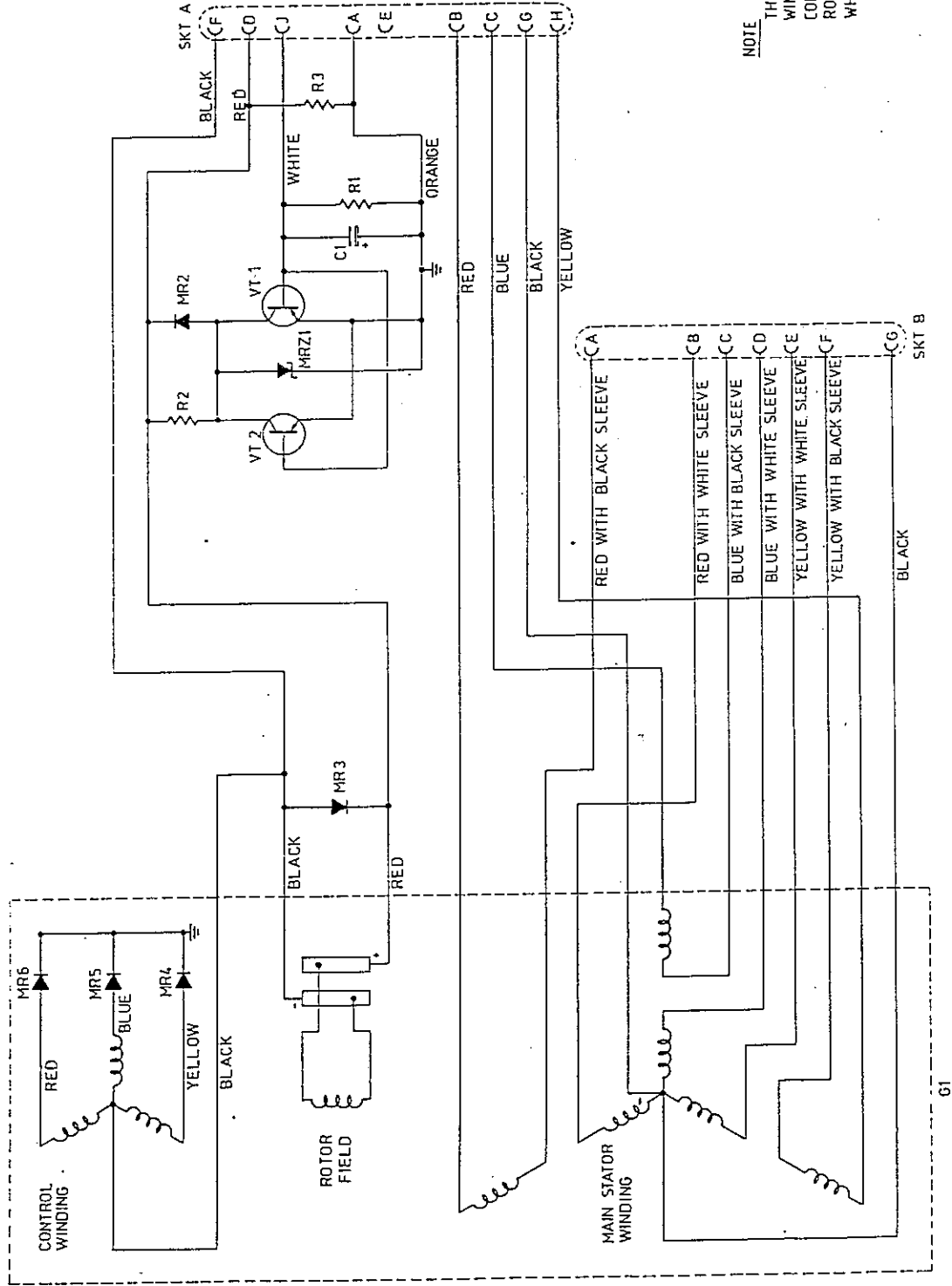


15 KVA Over Current Protection

- NO LOAD
- ▲ FULL LOAD
- OVERLOAD



61

NOTE

THE PHASE ROTATION OF THE MAIN STATOR WINDING MEASURED AT SKA, SHALL BE CONTACT B - CONTACT C WITH THE ROTOR SPINNING IN A CLOCKWISE DIRECTION WHEN VIEWED FROM THE DRIVEN END

