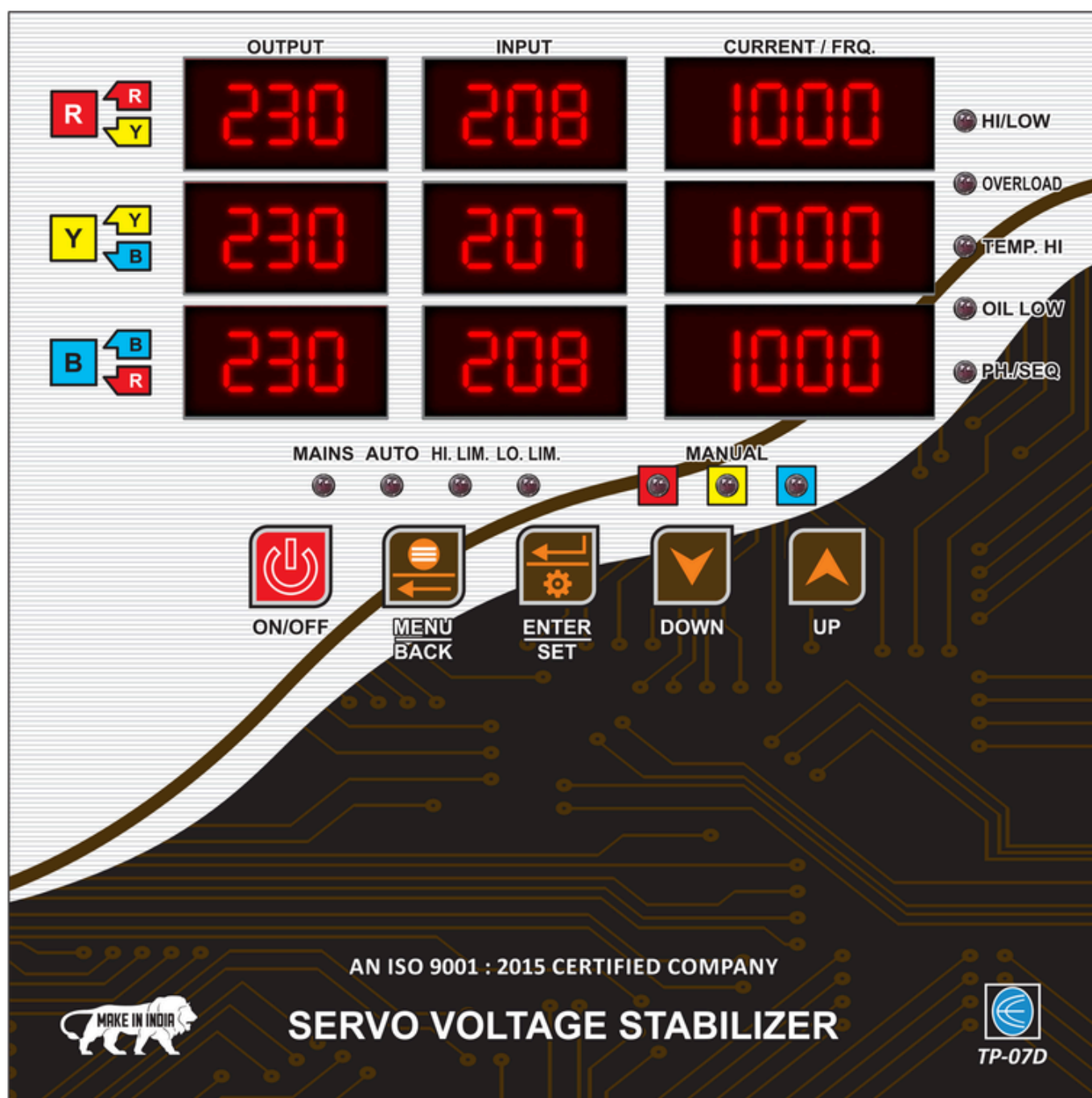


USER MANUAL

ADVANCE SERVO CONTROL CARD TP-07D (DOMESTIC)

BASED ON ARM 32 BIT CORTEX M0 PROCESSOR



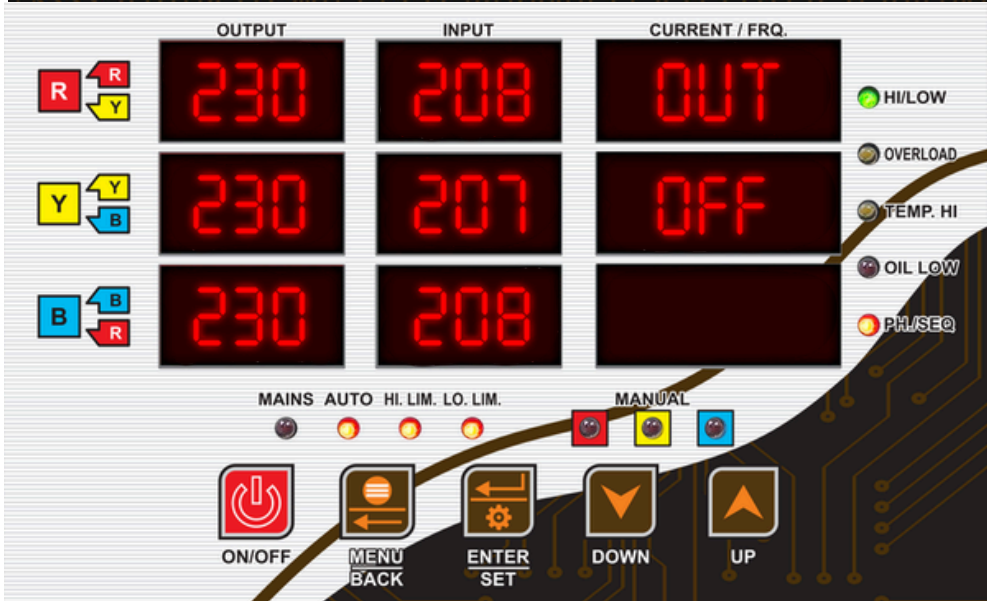
Features:-

- True RMS Metering - Voltage, Current, Frequency.
- TRIAC based controlled voltage for enhanced life of Servo Motor.
- Over Load Protection with settable Cut-off Time.
- Over Voltage, Under Voltage protection with settable Cut-off Voltage & Time.
- Password Protection & Software Calibration.
- No external card required for MCCB.
- Over Temperature (Cut-Off/Fan on-off) and Oil Level Indicator.
- Frequency Cut.
- 3 contactors for each phase working separately.

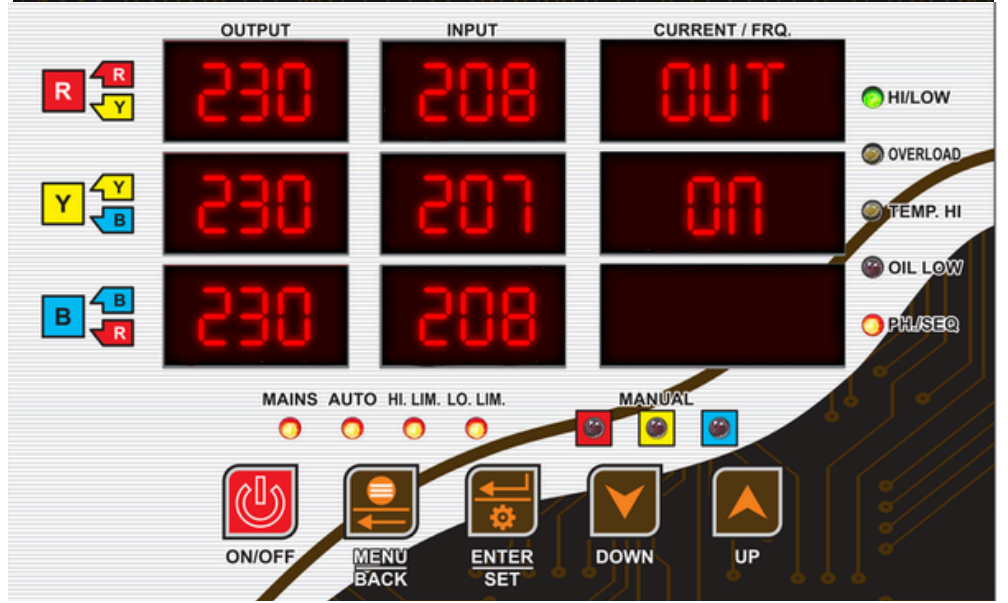
Single card for all ranges (90v)

