LATCHING ALARMS

BACKGROUND

All AT10.1 and AT30 Series battery chargers with control firmware version **6.35** and greater can be configured to latch all alarm LED indicators and the Summary Alarm relay, monitored remotely via terminal block (TB3), on the Main Control PC Board (A1). AT10.1 and AT30 Series battery chargers with the optional Auxiliary Alarm Relay PC Board (A5) option, revision **EN0027-00 Rev. 4** or greater, feature individual latching alarm relays with two (2) Form-C contacts, monitored remotely via terminal block (TB4). AT10.1 and AT30 Series battery chargers normally ship with the latching alarm relay functions on the Main Control PC Board (A1) and the Auxiliary Alarm Relay PC Board (A5) disabled.

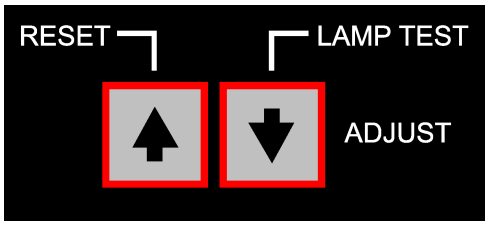
LATCHING ALARM FEATURE
MAIN CONTROL PC BOARD (A1)

ENABLING/DISABLING

The standard latching alarm feature is configured via jumper (J29) on the Main Control PC Board (A1). Before enabling or disabling the latching alarm feature, shut down the AT Series battery charger per instructions listed in the *Operating and Service Instruction* manual. Lock out all ac and dc power to the charger. Open the front instrument panel and locate the square Main Control PC Board (A1), mounted to the back of the panel. Locate jumper (J29), which is located along the right side of the board when viewed from the back. Move the shorting block onto J29 pins 1-2 to enable the latching alarm feature, or move the shorting block onto J29 pins 2-3 to disable latching alarms. Restart the charger per the *Operating and Service Instruction* manual.

FUNCTION

To prevent nuisance latched alarms, an alarm condition must exist for 30 seconds in order to be latched. When an alarm condition occurs, the associated LED indicator will light immediately. If after 30 seconds the alarm condition still exists, the Summary Alarm relay will switch to the alarm state and the associated LED indicator will latch on...and remain on. If the alarm condition is temporary, and lasts for less than 30 seconds, the associated LED indicator will go out and the Summary Alarm relay will not switch to the alarm state.



Once the alarm is latched, the associated LED indicator on the front panel and Summary Alarm relay contacts (TB3) on the Main Control PC Board (A1) will remain active until it is cleared (or reset) manually at the charger. To clear the latched alarm, press and hold the LATCH RESET button (UP arrow) on the front panel. The AT Series will acknowledge the alarm reset by displaying ***RStL*** on the main display.

The reset function will clear all latched alarms and de-activate the Summary Alarm relay contacts. If any alarm is still **active** while performing the latch reset, that alarm's associated LED indicator will **remain** lit after the LATCH RESET button is pressed. The alarm will latch again after 30 seconds, and the Summary Alarm relay contacts will switch to the active state.

LATCHING ALARMS

LIMITATIONS

With this **standard** latching alarm feature, only the alarm indicator LEDs on the front panel and Summary Alarm relay contacts (TB3) on the Main Control PC Board (A1) will latch when enabled. The alarm status reported by the optional Auxiliary Alarm Relay PC Board (A5) and monitored on terminal block (TB4) will not latch. Likewise, the alarm signals (via Modbus or DNP3) from the optional Communications Module PC Board (A12) will not latch. The alarm status reported by Auxiliary Relay Board and the Communication Module will reflect the true dynamic status of all alarms, even when the standard latching alarm feature is enabled on the Main Control PC Board (A1) via jumper (J29). The relays on the optional Auxiliary Alarm Relay PC Board (A5) can be configured to latch as well. This feature is detailed in the section below.

INDIVIDUAL LATCHING ALARMS
AUXILIARY ALARM RELAY PC BOARD (A5)

ENABLING/DISABLING

coming soon...

FUNCTION

coming soon...