

Magic Aire DUX SERIES MULTI-FUNCTION CONTROLLER



Description:

DUX series multi-position air handlers are available with a Multi-Function Controller that reduces the number of electrical connections and field supplied parts required to install these units with boilers, pumps and condensing units.

Heating: Air handlers can now be directly wired from the boiler to the air handler without adding additional relays or related controls. Multiple air handlers may be connected to a single, high-efficiency natural gas or oil fired hot water boiler to provide complete, whole house hydronic space heating. Each air handler includes a high-efficiency cooling coil, a separate hot water coil, drain pan, 115, 208, 230 volt three speed blower motor, throwaway filter and a 24V transformer.

Cooling: These air handlers are completely compatible with all split system type condensing units. Cooling coils in the **DUX-HW** air handlers are extra-large and engineered to offer cooling efficiencies to **13 SEER**, depending on the condensing unit used.

Features include:

- ✱ Diagnostic Indicator Lights
- ✱ 100% Factory Tested
- ✱ Automatic Multi-Speed Switching
- ✱ Prevents False Calls for Fan Operation
- ✱ Simplified Wiring
- ✱ Universal Thermostat Compatibility
- ✱ Contractor Friendly PC Board Layout
- ✱ Increased Operating Efficiency
- ✱ Available in 115, 208, 230 volts
- ✱ Made in USA



DX Cooling / Boiler Heating

Heating Cycle

1. **Boiler Start Relay:** Eliminates field installed boiler relay, allowing direct wiring from the boiler to the air handler.
2. **Heating Cycle Blower Delay:** User selectable 1, 3, or 4 minutes delay of the blower start to allow the coil to be pre-heated before the blower energizes.

Cooling Cycle

1. **Cooling Cycle Blower Delay:** Maximizes cooling efficiency by allowing the blower to run 1 to 100 seconds after the thermostat is satisfied.
2. **Horizontal Drain Pan:** Factory installed. (re-positions within cabinet for right-to-left airflow)
3. **Drain Connections:** Primary and secondary on cooling coil.

Optional Features

1. **Freeze Protector:** (Optional freeze protector switch required) Reduces the possibility of the water coil freezing by switching the pump on if the water temperature is nearing a freezing condition.
2. **Aquastat:** An optional aquastat is an available feature that ensures that there is hot water available prior to fan start up.

Additional Standard Features

1. The diagnostic lights show full functionality of the Fan Control. The green light should always be on indicating that power is connected. Red lights indicate fan operation for heating and cooling modes.
2. Pump dry contact activated for 2 minutes every 24 hours (boiler contacts not activated). User selectable.
3. Pump dry contacts activated for 30 seconds every two weeks (boiler contacts not activated). User selectable.
4. Compatible with most major brands of split condensing units.

