



FLI TRAP ENCLOSURES

**INSTRUCTION &
INSTALLATION MANUAL**

www.fliaudio.co.uk



For best connections and performance use only FLI cabling and accessories



Limited Warranty

All FLI goods are covered by a full 12 months manufacturers warranty. Valid from the date of the original receipt and proof of purchase. In order to validate this warranty, the warranty card should be returned to FLI within seven days of the original purchase date. The original receipt and packaging should also be kept for this 12 month period.

If at any stage during the warranty period you have a problem with the product then it should be returned to the point of purchase in its original packaging, complete and with no items missing.

If the store is unable to fix the product it may have to be returned to FLI this process takes around 7 working days.

A full description of FLI's warranty information can be found on our website:

www.fliaudio.co.uk/warranty

A written version can also be obtained from
FLI warranty department
PO Box 11000
B75 7WG

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We reserve the right to make needed changes or improvements to the product and this manual, without informing the customer about this in advance.



Thank you for purchasing this FLI enclosure. It will provide you with a trouble free usage providing you follow a few simple guidelines.

Run in procedure

FLI 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.

The Subwoofer is like your cars engine, it needs a few thousand miles before you can drive it to it's full potential, driving it into the redline from the first day will mean engine damage is certain and will not be covered by warranty.

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

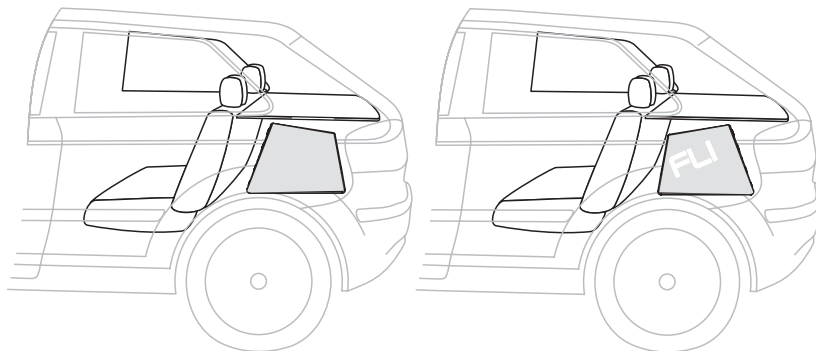
Installation

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

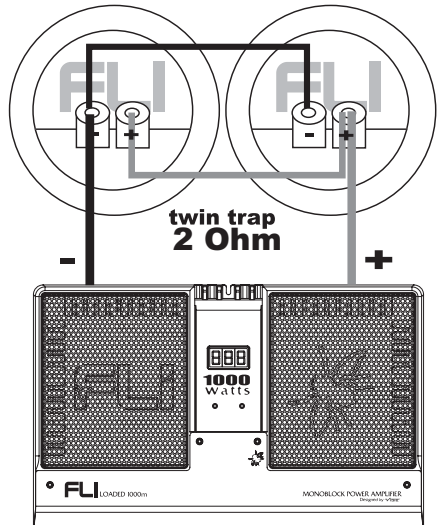
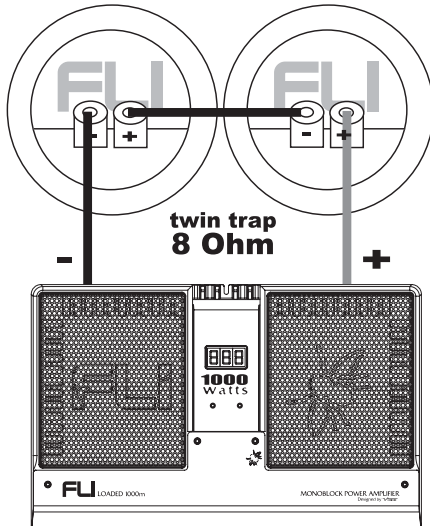
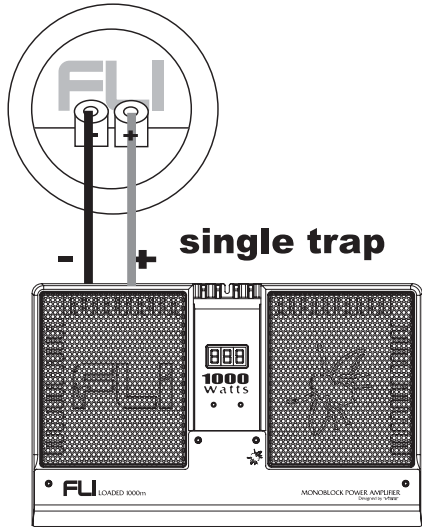
Where in the luggage compartment it is mounted will have an effect on the sound produced allowing the user to tailor the sound to best suit their musical tastes.

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.



