



# Electronic Balancing Dampers

## Used in air balancing applications

### Installation Instructions

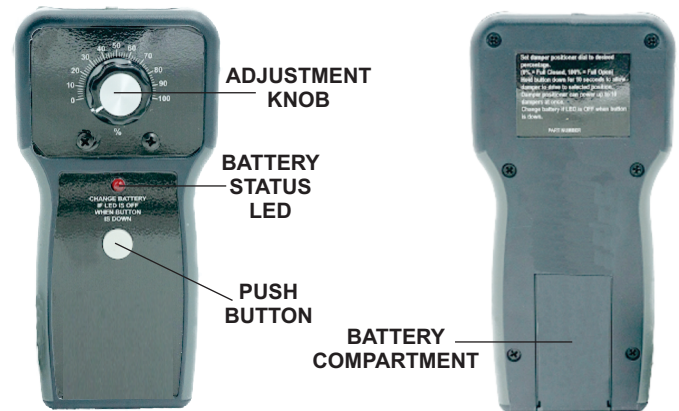
#### BAL-XX ROUND & BAL-XXXX RECTANGULAR



damper actuator can be accessed to accept the RJ11 connector cable terminating at an optional wall box, round ceiling plate or diffuser connector.

#### VERIFICATION PROCEDURE:

After damper installation and wiring is completed, operation of the damper must be verified using the BAL-C hand-held remote control positioner.



#### PRE-INSTALLATION:

1. Check plans and schedules for proper damper sizes and locations within the building.
2. Do not lift dampers by their blades or actuators.
3. Be careful not to install screws in damper shell or frame that could cause interference with blades from opening or closing.
4. Dampers must be installed in round or rectangular duct without being racked, twisted or misaligned as this can cause leakage and/or excessive torque on the actuator.
5. Dampers must be kept clean and protected from dirt, dust and other foreign materials prior to and after installation. This includes mortar dust, drywall dust, fireproofing materials, wall texture and paint over spray.

#### INSTALLATION:

BAL-XX round and BAL-XXXX rectangular dampers come from the factory with the actuator installed. No pre-assembly is required. Both round and rectangular balancing dampers can be installed without concern for direction of airflow so that the

1. Connect a 9 volt battery to the controller.
2. Plug the RJ11 cable into the associated RJ11 connector for the damper being tested.
3. Set the adjustment knob to 100% and hold the push button down for 10 seconds. Damper should drive full open.
4. Set the adjustment knob to 50% and hold the push button down for 10 seconds. Damper should drive to the half way mark.
5. Set the adjustment knob to 0% and hold the push button down for 10 seconds. Damper should drive to the full closed position.
6. Set the adjustment knob to 100% and hold the push button down for 10 seconds until damper is in the full open position.
7. Change battery if LED is OFF when button is pushed.

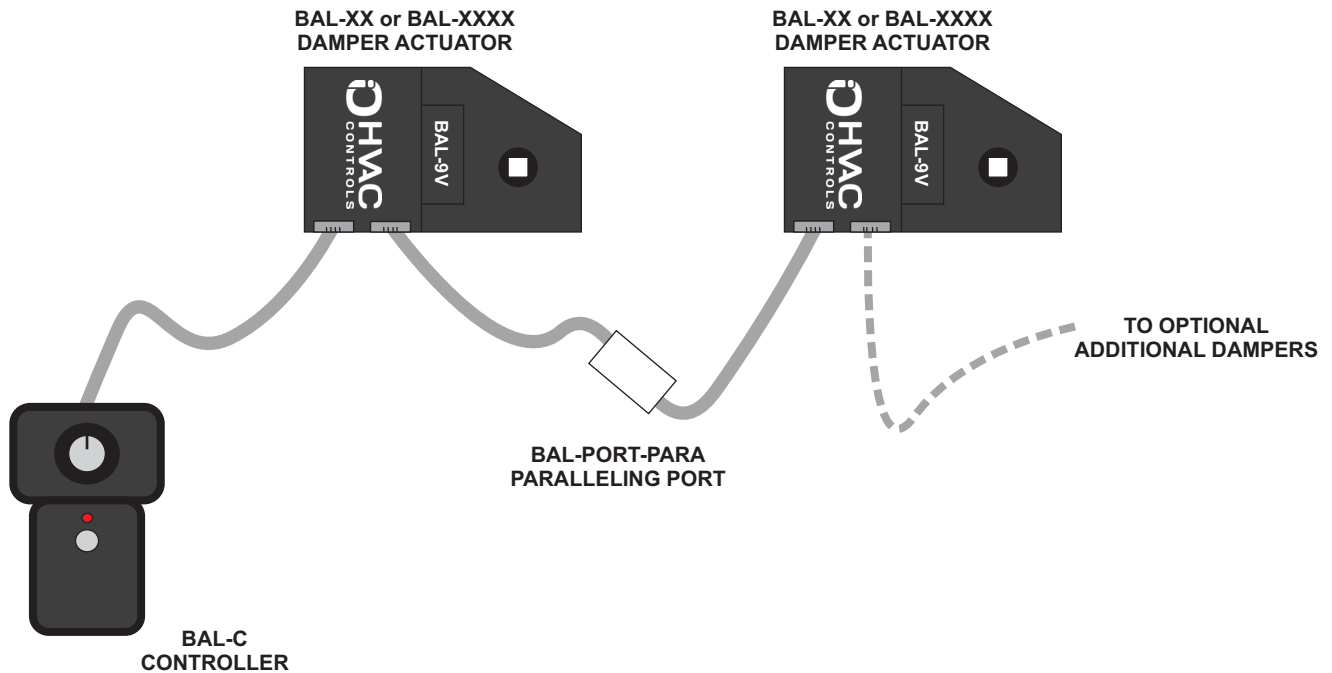


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#### PARALLELING MULTIPLE DAMPERS:

Up to 4 of the iO BAL-XX or BAL-XXXX dampers can be paralleled together. When connected in this way, all dampers will drive to the same position based on a single controller input.

The BAL-PORT-PARA must be used whenever paralleling BAL-XX or BAL-XXXX dampers together. A BAL-W RJ11 line cord would be plugged into the auxiliary port of the main actuator and into the BAL-PORT-PARA. Another BAL-W RJ11 line cord would be plugged into the other end of the BAL-PORT-PARA and into the next actuator.

#### MAXIMUM LINE CORD RUN LENGTH:

The maximum run length between the BAL-C controller and the BAL-XX or BAL-XXXX damper depends on the amount of actuators coupled together. iO HVAC Controls recommends the following maximum run lengths.

- 1 damper - up to 200 ft. from BAL-C
- 2 dampers - up to 100 ft. from BAL-C
- 3 dampers - up to 50 ft. from BAL-C
- 4 dampers - up to 50 ft. from BAL-C

**Note:** These recommended maximum run lengths are from the controller to the last damper in the chain, not between each damper.



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