

Wall Mount Clock Kit Operations Guide

Part #011153*, RAL 9002, Gray White, Standard
Part #011154, RAL 9003, Signal White, Optional

*Replaces #011023

Document Part #930283/

CyberData Corporation
3 Justin Court
Monterey, CA 93940
(831) 373-2601

Wall Mount Clock Kit Operations Guide 930283I
Part #011153*, RAL 9002, Gray White, Standard
Part #011154, RAL 9003, Signal White, Optional

COPYRIGHT NOTICE:

© 2017, CyberData Corporation, ALL RIGHTS RESERVED.

This manual and related materials are the copyrighted property of CyberData Corporation. No part of this manual or related materials may be reproduced or transmitted, in any form or by any means (except for internal use by licensed customers), without prior express written permission of CyberData Corporation. This manual, and the products, software, firmware, and/or hardware described in this manual are the property of CyberData Corporation, provided under the terms of an agreement between CyberData Corporation and recipient of this manual, and their use is subject to that agreement and its terms.

DISCLAIMER: Except as expressly and specifically stated in a written agreement executed by CyberData Corporation, CyberData Corporation makes no representation or warranty, express or implied, including any warranty or merchantability or fitness for any purpose, with respect to this manual or the products, software, firmware, and/or hardware described herein, and CyberData Corporation assumes no liability for damages or claims resulting from any use of this manual or such products, software, firmware, and/or hardware. CyberData Corporation reserves the right to make changes, without notice, to this manual and to any such product, software, firmware, and/or hardware.

OPEN SOURCE STATEMENT: Certain software components included in CyberData products are subject to the GNU General Public License (GPL) and Lesser GNU General Public License (LGPL) "open source" or "free software" licenses. Some of this Open Source Software may be owned by third parties. Open Source Software is not subject to the terms and conditions of the CyberData COPYRIGHT NOTICE or software licenses. Your right to copy, modify, and distribute any Open Source Software is determined by the terms of the GPL, LGPL, or third party, according to who licenses that software.

Software or firmware developed by CyberData that is unrelated to Open Source Software is copyrighted by CyberData, subject to the terms of CyberData licenses, and may not be copied, modified, reverse-engineered, or otherwise altered without explicit written permission from CyberData Corporation.

TRADEMARK NOTICE: CyberData Corporation and the CyberData Corporation logos are trademarks of CyberData Corporation. Other product names, trademarks, and service marks may be the trademarks or registered trademarks of their respective owners.



Technical Support

The fastest way to get technical support for your VoIP product is to submit a VoIP Technical Support form at the following website:
<http://support.cyberdata.net/>

Phone: (831) 373-2601, Ext. 333

Email: support@cyberdata.net

Fax: (831) 373-4193

Company and product information is at www.cyberdata.net.



Revision Information

Revision 930283I was updated on October 3, 2017 and has the following changes:



- Updates [Section 1.1, "How to Identify This Product"](#).
- Updates [Appendix B, "Troubleshooting/Technical Support"](#).

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>Warning</p> <p><i>Electrical Hazard:</i> This product should be installed by a licensed electrician according to all local electrical and building codes.</p>
	<p>Warning</p> <p><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.

Contents

Chapter 1 Product Overview	1
1.1 How to Identify This Product	1
1.2 Typical System Installation	2
1.3 Product Features	3
1.4 Product Specifications	4
1.5 Dimensions	5
 Chapter 2 Installing the Wall Mount Clock Kit	 6
2.1 Pre-Mounting Connections	6
2.1.1 Install JP1 Prior to Clock Kit Installation	6
2.1.2 Connecting the Clock to the Speaker	7
2.1.3 Connecting Power to the Speaker	8
2.2 Verifying Operation of the Wall Mount Clock Kit	9
2.2.1 Identifying the VoIP Clock Kit Jumpers	9
2.2.2 Power-Up Test	10
2.3 The Clock Kit Adapter Battery	11
2.3.1 JP1 Battery Enable Jumper for Real-Time Clock Operation	11
2.3.2 Checking the Battery Power Level of the Wall Mount Clock Kit	12
2.3.3 Replacing the Clock Kit Battery	12
2.3.4 Seconds Digits Blinking Fast	14
2.4 Mounting the Clock Kit Wall Mount Adapter	15
2.4.1 Parts List	15
2.4.2 Mounting	17
2.4.3 Uploading the Firmware	18
2.4.4 Setting the Time on the Wall Mount Clock Kit	18
2.4.5 Confirm that the Speaker is Operational and Linked to the Network	18
 Appendix A Setting up a TFTP Server	 19
A.1 Set up a TFTP Server	19
A.1.1 In a LINUX Environment	19
A.1.2 In a Windows Environment	19
 Appendix B Troubleshooting/Technical Support	 20
B.1 Frequently Asked Questions (FAQ)	20
B.2 Documentation	20
B.3 Contact Information	21
B.4 Warranty and RMA Information	21
 Index	 22

1 Product Overview

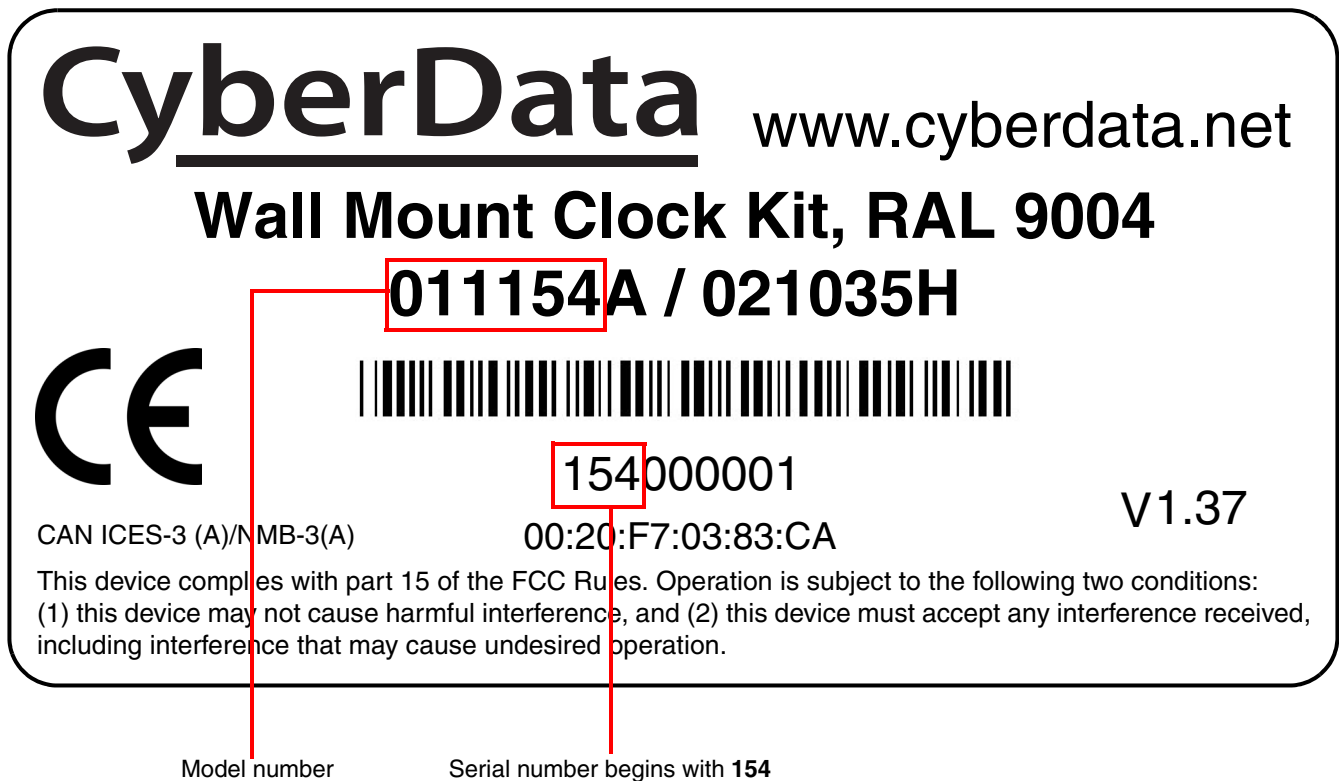
1.1 How to Identify This Product

To identify the Wall Mount Clock Kit, 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:

