

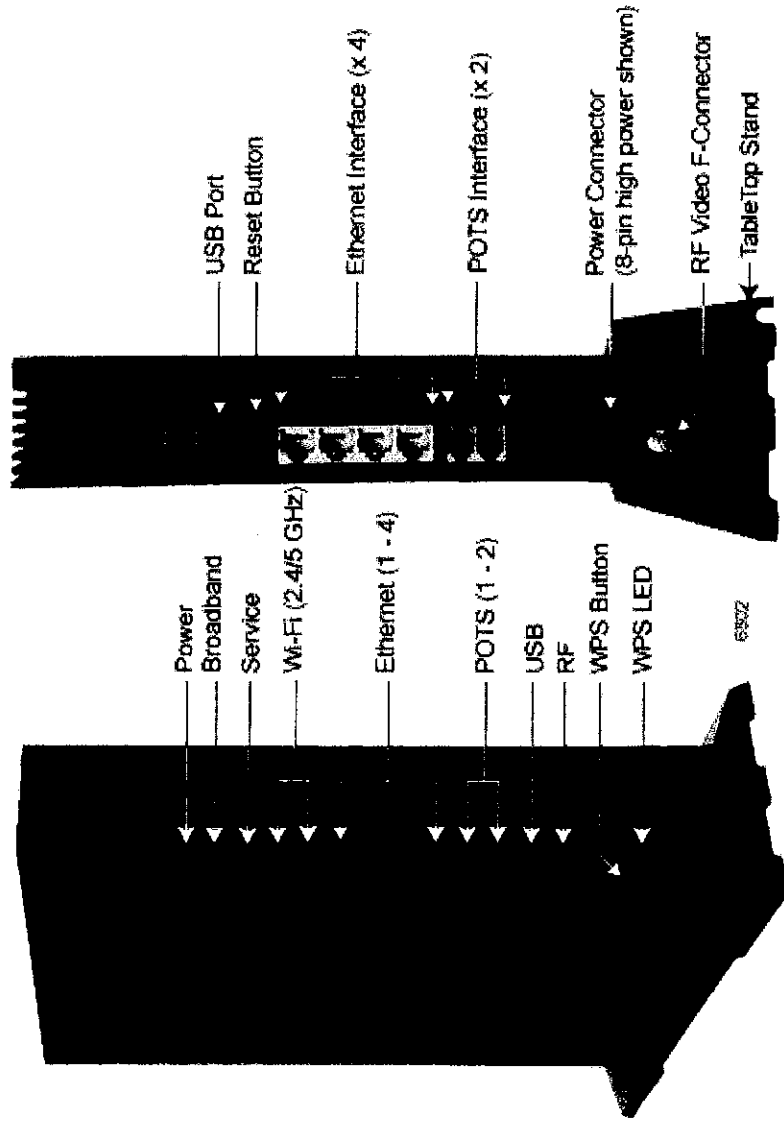


844G/854G GigaCenter Installation Guide

December 2014

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854G-1 GigaCenter



Introduction

This document describes the installation of the following:

- 844G-1 GigaCenter, 2 POTS, 4 Gigabit Ethernet ports, Dual Wi-Fi, 1 USB, UPS Power Interface
- 844G-2 GigaCenter, 2 POTS, 4 Gigabit Ethernet ports, Dual Wi-Fi, 1 USB, 12 VDC Power Interface with On/Off switch
- 854G-1 GigaCenter, 2 POTS, 4 Gigabit Ethernet ports, Dual Wi-Fi, 1 USB, 1 RF Video, UPS Power Interface
- 854G-2 GigaCenter, 2 POTS, 4 Gigabit Ethernet ports, Dual Wi-Fi, 1 USB, 1 RF Video, 12 VDC Power Interface with On/Off switch