Normal Running Mode:-

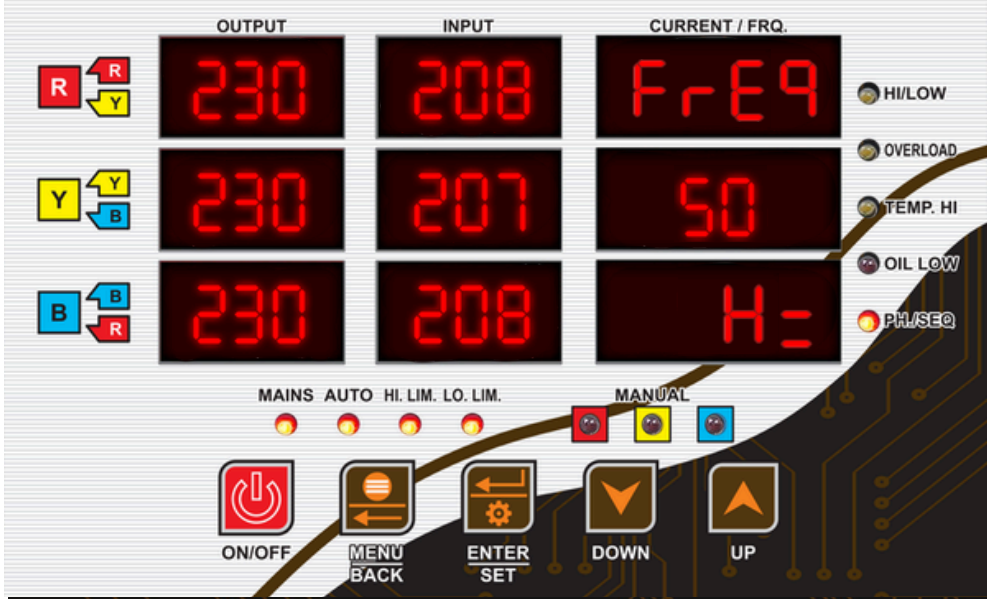
OUTPUT OFF



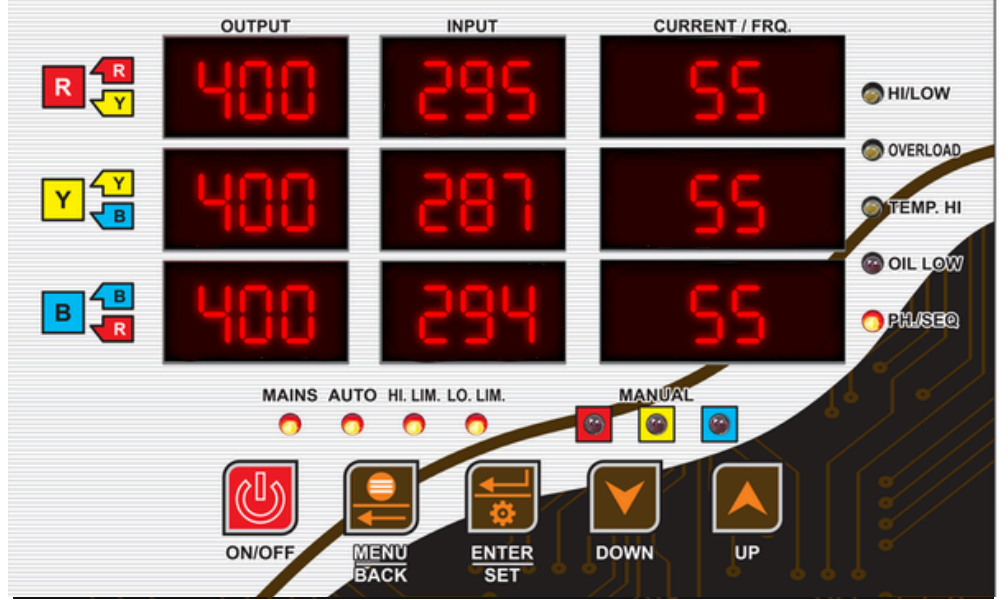
OUTPUT ON



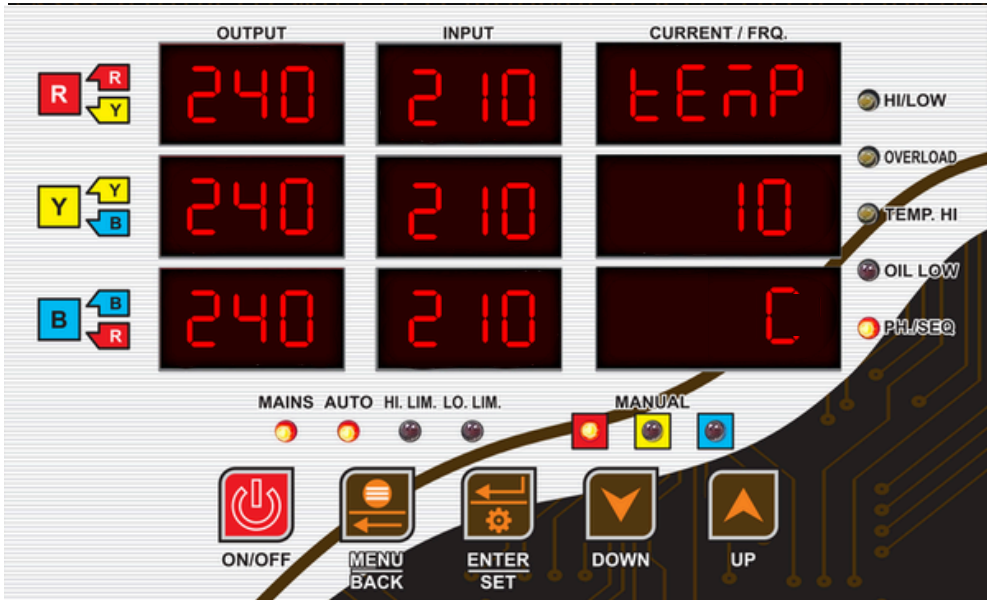
VOLTAGE & FREQUENCY



PHASE-PHASE VOLTAGE & CURRENT

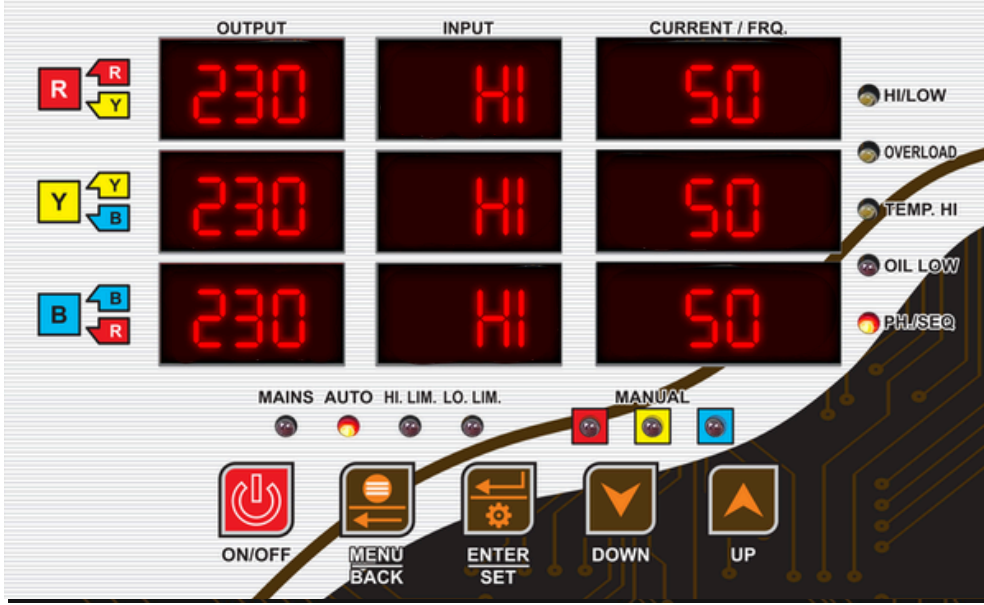


TEMPERATURE

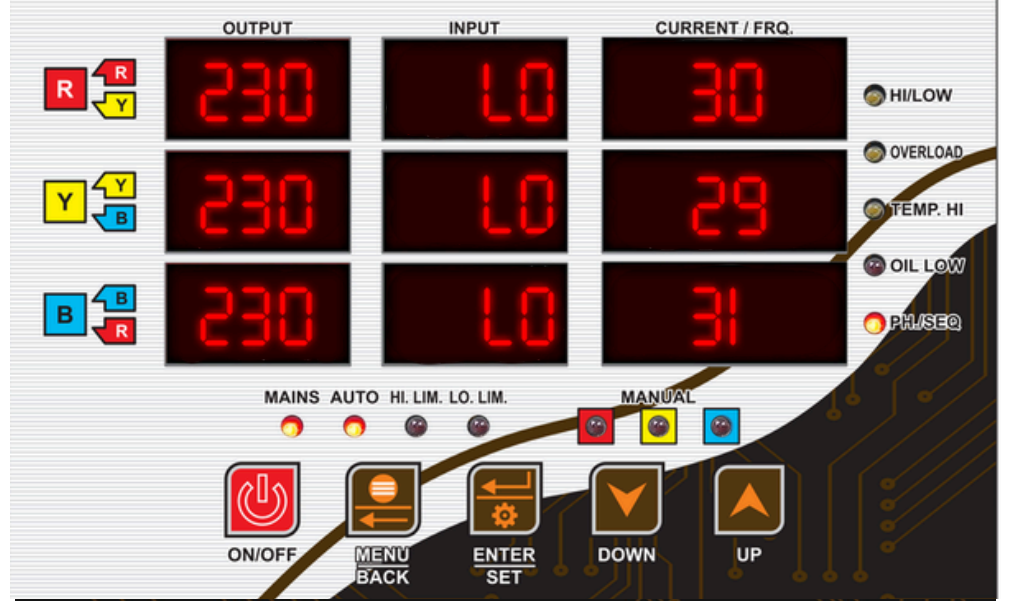