- **011153***, RAL 9002, Gray White, Standard Color
- **011154***, RAL 9003, Signal White, Optional Color

*Replaces 011023.

Figure 1-1. Model Number Label




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 SIP Speaker from a single PoE connection.

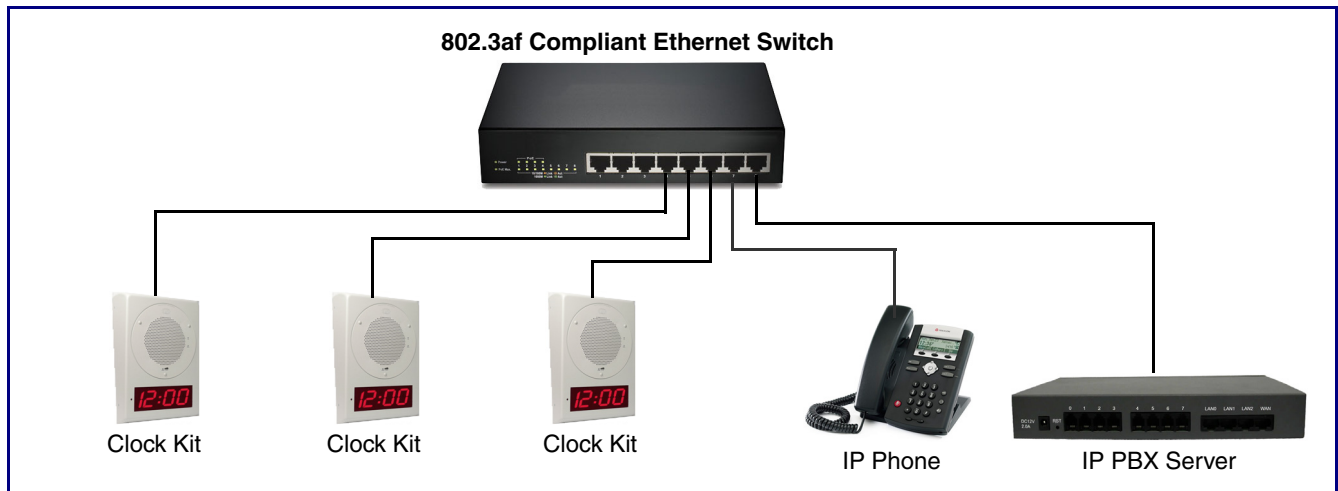
Note Prior to installation, create a plan for the locations of your Wall Mount Clock Kit.

 <p>GENERAL ALERT</p>	<p>General Alert</p> <p><i>Consult local building and electrical code requirements prior to installation.</i></p>
--	---

1.2 Typical System Installation

Figure 1-2 illustrates a typical installation for the Wall Mount Clock Kits.

Figure 1-2. Typical Installation

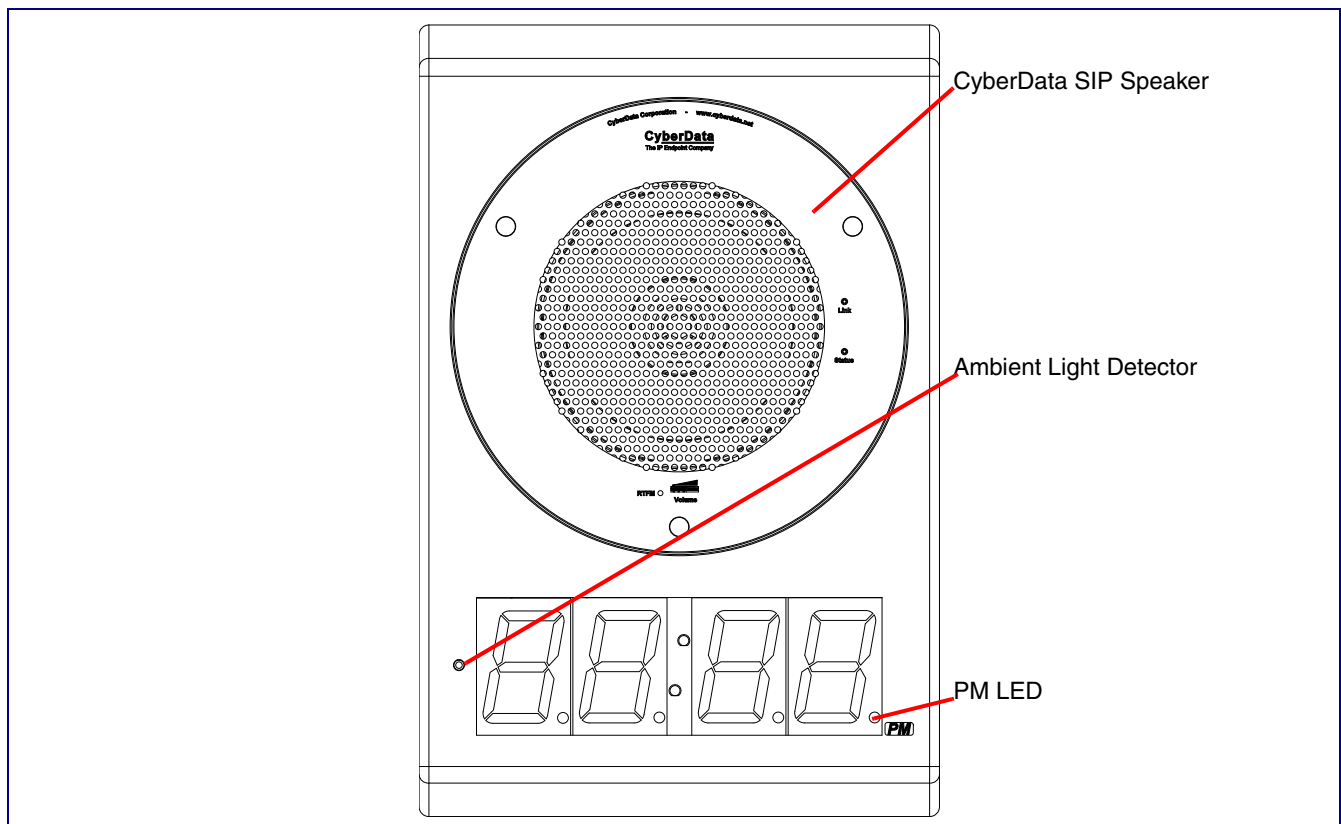


1.3 Product Features

- Easy wall or ceiling installation
- Mounting kit included
- Electrogalvanized steel construction
- RoHS compliant
- Keyhole for easy installation
- Part number (Wall Mount): 011023
- Part number (Flush Mount): 011024
- 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 Wall Mount Clock Kit .