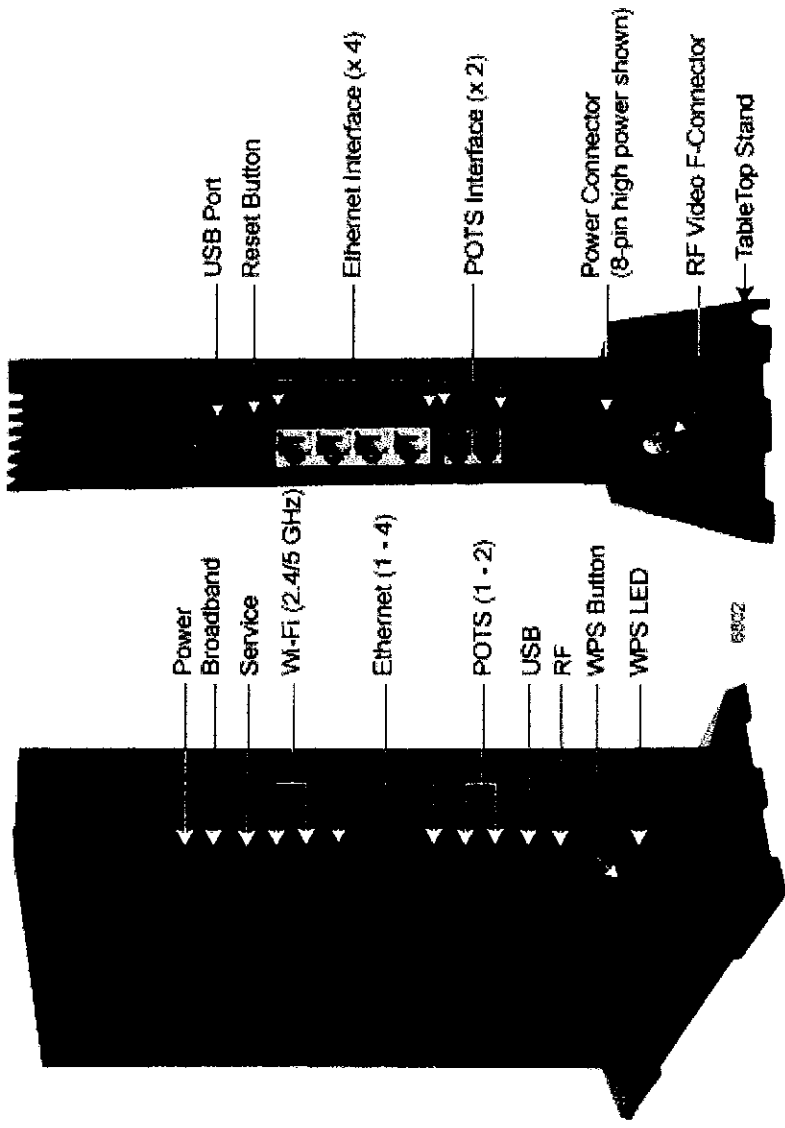
There are three types of installation configurations:

1. **Vertical Table-top Configuration** - A base stand is attached to the GigaCenter and placed on any available flat surface. Incoming and outgoing connections are plug-and-play.
2. **Wall Mount Configuration** - This enclosure-less configuration mounts the GigaCenter to any available vertical surface using the mounting slots molded into the provided splice tray. Incoming and outgoing connections are plug-and-play.

Installation Variables

Before installing the GigaCenter, consider what additional services may be implemented. Various access points are available on the back of the unit which may or may not be used. Prior to determining the unit's final location, you need to account for the following variables:

- Where will the telephone lines be routed?
- Where will the Ethernet cables be routed?
- What type of building material is used on the home? Make sure you have the appropriate drills, drill bits and fasteners for routing subscriber services and/or power cables as they pass through walls and the like.