Fault Conditions:-

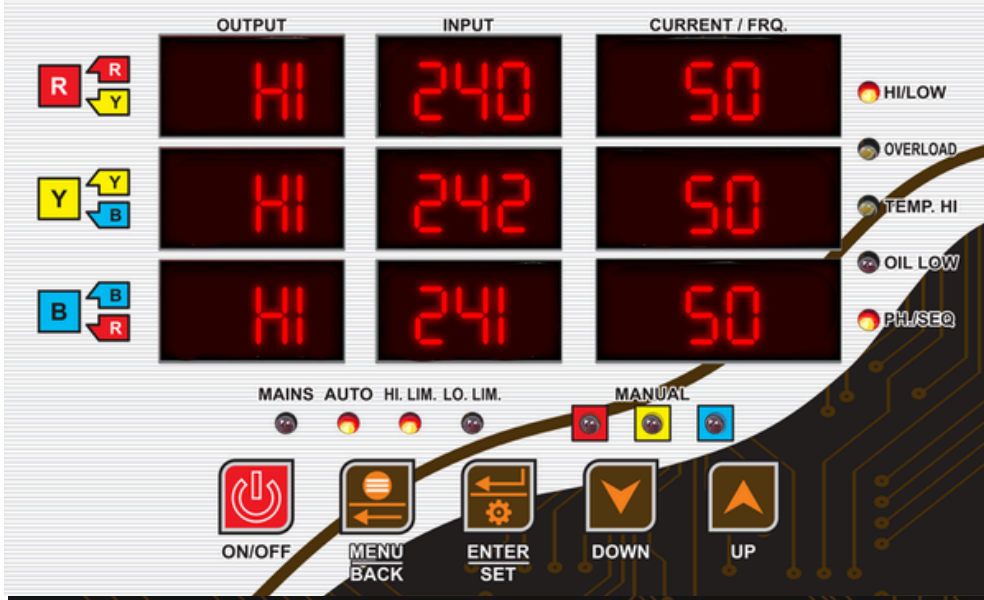
INPUT HIGH



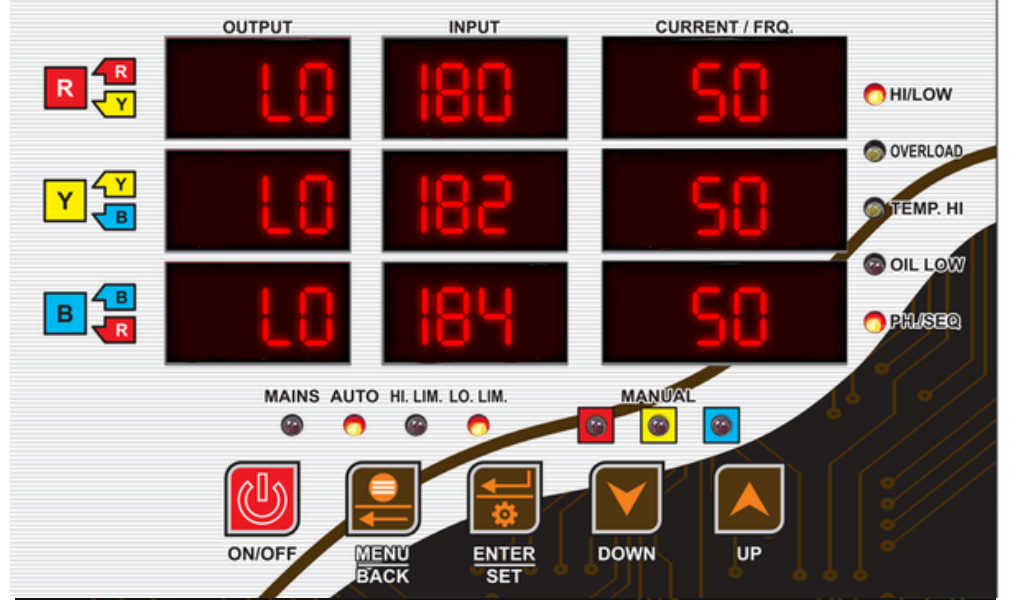
INPUT LOW



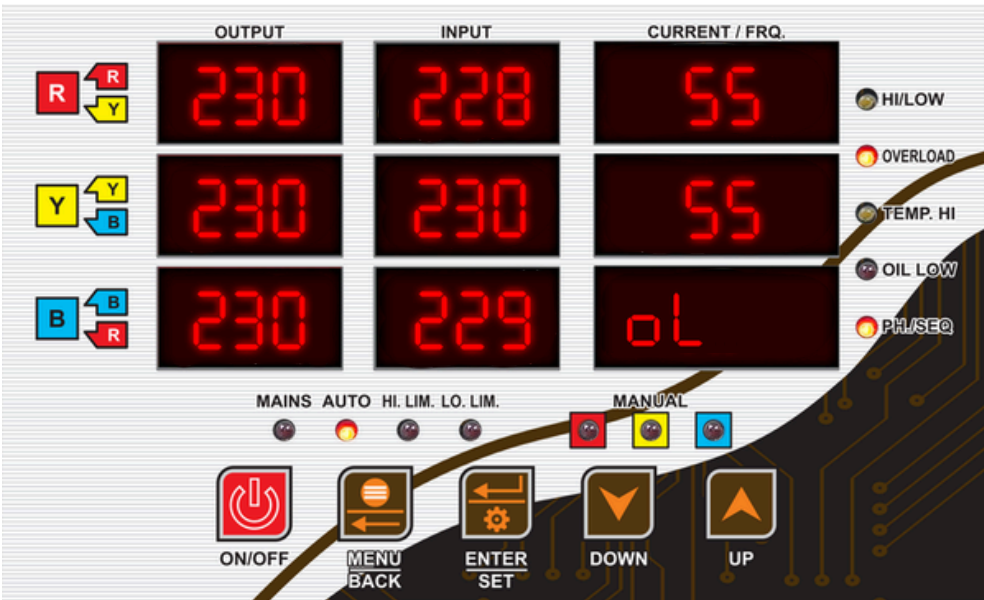
OUTPUT HIGH



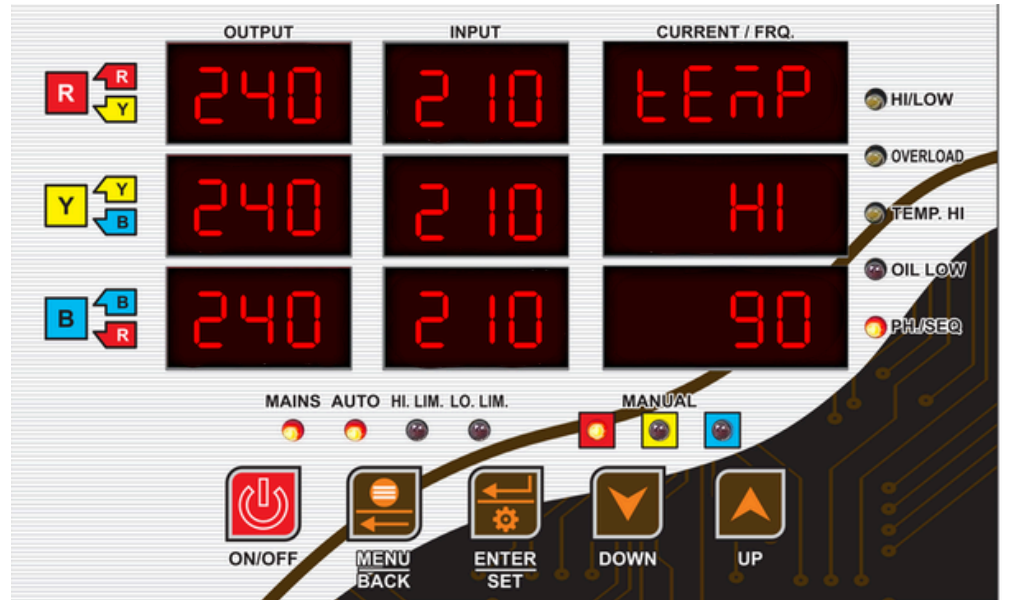
OUTPUT LOW



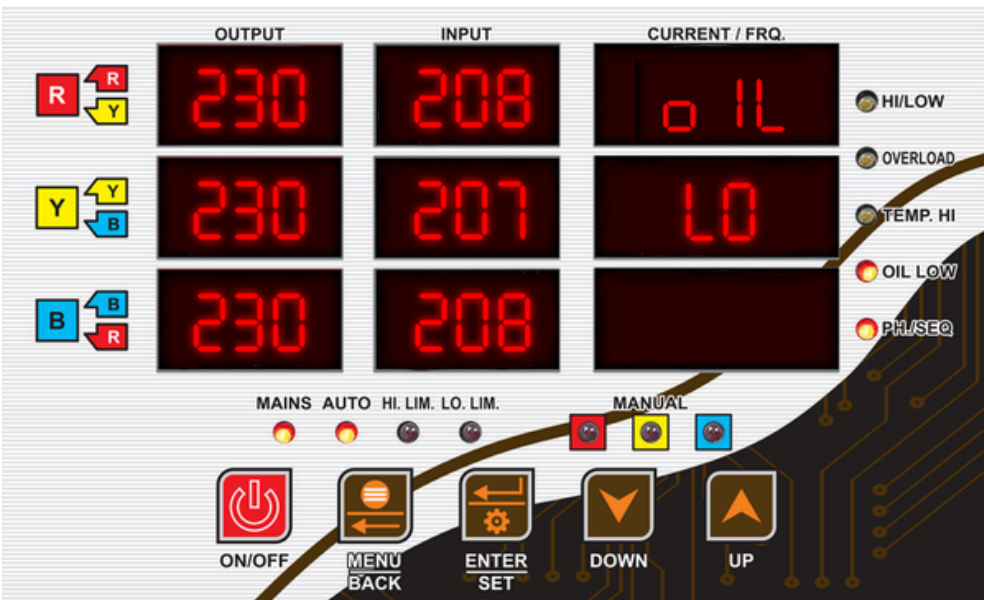
CURRENT HIGH (OVERLOAD)