Figure 1-3. Feature Locations



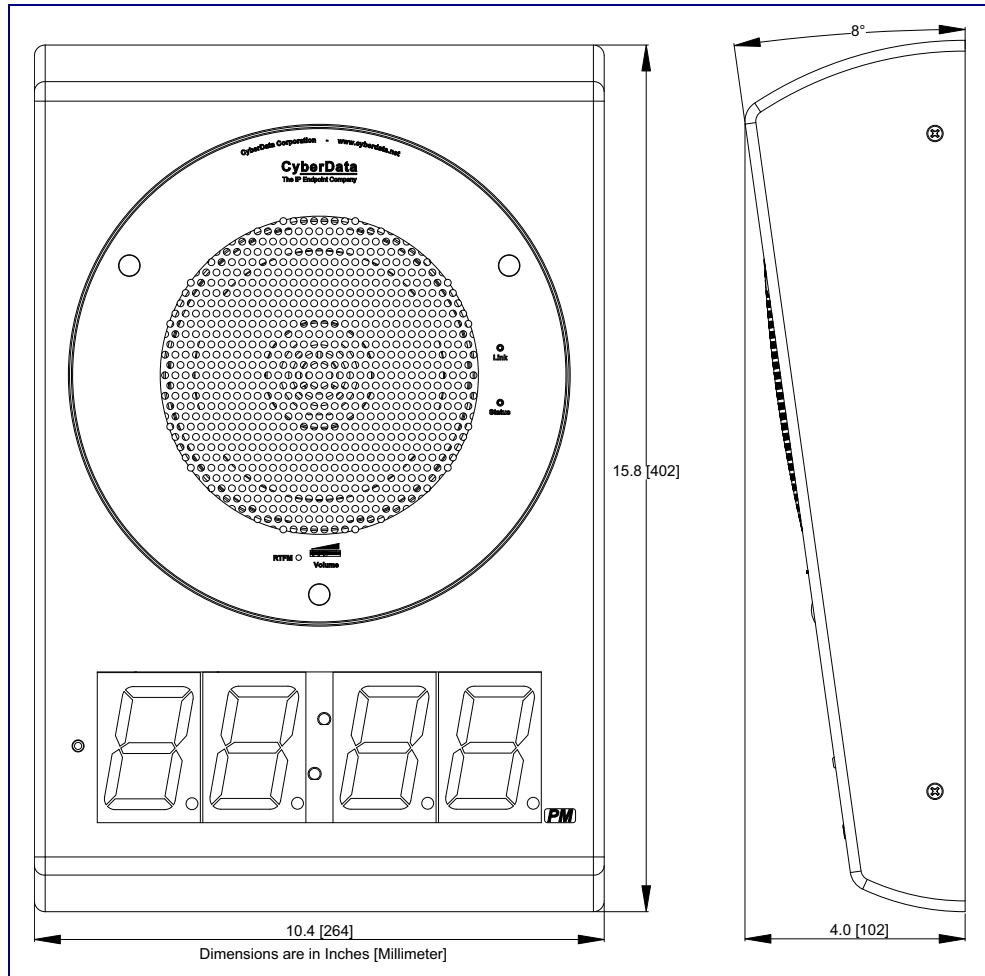
1.4 Product Specifications

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	8.8 lbs. [4 kg]
Part number	011153* , RAL 9002, Gray White, Standard Color 011154 , RAL 9003, Signal White, Optional Color *Replaces 011023.

1.5 Dimensions

Figure 1-4 shows the dimensions for the Wall Mount Clock Kit .

Figure 1-4. Dimensions



2 Installing the Wall Mount Clock Kit

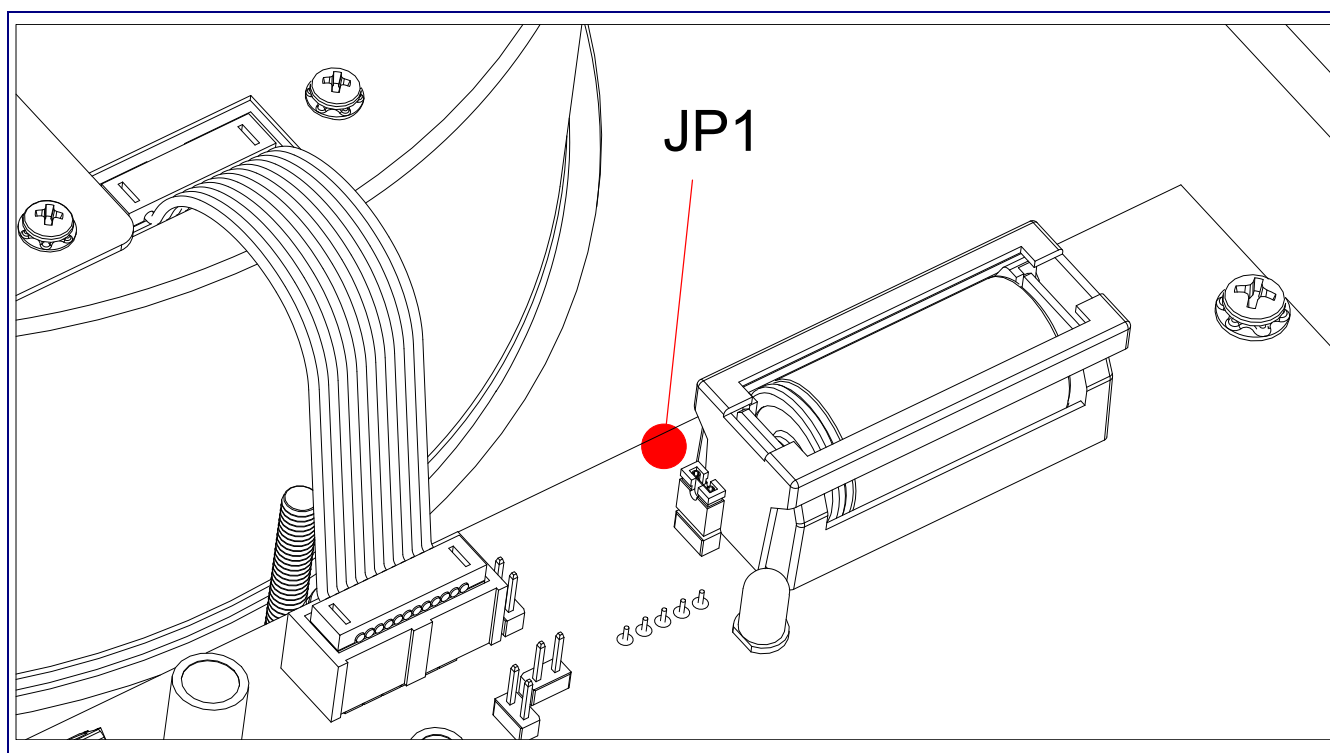
2.1 Pre-Mounting Connections

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 2-1](#).

