

5930 Lifeline POTS/ISDN Splitter Installation Instructions

Document Number 5930-A2-GZ40-00

May 2005

About the 5930 POTS/ISDN Splitters

The 5930 POTS/ISDN splitters separate the DSL (Digital Subscriber Line) and POTS (plain old telephone service) or ISDN (Integrated Services Digital Network) frequencies. The 5930 POTS/ISDN Splitter chassis holds from two to eight POTS/ISDN splitter cards, each of which supports 24 DSL subscriber lines:

- The 1U Model 5930-B1-048 supports 2 cards and 48 DSL subscriber lines
- The 3U Model 5930-B1-144 supports 6 cards and 144 DSL subscriber lines
- The 4U Model 5930-B1-192 supports 8 cards and 192 DSL subscriber lines

The 5930 series shelves provide lifeline POTS: whenever a card is removed from the shelf, POTS service is uninterrupted, ensuring that critical services like 911 remain available to the end user.

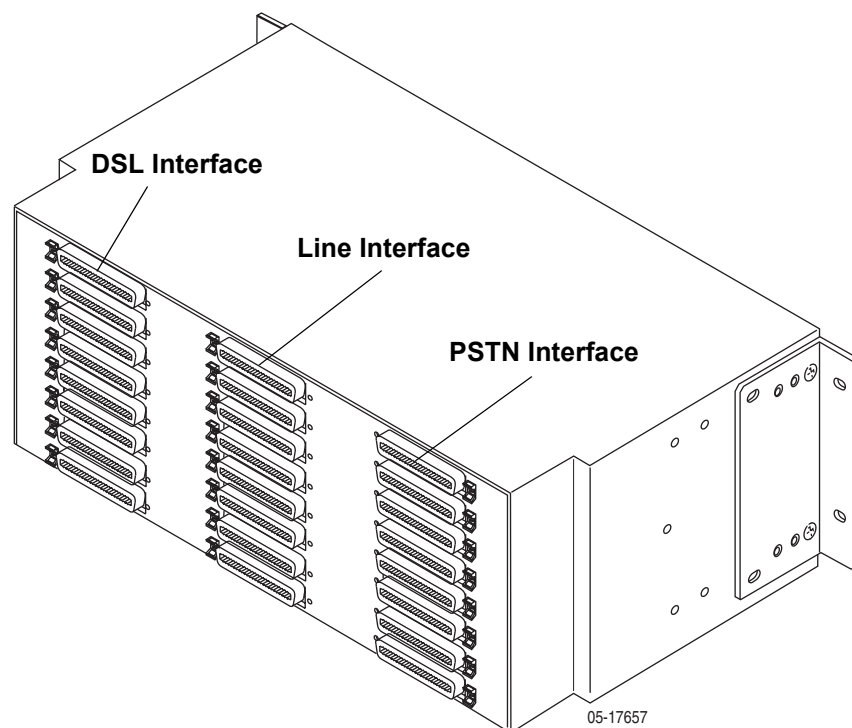


Figure 1. 5930-B1-192 Rear Connectors

With the emergence of ADSL2+ enhanced services like video, the POTS Splitter is a vital part of the network. The innovative design of the 5900 series addresses specific issues that affect video flow such as crosstalk and ring-trip problems. The 5900 Series is environmentally hardened to handle such locations as remote cabinets as well as Central Offices.

Product-Related Documents

Paradyne documents are available on the World Wide Web at www.paradyne.com. Select *Library* → *Technical Manuals*.

To order a paper copy of a Paradyne document, or to speak with a sales representative, please call 1-727-530-2000.

Installation Overview

Installation of the POTS splitter card requires the following steps:

- Determining the cables you need
- Preparing the installation location and checking the package contents
- Installing the POTS splitter chassis
- Installing splitter cards in the chassis
- Connecting the cabling from the POTS splitter card connectors to the BLC (Broadband Loop Carrier), local loop, and in-building wiring
- Securing the cables

Be sure to register your warranty at www.paradyne.com/warranty.

