#### Form 6 Triple-Single Control Important information

# **COOPER POWER**

## Form 6 Triple-Single Control Reference

Read equipment manufacturer's manual and this material before using this product. Failure to do so can result in death, severe personal injury, and equipment damage. G164.0



- **EVENTS:** Press EVENTS and ENTER to view the 25 most recent events. Navigate through the Sequence of Events (SOE) using the UP and DOWN arrows.
- SETTINGS: Press to gain instant access for viewing or modifiying recloser settings on the LCD display.
- **OPERATIONS COUNTER:** Press for instant access to view the Trip Counter and Target Counters for each Phase, Ground, and SEF. Two reset functions are also available: RESET TARGET COUNTERS and RESETTRIP COUNTER.
- ALARMS: Press to view alarm status. Active alarms are indicated by a "1", inactive alarms are indicated by a "0"

#### Navigating the LCD display

Note: the LCD display panel contrast is field-adjustable to allow for various mounting heights and applications. Press the MENU key and then press the (+) or (-) key to increase or decrease the contrast.

LCD FUNCTION KEYS (F1, F2, F3, F4): The four LCD menu function keys activate specific menu commands. When a command appears in the LCD display directly above one of the four LCD menu function keys, press the key to accept/select the command.

Note: Function keys not active in all menus.

- MENU: The MENU key displays the root menu. It also returns the display to the previous menu each time it is pressed.
- **ENTER:** The ENTER key is used for the following
  - Confirm a settings modification. •
  - Confirm a selection from within a MENU
- ( + and ) Keys: are used to step through values when in the MODIFY / SETTINGS mode.
- **ARROW Keys:** Navigate vertically through the displayed MENU using the UP and DOWN arrow keys; arrow keys are located just below the display. In some menus, the cursor position can be moved horizontally using the LEFT and RIGHT arrow keys.
- **RESET ALARMS:** Press the ALARMS hotkey, move the cursor ( > ) to the left of the RESET ALARMS menu item, press the ENTER key, then the F4 function key.



Note: this reference card only applies to the standard, factory-default control.

#### **Status**

Status of the Triple-Single (TS) recloser and control are easily viewed via the operator panel. Press any key to wake the operator panel.

The default menu, Recloser Status, displays the active Triple-Single mode and the status of each phase.

- In Single-Phase Trip, Three-Phase Lockout and Single-Phase Trip, Single-Phase Lockout modes, each phase operates independently with protection parameters the same for all three phases.
- In Single-Phase Trip, Three-Phase Lockout mode, all three phases trip to lockout when one phase sequences to lockout.
- In Single-Phase Trip, Single-Phase Lockout mode, each phase independently sequences to lockout.
- CONTROL OK: Normally on. The CONTROL OK LED will extinguish if



certain battery, RAM, ROM, AC, Power Supply, and/or RIF alarms are active.

- **CONTROL POWER:** An illuminated CONTROL POWER LED indicates there is adequate VTC voltage to successfully trip (or close) the mechanism. It does NOT indicate the presence of AC or battery power.
- CONTROL LOCKOUT: On only when the control is in a Locked-Out state. It does NOT indicate the recloser is open.
- RECLOSER OPEN: Steady On only when all three phases of the Recloser are in the Open position. Blinking whenever only one or two phases of the Recloser are in the Open position.
- RECLOSER CLOSED: Steady On only when all three phases of the Recloser are in the Closed position. Blinking whenever only one or two phases of the Recloser are in the Closed position.

#### Hot keys

A LAMP TEST key, CHANGE key and six (6) HOT keys provide instant, direct-access, to the following menu items:

- **METERING:** Press to view instantaneous current and voltage metering values.
- **RESET TARGETS:** Press to immediately reset FAULT TARGET indicators on the operator panel.



#### **Basic control operations**

 CHANGE: The CHANGE key must be pressed prior to actuating any of the nine (9) Function Key Buttons.