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

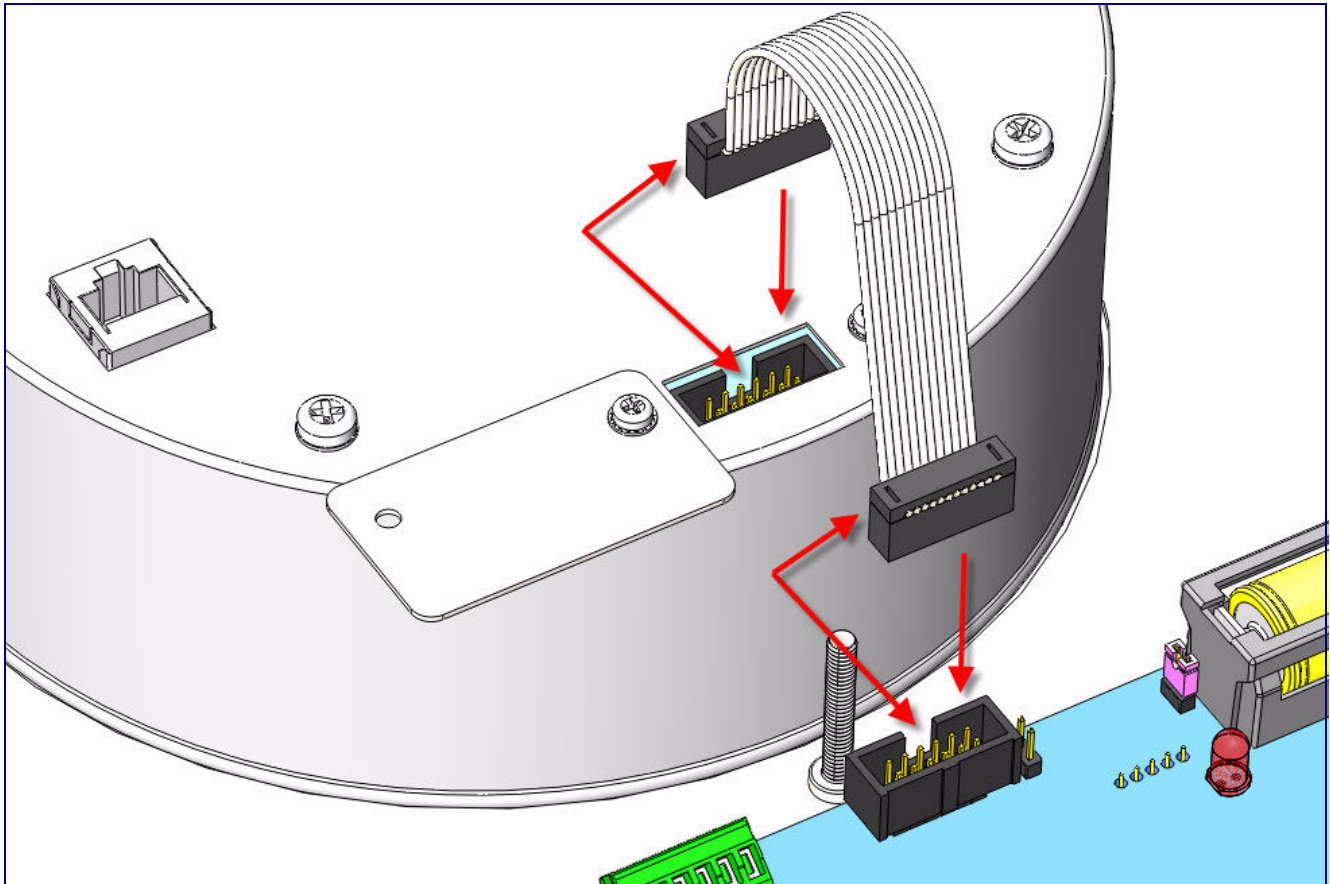
Figure 2-1. Jumper JP1



2.1.2 Connecting the Clock to the Speaker

Figure 2-2 illustrates how to connect the ribbon cable to the clock and the speaker.

Figure 2-2. Connecting the Clock to the Speaker



2.1.3 Connecting Power to the Speaker

Figure 2-3 and Figure 2-4 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 Wall Mount Clock Kit .

Figure 2-3. Connecting Power—PoE

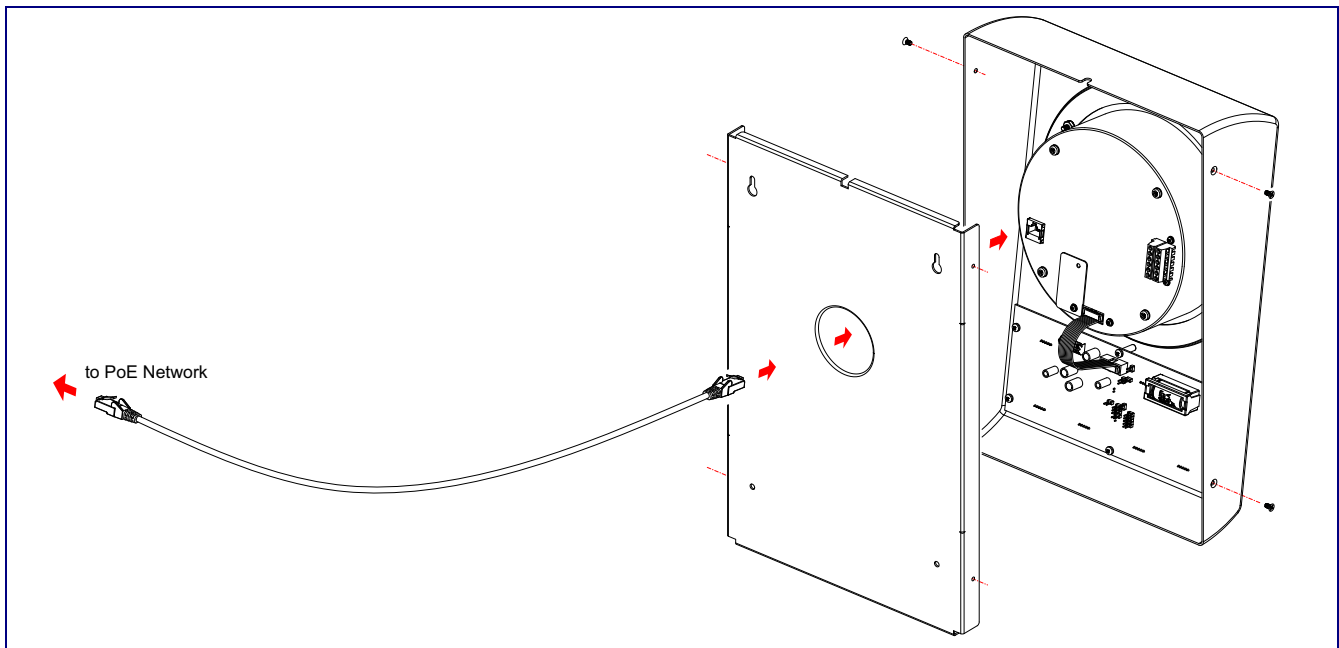
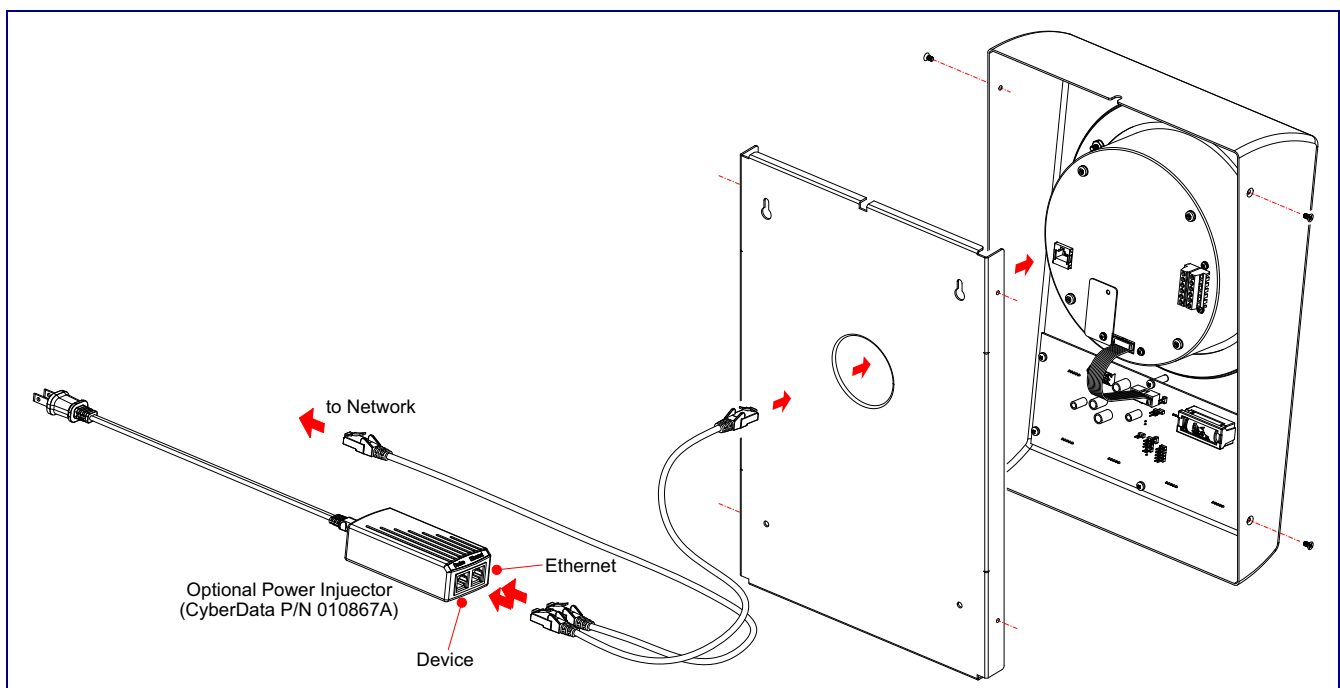