Cables You Need

Each of the POTS/ISDN splitter card interfaces in the 5930 chassis requires three 50-conductor cables with 50-pin Telco connectors. If every slot is populated and used, you require:

- 6 cables for the Model 5930-B1-048
- 18 cables for the Model 5930-B1-144
- 24 cables for the Model 5930-B1-192

Use a minimum of 24 AWG (0.205 mm²).

Preparation

HANDLING PRECAUTIONS FOR STATIC-SENSITIVE DEVICES



This product is designed to protect sensitive components from damage due to electrostatic discharge (ESD) during normal operation. When performing installation procedures, however, take proper static control precautions to prevent damage to equipment. If you are not sure of the proper static control precautions, contact your nearest sales or service representative.

The installation location should be well ventilated, clean, and free of environmental extremes. Allow clearance at the rear of the POTS splitter chassis to provide access to the cables.

Read the [Important Safety Instructions](#) on page 11.

Tools Required

- A large #3 or #4 Phillips screwdriver to install the chassis into a rack.
- A flat-blade screwdriver to fasten the front panel and the cable heads.

5930 POTS/ISDN Splitter Chassis Installation

The POTS/ISDN splitter chassis is shipped with mounting brackets that allows it to be mounted in a 19" (483 mm) or 23" (584 mm) cabinet or rack.

