Model 2018
18 Channel Conflict Monitor

- Operates in Type 210 or Type 2010 mode
- Accepts 16 and 18 channel program cards
- Enhanced monitoring functions:
  - Multiple Indication Monitoring
  - Red Fail Per Channel Monitoring
  - Short Yellow Monitoring
  - Flashing Don't Walk Monitoring
  - Co-Channel Monitoring
- Event logging capability:
  - AC Line Log
  - Prior Faults Log
  - Signal Sequence Log
  - Configuration Event Log
  - Monitor Reset Log
- Monitor firmware upgradable via front panel Comm Port
- Selectable LED head threshold monitoring
- Complete intersection display using Red, Yellow, and Green LEDs
- Diagnostic Mode displays Line Voltage, Configuration Information, and the 20 most recent faults on the front panel LED display
- 24VDC enhanced monitors for Hi voltage and excessive ripple

Overview:
Reno A & E's Model 2018 Conflict Monitor is the first 170 / 2070 compatible monitor to include features that simplify monitoring of complex intersections. The Model 2018 sets new standards in reliability and functionality by providing enhanced monitoring functions, event logging capability, database management, and advanced diagnostic features. Reno A&E's Model 2018 meets the requirements set forth in Chapter 3, Section 6, of the Caltrans Transportation Electrical Equipment Specifications (TEES) dated 08/16/02.
Incandescent or LED Thresholds: The monitor can use the standard incandescent field display thresholds or enhanced LED field display thresholds. The active threshold is selected with Option switch 8. When Option switch 8 is set, the standard incandescent field display thresholds are selected. When Option switch 8 is deselected, the enhanced LED field display thresholds are selected.

Incandescent Thresholds: The monitor senses greens and yellows as ON when their voltage is above 25 Vms and OFF when below 15 Vms. Reds are ON when their voltage is above 70 Vms and OFF when below 50 Vms. Red Enable and Special Function Inputs are ON when their voltage is above 70 Vms and OFF when below 50 Vms.

LED Thresholds: The monitor, when checking for Conflicts, Multiple Indications, and Short Yellows, senses greens, yellows, and reds as ON when their voltage is above 25 Vms and OFF when below 15 Vms. For the Red Fail check greens, yellows, and reds as ON when their voltage is above 70 Vms and OFF when below 50 Vms. Red Enable and Special Function Inputs are ON when their voltage is above 70 Vms and OFF when below 15 Vms.

Program Card Absent Monitoring: If the Program Card is not present or not seated properly in the connector, the monitor will enter the fault mode, transfer the Output relay contacts to the Fault position, and illuminate the PBC AJAR indicator on the front panel. This monitoring function is enabled by ble of a Program Card fault prior to the monitor Power Failure.

Support for 16 Channel and 18 Channel Program Cards: The monitor is capable of accepting both 16 channel and 19 channel Program Cards.

16 Channel Program Cards are not Allowed: Option jumper 1 should be installed to force the monitor to not accept 16 channel Program Cards. When this feature is enabled and a 16 channel Program Card is inserted, the monitor will display a PBC AJAR fault with all three field indications flashing for channel 16.

18 Channel Program Cards are not Allowed: Option jumper 2 should be installed to force the monitor to not accept 18 channel Program Cards. When this feature is enabled and an 18 channel Program Card is inserted, the monitor will display a PBC AJAR fault with all three field indications flashing for channel 18.

24 Volt DC Enhanced Monitoring: The monitor is capable of monitoring the +24VDC input for over voltage and excessive ripple. The enhanced monitoring feature is selected with Option switch 3. When Option switch 3 is OFF, the standard +24VDC monitoring is selected. When ON, the enhanced monitoring is selected. When Enhanced +24VDC Monitoring is enabled, the VDC FAILED indicator will flash at a five Hz rate when the +24VDC input is above 28 VDC. The indicator will flash at a one Hz rate when the ripple on the +24VDC input exceeds 2V.

Watchdog Timer Monitoring: This monitoring function detects a Watchdog Timer output from a Controller Unit or other external cabinet device. If the monit