

## Flasher Monitors : TF1152, TF115FL, TF11524, TF115FL24

The most common type of device fitted to cars when they are wired for towing is a flasher monitor. The function of a flasher monitor is to meet the legal requirement to provide a warning, visible or audible, that the indicator lights of a drawn trailer are working or not working.

Monitors measure current and react to it by generating some kind of signal. This is usually in the form of an electrical signal capable of lighting a lamp, causing a buzzer to sound or switching a relay. Monitors are NOT switches although they can be used to trigger relays that are switches.

### **NOTE: FOR 24 VOLT FOLLOW 12 VOLT INSTRUCTIONS**

#### **TF1152 Audible monitor**

This is a very simple device consisting of a buzzer and two monitoring circuits, one circuit for each side of the vehicle. It is fitted in the rear part of the vehicle, close to the rear lamp clusters. When current passes through either trailer flasher circuit, it is detected and the monitor circuit causes the buzzer to buzz.

It has five wires for connection:  
 left hand input wire (yellow/black\*)  
 left hand output wire (yellow)  
 earth for the buzzer (white)  
 right hand input wire (green/white\*)  
 right hand output wire (green).



It is fitted in line between the vehicle's circuits and the wires that carry current via the

It only buzzes when current passes through it to the trailer flasher lamps. Thus when no trailer is connected it remains silent.

If a trailer is connected and the audible monitor does not buzz when the flashers operate, this warns the driver that his trailer flashers are not working properly.

*The reasons for the overwhelming popularity of this audible monitor amongst towbar fitters are its simplicity, its reliability, its relative cheapness and its ease of fitting.*

#### ***Fitting the TF1152***

**Follow the general instructions for fitting a 12N boot fitting relays and monitors,**

#### ***Chart A***

Socket pin number	7 core cable colour	to	Relay wire colour or terminal number	Relay wire colour or terminal number	to	Vehicle circuit
1	Yellow		Yellow	Yellow/Black		LH flasher
2	Blue		Direct	Direct*		Fog lamp
3	White		Chassis	White		Chassis earth
4	Green		Green	Green/White		RH flasher
5	Brown		Direct	Direct*		RH tail light
6	Red		Direct	Direct*		Brake lights
7	Black		Direct	Direct*		LH tail lights
-	-		-	N/A		Power (battery)

*\*Unless fitting a fog cut-out or bypass relay.*

Follow the instructions in **Chart A** and connect together your 7-core cable, your TF1152 monitor and the appropriate wires in the vehicle loom.

Use a suitable test board to test the circuits. Make sure the "Tell-tale" warning buzzer is working correctly.

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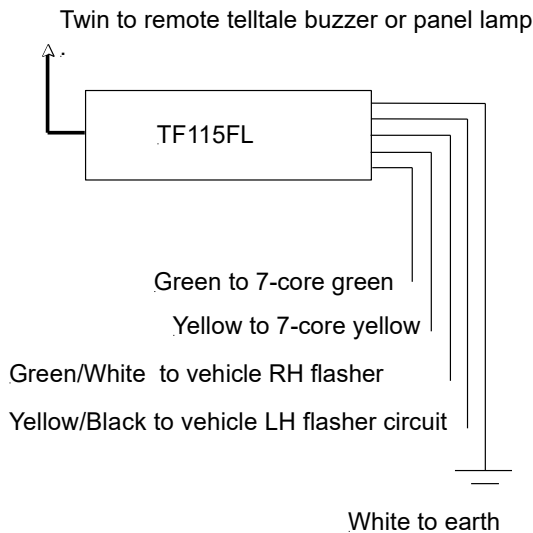
**TF115FL Audible monitor with flying lead.**

This is a special version of the TF1152. It is fitted with a 4 metre twin flying lead, connected where the buzzer's positive lead would normally be connected, and supplied with a separate buzzer which can be connected to the flying lead.

In all other respects its function and operation are identical to the TF1152.

It is fitted in vehicles where the buzzer has to be remote from the monitoring circuits. An example would be in a pickup. The monitor, suitably housed, would be installed close to the rear lamps of the pickup whilst the buzzer, to be audible to the driver, would be placed in the cab.

A panel lamp or similar device can be connected in place of the buzzer if required.



***Fitting the TF115FL***

Follow the instructions for the TF1152 but add the specific instructions relating to the telltale on the diagram above.

<b><u>Trouble-Shooting: TF1152, TF1155, TF115FL &amp; bypass buzzers</u></b>	
Buzzer does not sound.	<p>Check all connections</p> <p>Check trailer (test board) flashers are working.</p> <p>Check your test board is drawing enough current (21 watts) to make the buzzer work properly. LED testers do not draw significant current.</p>
Bypass buzzers	<p>Check all the above</p> <p>Test the relay: With the test board in place and the relay powered and earthed, apply 12 volts to the green and yellow signal wires in turn. If the test board indicators light, the buzzer should sound. Otherwise, it is faulty.</p> <p>One-off solution:</p> <p>If everything works except the buzzer, you can fit a simple TF1152 type in line in the green and yellow wires in the 7-core to the trailer socket.</p>
Buzzer is not loud enough.	<p>Check it has not been trapped or covered.</p> <p>Move it to a better place</p> <p>Fix it to a surface that resonates</p> <p>In the case of a TF1152, replace it with a TF115FL and use the extension wire to put the mini-buzzer where it can be heard.</p>