



- IPSCM and ZONEC2 models do not support the PIA board. Instead, connect the button directly to either device.

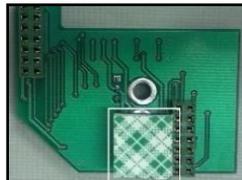
BOARD INSTALLATION

Warning: Remove power prior to installation to avoid possible damage of components.

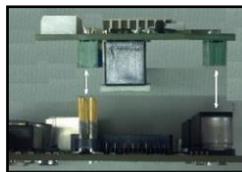
1. For AND-PIA-2, if a display cable is connected to J9 of the main controller board in the AND device, move the cable up to J10.



2. Remove the backing from the mounting tape on the underside of the board.



3. Line up the two 14-pin connectors with headers J9 and J13 of the main controller board.



4. Press the peripheral board down until the mounting tape makes contact with the main board.



OVERVIEW

The AND Call Button Kit (AND-BTN-KIT-1 / AND-BTN-KIT-1D) includes a momentary push button and a peripheral interface board (AND-PIA-2 / AND-PIA-2D). The PIA makes any combination of the following AND device signals available via two “poke-home” connectors on the board:

- Line-Level Audio In
- Line-Level Audio Out
- 2 General Purpose Inputs
- General Purpose Output Relay (N.O. or N.C; dry, 12 or 15 VDC, 1A max)

DEVICE REQUIREMENTS

- Compatible with AND devices of MAC address 20:46:F9:03:00:00 or higher.
- Test any connected peripheral before deployment (see *Programming* section).
- IPSIGNL-RWB and IPCDS-RWB require the AND-BTN-KIT-1D. [Contact AND sales.](#)

Note: On controller boards in the MAC address range 20:46:F9:03:00:00-03:24:40, the J13 header has an extended height that will cause the peripheral board to sit at an angle with respect to the main board. The board can function in this position, or you can trim the J13 header pins with wire cutters to the height of the J9 header to make it level.

5. For the AND-PIA-2D, reconnect bottom display cable to the 14-pin header.

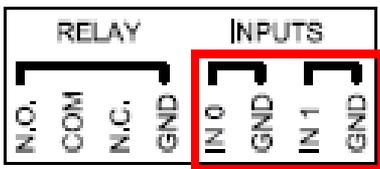


WIRING

Use 18 - 22 AWG stranded or solid core wire for connection to the peripheral board.

General Purpose Input

Connect one side of the input circuit to "IN 0" or "IN 1" and the other side of the input circuit to the respective adjacent "GND". To trigger the input sensing, short the two wires together (e.g., via a push button, etc.)



NON-REGISTERED OPERATION

If the AND device is not registered with any servers, you can use the following general purpose URL callback to generate actions based on an input change, such as a push button press.

1. Power up the AND device with the monitored input.
2. Configure a GPIO Callback URL for the device. This example uses the URL `http://10.10.3.4:8089/directory/file`, where `10.10.3.4:8089` is the IP address and port of the server that will receive the response. Note that `directory` and `file` are optional parameters.

- If configuring the device using the device's web page, select **Device Settings** → **Servers** to locate the *GPIO Callback URL*. Set the URL to `http://10.10.3.4:8089/directory/file`, and save the settings.
- If using a configuration file, add the following tag:

```
<GPIO_callback
url="http://10.10.3.4:8089/directory/file" min_update_period_ms="250"
/>
```

3. Reboot the device.

In this example, when the input changes state, the device will execute an HTTP GET to 10.10.3.4, port 8089, of the following format (parameters detailed below):

```
GET
/directory/file?address=2046f9010203&gpinid=0&state=1&transitions=340
```

| Parameter | Description |
|--------------------|--|
| <i>address</i> | The MAC address of the device with the input state change |
| <i>gpinputid</i> | the input number that changed |
| <i>state</i> | state of that input (0 or 1) |
| <i>transitions</i> | the total number of transitions for that input since last reboot |

IPLOCKWISE GPIO CALLBACK

1. Obtain the IP address of the PC running IPClockWise. In Windows, run *ipconfig* from a command prompt to list the address.
2. Power up the AND device with the monitored input.
3. Set the GPIO Callback URL to *http://10.10.3.4:8089* where *10.10.3.4* is the IP address of the PC running IPClockWise. See section 2 of *Non-Registered Operation* for configuration options.
4. In IPClockWise, under the *Alerts* tab, select *Add an Alert*.
5. In the *Edit Alert* window, in the middle section labeled *Trigger*, select *GPIO In* in the *Source* drop down box and then select the appropriate *Channel*, 0 or 1, depending on the input the alert will monitor.
6. Optional: To trigger a Live Sound Intercom or Monitor request with the triggered input, select an *Extra Action*, typically *Intercom*. For example, if selecting *Intercom* for an AND device equipped with a call button,

IPClockWise will sound an alert in the Intercom Call Waiting tab of the Live Sound tab when pressing the button. This action will alert the IPClockWise attendant of an intercom call request, to which the attendant can respond by double-clicking on the device in the call waiting list.

7. Check the checkbox next to the device(s) with the monitored input in the *Listen for trigger source* list at the bottom of the screen.
8. Fill out the remaining details of the Alert, such as a scrolling message and audio file, as well as the devices to receive the alert in the *Output devices* list, if desired.
9. Select *OK* to save the Alert. IPClockWise will now respond to the input as configured.

PUSH-TO-TALK OPERATION

You can use the push button to ring and/or connect to an AND device, a phone, or other third-party SIP device, when configured for “push-to-talk” operation.

AND Device to AND Device Operation

1. Configure the device.
 - If configuring the device using on-board settings, access the device’s web page, select **Device Settings** → **SIP**. Under *SIP General Settings*, set *Promiscuous Mode* to “Yes”. Under *SIP GPIO Input Action Settings*, set the *Push-to-Talk 1* parameter to the MAC address or IP address of the

AND device to call when pressing the button. Note, for MAC addresses, include the colon between each digit pair (e.g., 20:46:F9:03:02:01). Save settings.

- If configuring the device using a configuration file, add or modify the following parameters in the *SIPConfig* tag:

```
<SIPConfig
  promiscuous_mode="1"
  push_to_talk_ip1="20:46:F9:03:02:01"
/>
```

2. Reboot the device. A momentary press of the push button will put the two devices into a two-way conversation, provided both devices have microphones. Press the button again to end the call.

AND Device to Phone Operation

1. Configure the AND to register to a SIP server.
 - If configuring the AND device using on-board settings, access the device's web page, and select **Device Settings** → **SIP**. Under *SIP GPIO Input Action Settings*, set the *Push-to-Talk 1* parameter to the extension or SIP ID of the phone or third-party device to call when pressing the button. Save the settings.
 - If configuring the device using a configuration file, add, or modify the `push_to_talk_ip1` parameter in the *SIPConfig* tag:

```
<SIPConfig
  push_to_talk_ip1="2450"
/>
```

- See related third-party documentation for details on setting up a SIP extension on the AND device.
2. Reboot the device. A momentary press of the push button will dial the phone or device specified by the programmed extension number. If the phone or other device accepts the call, they will be put into a two-way conversation. Press the button again to end the call.

ADDITIONAL RESOURCES

User Support:

<https://www.anetd.com/user-support/>

Technical Resources:

<https://www.anetd.com/user-support/technical-resources/>

AND Legal Disclaimer:

<https://www.anetd.com/legal/>

Static Electric Warning

