



VoIP Clock Kit Flush Mount Adapter Operations Guide

Part #011106*, RAL 9002, Gray White, Standard
Part #011107, RAL 9003, Signal White, Optional

*Replaces #011024

Document Part #930284G

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PoE VoIP Speaker Operations Guide 930284G
Part # 011106*
Part # 011107
***Replaces 011024**

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Revision Information

Revision 930284G, was updated on 12-16-2010 and has the following changes:



- Updates [Figure 2-16, "VoIP Clock Kit Flush Mount Adapter Installation"](#).
- Updates the following text in [Section 2.4, "Mounting the VoIP Clock Kit Flush Mount Adapter"](#):
"Install part number 611038 through the pre-cut drywall into the Atlas sound enclosure."

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
13. Prior to installation, consult local building and electrical code requirements.

 <p>GENERAL ALERT</p>	<p>Warning <i>Electrical Hazard:</i> This product should be installed by a licensed electrician according to all local electrical and building codes.</p>
 <p>GENERAL ALERT</p>	<p>Warning <i>Electrical Hazard:</i> To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.</p>

Pictorial Alert Icons

	<p>General Alert</p> <p><i>This pictorial alert indicates a potentially hazardous situation. This alert will be followed by a hazard level heading and more specific information about the hazard.</i></p>
	<p>Ground</p> <p><i>This pictorial alert indicates the Earth grounding connection point.</i></p>

Hazard Levels

Danger: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This is limited to the most extreme situations.

Warning: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

Caution: Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also alert users against unsafe practices.

Notice: Indicates a statement of company policy (that is, a safety policy or protection of property).

The safety guidelines for the equipment in this manual do not purport to address all the safety issues of the equipment. It is the responsibility of the user to establish appropriate safety, ergonomic, and health practices and determine the applicability of regulatory limitations prior to use. Potential safety hazards are identified in this manual through the use of words **Danger**, **Warning**, and **Caution**, the specific hazard type, and pictorial alert icons.

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1 Product Overview


The Clock Kit enables the CyberData V2 VoIP Ceiling Speaker to be upgraded to a highly visible public address device with a time display.

Note The Cyberdata speaker is not included with this kit.

The large display characters are easily read and adjust for ambient light conditions. Time sync is performed by NTP and a built-in real-time clock.

Power is supplied by the CyberData V2 Speaker from a single PoE connection.

Note Prior to installation, create a plan for the locations of your SiP VoIP and PoE Speaker.

 <p>GENERAL ALERT</p>	<p>General Alert <i>Consult local building and electrical code requirements prior to installation.</i></p>
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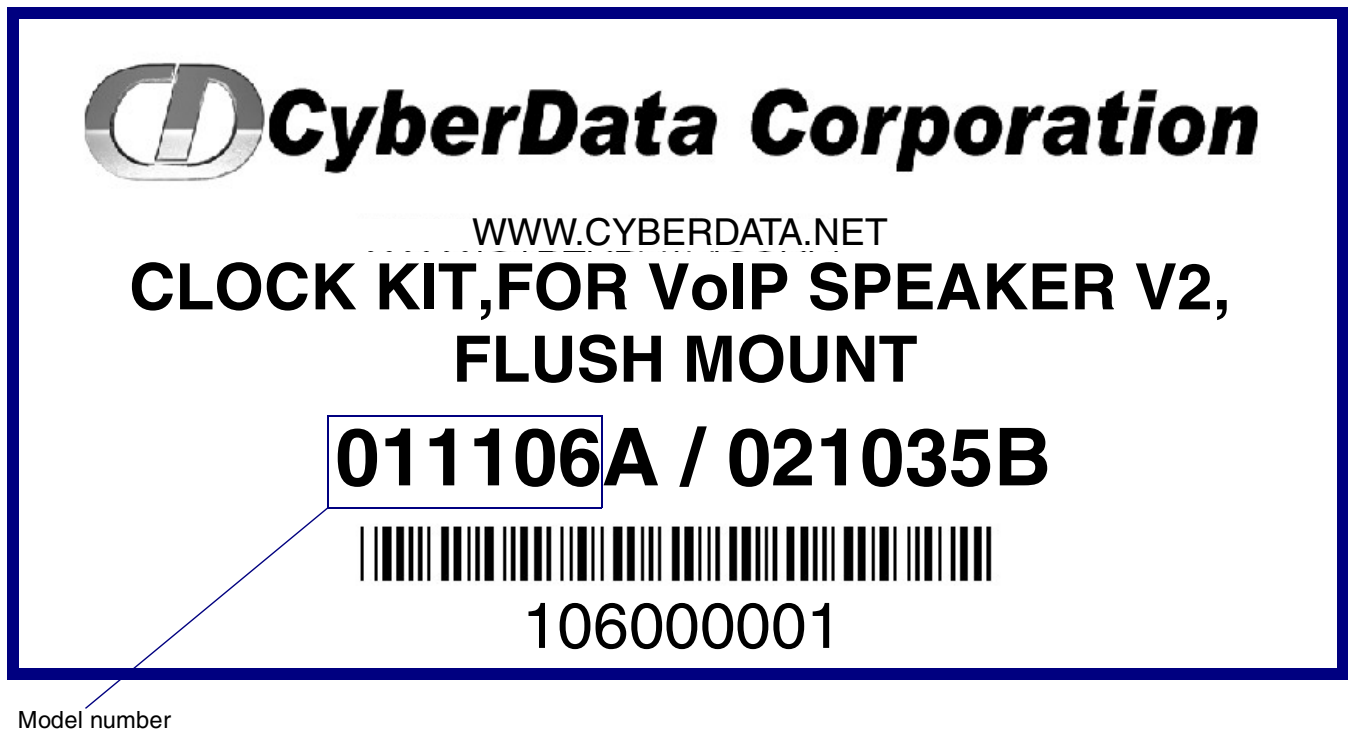
1.1 How to Identify this Product

To identify the VoIP Clock Kit Flush Mount Adapter, look for a model number label similar to the one shown in [Figure 1-1](#). The model number on the label should be one of the following:

- **011106***, RAL 9002, Gray White, Standard Color
- **011107**, RAL 9003, Signal White, Optional Color

*Replaces 011024.

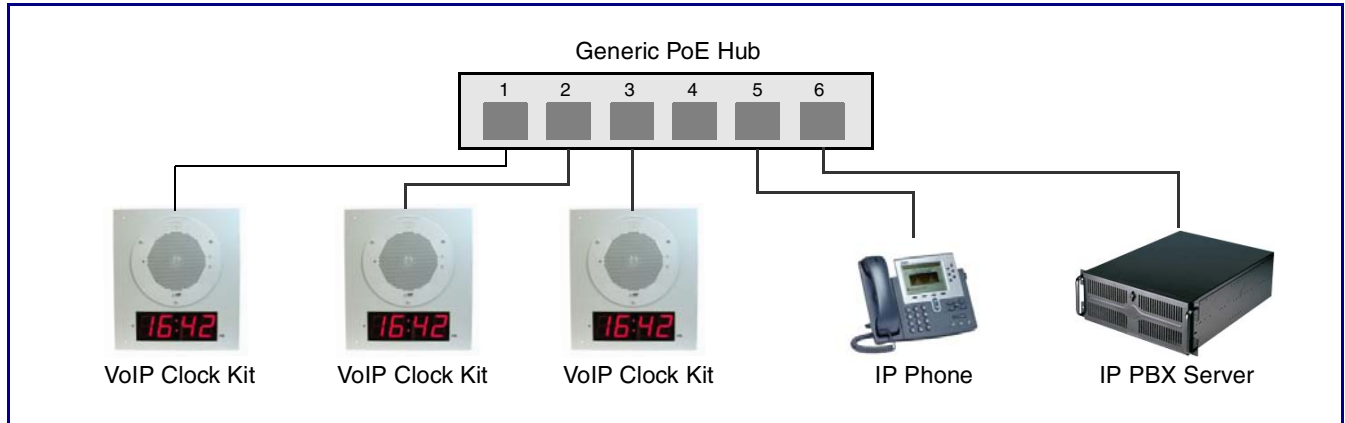
Figure 1-1. Model Number Label



1.2 Typical System Installation

Figure 1-2 illustrates a typical installation for the SiP VoIP and PoE Speakers.

