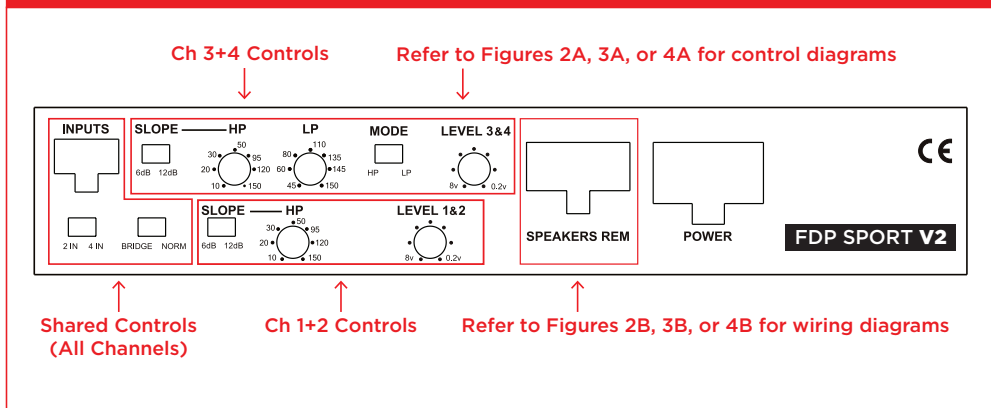


## CONFIGURATIONS

These are the 3 basic configurations that you will be using when installing your **Focal FDP SPORT V2**. Pick the mode you will be running, turn to the appropriate page, and follow the instructions to make the correct amp adjustments.

- 4 Channel Stereo Mode (Page 2)
- 2 Channel Bridged Stereo Mode (Page 4)
- 3 Channel Stereo and Bridged Mono Mode (Page 6)

### Figure 1 | Navigating the FDP Sport V2 Controls



# 4 CHANNEL STEREO MODE

## INPUTS

- Under the "INPUTS", move the switch to either position of "2IN or 4IN" depending on how many inputs you are using to run the amp, 2 or 4.
- If you are only using one single pair of RCA's from your source, then plug them into the Channel 3+4 or (REAR) RCA inputs, and select "2IN"
- If you are using the Harley Molex harness, then you are setting the switch to "2IN"

**NOTE:** FOR 2 CHANNEL INPUT USING THE **RCA HARNESS** (CH 1 & 2 INPUTS) OR THE **HARLEY HARNESS** WITHOUT FACTORY REAR SPEAKERS:

You will need to use the **4 inch** patch harness. Set switch to **2 IN** and use input Channels 3 & 4

## NORMAL/BRIDGED

- This switch should be set to "NORM"

## SLOPE

- You can select the crossover slope you want for both channels, either a 6db/octave slope or a 12db/octave slope.
- 12 db/octave is a sharper roll off slope, where the 6db/octave is more gradual roll off slope.

## CHANNELS 1 & 2 CROSSOVER CONFIGURATION

- Channels 1+2 can be run in either Full Range, or in High Pass (HP) mode, using the bottom row of controls. To run in Full Range mode, adjust the HP control down to the 10hz position.
- To run in HP mode, adjust the HP control to your desired HP frequency.
- Motorcycles normally use HP 120Hz.

## CHANNELS 3 & 4 CROSSOVER CONFIGURATION

- You can select between Full Range (FR), Low Pass (LP), High Pass (HP), or Band Pass (BP) mode, using the top row of controls.
- For FR, set MODE switch to HP, and adjust the HP control down to 10hz.
- For HP, set the MODE switch to HP, and adjust the HP control to set the HP frequency.
- For LP, set the MODE switch to LP. Adjust the HP control down to 10hz. Then adjust LP control to set the LP frequency.
- For BP, set the MODE switch to LP, and adjust the LP control to the desired LP frequency. Adjust the HP control to set HP frequency.
- Motorcycles normally use HP 120Hz.

## GAIN CONTROL

- In this mode you will be using both gain controls to match your sources output level to your amplifiers input.

## SPEAKER OUTPUTS

- Following the wiring diagram in Figure 2B, wire your speakers to the appropriate output wires, respecting the channels, and the + and - phasing.