Figure 2-4. Connecting Power—Optional Power Injector



2.2 Verifying Operation of the Wall Mount Clock Kit

2.2.1 Identifying the VoIP Clock Kit Jumpers

See [Figure 2-5](#) and [Table 2-1](#) to identify the jumper locations and functions.

Figure 2-5. Jumper Locations

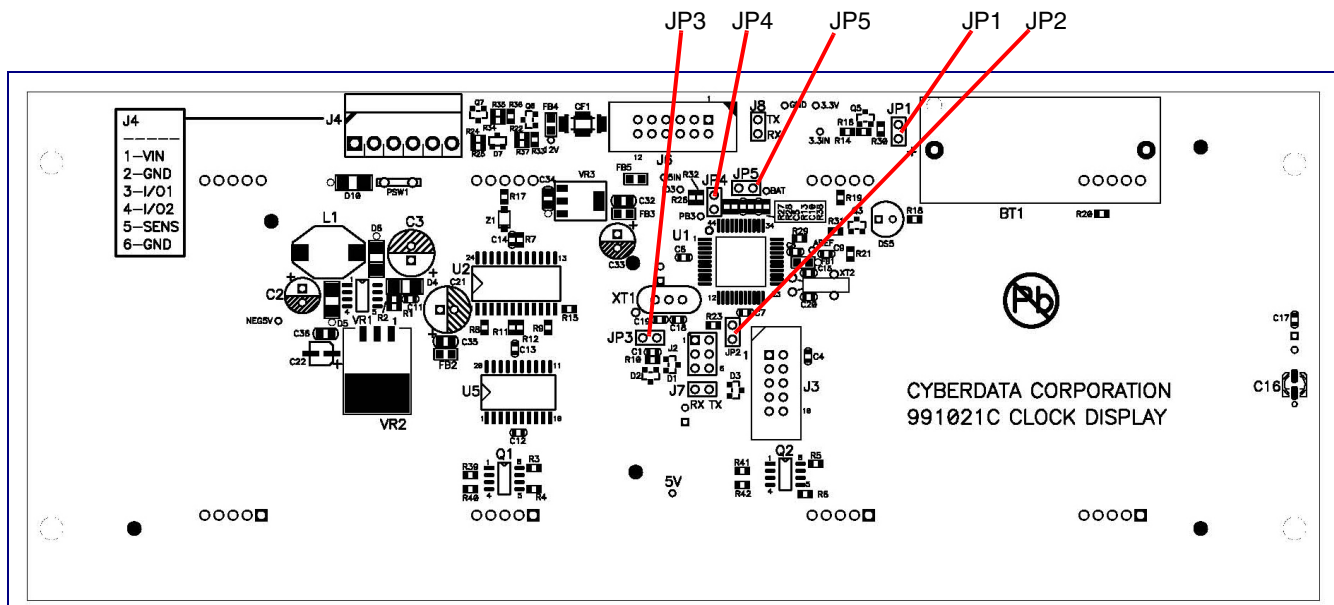


Table 2-1. Jumper Functions

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.

