# Built-in Amplifiered Subwoofer Enclosure



USER MANUAL INSTRUCTIONS

## Run in procedure

We recommends that you follow the run in procedure for the subwoofer detailed below.

When your Subwoofer is used for the first time naturally like most brand new items it is very stiff and rigid, it will take time for the moving parts of this Subwoofer to loosen up before the Subwoofer will be ready to deliver its full potential.

For the first 30 hours it is recommended that you play the Subwoofer initially at low to medium volumes, gradually increasing the volume level as time progresses.

As a guide, if you listen to your Subwoofer for 1 hour every day it will take a month for the speaker to run in properly.

You will notice a big change in the sound of the Subwoofer over this period, as the spider and surround begin to run in the sound will get deeper and punchier, also the output of the Subwoofer will increase as the suspension loosens up.

Failure to follow this simple procedure is the most common reason for a Subwoofer to fail after a very short period of time.

#### Installation

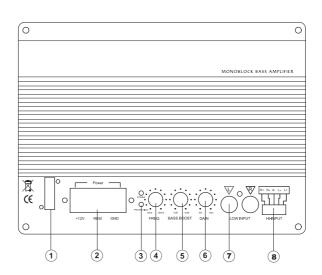
The most common place to mount a bass enclosure is in the luggage compartment of the vehicle.

Where in the luggage compartment it is mounted will have an effect on the sound produced allowing the user to tailor the sound to best suit their musical tastes.

For example if the enclosure is mounted facing the rear bumper, the bass produced will be noticeably deeper than if it is fired into the rear seat.

Do not be afraid to experiment with positioning as a little time and effort can yield great improvements in sound.

#### Connections



#### 1. Fuse

Ensure a 20 amp fuse is fitted, never fit a fuse with a rating higher than 20 amps.

#### 2. power connections

#### **Power cable**

At least an 10 gauge cable should be used for both the power and the ground connections to the amplifier. The power cable should be taken directly from the battery. Rubber grommets should be used when passing through any bulkheads to prevent the cable from becoming chaffed or cut.

It is vital that a fuse / circuit breaker (of at least equal value to the one fitted on the amplifier) is placed inline with the power cable and is no further than eighteen inches away from the battery. Please ensure that the fuse isn't fitted until the entire installation procedure is complete.

#### **Ground Cable**

The ground cable needs to carry the same current as the power cable. Again at least and 10 gauge cable should be used. The amplifier ground should be connected directly to the chassis of the vehicle, to bare metal. (not painted surface) The cable length should be kept to an absolute minimum. It is not recommended that you connect the ground cable to the vehicles seatbelts.

#### Remote Turn On

A minimum of 18 gauge cable should be used for this connection. The cable should be run with exactly the same care and attention as the power cable and taken back to the source and joined to the remote cable provided on the head unit.

If the headunit does not have a remote turn on cable then a 12v supply should be used. This will require a switch to be fitted inline to enable the amplifier to be turned on and off.

NOTE: Remember that if this switch is left on you will flatten the car battery.

## 3. power/protection LED's

When the amplifier is wired and installed correctly the green LED on the front of the amplifier will illuminate to indicate the amplifier is operating correctly.

If the amplifier is incorrectly wired or an abnormal situation occurs such as speaker cables shorting the red protection LED will illuminate.

# 4. crossover frequency control

This will allow you to set the frequency at which the amplifiers low pass filter will take affect. This is variable from 45 – 250 Hz. 50 Hz will produce only low frequencies (deep bass), 250 Hz will produce low and higher, more punchy bass response.

#### 5. bass boost

This will allow you to boost the bass at a frequency of 70 Hz and is variable from 0 - 12db Please note – by boosting +12db you are asking the amplifier to work 8 times harder.

# 6. gain control

Used to match the input signal of the headunit to the amplifier. See the setup section for more details. Please note – the gain control is not a volume control it is a level match.

# 7. low level input

For connection to any source with a low level output. Connect this to the RCA outputs on your head unit.

# 8. High level inputs

For connection to a source unit without low level outputs. Connect this to The front or rear speaker wires ensuring that the polarity is correct.

## **Set Up Section**

## **Gain Control Setting**

To correctly set the gain control of the amplifier to match that of the source (headunit) use the following setup routine:

- Turn the gain control to minimum on the amplifier.
- On the headunit set all crossovers to flat and both bass and treble to zero.
- Turn up the source (headunit) to approx 3/4 volume.
- Very slowly turn up the gain on the amplifier until distortion can be heard in any of the speakers or until the volume reaches an uncomfortable listening level when this is reached turn down the gain control slightly.

The gain control is now set.

## **Crossover Setting**

Enclosures come with a built in Frequency Control. This will allow you to set the frequency at which the amplifier filter will take affect. It is variable from 40 Hz - 250 Hz. 40 Hz will produce only low frequencies, very deep bass. Whilst 250 Hz will produce low and higher punchy bass frequencies. In the correct set up the bass should not be overly prominent, although some users may wish to have a bigger bass presence.

To set this correctly follow the following routine:

- Firstly set the gain control correctly as described above.
- Play a known piece of dynamic music through the entire system.
- Use the Frequency Control to blend the frequencies from the subwoofer into the rest of the vehicle so that the bass coming from the enclosure disappears' or blends in with the rest of the car speakers.

The crossover is now set.

## **Troubleshooting**

- Before removing the amplifier, refer to the list below and follow the suggested procedures.
- If in any doubt get help from a car audio installation expert or qualified auto electrician.

# **Amplifier Will Not Power Up. Power On Indicator Not Illuminated**

- Check for good ground connections. Ensure its connected directly to bare metal and not a painted surface.
- ✓ Using a multimeter check that remote terminal has at least 10V DC.
- Using a multimeter check that the battery voltage on the positive terminal. Check all fuses.

#### **Fuse Blown**

- Check both positive supply and ground for shorts.
- Check that the positive wire is connected to the positive terminal on the amplifier.
- Check that the negative wire is connected to the ground terminal on the amplifier.
- Ensure that the a 20 amp fuse is fitted