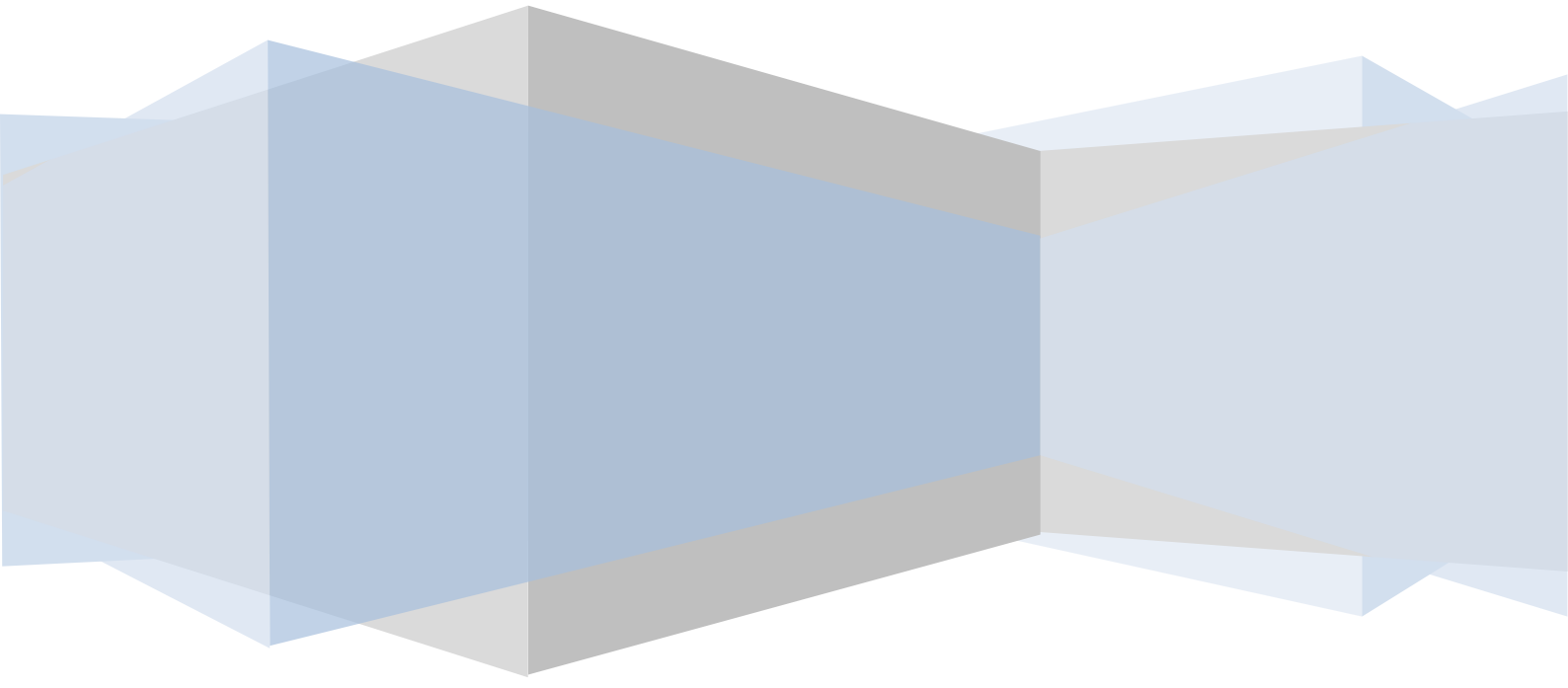
# MDB - General Description and Operation Manual



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# Main Distribution Board

**General Description**

The Main Distribution Board (MDB) receives supply from SESCO.

A voltmeter and ammeter is installed to monitor the main incoming supply and outgoing supply. The voltmeter and ammeter provides power quality readings for operators.

A surge arrestor is installed at the MDB. The surge arrestor functions to divert lightning surge current to the ground to prevent voltage spikes that may damage equipment. The surge arrestor is protected by 3-phase fuses.

The MDB has several outgoing MCCBs supplying to different equipment/loads. The MCCBs are equiped with thermal magnetic tripping units. Any overload or short at the equipement or load will cause the MCCB to trip.

