

Instruction Manual



Demarcation Cabinet J Series Codec

071-0227-00

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Demarcation Cabinet for J-Series Codec

Introduction

The J-Series video codec is a primary component of Grass Valley's DS-3 network video transportation products. It provides an economical, signal-multiplexing capability which can combine high-quality video, audio, and data, and format it for transmission over standard DS-3 telecommunication links. The J-Series codec interfaces with DS-3, T1, RS-232, and RS-485.

The J-Series codec is an NTSC-compatible, composite video codec. A proprietary implementation of the JPEG compression scheme is used to deliver near-broadcast quality, full motion video at 30 frames per second.

The J-Series Codec Demarcation Cabinet is a metal interface box designed to house multiple J-Series codecs. The cabinet protects the equipment inside and prevents unauthorized access to the codec(s).

This document covers the following:

- [Physical Description on page 2](#)
- [Installation Instructions on page 11](#)
- [Functional Diagram on page 12](#)
- [Service Information on page 12](#)

This document is an addendum to the J-Series codec *Installation and Service* and *Operation* manuals. Please refer to the standard manuals for all operations and service information for the codec.

Physical Description

The J-Series Demarcation Cabinet (Demarcation Cabinet) is a cabinet that is mounted on a wall. The cabinet protects the equipment inside and prevents access to the codec(s) by unauthorized personnel. It can hold one 6 RU codec (J10) or up to three 2 RU codecs (J3).

The codec units are installed onto standard rack-mounting holes on the Demarcation Cabinet door's swing- frame assembly. A wire cable harness from an Interface Panel connects to the backplane of the codec(s) that mounts on the inside of the cabinet. The Interface Panel replaces any one of the four cover plates on the sides of the cabinet. See [Figure 1](#).

NOTE: Each Interface Panel has enough connections for one slot.

Hardware Specifications

The physical specifications of the J-Series Demarcation Cabinet are presented in [Table 1](#).

Table 1. Physical Specifications

Parameter	Value
Height	2.0 feet (68.9 cm) 12 RU total ^{†1}
Width	2.25 feet (68.58 cm)
Depth	1.5 feet (45.7 cm)
Weight	107 lbs. (48 kg)
Fan Assemblies	
Height	2.0 inches (5.0 cm)
Width	19.5 inches (49.5 cm)
Depth	5.5 inches (13.9 cm)
Weight	5.8 lbs. (2.6 kg)

^{†1}. Although the height of the cabinet allows for 12 RU, the cabinet is limited to one 6 RU codec or three 2 RU codecs.

Interface Design

The Demarcation Cabinet (see [Figure 1](#) for a regular view or [Figure 2](#) for an exploded view) is designed to suit a variety of needs and locations. The entire cabinet can also be turned either up or down so that the front door hinges from the right or left side.

You can mount the Interface Panel on the top or bottom of either the right or left side (four cutouts with coverplates are available to choose from).

Three smaller knockout panels on the top and on the bottom of the cabinet can be used for heat ventilation. Fans and finger guards are installed in the top knockouts and only finger guards are installed in the bottom ones. Both the top and bottom knockouts must be removed for the ventilation to work properly.

CAUTION

Finger guards MUST be installed in all knockouts removed for ventilation.

Four cutouts with coverplates are located on the sides of the Demarcation Cabinet, two on the right side and two on the left side of the cabinet, one above the other. These cutouts are for mounting the Interface Panel. Connections on the Interface Panel correspond to different input connectors on the J-Series codec. See [Figure 4](#) on [page 9](#) for a drawing of the Interface Panel.

NOTE: *No alarm connections are provided on the Interface Panel.*

Moving Interface Panels

The cabinet can be configured as left-hinged or right-hinged. [Figure 1](#) shows a right-hinged one. The Interface Panel is mounted one of the upper coverplate opening on the side with the hinge for a single 2 RU codec. For multiple 2 RU codecs, additional Interface Panels are mounted below the first one and then on the other side of the cabinet. For the 6 RU codec, from one to four openings are filled with Interface Panels.