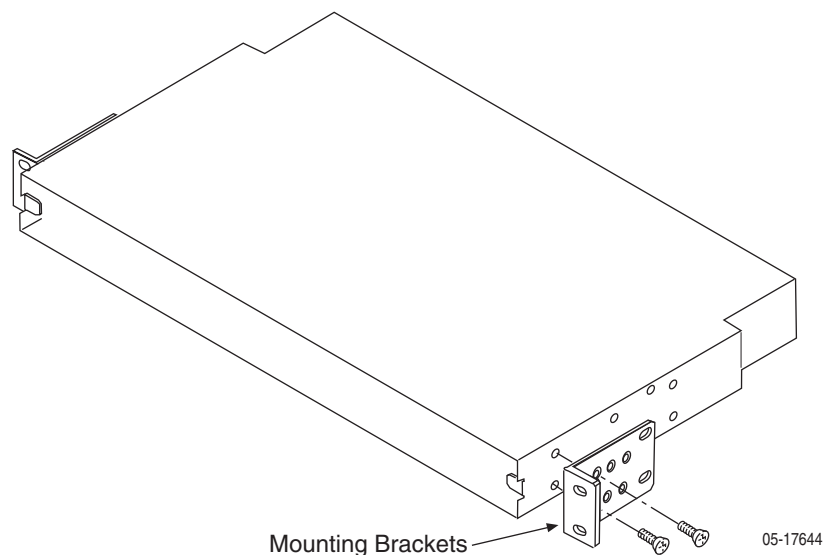


Figure 2. 5930-B1-048 Set Up for a 19-Inch Rack

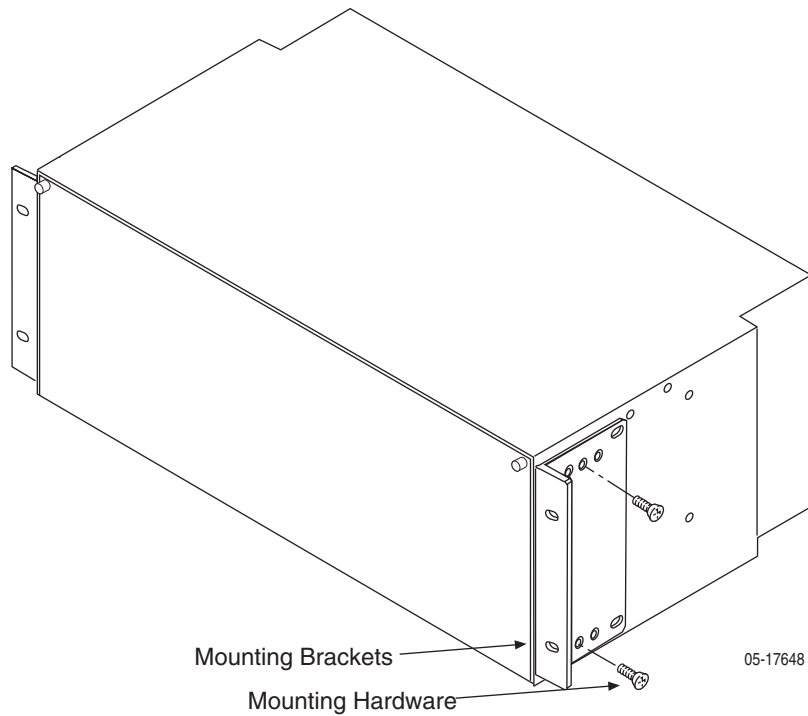


Figure 3. 5930-B1-192 Set Up for a 19-Inch Rack

In preparation for bracket and chassis installation, determine:

- Whether the equipment will be rack-mounted.
- Width of the rack: 19" (483 mm) or 23" (584 mm).
- Whether the rack has mounting rails with threaded or non-threaded screw holes.
- The number of POTS/ISDN splitter chassis required.

NOTES:

Install chassis in the rack from the bottom up to maintain stability.

If access to the back of the unit will be inconvenient when the chassis is mounted, connect the grounding wire before installing the chassis in the rack.

Installation into a Rack without Threaded Screw Holes

► Procedure

To install a chassis in a rack without threaded screw holes:

1. Install the mounting brackets appropriate for your rack.
2. Determine where the chassis will be placed in the rack. Mark the front rail where the four holes in the mounting brackets will be.
3. Slide a self-retaining nut onto each marked rail hole and align the hole of the nut with the hole in the rail.
4. Line up the chassis mounting brackets with the self-retaining nuts.
5. Holding the chassis in place, loosely install the bottom screws first and then the top screws.
6. Tighten all screws firmly using a Phillips screwdriver.

Repeat the process for each POTS/ISDN splitter chassis. POTS/ISDN splitter chassis can be mounted directly on top of each other.

Installation into a Rack with Threaded Screw Holes

► Procedure

To install a chassis in a rack with threaded screw holes:

1. Install the mounting brackets appropriate for your rack.
1. Determine where the chassis will be placed in the rack.
2. Line up the chassis mounting brackets with the front rail holes.
3. Holding the chassis in place, loosely install the bottom screws first and then the top screws.
4. Tighten all screws firmly with a Phillips screwdriver.

Repeat the process for each POTS/ISDN splitter chassis. POTS/ISDN splitter chassis can be mounted directly on top of each other.

Installing POTS/ISDN Splitter Cards in the Chassis

► Procedure

If POTS/ISDN splitter cards are not installed in the chassis:

1. Remove or open the front panel of the splitter chassis by loosening the two captive screws.
2. Open the plastic locking tabs of a splitter card by pulling them forward.
3. From the front of the chassis, slide the card into a free slot, taking care to keep the edges of the card in the grooves in the inner walls of the chassis.
4. Close the locking tabs so they are inside the chassis flanges on either side of the card and the card is fully seated in its connectors.
5. Repeat for all the cards you have to install.

