

# Electrical Requirements

For Zehnder ComfoAir ventilation systems

## Line voltage requirements

- A dedicated 240v/60Hz/15A circuit is required to operate Zehnder H/ERV units.
- The outlet format is NEMA 6-15.



## Low voltage wiring

AVOID running low voltage wiring alongside line voltage cables. Crossing over line voltage cables is acceptable, but running in parallel adjacent to line voltage can interfere with the control signals.

## ComfoSense Controller

- The ComfoSense controller can be located anywhere within the building, but a conveniently accessed location is typical. The ComfoSense controller does not actually sense anything; it is a manual input/output device, so its location isn't critical to operation of the system.
- A shielded 18-4 cable (ideally 2 twisted pairs) is required to connect the ComfoSense controller to the ventilation unit.
- Note that the ComfoSense controller is required for ComfoAir 160/200/350/550 units. The ComfoSense is optional for ComfoAir Q-series units, but a provisional low-voltage cable is a good idea for potential future use.

## Boost Switch

- Boost switches are standard Decora-style momentary-contact rocker switches that are wired to the low-voltage circuit terminals on the unit's circuit board.
- Boost switches are typically located in all bathroom/toilet rooms and kitchens.
- An 18-2 cable is required to connect each bathroom boost switch to the unit.
- Multiple pairs of boost wires should be connected to a pair of pigtails; then the pigtails will be connected to the connection board inside the ventilation unit.
- Line voltage **MUST NOT** be connected to the boost switches. They operate only with the low-voltage supplied by the unit.
- A standard electrical rough-in box should be installed for the switch (cannot be ganged with line voltage circuits).
- Sufficient length of wire should be left at the unit location to allow for any minor adjustments in position while other components are being installed.

## Other Control Devices

Other, less commonly used devices exist. Contact Zehnder America for more information.

See the Zehnder America General Installation Manual and/or individual ComfoAir unit manuals and control device manuals for specific wiring termination instructions.