Figure 2A | 4 Channel Stereo Mode Configuration

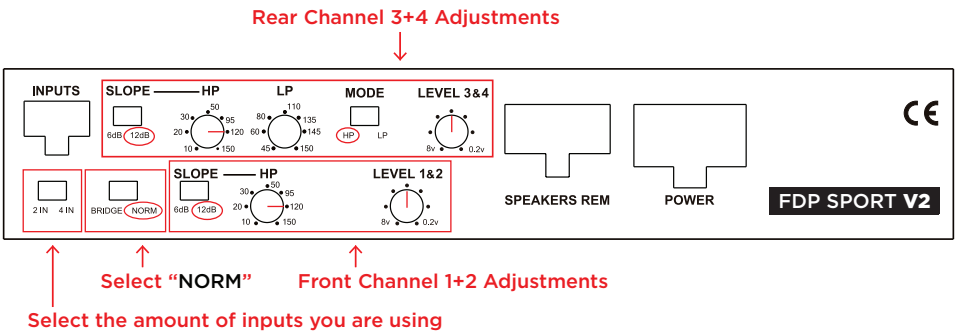
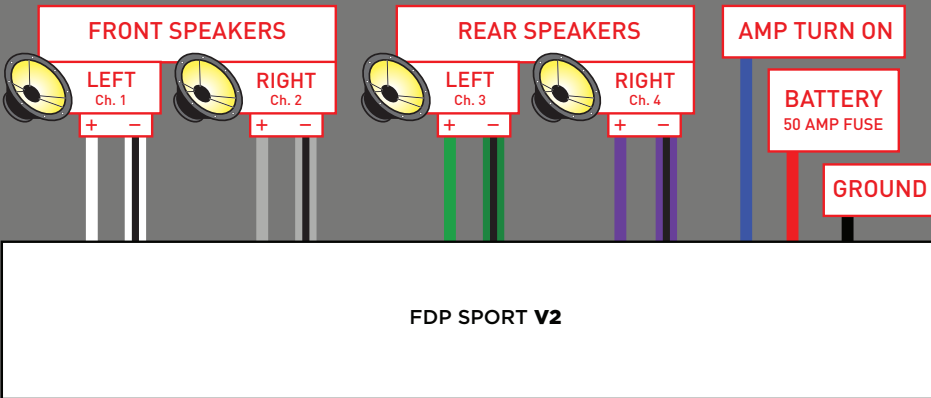


Figure 2B | 4 Channel Stereo Mode Wiring Diagram



# 2 CHANNEL BRIDGED STEREO MODE

## INPUTS

- You only need to use Rear INPUT Channels 3+4.

## NORMAL/BRIDGED

- Set switch to "BRIDGED"

## SLOPE

- Using the "SLOPE" switch on the top, select 12db for your crossover slope.

## CHANNELS 3 & 4 CROSSOVER CONFIGURATION

- To adjust the crossovers, you will be looking at the controls on the top row. You will be able to choose from Full Range (FR), High Pass (HP), Low Pass (LP), and Band Pass (BP)
- For FR, set MODE switch to HP, and adjust the HP control down to 10hz.
- For HP, set the MODE switch to HP, and adjust the HP control to set the HP frequency.
- For LP, set the MODE switch to LP. Adjust the HP control down to 10hz. Then adjust LP control to set the LP frequency.
- For BP, set the MODE switch to LP, and adjust the LP control to the desired LP frequency. Adjust the HP control to set HP frequency.
- Motorcycles normally use HP 120Hz.

## GAIN CONTROL

- In this mode you will be using the "LEVEL 3+4" gain control to match your sources output level to your amplifiers input.

## SPEAKER OUTPUTS

- Following the wiring diagram in Figure 3B, wire your speakers to the appropriate output wires, respecting the channels, and the + and – phasing.