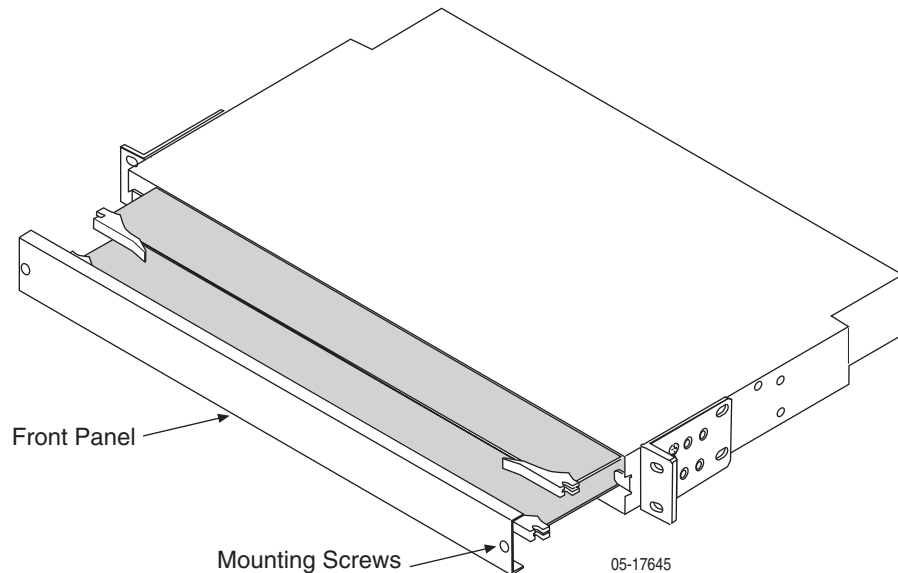


Figure 4. Installing a Card in a Model 5930-B1-048 Splitter Chassis

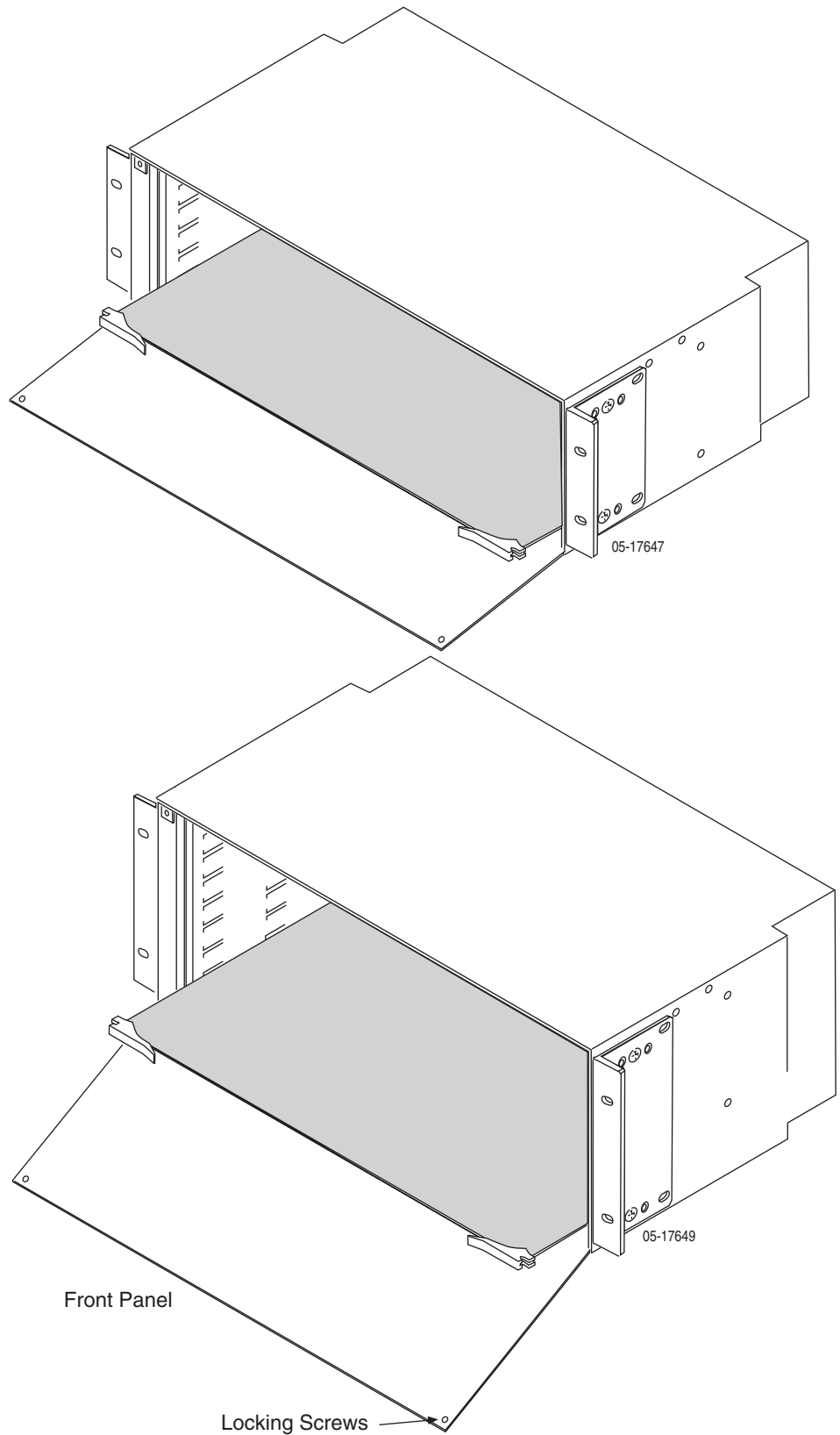


Figure 5. Installing Cards in Model 5930-B1-144 and 5930-B1-192 Splitter Chassis

Cabling

See [Cables You Need](#) on page 2 for information about POTS splitter cabling.

► Procedure

To cable the 5930 POTS/ISDN splitter:

1. For each card, connect the DSL interface to the DSL ports connector of your DSLAM or BLC.