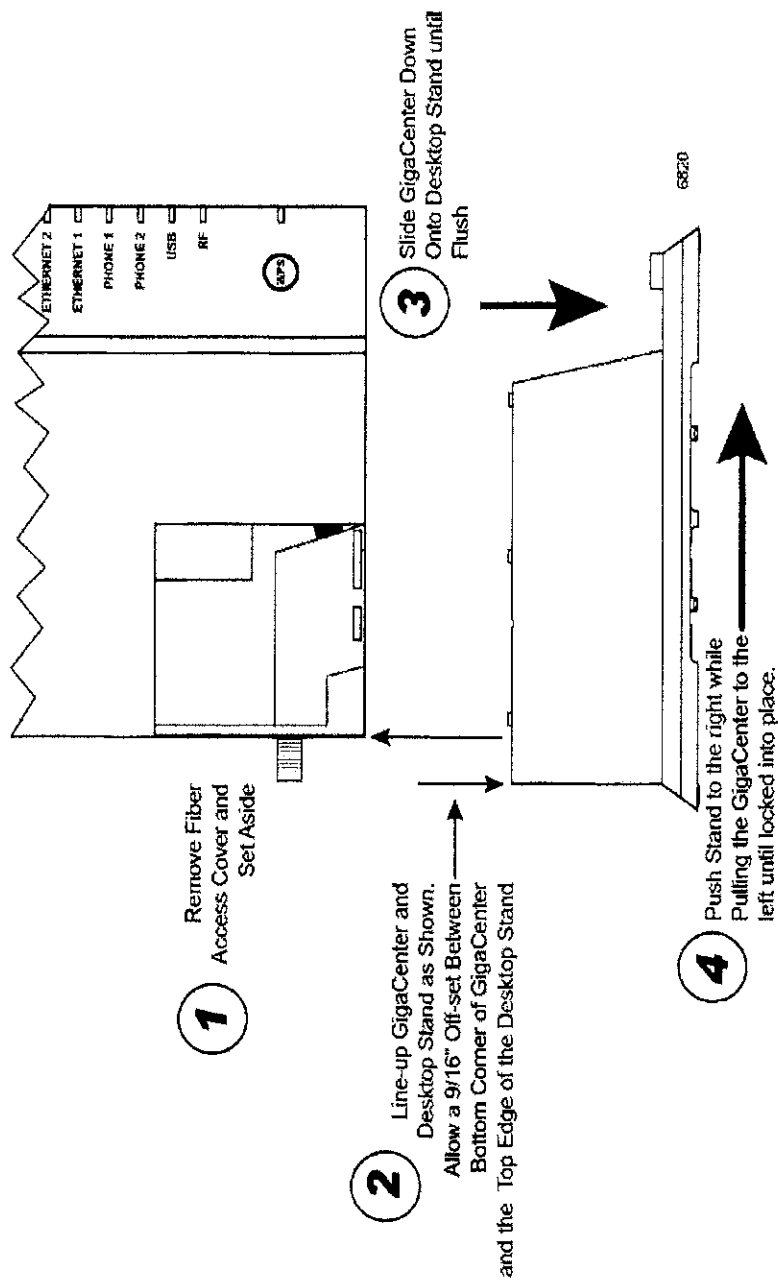


Tabletop Mounting the GigaCenter

Calix GigaCenters can be mounted on a tabletop in a "tower" configuration using the tabletop stand shipped with the product. Keep the following information in mind when considering tabletop mounting:

- Due to the likelihood of having exposed fiber on the tabletop, Calix recommends connecting the unit to the GPON network using a shielded 5mm fiber pigtail with an SC-APC connector on each end.
- Due to component placement inside the chassis, do not install the GigaCenter on a tabletop surface without using the tabletop stand.
- Locate the GigaCenter on the desktop in a location that is unlikely to be bumped or jostled.
- Make sure that service wiring attached to the GigaCenter is secured properly and has minimal sharp bends.
- For RF capable units, make sure that undo stress is avoided when installing any coaxial cables to the F-Connector on the GigaCenter.