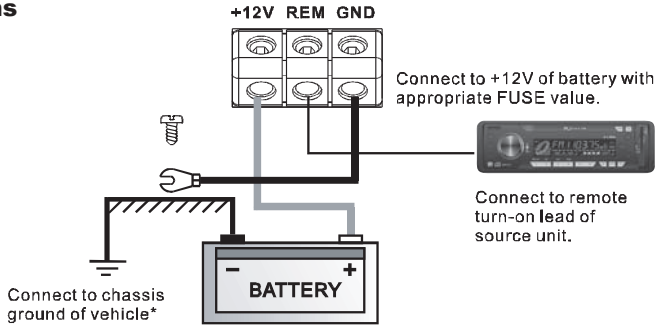
Passive enclosure wiring



Mounting Guidelines

Your FLI amplifier is designed with a swift installation routine in mind. Please mount the amplifier in a dry location on a solid surface. NEVER mount the amplifier upside down, this will cause the amplifier to over heat and will eventually damage the amplifier. Before fixing the amplifier in place please ensure that there is sufficient air flow around the exterior of the casing, at least two inches is sufficient.

Connections



Current demand	Length of Run							
	0 - 4 Ft	4 - 7 Ft	7 - 10 Ft	10 - 13 Ft	13 - 16 Ft	16 - 19 Ft	19 - 22 Ft	22 - 28 Ft
0-20 amps	14	12	12	10	10	8	8	8
20-35 amps	12	10	8	8	6	6	6	4
35-50 amps	10	8	8	6	4	4	4	4
50-65 amps	8	8	6	4	4	4	4	2
65-85 amps	6	6	4	4	2	2	2	0
85-105 amps	6	6	4	2	2	2	2	0
105-125 amps	4	4	4	2	0	0	0	0
125-150 amps	2	2	2	0	0	0	0	0

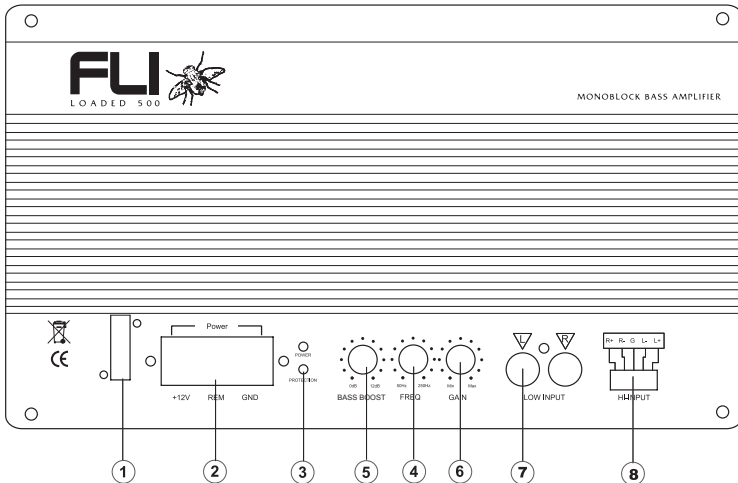
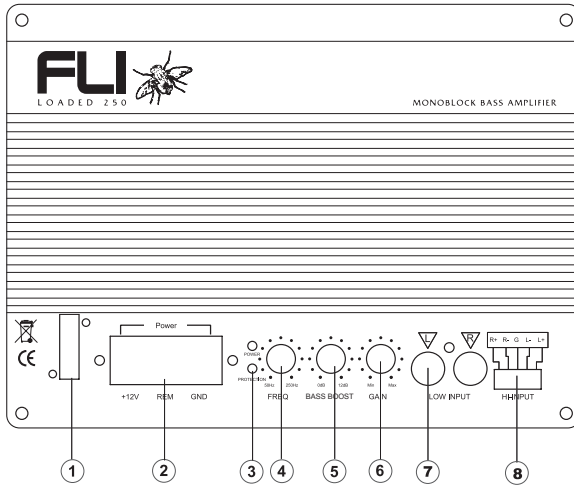
AWG to Metric Conversion Chart cross sectional area			
AWG Number	Inch	mm	mm ²
0	0.325	8.25	53.5
1	0.289	7.35	42.4
2	0.258	6.54	33.6
3	0.229	5.83	26.7
4	0.204	5.19	21.1
5	0.182	4.62	16.8
6	0.162	4.11	13.3
7	0.144	3.66	10.5
8	0.128	3.26	8.36
9	0.114	2.91	6.63
10	0.102	2.59	5.26

RCA Cables

- Please take extra care when running these cables from the source to the amplifier. Ensure that they are placed away from all items that can generate any interference, wiring harnesses etc.
- It is recommended that the RCA cables should be run on opposite sides of the car to the previously installed power cables if possible, to avoid the cable picking up interference.