TEMPERATURE HIGH

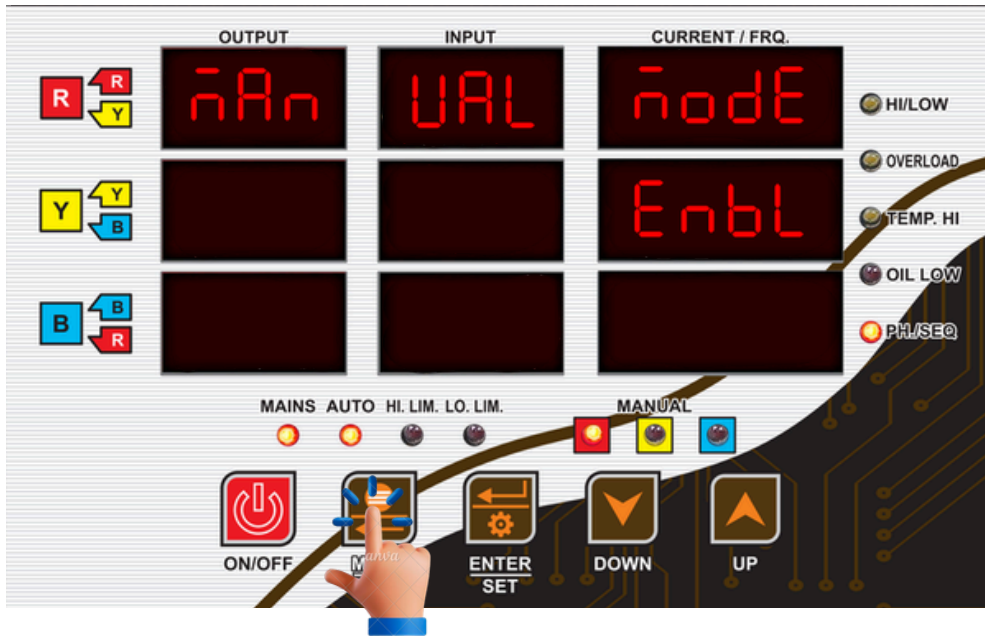


OIL LEVEL LOW



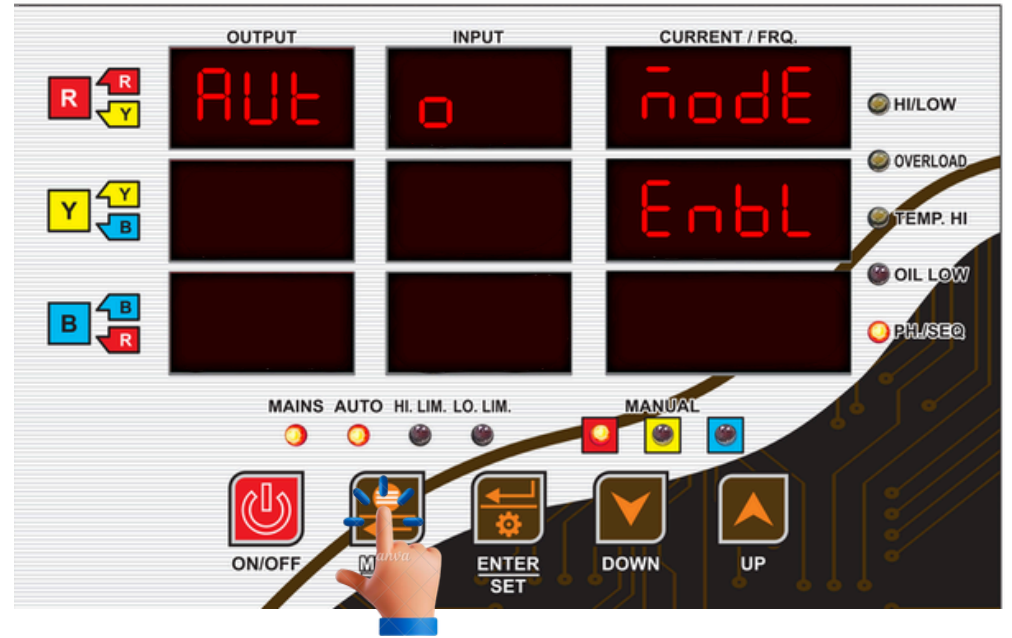
Auto & Manual Mode:-

SWITCHING TO MANUAL MODE



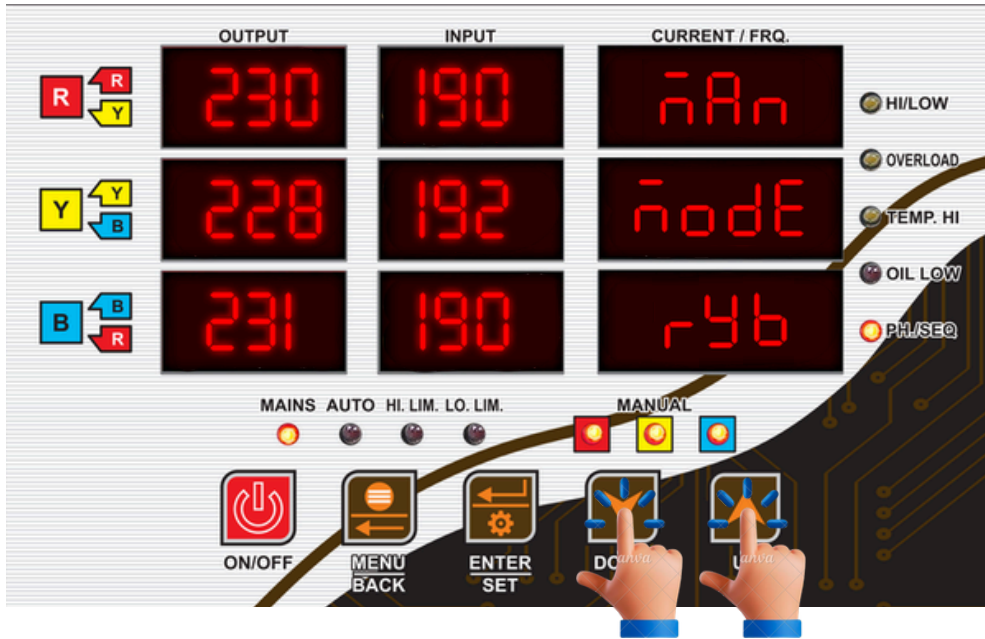
- Press and hold “MENU/BACK” button for 3 seconds.

SWITCHING TO AUTO MODE



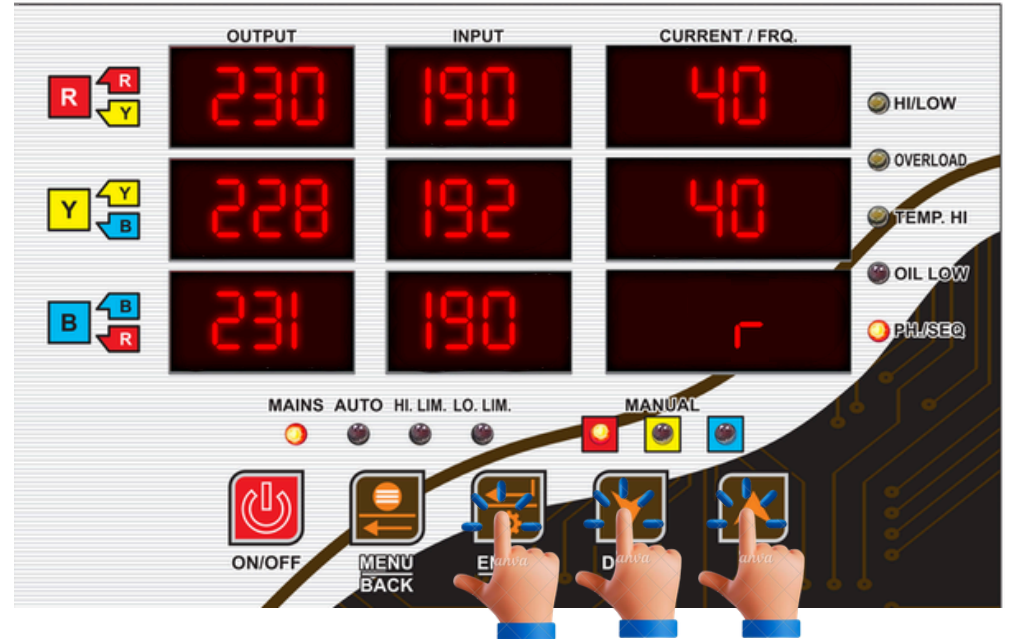
- Press and hold “MENU/BACK” button for 3 seconds.

ALL PHASE CONTROL (MANUAL)

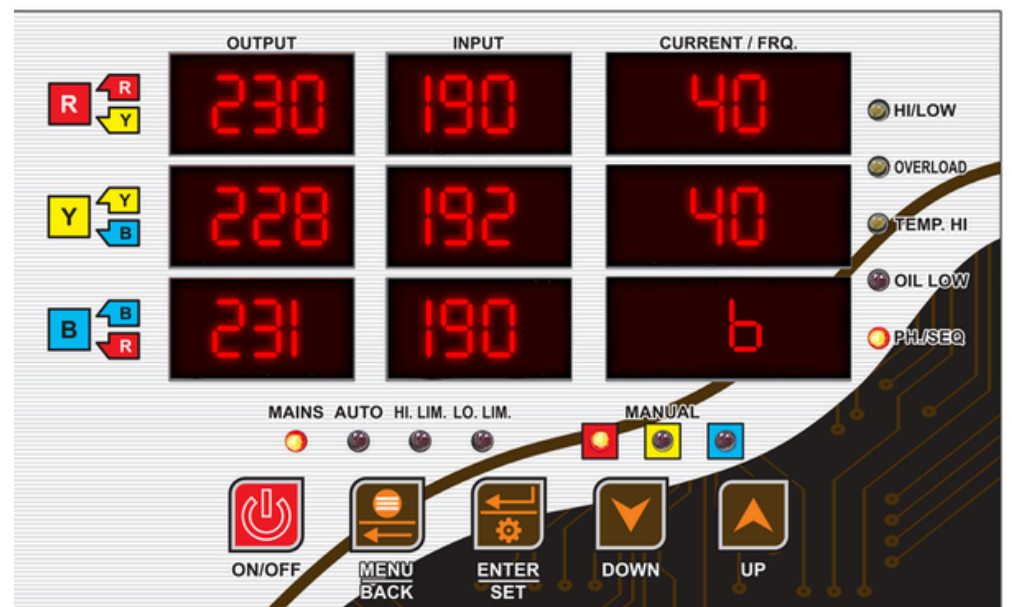
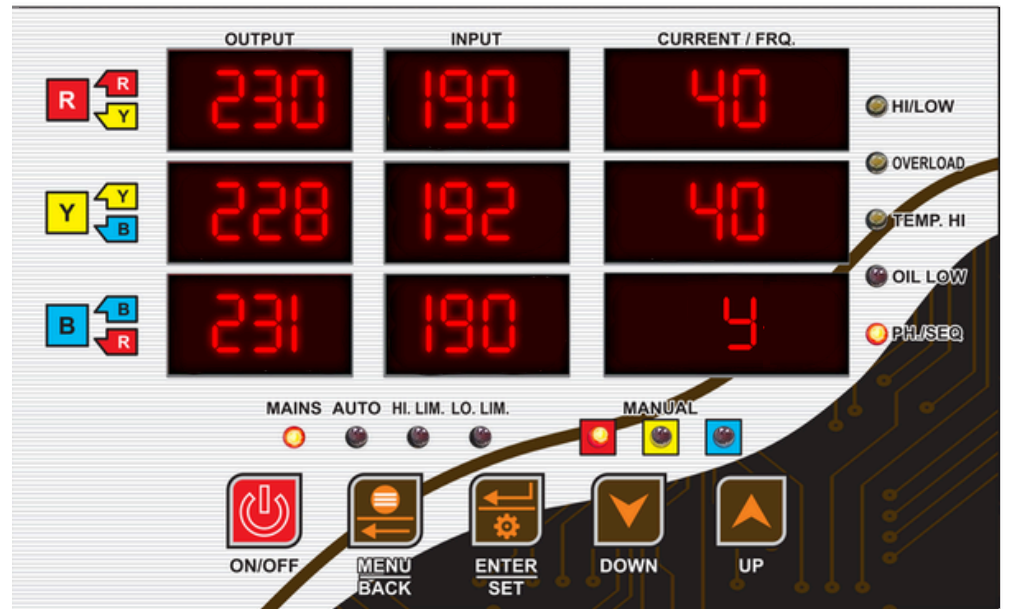


- Use “UP/DOWN” button to set desired output voltage.