2. For each card, connect the Line interface to the in-building POTS and ADSL CPE.
3. For each card, connect the PSTN interface to the PBX or PSTN.
4. Secure each cable head with a cable tie and a cable head screw
5. For each chassis, connect the grounding terminal on the back of the chassis to an earth ground. Use minimum 14 AWG wire.

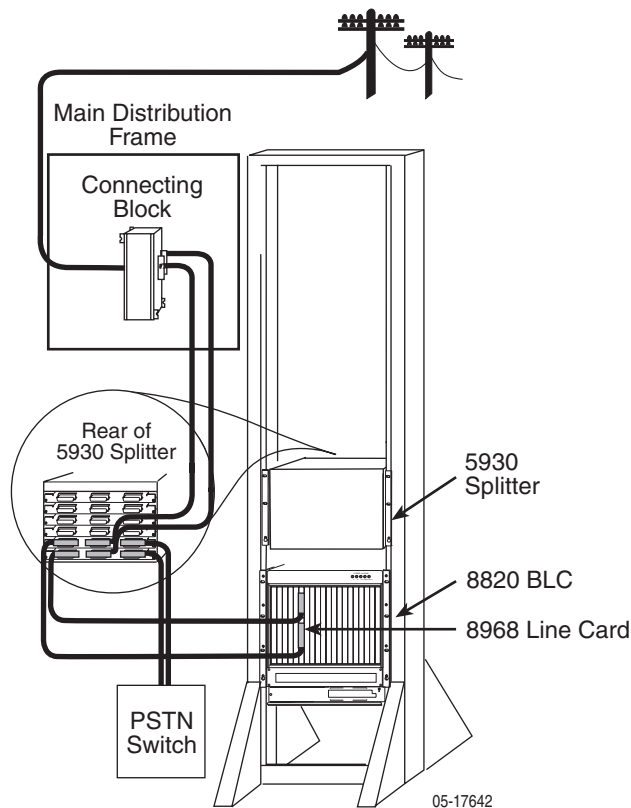


Figure 6. Typical Installation

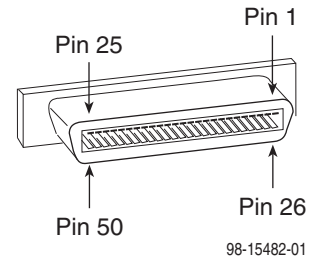
Your CPE modems may require in-line filters. Consult your modem documentation.

