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**FTS 430/830-2E Addendum to the
Approach Lighting System**

Reference Manual

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Section 1 — FTS 430-2E/830-2E Description

System

The FTS 430-2E/830-2E Approach Lighting System operates in the same way as the FTS 430/830 System described in the parent manual. It controls the lights in the same way and the lights can be connected with the same configurations as described there.

The FTS 430-2E/830-2E Approach Lighting System is designed to operate with the FTM 181 Monitor, which monitors the lights for flashing errors.

Differences

The difference is the addition of the following boards:

- Lamp Outage Board - PN 2887801.
- Surge Suppressor - PN 2865301
- Sense Module - PN 2811101

Component Removal and Replacement

Component location diagrams are provided in *Figure 1-3*. Internal wiring diagrams are provided in *Figure 1-2* and on the *Information Card* that is fastened inside the power converter cover.

Note the location and color of all wires that you disconnect. When you replace the wiring after you replace the components, ensure that the wiring conforms exactly to the wiring diagrams.

The general procedure for removing components is a logical one and is as follows:

1. Obtain access to the component in question:
 - a. Disconnect completely or partially the wiring to components first that prevent clear access.
 - b. Completely remove or relocate these components.

3. Disconnect the wiring to the component that you want to replace.
4. Remove this component.
5. Replace everything in the reverse order: first the component, then the wiring, then the components that allowed you access. In some cases, you may have to place some wires on the component before you fasten it in place, then replace the remaining wires.

Most components are relatively easy to access for removal. Only those that are more difficult are described.

PCB3 Sense Module

Removal

1. Use a small 1/8" blade screwdriver to remove the yellow and wht/grn wires connected to the small terminal block on PCB3.
2. Disconnect the red wire on TB2-1 that passes through the coil on PCB3. *Note the direction of this wire and the number of turns through the coil to replace it in the same way.*

Replacement

1. Reverse the Removal sequence.
2. Verify that wiring matches the *Information Card* and restore the wire routing to its original state.

PCB4 Light Outage Board

Removal

1. See *Figure 1-3*.
2. Two 8-32 screws and two hexagonal standoffs fasten PCB5 to PCB4. Disconnect the wires from PCB5, remove these two holding screws, remove PCB5, and remove the two standoffs that supported PCB5 before removing PCB4.
3. Three remaining 8-32 screws fasten PCB4 to its support bracket. Five hexagonal standoffs hold PCB4 away from the support bracket.
4. Disconnect the wires from PCB4.
5. Remove the three remaining screws holding PCB4.