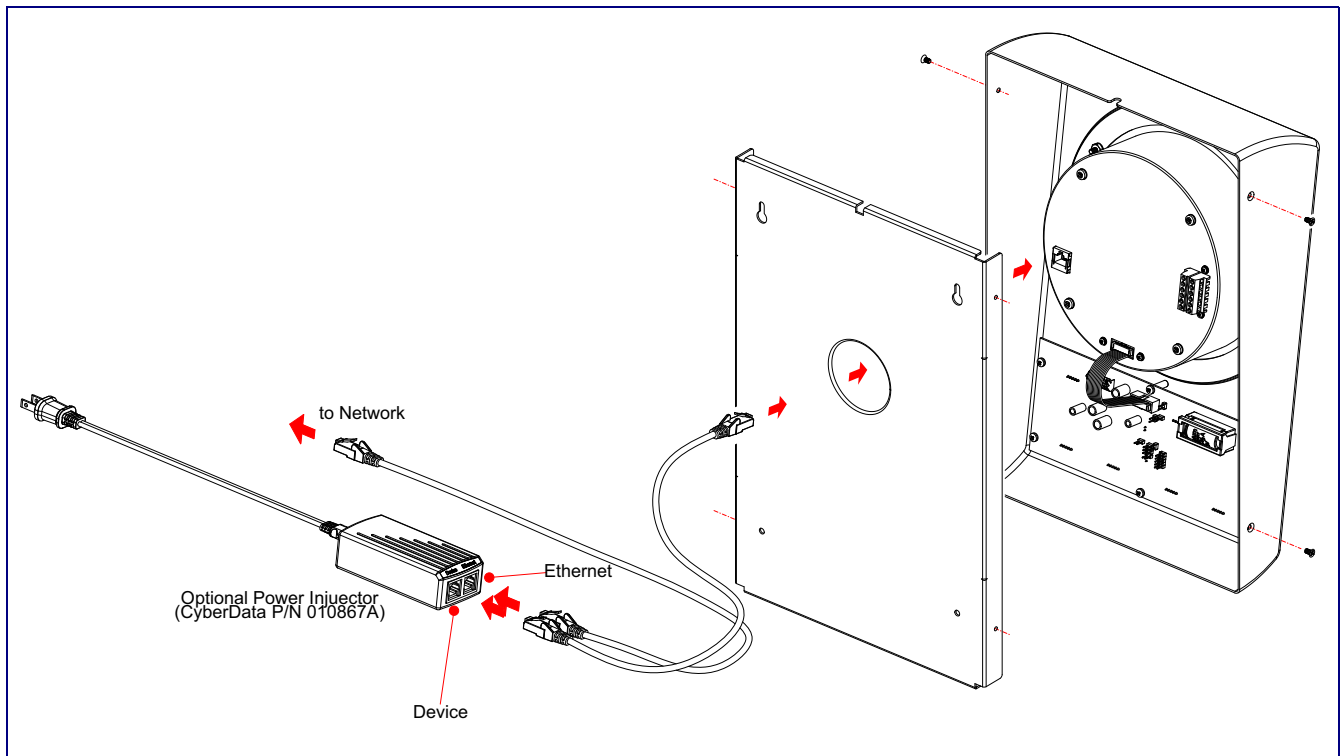
2.2.2 Power-Up Test

To perform a power up test,

1. Connect power to the speaker as shown in [Figure 2-6](#).

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

Figure 2-6. Connecting Power



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

Table 2-2. 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.

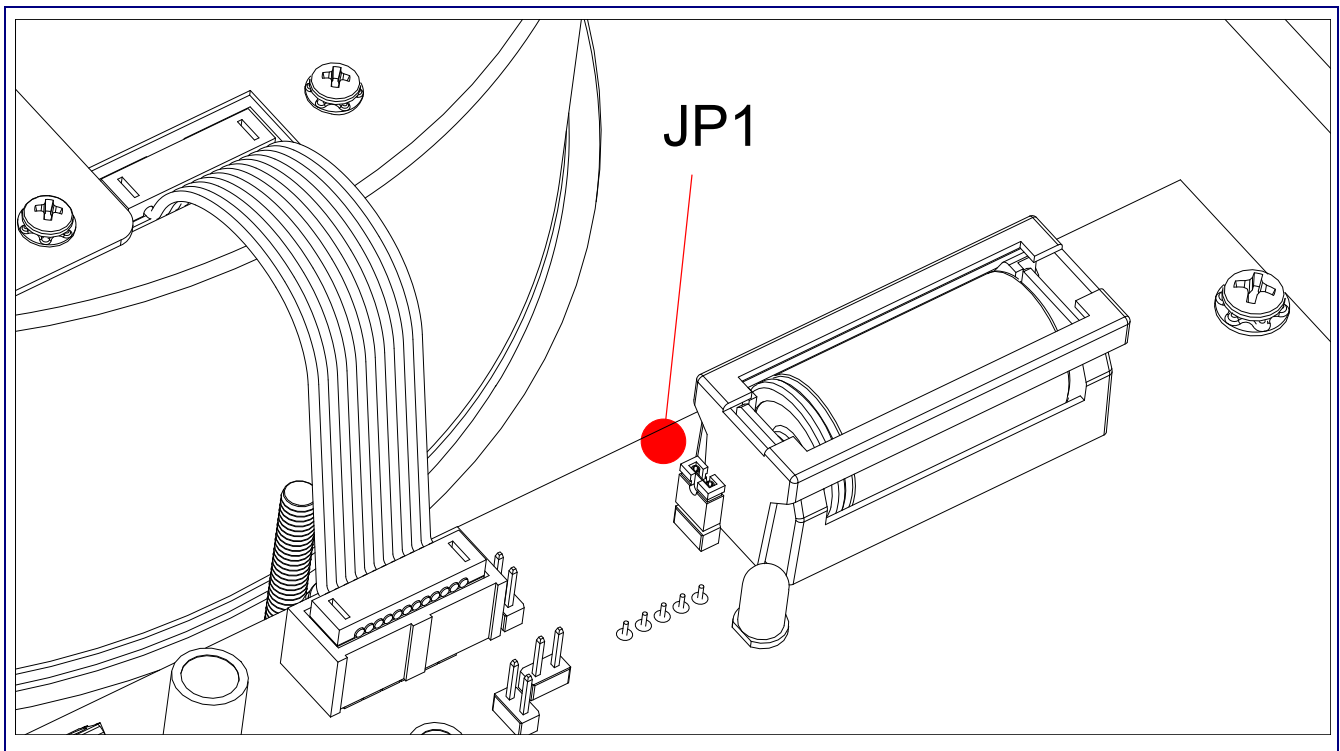
2.3 The Clock Kit Adapter Battery

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 2-7](#).

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

Figure 2-7. Jumper JP1



2.3.2 Checking the Battery Power Level of the Wall Mount Clock Kit

To check the battery power level of the Wall Mount Clock Kit ,

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 Wall Mount Clock Kit .

Acceptable replacements:

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

2.3.3.2 Battery Life

The Lithium-Ion CR-123 battery in the Wall Mount Clock Kit should last for approximately seven years.

2.3.3.3 Replacing the Battery

Figure 2-8 and Figure 2-9 illustrates how to locate and replace the Clock Kit battery.

