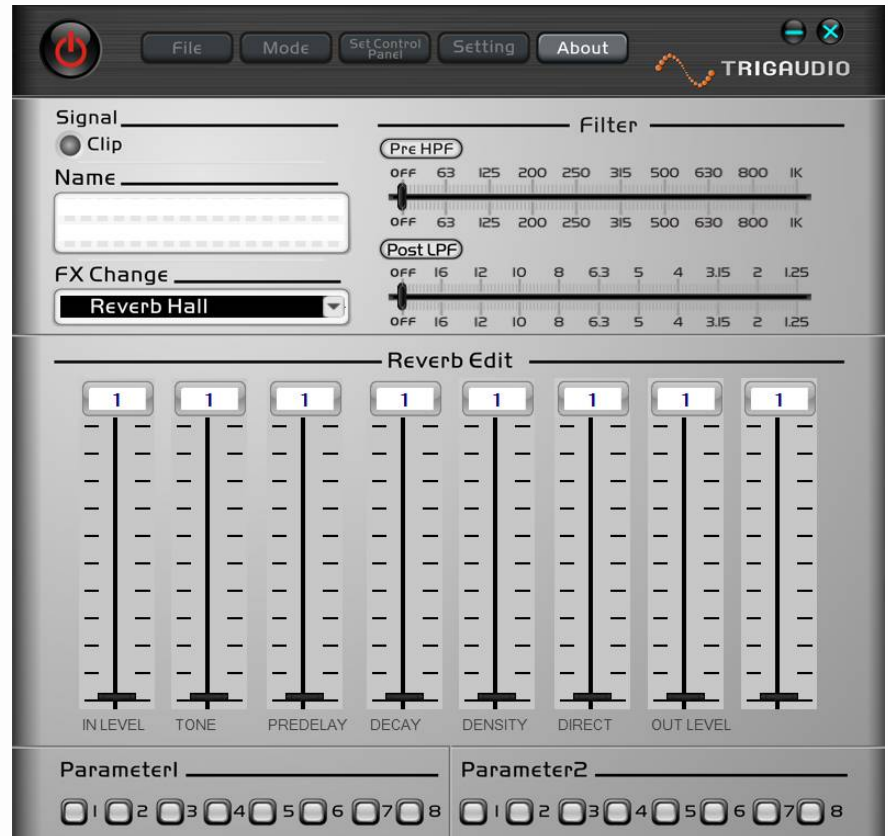
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13. Quick Start

1.1. Introduction of the Main control panel

Main Screen:



Software Installation Screen



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1.2. Introduction of all Features

Main Screen:



Bypass: switches the original and effect programs

File

add, save, save as, read and shut down functions

Mode

BVT16, BVT32, BVT99 selection

Set Control Panel

Set Control Panel: hardware control and display

Setting

Setting: Serial Port set up

About

Software version

Signal

Clip

If the input signal loaded is $>-3\text{dB}$, the Signal clip will be on for warning purpose

Name

Set up and naming the desired effect programs

FX Change

Reverb Hall

Select the desired effect program

Pre HPF

OFF 63 125 200 250 315 500 630 800 1K

Adjusting the Pre HPF

Post LPF

OFF 16 12 10 8 6.3 5 4 3.15 2 1.25

Adjusting the Post LPF

Reverb Edit

1 1 1 1 1 1 1 1

IN LEVEL TONE PREDELAY DECAY DENSITY DIRECT OUT LEVEL

Adjustments of parameters

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Parameter1 _____

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Select the control parameter1 on the hardware

Parameter2 _____

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Select the control parameter2 on the hardware

Software Installation Screen



Once the hardware interface and display set up completed, then, press this 'Program' button for installation