Figure 1-2. Typical Installation

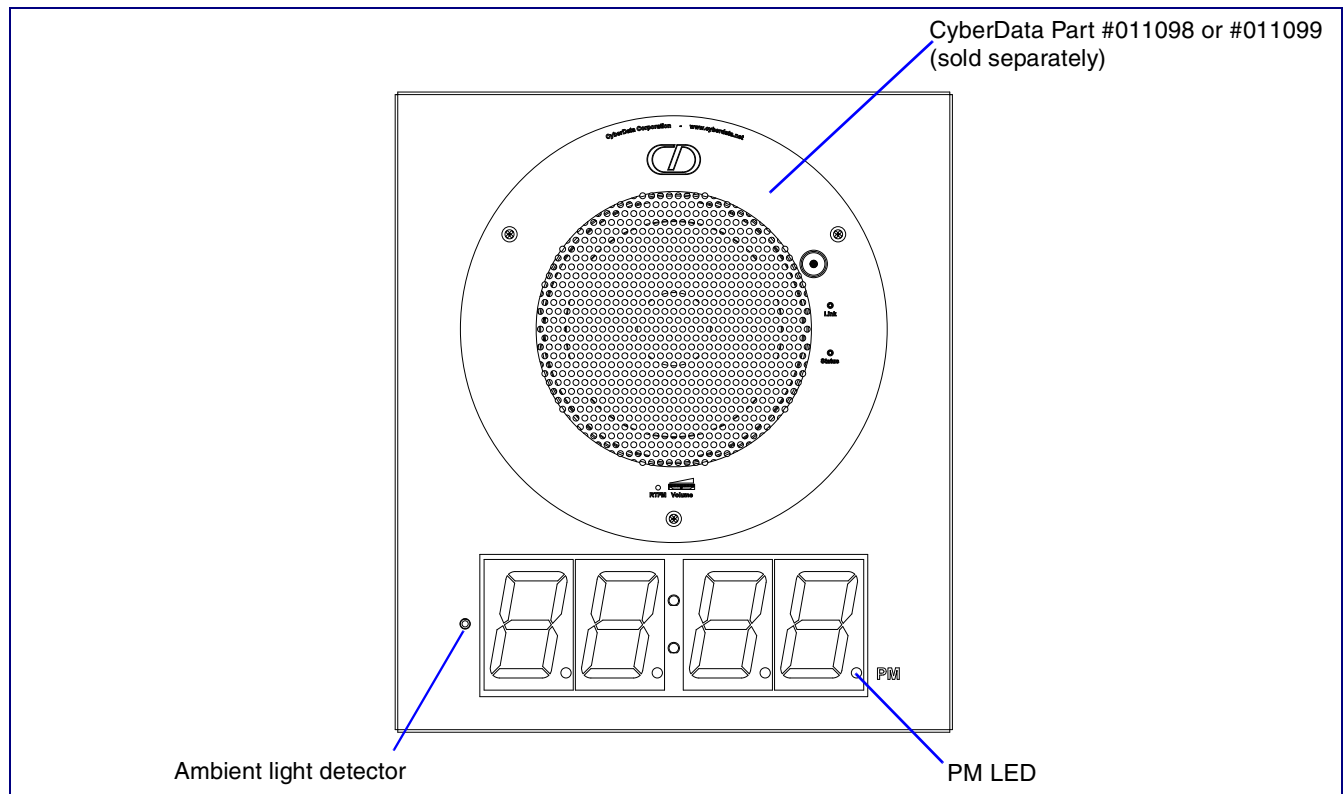


1.3 Product Features

- Easy wall or ceiling installation
- Mounting kit included
- Electrogalvanized steel construction
- RoHS compliant
- Keyhole for easy installation
- Top and bottom cable channels
- 2.3-inch sized digits
- 12 or 24 hour format
- NTP time source
- Battery backed up real-time clock
- Auto ambient light adjustment
- PM LED
- Two years warranty

Figure 1-3 shows the location of some of the features of the VoIP Clock Kit Flush Mount Adapter.

Figure 1-3. Feature Locations



1.4 Product Specifications

Category	Specification
Operating temperature	-30 to 55 C (-22 to 131 F)
Power Input (J1)	PoE 802.3af (as per IEEE 802.3af standard from a UL listed limited power source) 44-57 VDC at 350mA
or Alternate Power Input (Terminal Block J4)	10-20 VDC at 500mA
Time Source	NTP Server or battery backed-up real-time clock. Battery life estimated to be approximately seven years.
Warranty	2 years limited
Dimensions	13.5" [343mm] x 11.8" [300mm] x 5.4" [137mm]
Weight	5.4 lbs. [2.45 kg]
Part number	011106* , RAL 9002, Gray White, Standard Color 011107 , RAL 9003, Signal White, Optional Color *Replaces 011024.

1.5 Dimensions

Figure 1-4 shows the dimensions for the VoIP Clock Kit Flush Mount Adapter.

Figure 1-4. Dimensions

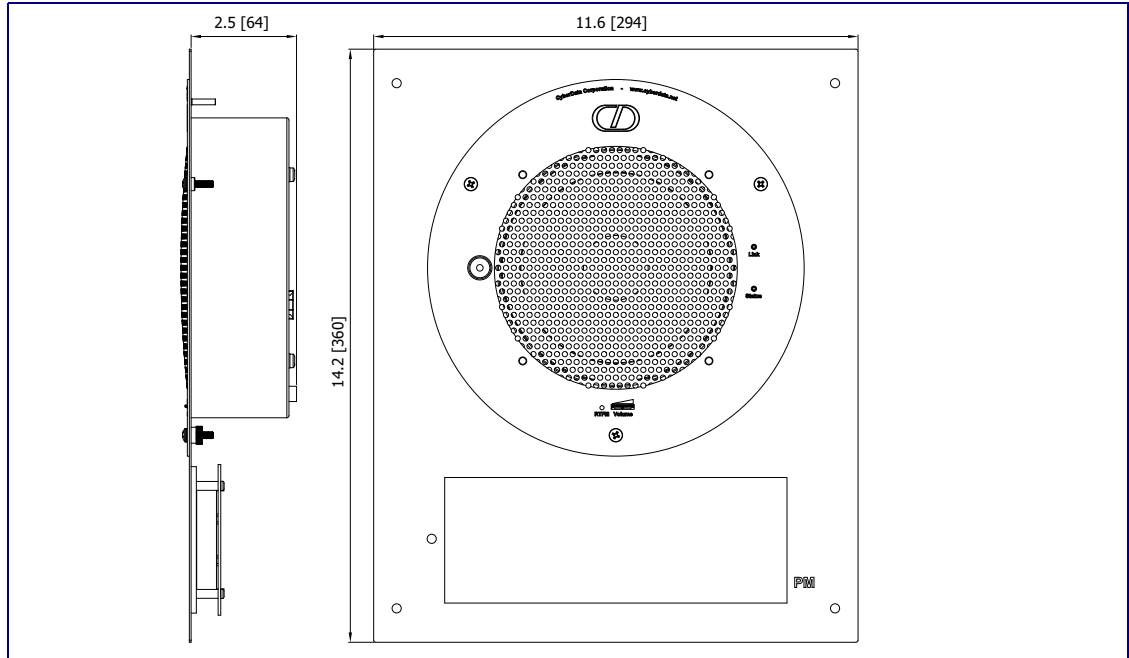
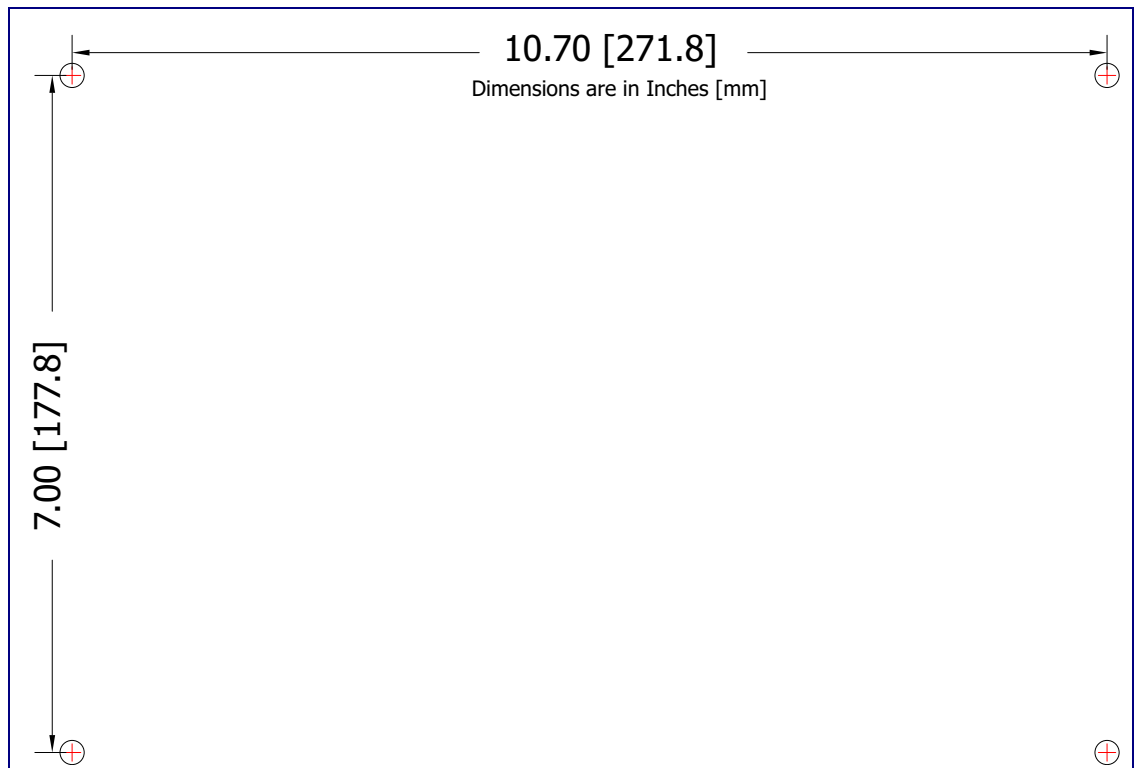


