



FLI

LOADED 1000m

**INSTRUCTION &
INSTALLATION MANUAL**

FL1000m-F2



www.fliaudio.co.uk

For best performance use only FLI cabling and accessories - see back page for details



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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LOADED 1000m

INSTRUCTION & INSTALLATION MANUAL

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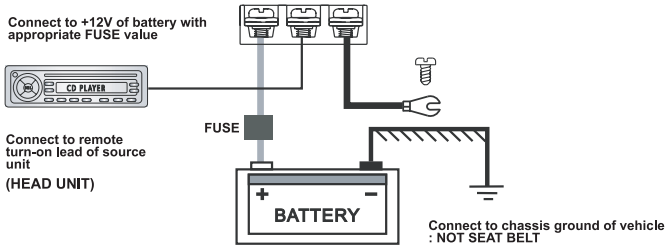
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Thank you for purchasing this FLI amplifier. It will provide you with a lifetime trouble free usage providing you follow a few simple guidelines.

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



Power Cable

- At least an 8 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 chafed 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 is not fitted until the entire installation procedure is complete.
- The two tables below are to help you decide on what cable is correct for you. The first enables you to select the size of cable depending on the length required. The second will help you convert the cable size from American Wire Gauge to Metric if you need to.

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
1 Metre – 3.28 Feet								

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

Ground Cable

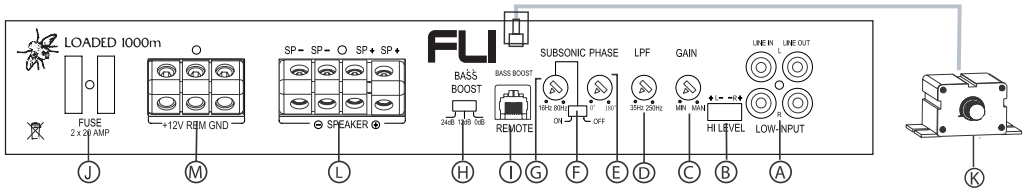
- The ground cable needs to carry the same current as the power cable. At least an 8 gauge cable should be used.
- The amplifier ground should be connected directly to the chassis of the vehicle, to bare metal.
- The cable length should be kept to an absolute minimum.
- It is not recommended that you connect the ground cable to the vehicles seatbelts anchor point.

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 (headunit) and joined to the remote cable provided.
- If the source (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. Remember that if this switch is left on you will flatten the car battery.

RCA Cables

- Depending on the model number of your amplifier and the number of speakers you wish to power you will have to run either one or two RCA cables from the source to the amplifier.
- 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.



A. Low Level Input / output

Low level input for connection to any source (headunit) with a low level output. This is your RCA output from the source (headunit).

Low level output for connection to another amplifier

B. High Level Input

To be used when no RCA's are available. Use the provided loom to connect to closest speakers. The loom provided will only fit one way round. Once plugged in you should connect the wires this way around:

White – Left Speaker Positive
Blue – Left Speaker Negative
Brown – Right Speaker Negative
Red – Right Speaker Negative

C. Gain Control

Used to match the input signal of the source (headunit) to the amplifier. See the setup section for more details.

D. Low pass filter control

Low pass frequency control. The frequency ranges from 35 Hz to 250 Hz.

E. Phase Control

Can be used to alter the phase of the subwoofer from 0 - 180 degrees.

IE: the speaker output can be inphase or out of phase with the other speakers in the vehicle. For best results flick between the two settings to which gives better low frequency results.

F. Subsonic Filter Switch

Used to turn the subsonic filter on or off.

G. Subsonic Filter Control

This is used to filter out unwanted amplifier output to the subwoofer. Effectively this will filter out all the frequencies up to the crossover point set with the control. The range is from 16 Hz to 80 Hz

H. Bass Boost switch

To provide up to an extra +24 dB of bass boost at 45 Hz.

I. Bass Remote Input Jack

Use to plug in the optional remote bass controller.

J. Fuse

Please ensure the following fuse rating is used when replacing fuses:

FLI Loaded 1000m – 20 amp x 2

K. Optional Bass Remote Controller

This remote can be mounted in the front of the car and will give you the ability to raise the bass boost of the amplifier remotely in the range of 0 to +24 dB.

L. Speaker Terminal Output

For connection to the speakers. See Application section for wiring examples.

M. Power Connections

Power connections. See Connections section for details on correct connections.

Set Up Section

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.

Ensure the bass boost is set to 0 dB.

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.

The setting of the crossover will depend on what kind of speaker you are installing.

