

# **VIV68DSP INSTRUCTIONS**



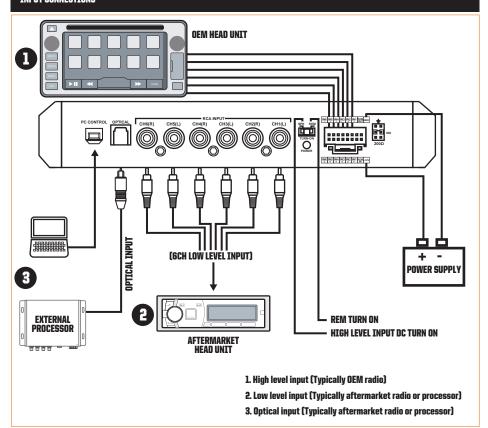


# **FEATURES**

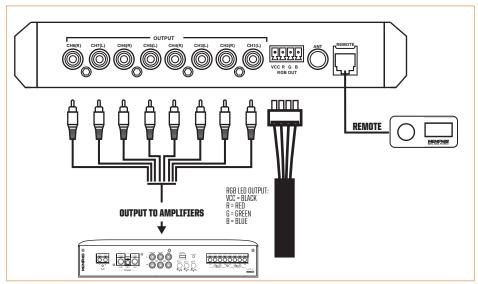
- Signal Sensing, summing & delay
- 12 and 24 dB/Octave Crossovers
- 6-Channel Input, 8-Channel Output
- 31 Band Equalizer per channel
- Toslink input (optical input)
- Remote for Preset Recall and Level Control
- Wireless connection and audio streaming
- DSP App : PC, iOs, or Android

	SPECIFICATIONS				
Active Range	≥110dB				
S/N Ratio	≥100dB				
T.H.D.	≤0.02%				
Freq. Response	10Hz~20KHz				
Input Impedance	Low level input: 20K $\Omega$ , High level input: 180 $\Omega$				
Low level output impedance	≥36Ω				
Signal input/output range	RCA Input : 1.9-4V				
	High level : 18.5V				
	Output : 4.1V				
Temperature	-40~70°C				
Supply Voltage	DC 8.5V~16.5V				
Turn-on REM output	+12 V starting voltage output(0.2A)				
Current Draw	≤.75A				
Input signal type	Choice: 6ch high level, 6ch low level, optical, Bluetooth				
RCA output location	8ch low level output				
Output signal gain	Gain range: Mute, -59.9dB to O.OdB				
Output signal equalizer	1-8 Each output channel has independent 31-band equalizer.				
Output signal crossover	Each output high or low pass independent filter				
	1. Professional filter type: Butterworth, Linkwitz-Riley, Bessel				
	2. Filter crossover: 20Hz - 20KHz , Resolution 1Hz				
	3. Filter slope setting: $6/12/18/24/48$ dB/Oct $_{\circ}$				
Output phase and time delay	Each output channel can be adjusted for phase and time delay, parameter range				
	Phase: 0/180°				
	Time delay: 0.000-20ms, 0.00-692cm, 0.00-273inch				
Scene operations	Store up 6 six preset settings.				

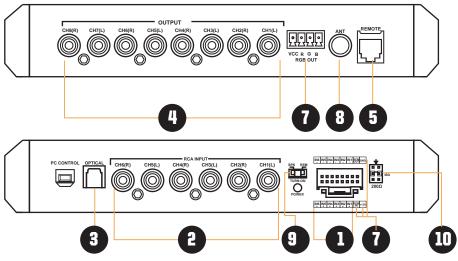
# **INPUT CONNECTIONS**



#### **OUTPUT CONNECTIONS**



#### **CONNECTOR DESCRIPTION**



- 1. Speaker Level Inputs
- 2. RCA Analog Line Level Inputs
- 3. Optical Digital Inputs
- 4. RCA Analog Line Level Outputs
- 5. Remote Control Connector
- 6. +12V Power Ground, Remote In/Out Connector
- 7 RGB LED Output: VCC = Black, R = Red, G = Green B = Blue
  - 8. Bluetooth Antenna
  - 9. Remote Trigger, Signal Sense
  - 10. Ground Isolation Jumpers (

