

SECTION 678-6

POWER DISTRIBUTION ASSEMBLY

678-6.1 PDA # 2:

678-6.1.1 Required Equipment:

The following equipment shall be provided with the power distribution assemblies:

- (a) 1 - Duplex NEMA 5-15R Controller Receptacle.
- (b) 2 - Duplex NEMA 5-15R Equipment Receptacle [one (1) with GFI].
- (c) 1 - One (1) pole 50 ampere minimum, 120 VAC Main Circuit Breaker.
- (d) 1 - Six (6) single pole circuit breakers, 15 amperes, with auxiliary switch feature, 120 VAC Signal Buss.
- (e) 1 - Two (2) pole ganged, 20 amperes, 120 VAC Flash Buss Circuit Breaker.
- (f) 1 - Mercury Contactor rated minimum 60 amperes, 120 VAC.
- (g) 2 - Model 204 Flasher Unit and Socket.
- (h) 1 - Model 206 Power Supply Module and Socket.
- (i) 1 - Model 430 Transfer Relay and Socket.
- (j) 1 - AUTO/FLASH Control Switch.
- (k) 1 - Flash ON Indicator Light.
- (l) 3 - Ten (10) Position TBK, T1, T2, and T4.
- (m) 1 - Four (4) Position TBK T3.

678-6.1.2 General Requirements:

- (a) Rating of breakers shall be shown on face of breaker or handle. Breaker function shall be labeled below breakers on front panel.
- (b) The first equipment receptacle in the circuit shall have ground-fault circuit interruption (GFI) as defined in the National Electrical Code. Circuit interruption shall occur on 6 ma of ground-fault current and shall not occur on less than 4 ma of ground-fault current.

- (c) The AUTO/FLASH Switch when placed in FLASH position (down), shall energize the Mercury Contactor (MC) Coil. When the switch is placed in the AUTO Position (up) the Switch Packs shall control the signal indications. The switch shall be a SPST Toggle Control Switch.
- (d) The FLASH Indicator Light labeled "Flash On" shall be mounted on PDA Front Panel. The lamp shall be driven by Flasher Unit/Output through the Signal Buss Circuit Breaker.
- (e) All conductors from the Power Distribution Assembly routed to the cabinet wiring shall be connected to the terminal block on the common side, except for the AC power conductor between the service terminal block and main circuit breaker. All internal conductors terminating at the blocks shall be connected to the other side of the blocks.
- (f) Ganged Circuit Breakers shall be certified by the circuit breaker manufacturer that their circuit breakers shall gang trip.
- (g) Signal Buss Circuit Breaker:
 - 1) Six (6) single pole 15 ampere circuit breakers with auxiliary switch feature and medium trip delay characteristic shall be provided.
 - 2) The six (6) breakers shall be wired and routed per the line diagram. The breaker auxiliary switch circuit shall be open when the breaker is in the ON position. The auxiliary circuits shall be wired in parallel so that any tripped breaker shall energize the Mercury Contactor Coil, Flash Transfer Relay Coils and the "FLASH ON" Indicator. The Auxiliary Contacts shall be rated at 5 amperes, 120 VAC minimum (fast on type connection).

678-6.2.2 Physical Characteristics:

- (a) The physical details of PDA #2 are shown in Figure 678-10. The front panel details of PDA #2 are shown in Figure 678-11 which is Detail A of Figure 678-10. The mounting details of the connector/stud are shown in Figure 678-12 which is Detail B of Figure 678-10.
- (b) The interconnection wiring of PDA #2 is illustrated in Figure 678-13.