To Move an Interface Panel:

1. Remove the coverplate from the new location on the side of the Demarcation Cabinet.
2. Remove the Interface Panel from the old location.

3. Mount the Interface Panel in the new location(from the inside of the Demarcation Cabinet).
4. Place the coverplate over the opening of the old location.

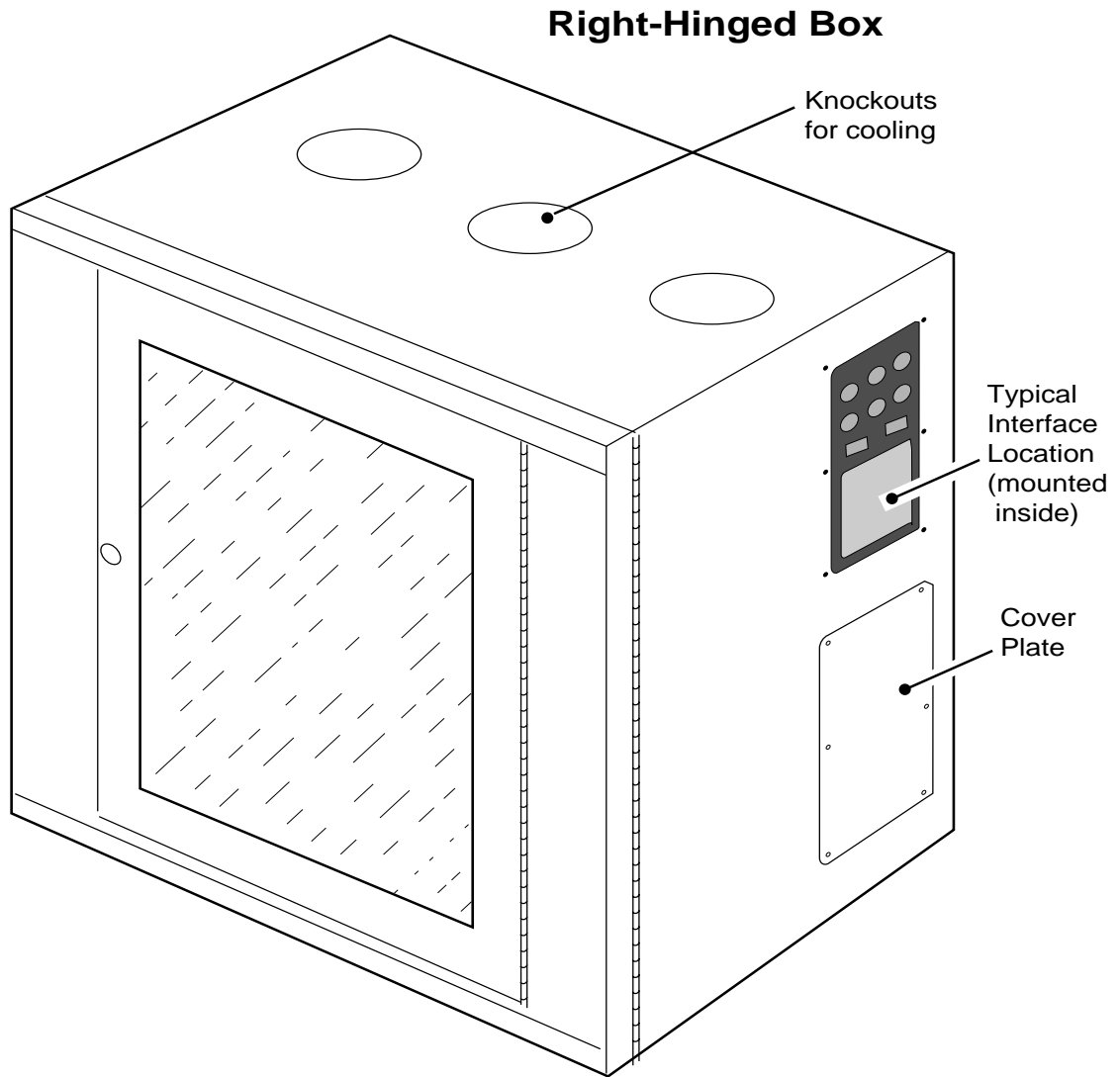


Figure 1. J-Series Codec Demarcation Right-Hinged Cabinet

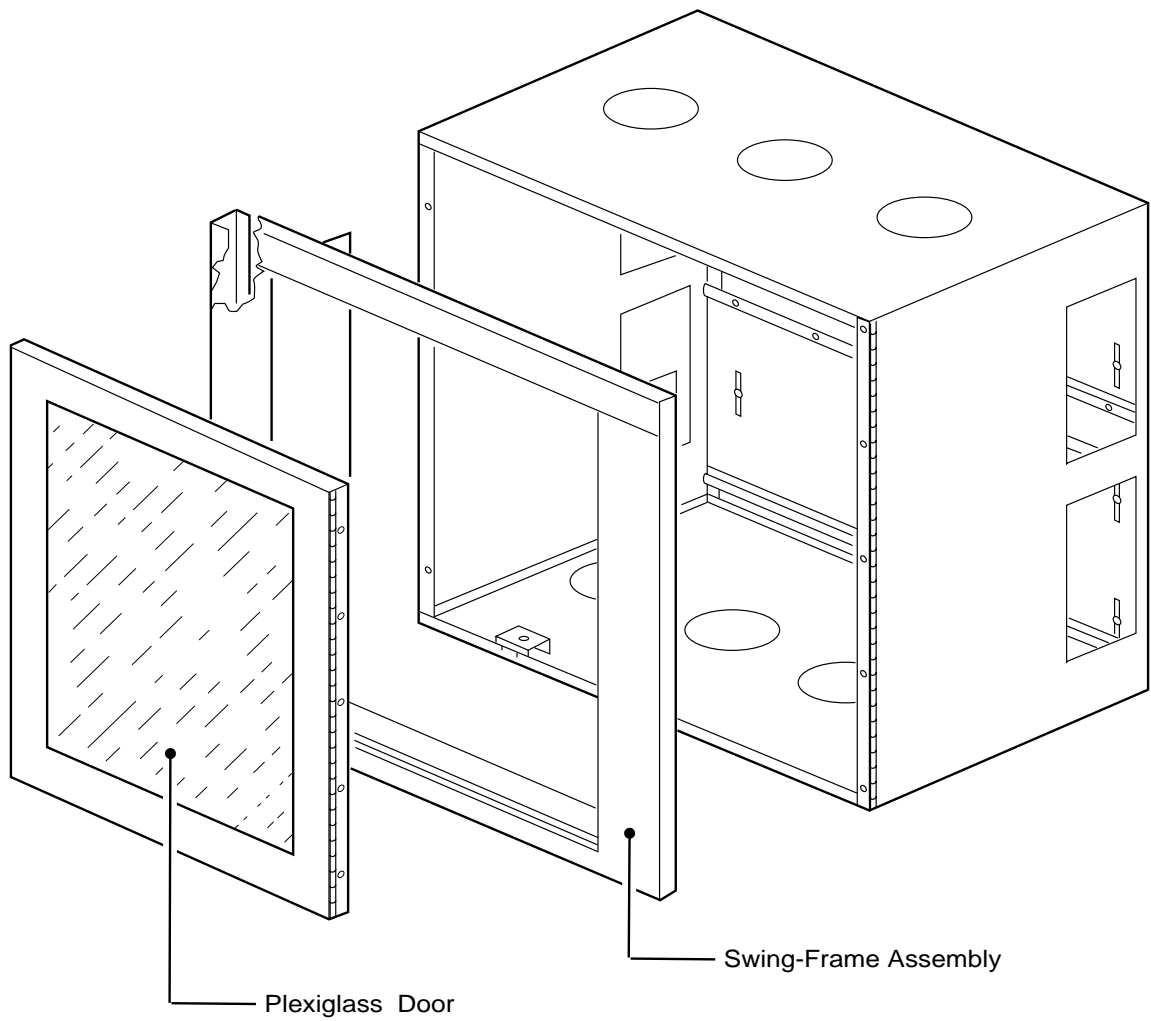


Figure 2. J-Series Codec Demarcation Cabinet — Exploded View

Interface Panels

Each Interface Panel (panel) can provide the connections for one codec MAD module and its submodules.