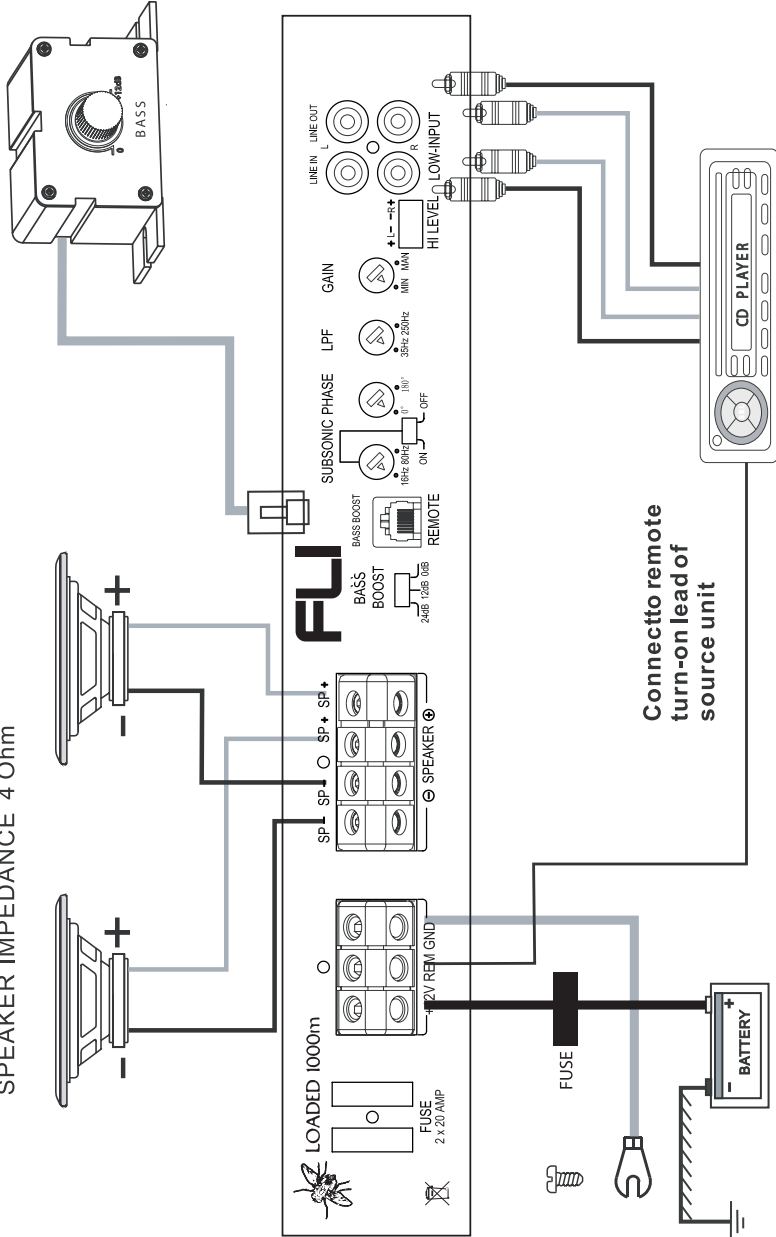
For a subwoofer it is recommended that the crossover is set to Low Pass and the frequency is set to match that of the speakers specifications.

Note:

By using the crossovers correctly you will not only lengthen the life of your speakers but you will also get better performance from them. To optimise your setup seek the advice of a professional installation engineer or visit your local FLI audio dealer.