FIG 10 - GENERATOR CIRCUIT DIAGRAM

ADJUSTMENT OF OVERCURRENT PROTECTION CIRCUITRY

1. It is assumed at this point that the equipment is serviceable, but the overload point for each phase requires to be correctly set. It is also assumed that the control panel is open thus giving access to the Potentiometers RV 401, RV 402 and RV 403 on the current overload board.
2. For this test, the following tools and equipment are required:
 - a. 2.5 to 11KW dummy load,
 - b. Tong tester and
 - c. A screwdriver, flat tip.
3. Proceed as follows:
 - a. Turn the main switch **ON** (all others **OFF**).
 - b. Set the voltage selector switch to 240/415 volts.
 - c. Start the engine.
 - d. Ensure that both the voltmeter and percentage load meter switches are set to the phase to be adjusted.
 - e. Connect the dummy load to the single phase outlet corresponding to the phase which is to be adjusted. (DO NOT SWITCH ON).
 - f. **ENSURE THE DUMMY LOAD IS SET TO 5KW ON SINGLE PHASE.**
 - g. Switch the outlet switch on.
 - h. The load meter should indicate 100% full load and the voltmeter should indicate 240 volts.
 - i. Identify the correct potentiometer on the overcurrent board for the phase under adjustment.
 - j. Adjust this potentiometer and observe both the voltmeter and loadmeter readings.
 - k. Turning the potentiometer in one direction will have no effect on the meter readings whilst turning it in the opposite direction causes both readings to fall away.

NOTE: If this result cannot be obtained , DO NOT Apply an overload as the overcurrent protection circuitry on this phase IS NOT functioning correctly.

- l. When both voltmeter and loadmeter readings ~~fall away~~, this indicates that the overcurrent circuitry for this phase is working and it is now set to maximum sensitivity. Leave the potentiometer in this position.

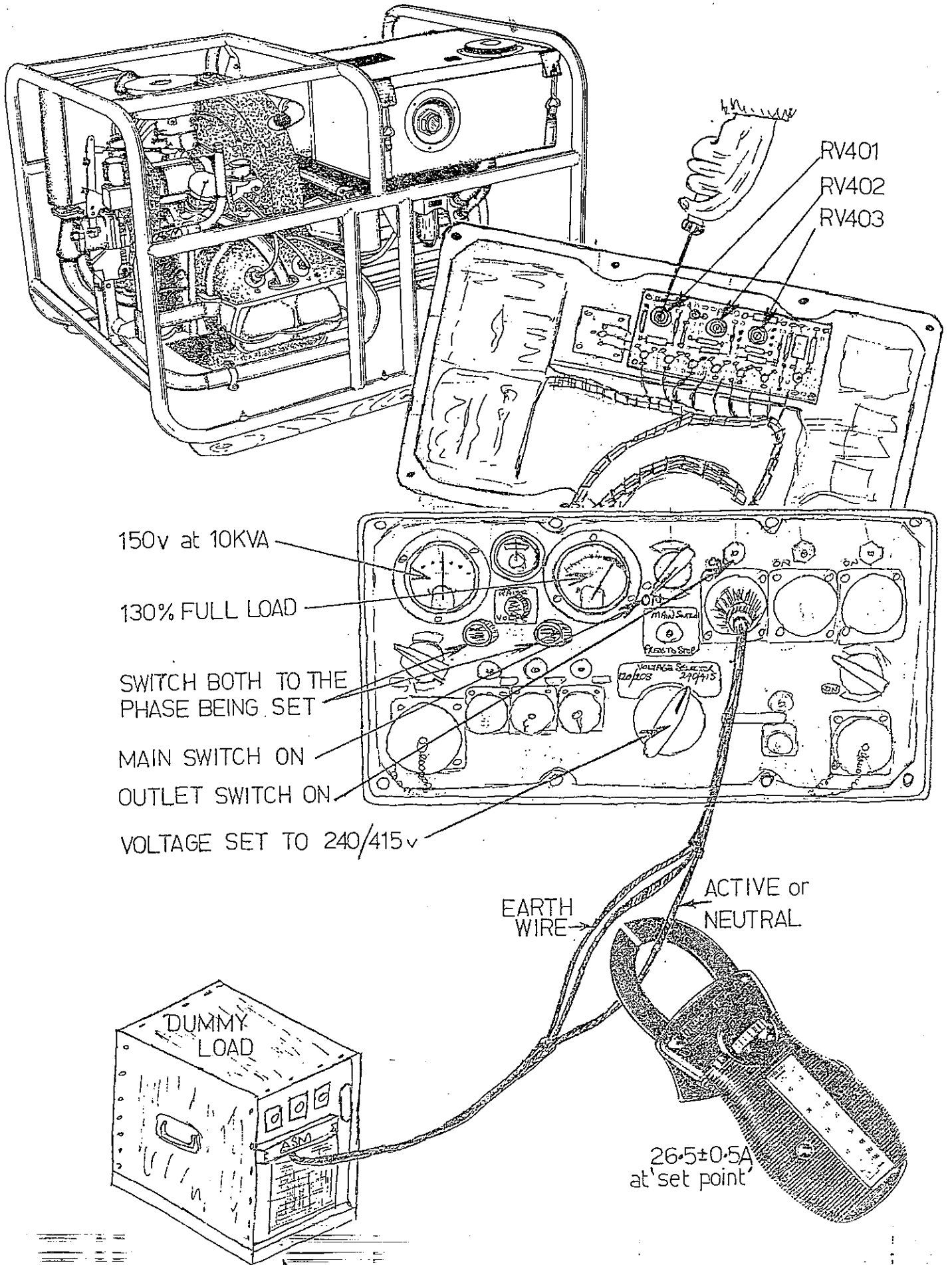
NOTE: PERFORM THE REMAINDER OF THE ADJUSTMENT WITHIN FOUR MINUTES.

