

ASH1 POWER CONVERTER UNIT 5SCF150AXX

DATA SHEET

SLC[®] SERIES 5 CARRIER SYSTEM

The ASH1 PCU (power converter unit) (COMCODE 104432836) is used in the 900A1 DT (distant terminal) and provides battery charger, rectifier, dc-to-dc voltage conversions and ringing generator functions at the DT end of a SLC Series 5 carrier system featuring Fiber-To-The-Home.

This practice has been issued to make minor editorial corrections.

Figures 1 and 2 are functional block diagrams of the ASH1 PCU mother and daughter boards, respectively, and Figure 3 shows the faceplate.

The rectifier circuitry in the ASH1 PCU accepts 17.6 Vac from the line transformer unit and converts it to a nominal 12 Vdc (9 - 25 Vdc) at a maximum power of 25 watts (with all four POTS lines ringing). This rectifier output voltage is used by the battery charger circuitry to supply from 15 Vdc (at 32°F) to 13.8 Vdc (at 140°F) to the 12 V battery at the DT. Output voltage from the rectifier is also fed to the daughter board where it is converted to +110 Vdc, -150 Vdc, -37 Vdc, and ± 5 Vdc. The +110 Vdc,

-150 Vdc, and ± 5 Vdc outputs are required by the ringing generator circuitry on the ASH1 PCU. The ringing generator circuitry produces a 75 Vrms, 20-Hz sine wave (frequency locked to the 1.544 MHz data rate) with -20 Vdc offset which is capable of driving a maximum of 10 REN (ringer equivalency number) ringers.

The circuitry on the daughter board also generates the phase-locked-loop sawtooth waveform and reference voltage.

Faceplate jacks are provided on the ASH1 PCU for access to the battery voltage (BAT), ringing voltage (-20HZ), ground (GND), and the outputs of each dc-to-dc converter (+5, -5, -37, and GND).

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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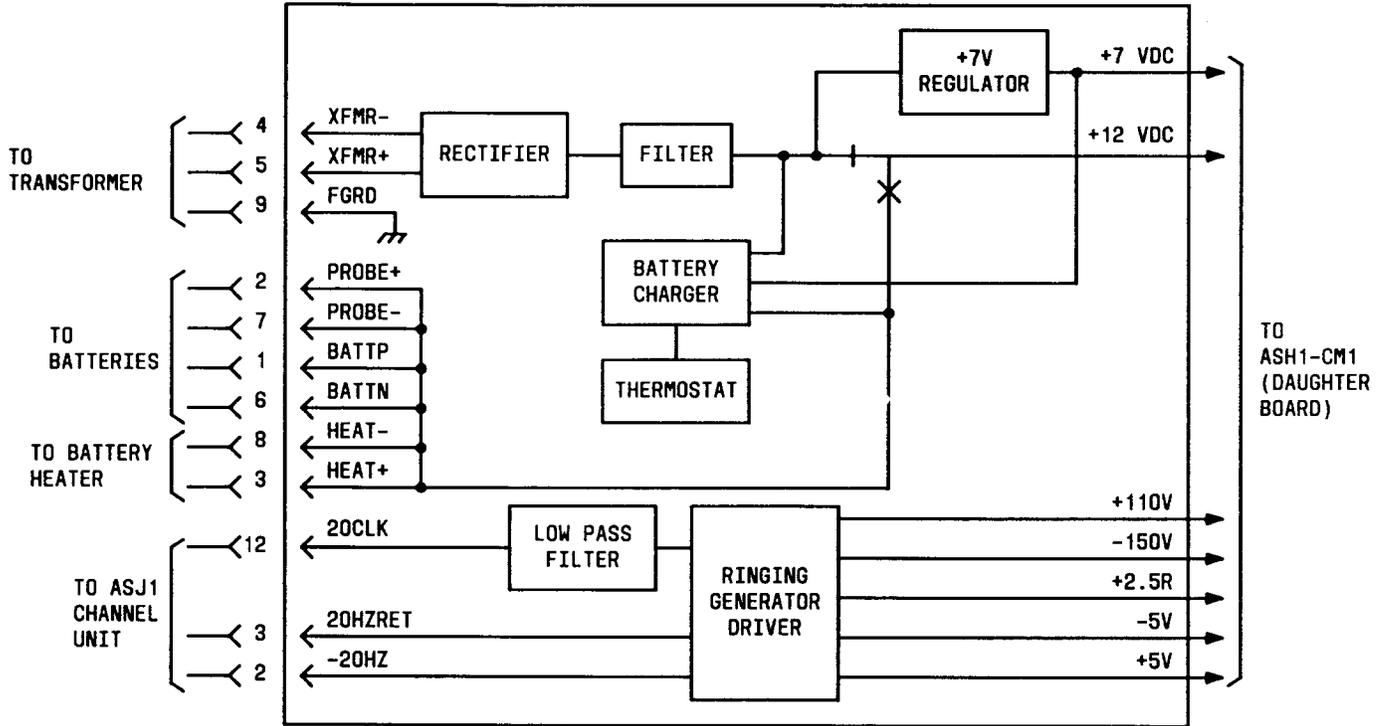