Replacement

1. Reverse the removal procedure.

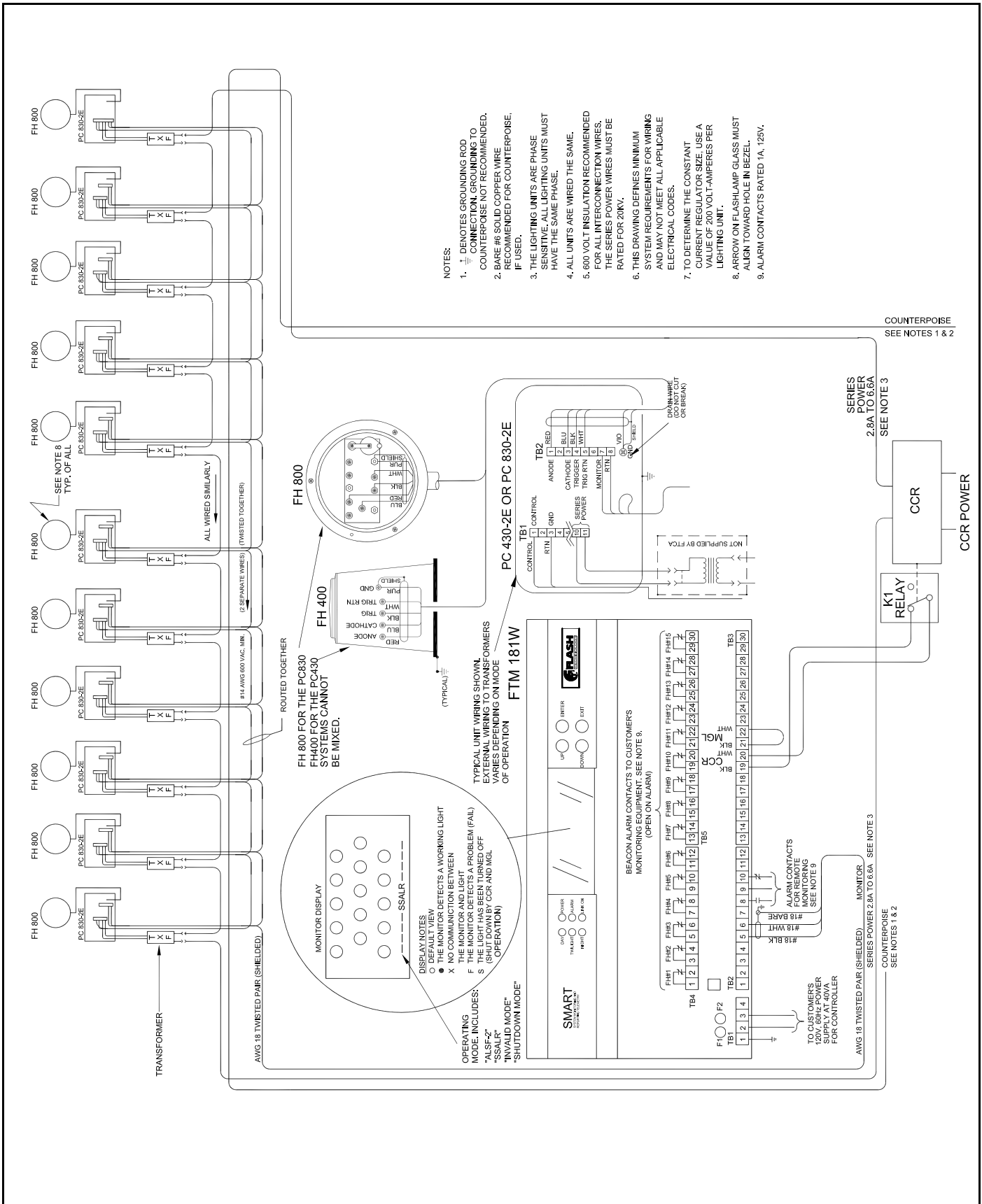
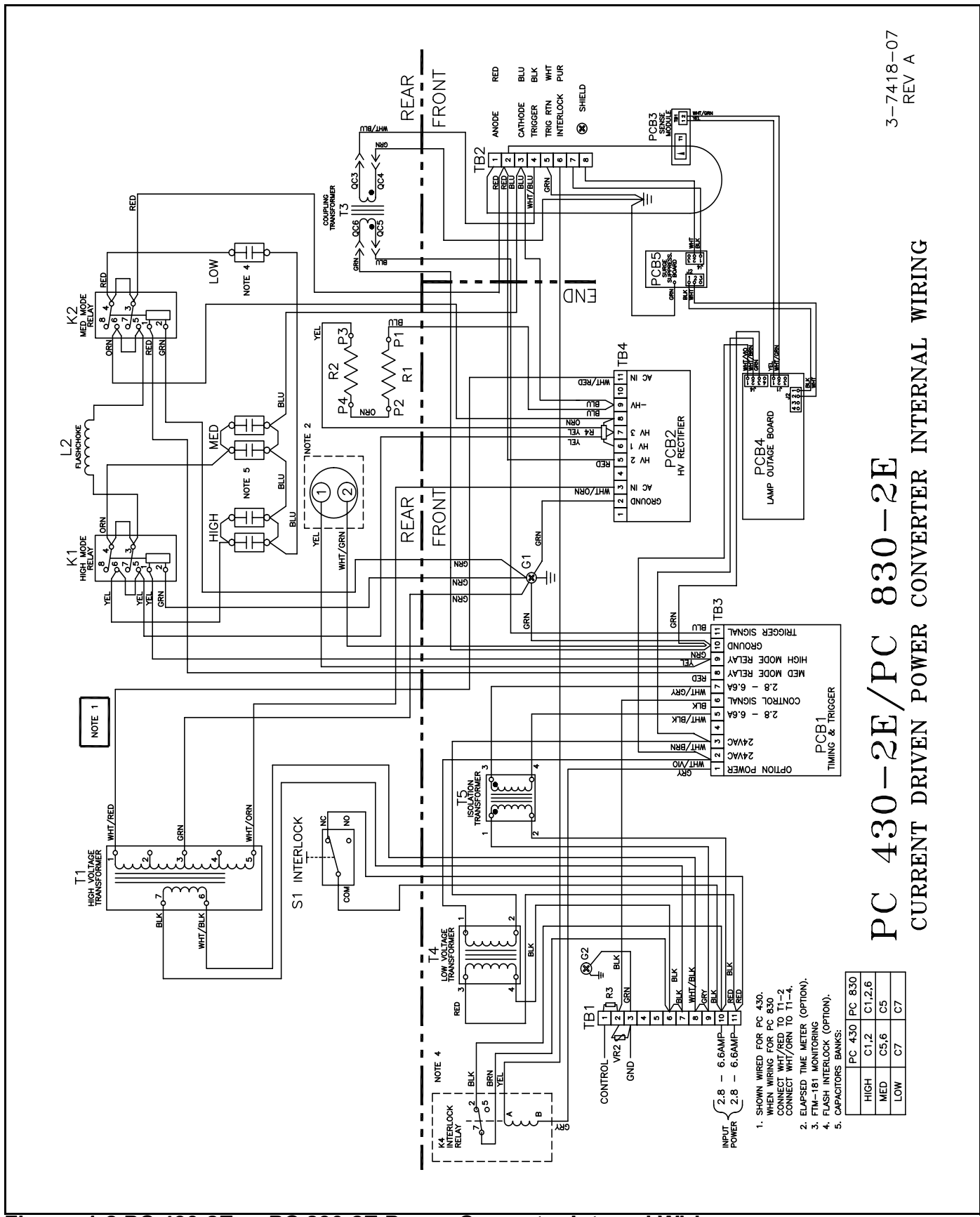


