

## 2507 Ring Detector

### Installation Guide



## 1 GENERAL

### 1.1 Introduction

Many phones can be configured to provide ring audio to the headset jack instead of the speaker. The Algo 2507 module detects the low-level audio from the headset jack and provides an isolated signal to activate an Algo IP endpoint.

Only one compatible Algo IP endpoint can be connected directly to the 2507 Ring Detector at a time, however, any endpoint device can send a signal to additional devices via the relay output connections on the back, or via multicast.

#### 1.1.1 What's Included

- 2507 Ring Detector
- Handset Cord
- Cable for Connecting to an Algo IP endpoint

#### 1.1.2 What's Not Included

- Algo IP endpoint (see the list below for compatible devices)

#### 1.1.3 Compatible Algo IP Endpoints

- 8128 IP Strobe Light (G2)
- 8138 IP Color Visual Alerter
- 8180 IP Audio Alerter (G2)
- 8186 IP Horn Speaker
- 8188 IP Ceiling Speaker
- 8189 IP Surface Mount Speaker
- 8190 IP Speaker – Clock
- 8190S IP Speaker – Clock – Visual Alerter
- 8196 IP PoE+ Horn Speaker
- 8198 IP PoE+ Ceiling Speaker
- 8301 IP Paging Adapter & Scheduler



**Note**

*Devices must be on firmware 3.4.2 or above.*

## 2 SETUP AND INSTALLATION

### 2.1 Getting Started – Quick Install & Test



#### **Warning**

Only connect the 2507 to the relay input port on compatible Algo IP endpoints.

- 1 Connect the Algo IP endpoint to the network via an Ethernet cable. Ensure that a PoE port is used for power.
- 2 Enter the IP address (e.g., 192.168.1.111) into a browser, such as Google Chrome, Firefox, or Microsoft Edge, and login. Full product user guides are available by visiting the [Algo Website](#).
- 3 Configure the Algo IP endpoint via the web interface by navigating to *Additional Features* → *Input/Output* and set the Relay Input Mode to “Algo 2507 Ring Detector”.



#### **Note 1**

Devices must be on firmware 3.4.2 or above.



#### **Note 2**

If working with an 8180 IP Audio Alerter, set the Relay Terminal Function to “Input” in order to show the Relay Input Mode setting.

**Input/Output**

---

General

Relay Input Mode

- Disabled
- Relay Normally Open
- Relay Normally Open with Supervision (e.g. Algo 1203 Call Switch)
- Relay Normally Closed
- Relay Normally Closed with Supervision
- Mute Switch
- Mute Switch with Supervision
- Algo 1202 Call Button
- Algo 1204 Volume Control Switch
- Algo 1204 Volume Control Switch with Supervision
- Algo 1205 Audio Interface Switch
- Algo 2507 Ring Detector

*Figure 1: Relay Input Mode*

- 4 Configure the desired tone and volume or strobe pattern to play when the relay input is activated. Click “Save” in the bottom right corner of the page.
- 5 (Optional) Test that the configuration is correct by shorting a pair of wires across the relay input terminal of the device. The configured tone will play, or the strobe will flash, indicating the configuration is correct.

- Once the Algo IP endpoint is confirmed to be working correctly, connect one end of the supplied cable (maximum length of 20 feet) to the relay input terminal on the device, and the other end to the terminal block on the 2507. This connection is *not* polarity dependent.

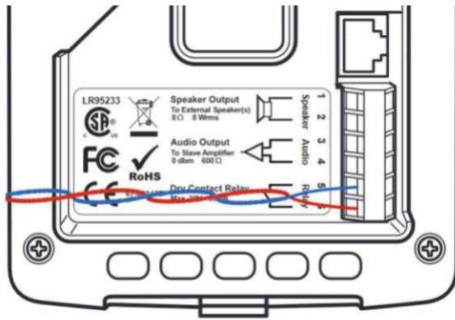


Figure 2: Relay Input (8180)

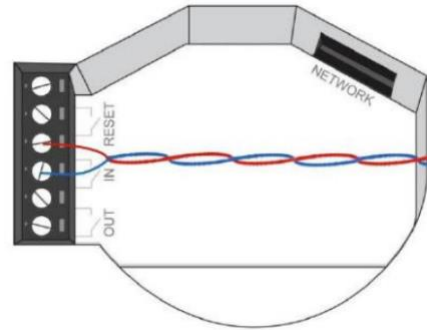


Figure 3: Relay Input (8128/8138)

- Plug one end of the headset cord into the RJ jack on the 2507 and the other end into the headset jack on the phone.