Figure 3A | 2 Channel Bridged Stereo Mode Configuration

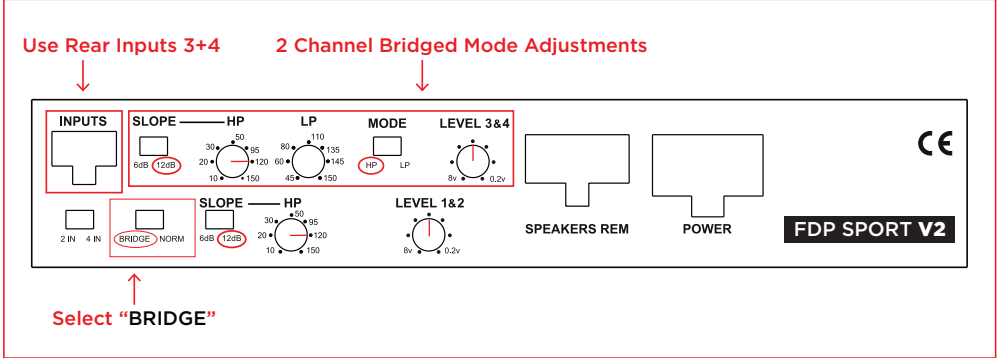
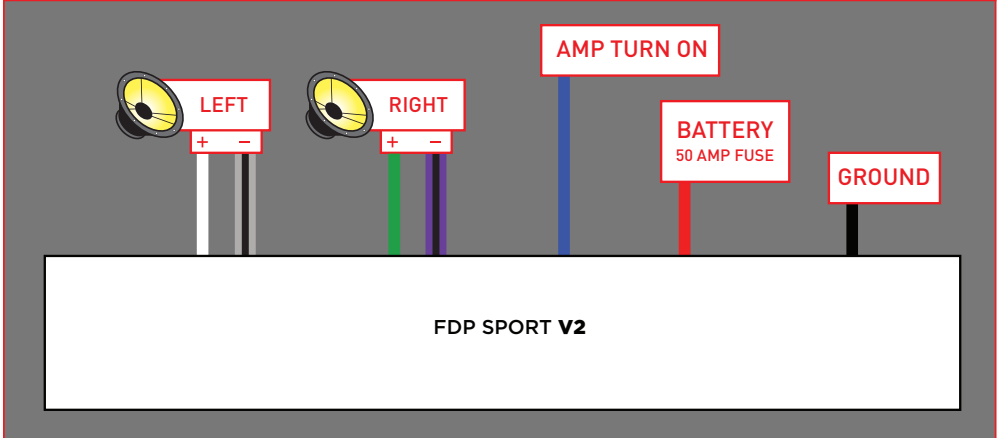


Figure 3B | 2 Channel Bridged Stereo Mode Wiring Diagram



# 3 CHANNEL STEREO & BRIDGED MONO MODE

## INPUTS

- When using 1 set of RCA inputs to run the 3 channels, you only need to use INPUT Channels 3+4. Then switch the "2IN 4IN" switch to "2IN"
- If using 2 sets of RCA inputs to run this configuration, you will switch the "2IN 4IN" switch to "4IN"

## NORMAL/BRIDGED

- Set switch to "NORM"

## SLOPE

- Using the "SLOPE" switch on the top, select 12db for your crossover slope.

## CHANNELS 1 & 2 CROSSOVER CONFIGURATION

- Channels 1+2 will be your HP Stereo channels.
- Adjust Channel 1+2 HP control to approximately 120Hz.

## CHANNELS 3 & 4 CROSSOVER CONFIGURATION

- Channels 3+4 will be your LP Mono subwoofer channels
- Adjust Channel 3+4 LP control to approximately 120Hz.
- Adjust Channel 3+4 HP control to 10hz, unless you would like subsonic filter on your subwoofer. In this case, you can adjust the control within the 20-30hz range.

## GAIN CONTROL

- You will be using the "LEVEL 1+2" for your HP Stereo channels 1+2
- You will be using the "LEVEL 3+4" gain control for your LP Mono Subwoofer Channels

## SPEAKER OUTPUTS

- Following the wiring diagram on the last page, wire your speakers to the appropriate output wires, respecting the channels, and the + and - phasing. See 4B.

