

# DIGITAL TRANSMISSION SYSTEMS

## D3 CHANNEL BANK PORTABLE BAY

### GENERAL DESCRIPTION

	CONTENTS	PAGE
1.	<b>GENERAL</b> . . . . .	1
2.	<b>DESCRIPTION</b> . . . . .	1
	<b>A. Cabinet</b> . . . . .	1
	<b>B. Cables</b> . . . . .	1
	<b>C. Power Considerations</b> . . . . .	1
3.	<b>DESIGN INTENT</b> . . . . .	1
4.	<b>BAY EQUIPMENT</b> . . . . .	2
5.	<b>ASSOCIATED DRAWINGS</b> . . . . .	2

*Weight*—Approximately 400 pounds

*Wheels*—Two fixed wheels and two swivel wheels are mounted on the base of the cabinet

*Doors*—Doors provided on the front and rear of the cabinet can be locked or removed as required.

*Note:* When the bay is operated with the rear door locked, a panel below the door can be removed for cable access.

#### 1. GENERAL

**1.01** This section provides a description of the D3 channel bank portable bay. Information concerning general D3 operation and common equipment is contained in Section 365-150-100. Channel units are described in Section 365-150-101.

**1.02** Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

#### 2. DESCRIPTION

**2.01** The D3 portable bay has the following characteristics (see Fig. 1):

##### A. Cabinet

*Dimension*—Base measures 27-3/8 inches by 37-1/2 inches and the height is 70-3/8 inches excluding four lifting eyes on the top of the cabinet

##### B. Cables

**2.02** Voice frequency (VF) and high frequency (HF) cables for the bay are connectorized on the bank end and have a quick-connect frame block on the other end. Both are available in 100-foot lengths and the VF cable is also available in a 50-foot length.

##### C. Power Considerations

**2.03** The portable bay has power units which allow complete operation from 117 volts ac, 60 Hz, at 15 amps. However, a terminal block is also provided for optional connection to office battery.

#### 3. DESIGN INTENT

**3.01** The portable D3 bank contains all equipment and connectorized cables required between the VF trunk circuits and the HF T1 line. (See Fig. 2.) It is therefore well suited for the following requirements:

*New service*—New T1 carrier lines can be placed in service more quickly and efficiently than those utilizing fixed bays and cable installation.

#### NOTICE

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**Service restoration**—The factory-wired and tested cabinets can be transported to a trouble area with a minimum of advance planning. The bay can be installed, checked, and operating in hours.

**Temporary service**—Bay portability ensures that temporary service can be provided whenever a T1 line is accessible—such as at convention sites, sports arenas, etc.

#### 4. BAY EQUIPMENT

**4.01** The portable D3 bay is designed to be equipped as shown in Fig. 1. Plug-in units (channel bank, hot spare and maintenance, and office repeaters) are not provided with the bay, but are ordered separately according to requirements. Installation and test procedures are provided in Section 365-150-501 for the D3 bank and Section 365-222-200 for office repeaters. Following is a list of equipment the bay can accommodate (see Fig. 1):

- (a) 20-Hz ringing generator (for foreign exchange service)
- (b) Line terminating unit which accepts office repeater equipment (Section 365-200-103)
- (c) Voice-frequency patch jacks (6-wire)
- (d) One D3 channel bank
- (e) Hot spare and maintenance panel
- (f) Panel mounting pad or equalizer (for D3 output)

- (g) Power distribution panel
- (h) A +130 volt and -130 volt rectifier (for powering the T1 line)
- (i) A -48 volt rectifier (for powering the bay equipment and T1 line)
- (j) Forced air blower (ac powered; prevents heat buildup in the bay).