Attaching the GigaCenter to the Tabletop Stand

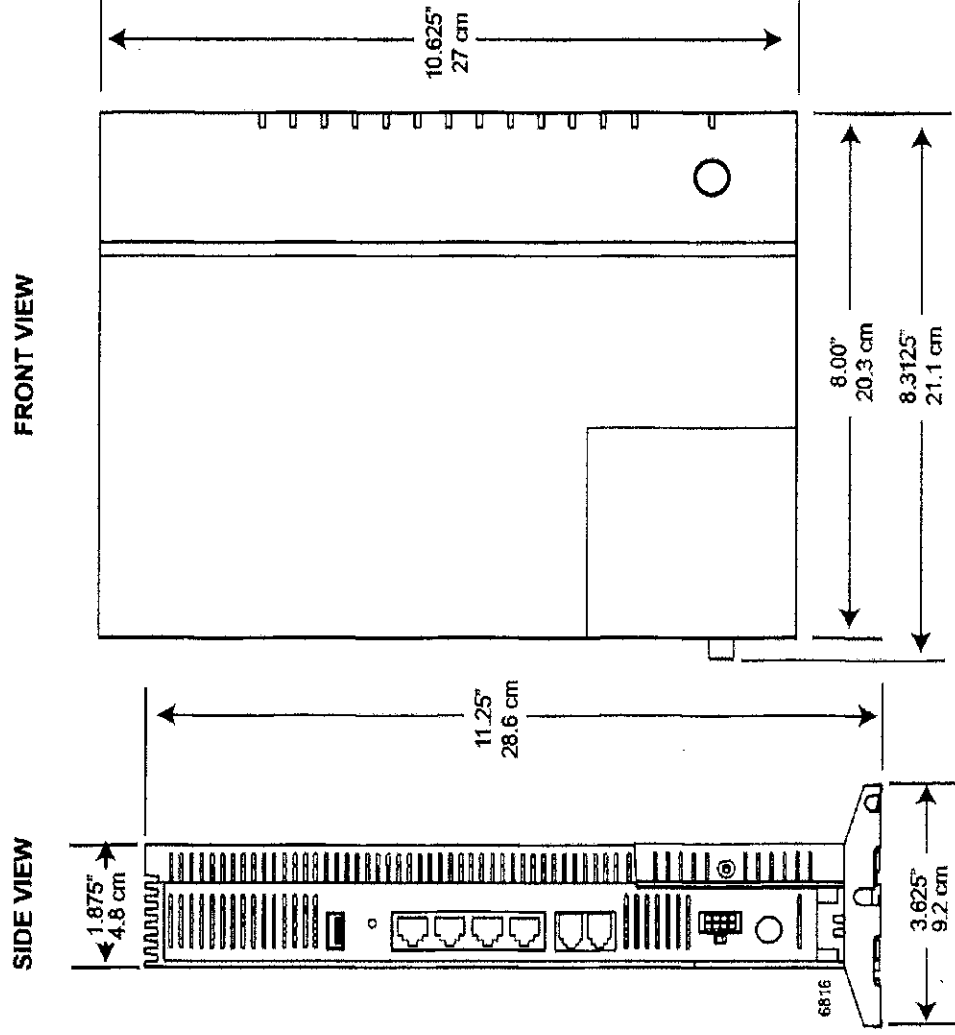


To mount the tabletop stand to the GigaCenter

1. Remove the tabletop stand from the bottom of the carton.
2. Remove and temporarily set aside the fiber access cover from the 844G/854G GigaCenter.
3. Orient the stand and the GigaCenter as shown above with the LEDs on the right.
4. Lower the GigaCenter onto the tabletop stand keeping a 9/16" offset to allow proper mating of the two pieces.
5. Once seated on the stand, slide the GigaCenter back onto the stand until it stops and the back end of the GigaCenter is flush with the back edge of the stand.
6. Leave the fiber access cover off temporarily.
7. Proceed to *Installing the Composite Cable - Tabletop Mount* (on page 27)

Tabletop Mounting Dimensions

Dimensions for tabletop mounting of a GigaCenter are included here for reference.



Installing the Composite Cable - Tabletop Mount

With the tabletop stand mounted to the GigaCenter, the incoming composite fiber must be connected to the GigaCenter.

