Garland’s EdgeSafe Bypass TAPs, are purpose-built to provide the ultimate failsafe device that eliminates single points of failure, reduces network downtime, cuts deployment time and saves money, without compromising the network.

External Bypass TAPs are connected between a network segment (router and switch or firewall) and an active inline tool, like a firewall or intrusion prevention systems (IPS). Allowing you to monitor the tool’s health and effectively manage the device through deployment, updates or troubleshooting. If your tool goes offline for any reason the Bypass TAP functionality will automatically ‘bypass’ the tool, keeping your network up while you resolve the issue.

This document describes the front panel, LED indications, interfaces, rear panel, rear switch and installation procedure for the P1GxxBP.

**Front Panel**

**LED Indications**

- **Port A LFP**: Green indicates LFP on   Off indicates LFP off
- **Port A LNK**: Link/Activity LED
- **Port B LFP**: Green indicates LFP on   Off indicates LFP off
- **Port B LNK**: Link/Activity LED
- **Port C BP**: Indicates when the Bypass is active
- **Port C LNK**: Link/Activity LED
- **Port D BP**: Indicates when the Bypass is active
- **Port D LNK**: Link/Activity LED

**BP** (ByPass):  Green indicates the Tap is in Bypass    Off indicates the Tap is Inline

**Note:** This LED is only active when the Tap is set to Bypass Mode (Switch 4 and 5 are down)

**LNK** or **L** (Link/Activity): Solid when link is achieved and flashes when Ethernet activity is detected on a particular interface

**Rear Panel**
Rear Panel Switch Settings

<table>
<thead>
<tr>
<th>Speed Mode</th>
<th>Switch 1 Speed</th>
<th>Switch 2 Duplex</th>
<th>Switch 3 LFP</th>
<th>Tap Mode</th>
<th>Switch 4 Tap Mode</th>
<th>Switch 5 Tap Mode</th>
<th>Switch 6 Span Inject C</th>
<th>Switch 7 Span Inject D</th>
<th>Switch 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1G Auto Neg</td>
<td>On</td>
<td>On</td>
<td>Enabled</td>
<td>Bypass</td>
<td>Off</td>
<td>Off</td>
<td>Enabled</td>
<td>Enabled</td>
<td>N/A</td>
</tr>
<tr>
<td>1G Full Duplex</td>
<td>On</td>
<td>Off</td>
<td>Disabled</td>
<td>BRE</td>
<td>On</td>
<td>Off</td>
<td>Disabled</td>
<td>Disabled</td>
<td>N/A</td>
</tr>
<tr>
<td>100M Auto Neg</td>
<td>Off</td>
<td>On</td>
<td>AGG</td>
<td>On</td>
<td>On</td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>100M Full Duplex</td>
<td>Off</td>
<td>Off</td>
<td>Span</td>
<td>Off</td>
<td>On</td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

* The unit must be power cycled if the switch settings are modified.

The following statements are true when Ports A and B are RJ45 connectors.

* 100 Mbps network port speed is only supported when all ports are copper RJ45.
* Link Failure Propagation (LFP) allows the link state to be mirrored to adjacent live network interfaces.
* The unit supports fail mode open on ports A and B.

Mode Interface Assignment

ByPass
- Port A: Network Interface
- Port B: Network Interface
- Port C: Inline Appliance (A)
- Port D: Inline Appliance (B)

Breakout
- Port A: Network Interface
- Port B: Network Interface
- Port C: Inline Appliance (A)
- Port D: Inline Appliance (B)

Aggregate
- Port A: Network Interface
- Port B: Network Interface
- Port C: Monitor port (A/B)
- Port D: Monitor port (A/B)

Span
- Port A: Traffic input port (B/C/D)
- Port B: Span port (A)
- Port C: Span port (A)
- Port D: Span port (A)
Aggregator and Packet Inject C
Port A: Traffic input port (B/C/D)
Port B: Traffic input port (A/C/D)
Port C: Traffic input port (A/B)
Port D: Span port (A)

Aggregator and Packet Inject C/D
Port A: Traffic input port (B/C/D)
Port B: Traffic input port (A/C/D)
Port C: Traffic input port (A/B)
Port D: Traffic input port (A/B)

Installation Procedure
1. Unpack the device and attach it to an optional rack mount bracket (sold separately).

2. Install the P1GXXBP assembly into any available 1U slot of a network rack and secure it with rack mount screws.

3. Utilizing the DIP switches (located on the reverse side of the unit, next to the power input) configure the P1GXXBP for the operating mode of your choice (see next page). Install network TAP into the live network. **THIS STEP NEEDS TO BE DONE WITH NO POWER CONNECTED TO THE TAP**

4. Using standard Ethernet cables, connect ports [A] and [B] (Auto MDIX) of the P1GCCAS between the two live network devices where monitoring is desired. Verify network traffic is flowing, confirming that network cabling is correct.

5. Connect ports [C] and [D] (Auto MDIX) to the monitoring tools for traditional traffic monitoring (SPAN mode may also be used for regenerating outputs).

6. Connect the power supply to the P1GxxBP and plug it into an available power source.

7. Anytime the configuration switches are changed the user must remove and then re-apply power for the changes to take effect.

**Note:** Other operating modes are available for monitoring and may be configured using the provided DIP switches. Using SPAN or regeneration mode on fiber models may require both [A] and [B] ports to be connected to obtain link on port [A] or [B].

Optional Rack Mount

For questions, please contact Garland Technology Support at:
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