INDIVIDUAL PHASE (MANUAL)



- Press “ENTER/SET” button to select desired phase indicated by the marked LEDs and bottom right display and use “UP/DOWN” button to set desired output voltage.

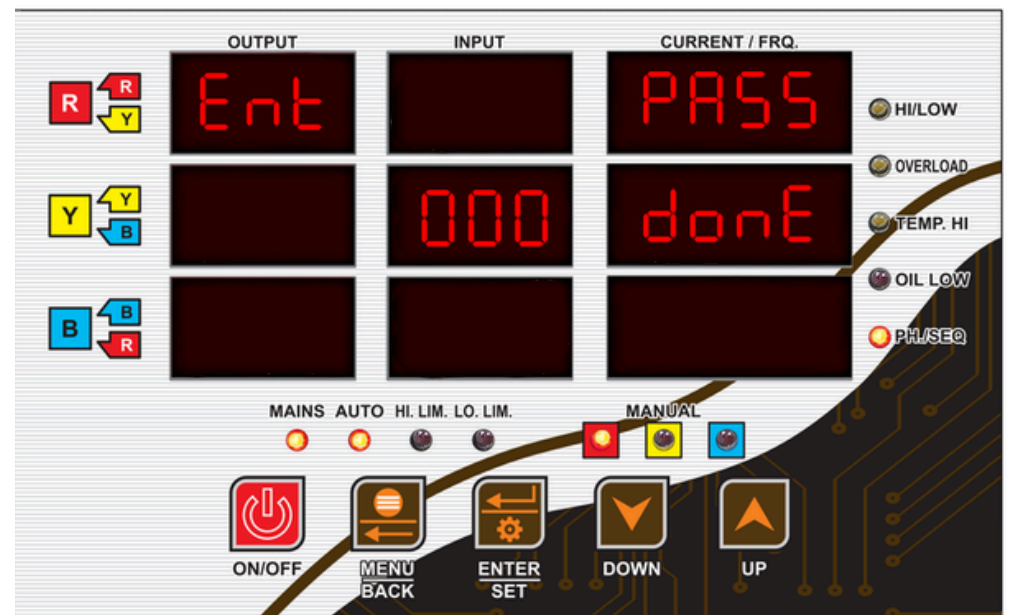
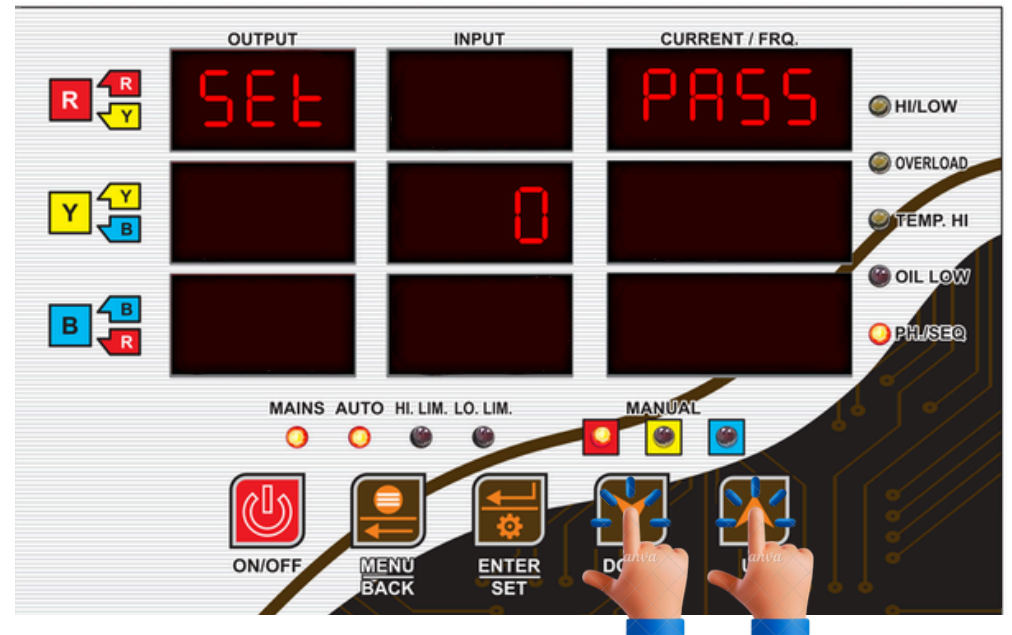
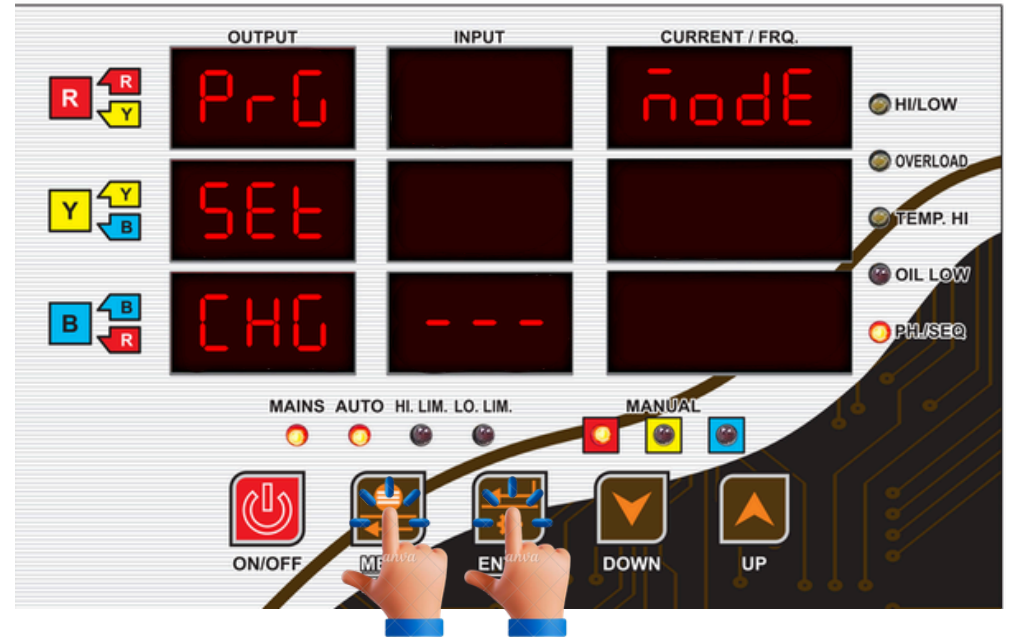


- Press “ENTER/SET” button to select desired phase indicated by the marked LEDs and bottom right display and use “UP/DOWN” button to set desired output voltage.

Programming Mode:-

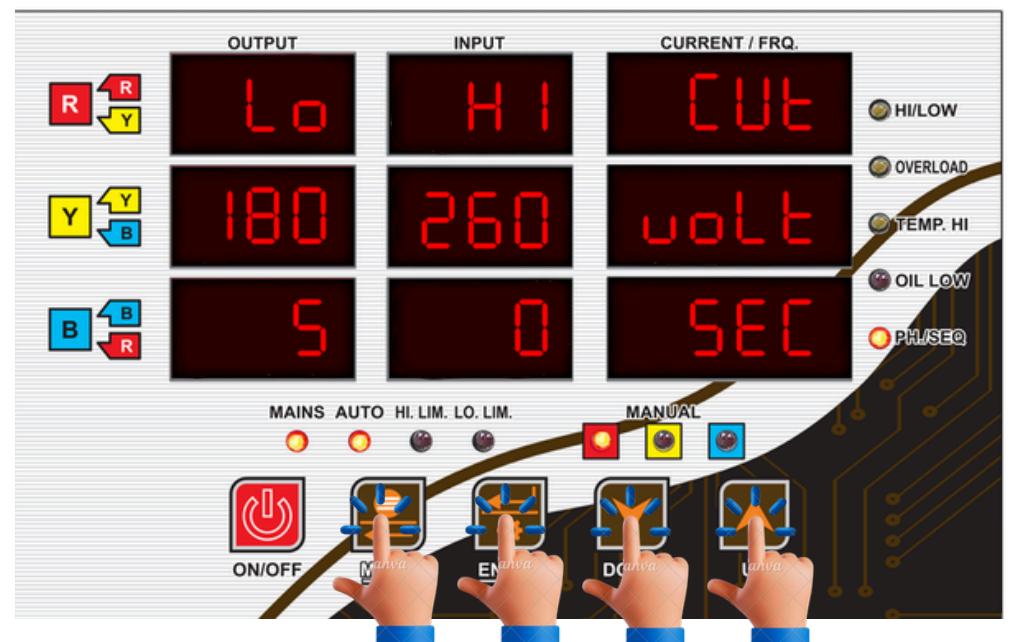
ENTERING PROGRAMMING MODE

- Press “MENU” + “ENTER” button together and select “CHG”.
- Enter your passcode using “UP/DOWN” buttons and press “ENTER” to confirm.
- Default passcode is “000”, upon entering the right passcode you will enter programming mode.
- Use “UP/DOWN” key to change values.
- Use “ENTER” to move to next parameter and “BACK” for previous.



