

# BRAVO COMMUNICATIONS, INC.

## MODEL GTFB (GROUND TRANSIENT FILTER BLOCK)

### INSTALLATION INSTRUCTIONS

Thank you for purchasing a Ground Transient Filter Block from Bravo Communications, Inc.. You have made a wise decision in purchasing this ground transient filter protection for your equipment. Our filter technology works in partnership with other power quality products and surge protection technologies to provide a complete power and signal protection solution. The applications of this product in solving electrical system power quality problems and to fortify equipment installations is virtually unlimited.

To ensure your safety as well as the best possible performance of this product, please read this instruction guide carefully.

Here are just a few examples of where the Bravo Ground Transient Filter Block is already being used:

- UPS Systems
- Data Protection Hardware
- PABX Systems
- Cellular & Radio Towers
- Alarm & Security Systems
- Point of Sale Terminals
- Server Protection
- Manufacturing Equipment
- Gas Dispensing Equipment Installations
- Utility Company Equipment

Model GTFB transient block is effective for use as part of the grounding system for both 120V 60Hz and 240V 50Hz 'appliances'. It is not recommended for applications where there is a continuous current loading greater than 6 Amps. The following procedure should be followed when installing the transient block in a new location.

#### 1. Identify a suitable position for mounting the filter

It is recommended the filter be positioned in a cool area as close to room temperature as possible. Choose a location where the filter or the connecting wires cannot easily be disturbed. It can be positioned horizontally or vertically as long as it can be safely secured to the surface on which it rests.

Proper precautions should be observed if the connection wires are required to pass into (or out of) sheet metal enclosures. Always use a suitably sized grommet to protect the wires from coarse metal edges. Never deliberately position the wires between two connecting surfaces of any enclosure as this also risks damage to the wire insulation.

#### 2. Secure the filter in position

The filter block can be secured to most sheet metal or wood surfaces using four 4.5mm (x 10mm min.) self tapping screws (not supplied).

It is also possible to secure the filter to glass fibre and masonry surfaces using the appropriate hardware.

Care should be taken not to over tighten mounting hardware as this may cause damage to the filters outer housing. If in doubt, do not position the filter in a location where it may fall and risk injury to others.

#### 3. Connect the filter

It is recommended that connection of the filter be done by a qualified electrical or power quality professional.

- The RED labelled wire must be connected to EARTH/GROUND side.
- The BLACK labelled wire must be connected to CASE/GROUND or 'appliance' side.

Depending on where the filter is used, it is possible to connect Model GTFB in a number of different ways; see the diagrams on the following page and decide the most suitable installation for your application.

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fig 1.

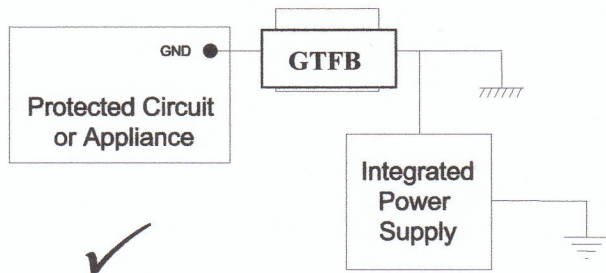


fig 3.

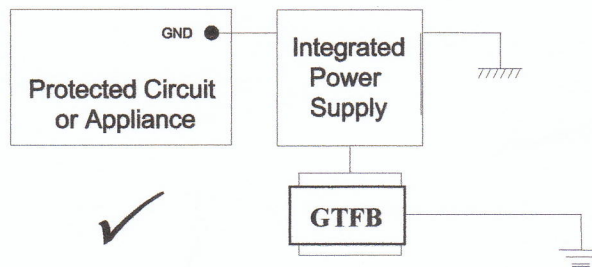


fig 2.

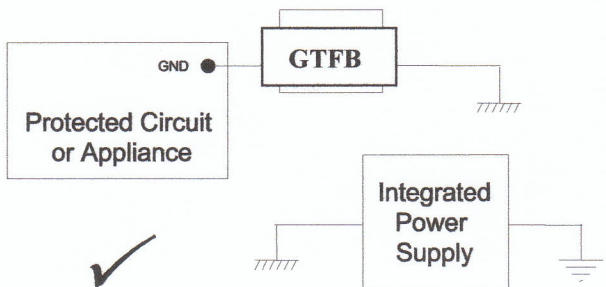
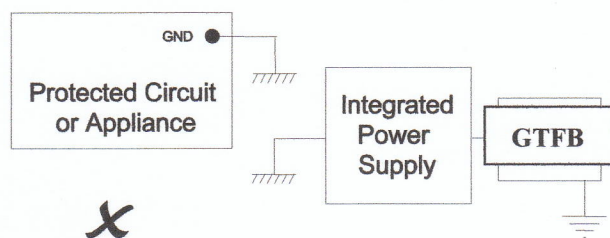


fig 4.



Note – The RED connection wire is shown to the RIGHT of the filter in each case.

Figures 1 and 2 show the preferred connection method for connecting the filter within a grounded enclosure. Figure 3 identifies a suitable connection method if space does not permit the filter to be installed within a shared enclosure. However, the GTFB must be installed on a stepdown secondary voltage ground and not a high voltage primary ground.

Figure 4 shows an example of a connection method that may suit a few applications, however tests have shown this connection method is less effective than fig.3 and is therefore not recommended. Must go on a secondary ground same as Figure 3.

#### 4. Safety Pointers

However the filter is connected, it is important to remember these points:

- One filter is required per 'appliance'. To connect more than one 'appliance' per filter is neither practical nor safe.
- The filter should not be used with a product that has a total power consumption greater than 1250W.
- The filter must be the only grounded connection of the protected 'appliance'. If possible the case ground should also be routed via the filter to prevent the occurrence of ground loops (See figures 1 & 2).
- If the filter is installed in an 'appliance' dependant on forced air cooling, care should be taken to ensure that the filter and its wiring do not obstruct the air flow within the 'appliance'.
- Never attempt to paint or apply any other solvent based liquid or cleaner to the filter. If cleaning is required after installation, wipe with a dry, lint free cloth.

If you have any concerns regarding the correct installation of this product, please contact Bravo technical support to assist you.

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