Figure 1-5. Dimensions



2 Installing the VoIP Clock Kit Flush Mount Adapter

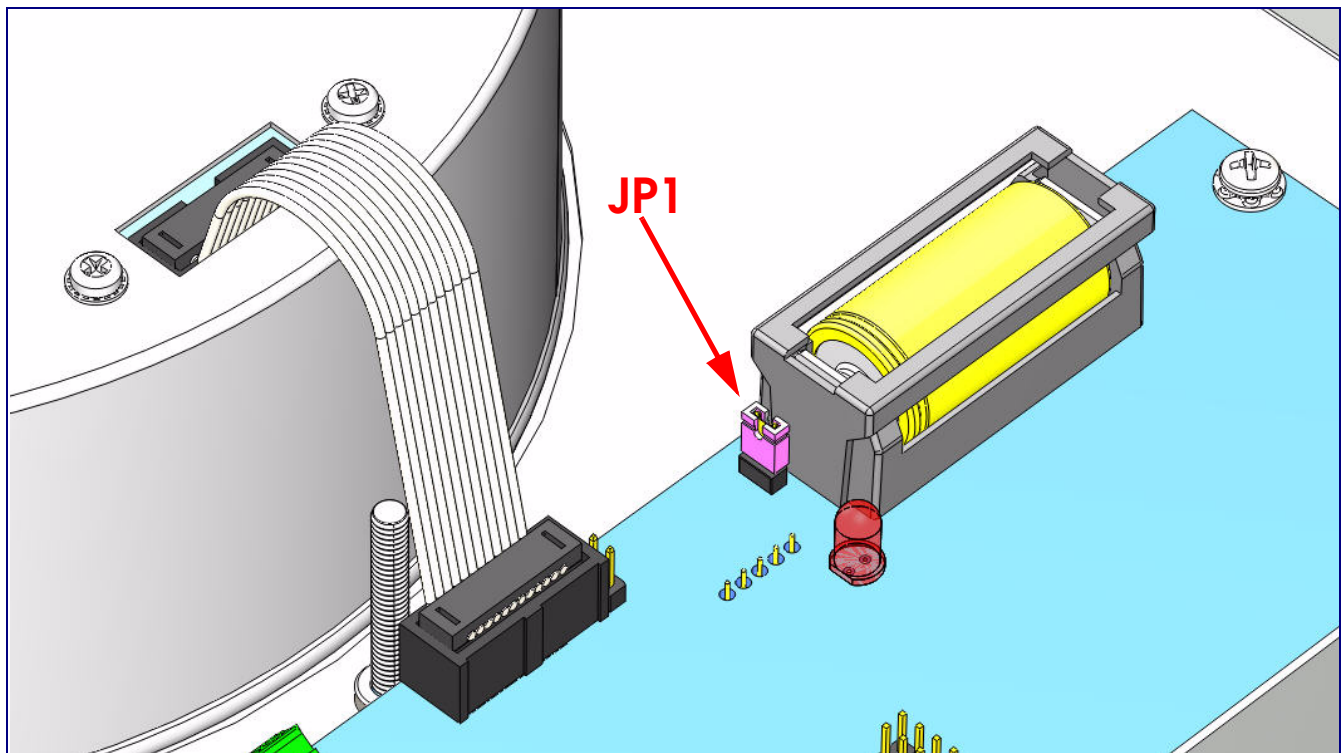
2.1 Pre-Mounting Connections

2.1.1 Install JP1 Prior to Clock Kit Installation

To enable the battery for real-time clock operation, install a jumper on JP1 as shown in [Figure 2-13](#).

Note This jumper ensures that the clock will not lose the time setting in the event of a power outage.

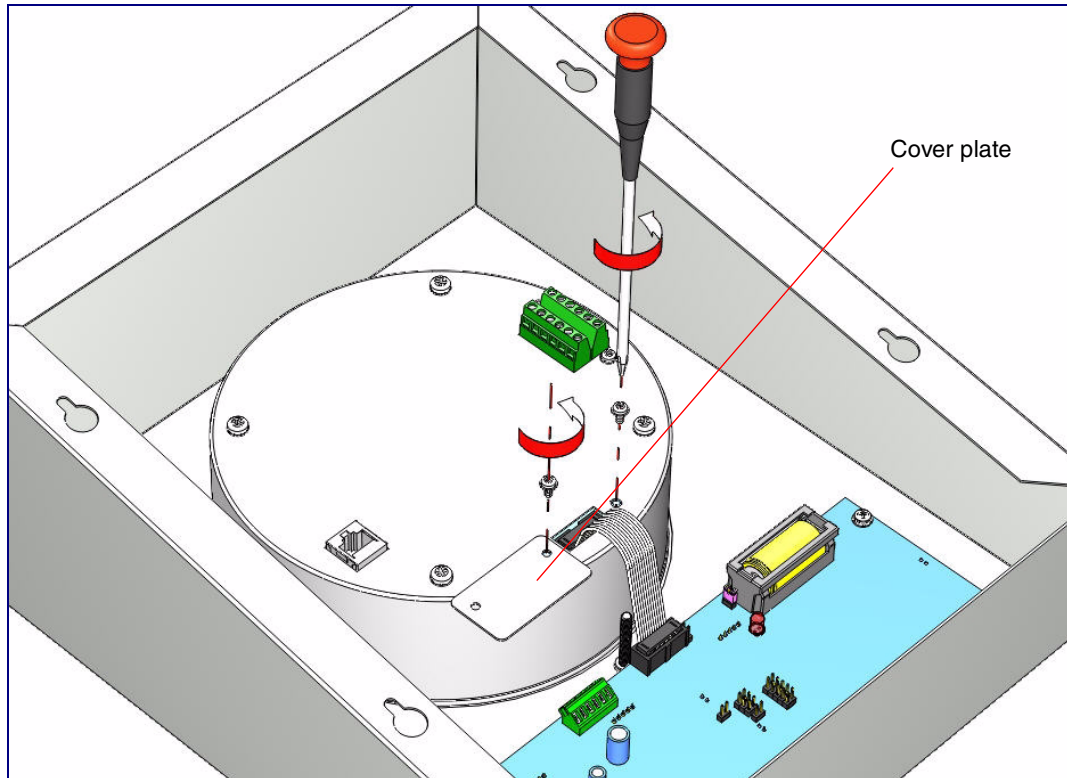
Figure 2-6. Jumper JP1



2.1.2 Moving the Clock Connector Cover Plate

Move the clock connector cover plate to prepare the Clock Kit for pre-mounting connections.
See [Figure 2-7](#).