(NOTE: Ground Isolation Jumpers should only be adjusted with the power OFF)

# POWER CONNECTIONS PC CONTROL OPTICAL CHG(R) CHS(L) CH4(R) CH3(L) CH2(R) CH1(L) CH2(R)

#### **REMOTE TURN ON/SIGNAL SENSE**

The VIV68DSP has two options, a 12v remote input and signal sense option

#### **REMOTE INPUT OPTION:**

The head unit has a +12V trigger output that is connected to the VIV68DSP remote input terminal. When the head unit is turned on, the unit will turn on the VIV68DSP. The remote out connection of the VIV68DSP may be used to daisy-chain to additional units or amplifiers and turn them on as well.

#### SIGNAL SENSE OPTION

Alternatively, the signal sense feature can be used to tun on the VIV68DSP when an audio input signal is detected at inputs 1-2. Then the connection to the VIV68DSP's remote input terminal is not required.

An in-line fuse holder with a 3A fuse should be fitted in the +12V line.

#### WIRED REMOTE:

Channels 7-8 are the default sub channels for the remote sub volume control.

# **DSP SOFTWARE DOWNLOAD**



WINDOWS SOFTWARE DOWNLOAD: Visit www.memphiscaraudio.com/MEMPHISDSP



iOS SOFTWARE DOWNLOAD: Search app store for MEMPHIS DSP



ANDROID SOFTWARE DOWNLOAD: Search Play store for MEMPHIS DSP

Works with Windows XP / Vista / WIN7 / WIN8 / WIN10 operating systems
Once the software is downloaded, double-click the installation file
Follow instructions on the screen until your software installation is complete.

#### WINDOWS INSTALLATION:

- Double click the VIV68DSP icon to open the software and the main screen will appear as shown above.
- Once the unit is connected to your computer via the included USB cable the computer will find the new device once the VIV68DSP is powered on and will automatically install the device on your computer.
- Once the device installation is complete the software and the hardware settings will automatically sync.

#### iOS & Android

 Once downloaded from the app store, launch the app and follow the installation prompts. Once installed you will be able to use the DSP software on your device.







IOS & ANDROID INTERFACE

VIV68DSP software Windows software is divided into 5 sections:

Section 1 - Input type: high level, AUX, Bluetooth and Optical

Section 2 - Select crossover types

Section 3 - EQ settings for each output

Section 4 - Adjust delay settings

**Section 5** - Output channel configuration and mixer settings: The input signal gain of output channels (CH1-CH8) can be adjusted from this page. This page can be used to sum input channels by adjusting input channel levels.



#### SECTION 1:



#### OPTIONS

- Advanced
- · Firmware settings
- Help
- About
- · Restore factory settings

# MEMORY

- · Load machine presets
- · Save machine presets
- Delete machine presets
- · Load PC presets
- · Save as PC presets

### MIXER

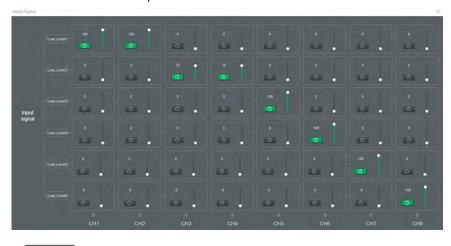
This screen will allow you to do 2 things:

Route the inputs to which outputs you prefer

Adjust the level of each input to each output

In the example shown below

- · Ch 1 inputs is routed 100% to Ch1 and Ch2 outputs
- · Ch 2 input is routed 75% to Ch 3 and Ch4
- · Ch 3 input is routed 100% to Ch 5
- Ch 4 input is routed 100% to Ch 6
- · Ch 5 input is routed 100% to Ch 7
- · Ch 6 input is routed 100% to Ch 7