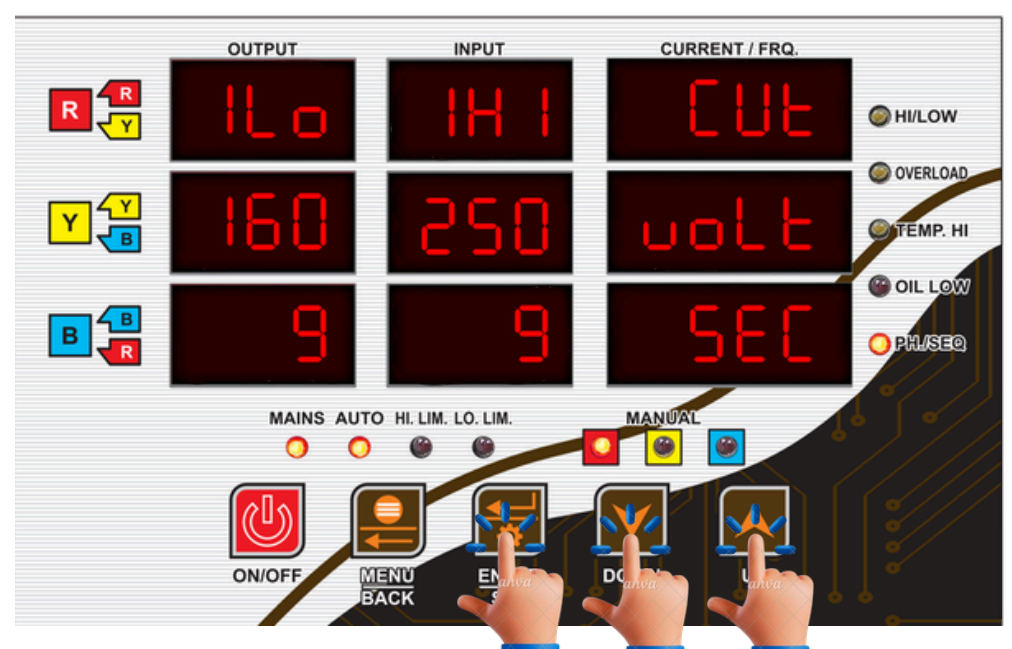
LOW AND HIGH CUT

- Set voltage and trip time for low cut and high cut.



INPUT LOW AND INPUT HIGH CUT

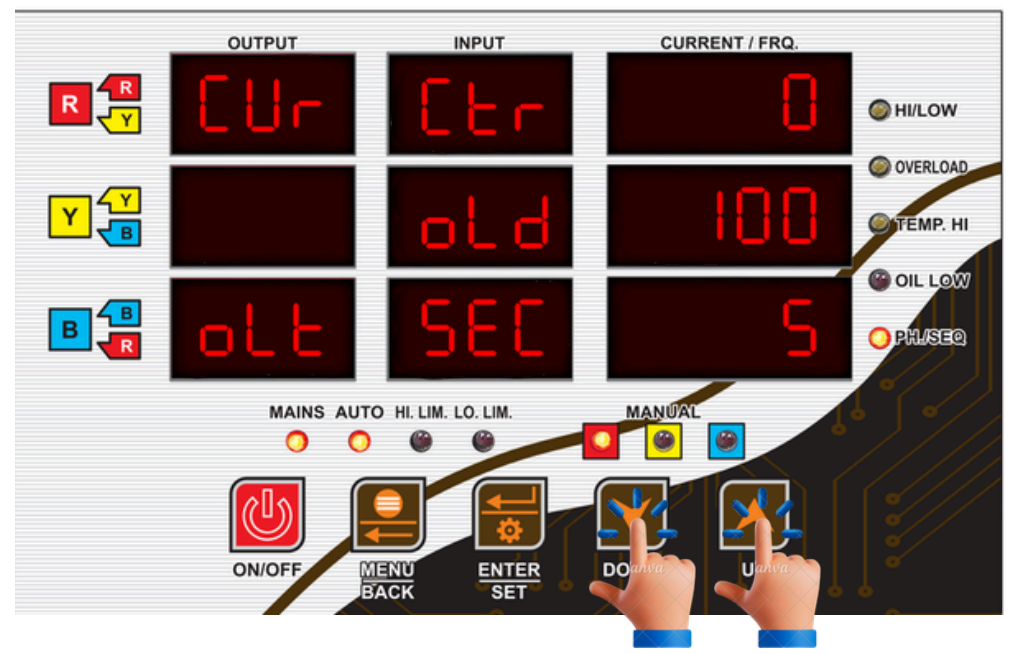
- Set voltage and trip time for input low cut and input high cut.



Programming Mode:-

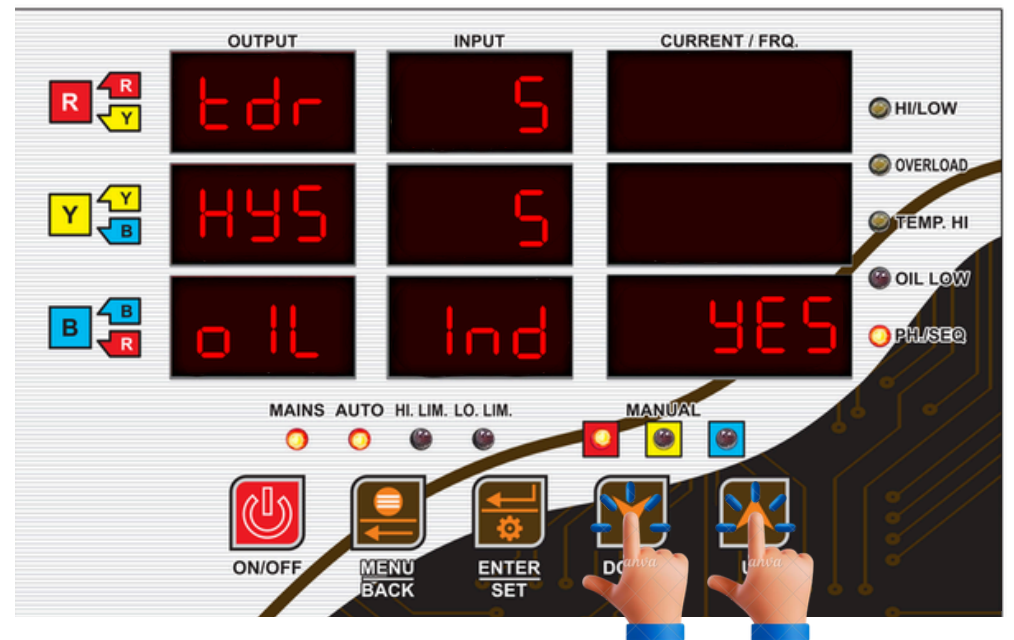
CT RATIO, OVERLOAD AND TRIP TIME

- Set CT ratio, overload (AMP) and overload trip time.
- Use 100 AMP CT for 0-100 AMP or sensing CT with external CT for current above 100 AMP.
- CTR for default 100 AMP CT is 000.
- CTR for external CT, if using 200/5 CT, divide and enter the value, i.e., 40.



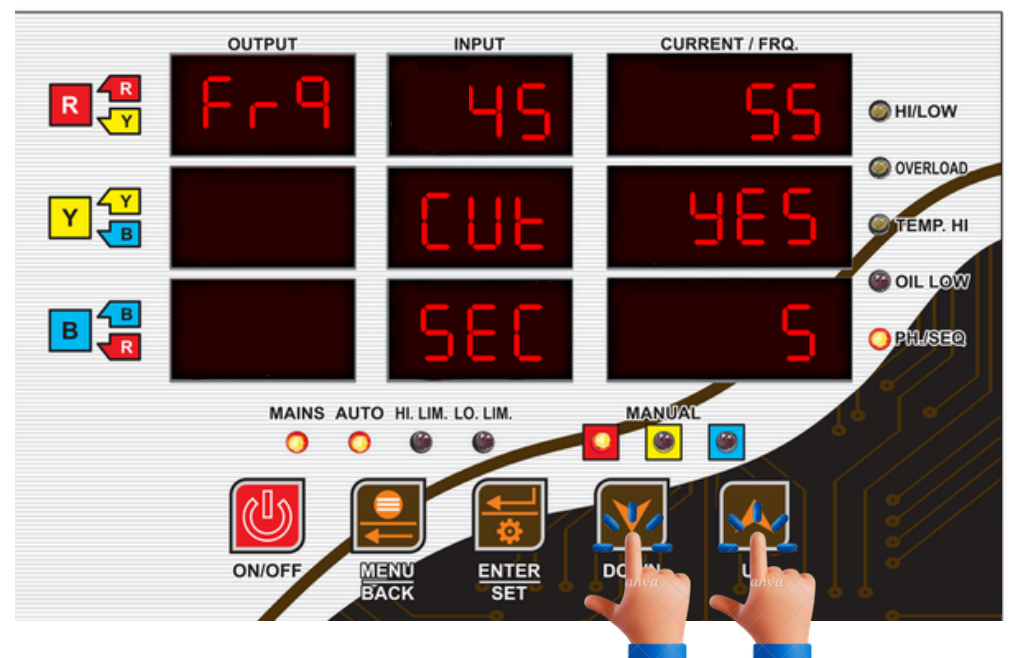
TDR, HYSTERISIS AND DISPLAY SCROLLING. OIL LEVEL INDICATOR.

- Set time delay relay, hysteresis and turn auto scrolling on or off.
- If selected no, current will not be visible in normal running mode.
- Turn oil level indicator on or off. An additional "oil sensor" has to be plugged in for this feature.



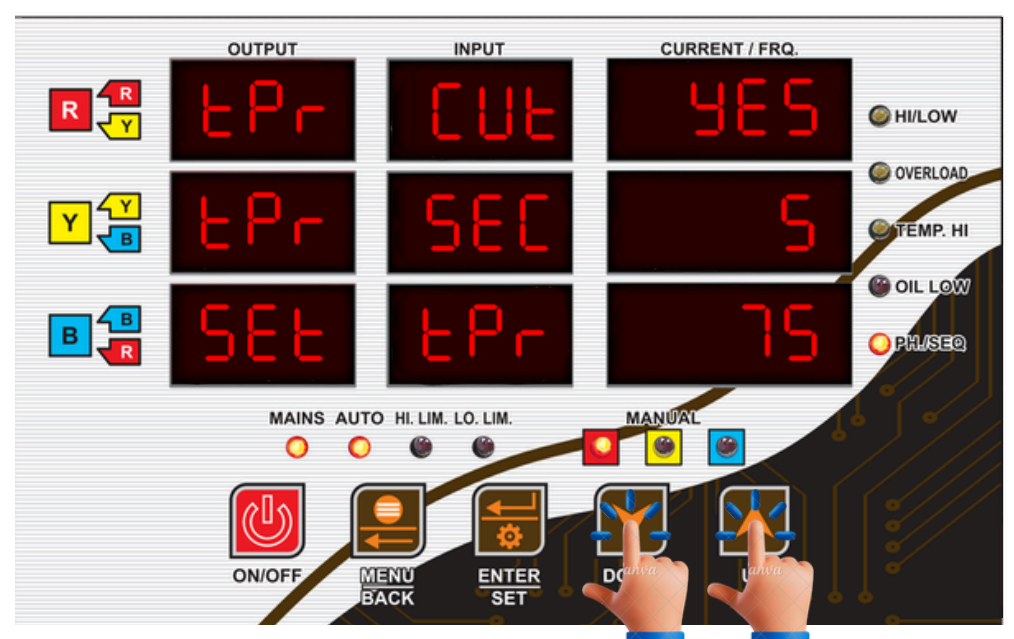
FREQUENCY CUT AND TIME

- Set your desired frequency range. For example: 45-55 Hz. If the frequency goes out of the range, the output will be turned off after the time you set.