Figure 2-7. Moving the Clock Connector Cover Plate



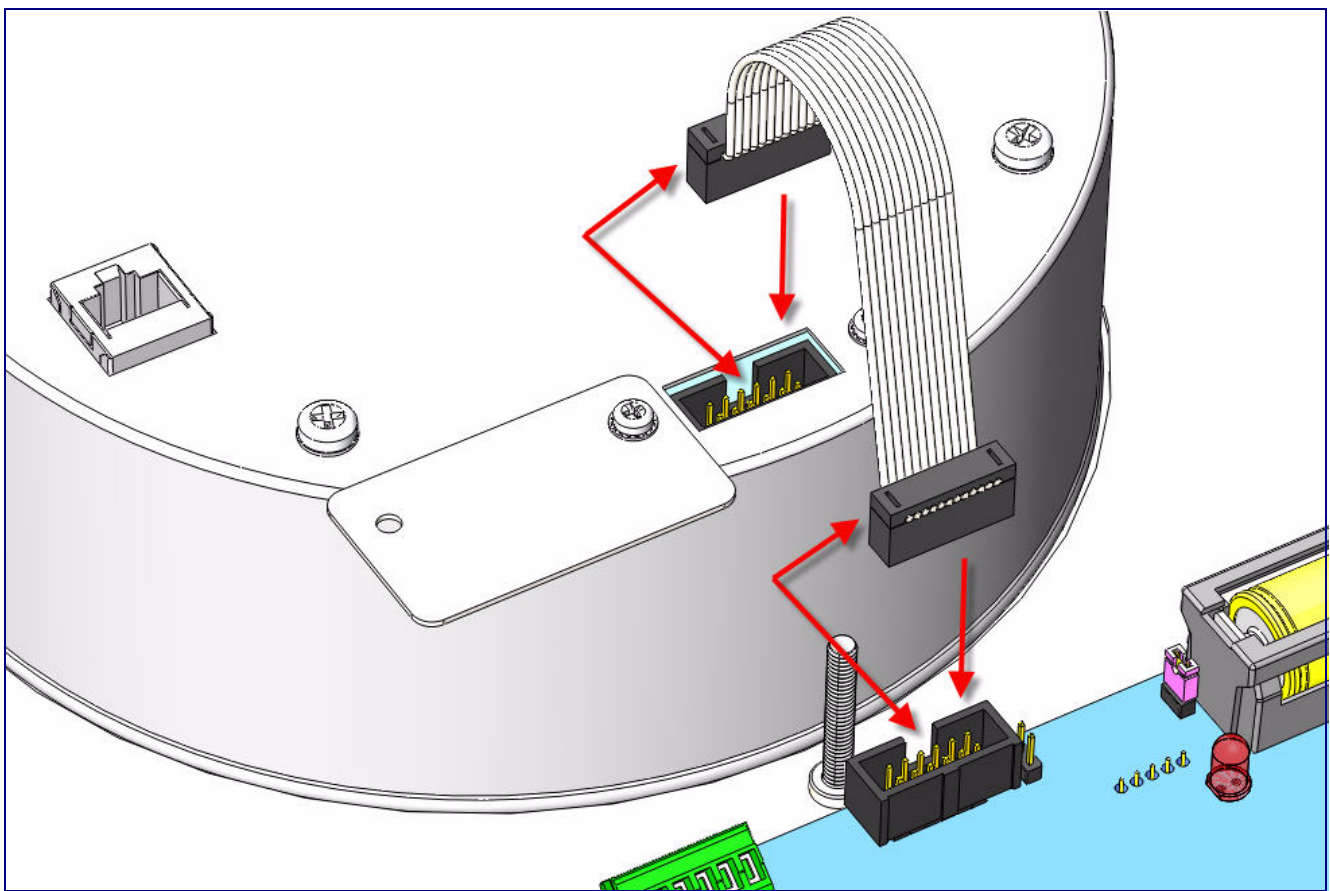
To remove the clock connector cover plate,

1. Unscrew and remove the two attachment cover screws.
2. Remove the clock connector cover plate and move it to cover the rectangle cutout shown in [Figure 2-7](#).
3. Screw and tighten the cover screws to secure the cover plate in place.

2.1.3 Connecting the Clock to the Speaker

[Figure 2-7](#) illustrates how to connect the ribbon cable to the clock and the speaker.

Figure 2-8. Connecting the Clock to the Speaker



2.1.4 Connecting Power to the Speaker

Figure 2-10 and Figure 2-9 illustrates two possible ways to connect power to the speaker.

Note Prior to mounting, you can route the Ethernet cable through the back or through the slots at the top or bottom of the Flush Mount Adapter.

Figure 2-9. Connecting Power—PoE

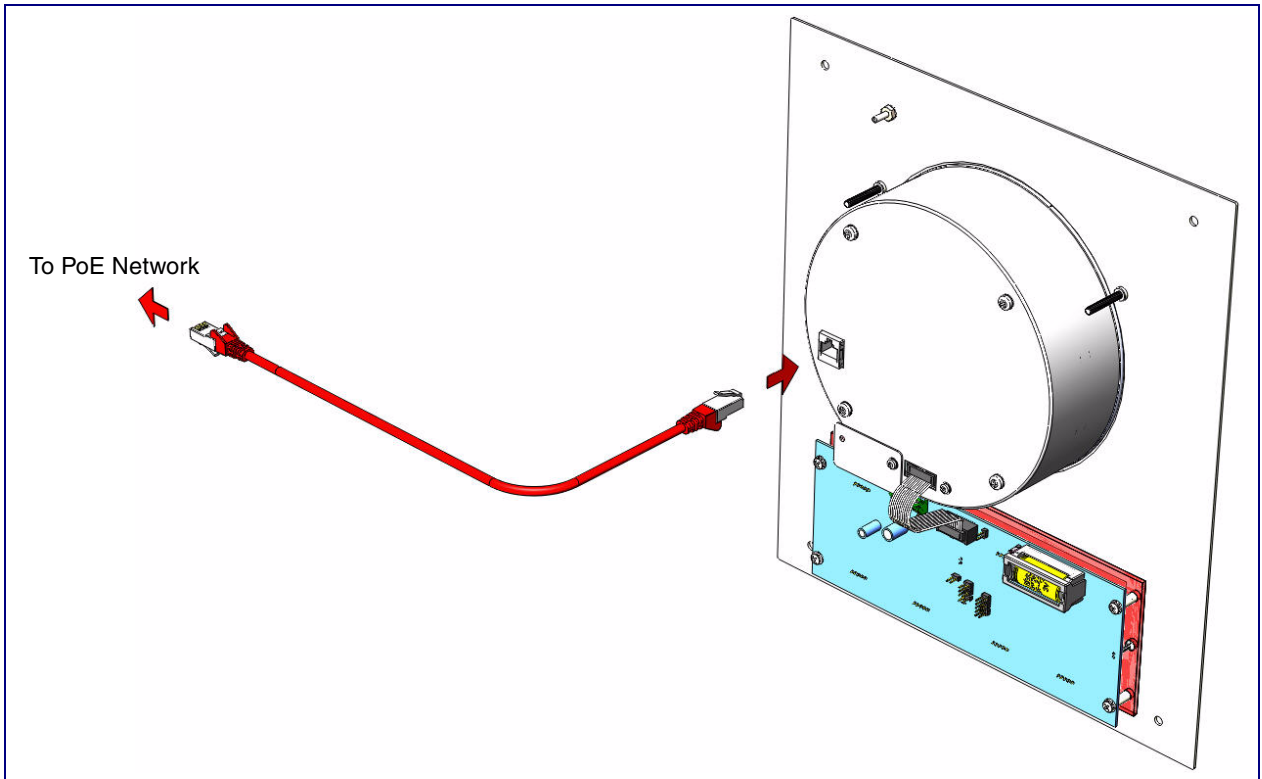
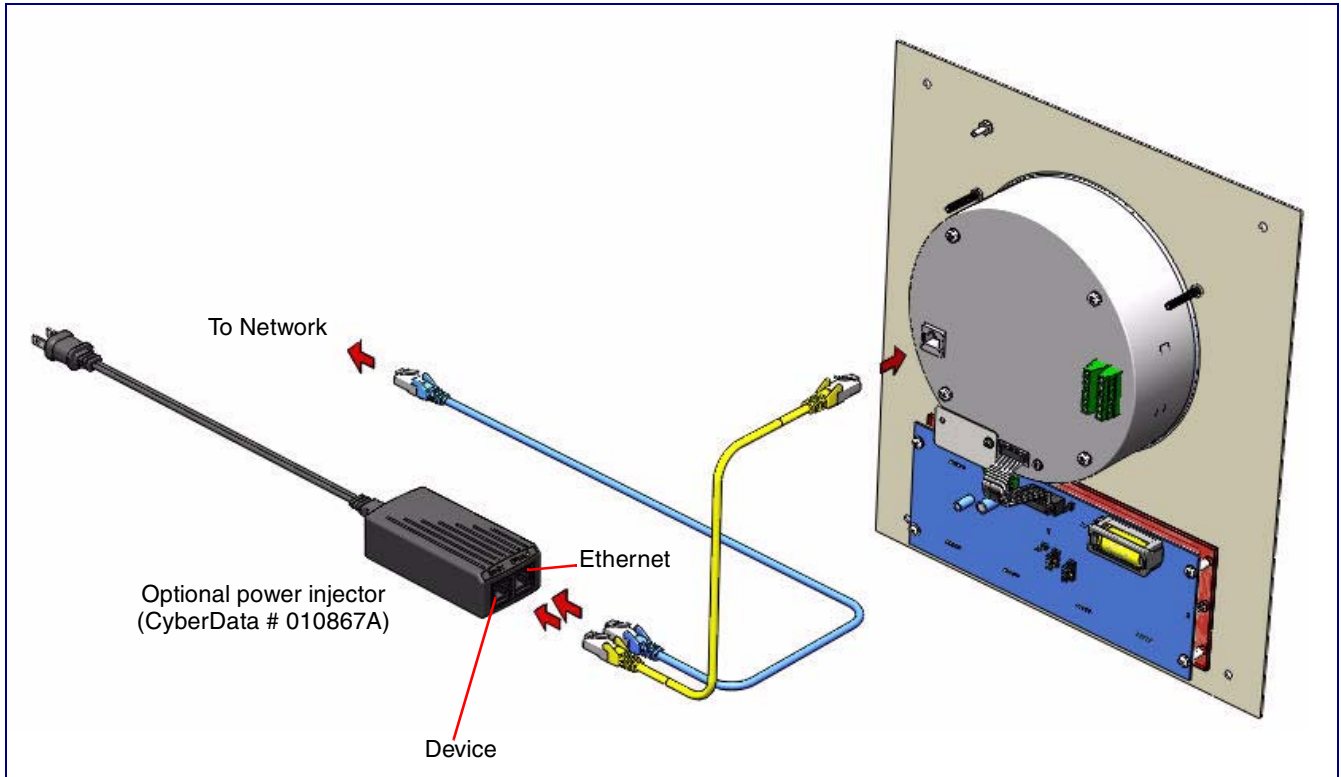