# AUDIO INPUT

This is where you select what signal input source you would like to use

#### **SECTION 2:**



#### XOVER

Use this to set your crossovers for each output channel selected in **SECTION 5** 

#### TYPE

Set the shape of your crossover

- · Bessel: Slow smooth roll off
- · Lin\_Ril: Linkwitz-Riley -Steep roll off, 6dB down at filter cutoff frequency
- Butter\_W: Butterworth Flat and balanced roll off, 3db down at filter cutoff frequency

#### FREQ

· Set the frequency points for each crossover

#### OCT

• This is where you can set the slope for each crossover point

See below for the crossover points selected for CH1



Repeat these instructions for each of the 8 output channels

#### SECTION 3:



# EQUALIZER

This section you can fine tune each output channel to achieve the user's desired preference

#### THE VIV68DSP FEATURES 31 BANDS OF ADJUSTMENT

Each band allows you to adjust the following:

- Frequency
- Q How wide or narrow the adjustment should be
  - Narrow Q will affect only the selected frequency.
  - Wide Q will affect the output of nearby frequencies
- · dB: Decide how much to cut or boost the selected frequency

#### **SECTION 4/5**



# 1. OUTPUT LEVEL

· Here you can set the output level for each of the 8 output channels

#### 2. PHASE

· Here you can set each output channel at 0 or 180 degrees

#### 3. MUTE

· Select which of the 8 output channels you would like to mute

#### 4. TIME DELAY

This is where you can add delay on a speaker to allow the sound to hit both of the listener's ears at the same time to improve imaging.

#### **Determining Distance**

- If the listener is in the DRIVER side
- The PASSENGER side speaker (CH2) could be at 0"
- The DRIVER side speaker (CH1) could be set to 10" which is the DIFFERENCE in distance between the two speakers to the listeners ear. (Do NOT enter in the actual distance for each speaker to the ear, only the difference in length).

The 7 buttons on the bottom right of the PC software do the following:

BYPASS/RESTORE EQ: Allows you to hear the difference with your adjustments and without





**RESET EQ:** This allows you to remove your adjustments and start over from the beginning.







NORMAL MODE/CROSSOVER MODE: Crossover mode shows the names of each channel based on your install.





**RESET OUTPUT:** This will reset the channel specific settings







### AFTER RESET

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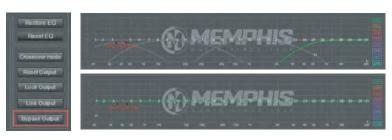
LOCK OUTPUT: This prevents the user from accidentally changing any settings



LINK OUTPUT: You can copy the adjustments from one channel to the other channel base don your actual use. EQ data is synchronized between two channels.



BYPASS OUTPUT: You can set the default curve or the curve you saved before bypass.



#### SAVE/LOAD PRESETS:

LOAD MACHINE PRESET: The prompt box shown below will display after selecting. There are six presets you can store.

SAVE PRESET: You can adjust the curve and crossover settings then save to the DSP with the file name of your choice

DELETE PRESET: You can delete presets you previously saved
LOAD PC PRESET FILE: Select the preset you previously saved
SAVE AS PRESET FILE: Allows you to save settings as a new file name
LOAD ALL PRESETS: Load all presets you previously saved

SAVE ALL PRESETS: Save all presets to your computer



#### **IOS & ANDROID INTERFACE CONTROL SCREENS**

VIV68DSP iOS & Android software features 6 sections.