M_User

User to set up the sound effect program

Model6

BVT16 default effect

Mode32

BVT32 default effect

Mode99

BVT99 default effect

Select all

Select All

Discard all

Discard All



Select or Cancel



arrange in order

Display _____

☒ Segment_LED

☐ LCM

Select dual 7-segment LED display or LCM

Control _____

☒ Binary Code Encoder

☐ Gray Code Encoder

Binary Code Encoder or Gray Code Encoder Selection

Control _____

☒ Rotary Encoder

☐ Tap Switch

Rotary Encoder or Tap Switch Selection

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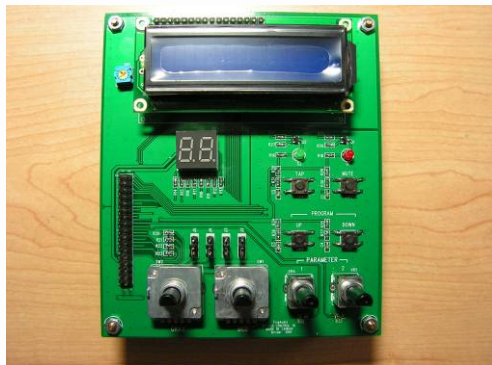
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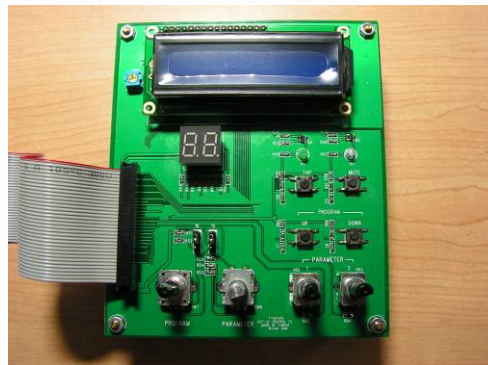
1.3 Installation procedure

1. Select effect program to the correspondent control panel and connect to the motherboard

16 Effect:



32 ~ 99 Effect:

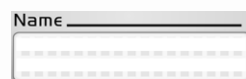


2. Connect USB to PC
3. Make sure the power is on
4. Turn on BVT UI (if it is the 1st time to activate UI, set up the serial port to restart)

5.  Select the effect program from the Mode



6. Naming the desired effect programs



7. Set up the effect programs



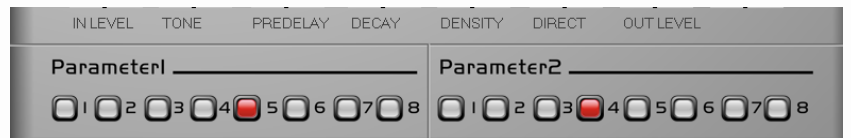
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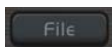
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- Adjusting the Pre HPF/Post LPF and parameters, if the Mode is BVT16, proceed to set up the adjustable parameters on the hardware (pay attention on the input signal while adjusting)



- Save the set up effect programs on File



- Once the completion for set up effect programs, press **Set Control Panel** to control hardware set up



