S&C IntelliRupter® PulseCloser Quick Operating Guide

⚠ WARNING

IntelliRupter PulseCloser must be installed, operated, and maintained by qualified persons who are knowledgeable in overhead electric power distribution equipment and the associated hazards. This guide is not a replacement for adequate training and experience in safety procedures for this type of equipment. Read S&C Instruction Sheets 766-510, 766-530, and 766-540 thoroughly and carefully before installing and operating your IntelliRupter PulseCloser.

Interrupter Open/Close/Ready Lever

To open interrupters:
Pull down on right lever. In down position, closing is blocked.

To close interrupters:
Power must be available from batteries (if furnished) or energized distribution line. Remove hot line tags, if applicable. Push up on right lever. Then pull down once on left lever for First Closing Profile. Or quickly pull down twice on left lever for Second Closing Profile.

Hot Line Tag Lever

To manually apply a hot line tag:
Pull down on hot line tag lever.

To clear a manually applied hot line tag:
Push up on hot line tag lever.

To clear an electronically applied hot line tag when a hot line tag has been applied manually:
Push up on hot line tag lever. Then pull down and push up on hot line tag lever once, without delay.

To clear an electronically applied hot line tag when a hot line tag has *not* been applied manually:
Pull down and push up on hot line tag lever twice, without delay.

Ground Trip Block Lever
(if furnished)

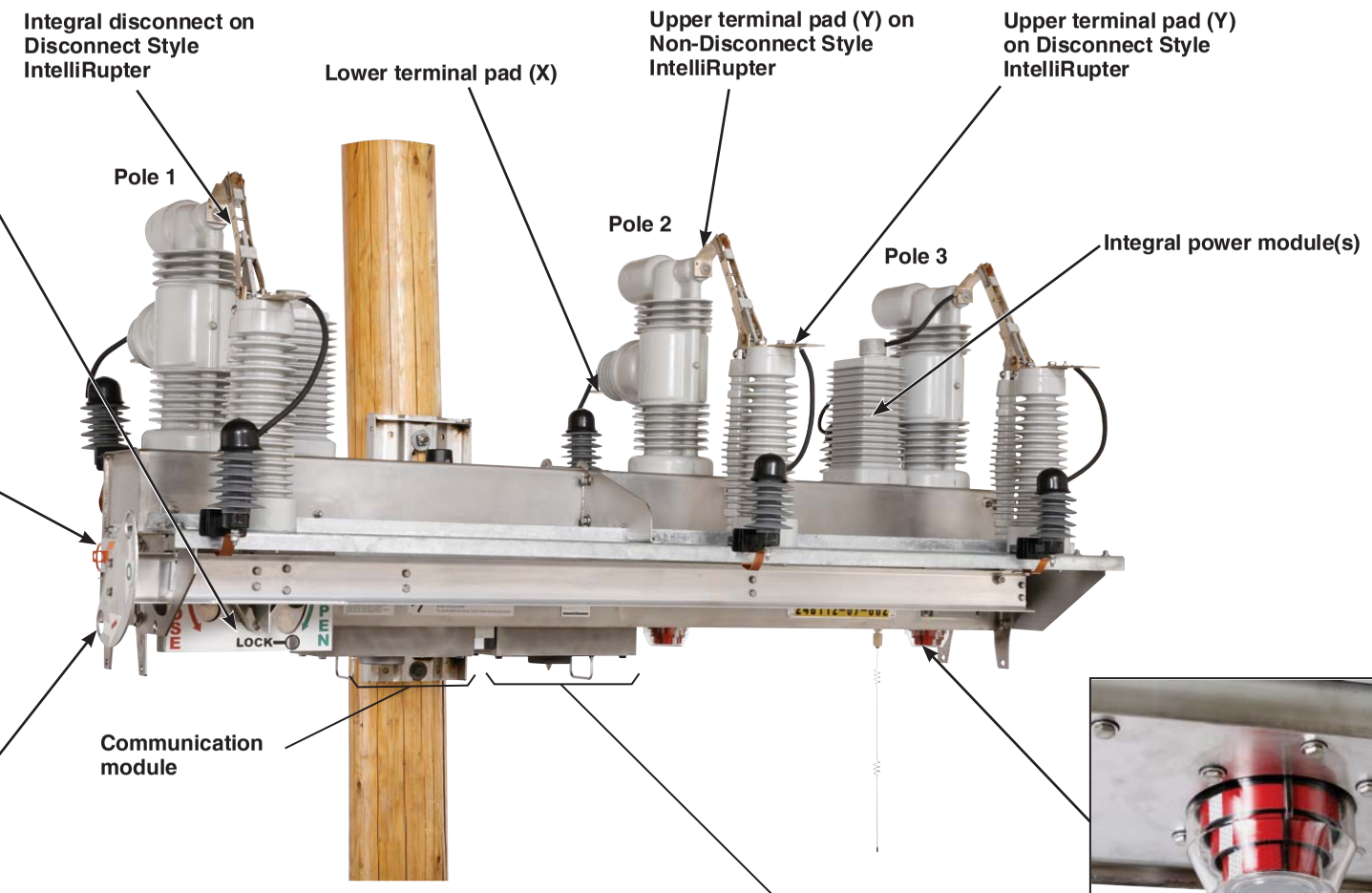
To manually apply ground trip block:
Pull down on ground trip block lever. (When in the applied position the selected elements will be blocked or change as indicated in the setup, see S&C Instruction Sheet 766-530.)