Each Interface Panel has the following external connections (see [Figure 4](#)):

- Video Connectors:
J10, J11, J12, and J13
- RS-232 Connectors:
J00 and J01
- T1 Connectors:
J16 and J17
- Audio Connectors:
J02, J03, J04, J05, J06, J07, J08, and J09

Each Interface Panel has the following internal connections :

- Video Connectors:
J10, J11, J12, and J13
- RS-232 Connectors:
J00 and J01
- T1 Connectors:
J18
- Audio Connectors:
J14 and J15

The front and the back of the panel is labelled with the J-numbers for each connector. Since the interface panel can be used for any slot in the codec backplane, the J numbers do **not** correspond to slot numbers.

Harness Cabling to the Interface Panel

[Table 2](#) is a mapping of J-Series codec backplane to the internal interface panel. The table shows codec slot zero connected to the interface panel. If a second codec slot is used, the same relationships are used. [Figure 3](#) shows the cabling relationship between the J-Series codec backplane to the internal interface panel.

Table 2. J-Series Codec/Internal Cable Interface

Cable Reference Designation	Slot			Type
	#1	#2	#3	
J00	J00	J10	J20	Data RS-232
J01	J01	J11	J21	Data RS-232
J10	J07	J17	J27	Video
J11	J08	J18	J28	Video
J12	J09	J19	J29	Video
J13	J010	J110	J210	Video
J14	J06	J16	J26	Audio
J15	J05	J15	J25	Audio
J18	J04	J14	J24	Data T1
J20	Reserved for future use			Option

