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AYK1 CIRCUIT PACK — 5SPQAAAAXX

DATA SHEET

SLC® SERIES 5 CARRIER SYSTEM — 60 AMP POWER PLANT

The AYK1 circuit pack (COMCODE 105560288) is a part of the 60A power plant. It is used in the *SLC* Series 5 Carrier System 80E remote terminal cabinet and other enclosures. The AYK1 plugs into a KS-21479,L25 connector assembly (designated J1) located on the backplane assembly of the ED-83114-30 control and distribution panel. Together, the AYK1 and AYK2 (see AT&T 363-005-225) circuit packs function as the control circuitry for the 25-Ampere, 48-Volt off-line switched mode rectifiers and battery strings in the 60A power plant. The 48-Volt power plant provides for a peak load capacity of 60 Amperes with an additional 20 Amperes required for battery recharge.

Figure 1 is a functional block diagram of the AYK1 circuit pack and Figure 2 shows the AYK1 mounted in an ED-83114-30 control and distribution panel.

Note: The AYK1 is equipped with three male connectors (J1 through J3) that will accommodate a maximum of three rectifier control cables. All external electrical connections, other than the rectifier control cables, are through the AYK1 plug-in (KS-21479,L25) connector assembly (designated J1).

A low voltage disconnect circuit disconnects the batteries from the load to protect the batteries from cell reversal. The low voltage disconnect circuit disconnects the batteries at 43.0 ±0.5 Volts as measured at the control panel and automatically reconnects the batteries when the charge bus reaches a voltage allowing stable operation.

LOW VOLT DISCONNECT (Yellow LED): When lighted, this LED indicates release of the low voltage disconnect contactor and provides an isolated contact closure as a minor alarm.

NORMAL (Green LED): When lighted, this LED indicates the absence of all plant alarms.

The RFA (rectifier failed alert) alarms from the rectifiers produce a minor alarm which provides an isolated contact closure. When the AYK1 circuit pack is removed from the control and distribution panel, the low voltage disconnect contactor is held in a connected position and an isolated contact closure is provided as a minor alarm. Front mounted circuit breakers provide the required circuit protection.

When mounted in the control and distribution panel, the LOW VOLT DISCONNECT and NORMAL LEDs are visible through holes in the front cover (Figure 2). Removal of the panel front cover allows access to the circuit breakers.

Technical assistance for the *SLC* Series 5 Carrier System can be obtained by calling the Regional Technical Assistance Center at **1-800-225-RTAC**. This telephone number is staffed 24 hours per day.

