# FUSION MS-AM702 Installation/User Manual

# MARINE 2 CHANNEL ZONE AMPLIFIER





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# INSTALLATION

Before any wiring and installation is performed, FUSION recommends you first plan the complete installation. Look at wiring routing, amplifier location and mounting options. Please re-check the installation at completion.

Appropriate mounting is very important for prolonged life expectancy of any amplifier. Select a location that allows enough space for sufficient airflow to be maintained. Excessive heat will shorten the amplifiers life. To maximize heat dissipation, be sure to leave at least 2.5 inches of clearance around the amplifier.

# INSTALLATION WARNING

- 1 Ensure the marine vessels +12V lead is removed from the battery before any equipment is connected
- 2 Investigate the marine vessels fuel tanks and electrical wiring locations before you begin installation
- 3 Ensure all wiring is protected to avoid damage

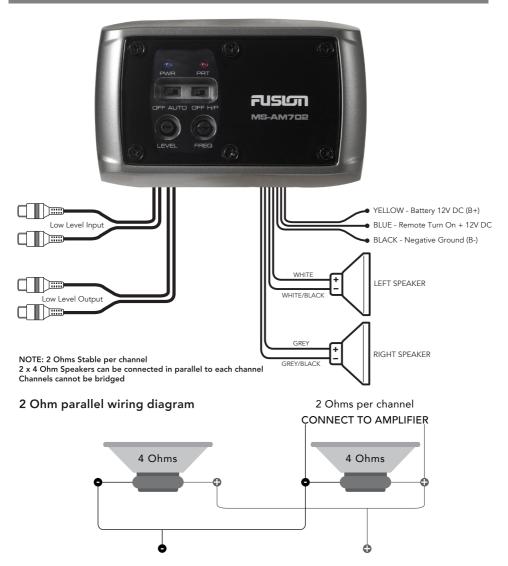
When wiring the FUSION amplifier, ensure that the wires are away from sharp objects and that rubber grommets and insulated bungs are used when routing the wiring. Ensure that when connecting the wires to the speakers and audio system, the terminals and connections are protected from shorting to each other.

# MOUNTING

- 1 Remove the 6 cover plate screws
- 2 Align the amplifier into the position required and mark the mounting holes
- 3 Pre Drill the mounting holes
- 4 Screw the amplifier into position using the screws provided
- 5 Complete the amplifier set-up



# WIRING



Ensure before any connection is made to the amplifier or source unit, that you turn the audio system off. Failure to do so could result in permanent damage.

#### Ground

When grounding your FUSION Amplifier connect directly to a suitable ground point. Note: This is the first wire to connect.

#### Power

FUSION amplifiers should be wired directly to the vessels battery using the appropriate sized cable. Start at the vessels battery and run the power cable through to the amplifier. FUSION recommends the use of grommets when passing the power cable through any metal / fibre glass walls, and to avoid sharp corners that may easily cut through the insulation on the cable.

The use of an in line fuse at the battery position is essential. This will prevent the risk of a potential fire caused by a short circuit in your power cable. Connect the fuse holder as close to the battery positive terminal as possible. You may now connect the cable to the battery, but remember to leave the fuse out or circuit breaker off until all other cable connections are made.

Avoid routing the power, ground and RCA cables over or near engine components, electric fans and other electronic devices.

#### Remote Turn On

This wire must be connected to a switched +12V source, if the "Auto On/Off" switch is located in the Off position. Typically, remote turn-on leads are provided at the head unit which will turn the amplifier on/off in correspondence with the source. If the head unit does not have a remote turn-on lead then a switched +12V supply can be used, like the ACC +12V or alternatively turn the "Auto On/Off" switch to the ON position.

### Auto ON/Off

The Auto On/Off switch allows an easy solution if a REMOTE wire cannot be used. When "ON" is selected the amplifier will turn on when an audio signal is detected from the source, when no signal is present the amplifier will automatically shut down after 1 minute. When Off position is selected a Remote Switched +12V supply must be used as described above.

## **Speaker Wiring**

Choose the correct speaker wire for your application. Most applications will require a minimum of 16 gauge. Route the speaker wire using the same precautions you did when you ran the power cables. Terminate these wires at the speaker end using insulated speaker terminals (not supplied) or by soldering the connection. Make sure the speaker connections are positive to positive and negative to negative. Ensure you have maintained the correct polarity and balance.

## Speaker Load

The Marine Zone amplifier requires a minimum impedance of 2 Ohms STEREO (per channel) to operate trouble free. WARNING cannot operate in bridged mode.

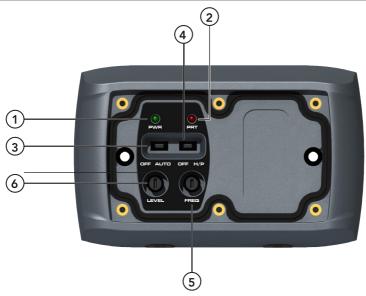
## **Low Level Inputs**

Choose the correct length and style of RCA interconnects for your needs. Avoid running your RCA's near other wire looms and electric fans, sources of electrical or RF interference eg. power and ground cables. Be sure to check for correct balance. (Red is right channel and Black or White is left channel).

## **Low Level Outputs**

Use these RCA output connectors to connect to a secondary amplifier.

## **CONTROL DESCRIPTIONS**



#### 1 PWR LED (Blue)

When illuminated the amplifier has been correctly powered up.

#### 2 PRT LED (Red)

When illuminated the amplifier is in protection mode.

#### 3 AUTO ON/OFF

Switch for desired operation. See notes Auto ON/Off operation (page 5).

#### 4 High Pass (H/P) Switch

Set the appropriate mode of operation. The two positions available are OFF (full range) and H/P.

#### 5 FREQ Control (High Pass Filter)

Set the crossover switch 4 to H/P and turn this control to 60Hz or above when using speakers smaller than  $6 \times 9$ ". This feature is designed to filter out all low bass frequencies. Note: Failure to do so could result in speaker damage. When the H/P switch is in the OFF position a full range signal is supplied to the speakers and the FREQ control has no effect.

## 6 LEVEL Control

The level control on the amplifier allows you to match the input level of the amplifier to the output level of your head unit. Matching the input can be accomplished in three simple steps:

- 1 Turn the LEVEL control on the amplifier to minimum.
- 2 Adjust the Head unit to 3/4 maximum volume ensuring that the BASS and TREBLE are set to zero.
- 3 Adjust the LEVEL control until the desired volume is achieved without audible distortion. Remember, the level control is not a volume control. Ignoring the three steps above may damage your speakers and/or amplifier.

# **SPECIFICATIONS**

Supply voltage Range +10-16Volts DC / Negative Ground 20 Watts RMS at 4 Ohms per channel @10%THD+N 30 Watts RMS at 2 Ohms per channel @10%THD+N

S/N Ratio @ 1kHz / 1W Reference -- 84dB High Pass x-over - 60Hz – 600Hz Maximum Operating Current - 8 AMPS

For further product and installation information please visit www.fusionentertainment.com

Para obtener más información sobre los productos o su instalación, visite www.fusionentertainment.com

Weitere Informationen zum Produkt und zur Installation finden Sie auf folgender Website: www.fusionentertainment.com

Ga naar www.fusionelectronics.com voor meer product- en montage-informatie www.fusionentertainment.com

Pour plus de renseignements sur les produits et l'installation, veuillez consulter www.fusionentertainment.com

Per ulteriori informazioni su prodotto e installazione, potete visitare www.fusionentertainment.com



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