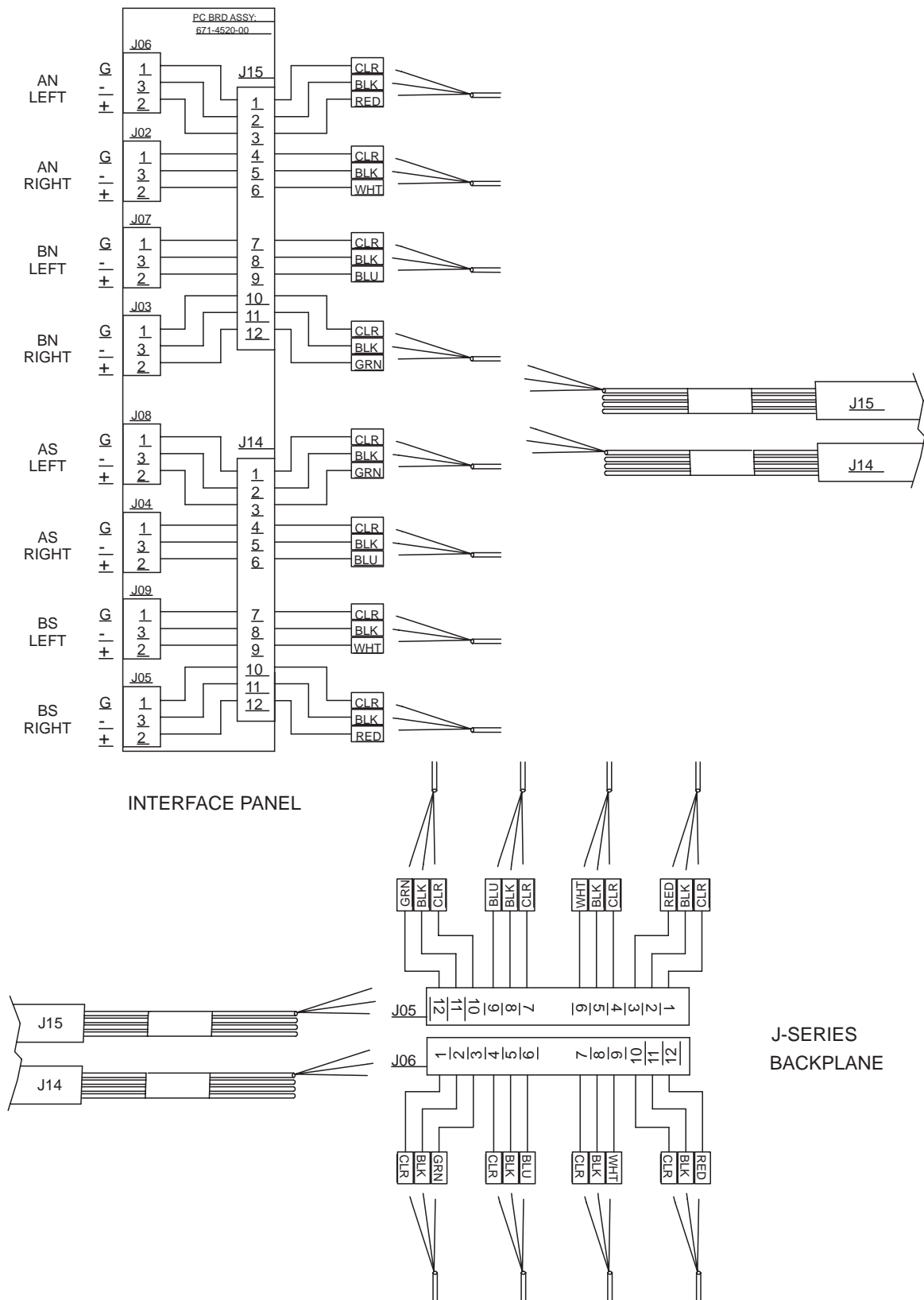


Figure 3. J-Series Codec/Audio Connections

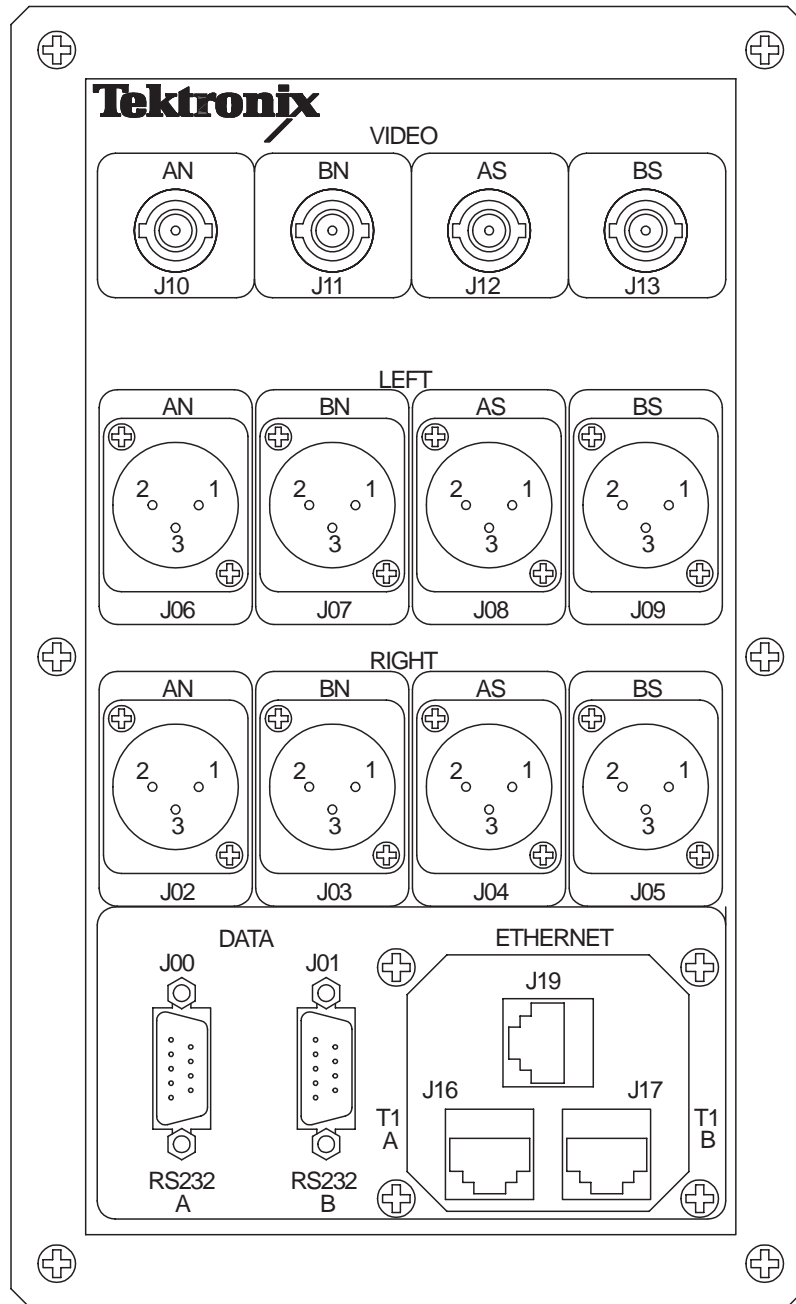


Figure 4. Interface Panel

If more than the two T1 connections are needed, order additional