TEMPERATURE CUT ON/OFF, TIME AND SET TEMPERATURE

- Turn on/off temperature cut.
- Set temperature in celsius.
- Set timer for temperature cut.



CONTACTOR/MCB/RELAY, AUTO RESET, BUZZER

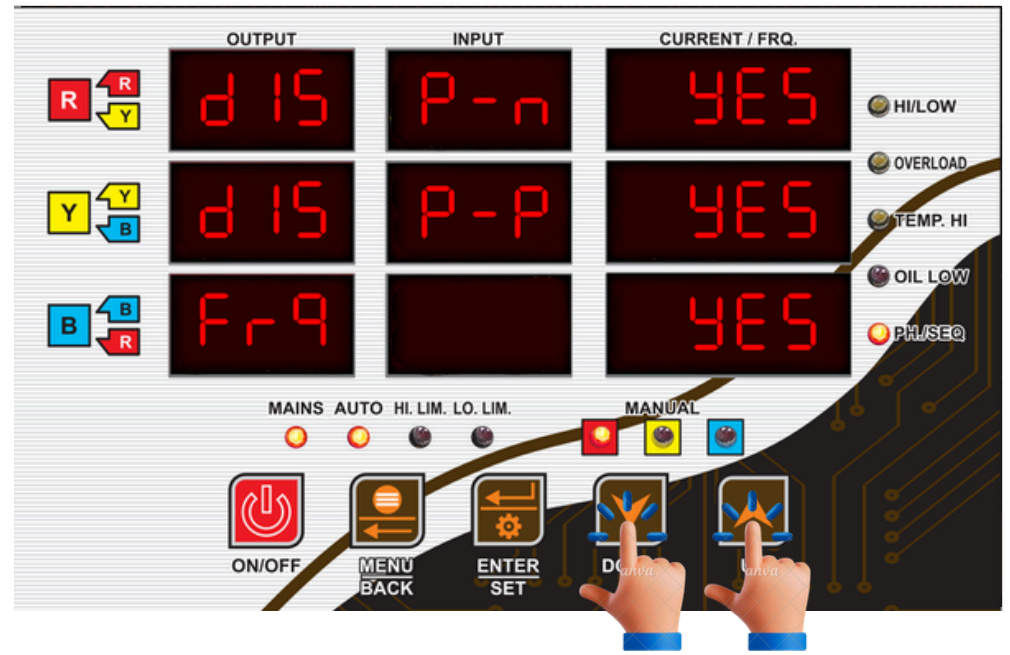
- Select between contactor, MCCB and relay.
- Set auto reset on or off. When turned off, the user will have to turn on the card manually in case of power cut.
- Set buzzer on and off.



Programming Mode:-

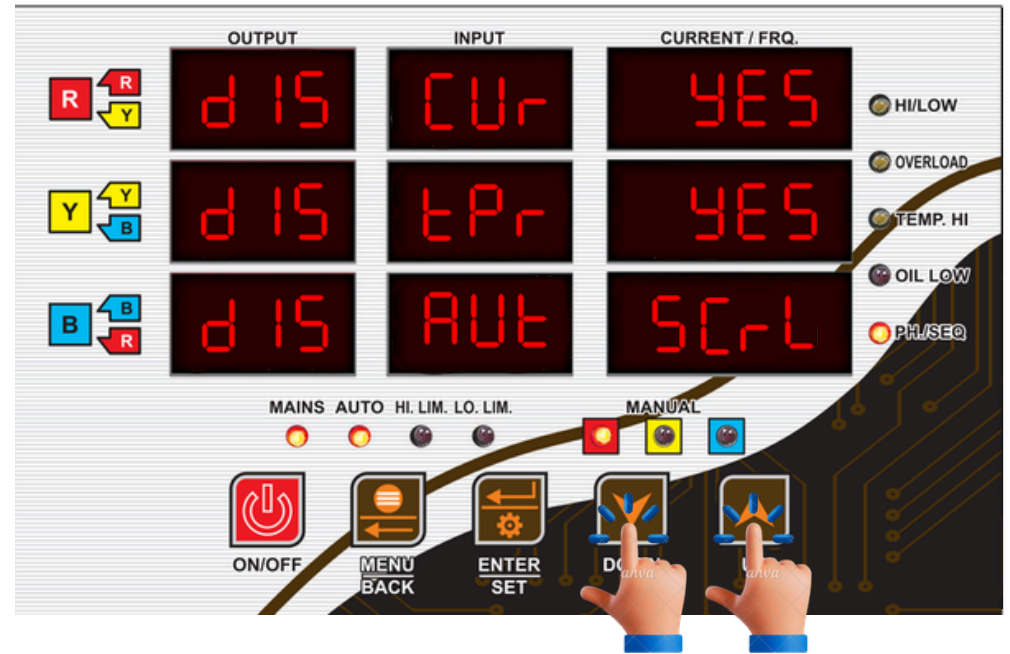
DISPLAY OPTIONS

- If selected no, the parameter will not be visible in normal running mode.
- Phase to neutral voltage.
- Phase to phase voltage.
- Frequency and temperature.



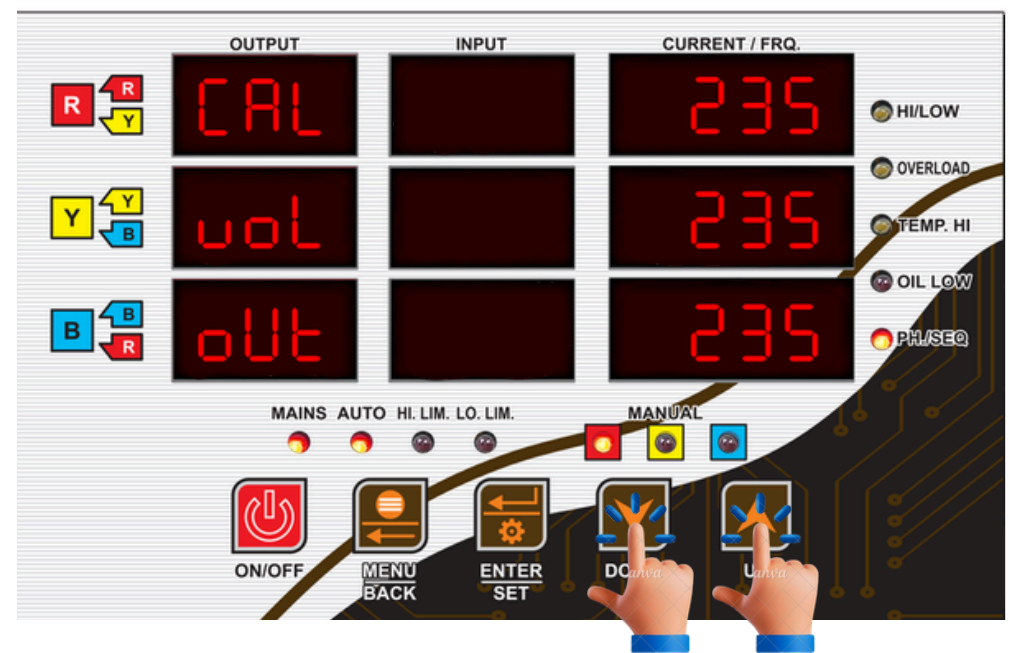
DISPLAY OPTIONS

- If selected no, the parameter will not be visible in normal running mode.
- Phase to neutral voltage.
- Phase to phase voltage.
- Frequency and temperature.



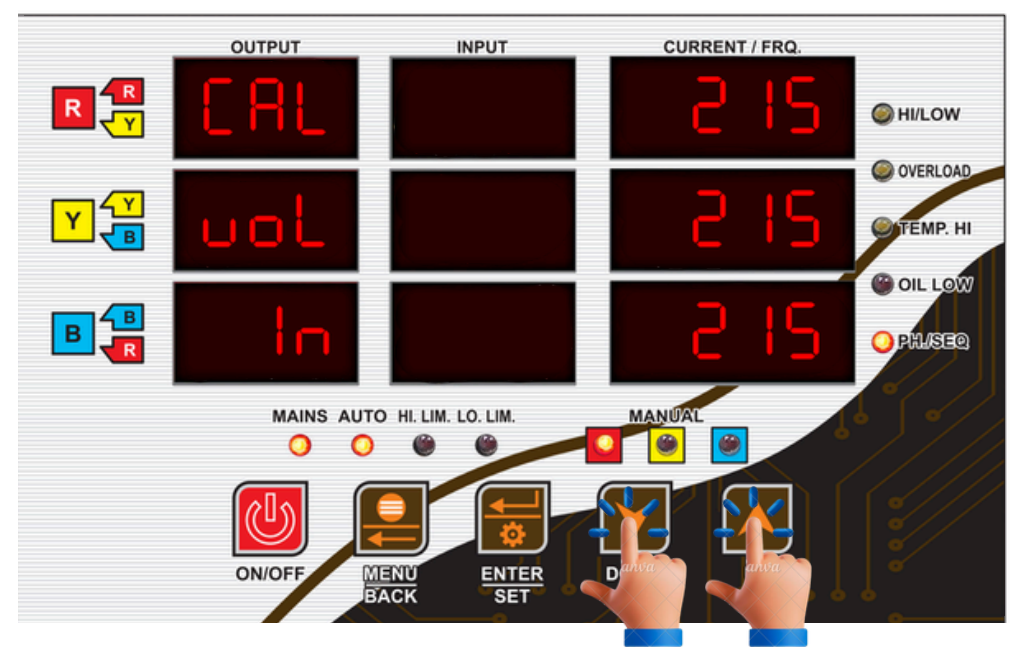
CALIBRATE OUTPUT VOLTAGE

- Use “UP/DOWN” button to match output voltage of each phase shown on the display with your meter. (+ -18V)