# Operating Instructions for Main Distribution Board

**Moulded Case Circuit Breaker (MCCB)**

To turn on the MCCB, push the operating handle upwards. To turn off the MCCB, pull the operating handle downwards.

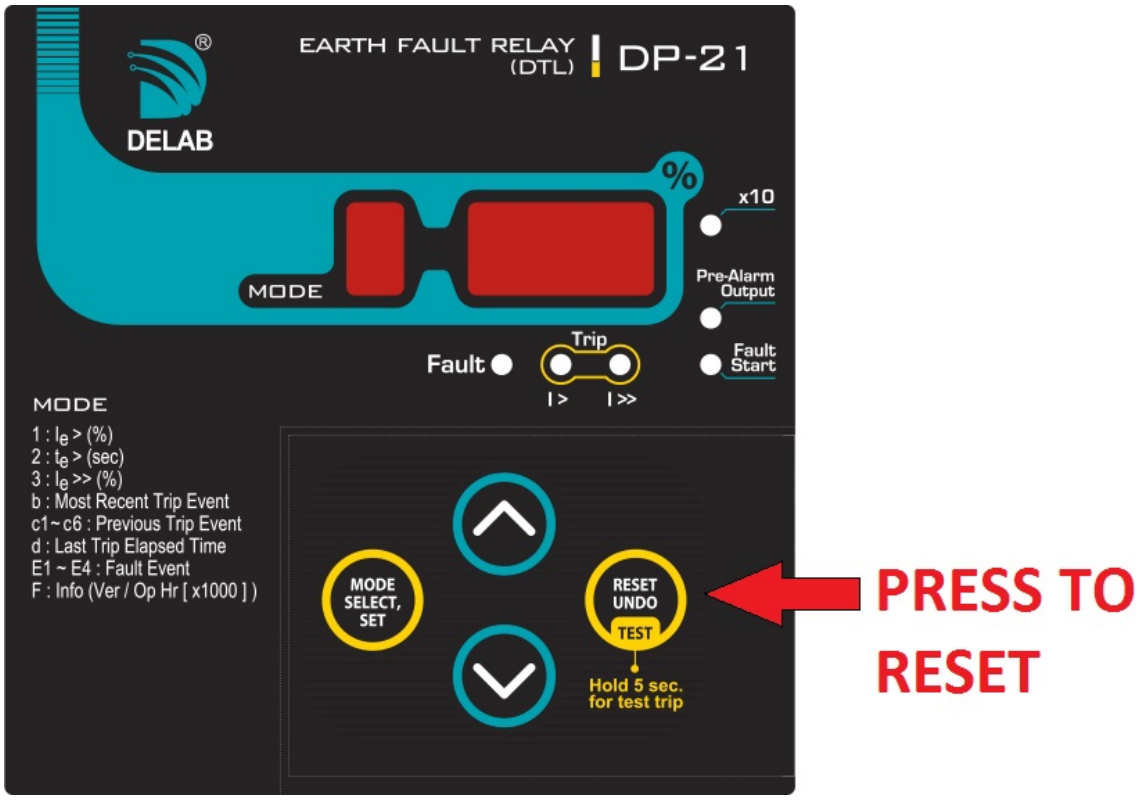
If the MCCB has tripped, the operating handle will be in the middle position. Investigate the cause of the trip before turning it back on.

To turn the MCCB back on, pull the operating handle downwards first, then push it upwards.

**Protection Relays**

The protection relays will have a red indicator showing that it has tripped. Investigate the cause of the trip before resetting it.

To reset the protection relays, press the “Reset” button on the protection relay.



**Lightning Surge Arrestors**

The surge arrestors should be periodically checked to ensure they are in good condition. The surge arrestor is in good condition if the indicators are GREEN. The surge arrestors will need to be replaced when the indicators turn RED.

# Troubleshooting Guide

| Symptom | Causes | Rectification |
|---|---|---|
| No power supply to MDB. | 1. Sesco Failure.<br>2. Incoming MCCB not turned on. | 1. Ensure Sesco supply available.<br>2. Turn on incoming MCCB |
| Unable to turn on MCCB. | 1. Ensure that the EF or OC has not tripped.<br>2. Outgoing cables or board shorted. | 1. If EF or OC has tripped (Red LED ON), reset the EF or OC and try turning on the MCCB again.<br>2. Check outgoing cables for any shorts. |