Figure 4A | 3 Channel Stereo & Bridged Mode Configuration

Use Inputs 3+4

Use these controls to adjust your Mono LP Subwoofer Channel

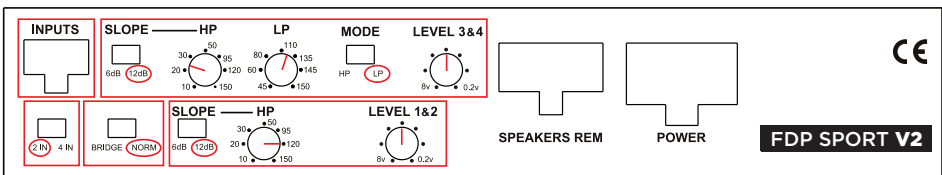
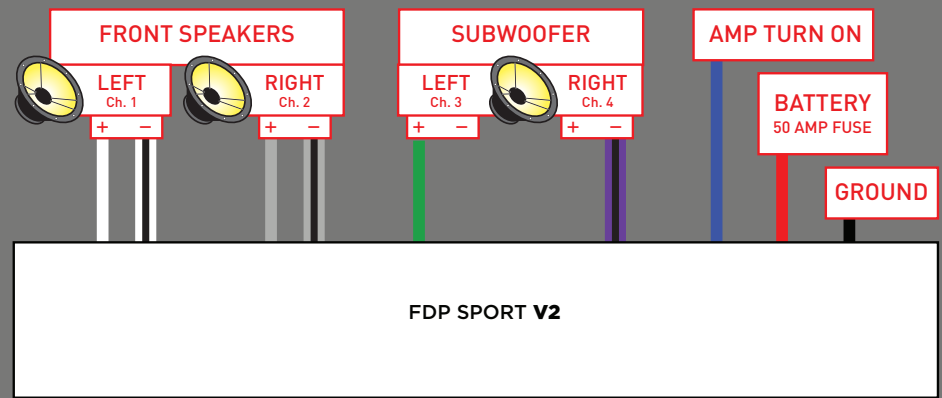


Figure 4B | 3 Channel Stereo & Bridged Mode Wiring Diagram



# TROUBLESHOOTING

## → FOCAL SIGN DOES NOT LIGHT

1. Measure the voltage at the amplifier power terminal.  
It should be between 12 and 15 volts.
2. Measure the voltage at the amplifier REM terminal.  
It should be between 12 and 15 volts.
3. Is the REM wire connected?
4. Check your power and ground connections to be correct polarity + and - and they are tight.
5. Check battery connections.
6. Check the fuse in the REM wire.
7. Check the 50 AMP fuse at battery.
8. Check fuses inside amplifier.  
The fuses are inside the amp under the bottom panel.  
The recommended ATC fuse size is two 25 amp.  
To remove the bottom panel, turn amp upside down with the front panel facing you. Remove the 3 screws on the bottom panel and the 2 upper front side panel screws to expose the 2 fuses.

## → AMPLIFIER BLOWS FUSE WHEN YOU TURN IT ON

1. Power and ground may be reversed.  
Check + and - polarity at amplifier and at battery.



## → FOCAL SIGN IS FLASHING

1. Is the amp very hot?  
Wait a few minutes for it to cool down.  
You need to get more fresh cool air to the amplifier.  
Do not cover the amplifier or mount it flush into a hole.
2. If the amp is cold and the Focal sign is flashing, there is an internal fault.
3. Start your trouble shooting by removing the speaker harness.
4. Use an ohm meter and measure the speaker wires for short circuit.

## → NO SOUND

1. Is the Focal sign light off or flashing?
2. Is the source radio on and is there a sound signal coming from the source radio?
3. Use an ohm meter and measure the speaker wires for short circuit.
4. Check connections for small "wire whisker" that may be shorting between amplifier terminals or speaker terminals.
5. Use an ohm meter and measure the speaker for short circuit.
6. Double check your connections to the source radio.
7. Are you using the correct source radio wires and are they plugged into the correct amplifier RCA?
8. Double check your connections to the speakers and speaker crossovers.
9. Check that all amplifier switches are in the correct positions for your speaker set up.
10. Check that HP & LP frequencies are set correctly for your speakers.
11. **If little or no sound, make sure that you are NOT in BP (Band Pass) Mode, with the crossover points overlapping or HP/LP frequency reversed.**

# WARRANTY INFORMATION

Focal America / Orca Design & Manufacturing supports their products and guarantees them to be free of manufacturing defects for a period of **1 year (non-transferrable) from the date of purchase, if purchased from an authorized retailer**. This time period is extended to **3 years (non-transferrable) from the date of purchase, if the amplifier is purchased from and installed by an authorized retailer**, and no alterations are made to the installation or setup of the amplifier outside of the authorized retailer.