SYSTEM WIRING
TWIN SUBWOOFER CONFIGURATION

SPEAKER IMPEDANCE 4 Ohm

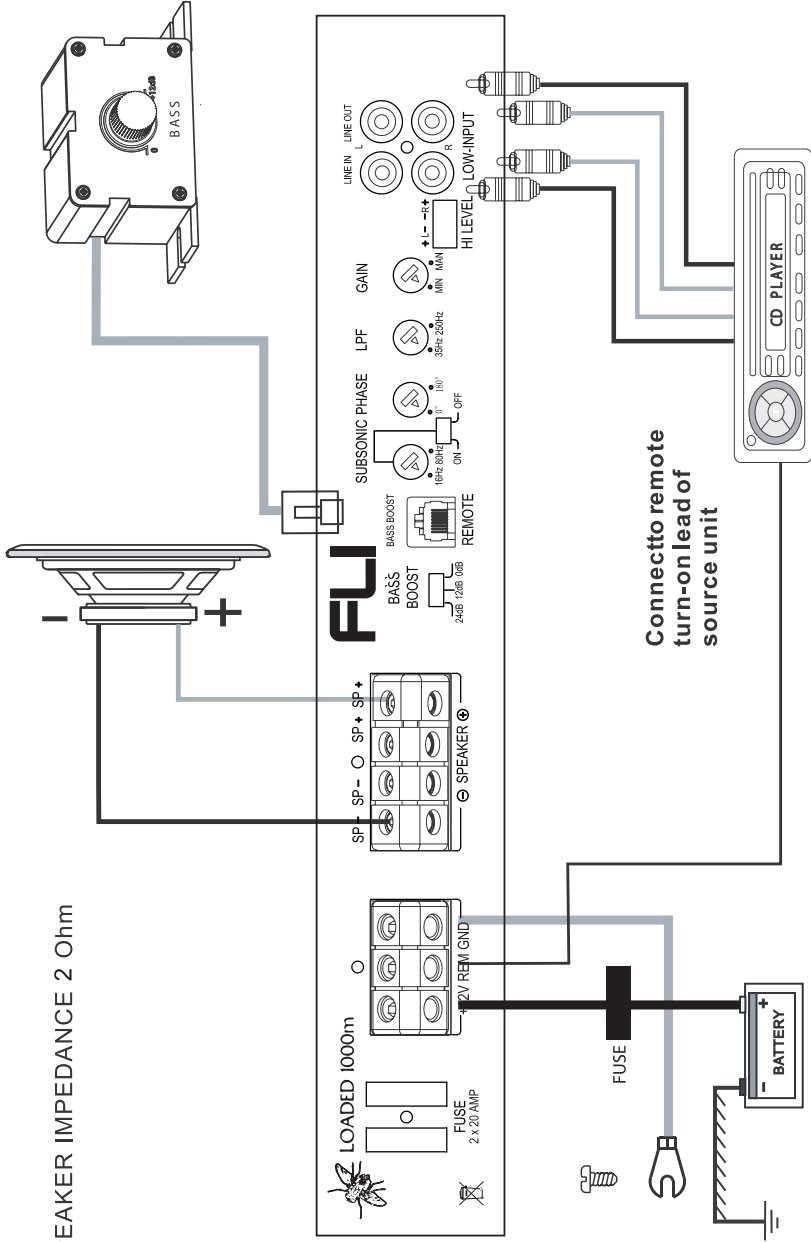


Connect to remote
turn-on lead of
source unit

Connect to chassis
ground of vehicle*

SYSTEM WIRING
SINGLE SUBWOOFER CONFIGURATION

SPEAKER IMPEDANCE 2 Ohm



Connect to remote
turn-on lead of
source unit

Connect to chassis
ground of vehicle*

Troubleshooting

- Before removing the amplifier, refer to the list below and follow the suggested procedures.
- Always test the speakers and confirm that they are wired correctly first.
- If in any doubt get help from a qualified auto electrician.

Amplifier Will Not Power Up

- ✓ Check for good ground connections. Ensure Ground cable is connected directly to bare metal and not a painted surface.
- ✓ Using a multimeter check that remote terminal has at least 7V DC.
- ✓ Using a multimeter check that there is battery voltage on the positive terminal.
- ✓ Check all fuses.
- ✓ Check that the protection light is not illuminated. If it is lit, shut off the amplifier for thirty seconds and then turn it back on.

Protection LED Illuminates When Amplifier Is Powered Up

- ✓ Check for shorts on all speakers wires. (i.e no speaker wires should be joined together and no speaker wires should be touching the car's chassis)
- The amplifier is designed to shut down automatically when the units temperature goes above 80 degrees. If the amplifier feels very hot then this may be the reason for the amplifier not starting.
- Remove the speaker wires and reset the amplifier. If the Protection LED still comes on then the amplifier is faulty. This damage may have been caused by either failure to follow these setup guidelines or abuse.

Amplifier Gets Very Hot

- ✓ Check the minimum speaker impedance for the amplifier is correct. This amplifier is not recommended for impedance loads below 2 Ohm stereo and / or 4 Ohm bridged mono.
- ✓ Check for shorts on all speakers wires. (i.e no speaker wires should be joined together and no speaker wires should be touching the car's chassis)
- ✓ Check that there is good airflow around the amplifier. In some applications an external fan may be required.

Blown Fuse(s)

- ✓ 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 correct rated fuse is fitted:

FLI Loaded 1000m – 20 amp x 2

Distorted Sound

- ✓ Check the gain control is not set at too high a level. If the speakers sound distorted turn the down the gain until the sound is clear.
- ✓ Check that all crossover frequencies are correct. See Setup section for more details.
- ✓ Check for shorts on all speaker wires.
- ✓ Check all speakers are wired correctly. With the correct polarity being observed on each connection.

Specification	
RMS Power @ 13.8v DC	
Power @ 4 Ohms Mono	1 x 250 watts RMS
Power @ 2 Ohms Mono	1 x 500 watts RMS
MAX power	1000 watts
Minimum speaker impedance	2 Ohms
THD Distortion	0.15%
IMD Distortion	0.15%
Frequency Response	20Hz - 300Hz
Input Sensitivity	200 mV - 7V
Signal to Noise Ratio	99 dB
Channel Separation	54 dB
Crossover Network	
Low pass filter	35 Hz – 250 Hz
Bass Boost	0 dB - + 24 dB
Fuse rating	20A x 2
Size length x width x height	400mm x 250mm x 55 mm



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

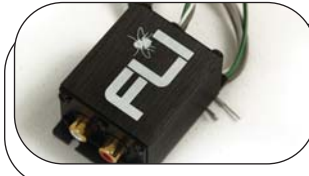
Model Number:

Serial Number:

Purchased From:

Date of Purchase:

KEEP IT SAFE
Staple your receipt here:



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 brile 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 1500 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