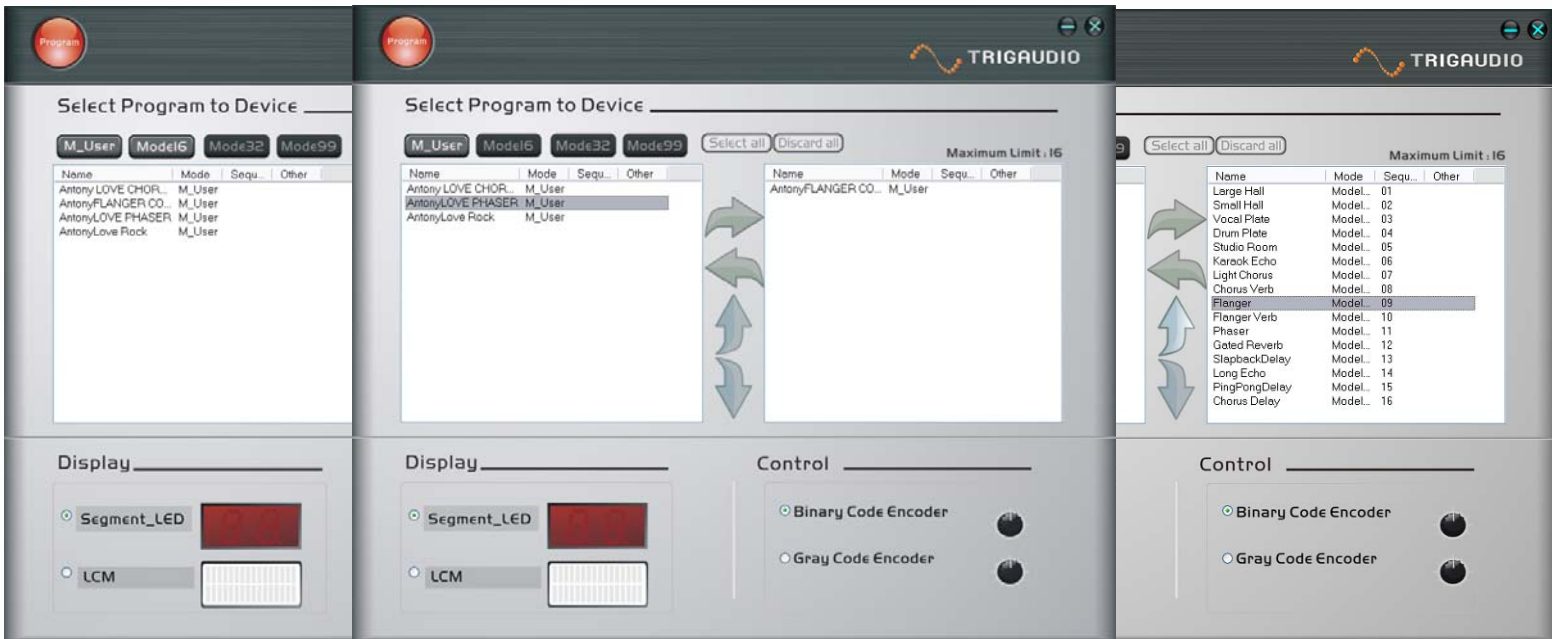
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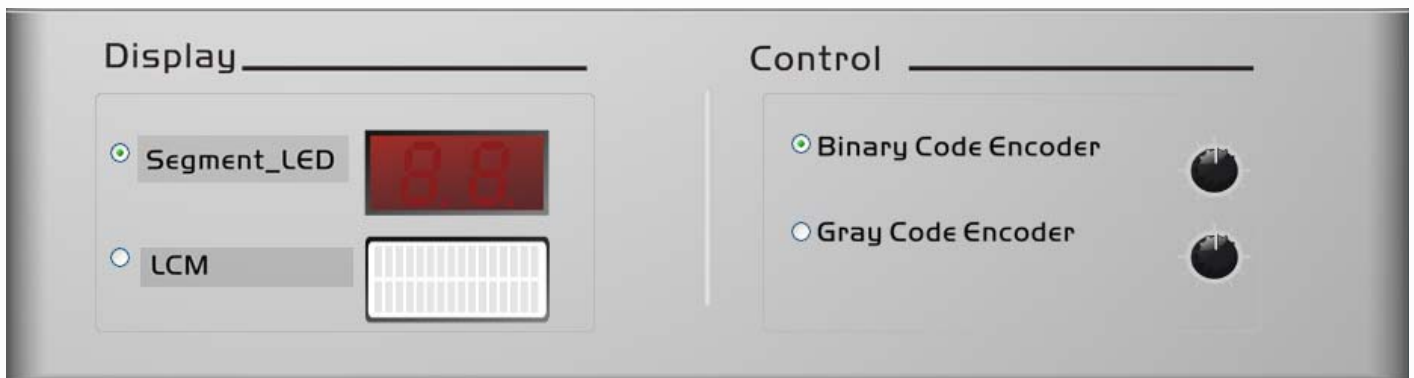
M_User


11. The desired effect program will be shown on M_User, or select the program from

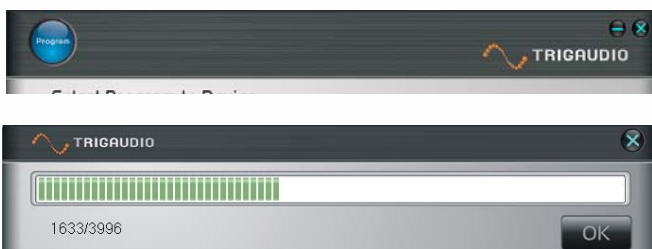
Model6 Mode32 Mode99



12. Proceed display and control set up



13. Press  for software installation



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14. After successfully completing the installation process, it is ok to proceed the testing
15. Once click OK, all the programs will be shut down (to avoid causing the malfunction or damage itself).

If there will be a new request, restart the program and repeat the procedure.



16. Take out EEPROM for duplicating the effect programs set up
(customers can use any brand SMT/DIP freely)

** Parameters updates will be provided periodically. The software for other effects, such as DJ/Guitar/...etc. will be sold separately.**

** The details of modules and chipsets can be found in BVT_UI _CHIPSET_DATASHEET**

** The detailed functions of the parameters can be found in the Wikipedia**