Figure 2-10. Connecting Power—Optional Power Injector



2.2 Verifying Operation of the Clock Kit Adapter

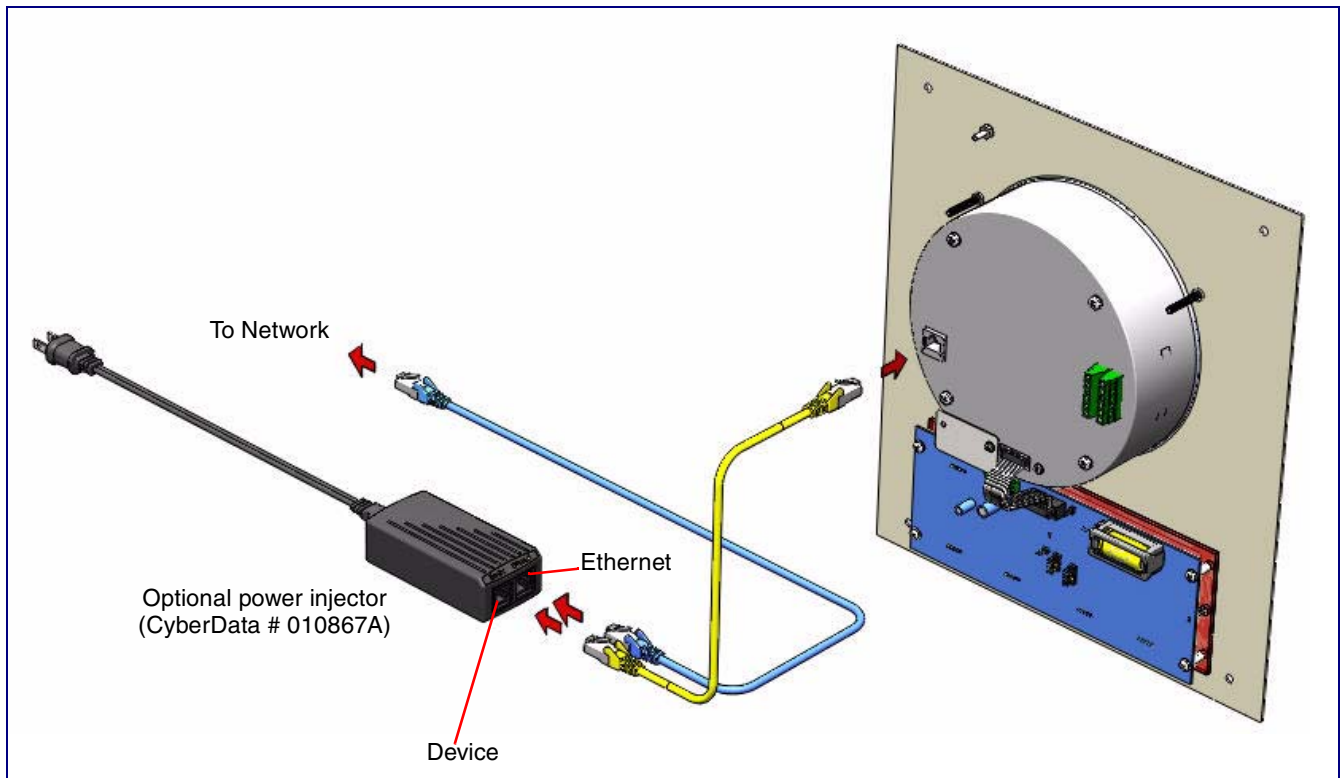
2.2.1 Power-Up Test

To perform a power up test,

1. Connect power to the speaker as shown in [Figure 2-11](#).

Note Prior to mounting, you can route the Ethernet cable through the back or through the slots at the top or bottom of the Flush Mount Adapter.

Figure 2-11. Connecting Power



2. After connecting power, you will see one of the boot-up messages indicated in [Table 2-1](#).

Table 2-1. Clock Kit Boot-Up Messages

Message	Meaning	Action
8888	Normal start-up message.	None. Note: On the Clock Kit display, you will see the numbers 8888 for one second before displaying the time that is in memory.
E01	Time error	This would normally occur at manufacturing first Power On, or at subsequent Power On if the battery was low or dead. If it occurs more frequently, contact CyberData support. Note: If there is an Invalid Time Error, then you will see E 01 on the display for one second and the time will be reset to 00:00 .
E02	Low battery	Replace the battery. See Section 2.3.3, "Replacing the Clock Kit Battery" . Note: If the Clock Kit battery is low, then at power up, you will see E 02 on the display for one second before displaying the time that is in memory.

2.2.2 Identifying the VoIP Clock Kit Jumpers

See [Figure 2-12](#) and [Table 2-2](#) to identify the jumper locations and functions.

Figure 2-12. Jumper Locations

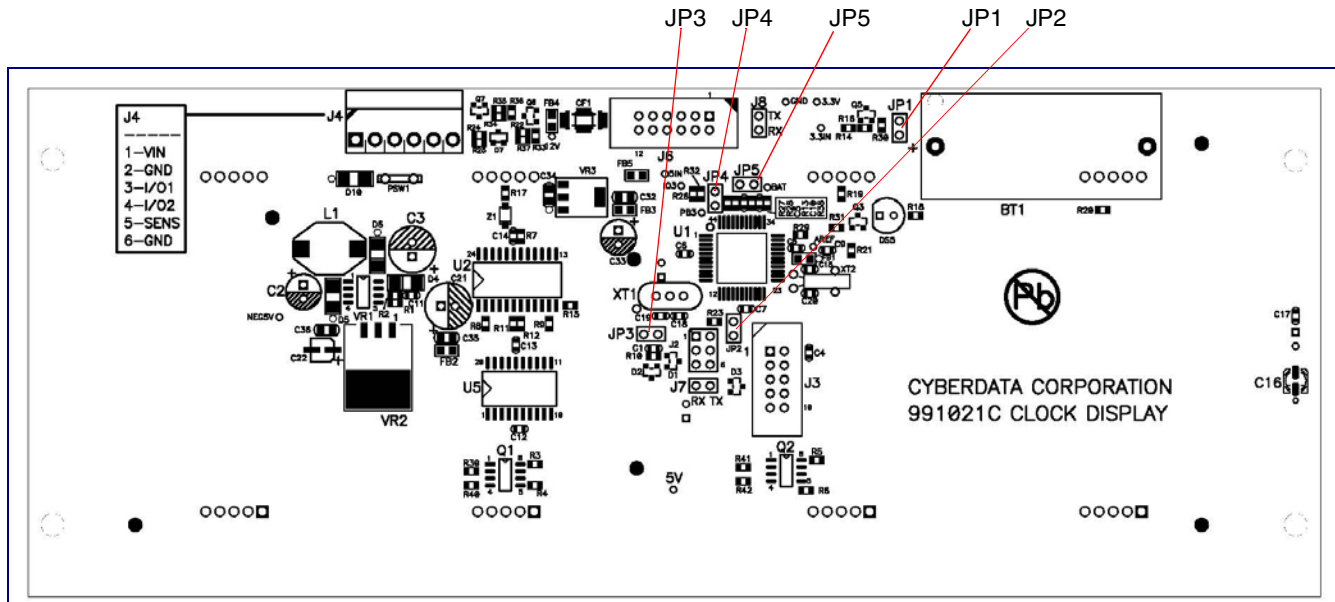


Table 2-2. Jumper Functions

Jumper	Function
JP1	Battery - Connect
JP2	Manufacturing - Open
JP3	Manufacturing - Open
JP4	Manufacturing - Open
JP5	Manufacturing - Open

Note Prior to installing the Clock Kit, make sure that JP1 is installed. This powers the Real Time Clock from the battery. If you do not, the clock will lose its time when the power is disconnected.

