Charles Telecommunications Group

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12-Channel (3657-85) and 6-Channel (3657-86) 2W FXS/DPO Unit for E1 Installation Guide

GENERAL DESCRIPTION

Document Purpose

This document provides installation information for the 12-Channel and 6-Channel 2-Wire (2W) Foreign Exchange Subscriber (FXS) and Dial Pulse Originating (DPO) Unit. This document covers model numbers 3657-85 and 3657-86.

Equipment Function

The 2-wire FXS/DPO unit is part of the 360-80 Intelligent Channel Bank (ICB), and is one of several types of channel units available for the 360-80 ICB.

Equipment Location/Mounting

The 3657-85 plugs into any full size slot of the Charles 360-80 ICB. The 3657-86 plugs into the half-size slot of the ICB. These units require an issue 3 or later ICB shelf.

Control Interface

This unit is managed through the craft port or the Network Management Software (NMS), which controls the provisioning of the unit and obtains status information from the unit. Provisioning is described in the Optioning section of this document. For operation, see the craft port or NMS documentation.

This unit will maintain its default provisioning until that provisioning is altered through the control interface. If this unit's provisioning is changed, it will maintain the new provisioning even if power is lost. If replaced with a new unit, the new unit will default to the same provisioning as was set for the prior unit. If this unit is installed in a location that was used by a different type of unit, this unit will use its own default provisioning.

INSPECTION

Inspect for Damages

Inspect the equipment thoroughly upon delivery. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company.

Equipment Identification

Charles equipment is identified by a model and issue number imprinted on the front panel or located elsewhere on the equipment. Each time a major engineering design change is made on the equipment, the issue number is advanced by 1 and imprinted on subsequent units manufactured. Therefore, be sure to include both the model number and its issue number when making inquiries about the equipment.

STATIC-SENSITIVE

To prevent electrostatic charges from damaging static-sensitive units:

Use approved static-preventive measures (such as static-conductive wrist straps and static-dissipative mats) at all times whenever touching units outside of their original, shipped, protective packaging.

Do not ship or store units near strong electrostatic, electromagnetic, or magnetic fields.

Always use the original static-protective packaging for shipping or storage.

INSTALLATION

Installing a New Unit

Step	Action
1.	If not already installed, install the rear panel, screwing it to the appropriate mounting locations on the shelf using the provided hardware.
2.	Insert the unit into the shelf, making sure that the unit is aligned with the card guides inside the shelf.
3.	Slide the unit fully in to the shelf. **CAUTION** **If there is already a rear panel installed on the shelf, check for interference. The rear panel may need to be removed and replaced with the rear panel shipped w/the new unit.**
4.	Once the unit is fully inserted, tighten the securing screw on the front panel.
5.	The unit will perform a self-test to ensure that it is compatible with the network management software on the system.
6.	Wire the unit per the wiring information in the wiring section.
7.	After the self-test is performed, check the software provisioning of the card using either the craft interface on the front of the controller unit or the network management interface on the rear of the controller.

Installing a Replacement Unit

If you are replacing a unit that is already in service, insure that the unit is the same as the unit being replaced.

Step	Action
1.	Remove the wiring connectors from the front and rear of the unit.
2.	Unscrew the front panel securing screw to release the unit from the shelf.
3.	Using the card ejector, remove the unit from the shelf.
4.	Follow the procedure for installing a new unit.

Attaching the Rear Panel

The rear panel of the 3658-85 should be installed before all units are installed in the shelf, and before wiring begins. The 3658-86 does not require a new rear panel.

Wiring the Unit

When the unit is installed in a Charles Industries ICB, it makes electrical connection to other cards through a prewired backplane provided as part of the ICB.

For the six channel unit (3658-86), the first six circuits are used on the Telco connector (see Table 1). Both the 12-channel unit (3657-85) and 6-channel unit (3657-86) have specific tip and ring functionality based on channel optioning. It is important that the tip and ring polarity be maintained when connecting with the far-end equipment.

Table 1. Pin Chart for Male 50 pin (25 pair) TELCO Connector

	Circuit	Pins	
3657-85 / 3657-86	1	1 = R	26 = T
		2 = Not connected	27 = Not connected
	2	3 = R	28 = T
		4 = Not connected	29 = Not connected
	3	5 = R	30 = T
		6 = Not connected	31 = Not connected
	4	7 = R	32 = T
		8 = Not connected	33 = Not connected
	5	9 = R	34 = T
		10 = Not connected	35 = Not connected
	6	11 = R	36 = T
		12 = Not connected	37 = Not connected
3657-85	7	13 = R	38 = T
		14 = Not connected	39 = Not connected
	8	15 = R	40 = T
		16 = Not connected	41 = Not connected
	9	17 = R	42 = T
		18 = Not connected	43 = Not connected
	10	19 = R	44 = T
		20 = Not connected	45 = Not connected
	11	21 = R	46 = T
		22 = Not connected	47 = Not connected
	12	23 = R	48 = T
		24 = Not connected	49 = Not connected

PROVISIONING

Option	Choices	Default
Per channel timeslot used	1–15, 17–31, none	Channel 1–15 = timeslot 1–15, Channel 16–30 = timeslot 17–31
Per channel operating mode	FXS, MEGA-COM, DPO	FXS
Per channel FXS mode	loop start, ground start	loop start
Per channel MEGA-COM mode	immediate, wink	Immediate
Per channel transmit level setting	–10 to +6 dBm in 0.1 dB increments	0 dBm
Per channel receive level setting	–15 to +1.0 dBm in 0.1 dB increments	–3 dBm
Per channel loopback	Active, Release	Release
Per channel CGAI action	Idle, Busy	Idle
Per channel CGAD action	Idle, Busy	Busy
Per channel impedance	600 or 900 ohms	600

TECHNICAL ASSISTANCE

If technical assistance is required, contact Charles Technical Service Center at:

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