**Note:** the CHANGE key remains active for 10 seconds after which time the LCD display returns to the basic menu.

- LAMP TEST: When the LAMP TEST feature is actuated, all front panel LEDs will illuminate for approximately five seconds.
- **TRIP**: Pressing the TRIP pushbutton trips the recloser to the "RECLOSER OPEN" position and places the control in "CONTROL LOCKOUT" mode (automatic reclosing is inhibited).
- **CLOSE:** Pressing the CLOSE pushbutton closes the recloser. The control is now ready to follow OCP programming.

**Important:** verify the phase or phases you want activated are selected prior to pressing the TRIP or CLOSE button.

#### **Hot Line Tag**

Provided for live-line work applications.

- Does not cause the recloser to trip open. It only prevents the recloser from closing.
- Prevents all closing attempts from the control and shifts protection to one trip-tolockout on the composite curve of the Hot Line Tag definite time and the TCC1 curve (whichever is faster). Takes precedence over Cold Load Pickup, Non-Reclosing, and Fast Trips Disabled.
- Hot Line Tag is activated from either the operator front panel toggle switch, local or remote communications, or configurable logic.
- Can only be reset by the source which initiates it.

### Default function key buttons

Also, refer to the "CHANGE" key description.

• **GND TRIP BLOCKED:** Blocks all ground sensing in the control for the active profile.

#### • NON-RECLOSING:

Places the control in 1-Shotto-Lockout mode. When activated, the control will follow the next programmed TCC and a "Control Lockout" will follow the OCP trip event.

**SUPERVISORY OFF:** When activated, supervisory commands via Contact I/O or any of the communications accessories are ignored.

- PHASE SELECT BUTTONS: Pressing the Change button followed by a press of the A or B or C Phase Select button activates the respective phase; repeating the button press sequence a second time deactivates the phase. The control panel Trip and Close pushbuttons will operate any active phase(s).
  - 1-Phase Trip / 3-Phase Lockout, mode
  - 3-Phase Trip / 3-Phase Lockout (ganged) mode
  - Only 3-Phase manual Trip / Close operations are permitted - cannot select or deselect individual phases.
  - Pulling the yellow handle down on any phase will open and lockout all three phases.
  - CONTROL LOCKOUT, RECLOSER OPEN and RECLOSER CLOSED control panel LEDs reflect the status of all three devices.
- 1-Phase Trip / 1-Phase Lockout mode
  - Capable of independent manual Trip / Close operations.
  - Capable of Independent yellow handle operation to lockout.
- Control panel LEDs for CONTROL LOCKOUT, RECLOSER OPEN and RECLOSER CLOSED blink for mixed recloser status.
- **OPTION BUTTONS:** Three (3) OPTION buttons are unassigned by default.

**Note:** all nine (9) function key buttons can be customized via the Idea Workbench<sup>TM</sup>.

**Note:** Loop Scheme (LS) and non-TS controls incorporate different Function Key default function configurations.

#### **View / change settings**

- 1. Press the SETTINGS hotkey, the LCD will display: "Mod/View Settings."
- 2. Press the ENTER key, the LCD will display « Enter Password «. The default password is «0» - therefore, if a password has not been assigned just press the ENTER key again, otherwise, enter your password and then press ENTER.

**Note:** use the + and – keys to enter a password. Press-and-hold the key to skip through the values faster.

#### Accept / cancel settings change

Following a settings change press the ENTER key and then the MENU key – the screen shot shown below will be displayed.



If you made a change to one or more settings either:

- Accept and USE a changed setting press the F1 function key.
- REVERT to the previously saved setting press the F2 function key.
- Step BACK to the previous dialog press the F4 function key.

Refer to the Form 6 triple-single control installation Instructions included with this control for additional information.

For assistance, contact the Switchgear Support Group at **1-800-497-5953**. 24/7 emergency support also available.



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