Charles Telecommunications Group

Section 365-880-803 Equipment Issue 3
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12-Channel (3658-80) and 6-Channel (3658-81) 2-Wire FXO/DPT Unit for T1 Installation Guide

GENERAL DESCRIPTION

Document Purpose

This document provides installation information for the 12-channel and 6-channel 2-Wire Foreign Exchange Office/Dial Pulse Terminating (FXO/DPT) unit. This document covers model numbers 3658-80 and 3658-81.

Equipment Function

The FXO/DPT is one of several types of channel units available for the 360-80 ICB. Each of the circuits on the FXO/DPT can be independently configured as a two wire FXO, in either the loop start or ground start mode, or as a two wire dial pulse terminating (DPT) unit in a one-way trunk application. This unit must be used with a T1 controller unit.

Equipment Location/Mounting

The 12-Channel unit (3658-80) plugs into any full size slot of the 360-80 ICB. The 6-Channel unit (3658-81) plugs into the half-size slot on the ICB.

Note: The 6-Channel unit (3658-81) must be used in an Issue 2 or later ICB shelf.

Control Interface

The unit is managed through the craft port or the Network Management Software (NMS) that 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.

The unit will maintain its default provisioning until that provisioning is altered through the control interface. If the 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 the unit is installed in a location that was used by a different type of unit, the 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 into 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 with the new unit.**
4.	Once the unit is fully inserted, tighten the securing screw on the front panel. The unit will perform a self-test to ensure that it is compatible with the network management software on the system.
5.	Wire the unit based on the information in the section *Wiring the Unit* in this document.
6.	After the self-test is performed, check the software provisioning of the card using either the front panel 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, make sure 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 12-Channel unit (3658-80) should be installed before all units are installed in the shelf and before wiring begins. The 6-Channel unit (3658-81) does not require a new rear panel.

Wiring the Unit

When the unit is installed in a 360-80 ICB, it makes electrical connection to other cards through a prewired backplane provided as part of the ICB.

For the 6-channel unit (3558–81) the first 6 circuits are used on the Telco connector (see Table 1).

Both the 12-Channel unit (3658-80) and the 6-Channel unit (3658-81) have specific tip and ring lead functionality based on channel optioning. Tip and ring lead polarity must be maintained when connecting with far-end equipment.

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

	Circuit	Pins	
3658-80 / 3658-81	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
	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 forced busy	On, Off	Off
Per channel time-slot allocation	1–24, none	3658-80: timeslot = channel # 3658-81: None
Per channel operating mode	FXO, DPT	FXO
Per channel FXO mode	Loop start, Ground start	Loop start
Per channel DPT mode	Normal, Wink	Normal
Per channel transmit level setting	–10 to +6 dBm in 0.1 dB increments	0 dBm
Per channel receive level setting	–10 to +6 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 the Charles Technical Service Center at:

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