

AHG34 RECEIVE UNIT (RU2)

DATA SHEET

D4 CHANNEL BANK

DESCRIPTION

The D4 channel bank receive unit is a common equipment plug-in unit that performs the following functions for a single digroup:

- Decodes the 24 channel pulse code modulation (PCM) signal into a pulse amplitude modulation (PAM) signal
- Demultiplexes the robbed-bit signaling information in the incoming DS1 signal for recovery of per-channel signaling
- Provides timing, signaling, and PAM signals to the channel units and dataport units
- Provides signals and controls for maintenance and alarm functions.

When this data sheet is reissued, the reason(s) for reissue will be listed in this paragraph.

This data sheet introduces the new AHG34 RU2 receive unit. The RU2 receive unit and the earlier receive units perform the functions listed above. In addition, the J98726AB-5, L6 and the AHG34 receive units have a more robust framing capability for data applications. They synchronize on both the terminal frame (F_t) and signaling frame (F_s) bits in a superframe (SF) pattern of an incoming DS1 signal, whereas the earlier units synchronize only on the F_t bits. When used in conjunction with an AHG35 or AHG37 line interface unit (LIU), the RU2 receive unit provides an extended superframe (ESF) capability that prevents false yellow alarm conditions that may be caused by data traffic containing an SF yellow alarm code. This ESF capability supports 64 kb/s clear channel data applications.

The RU2 receive unit is backward compatible with all D4 and digital carrier trunk (DCT) applications. For application information when using the RU2 in conjunction with the AHG35 LIU-3E2 or the AHG37 LIU-3E3, refer to AT&T 365-170-609 or 365-170-610, respectively.

The COMCODE and *CLEI** codes assigned to AHG34 RU2 are as follows:

- COMCODE -- 104391479
- *CLEI* -- D4TRA70HAA.

FEATURES

The RU2 receive unit maintenance features are provided through a lamp and two pin-jacks on the faceplate (Figure 1).

Faceplate Lamp

A lighted red **RCV** lamp indicates an error condition when either a loss-of-frame or loss-of-clock condition occurs.

Pin-Jacks

R CODE: Inserting a pin-plug into the **R CODE** jack causes a precise 1.0 kHz, 0 dBm0 tone to be generated in each receive channel time slot. This is used to check the operation of the receive circuits and can be used to align the channel unit receive circuits. This function can operate simultaneously with the R SHIFT function.

R SHIFT: Inserting a pin-plug into the **R SHIFT** jack causes the receive channel count sequence to shift by 12 time slots (channel 1 shifts to channel 13, channel 2 shifts to channel 14, etc.). This function can be used to perform looped or end-to-end signaling tests on channel units and can operate simultaneously with the R CODE function.

POWER REQUIREMENTS

Total power required for the RU2 receive unit:

0.9 Watts — (0.25W from +5V, 0.35W from +12V, and 0.3W from -12V).

* COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Bell Communications Research, Inc.

REFERENCES

The following publications contain description, engineering, and maintenance information on the D4 channel bank.

PRACTICE	TITLE
365-170-000	D4 Channel Bank - (TOP)
365-170-100	D4 Channel Bank - Description
365-170-101	D4 Channel Bank - General Channel Unit Description
365-170-400	D4 Transmission Module User's Manual
365-170-609	AHG35 Line Interface Unit (LIU-3E2) - Data Sheet
365-170-610	AHG37 Line Interface Unit (LIU-3E3) - Data Sheet
801-505-155	D4 Channel Bank Equipment - for Use With Digital Transmission Systems - Equipment Design Requirements - Common Systems
855-351-103	D1, D2, D3, and D4 Digital Channel Banks and D5 Digital Terminal System - Application Engineering - Carrier Engineering
855-351-105	D4 Channel Bank - Channel Units - Application Engineering

DRAWING

DRAWING	TITLE
SD-3C304-02	D4 Channel Bank - Application Schematic
SD-3C316-01	Digital Carrier Trunk/Universal Trunk (DCT/UT) Frame Application Schematic

PRECAUTIONS

The AHG34 RU2 plug-in unit contains devices that are subject to damage or decreased reliability from static discharges. When handling the unit, proper antistatic measures should be taken. Refer to AT&T 365-170-100 for detailed information about the handling of the D4 channel bank circuit packs.

REGIONAL TECHNICAL ASSISTANCE

Technical assistance for the D4 channel bank can be obtained by calling the Regional Technical Assistance Center at **1-800-225-RTAC**. This telephone number is staffed 24 hours per day.

WARRANTY

The terms and conditions of sale will include a five year warranty.

ISSUING ORGANIZATION

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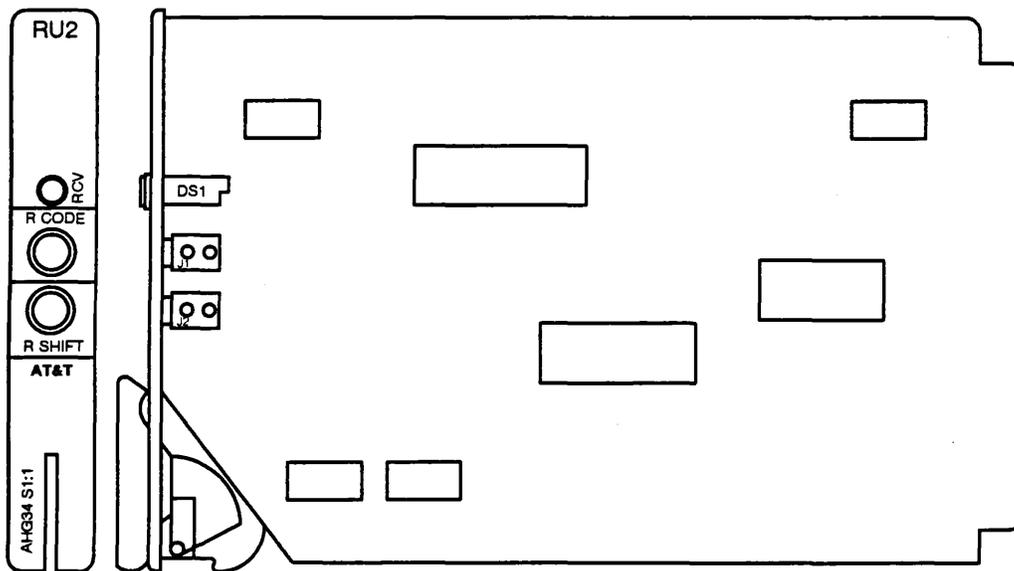


Figure 1—AHG34 RU2 Receive Unit