Figure 2-8. Clock Kit Battery Location

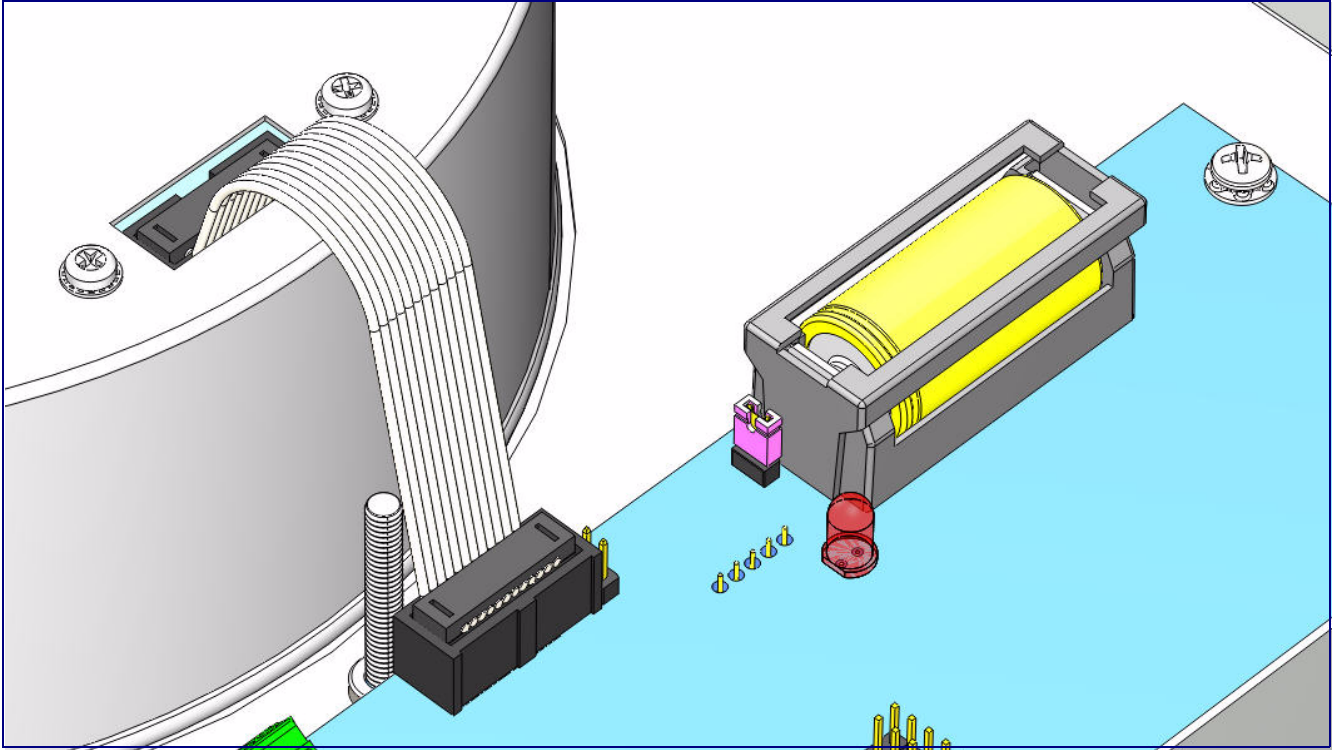
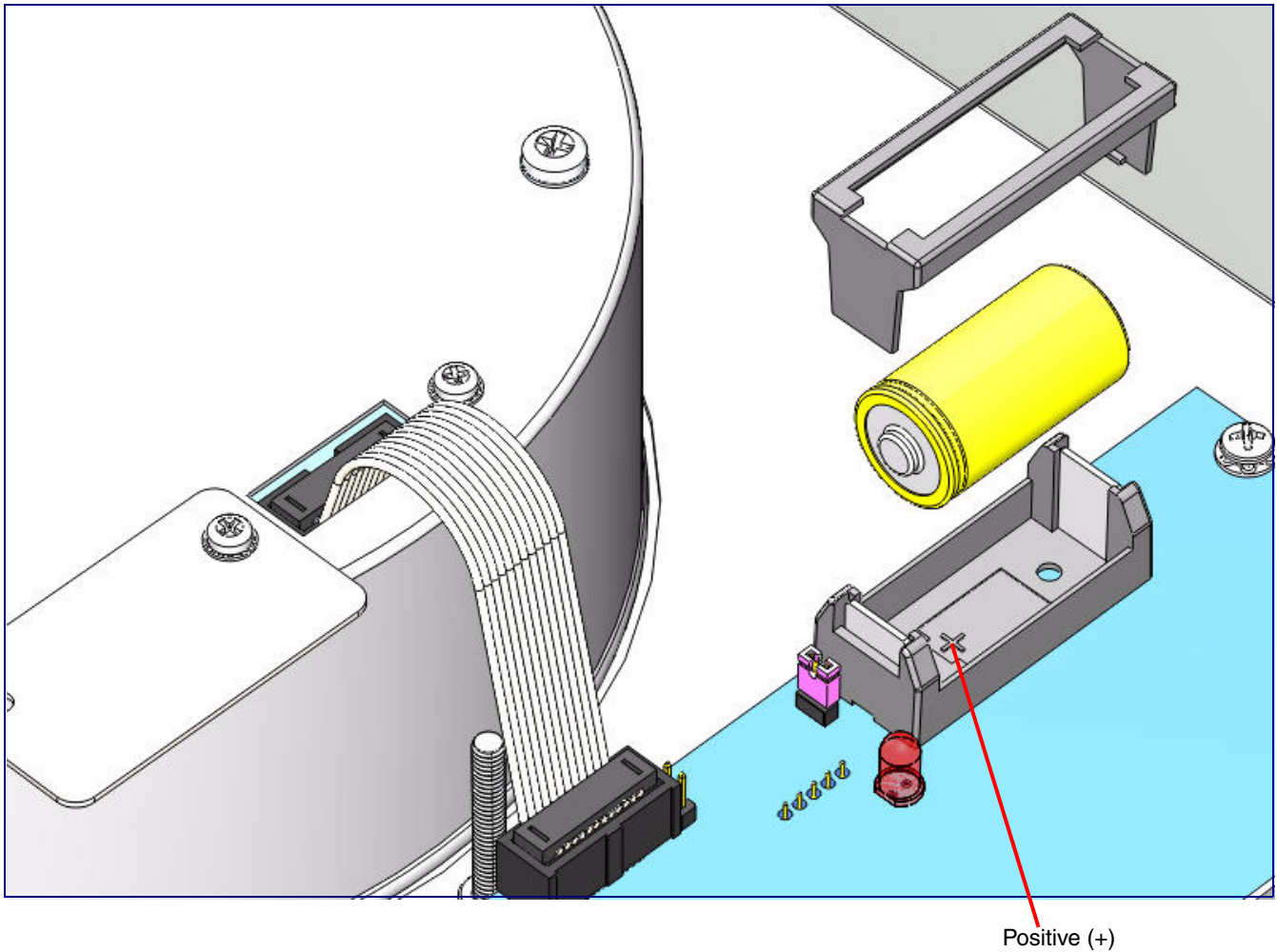


Figure 2-9. Clock Kit Battery Replacement



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 Clock Kit Wall Mount Adapter

2.4.1 Parts List

Before you install the clock kit wall mount adapter, make sure that you have received all of the parts. Refer to [Table 2-3](#).

Table 2-3. Drywall Mounting Kit^a

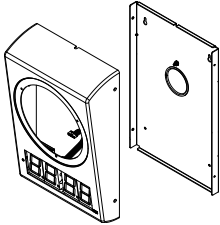
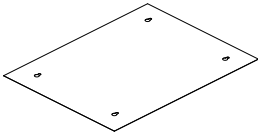




Quantity	Part Name	Illustration
1	Wall Mount Adapter and Backplate	
1	Placemat containing template for wall mount adapter and screw holes ^{bc}	
4	Plastic Ribbed Anchors	
4	#8 Sheet Metal Screws	
4	#6-32 x 0.25-inch FlatHead, 100-degrees Countersunk Machine Screw	
3	#8-32 x 0.5 inch Non-Drive Button Head Machine Screw	

Table 2-3. Drywall Mounting Kit^a(continued)

