

IC3650SGDB1

Calibration Using the Portable Calibration Box

Please use customer calibration settings if provided.

GENERAL OPERATING PROCEDURE

The portable calibration box is intended for calibrating the Overload, Overload/Over temperature, Unbalance and Ground Fault functions of a Lodtrak motor protection relay. A circuit card containing electronic components is installed in the box and should remain there permanently. On no account should any of the sealed trim potentiometers of this card be adjusted. Space is provided for a relay driver card and a function card, to be provided by the Lodtrak relay under test. Cards are withdrawn from the relay and also from the calibration box using the card puller provided. IT IS IMPORTANT THAT POWER BE REMOVED FROM THE RELAY BEFORE CARDS ARE REMOVED. A SWITCH MARKED "CARD POWER" IS PROVIDED ON THE CALIBRATION BOX. THIS SWITCH SHOULD ALWAYS BE IN THE OFF POSITION WHEN CARDS ARE EITHER BEING INSERTED OR WITHDRAWN.

Prior to using the calibration box it should be connected to a standard 115V 60 Hz supply, the main power switch turned on and the equipment allowed to warm up for approximately 10 minutes.

Operation of the equipment for calibrating individual card functions is described in the following pages. After individual card calibration all cards should be replaced in the CORRECT relay base, care being taken to ensure that they are properly seated. A functional test should be done on the complete relay as follows.

Push the test button of each function card in turn and check that the trip and alarm relays pick up and that all latching relays latch after the button has been released. Check also that the appropriate annunciator lamps light and that the trip lamps latch. (Note there is some delay in operation of the test function of the unbalance card, the trip signal produced by other cards should be immediate.)

THIS PROCEDURE IS FOR CALIBRATION ONLY!!!

GROUND FAULT CARD (IC3650SGDB1/2)

1. Set controls as follows:

"UNBALANCE" switch – "F. L. AMPS"
"UNBALANCE" potentiometer – CCW
"CURRENT INPUT" – Both CCW
"OVERLOAD/ OVER TEMPERATURE" – "F. L. AMPS"
"FUNCTION" – "GROUND"

Toggle switch to 1 if trip is over .1 turn pot CW, then set digital read out for ? with current input controls. Then turn pot CW until trip goes out then CCW till off. Turn current input CCW and then CW, alarm should come on at 67% of trip reading and trip should come on at whatever digital was set at for trip. Push test trip button to see if both lights come on.

Set the range switch for the desired ground trip level (.5 amp) range and turn the ground fault level potentiometer fully CW. Insert the ground and relay driver cards in their appropriate slots using sufficient force to ensure good contact on the card sockets. Turn card power switch to "ON".

2. Adjust "CURRENT INPUT" controls until digital meter displays the desired ground fault current to trip (.5 amp). Now turn the trip level adjustment on the card slowly CCW until the trip lamp lights. Back off the "CURRENT INPUT" control fully CCW then slowly increase again. Firstly

the alarm lamp will light at about 67% of the current required to trip (if the alarm function is included), then the trip lamp will light at the level for which the card was calibrated.

3. Turn card power switch to “OFF”. Remove cards.

END OF CALIBRATION