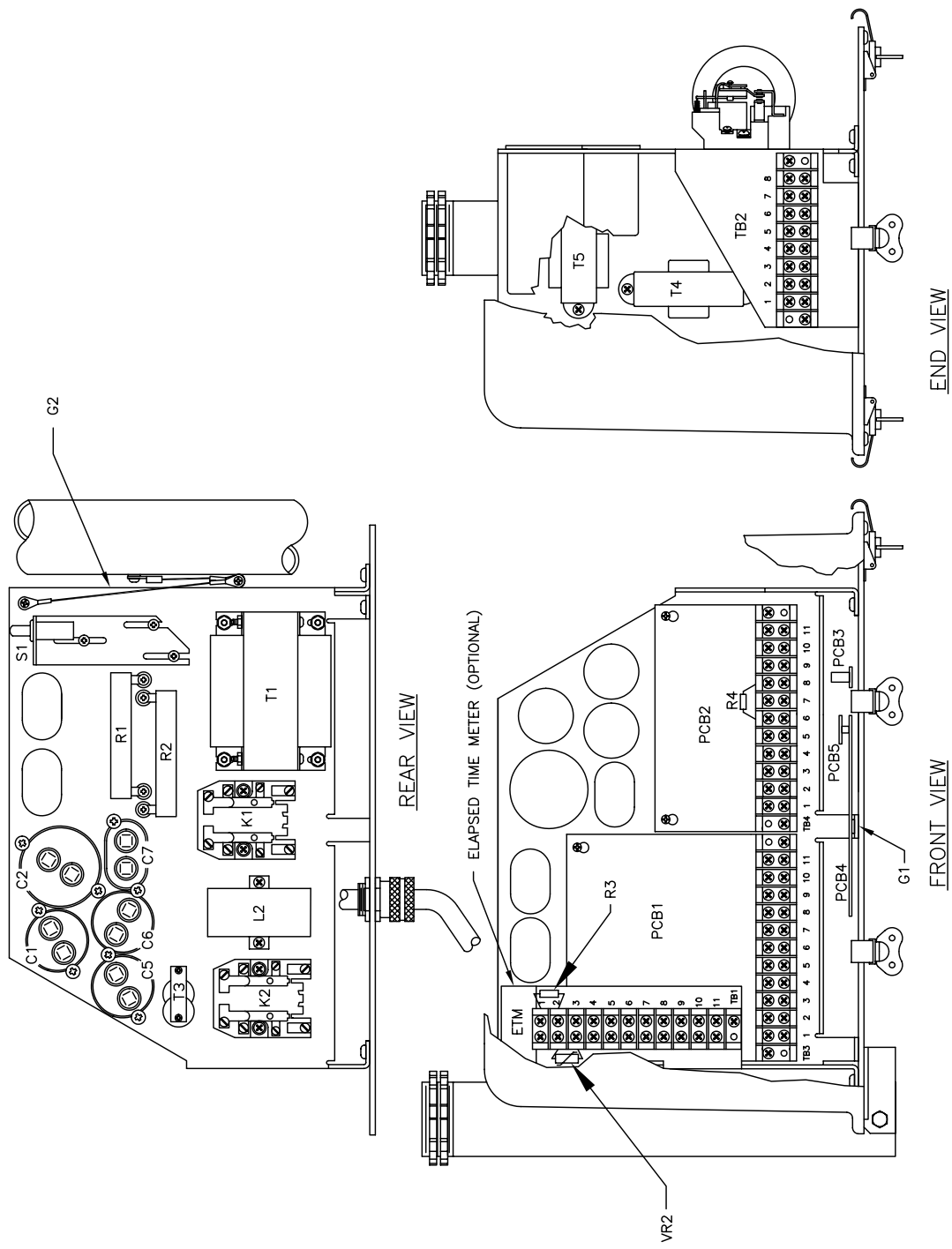
Figure 1-1 Typical FTS 430/830-2E System Installation Wiring



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PC 430-2E/PC 830-2E
CURRENT DRIVEN POWER CONVERTER INTERNAL WIRING

Figure 1-2 PC 430-2E or PC 830-2E Power Converter Internal Wiring



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PC 430-2E/PC 830-2E
CURRENT DRIVEN POWER CONVERTER COMPONENT LOCATIONS

Figure 1-3 PC 430-2E or PC 830-2E Power Converter Component Locations