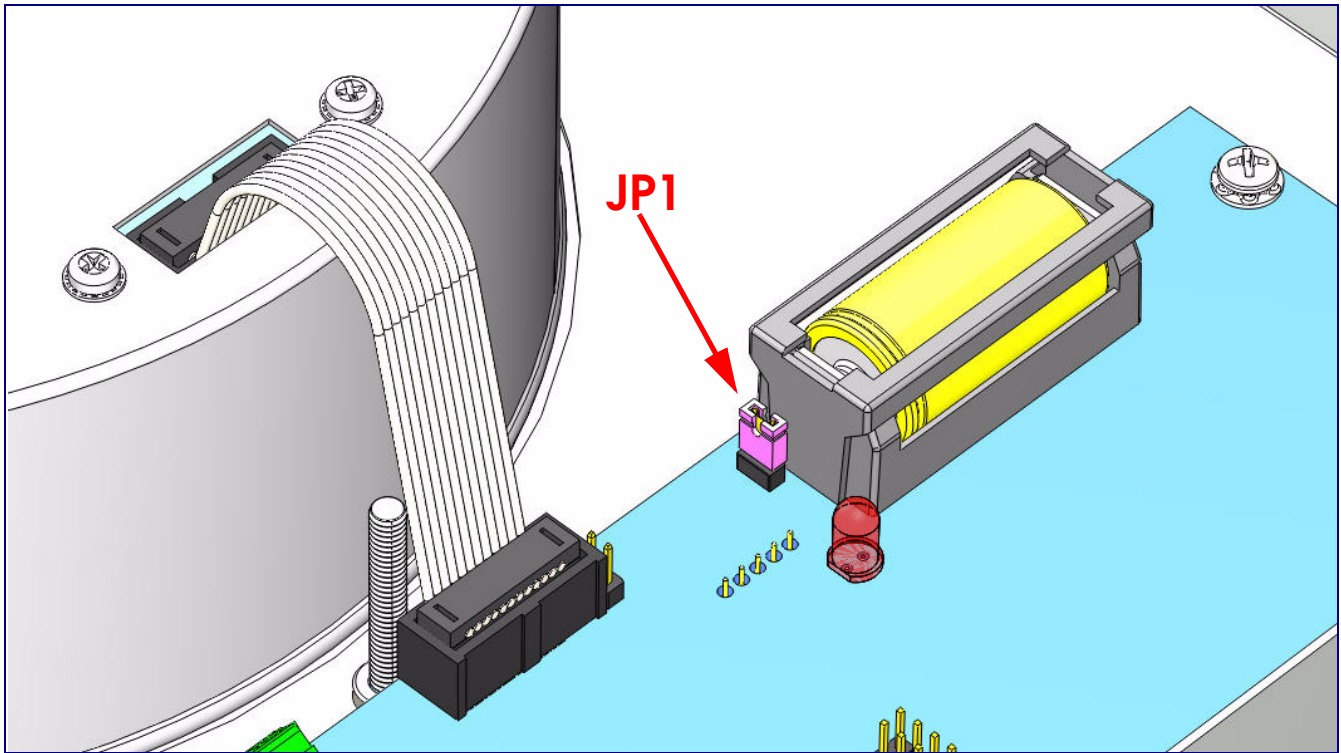
2.3 The Clock Kit Adapter Battery

2.3.1 JP1 Battery Enable Jumper for Real-Time Clock Operation

To enable the battery for real-time clock operation, install a jumper on JP1 as shown in [Figure 2-13](#).

Note This jumper ensures that the clock will not lose the time setting in the event of a power outage.

Figure 2-13. Jumper JP1



2.3.2 Checking the Battery Power Level of the Flush Mount Adapter

To check the battery power level of the Flush Mount Adapter,

1. Disconnect and reconnect power to the VoIP Speaker.
2. On the Clock Kit display, you will see the numbers **8888** for one second and then one of the following will occur:
 - If the battery power level is good, then the Clock Kit display will resume showing the time that is in memory.
 - If the Clock Kit battery is low, then you will see **E 02** on the display for one second before displaying the time that is in memory.

Note If there is an **Invalid Time Error**, then you will see **E 01** on the display for one second and the time will be reset to **00:00**.

2.3.3 Replacing the Clock Kit Battery

2.3.3.1 Battery Type

You should use a Lithium-Ion size 2/3A type battery with minimum 1000 mA-hr rating for the Flush Mount Adapter.

Acceptable replacements:

- Panasonic CR123A
- Duracell DL2/3A
- Sanyo CR17335SE

2.3.3.2 Battery Life

The Lithium-Ion CR-123 battery in the Flush Mount Adapter should last for approximately seven years.

2.3.3.3 Replacing the Battery

[Figure 2-14](#) and [Figure 2-15](#) illustrates how to locate and replace the Clock Kit battery.

