▼ VIGILANT

F4000 Battery Test Kit (FP1007)

Installation Instructions

General Description

This kit is used to provide an AS1603.4 compliant battery test facility to an F4000 system which is using AS4428 power supplies. This situation is most likely to come about after a faulty AS1603 power supply is replaced with a new spare power supply which will be AS4428 compliant.

Contents of this Kit

Item	Qty	Description
RR1220	1	RESISTOR 22 OHM 50W 10% CHASSIS MOUNT, WITH FITTED WIRE LEADS
PA0730	1	24V GEN PURPOSE 2A 2CO RELAY BD
LT0541	1	F4000 AS1603.4 TEST LOAD KIT, INSTALL INSTR.

Mounting the Load Resistor

The load resistor will dissipate 30W of heat during a battery test. To dissipate this heat, the resistor must be fastened firmly to a metal gear plate or cabinet.

The resistor is mounted by 2 x M3 screws. It will probably be most convenient to use self-tapping screws directly into a gear plate. Use the resistor itself as a drilling template. Because of the range of mounting possibilities, screws are not provided in this kit.

Control Relay Options

The load resistor can be controlled by any one of the relay outputs listed below, depending on what is available or convenient. All of these relays have a load capacity of at least 2A resistive - the battery test load is 1.3A which is well within this capacity.

- F4000 FIP ancillary relay
- RRM on an ADR (there are usually unused relays in a Loop Booster)
- IOR relay output
- The supplied GP relay board connected to an IOR open collector output (if there is no F4000 relay board present)
- A series 130 addressable relay module (ADC130)

Wiring

Figure 1 shows the wiring of the load resistor and its connection to each of the possible control relay options. The major consideration is to ensure that the VBF output supplying the load resistor has sufficient reserve capacity to carry the additional 1.3A load.

If the PA0730 GP Relay Board supplied with the kit is used, controlled by an open collector output, do **not** cut link LK1 on the board. The indicator on the GP Relay is convenient to show when a battery test is occurring.

Programming

An extra logic equation will be required in the F4000 FIP to control the relay switching the battery load resistor.

Refer to LT0072 F4000 Programming Manual for details of how to update the system configuration using a programming terminal connected to the F4000. Note that SmartConfig cannot be used to program an AS1603 F4000.

The equation will resemble one of the following two options, according to which relay output is being used.

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; if using F4000 Main Board Ancillary Relay output
A0 = BTS

; if using ARR or IOR relay output or ADC130 relay output on MPR
Rx/y = BTS
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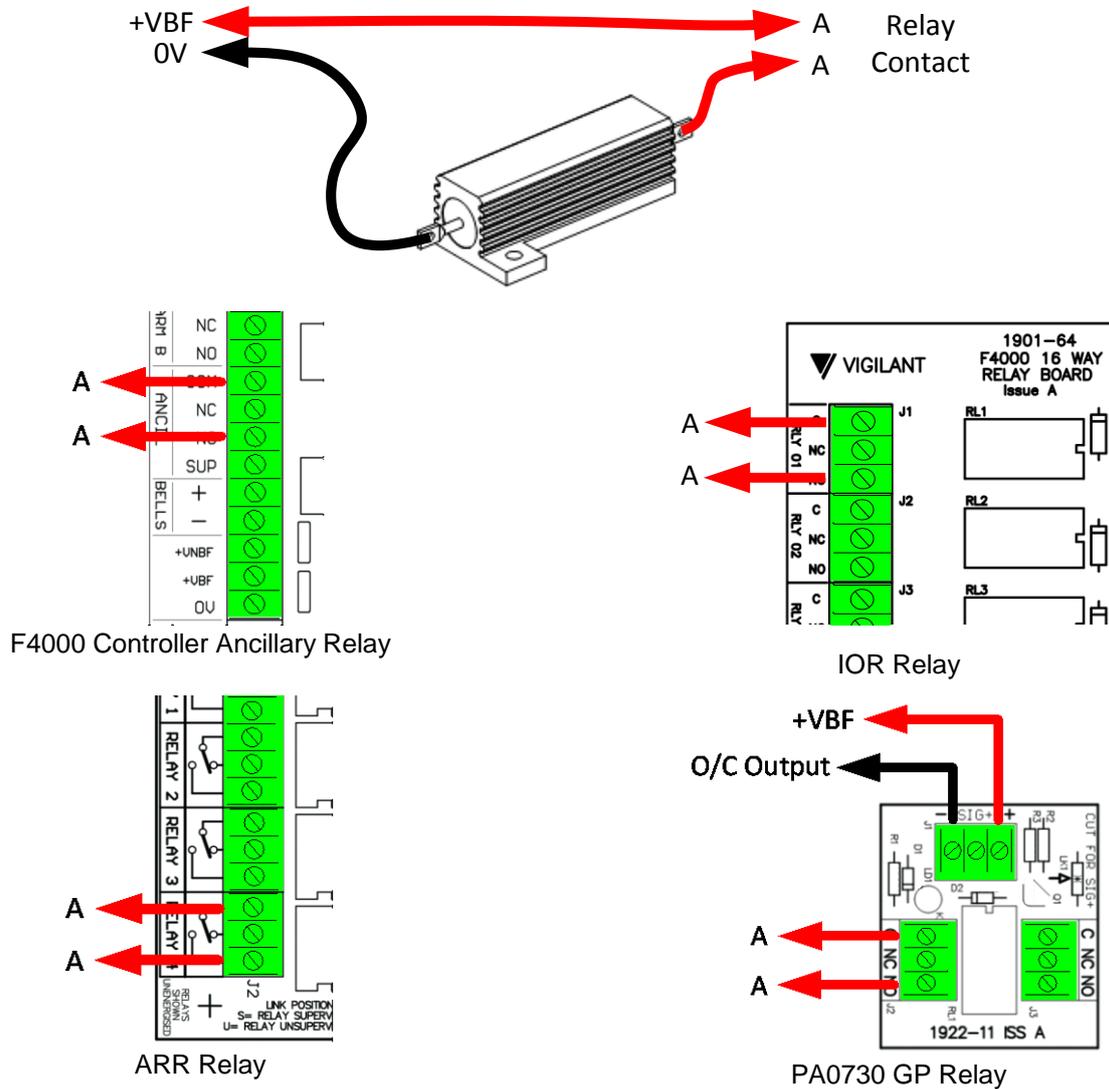This equation will operate the control relay when a manual battery test is active.

F4000 Controller Ancillary Relay

IOR Relay

ARR Relay

PA0730 GP Relay

Figure 1 – Resistor Wiring and Controlling Relay Options