## Performing Maintenance Module Operations

Purpose

The purpose of this TR is to provide instructions for using a *PanView iQ™* (*PViQ™*) Panel Manager's Interface Unit to perform Maintenance Mode operations.

Maintenance Mode

Maintenance Mode is used for initializing and resetting the *PViQ™* Patch Panel. This Mode provides the capabilities to perform panel reconfigurations, firmware updates, system level technical functions, and troubleshooting without generating extraneous SNMP traps and patch cord status changes to the PHYSICAL INFRASTRUCTURE MANAGER™ Software Server from other connected *PViQ™* devices in the connectivity zone.
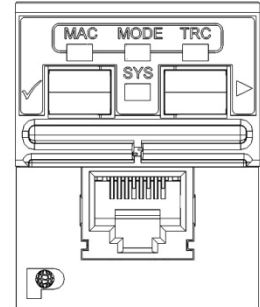
To Initialize Ports on the PViQ™ Patch Panel in Maintenance Mode:

1. Press and hold both buttons on the Panel Manager (PM) Interface Unit for about 5 seconds.
   a. The panel will beep once when the buttons are initially pushed and again after 2 seconds.
   b. After 5 seconds, the Mode LED will blink green, indicating that the panel has recognized the request to enter Maintenance Mode.

   ⓘ**NOTE:** If the "Mode" LED does not blink green after five seconds:
   a) Double check that the Interface Unit is for a PM and not an Expansion Module (EM)
   b) Double check that the unit is getting power
   c) Double check that the PM module is fully inserted into the PANVIEW IQ™ Patch Panel

2. Release both buttons simultaneously.
   a. The Mode LED will continue to flash for a maximum of another 5 seconds, during which the user can confirm or cancel the Maintenance Mode.
3. To confirm: press and release the left Confirm (✓) button, and a beep will follow. To cancel: press and release the right Cancel (▷) button or avoid pushing any buttons and let the panel simply time out after 5 seconds (the time out will be acknowledged by three short beeps).

After confirmation of Maintenance Mode, the PM and all connected EM Interface Unit Mode LEDs will turn off and the MAC and TRC (Trace) LEDs will turn on. Additionally, all port LEDs will turn red.

The Maintenance Mode has a default 30 minutes time limit before it will attempt to exit. 5 minutes before this time limit is reached the panel will begin producing 2 short beeps every 5 seconds, serving as a pre-timeout warning. At any point after these warnings begin, the Maintenance Mode time can be extended for an additional 30 minutes by pressing and releasing the left (✓) button, acknowledged by a beep to confirm the request.

ⓘ**NOTE:** While in Maintenance Mode, the panel may produce a short beep every 15 seconds. By default the PM and all connected EM Interface Unit MAC, Trace, and Sys LEDs will turn green while all port LEDs will turn red.

Performing Maintenance Mode Reset Levels:

Eight levels of initialization and resets that can be performed when the PM is in Maintenance Mode:

Level 1 – Reset the *PViQ™* Panel host processor (or exit maintenance mode)
Level 2 – Reset all non-host processors
Level 3 – Performs Level 1 and Level 2 resets together
Level 4 – Set IP configuration to DHCP (factory default)
Level 5 – Clear SNMP community string to the factory default
Level 6* – Clear the internal *PViQ™* database to the factory default, followed by a Level 3 reset
Level 7* – Reformat the file system and, as a result, the database, followed by a Level 3 reset
Level 8* – Reset firmware image to factory default, followed by a Level 7 reset

*WARNING: Only qualified technicians should perform these resets. Level 6, 7 and 8 resets will cause the *PViQ™* database to be cleared, losing all current configuration, provisioning and patch field connectivity data. A Level 8 reset will clear all data and reset the *PViQ™* Panel to the factory image and default database settings. In this scenario, the *PHYSICAL INFRASTRUCTURE MANAGER™* Software will still be able to connect to the PM using SNMP and/or Telnet. However, firmware updates (in addition to re-provisioning) may be required to regenerate panel data.

1. Press and hold both buttons on the PM Interface Unit for approximately 5 to 40 seconds (depending on desired reset level).
   a. The panel will move through each level of the resets at approximately 5 second intervals. At the end of the initial 5 seconds, the panel will produce a Level 1 reset indication.
   b. If you continue to hold the buttons down for another 5 seconds, a Level 2 reset will be indicated. This sequence can continue until a Level 8 reset is reached, if desired.
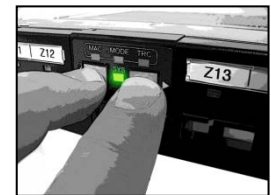
Reset Level Indications: As you hold down the buttons on the PM interface unit, each interval will illuminate a number of green LEDs on each side of the panel, green LED blinks on the Mode LED, and consecutive audio beeps that all correspond to the number of the reset level. For instance, when you reach the Level 1 reset, one green LED will light up on each side of the panel (e.g., port 1 and port 24), the Mode LED will provide one green blink, and the panel will provide one beep. When you reach the Level 2 reset, two green LEDs will light up, followed by two beeps, etc.

Visual example of a Level 2 Reset – Notice the two green LEDs on each side of the panel. This level reset would also be accompanied by two Mode LED blinks and two beeps.

2. When the desired reset level is reached, release both buttons simultaneously.
   a. The elected reset level indications will continue for approximately 5 additional seconds, during which the user can confirm or cancel the selected reset.
3. To confirm: press and release the left Confirm (✓) button and a beep will follow.
   To cancel: press and release the right Cancel (▷) button or avoid pushing any buttons and let the panel simply time out after 5 seconds (the time out will be acknowledged by three short beeps).
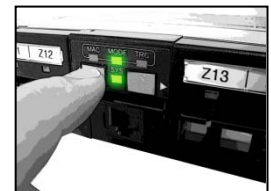
After the confirmation, reset level indications will turn off and the system will perform the requested reset. When the requested reset is complete the panel will automatically exit the Maintenance Mode.

ⓘ**NOTE:** Front panel MAC, Trace, and port LEDs will be restored to their original states (off) when the system exits the Maintenance Mode. Port LEDs may flash red should secure violations be present.