When deployed without the Fiber Management Tray, the incoming fiber connection enters the GigaCenter through a fiber channel molded into the unit. An access cover is included providing a protective cover ensuring the connection is not disturbed and that the fiber cannot be inadvertently disconnected. Once the fiber connection is completed, the GigaCenter fiber access cover is attached with a provided Phillips head screw.

Note: Refer to *Installing the Composite Cable - Wall Mount* (on page 33) for additional information.



ALERT! A protective cap or hood must be placed over any radiating bulkhead receptacle or optical fiber patch cord.



CAUTION! Use of controls or adjustments or performance of procedures other than those specified here may result in hazardous radiation exposure.

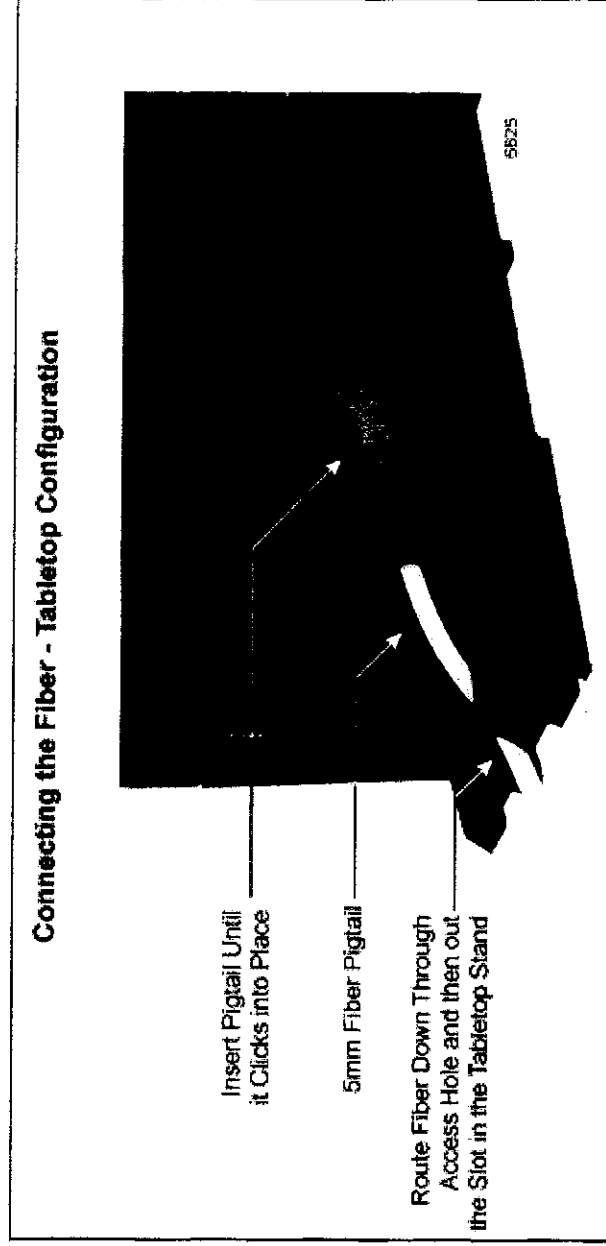


DANGER! A Class 1 laser product with an internal Class IIIb hazard is used in this equipment. Use an optical power meter to identify active fibers. Never assume laser power is turned off or that the fiber is disconnected at the other end.

Overview of procedure

Note: For the purposes of these instructions, it is assumed that a Local Convergence Point (LCP) has been located somewhere near the planned GigaCenter installation site and that a 5mm fiber pigtail will be used to connect the GigaCenter to the GPON network.