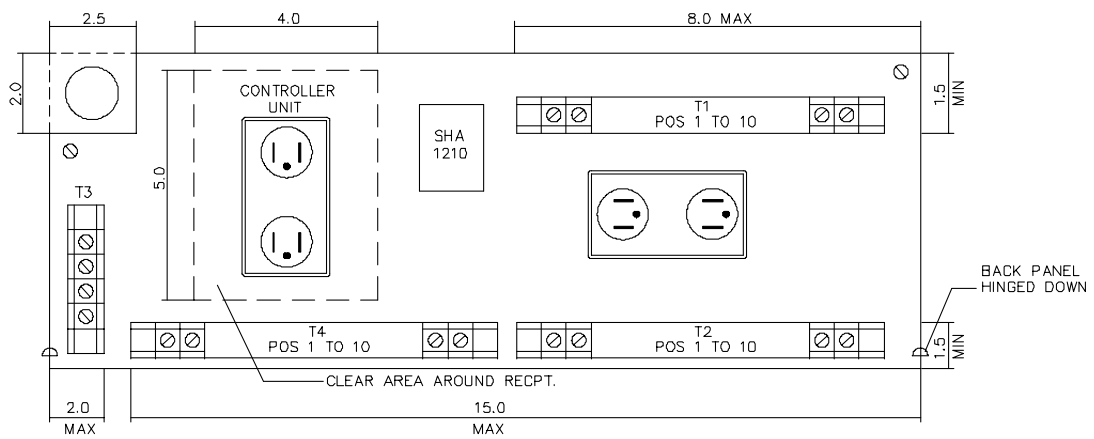
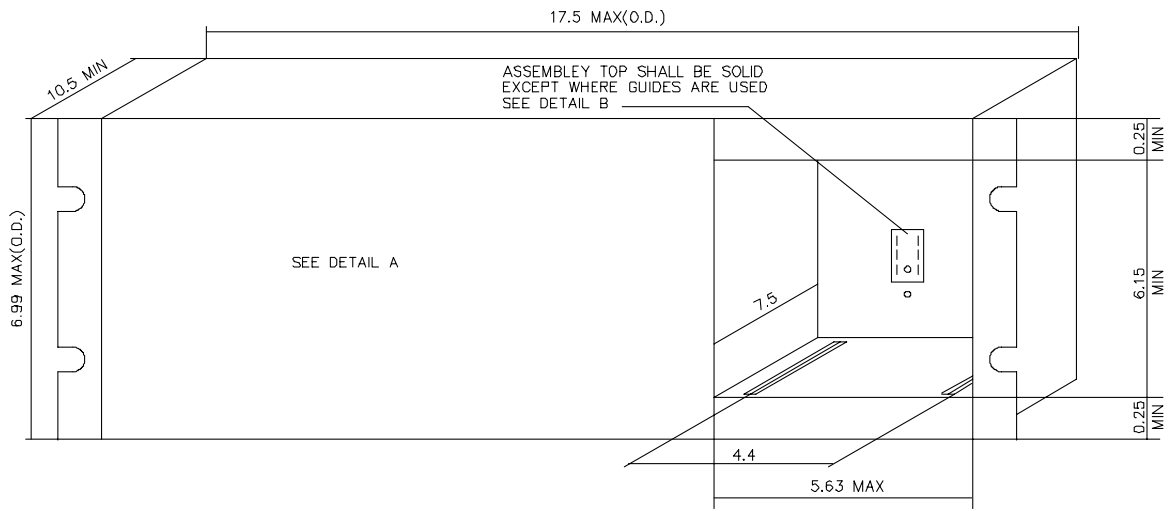