**4.02** Bay equipment (and T1 line) is powered from dc voltage which is fused and routed from the power distribution panel. This voltage is obtained at the bay rectifiers from their conversion of the 117-volt ac line or from office battery. Terminal strips on the bay are provided for connection to office battery, office alarm, and remote alarm. The 130-, 178-, or 260-volt dc for powering a portion of the T1 line is controlled by the line powering auxiliary unit (SD-3C089, Issue 3B or later) which is mounted in the line terminating unit along with order-wire and fault-locate jacks. Options in the line terminating unit determine whether the local repeater is powered separately or in series with the line repeaters and whether power is supplied to or received from the lines.

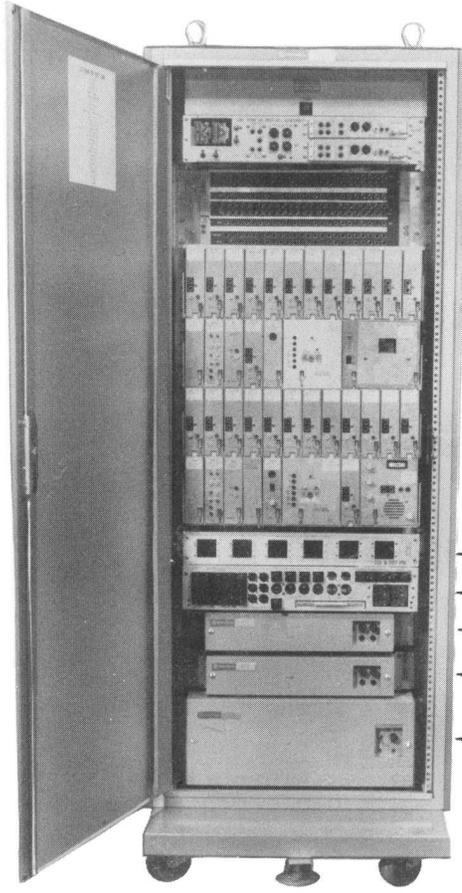
#### 5. ASSOCIATED DRAWINGS

**5.01** The following drawings (not attached) provide additional information concerning the portable D3 channel bank bay.

Schematic Drawing--NS-01290-01

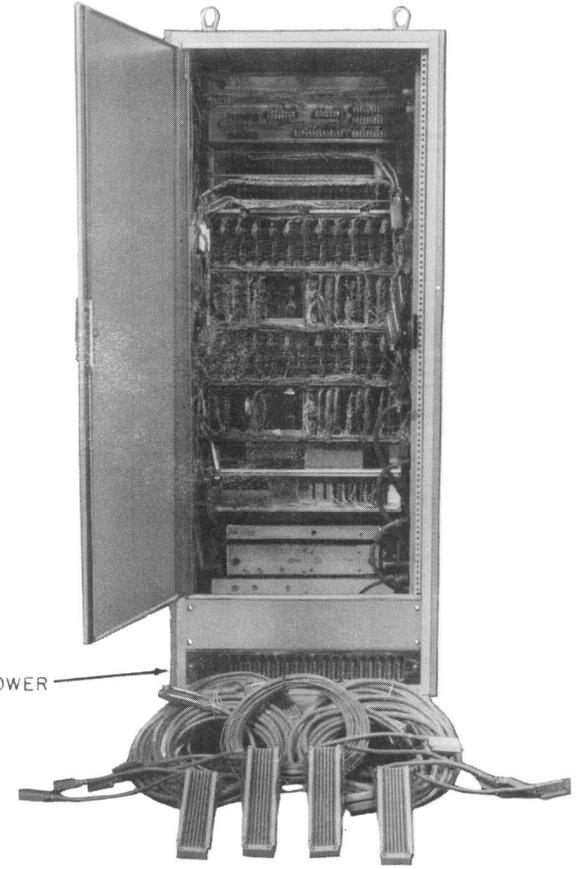
Equipment Drawing--NJ-01290A-1

Wiring Drawing--NT-01290-30



FRONT VIEW

- ← 20 HERTZ RING GEN
- ← LINE TERMINATING UNIT
- ← 6-WIRE VF JACK FIELD
- ← D3 CHANNEL BANK  
(24 VOICE CHANNELS)
- ← MAINT. AND HOT SPARE PANEL
- ← EQUALIZER PANEL
- ← POWER DISTRIBUTION PANEL
- ← +130V RECT
- ← -130V RECT
- ← -48V RECT