- m. Switch the dummy load to 10KW and note that both meter readings should decrease further.
- n. Turn the potentiometer such that both meter readings begin to increase. Continue in this direction until the loadmeter indicates a load of 130%.

NOTE: As there are no graduations on the loadmeter beyond 100% full load, determining 130% full load on the meter can be difficult. This point can be accurately determined by using an Ammeter, obtaining a current draw of 26 +/- 1 amp. It will also be seen that when the overload point is correctly set and a 10KW load is applied, a reading of 150 volts will be indicated on the voltmeter.

- o. The overload point (130% full load) for the first phase has now been correctly set. Switch OFF the load and repeat the procedure (paras d. to o.) for the remaining two phases.

26 Amps



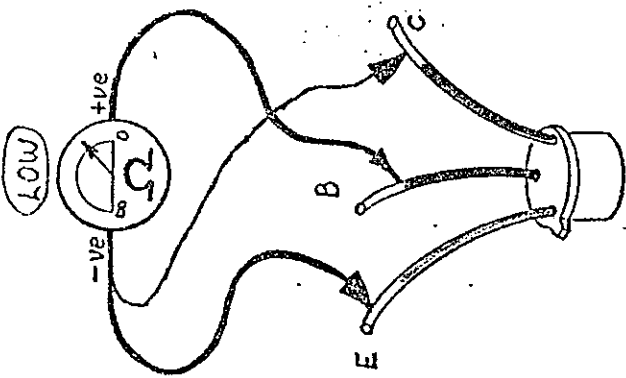
SET TO 5KVA FIRST then
to 10KVA when setting of load point.

FIG 4.

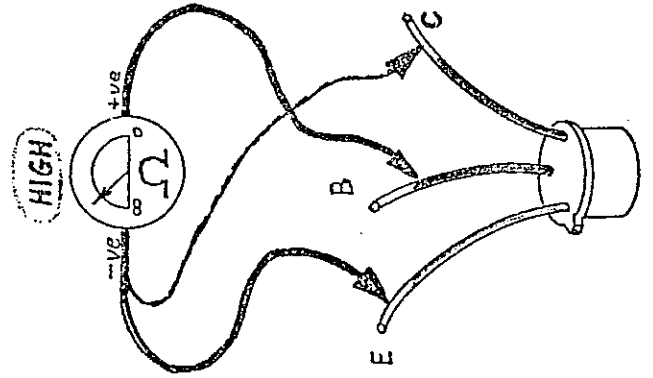
GENERATOR EXCITATION

1. Switch MAIN SWITCH ON.
2. Switch all other switches OFF.
3. Check governor and running speed (3240 RPM Max.)
4. Overspeed the engine by pulling the throttle lever for NOT MORE THAN FIVE SECONDS.
5. If generator has not excited , connect pin "A" of lead light socket to the NEGATIVE terminal of a 12 VOLT battery , and pin "B" to the POSITIVE using suitable wire.
6. Switch lead lamp switch ON for 5 - 10 SECONDS*.

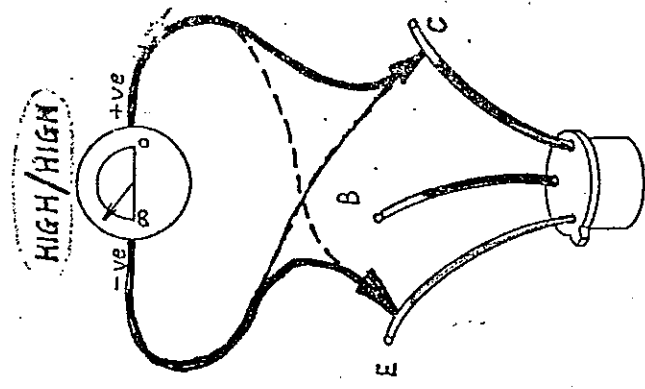
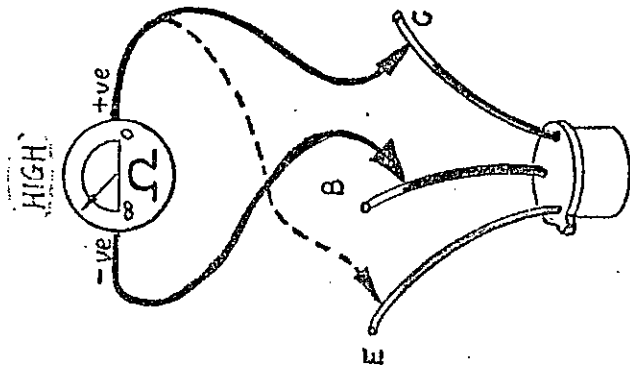
* NB: TURN LEAD LIGHT SWITCH OFF IMMEDIATELY THE GENERATOR EXCITES



NPN



PNP



"PUNCH THROUGH" TEST

