Metropolitan Air Technology

The leader in air flow control technology

INSTALLATION AND OPERATION OF ELECTRO-BALANCE™ DAMPERS AND EB-UDD BATTERY POWERED UNIVERSAL DAMPER DRIVE

Please read completely before installing this equipment.

RECEIPT INSPECTION:
Check material received against packing list. Claims resulting from factory errors must be made within 2 weeks after receipt of goods.

INSTALLATION:

1. Prior to installing damper in duct, check to make sure blades operate freely with no binding or restriction. Blade interference or damper shaft interference with blade stop hardware may falsely signal to the remote control that the damper blade is in a full open or full closed position (in contact with the blade stop). This will result in the motor being turned off by the remote.
2. Secure the damper to duct. Make sure that fasteners do not interfere with blade operation and that damper is not racked.

Proceed to step 5 if you have purchased the EB-UDD drive with MAT dampers

3. Mount EB-UDD universal damper drive to damper stand-off bracket or damper side plate by securing the damper drive in two locations opposed about the damper shaft.
   NOTE: Mounting holes must be located to ensure that the spur gear axis and the damper shaft axis are concentric to prevent eccentric loads on the damper shaft.
4. Align square shafts so as to catch set screws directly on flats. Tighten all four (4) set screws with a 1/8" Allen key so they are snug on the damper shaft. **DO NOT over tighten**.

5. Route wiring to the connector termination point. Excess cable can be bundled using the wire tie provided
6. **Before closing the ceiling, TEST the unit to verify smooth damper operation and system connectivity:**
   a. Connect the EB-UDD universal damper drive connector to the hand held remote control using the grey male-to-male connector cable supplied with the remote. (***See Figure 1 on reverse side)***
   b. Turn on the remote using the slide switch on the side of the housing. The green on/off LED will illuminate.
   c. Operate the rocker switch on the remote control to ensure smooth damper operation through the open/close cycle. Right toggle opens the damper, left toggle closes the damper.
      i. **If the LED array on the remote control flashes red then green, connectivity has been broken**. Check for sliced wiring or a loose connection at the motor. NOTE: If wiring or connectors are damaged in the field, they can be replaced quickly. Contact your sales rep for replacement components.
      ii. If your damper has blade stops, the remote will turn off the motor when the damper blade contacts the stops. If the remote control turns the EB-UDD universal damper drive off prior to the damper reaching a full open or full closed position, check to make sure that there are no fasteners interfering with damper blade operation. If using non MAT dampers, check to make sure that the EB-UDD universal damper drive is mounted concentric with the damper shaft.
7. The LED array will indicate approximate blade position for dampers with 90° open/close cycle. To use this feature, the damper must first be set to a full open or closed position. Then as you operate the remote, the LEDs will light up in sequence. There are 10 LEDs. If five are lit, the damper is 50% open.
8. The EB-UDD universal damper drive connectors can be terminated in a wall or ceiling using various MAT surface termination fixtures: See separate installation instructions for these items.

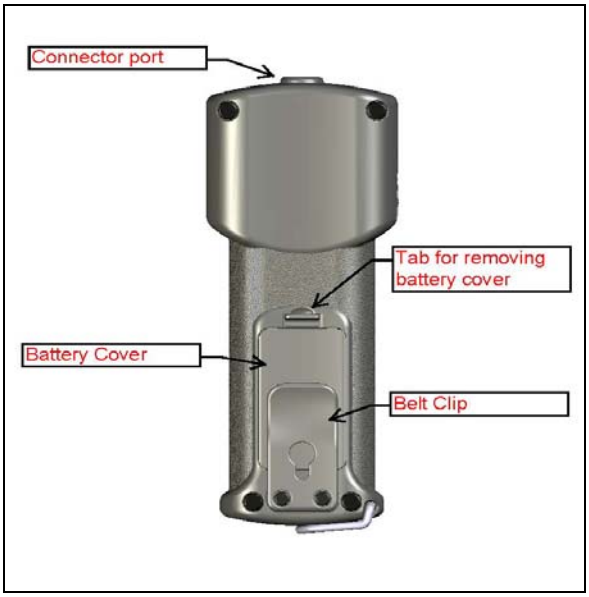
OPERATION: (*see instructions on reverse*)

OPERATION OF EB-UDD UNIVERSAL DAMPER DRIVE:

Dampers are adjusted by connecting the grey male-to-male wire tether (supplied with the remote) to the hand held remote control and the damper motor connector. Turn on the remote using the slide switch on the side of the housing. The green on/off LED will illuminate. Press the rocker switch on the remote control to operate the damper. Right toggle opens the damper, left toggle closes the damper. **If the LED array blinks alternating red and green, there is an open connection. Check to make sure the remote control male connectors are pushed all the way in.**

The LED array will indicate approximate blade position for dampers with 90° open/close cycles. To use this feature, the damper must first be set to a full open or closed position. Then as you operate the remote, the LEDs will light up in sequence. There are 10 LEDs. If five are lit, the damper is 50% open.

The on/off LED will flash to indicate low battery condition. The remote will continue to operate the damper but battery replacement will be needed soon. The Duracell 9V battery can be replaced by removing the battery cover on the back of the remote housing. It is not necessary to remove the belt clip to replace the battery.



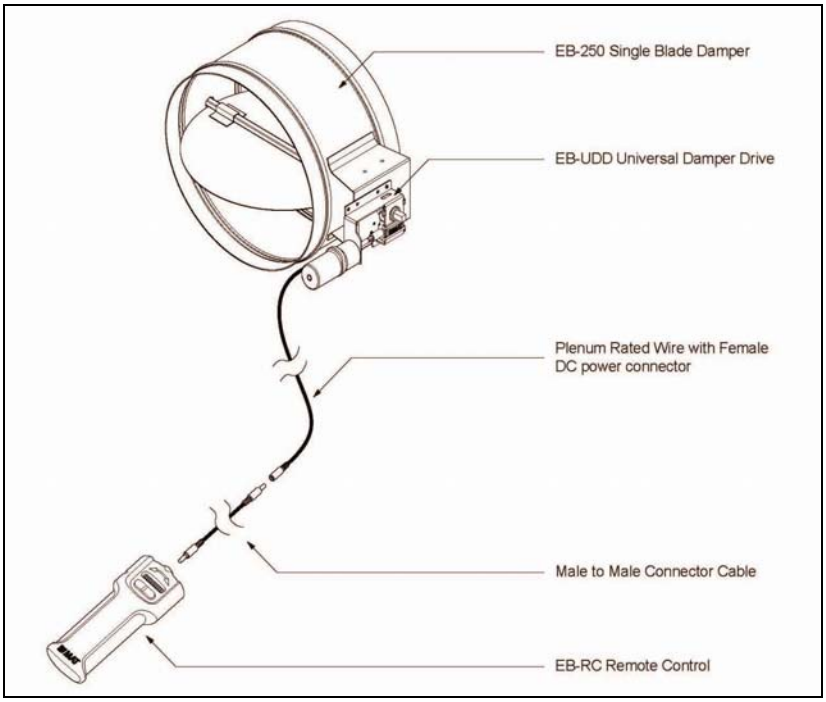


Figure 1 – Illustration for System Connectivity Test