

Technical Bulletin No: 2201

Date: 05/11/2022

Subject: Retrofitting the Pentair 3200NXT Controller with the NXT2 Controller



Pentair 3200NXT Controller Obsolete



Replaced by NXT2

Reason for Change

Due to new EPA energy consumption regulation requiring all new valves to be powered by DC current, Pentair has obsoleted the Fleck 3200NXT controller as of 2019. The new NXT2 controller can be retrofitted to systems currently using the 3200NXT controllers.

Description of Change

3200 NXT controllers operate on 24V AC, while the new NXT2 controller operates on 24V DC. This results in a different transformer being used with the NXT2.

Some key features of the NXT2 controllers are

- Error log history
- Display daily water usage (up to 13 weeks)
- Push settings
- Continuous flow detection (leak prevention)

Conversion Kit

Nelsen has a conversion kit. Nelsen part # FL62121-01, which includes a controller, 24VDC transformer/power cord and mounting bracket.

The NXT2 is NOT compatible, nor will it communicate with, the 3200NXT or older Fleck controllers. If replacing a 3200NXT controller in a duplex, triplex, or quad system, all controllers will need to be converted to NXT2 to function properly.

Compatibility

NXT2 controllers are compatible with existing Fleck 2750, 2815, 2850s, 2900, 3150, and 3900 valves manufactured after 2007. All heads manufactured 2007 or earlier will need new power head due to 24AC power motors.

Conversion Instructions

STEP 1: Remove the Valve Cover

Loosen the cover locking screw, pull out the hinge pin and remove the valve cover.

STEP 2: Remove the Old NXT Timer

Remove the positioning screw located on the upper left corner of the NXT. Remove the 2 hinge screws on the reverse side of backplate.

STEP 3: Disconnect the Old NXT Wiring

Confirm the valve is unplugged from any power source. Disconnect the power wire, harness wire, and Lower Drive wires (if present).

STEP 4: Remove Transformer Power Cable

Disconnect the ground wire from the backplate. Disconnect power cable from 3200NXT and pull power cable through the backplate.

STEP 5: Install Hinge Bracket

Align the lower two holes of the hinge bracket with the two holes on the backplate. Secure bracket with screws.

STEP 6: Install the Nxt2 Power Cable

Attach the cord-grip to the power cable and feed the power cable from underneath the base of the backplate through the hole.

STEP 7:

Install the NXT2 Timer onto the Hinge Bracket

Attach the NXT2 to the hinge bracket using the hinge pin.

STEP 8:

Route Wiring Through the Back of the NXT2 Housing

NOTE: The NXT2 sits slightly lower on the backplate than its predecessor. The mounting screw hole will require the removal of a plastic plug in the lower hole before wiring the NXT2.

Route micro-switch wire and power cable through the lower left opening. Route the lower drive cable the upper left opening. If there is a water meter, route the meter cable through the opening on the lower right of the backplate.

STEP 9: Connect Wiring to the NXT2

Connect the harness wire which includes the microswitch wires, power cable, and lower drive wires.

STEP 10: Close Nxt2 Timer and Snap into Place

Swing the NXT2 timer assembly toward the backplate. Push the locking pin on the timer through the docking hole on the backplate.

NOTE: For 3150/3900 valves, the brass standoff clip on the NXT2 will not align with the small hole in the backplate. Instead, secure the NXT2 controller to the backplate using the adhesive dot provided in the conversion kit.

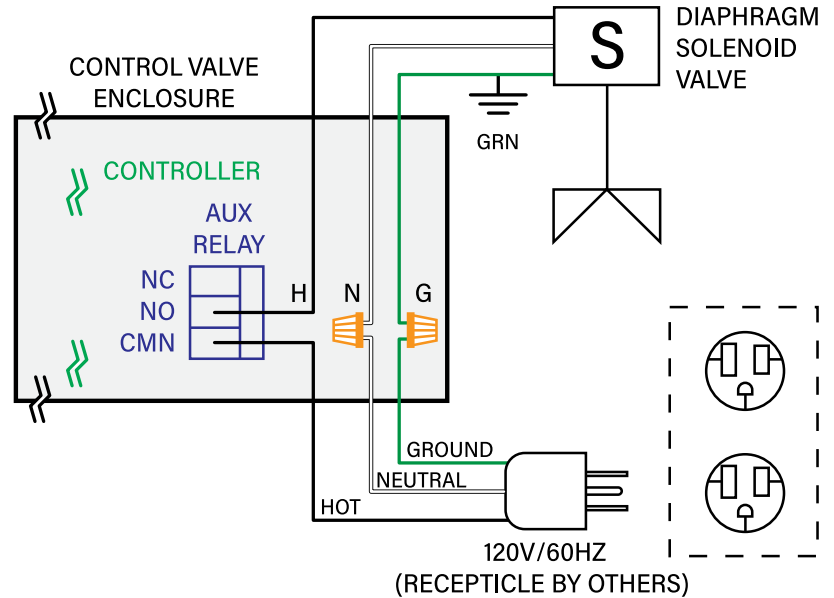
STEP 11: Install the Valve Cover

Align the hinges on the cover with the hinges on the backplate. Secure the cover with the hinge pin. Tighten the locking screw.

Diaphragm Valve Solenoid (AQ Matic) Change

If converting from a 3200NXT to NXT2 controller on a system which includes AQ Matic valves, the 24VAC solenoids on the valves will have to be replaced with 120VAC solenoids and rewired. The 120VAC will need to be powered by a standard 120VAC power cord (pigtail).

Once the 24VAC solenoid has been replaced with 120VAC solenoid, run the 120VAC wire from the power source to the common on one of the NXT2 auxiliary relays and the HOT signal to the valve from the Normal Open contact on the NXT2. The Auxiliary relay will then need programmed to active during Standby on the NXT2 controller. For specific details on programming auxiliary relay please consult the NXT2 manual.



Thank you for choosing Nelsen Corporation,

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