The **EBD SUPPORT RELAY** will significantly enhance the operation of the BYPASS AIR operations on your Ultra-Zone Forced Air Zoned System! The **EBD Support relay** will take command of the EBD Bypass damper during Idle and Startup modes.

The **EBD SUPPORT RELAY** will transfer control back to the EBD bypass damper after any thermostat demand for FAN, HEAT, or COOL is detected, and the “Programmable” time delay has passed.

The **EBD SUPPORT RELAY** will:

1. “DEFAULT” your EBD Bypass damper to the “OPEN” position, during the “Off” or “Changeover” cycles.

2. “DELAY” your EBD Bypass damper from operating until all zone dampers have reached their final positions.

3. “RESULT” in a very quiet FAN operational startup, and a smooth, gradual increase in static pressure.

4. “SIMULATE” a Variable Speed Air handler when connected to a “ZONED” Constant speed Air Handler.

5. “ENHANCE” the accurate and precise control of any 24vac motorized zoned air bypass system.

The EBD Support relay is a field installed enhancement. The relay can be purchased from a local HVAC or Electrical supplier, or catalog supplier such as WW Grainger. Manufacturer ABB/SSAC Model# ECS21BG0204X.

EWC Controls supplies the field wiring diagram and technical support for this application only.

EWC Controls will not warranty nor bear any responsibility for the use or misuse of this device.
To Line Voltage
Provide over current protection
Separate 24 vac 20 va Transformer.
Or Connect to M1/M2 on any EWC Control Zone control module.

L1 L2
H C

BLOWER MOTOR
"COMMON" WIRE.
ROUTE THRU DONUT SENSOR!

Program relay for 50 seconds "Delay on Make"

Factory Wiring = Field Wiring =

24vac
1 2

Programmable Current Sensing Time Delay Relay.
Manufacturer ABB/SSAC Model# ECS21BG0204X WW Grainger # 6C054

AN 155 Electronic Bypass Damper
Field Support Relay
Pressure Control Wiring Compartment
"EBD" Electronic Bypass Motor
AND STATIC PRESSURE CONTROL DAMPER ASSEMBLY
WW Grainger # 6C054 Mode# ECST1B60204X Manufacturer ABB/SSAC

APPLICATION NOTE
AN 155 Electronic Bypass Damper
Field Support Relay
Pressure Control Wiring Compartment
"EBD" Electronic Bypass Motor
AND STATIC PRESSURE CONTROL DAMPER ASSEMBLY
WW Grainger # 6C054 Mode# ECST1B60204X Manufacturer ABB/SSAC
UZC4 Electronic Bypass Damper Diagram

"EBD" ELECTRONIC BYPASS MOTOR AND STATIC PRESSURE CONTROL DAMPER ASSEMBLY

APPLICATION NOTE
AN 155 Electronic Bypass Damper Field Support Relay

Field Wiring = Factory Wiring =

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EFU EFC ELECTRONIC BYPASS MOTOR AND STATIC PRESSURE CONTROL DAMPER ASSEMBLY