Figure 678-11: POWER DISTRIBUTION ASSEMBLY #2 PHYSICAL DETAILS

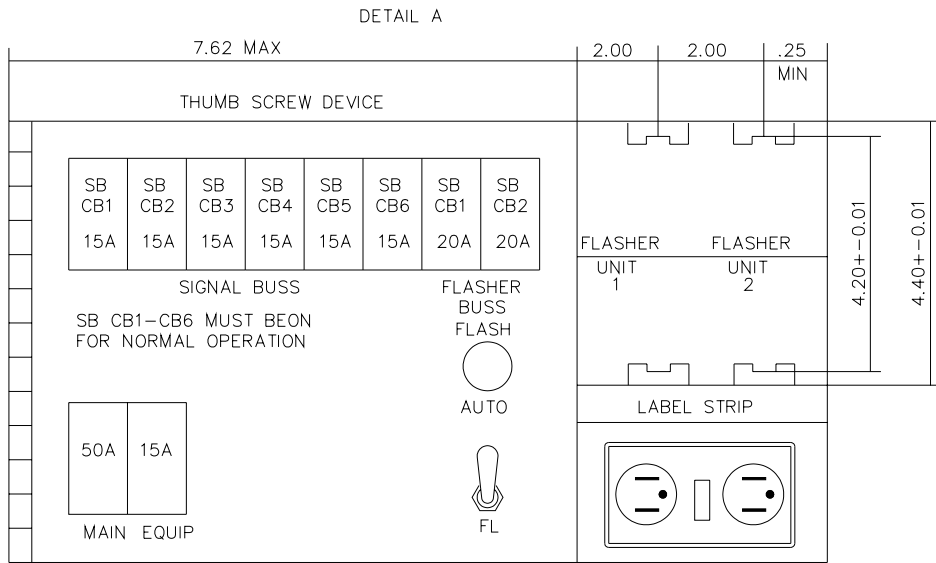


Figure 678-12: POWER DISTRIBUTION ASSEMBLY #2 FRONT PANEL DETAILS

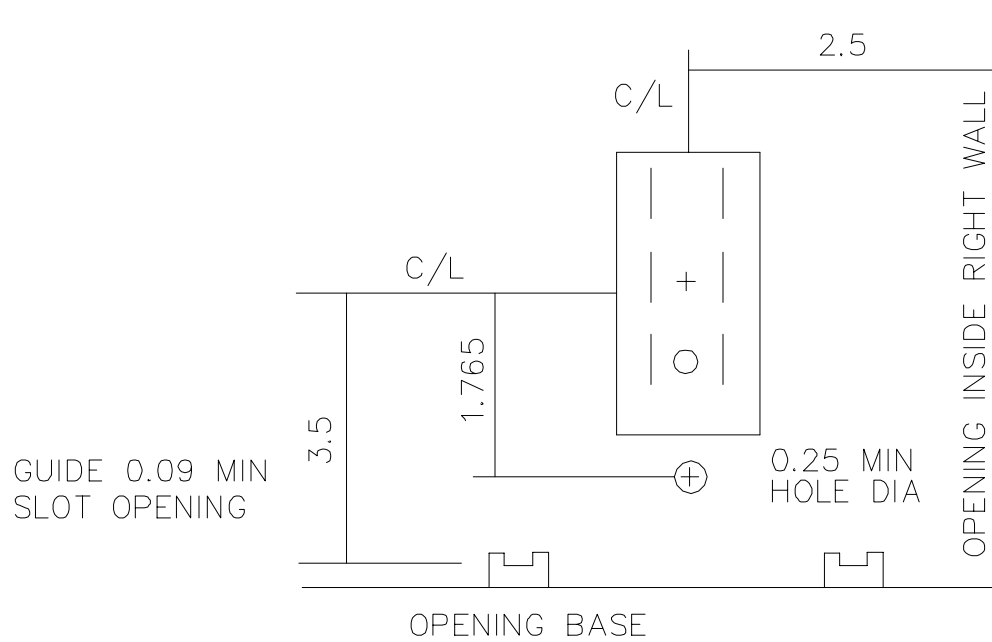


Figure 678-13: PDA #2 POWER SUPPLY CONNECTOR
STUD MOUNTING DETAIL

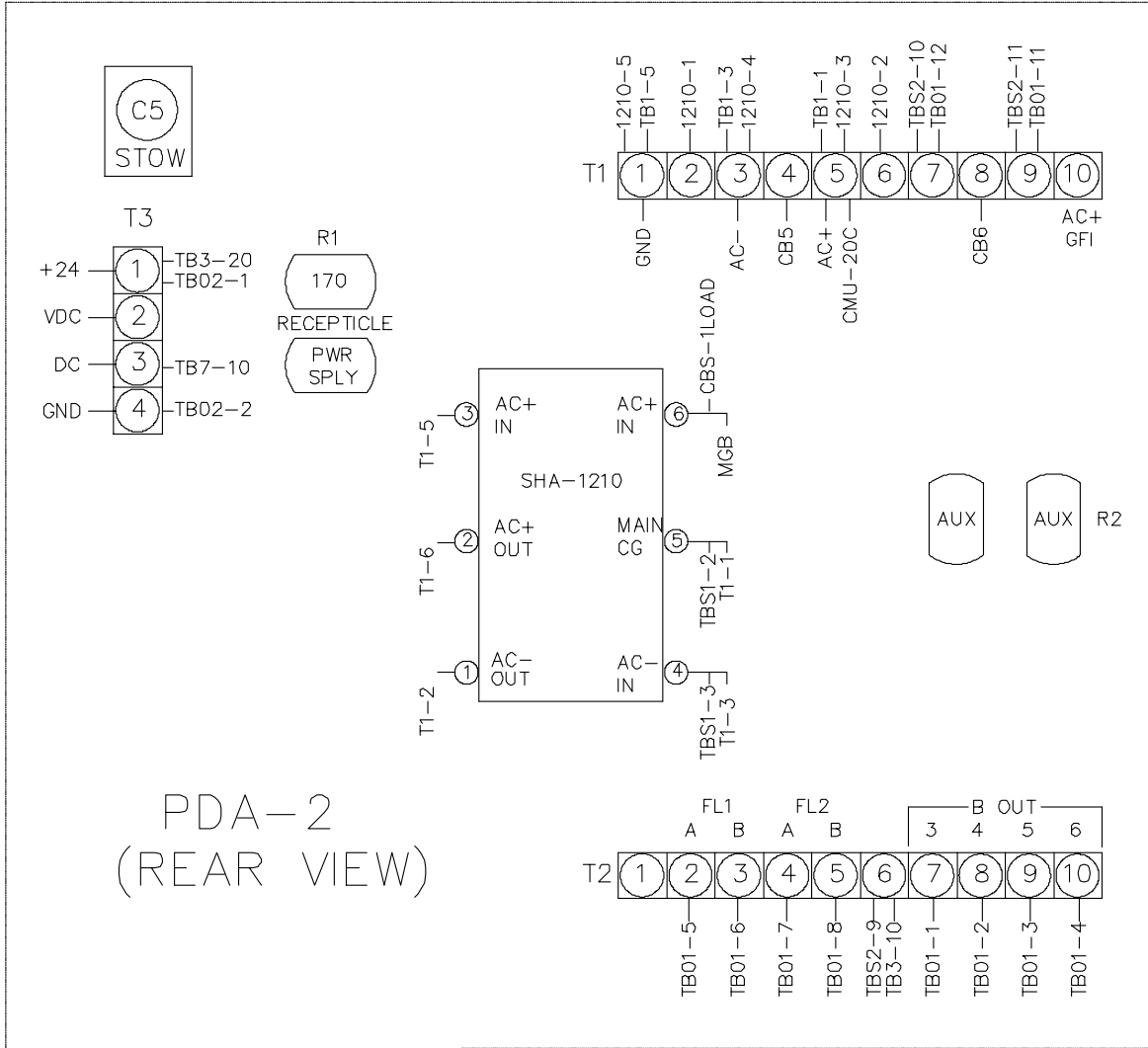


Figure 678-14: PDA #2 INTERCONNECTION WIRING