REAR VIEW

FORCED AIR BLOWER

Fig. 1—D3 Portable Bay

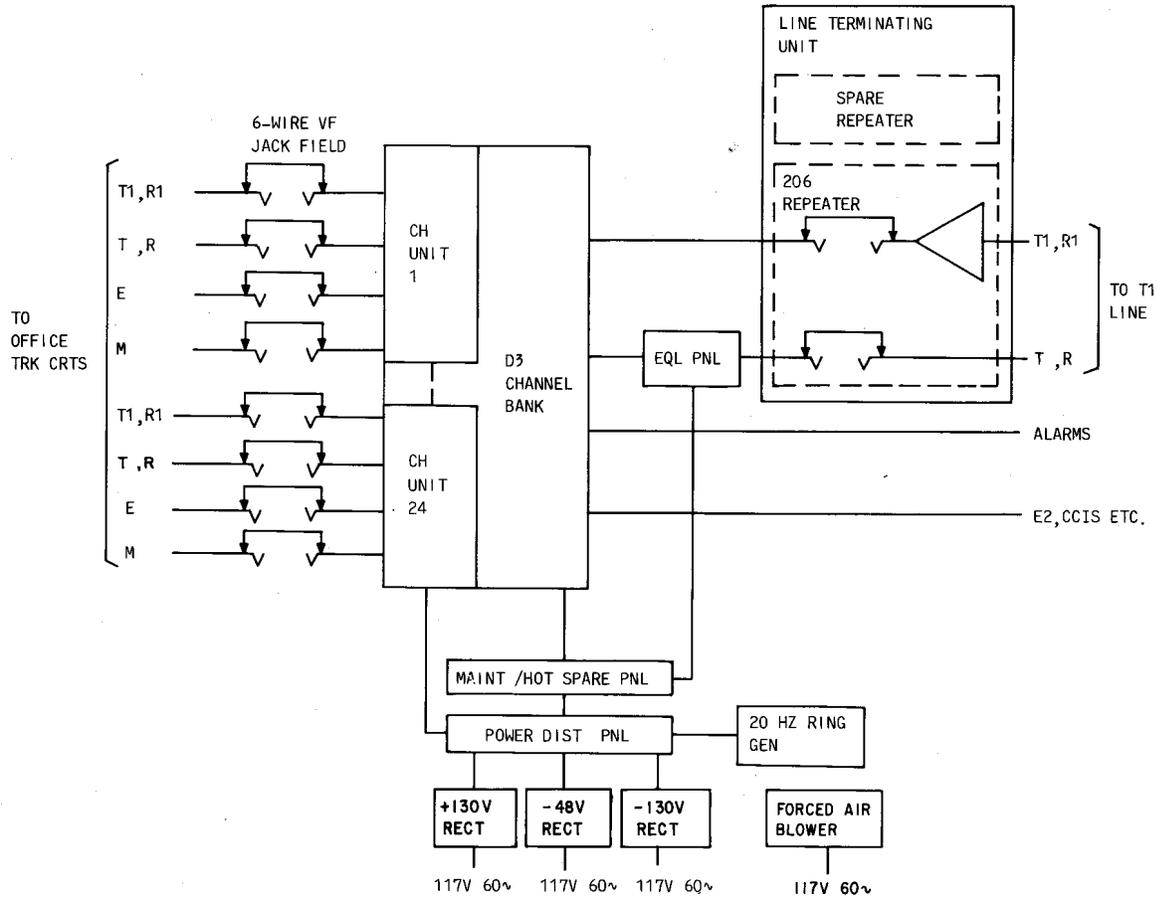


Fig. 2—D3 Portable Bay Block Diagram