Figure 1—ASH1 PCU Block Diagram (Mother Board)

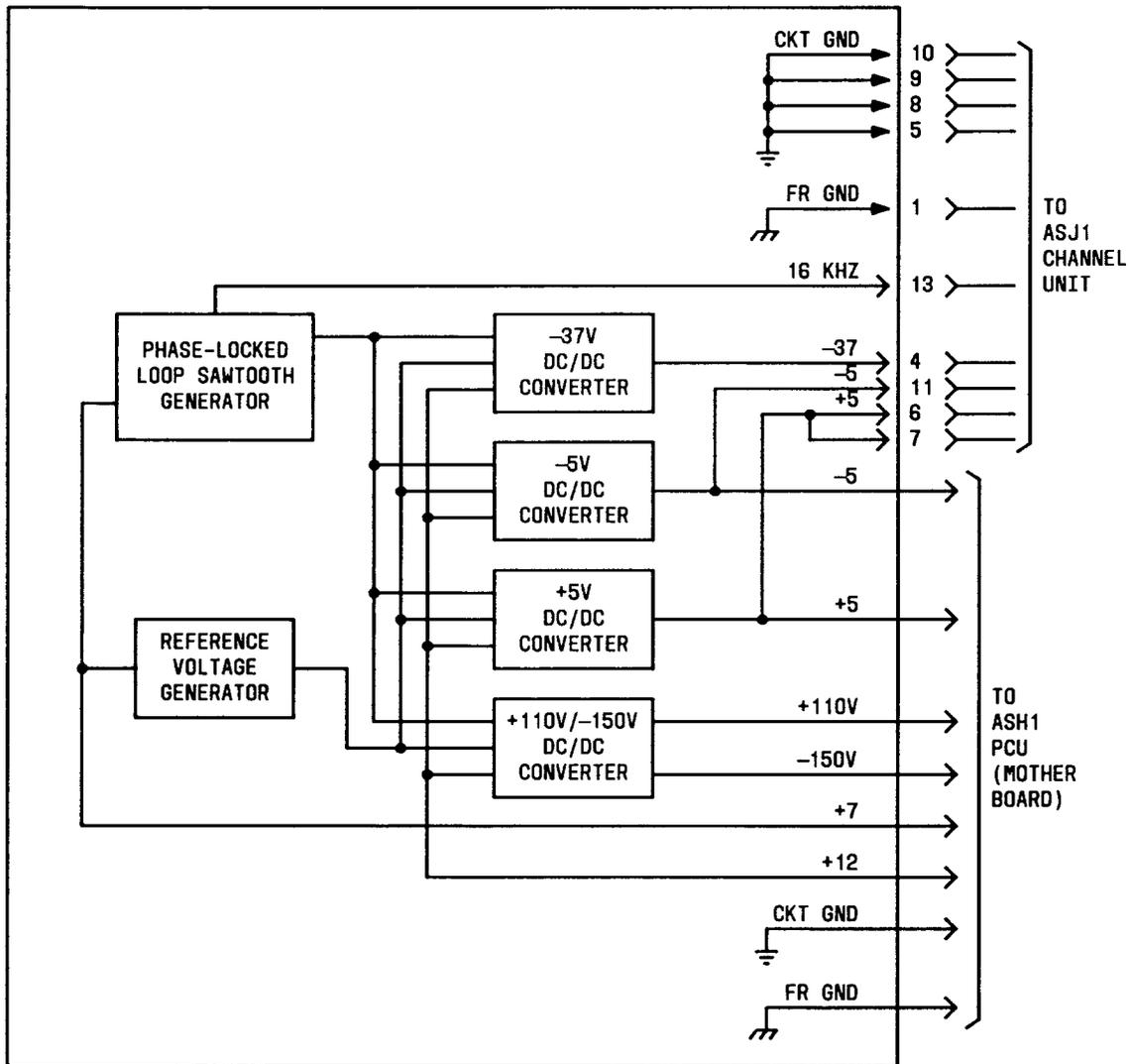


Figure 2—ASH1 PCU Block Diagram (Daughter Board)

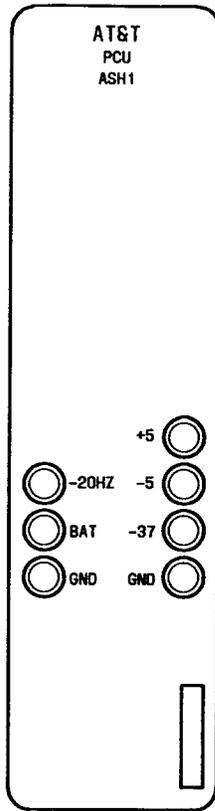


Figure 3—ASH1 PCU Faceplate