data panels as shown in [Figure 5](#).

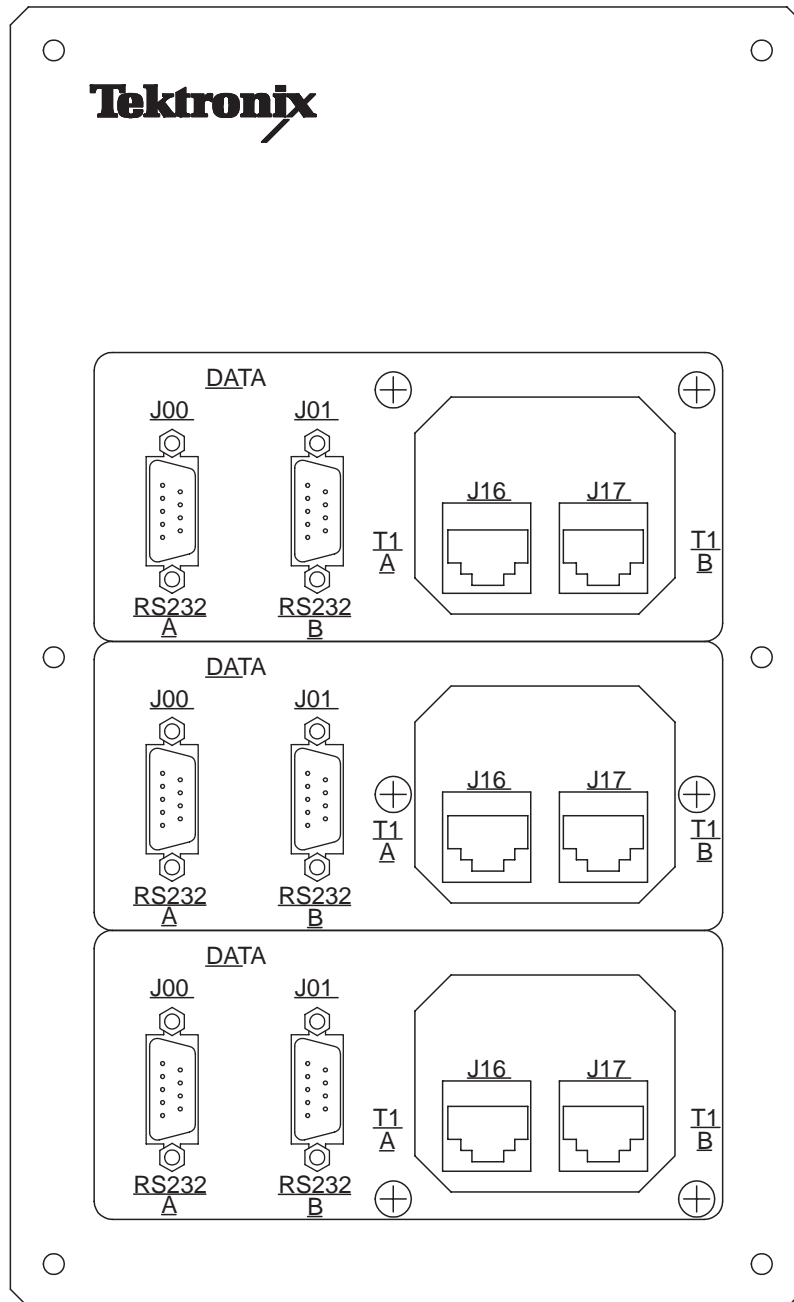


Figure 5. Data Interface Panel

Installation Instructions

Use the following steps when installing the J-Series codec Demarcation Cabinet:

1. Add any additional cutouts or holes that may be needed to bring in fiber or coax wiring and power cords.
2. Mount the Demarcation Cabinet on the wall. Mounting holes are at 16, 20, and 24 inch spacings.
3. Open the outer, plexiglass door (see [Figure 2](#)) and mount the codec frame. Standard mounting holes are located on the right and left sides of the enclosure.
4. Once the codec is mounted, loosen the two latch screws (one upper and one lower) which secure the swing-frame door assembly.
5. Open the swing-frame door assembly and connect the unconnected end of the wire cable harness from the Interface Panel to the backplane of the codec. *Connect only the cables corresponding to the customer's existing wiring.*

NOTE: Refer to [Table 2](#) for mapping of J-numbers. If a second J-Series slot is used, a second interface panel must be ordered.

6. Repeat Steps 1 through 5 for each 2 RU codec being installed into the Demarcation Cabinet.
7. Connect the AC power.
8. Each codec can be monitored through the plexiglass door to confirm that the unit is operational.

Functional Diagram

Please refer to your *J-Series Installation and Service* manual for all operations and maintenance information. Refer to [Figure 6](#) for the functional block diagram of the J-Series codec Demarcation Cabinet and J-Series codec.

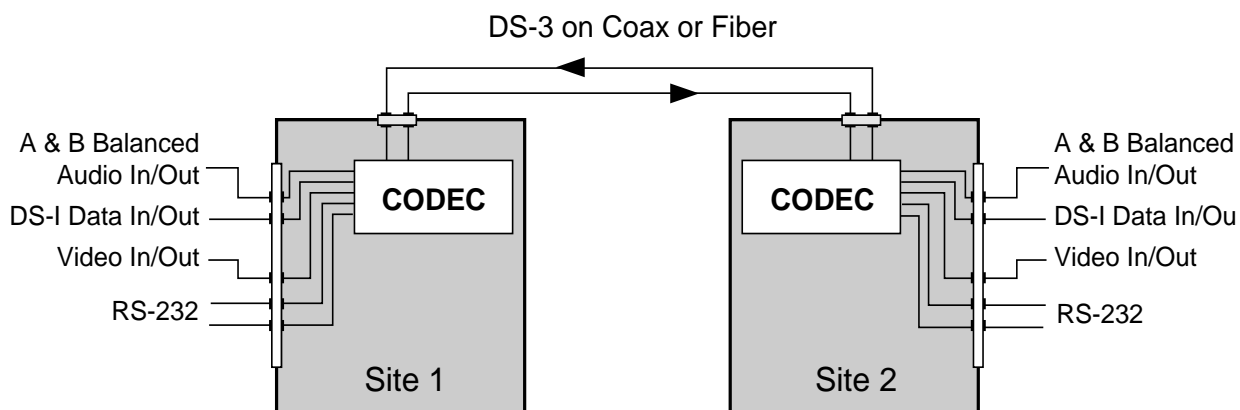


Figure 6. J-Series Codec Interface Block Diagram

Service Information

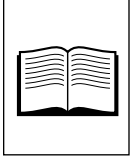
Replacement parts can be ordered. Use the information located on the back of the Title page to contact Customer Service. They will provide the current part numbers, part availability, and ordering directions.

Customer Service can also assist you in obtaining any service or repair information.

If possible, have the following information on hand when you call:

- Your sales order number
- Error messages caused by the problem
- Product manuals for easy reference

NOTE: *Keep your system running when you contact Customer Service. This makes it easier for our service representative to help you solve problems.*



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