For optimal performance FLI recommends using only FLI cable and connectors using any thing less can seriously compromise the performance of your amplifier. see back page fo details

Connections



1. Fuse

FL250: ensure a 20 amp fuse is fitted, never fit a fuse with a rating higher than 20 amps.
FL500: ensure a 25 amp fuse is fitted, never fit a fuse with a rating higher than 25 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

All FLI active 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.
- ✓ FL250 - Ensure that the a 20 amp fuse is fitted
- ✓ FL500 - Ensure that the a 25 amp fuse is fitted

Specification

Product	part no	RMS	peak	min input	impedance
FLI trap 10 passive	FT10-F2	250 watts	800 watts	125 watts RMS	4 ohm
FLI trap 12 passive	FT12-F2	300 watts	1000 watts	150 watts RMS	4 ohm
FLI trap 15 passive	FT15-F2	400 watts	1200 watts	200 watts RMS	4 ohm
FLI trap 10 pink active	FT10AP-F3	250 watts	800 watts	125 watts RMS	4 ohm
FLI trap 10 active	FT10A-F3	250 watts	800 watts	125 watts RMS	4 ohm
FLI trap 12 active	FT12A-F3	300 watts	1000 watts	150 watts RMS	4 ohm
FLI trap 15 active	FT15A-F1	400 watts	1200 watts	200 watts RMS	4 ohm
FLI trap 10 twin active	FT10TA-F2	500 watts	1600 watts	250 watts RMS	4 ohm
FLI trap 12 twin passive	FT12T-F2	600 watts	2000 watts	300 watts RMS	2 x 4 ohm
FLI trap 12 twin active	FT12TA-F2	600 watts	2000 watts	300 watts RMS	4 ohm
FLI trap 15 twin passive	FT15T-F2	800 watts	2400 watts	400 watts RMS	2 x 4 ohm



In order to protect your purchase and aid your warranty please fill in the following form and keep it safe for your future reference:

www.fliaudio.co.uk

Model Number:

Serial Number:

Purchased From:

Date of Purchase:





FLI Line Level Converter

If your current head unit has no amplifier pre outputs this FLI Line Level Converter can be connected directly to your rear speaker wires to provide a stereo set of RCA connectors which can be connected directly to an amplifier.



FLI Loaded In dash remote control

Allows 18db gain adjustment of the bass boost feature which is present on all FLI Loaded amplifiers. Comes complete with 5m cable. Control can be mounted in-dash or anywhere suitable.
dimensions: H:20mm
W:40mm D:45mm



FIREFLI 5/1 metre LED RCA interconnect

High quality 2 Channel RCA interconnect featuring FIREFLI mega brite LED RCA end plugs available in 1 metre and 5metre lengths



FLI RCA-Y interconnect

High quality RCA Y-lead interconnect
Converts stereo RCA output to 4channel output
2 female RCA plugs to 4 male RCA plugs



FLEECE

Black pull over fleece with front zip and arm pocket features white FLI embroidery logos on front and back



FLI Tshirts

Our heavy weight FLI T-shirts are a must have! Featuring small FLI logo on front and big logo on back. All sizes available



FLI Stickers

FLI stickers available in white or silver 5" 10" 15"



STUFF shop stop

Accessories can be ordered separately from the FLI website www.fliaudio.co.uk

Only available in the UK If out side uk please contact your dealer or distributor from the FLI website



FLI Power Capacitor

The FLI powercap, a 1 farad, high specification power capacitor is another great addition to our range. This is an essential item for maximum power delivery.

Stores added power for when your system really needs it



AK10- 10 Gauge FLI Wiring Kit

For use with Car audio systems up to 1000 watts. Kit contents:

- 5 metre 10 AWG power cable
- 1 metre 10AWG ground cable
- 5 metre RCA interconnect
- 5 metre remote turn on cable
- 8 metre speaker cable
- Inline ATC fuse holder, 30 amp ATC blade fuse, Fitment pack.

For use with Stereo amplifier systems



AK8 - 8 AWG amplifier wiring kit

For use with Car audio systems up to 1000 watts Kit contents:

- 5 metre 8 AWG power cable
- 1 metre 8AWG ground cable
- 5 metre FIREFLI LED RCA interconnect
- 5 metre remote turn on cable
- 8 metre speaker cable
- AGU glass fuse holder, 60 amp AGU glass fuse, Fitment pack

For use with high power stereo amplifier systems



AK4 - 4 AWG amplifier wiring kit

For use with Car audio systems up to 2000 watts Kit contents:

- 5 metre 4 AWG power cable
- 1 metre 4AWG ground cable
- 5 metre FIREFLI LED RCA interconnect
- 5 metre remote turn on cable
- 8 metre speaker cable
- AGU glass fuse holder, 80 amp AGU glass fuse
- Fitment pack

For use with Bass amplifier systems



FLI GRILLS FG10, FG12 & FG15

For use with the FLI subwoofers the FLI Sub Grill is a visually appealing way to protect your subwoofer from accidental damage. The FLI shaped grill protects the cone and rubber surround from other items in your boot.

For use with all FLI subwoofers and enclosures