

ELECTRONIC CONTROL OF AUTOMATIC RECLOSER

Electronic Recloser Control is comprised of a number of programmable, solid state electronic circuits that perform the command functions involved in automatic recloser operation. It is used to operate all electronically controlled reclosers.

the control panel of the control unit contains the programming and opening elements of the control.

Parts of the control panel of the electronic recloser:

Minimum trip resistors - Establish the minimum trip current levels for ground and each phase; cartridges are marked in primary amps and clamped in place.

Operation counter - record the cumulative trip operations of the control.

Sequence relay - steps the control through its operating sequence.

Ground- Trip Operation Switch -Blocks all ground in the BLOCK position: prevents unintentional tripping during single -phase switching operations.



Recloser Control panel

Manual Control Switch - In the TRIP position, it locks out the control, advances the sequence relay lockout, and disconnects the battery from the control circuits. In the CLOSE position, it moves the sequence relay to the home position, reconnects the battery and closes recloser. If held in CLOSE position, it will override cold- load inrush ; however, the control will lockout for permanent faults.

Control Fuse- Protects the closing solenoid coil (on reclosers that employ solenoid closing) if closing voltage is too low. connected in series with the closing contactor in the recloser on motor- operated units; connected in series with the contactor rotary solenoid on reclosers that employ solenoid closing

Non- Reclosing Switch - Sets the control for one shot to lockout without disturbing the lockout setting of the operations selector.

Lamp Test Lockout Switch - Enables testing the signal lamp and checking for lockout.

Lockout Indicating Signal lamp - Provides visual indication of control lockout

Battery Test Terminals - Enable checking battery voltage, charging rate ,and quiescent current drain.

Reset -Delay Plug - Determines the delay interval before the control resets after a successful reclosure during an operation sequence. the delay value is determined by position of the plug in socket adapter.

Phase Trip Timing Plugs - Provide a variety of current integrated timing curves on individual plugs for coordinating the phase trip operation with backup and downline protective devices.

Ground Trip Timing Plugs -Provide a variety of current integrated timing curves on individual plug for coordinating the ground-trip operation with backup and downline protective devices.

Reclosing Interval Plugs - Determines the delay interval for each closing operation. The delay value is determined by the position of the plug in the socket adapter.

An instantaneous plug is available for the first reclose interval only.

Phase Trip Selector - Programs the number of fast phase trip operations as defined by the timing pug in Socket 1; the remaining (slower) operations to lockout are defined by the plug in phase trip socket 2

Lockout Selector - Programs the total number of operations to lockout.

Ground Trip Selector- Programs the number of fast ground trip operations as defined by the timing plug in socket 1; the remaining (slower) operations to lockout are defined by the plug in ground trip socket 2

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