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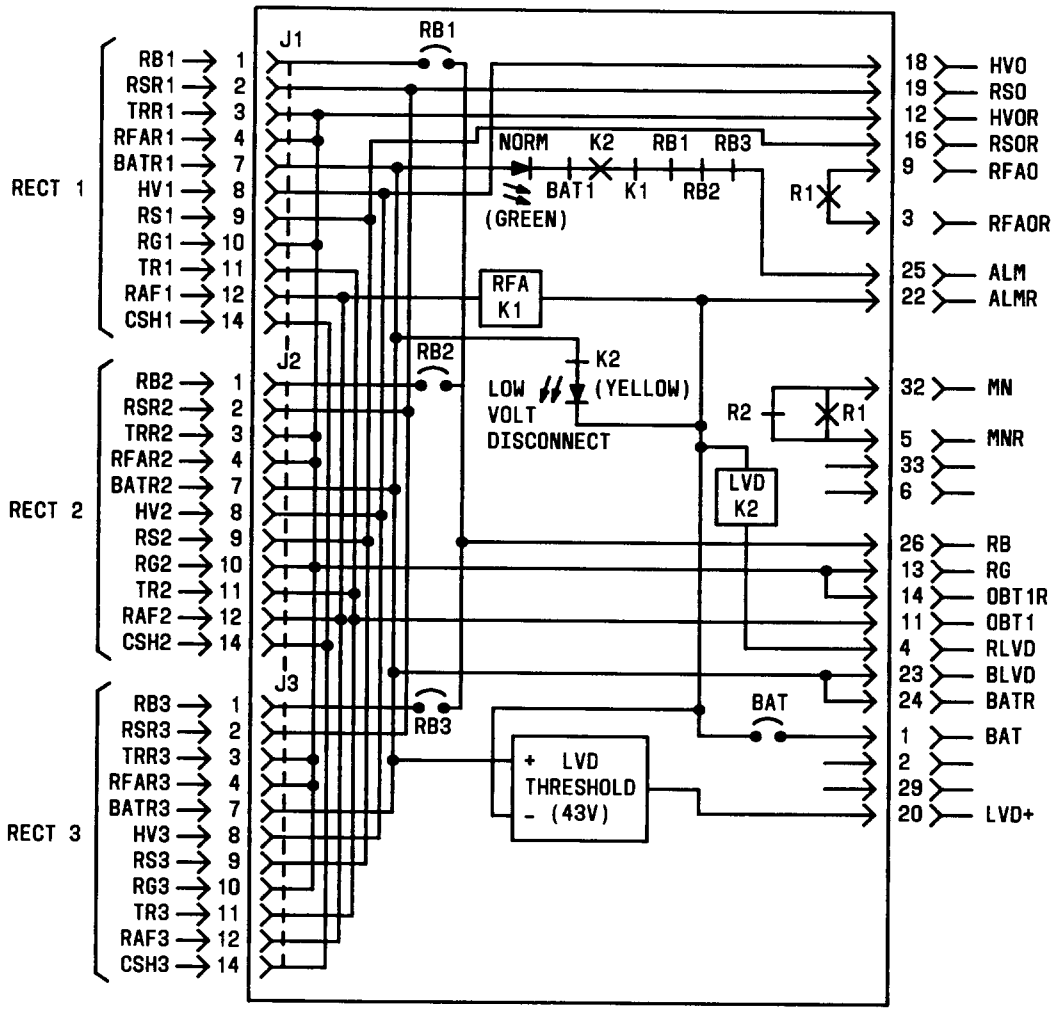
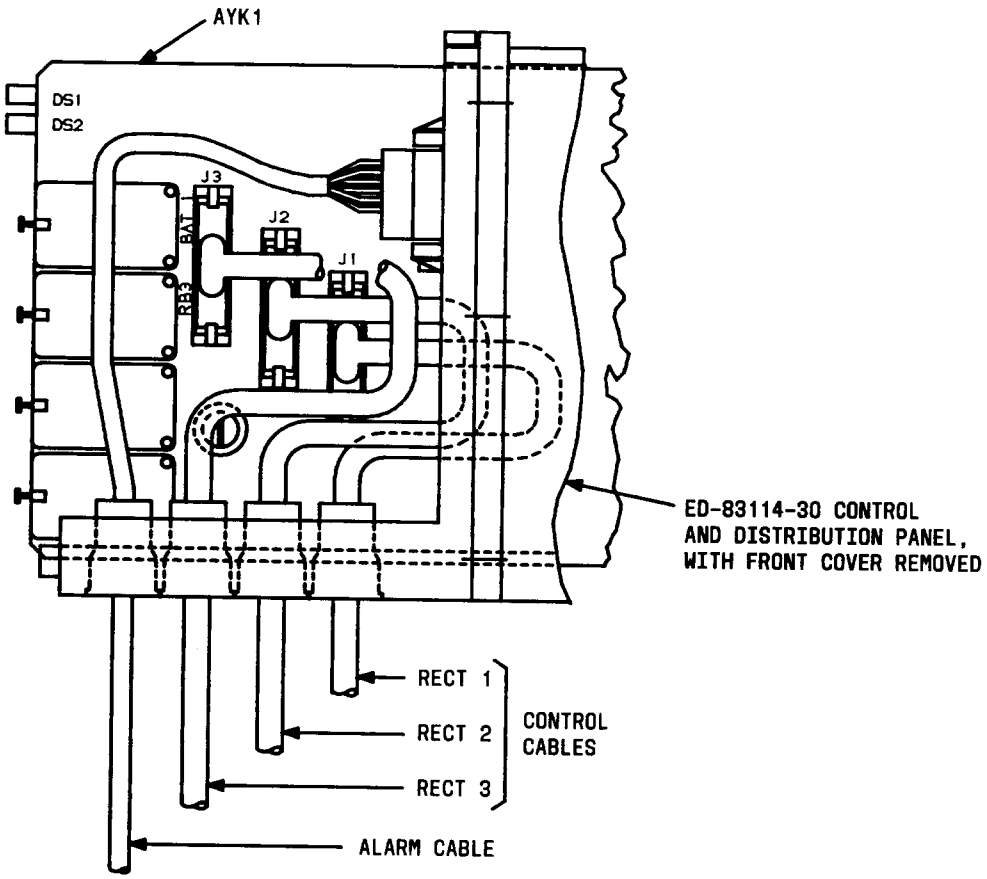


Figure 1—AYK1 block diagram



PARTIAL VIEW A-A

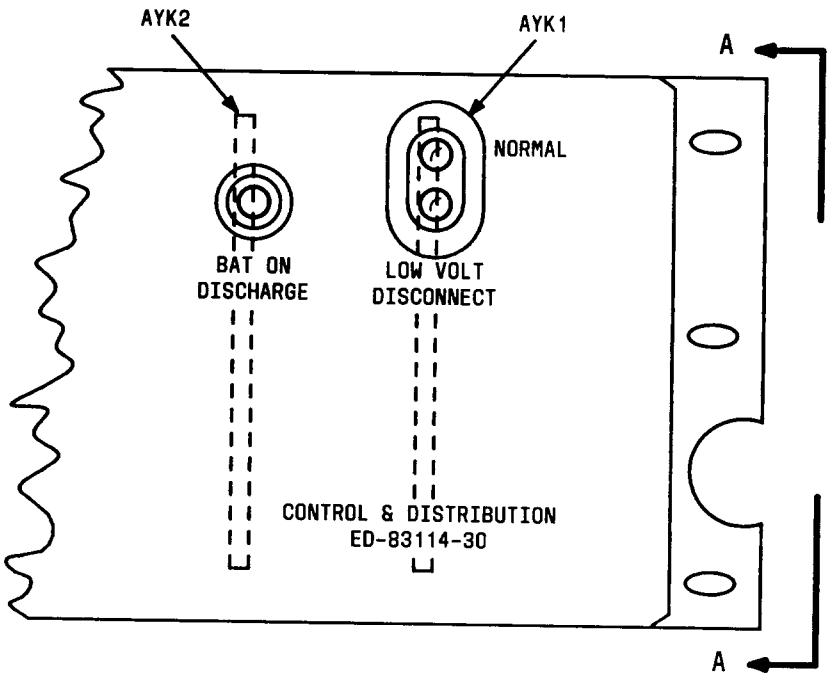


Figure 2—AYK1 as mounted in ED-83114-30 control and distribution panel, with front cover attached