To remove a manually applied GTB:
Push up on ground trip block lever. (Placing the ground trip block lever in the up position will not enable any elements that have not been enabled in the active protection profile.)

Disconnect Operating Lever
(if furnished)

To open disconnect:
Place the open/close/ready lever in the Lock open position. Then pull down on right side of disconnect operating lever. Interrupters can now be closed and opened for testing.

To close disconnect:
Place the open/close/ready lever in the Lock open position. Then pull down on left side of disconnect operating lever.



Interrupter Open/Closed Indicator (one per pole)

Green: Interrupter open—"O"

Red: Interrupter closed—"I"

Colors are reversed on an IntelliRupter furnished with Option "-F2"

Protection and Control Module

Hot Line Tag Indicator (amber LED)

Flashes for 1/2 second every 2 seconds: Hot line tag applied

Off: All hot line tags removed

Status Indicator (white LED)

Flashes for 1/2 second every 30 seconds: Normal operation

Pulsates dim to bright: WiFi connected

Flashes for 1/2 second every second: Any Error State, or a Settings Mismatch is active

Flashes 3 times (1/2 second on—1/2 second off) every 30 seconds: Loop Restoration is timing or Ready, or IntelliTEAM is Ready

On 10 seconds, then flashes for 1/2 second every 30 seconds: WiFi disconnected, open/close command from interrupter open/close/ready lever, WiFi, or SCADA, or ground trip block lever moved

Solid On: Remote Operation disabled

Off: IntelliRupter not powered, or not functioning properly

If status indicator is off:

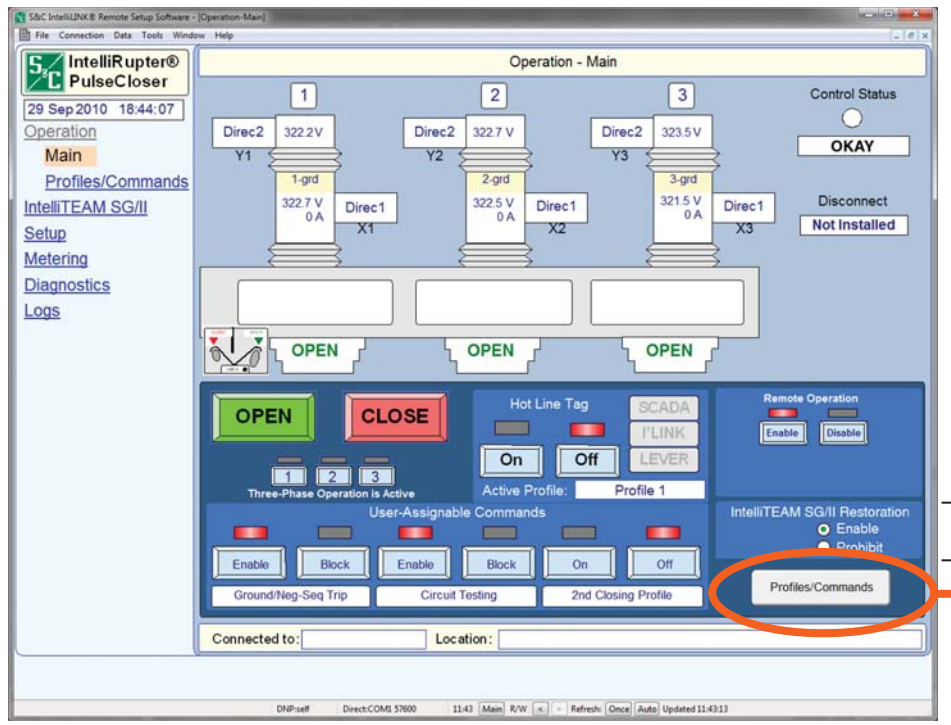
- If line is not energized, energize the side with integral power module.
- If line is energized, replace protection and control module.

If status indicator does not indicate WiFi connection:

- If line is energized, move computer at least 20 feet closer.
- Try another computer furnished with IntelliLINK Setup Software and appropriate security keys.
- Replace communication module.

If IntelliRupter does not respond to SCADA commands:

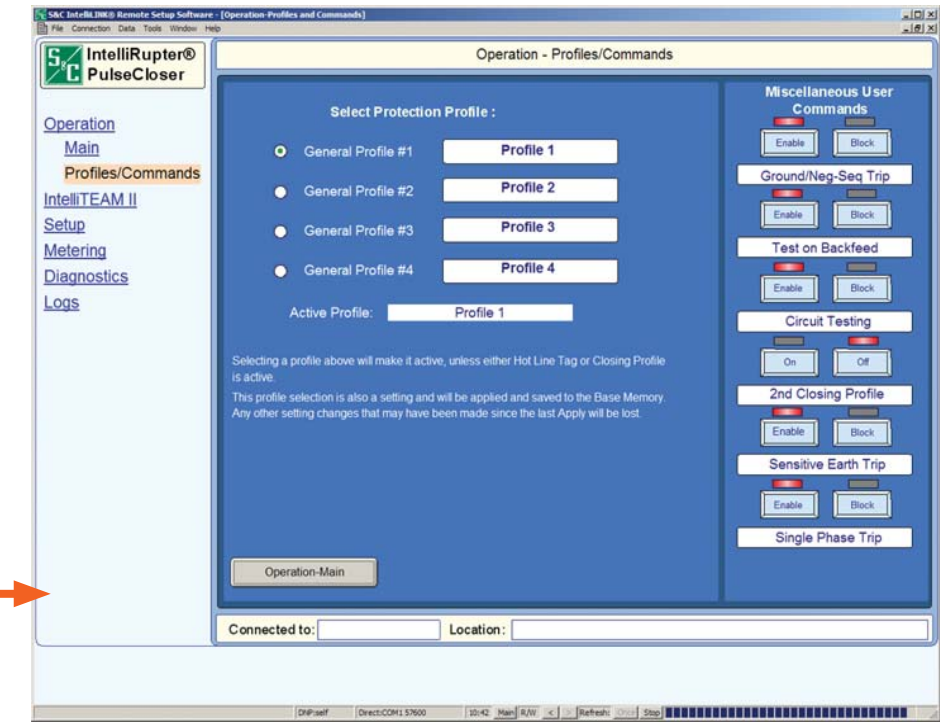
- Enable remote operation (see "IntelliLINK Setup Software Operation—Main" screen). Remove all hot line tags and push up on right interrupter open/close/ready lever.
- Apply local hot line tag. If IntelliRupter does not send a hot line tag status point to SCADA, replace communication module.