Figure 4: RJ jack and headset jack connections



Figure 5: Connection from RJ9 to headset

- Ensure that the ring signal of the phone is sent to the headset jack in the configuration settings on the phone. Consult your phone vendor's documentation for details on how this can be done. Configuration for certain phones is available below.
- Set the phone ringing volume to maximum.** (Ensure that the headset is set up before the ring volume is configured.)

- 10 Set the sensitivity on the 2507 to maximum by gently rotating the adjustment knob all the way clockwise. If a continuous alert is triggered or the alerting device is activated when the phone isn't ringing, lower the sensitivity.
- 11 Test by calling the phone. If the Algo Speaker or Visual Alerter does not activate, read the Troubleshooting section below.

Below are instructions for configuration with two very popular IP phone manufacturers: Poly and Yealink. Please note the Algo 2507 Ring Detector is compatible with most IP phones, but you should verify this support with the manufacturer directly. In general, any IP phone capable of providing ring audio over the headset port is likely to be compatible with the Algo 2507 Ring Detector.

## 2.2 Poly CCX Series

Follow the steps below to configure the CCX phone for loud ringing with the Algo 2507.

- 1 In the phone menu, go to *Settings* → *Device Settings* → *Admin Only* → *Debug* → enable "Web User Interface", save the settings and the phone will automatically reboot. Please note the admin password (default is 456) is required to access these settings. If you don't know the password, contact your system administrator.
- 2 In the same menu, go to *Settings* → *Device Settings* → *About* to find the IP address.
- 3 Type the IP address in the web browser of your preference and log in as Admin. The password will be the same one used in step 1.
- 4 Navigate to *Utilities* → *Import & Export Configuration* tab. Export all configuration and save the file locally.
- 5 Open the file with a text editor and add the two following lines. Make sure to add it between <All/>, inside <PHONE\_CONFIG> </PHONE\_CONFIG>. See example below:

```
<PHONE_CONFIG>
  <ALL
    np.normal.ringing.toneVolume.headse="0"
    se.destination="headset"
  />
</PHONE_CONFIG>
```



### Note 1

Do not delete any settings, just add the two lines above.

- 6 Save the text file and use the Poly import feature available in the same tab to import the edited configuration file. The following message will confirm the settings have been applied correctly: "Configuration file imported successfully".

## 2.3 Yealink MP54, MP56, MP58

- 1 Make sure the phone is running firmware 122.15.0.33 or higher
- 2 In the phone menu, go to *Settings* → *Device Settings* → *Network* and enter the admin password (default is **admin**). If you don't know the password, contact your system administrator. In the Web Server section, enable "HTTP Status" and/or "HTTPS Status" and reboot when prompted. This enables access to the web configuration page.
- 3 After the reboot, in the phone menu, go to *Settings* → *Device Settings* → *About*. Write down the IP address.

- 4 Type the IP address in the web browser of your preference and log in as Admin. Confirm the login credentials with your system administrator or check the manufacturer's default login credentials.
- 5 Navigate to *Settings* → *Tones* and set the Ringer Device to "Headset" or "Headset & Speaker". Save the settings.

## 2.4 Yealink T55A, T56A, T58A

- 1 Make sure the phone is running firmware 58.15.0.122 or higher.
- 2 In the phone menu, go to *Settings* → *Network* and enter the admin password (default is admin). If you don't know the password, contact your system administrator. In the Web Server section, enable "HTTP Status" and/or "HTTPS Status" and reboot when prompted. This enables access to the web configuration page.
- 3 After the reboot, in the phone menu, go to *Settings* → *Device Settings* → *About*. Write down the IP address.
- 4 Type the IP address in the web browser of your preference and log in as Admin. Confirm the login credentials with your system administrator or check the manufacturer's default login credentials.
- 5 Navigate to *Settings* → *Tones* and set the **Ringer Device** to "Headset" or "Headset & Speaker". Save the settings.

