

# Float Power Systems & Controls

# GROUSER

#### On Line Earth Fault Locator for DC systems (A GFFL Product)

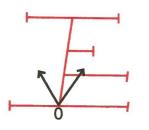


Ideal for pin point location of high resistance faults on floating DC systems

## Features

Locates Earth faults on live	Sensitive to faults as high as
	0
DC circuits	68k ohm
Does not effect system	Traces and locates multiple
integrity	faults on systems
Unaffected by load current	Easy to use, battery powered
or ripple	
Can be tuned to the fault	Works on live systems up to
current only	300 volt
Locates faults in machine	Traces earth faults on
windings	thermocouples

For More information, please visit our website: www.floatpowersystems.com



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The Grouser is an easy to use Earth fault locator that was designed to operate on live, floating DC systems with voltages up to 300 volt DC. Grouser will not interfere with sensitive equipment connected to the DC system and is unaffected by ripple, or switching transients.

## **Operation**

The Grouser Transmitter is connected between the DC circuit and earth, if a fault or multiple faults are present a low frequency current will flow between the transmitter through the circuit to the fault and then back via the earth forming a current loop.

The Grouser receiver can then trace the low frequency signal by use of the special search coils (3 sizes are provided) with pin point accuracy to the earth fault or faults.

#### **Grouser Transmitter**

Battery powered transmitter outputs 9 volt RMS open circuit, 50mA short circuit. The output frequency is pre-set at between 11.0 Hz and 12.0 Hz and factory matched to the receiver frequency.

The unit can operate on live circuits up to 300 volt DC, it is fuse protected and has semi rotary controls to prevent accidental operation.

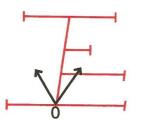
A LED gives indication of battery condition and on / off status.

#### **Grouser Receiver**

The receiver is battery powered, it has a large, easy to read analogue indicator and rotary gain control mounted on the front panel.

The frequency range is factory set between 11.2 and 11.8 Hz, this low, very precise frequency enables the Grouser to operate with a clean signal even in "noisy" conditions. There is also a 10 turn capacitive balance control that enables the operator to cancel out capacitive signals and view the fault signal independent of other factors.

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## **Inductive Sensing Heads**

The search coils are made of a special magnetic alloy, laminated and epoxy resin sealed, wound with robust insulated copper wire and encapsulated.

Four different sizes are available from 6 mm, 30 mm and 45 mm, these are supplied as standard. A 55 mm and 95 mm head are available as an optional extra.

The Grouser is supplied in a heavy duty leather case carry case with connection cables, clips and a comprehensive operation manual.

The principle of operation is straight forward ...... inject a small current at a <u>specific frequency</u>, trace only the current flow at that <u>specific</u> <u>frequency</u>, where the current flows to earth is where the fault or faults are.

In practice this is more complex than it would first appear, Grouser has overcome problems such as *spillover, inductive coupling, interference, capacitive coupling, spurious noise, etc. etc.* 

The Grouser has had 20 years of <u>continuous development</u>, to refine this instrument to an easy to use practical tool, most importantly ......

### It works !

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