- Route the 5mm fiber pigtail from the GigaCenters planned location back to the Local Convergence Point (LCP)
- Attach the pigtail to the GigaCenter
- Secure the pigtail to the tabletop stand
- Route the pigtail back to the LCP and connect to the GPON network
- Dress up any slack fiber as appropriate

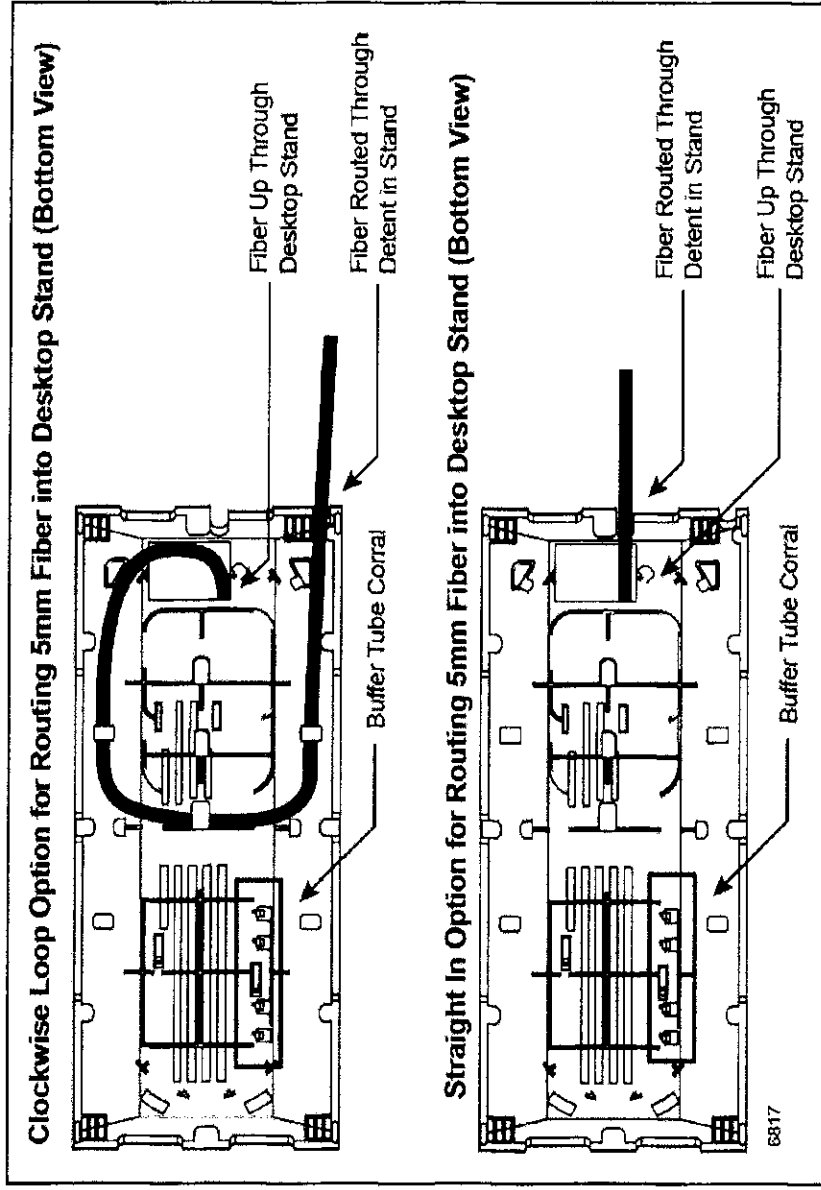


To install the composite cable

1. Route the 5mm fiber pigtail from the LCP to the tabletop.
2. Insert the pigtail end through the fiber access slot as shown above.
3. Insert the SC-APC pigtail into the bulkhead fitting inside the GigaCenter.
4. Wrap any excess fiber around the fiber management stays inside the stand assembly. Depending on the amount of slack fiber that is available, you can install the pigtail using a clockwise loop or a straight in approach can be used.

Note: For deployments where the final fusion splice must be near the GigaCenter, a buffer tube corral is molded into the bottom of the tabletop stand assembly (see below).

5. Use cable ties as necessary to fully secure the excess fiber, being careful not to overtighten the cable ties and thereby crimping the fiber.





