

Price Controls Commissioning Checklist

PRTU – Networked:

The following items shall be verified by the commissioning technician on site. Ideally, the mechanical contractor or controls contractor should be present when the commissioning technician is on site verifying Price equipment.

Initial check:

- All parts supplied by Price must be inspected for damage due to shipping, and for proper installation. This includes PRTU rooftop controller, PIC controllers, Prodigy diffusers, thermostat cables and BACnet network cables.
- All applicable Service and Installation (S&I) Manuals are present.
- If not please download from: www.priceindustries.com/controls
- Rooftop units must be installed and operational.
 - RTU fan is operational
 - RTU cooling stages are operational
 - RTU heating stages are operational

PRTU (rooftop controller) check and startup:

Wiring (from RTU to PRTU controller)

- Ensure wiring is complete between RTU and PRTU controller
- PRTU must be powered from the rooftop unit with 24 V_{AC}. Proper hot and common polarity must be observed.
- 24 V_{AC} HOT from RTU wired to PRTU – 24 V_{AC} terminal
- 24 V_{AC} COM from RTU wired to PRTU – COM terminal. Also, this must be earth grounded.
- Fan, cooling stages, and heating stages are properly wired to binary outputs on PRTU.
- PRTU switch output type is selected to proper output type. Default: Down is 24 V_{AC} switched HOT outputs.
- Discharge Air Temperature (DAT) probe installed in RTU discharge ductwork. Correctly wired to AI1.
- Return Air Temperature (RAT) probe installed in RTU return ductwork. Correctly wired to AI2.
- PRTU thermostat installed in a convenient place for the user that also can measure the room temperature of the general zone being controlled.
- PRTU thermostat wired properly with included plug-and-play NETc35 cable.

Setup Wizard

- Complete the Setup Wizard on PRTU. Set the appropriate # of stages, mode, time, schedule, etc.
- Verify fan comes on within 10 seconds of powering up PRTU controller after setup wizard has run. Ensure BO1 output LED is green. Note: Red indicates overload and/or short circuit.
- Check duct probe readings on T-stat. Go into Service Menu -> INPUT and confirm proper DAT and RAT temperature readings. Note: -59 °F indicates no sensor is connected.

PIC / Prodigy (zone controller) check and startup:

- Duct work and VAV boxes / Prodigy units are installed correctly.
- VAV controllers (PIC) / Prodigy diffusers have 24 V_{AC} power via transformer or Price Power Module (PPM) and HOT/COM polarity is observed.
- 24 V_{AC} COM must be earth grounded
- In cases where a PPM is used, line voltage must be supplied to the PPM unit, and the 24 V_{AC} cables from this unit must be run to the VAV / Prodigy controllers and plugged in. These are C35 cables, usually white or grey.

Price Controls Commissioning Checklist – cont'd

PRTU (rooftop controller) check and startup:

BACnet Network

- Network is run in daisy chain format (not bus or star configuration)
- BACnet cables (NETC35) are plugged into BACnet jacks on BACnet expansion boards.
- If Price NETc35 BACnet cables are not being used, 3-position terminal block from the network must be wired and polarity is maintained throughout. (See appropriate Installation Manual for detail)
- RX and TX (receive and transmit) lights are flashing consistently on the BACnet expansion board and yellow BACnet fault LED is not lit.
- MAC address dip switches are set to the correct MAC address – i.e. 1, 2, 3 etc.
- Device instance addresses are set (this is done through the LCD stat or Linker device supplied for the job).
- Thermostats for the PIC / Prodigy units are mounted on the wall and in the appropriate area to control the VAV box or diffuser. Thermostat cable is connected properly at both ends.

PCV (bypass box) check and startup:

- PCV round duct damper is installed in the proper part of the duct work and will operate as a bypass Damper
- Duct static probe is installed 2/3 of the way downstream of the PCV unit
- Duct static probe is pneumatically piped back to the HI Side (red) of the transducer on the PCV controller. Low side (green) of the transducer is left open.
- PCV cross-flow sensor (SP300) should be completely disconnected. No tubing from this sensor should be connected to the controller.

Network check and startup:

- All BACnet network connections are made to all controllers (PRTU, PCV, PIC, Prodigy, etc.)
- NETc35 cable is plugged into the Price RJ45 jack on the PRTU controller (BACnet network)
- Check BACnet health and “# of zones up” on PRTU thermostat by using the Info Menu (see PRTU I&S Manual for details). BACnet health must be 100% and # of zones up should match actual number of zones. Note: PCV controllers are not included in # of zones up.
- Set all zone set points to cooling, and ensure PRTU goes into cooling mode.
- Set all zone set points to heating (wait for 15 minute changeover delay on PRTU), and ensure PRTU goes into heating mode.
- After testing, set all zone thermostats back to reasonable set points such as 72F (22C).

Job Site Notes:

Job Name: _____

Date: _____

Commissioning Technician: _____