NOTICE

To disable automatic load restoration through the IntelliTEAM SG/II Automatic Restoration System (if furnished), select Operation > IT SG/II Operation > General > Team Summary > Prohibit Restoration > Restoration Prohibited.

To disable Loop Restoration (if furnished) go to the Operation > Main screen, click the Loop Restoration – "Disable" radio button. When the dialog box opens click Disable Restoration –"OK."



IntelliLINK® Setup Software: Operation—Main Screen

Match the location of the interrupter open/close/ready lever on IntelliRupter to the location of the interrupter open/close/ready lever on this screen. Note that on the screen:

- Poles are labeled left to right (in this case **1, 2,** and **3**).
- Upper terminals pads (Y1, Y2, and Y3) are labeled (in this case **Y**). Lower terminal pads (X1, X2, and X3) are also labeled (in this case **X**).
- Voltages are shown for the three poles (in this case, phase-to-ground voltages **1-grd, 2-grd,** and **3-grd**). Alternately, phase-to-phase voltages may be shown (**1-2, 2-3, 3-1**).
- Interrupter open/close indicators match the indicators on IntelliRupter (in this case **OPEN**).
- When IntelliRupter has tripped open, the state of each pole is shown, for example, **TESTING, LOCKOUT-V** (lockout on voltage trip), or **LOCKOUT-F** (lockout on frequency trip). For **LOCKOUT-O/C** (lockout on overcurrent trip), a lightning bolt shows the faulted phase(s) on the side on which the fault occurred. The current on each pole at the time of tripping is also shown.
- When IntelliRupter is closed, load current and current direction are shown for each pole.
- **"Control Status"** shows the status of the protection and control module (in this case **ALARM**). Alternately, **OKAY, WARNING,** or **ERROR** may be shown.
- **"Disconnect"** shows the position of the disconnect on Disconnect Style IntelliRupter (**OPEN** or **CLOSED**). On Non-Disconnect Style IntelliRupter, display will show **Not Installed**.
- **"Loop Restoration"** status is displayed when Loop Restoration is furnished and Enabled.
- **"OPEN"** and **"CLOSE"** buttons trip and close the interrupters.
- **Single-Phase Operation Buttons:** When "*Single-Phase Operation Is Active"* is displayed, you can manually operate one phase by selecting the phase with these buttons and then selecting **OPEN** or **CLOSE**.
- **"Active Profile:"** shows the active protection profile (in this case **Profile 1**).
- **"Hot Line Tag"** buttons apply or remove hot line tag. Indicators show if hot line tag has been applied by **SCADA, IntelliLINK,** or **LEVER**.
- **"Remote Operation"** buttons enable or block SCADA operation. These buttons do not block commands issued through the WiFi connection.
- **"User-Assignable Commands"** enable or block up to three user-assignable commands (in this case **Ground/Neg-Seq Trip, Circuit Testing,** and **2nd Closing Profile**).
- **"Loop Restoration"** buttons enable or block operation of Loop Restoration (if furnished).
- **"Profiles/Commands"** button selects "IntelliLINK Operation—Profiles and Commands" screen.
- **"Connected to:"** and **"Location:"** show name and address of IntelliRupter connected through IntelliLINK or IntelliLINK Remote.

IntelliLINK® Setup Software: Operation—Profiles/Commands Screen

- **"Select Protection Profile:"** enables selection of one of four general profiles (in this case **Profile 1**), to be used whenever a closing profile or hot line tag is not active.
- **"Miscellaneous User Commands"** enable or block up to five user-assignable commands (in this case **Ground/Neg-Seq Trip, Test on Backfeed, Circuit Testing, Sensitive Earth Trip,** and **Single Phase Trip**).
- **"Operation–Main"** button selects "IntelliLINK Operation–Main" screen.
- **"Connected to:"** and **"Location:"** show name and address of IntelliRupter connected through IntelliLINK or IntelliLINK Remote.