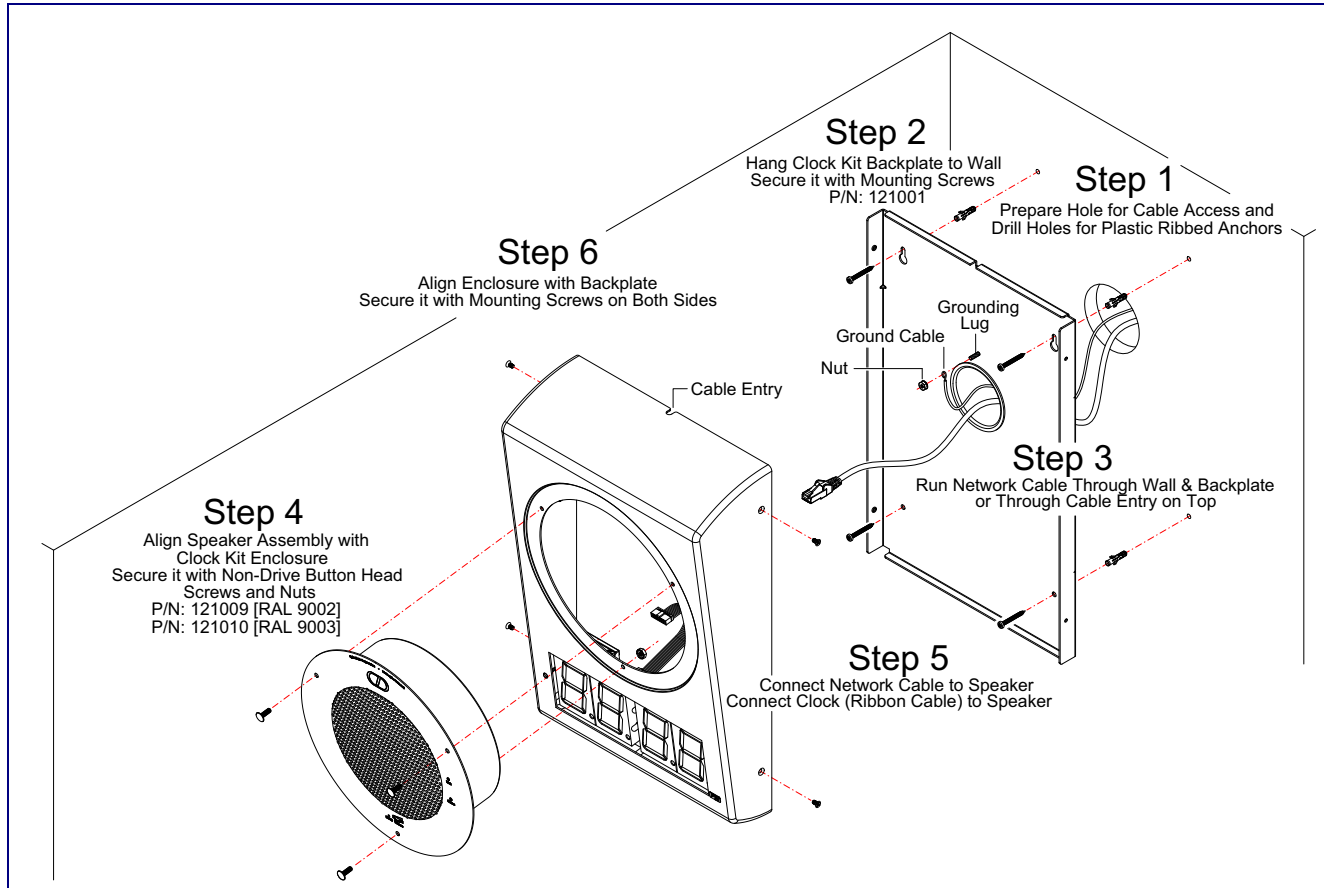
Quantity	Part Name	Illustration
3	#8-32 KEP Nut	

- a. The drywall mounting kit is part of the accessory kit.
- b. The ceiling speaker wall-mounted adapter screws will be included in the ceiling speaker kit.
- c. The installation template for the Wall Mount Adapter is located on the Installation Quick Reference Guide that is included in the packaging with each speaker.

2.4.2 Mounting

See [Figure 2-10](#) to mount a Clock Kit Wall Mount Adapter.

Figure 2-10. Clock Kit Wall Mount Adapter Installation



2.4.3 Uploading the Firmware

To upload the firmware, please see the *SIP Speaker Operations Guide* at the following website address:

<http://www.cyberdata.net/voip/011393/>

2.4.4 Setting the Time on the Wall Mount Clock Kit

To set the time on the Clock Kit Adapter, please see the *SIP Speaker Operations Guide* at the following website address:

<http://www.cyberdata.net/voip/011393/>

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

To confirm that the Speaker is operational and linked to the network, please see the *SIP Speaker Operations Guide* at the following website address:

<http://www.cyberdata.net/voip/011393/>

Appendix A: Setting up a TFTP Server

A.1 Set up a TFTP Server

Autoprovisioning requires a TFTP server for hosting the configuration file.

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 download from the following website address:

<http://www.cyberdata.net/assets/common/Solarwinds.zip>

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)

To see a list of frequently asked questions for your product, click on the **FAQs** tab at the following webpage:

<http://www.cyberdata.net/voip/011153/>

B.2 Documentation

The documentation for this product is released in an English language version only.

To download PDF copies of CyberData product documentation, click on the **Downloads** tab at the following webpage:

<http://www.cyberdata.net/voip/011153/>

B.3 Contact Information

Contact	<p>CyberData Corporation 3 Justin Court Monterey, CA 93940 USA www.CyberData.net Phone: 800-CYBERDATA (800-292-3732) Fax: 831-373-4193</p>
Sales	<p>Sales 831-373-2601, Extension 334</p>
Technical Support	<p>The fastest way to get technical support for your VoIP product is to submit a VoIP Technical Support form at the following website:</p> <p>http://support.cyberdata.net/</p> <p>The Support Form initiates a ticket which CyberData uses for tracking customer requests. Most importantly, the Support Form tells us which PBX system and software version that you are using, the make and model of the switch, and other important information. This information is essential for troubleshooting. Please also include as much detail as possible in the Comments section of the Support Form.</p> <p>Phone: (831) 373-2601, Extension 333</p>

B.4 Warranty and RMA Information

The most recent warranty and RMA information is available at the following website address:

<http://support.cyberdata.net/>

Index

A

- alternate power input (terminal block J4) 4
- ambient operating temperature 4
- autoprovisioning
 - setting up a TFTP server 19

B

- battery 11
 - checking the power level 12
 - JP1 jumper 11
 - location 12
 - replacing 12, 13
- battery life 12
- battery power level 12
- battery type 12

C

- clock
 - connecting the clock to the speaker 7
- connections
 - connecting the clock to the speaker 7
 - pre-mounting 6
- connector locations 9
- contact information 21
- contact information for CyberData 21
- cover
 - removing the connection cover from the speaker 6
- CyberData contact information 21

D

- dimensions 4, 5
- display
 - seconds digits blinking fast 14

F

- features 3
- firmware 18

H

- hazard levels 5

I

- identifying the product 1
- identifying your product 1
- installation 6
- installation, typical speaker system 2

J

- JP1 6, 11
- JP1 battery enable jumper 11
- jumper functions 9
- jumper locations 9

L

- LED
 - seconds digits blinking fast 14
- Linux, setting up a TFTP server on 19

M

- mounting the clock kit wall mount adapter 15

N

- network link activity, verifying 18

O

- operation
 - verifying 9
- overview 1

P

- parts 15
- parts list 15
- power 8, 10
 - connecting power to the clock 8, 10
- power input
 - alternate power input (terminal block J4) 4
- power input (J1) 4
- power requirement 4
- product
 - parts list 15
- product features 3
- product identification 1
- product overview
 - product features 3
 - product specifications 4
- product specifications 4

S

- safety instructions 4
- sales 21
- seconds digits blinking fast 14
- service 21
- speaker
 - removing the connection cover 6
- specifications 4
- system installation 2

T

- tech support 21
- technical support, contact information 21
- TFTP server 19
- time 18
 - setting the time 18

U

- uploading the firmware 18

V

- verifying
 - network link and activity 18
 - power on to speaker 18
- verifying operation 9

W

- warranty policy at CyberData 21
- weight 4
- Windows, setting up a TFTP server on 19