Connector Pin Numbers

Pin assignments are the same for all connectors on the back of the chassis.

50-Position Telco Connector

POTS Splitter #	Pin # Ring	Pin # Tip
1	1	26
2	2	27
3	3	28
4	4	29
5	5	30
6	6	31
7	7	32
8	8	33
9	9	34
10	10	35
11	11	36
12	12	37
13	13	38
14	14	39
15	15	40
16	16	41
17	17	42
18	18	43
19	19	44
20	20	45
21	21	46
22	22	47
23	23	48
24	24	49



Technical Specifications

Specification	Criteria
Available Cards	<ul style="list-style-type: none"> ■ 5930-B1-000 – 24-Port 900 Ohm Card No DC Blocking ■ 5930-B1-002 – 24-Port 900 Ohm Card No Signature Circuitry No DC Blocking ■ 5930-B1-004 – 24-Port 600 Ohm Card No Signature Circuitry No DC Blocking ■ 5930-B1-006 – 24-Port ADSL/ISDN 159 Ohm
Capacity 5930-B1-048 5930-B1-144 5930-B1-192	48 Subscriber Lines 144 Subscriber Lines 192 Subscriber Lines
Compliance	UL, CSA, FCC Part 68, CS 03, NEBS, GR 1089, CE
Height x Width x Depth 5930-B1-048 5930-B1-144 5930-B1-192	1.77" (1U) x 15.75" x 8.66" (45 mm x 400 mm x 220 mm) 5.24" (3U) x 15.75" x 8.66" (133 mm x 400 mm x 220 mm) 7.01" (4U) x 15.75" x 8.66" (178 mm x 400 mm x 220 mm)
Physical Environment Operating temperature Shock and vibration	–40° C to 70° C (–40° F to 158° F) Withstands normal shipping and handling
Weight 5930-B1-048 5930-B1-144 5930-B1-192	7.9 lb (3.6 kg) 17.0 lb (7.7 kg) 20.1 lb (9.1 kg)

▲ Important Safety Instructions

1. Read and follow all warning notices and instructions marked on the product and included in this manual.
2. Use a Listed/Certified minimum 24 AWG (0.205 mm²) wire for connection to the interface connectors.
3. This equipment is to be connected behind the telephone line primary protector.
4. Do not attempt to install or service this product yourself, as opening or removing covers may expose you to dangerous high-voltage points or other risks. Refer all installation and servicing to qualified service personnel.
5. When installed in the final configuration, the product must comply with the applicable Safety Standards and regulatory requirements of the country in which it is installed. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.
6. In addition, since the equipment is to be used with telecommunications circuits, take the following precautions:
 - Never install telephone wiring during a lightning storm.
 - Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
 - Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
 - Use caution when installing or modifying telephone lines.
 - Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
 - Do not use the telephone to report a gas leak in the vicinity of the leak.

CE Marking

When the product is marked with the CE mark, this demonstrates full compliance with the following European Directives:

- **Directive 72/72/33C** – Council Directive of 19 February 1973 on the harmonization of the laws of the member states relating to electrical equipment designed for use within certain voltage limits, as amended by Directive 93/68EEC.

Warranty, Sales, Service, and Training Information

Contact your local sales representative, service representative, or distributor directly for any help needed. For additional information concerning warranty, sales, service, repair, installation, documentation, training, distributor locations, or Paradyne worldwide office locations, use one of the following methods:

- **Internet:** Visit the Paradyne World Wide Web site at www.paradyne.com. (Be sure to register your warranty at www.paradyne.com/warranty.)
- **Telephone:** Call our automated system to receive current information by fax or to speak with a company representative.
 - Within the U.S.A., call 1-800-870-2221
 - Outside the U.S.A., call 1-727-530-2340

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5930-A2-GZ40-00