This manufacturing warranty does not extend to situations involving physical or installation damage, misuse, abuse, or modification. If an amplifier malfunctions, please return it to the authorized retailer from which the amplifier was purchased to have the amplifier and/or installation inspected and to have the warranty period verified from date of purchase.

The authorized dealer will then work with Focal America / Orca Design & Manufacturing to obtain service, if necessary. If found to be a defect due to manufacturing, the item will be repaired or replaced with a refurbished amplifier. The amplifier will be returned to the authorized retailer when repairs are complete, so that the dealer can return the amplifier to you, or reinstall the amplifier to maintain the above mentioned warranty timeline.



# TECHNICAL SPECIFICATIONS

4 x 150w RMS into 4 ohms @ 1% THD

4 x 200w RMS into 2 ohms @ 1% THD

2 x 400w RMS Bridged into 4 ohms @ 1% THD

Do NOT bridge into 2 ohms.

All power ratings are at 14.4v DC.

Frequency Response: 20 – 30KHz + or -, 1dB

Signal/Noise Ratio: 95dB (A)

Input Voltage for rated output unbalanced: 300mv – 8v

Input Voltage for rated output balanced: 600mv – 16v

Damping factor at 20Hz at 4 ohm: 75

Input Impedance unbalanced: 11K ohm

Input Impedance balanced: 22K ohm

LPF 45 – 150Hz 12dB/octave Linkwitz Riley

HPF 10 – 150Hz 12dB/octave Linkwitz Riley, Switchable to 6dB/octave Butterworth

Protection: DC, Short Circuit, Thermal, Polarity Reversal.

Dimensions: 8 1/4" (208mm) x 5" (127mm) x 1 5/8" (41mm)

Power Fuse: 50 Amps







# IMPORTANT FDP SPORT V2 WIRING INFORMATION

FOR 2 CHANNEL INPUT USING THE **RCA HARNESS** (CH 1&2 INPUTS)  
OR THE **HARLEY HARNESS** WITHOUT FACTORY REAR SPEAKERS:

You will need to use the **4 inch** patch harness.  
Set switch to **2 IN** and use input Channels 3 & 4.



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The outputs use the standard color code as follows:

|             |             |          |     |                  |
|-------------|-------------|----------|-----|------------------|
| <b>CH 1</b> | Front Left  | White ⊕  | and | White / Black ⊖  |
| <b>CH 2</b> | Front Right | Grey ⊕   | and | Grey / Black ⊖   |
| <b>CH 3</b> | Rear Left   | Green ⊕  | and | Green / Black ⊖  |
| <b>CH 4</b> | Rear Right  | Purple ⊕ | and | Purple / Black ⊖ |



# FDP Sport V2

High Quality Full Range Class D amplifier using discrete components



## INCLUDED ACCESSORIES

- Harley Molex input harness
- Harley Molex output harness
- OFC power and ground cable, will reach the battery.
- Adjustable mounting feet for 2 different mounting options.
- Regular 4 channel RCA input harness

## TECHNICAL CHARACTERISTICS

**Power into 4 Ohms:** 4x150W rms @ 1%THD

**Power into 2 Ohms:** 4x200W rms @ 1%THD

**Bridged mode into 4 Ohms:** 2x400W rms @ 1%THD

**Frequency response:** 10 - 30KHz

**Signal/noise ratio:** 95dB (A)

**Adjustable gain:** 300mV to 16V

**Dimensions (HxLxD):** 1-5/8 x 8-1/4 x 5 in (41x208x127mm)

**Protections:** Short-circuit thermal overload, polarity reversal, DC

## ADVANTAGES

- Very small size for power output
- Can be used in 2, 3, or 4 channel modes
- Conformally coated circuit board for added water resistance
- Easily accessible settings
- Flexible crossovers for every amp configuration
- Can be mounted above Harley Davidson radio