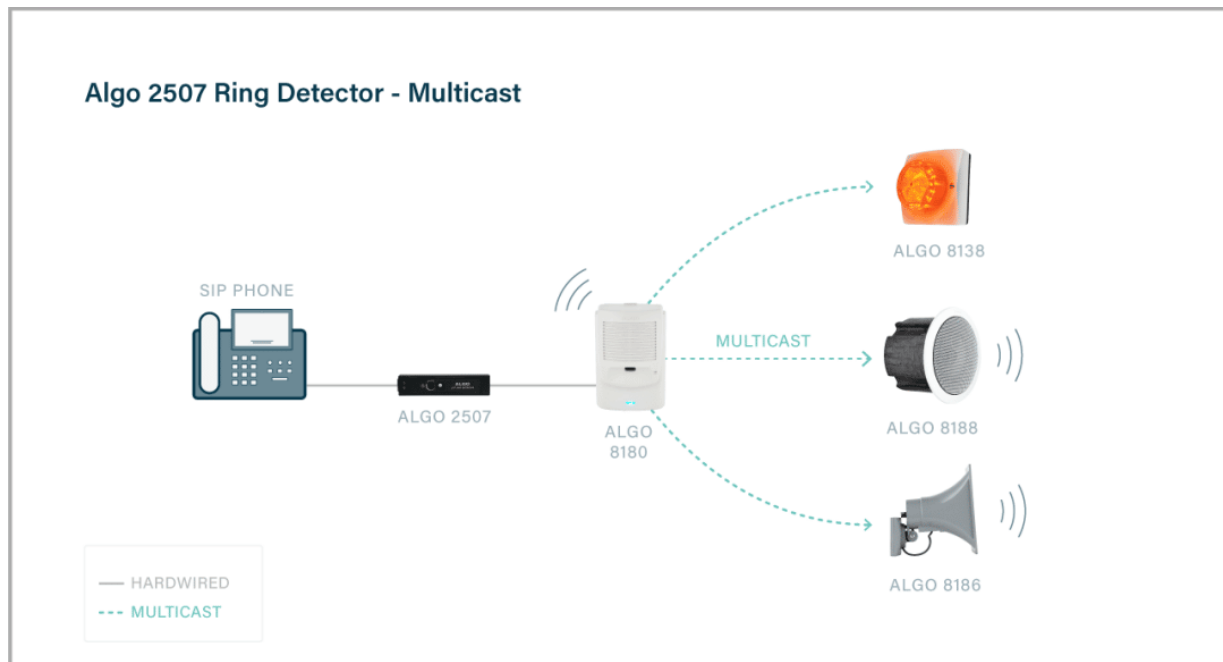
## 3 TRIGGERING MULTIPLE DEVICES

### 3.1 Multicast

Multicast can be used to trigger alerts from one Algo IP Endpoint to any number of additional Algo alerting products. Neither SIP registration nor SIP licensing will be required. This can be used to provide both audible and visual alerting or for coverage of large areas.

When using multicast, ensure that all the alerting devices are connected to the same subnet and VLAN. The alerting device that is connected directly to 2507 should be set as a multicast transmitter and all the additional devices as multicast receivers.

For further multicast configuration details, refer to [product page](#).



## **4 TROUBLESHOOTING**

### **4.1 Wiring Connections**

To verify that the Algo IP endpoint is powered and configured correctly, short the wire pair on the input of the alerting device and see if an audio/visual alert is triggered. If not, verify the PoE connection and web configuration options as described in the Algo IP Endpoint Web Interface Configuration of this guide.

If the Algo IP endpoint functions correctly, next verify the wiring connection between the alerting device and the 2507.

If a continuous alert is triggered or the alerting device is activated when the phone isn't ringing, lower the sensitivity dial on the 2507.

### **4.2 Headset Jack**

Ensure that the ring signal is sent to the headset jack on the phone. Consult your phone's documentation for more details.

To verify this, a headset or handset can be temporarily connected to the headset jack on the phone (in place of the 2507). Confirm that an audible signal is heard on this headset/handset when the phone rings.

### **4.3 Phone Volume**

Ensure that the phone ringer volume is set to a max. The volume should be configured after the headset is set up.