

**TITLE:** Instruction for Inspection and Testing of ‘3-PH PROTECTION PCB ASSY’  
(017.01.008.0350)

## 1.0 SCOPE

1.1 Applicable for testing of 3-ph Protection PCB Assy. as per BOM 017.01.008.0350:

## 2.0 DETAILS OF THE INSTRUCTION

2.1 Inspection / Measuring / Test Equipment. :

2.1.1 AC Power Supply

2.1.2 Digital Multimeter.

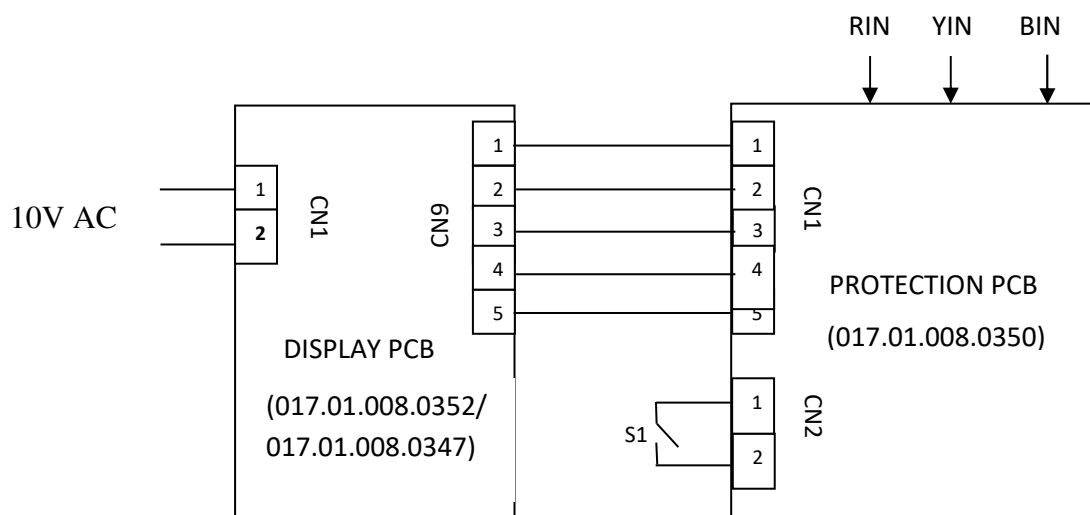
2.2 Record the test results in the test report as the testing Progresses. **(INSP4678/I5/R0)**

2.3 In the case of any nonconformity at any stage of inspection and testing.  
Refer to the procedure NCCR2001.

2.4 For visual inspection and vibration test refer to the inspection instruction INSP3207.

## 3.0 ELECTRICAL TEST:

3.1 Connect the PCB under test, as per the given below connection diagram.



3.2 Apply Input power supply 415V, 3Ph 50Hz to 3-Phase Protection

PCB at RIN, YIN & BIN Position.

3.3 Apply AC supply 0-10V to display PCB as per given above Connection diagram.

3.4 Mains ON LED will glow after switching on 10V AC Power Supply.

3.5 Keep switch S1 on OFF position

3.6 Now check the error signal on display pcb as per table given below:

NO	TEST DESCRIPTION	TEST CONDITION	VOLTAGE LEVELS	ERROR ON DISPLAY PCB
1	NORMAL TEST	APPLY 3 PHASE 415V AC 50HZ SUPPLY TO RIN, YIN & BIN		NO ERROR
2	UNDER VOLTAGE TEST	DECREASE VOLTAGE BELOW 360V AC	BETWEEN 330VAC TO 360VAC	ERR 1
3	OVER VOLTAGE TEST	INCREASE VOLTAGE ABOVE 480V AC	ABOVE 475VAC TO 480VAC	ERR 2
4	SINGLE PHASE TEST FOR R PHASE	REMOVE R PHASE @415V		ERR 1
5	SINGLE PHASE TEST FOR Y PHASE	REMOVE Y PHASE @415V AC		ERR 1
6	SINGLE PHASE TEST FOR B PHASE	REMOVE B PHASE @415V AC		ERR 1
7	TEMP TRIP TEST	SWITCH ON SWITCH S1		ERR 3
8	PROTECTION BYPASS ERROR	REMOVE CONNECTOR CN1		ERR 11

Note: In case of Single-Phase test for R Phase & B Phase, No error will be displayed as display PCB will become off.