CONTROL PANELS

1. Engine Control Panel: (ECP): It is located in Front Panel. It is getting supply from Tacho Generator. 3 phase A.C. supply.

Purpose: GE. Governor:

1. To give engine speed signal to governor.
2. To give engine speed signal to excitation system.

In WW. Governor:

1. To give engine speed signal to excitation system.

If It Fails: In G.E. Governor :

Engine speed is going to affect and load meter also drops to zero.

In W.W. Governor : Only Load meter will drop and there is no effect on engine speed.

2. Excitation Panel : It is located in Front Panel below the E.C.P. It will have female sockets and male pins. Seven plug in type cards are provided for quick changing. card nos are 253, 186, 187, 188, 254, 292, 293.

Purpose : It controls directly exciter generator field & indirectly main generator output is going to be controlled.

If it Fails : Mainly the main generator function will be unsatisfactory. (load meter zero, load meter shooting or hauling power poor)

3. Transition Front Panel : (TRP) : It is located in Front Panel. It is getting locomotive speed signal from axle driven alternator through transition excitation transformer(TET). It will have 4 cards

1. 207 - control card	-	To give electrical signal to 210 – 1,2 & 3 cards
2. 210-1 control card	-	for 1st transition to pick up and drop field shunting relay
3. 210-2 control card	-	for 2nd transition to drop series parallel and field shunting combination and to pick up parallel combination through transition relay
4. 210-3 control card	-	for 3rd transition to pick up/drop field shunting relay.

If It Fails : Auto transition problem will come work with manual by removing all the four cards.

4. Voltage Regulating Panel : (VRP) : It is located in Front Panel. It will have two cards.

BX.Card	-	Power Card.
BN Card	-	Control Card.

And also it is having one fuse to protect VRP and regulating knob to adjust Auxiliary Generator voltage to 72 $\pm$ 1 volts.

Purpose : It controls the auxiliary generator field to get auxiliary generator voltage constant. (72 $\pm$ 1) irrespective of notch position (engine speed).

If it Fails : If it maintains less than Battery voltage Battery ammeter will show discharge, if it maintains more than 72 ± 1Volts Battery ammeter will read overcharge.