Section 1 - Input type: high level, AUX, Bluetooth and Optical

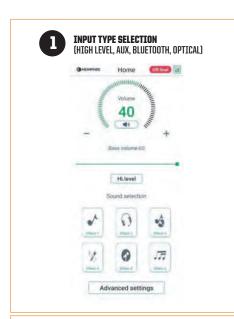
Section 2 - Select crossover types

Section 3 - EQ settings for each output

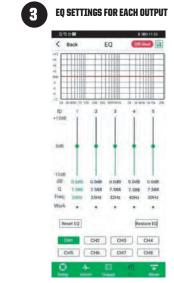
Section 4 - Adjust delay settings

Section 5 - Output channel configuration

Section 6 - Mixer settings: The input signal gain of output channels (CH1-CH8) can be adjusted from this page. This page can be used to sum input channels by adjusting input channel levels.









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# **OUTPUT CHANNEL CONFIGURATION**





# **MIXER SETTINGS:**

THE INPUT SIGNAL GAIN OF OUTPUT CHANNELS 1-8) CAN BE ADJUSTED FROM THIS PAGE.
THIS PAGE CAN BE USED TO SUM INPUT CHANNELS BY ADJUSTING INPUT CHANNEL LEVELS.



#### REMOTE OPERATION

NOTE: Channels 7-8 are the default sub channels for the remote sub volume control

HOME SCREEN: · Rotate knob to adjust volume

- · Short push knob to mute/unmute
- · Long push knob to enter menu

#### MENU SCREEN

- Select input AUX, High Level, Optical, Bluetooth
- · Adjust Subwoofer Volume
- · Adjust LED color
- · Memory (User Preset)

#### WARRANTY

#### **VIV68DSP DIGITAL SOUND PROCESSOR WARRANTY**

This product has a 2 year warranty from the date of purchase for defects in material or workmanship. This warranty will be extended to 3 years when installed by a Memphis authorized dealer using Memphis Connection products. The warranty is void if the product has been physically damaged by improper usage or abuse. If repairs are attempted outside of a Memphis Audio facility, the warranty is void. This warranty is limited to the original retail purchaser and does not cover any expenses incurred in the removal or re-installation of the product. This warranty does NOT apply to product exterior and cosmetics. Memphis Audio disclaims any liability for incidental or consequential damages caused by product defects. Memphis Audio liability will not exceed the purchase price of the product and the warranty period specified.

#### WHAT IS NOT COVERED UNDER WARRANTY

- Damage due to improper installation
- Damage caused by exposure to moisture, excessive heat, chemical cleaners and/or UV radiation
- Damage through negligence, misuse, accident or abuse. [Repeated returns for the same damage may be abuse]
- Product damaged in accident and/or due to criminal activity
- Service performed by anyone other than Memphis Audio
- Subsequent damage to other components
- Any cost or expense related to the removal or re-installation of product
- Products with tampered, missing, altered or defaced serial numbers/labels
- Freight damage
- The cost of shipping product to Memphis Audio
- Return shipping on non-defective items
- Any product not purchased from an authorized Memphis Audio dealer

#### SERVICE/RETURNS

Some states do not allow the exclusion or limitation of incidental or consequential damages. The above limitations or exclusions may not apply to you. This warranty gives you specific rights, you may have other rights which yary from state to state.

If warranty service is required, a return authorization number is required to return the product to Memphis Audio. Warranty shipments to Memphis Audio are the responsibility of the purchaser. Pack the product carefully in the original carton if possible Memphis Audio will not be responsible for damages incurred in shipment or due to improper packaging materials used by the purchaser.

If determined to be within warranty your product will be repaired or replaced at the discretion of Memphis Audio.

Please consult with your local authorized dealer if you experience issues with your unit. You may also contact Memphis Audio customer service at BDO·II89·230D or email tech support directly at: techsupport@memphiscaraudio.com. Do not attempt to return your amplifier directly to us without first calling for a Return Authorization number. Units received without an accompanying Return Authorization number will be processed more slowly. Additionally, you must include a copy of your purchase receipt from an authorized dealer for consideration of in-warranty service, otherwise repair charges will apply. Units received without a receipt will be held for up to 30 days allowing us time to contact you and obtain a copy of the receipt. After 30 days all units will be returned to you unrepaired.





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