Figure 2-14. Clock Kit Battery Location

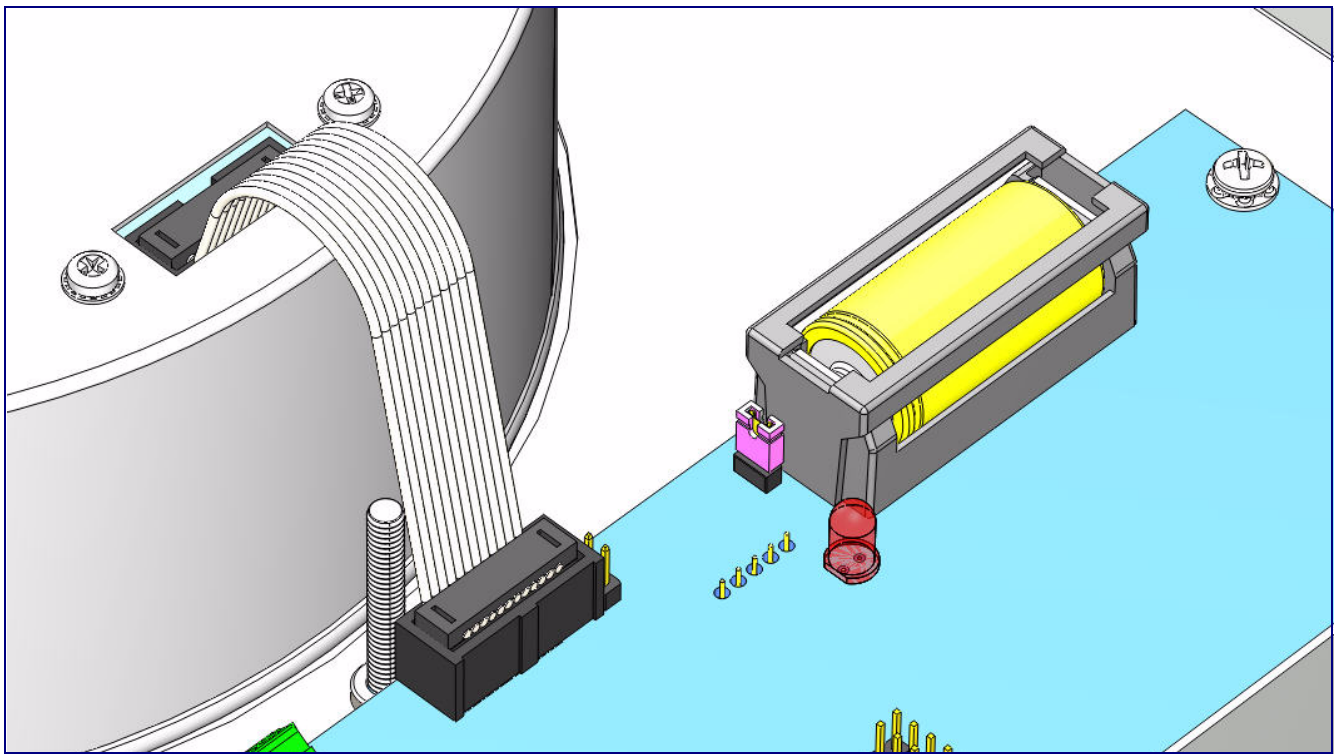
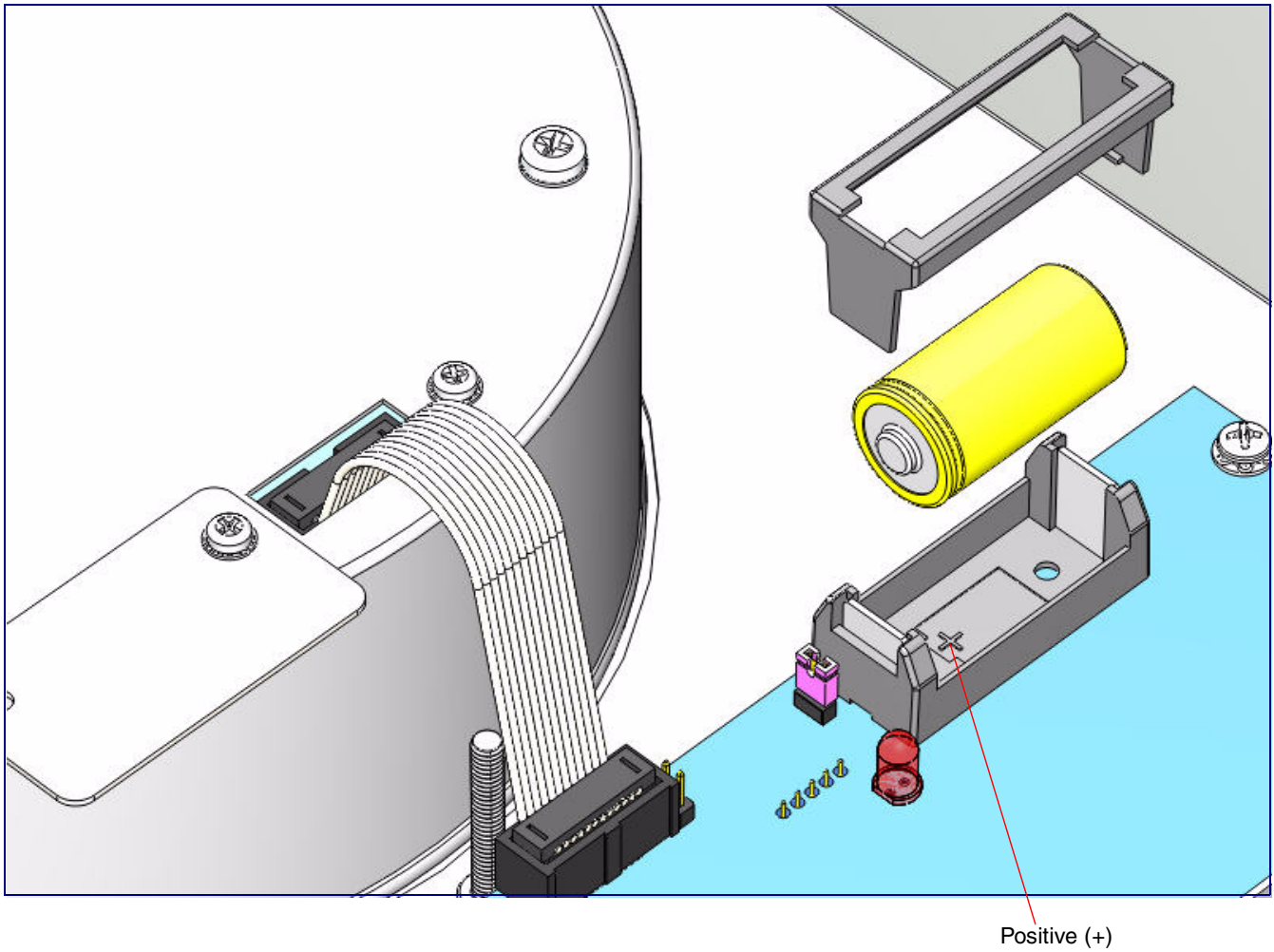


Figure 2-15. Clock Kit Battery Replacement



2.3.4 Seconds Digits Blinking Fast

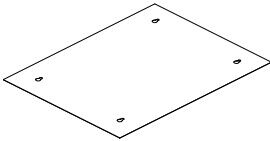
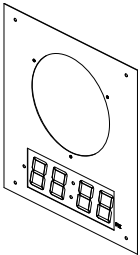
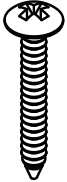
If the seconds digits on the Clock Kit display are blinking fast, then this means that the speaker has not communicated for more than one hour.

2.4 Mounting the VoIP Clock Kit Flush Mount Adapter

2.4.1 Drywall Mounting Kit Parts

Before you mount the VoIP Clock Kit Flush Mount Adapter, make sure that you have received all the parts. Refer to [Table 2-3](#).

Table 2-3. Drywall Mounting Kits Parts

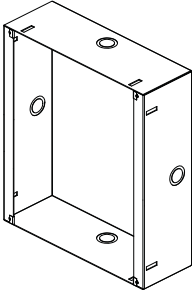
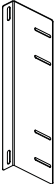


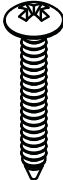
Quantity	Part Name	Illustration
2	(1) Template for Flush Mount Adapter and Screw Holes ^a	
2	(1) Flush Mount Adapter	
4	No. 10-12 x 1.25-inch Pan Head Phillips Screws	

^a. This part is located on the Quick-Reference placemat.

2.4.2 ATLAS® FEST-18SC Parts

Before you mount the VoIP Clock Kit Flush Mount Adapter, you will need to purchase an ATLAS® FEST-18SC enclosure which is sold separately by ATLAS, and is **NOT** included with the Clock Kit drywall mounting kit. See [Table 2-4](#) for the ATLAS FEST-18SC parts.

Table 2-4. Atlas Sound FEST-18SC Parts

Quantity	Part Name	Illustration
1	ATLAS FEST-18SC ^a	
2	ATLAS FEST Mounting Bracket ^b	
4	No.10 Nut with tooth washer ^b	
4	No. 10-32 x 0.375-inch Pan Head Phillips Machine Screw ^c	
4	No. 10-12 x 1.25-inch Pan Head Phillips Screws	

a. This part is not included with the Clock Kit Adapter or V2 Speaker.

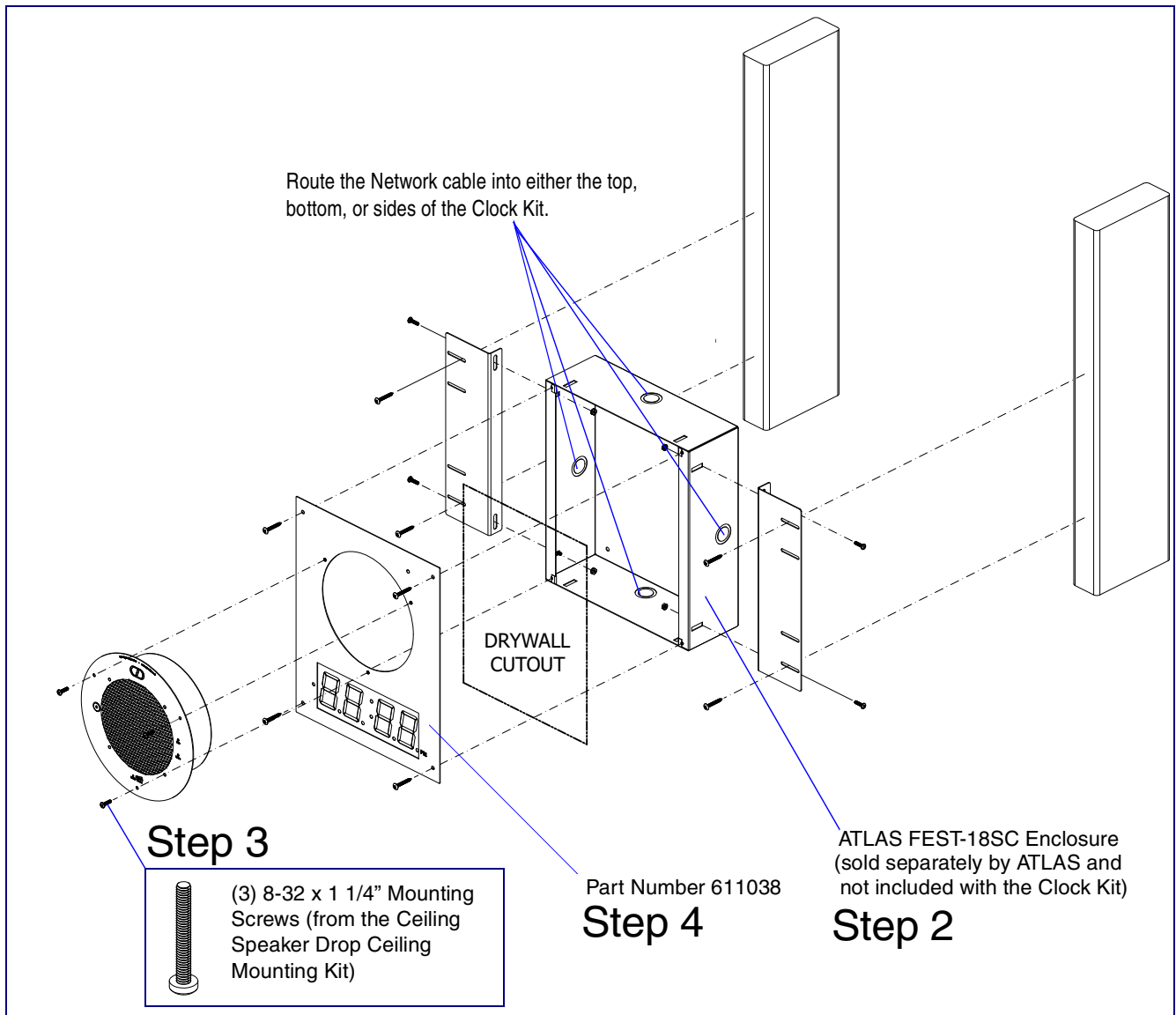
b. This part comes with the ATLAS FEST-18SC and is not included with the Clock Kit Adapter or V2 Speaker.