Chapter 4

Final Set-up and Testing

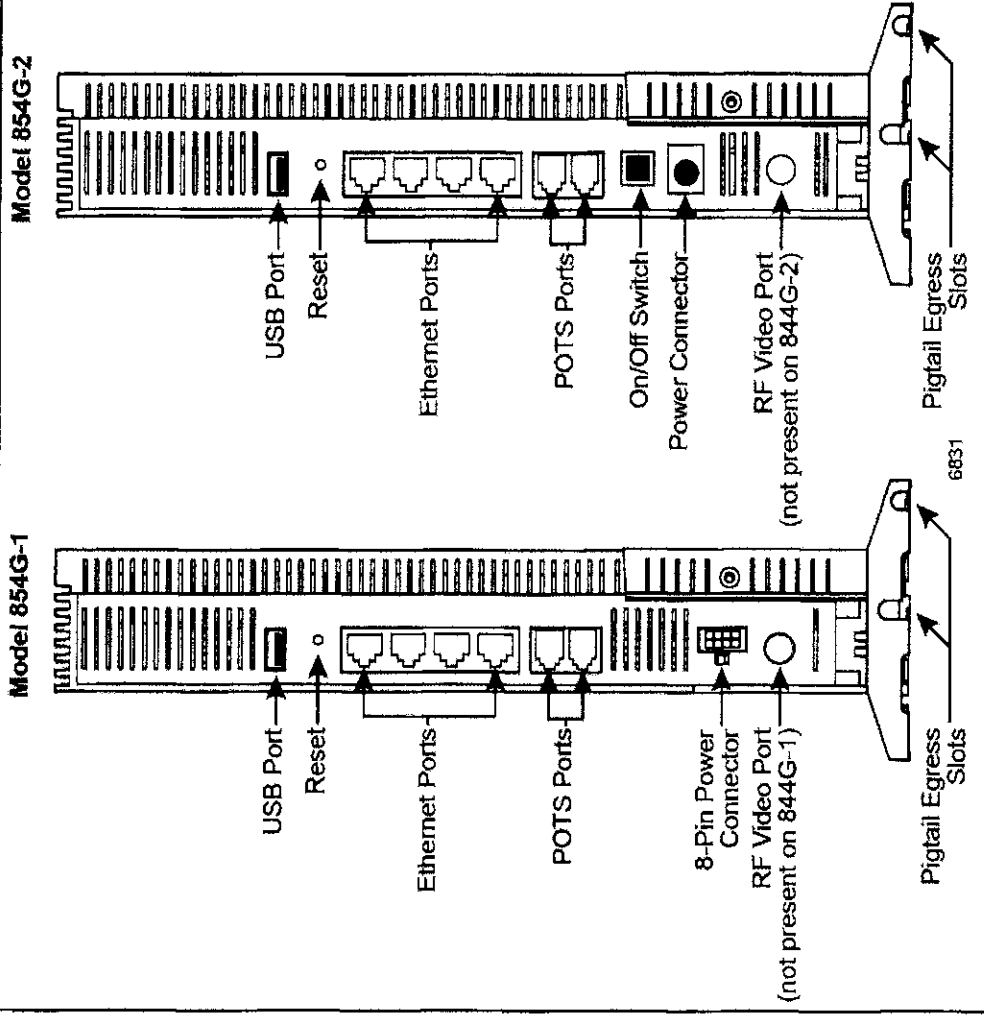
Connecting Outside Services

Subscriber voice, IP video and data services are attached to the rear of the GigaCenter.

To install subscriber services

Note: Subscriber telephone lines are connected via RJ-11 connectors. IP video and data services are connected using RJ-45 connectors.

1. Locate the telephone, video, and data cables coming from the subscriber's home.



2. Connect the incoming telephone lines to the RJ-11 connectors on the rear of the GigaCenter.
3. Optional: Connect a coaxial cable to the IP video port (RG-58) on the back of the 854G-1 or 854G-2 GigaCenter.
4. Connect CAT5 Ethernet cables to the RJ-45 Ethernet ports.
5. Secure all subscriber service wiring as appropriate.