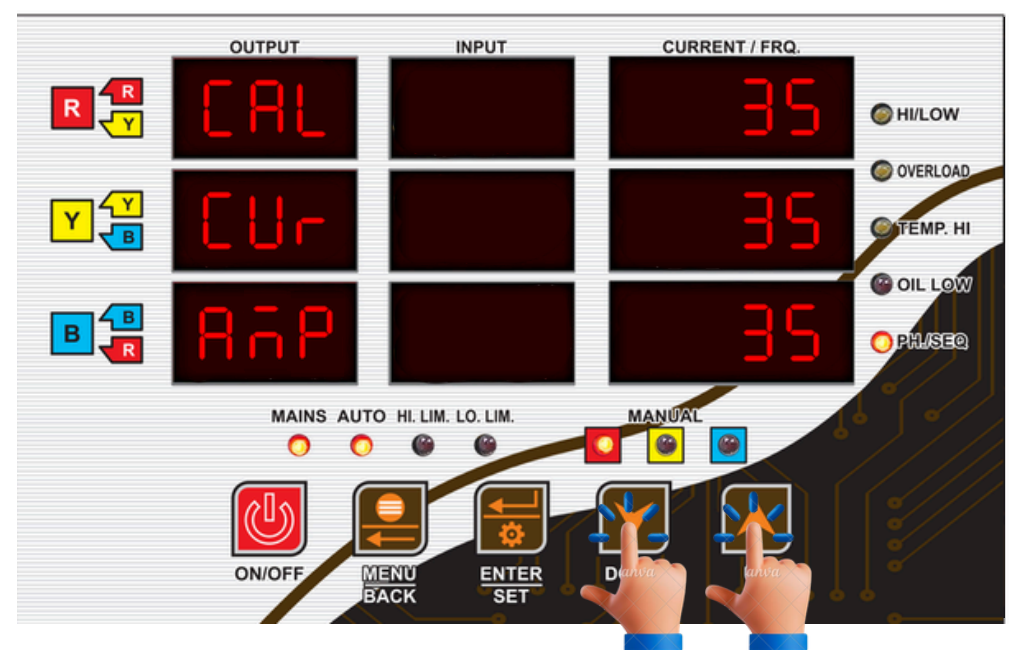
CALIBRATE INPUT VOLTAGE

- Use “UP/DOWN” button to match input voltage of each phase shown on the display with your meter. (+ -18V)



CALIBRATE CURRENT

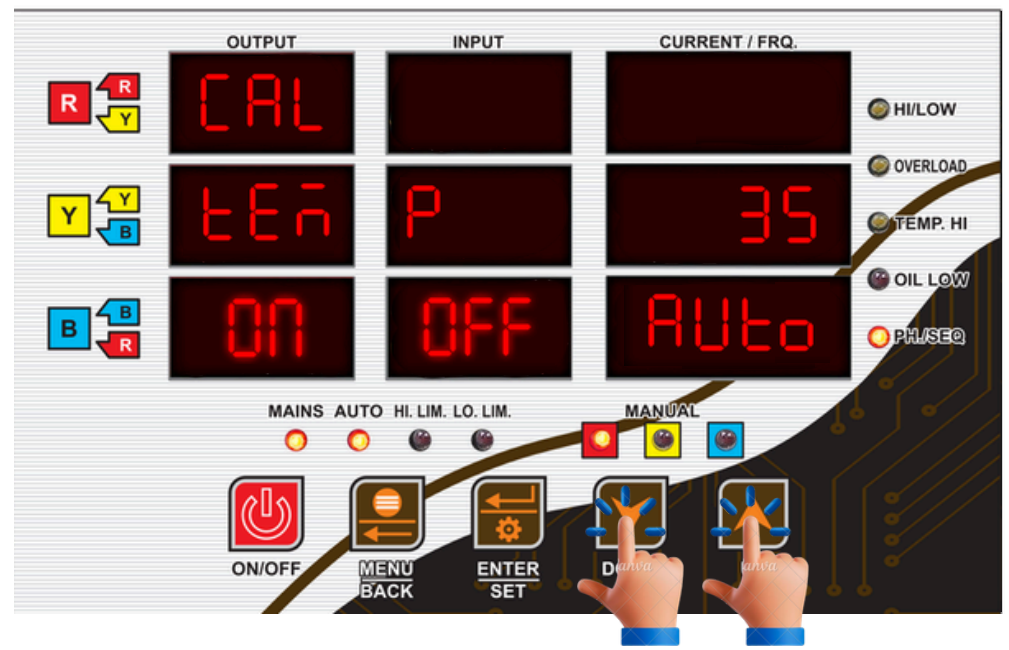
- Use “UP/DOWN” button to match current (AMP) of each phase shown on the display with your meter. (+ -18AMP)



Programming Mode:-

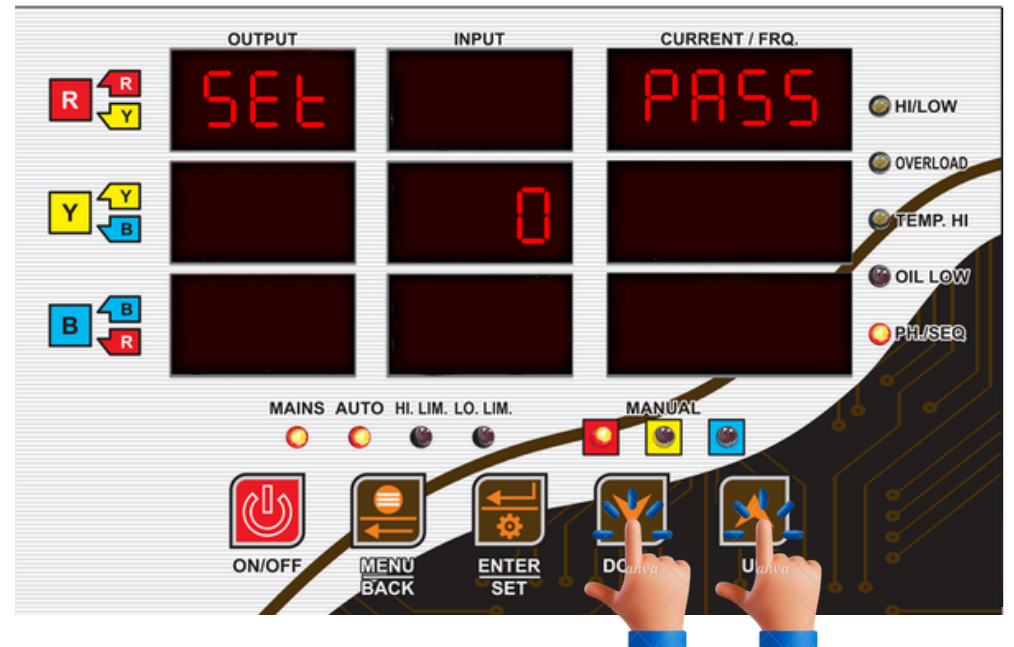
CALIBRATE TEMPERATURE

- Use “UP/DOWN” button to match temperature(celcius) shown on the display with your thermal device.
- Set auto on/off.



SET PASSCODE

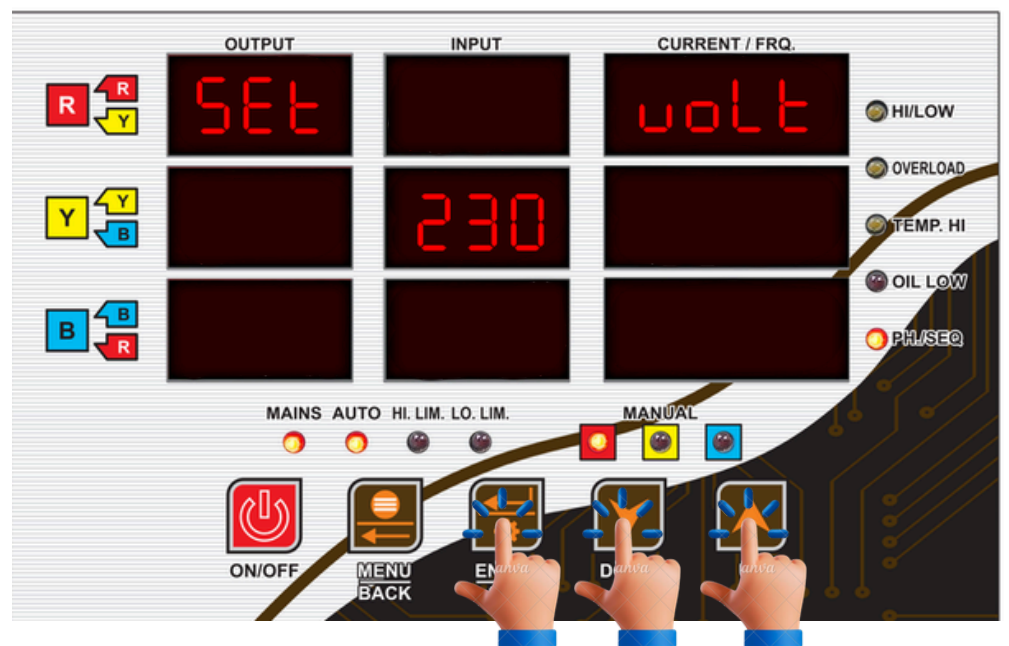
- Use “UP/DOWN” button to change passcode. Passcode can be set between a range of 000-999.
- In case the passcode is forgotten, user shall send back the product to us for re-writing the memory or contact our technical team for assistance.



Set Output Voltage:-

SET OUTPUT VOLTAGE

- Press and hold “ENTER/SET” button for 3 seconds and use “UP/DOWN” button to set desired output voltage.



Wiring Diagram:-