2.4.3 Mounting

To mount a VoIP Clock Kit Flush Mount Adapter

1. Use the template on the *Installation Quick Reference* placemat for the VoIP Clock Kit Flush Mount Adapter to drill four holes in the wall for the anchors and screws.

Figure 2-16. VoIP Clock Kit Flush Mount Adapter Installation



2. Assemble the ATLAS FEST-18SC sound enclosure.

3. Install the version 2 speaker into the flush mount clock kit.
 - Use three 8-32 x 1 1/4" mounting screws (from the Ceiling Speaker Drop Ceiling Mounting Kit) to secure the IP speaker assembly to the wall mount adapter.

Note Make sure that the ribbon and the ethernet cable are both connected to the IP speaker assembly. If they are not connected, then see the following sections:

- [Section 2.1.2, "Moving the Clock Connector Cover Plate"](#)
- [Section 2.1.3, "Connecting the Clock to the Speaker"](#)
- [Section 2.1.4, "Connecting Power to the Speaker"](#)

Note You can route the Ethernet cable through the back or through the slots at the top or bottom of the flush mount adapter.

4. Install part number 611038 through the pre-cut drywall into the Atlas sound enclosure.

2.4.4 Uploading the Firmware

Depending on which speaker you are using, please see one of the following documents:

- *VoIP V2 Speaker Operation Guide*
- *VoIP V2 Talkback Speaker Operation Guide*

These documents are available at the following website addresses:

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2/docs.html>

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2talk/docs.html>

2.4.5 Setting the Time on the Flush Mount Adapter

Depending on which speaker you are using, please see one of the following documents:

- *VoIP V2 Speaker Operation Guide*
- *VoIP V2 Talkback Speaker Operation Guide*

These documents are available at the following website addresses:

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2/docs.html>

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2talk/docs.html>

2.4.6 Confirm that the Speaker is Operational and Linked to the Network

Depending on which speaker you are using, please see one of the following documents:

- *VoIP V2 Speaker Operation Guide*
- *VoIP V2 Talkback Speaker Operation Guide*

These documents are available at the following website addresses:

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2/docs.html>

<http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr2talk/docs.html>

Appendix A: Setting up a TFTP Server

A.1 Set up a TFTP Server

Upgrading the VoIP Clock Kit Flush Mount Adapter firmware requires a TFTP server on which you access the Web interface where you can upload the firmware files.

A.1.1 In a LINUX Environment

To set up a TFTP server on LINUX:

1. Create a directory dedicated to the TFTP server, and move the files to be uploaded to that directory.
2. Run the following command where `/tftpboot/` is the path to the directory you created in [Step 1](#): the directory that contains the files to be uploaded. For example:

```
in.tftpd -l -s /tftpboot/your_directory_name
```

A.1.2 In a Windows Environment

You can find several options online for setting up a Windows TFTP server. This example explains how to use the Solarwinds freeware TFTP server, which you can find on a product page at:

<http://www.cyberdata.net/support/voip/solarwinds.html>

To set up a TFTP server on Windows:

1. Install and start the software.
2. Select **File/Configure/Security** tab/**Transmit Only**.
3. Make a note of the default directory name, and then move the firmware files to be uploaded to that directory.

Appendix B: Troubleshooting/Technical Support

B.1 Frequently Asked Questions (FAQ)

Go to the following URL to find a CyberData product and its list of frequently asked questions:

<http://www.cyberdata.net/products/voip/digitalanalog/clockkit/faqs.html>

B.2 Documentation

The documentation for this product is released in an English language version only. You can download PDF copies of CyberData product documentation at:

<http://www.cyberdata.net/products/voip/digitalanalog/clockkit/docs.html>

B.3 Contact Information

Contact	<p>CyberData Corporation 2555 Garden Road Monterey, CA 93940 USA www.CyberData.net Phone: 800-CYBERDATA (800-292-3732) Fax: 831-373-4193</p>
Sales	Sales 831-373-2601 Extension 334
Technical Support	<p>Phone: 831-373-2601 Extension 333 Web: http://www.cyberdata.net/support/contactsupportvoip.html</p>
Returned Materials Authorization	<p>To return the product, contact the CyberData Returned Materials Authorization (RMA) department at:</p> <p>Phone: 831-373-2601, Extension 136 Email: RMA@CyberData.net</p> <p>When returning a product to CyberData, an approved CyberData RMA number must be printed on the outside of the original shipping package. No product will be accepted for return without an approved RMA number. Send the product, in its original package, to the following address:</p> <p>CyberData Corporation 2555 Garden Road Monterey, CA 93940 Attention: RMA "your RMA number"</p>

RMA Status Form If you need to inquire about the repair status of your product(s), please use the CyberData RMA Status form at the following web address:

<http://www.cyberdata.net/support/rmastatus.html>

B.4 Warranty

CyberData warrants its product against defects in material or workmanship for a period of two years from the date of purchase. Should the product fail within the warranty period, CyberData will repair or replace the product free of charge. This warranty includes all parts and labor.

Should the product fail out-of-warranty, a flat rate repair charge of one half of the purchase price of the product will be assessed. Repairs that are in warranty but are damaged by improper modifications or abuse, will be charged at the out-of-warranty rate. Products shipped to CyberData, both in and out-of-warranty, are shipped at the expense of the customer. Shipping charges for repaired products shipped back to the customer by CyberData, will be paid by CyberData.

CyberData shall not under any circumstances be liable to any person for any special, incidental, indirect or consequential damages, including without limitation, damages resulting from use or malfunction of the products, loss of profits or revenues or costs of replacement goods, even if CyberData is informed in advance of the possibility of such damages.

B.4.1 Warranty & RMA Returns within the United States

If service is required, you must contact CyberData Technical Support prior to returning any products to CyberData. Our Technical Support staff will determine if your product should be returned to us for further inspection. If Technical Support determines that your product needs to be returned to CyberData, an RMA number will be issued to you at this point.

Your issued RMA number must be printed on the outside of the shipping box. No product will be accepted for return without an approved RMA number. The product in its original package should be sent to the following address:

CyberData Corporation

2555 Garden Rd.

Monterey, CA 93940

Attn: RMA "xxxxxx"

B.4.2 Warranty & RMA Returns Outside of the United States

If you purchased your equipment through an authorized international distributor or reseller, please contact them directly for product repairs.

B.4.3 Spare in the Air Policy

CyberData now offers a *Spare in the Air* no wait policy for warranty returns within the United States and Canada. More information about the *Spare in the Air* policy is available at the following web address:

<http://www.cyberdata.net/support/warranty/spareintheair.html>

B.4.4 Return and Restocking Policy

For our authorized distributors and resellers, please refer to your CyberData Service Agreement for information on our return guidelines and procedures.

For End Users, please contact the company that you purchased your equipment from for their return policy.

B.4.5 Warranty and RMA Returns Page

The most recent warranty and RMA information is available at the CyberData Warranty and RMA Returns Page at the following web address:

<http://www.cyberdata.net/support/warranty/index.html>

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