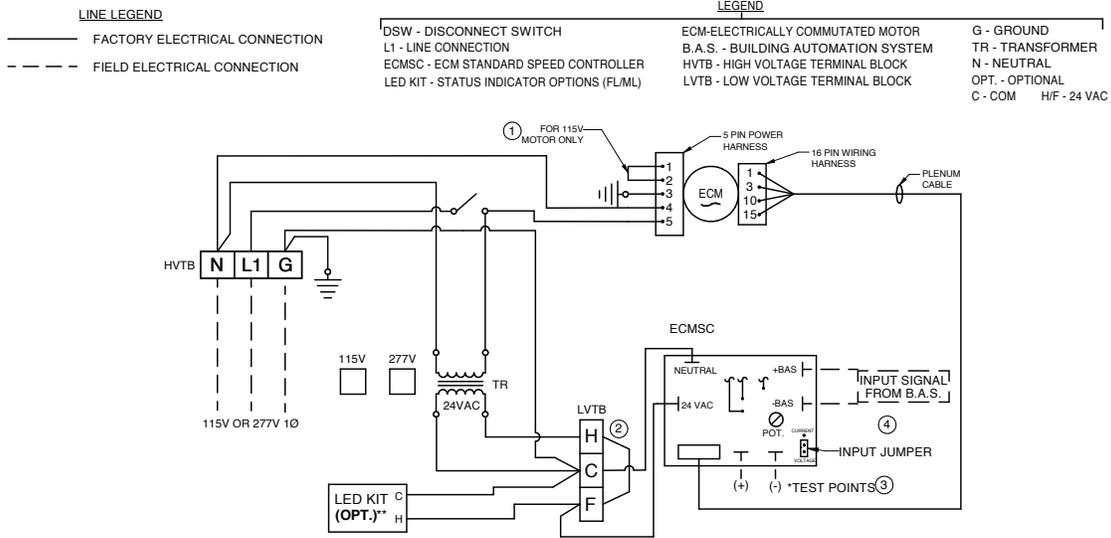


# FAN FILTER UNIT

## WIRING DIAGRAMS

### FFU Controls Wiring Diagrams

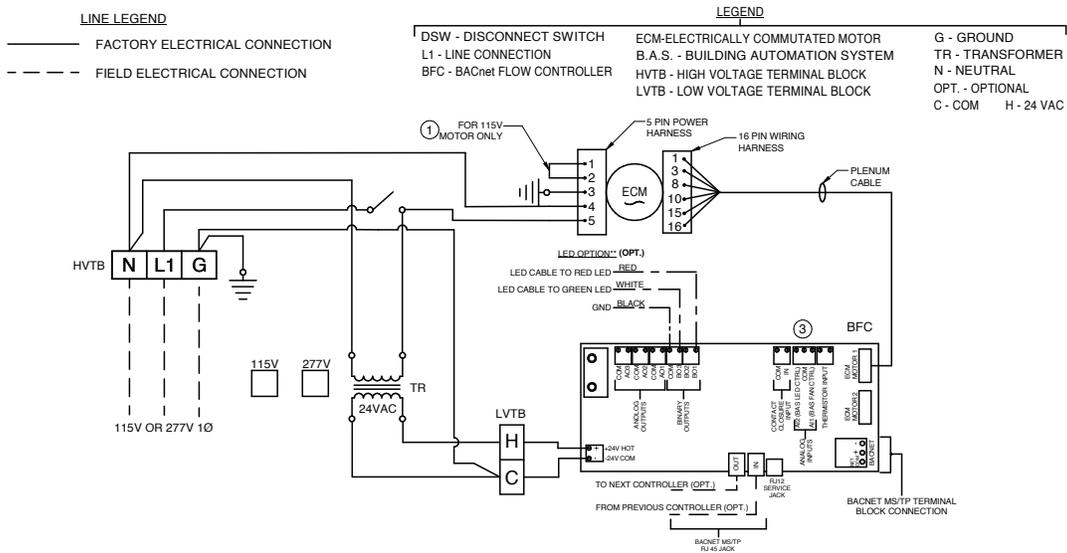
#### FFU - 115/277V, 1 $\phi$ ECM MOTOR W/ STANDARD ECM SPEED CONTROL (ECMSC) ▼



- NOTES:**
- 115V MOTOR HAS JUMPER BETWEEN PINS 1 AND 2 ON MOTOR HARNESS. 277V MOTORS DO NOT HAVE THIS JUMPER.
  - FACTORY INSTALLED JUMPER. REMOVE AND REPLACE WITH RELAY FOR REMOTE ON/OFF CONTROL.
  - TEST POINTS FOR MONITORING MANUAL SPD. CONTROL SETTING:  
 1-4.5 VDC = MINIMUM TO MAXIMUM AIRFLOW.  
 0-1 VDC = FAN OFF.
  - B.A.S. CONTROL**  
 SPEED CONTROLLER MUST BE ENERGIZED AT ALL TIMES - USE JUMPER WIRE FROM NOTE 2.  
 THE BAS INPUT TO THE SPEED CONTROLLER IS JUMPER SELECTABLE FOR 0-10VDC OR 0-20 mA.  
 BAS INPUT SIGNAL TO THE SPEED CONTROL:  
 2-10 VDC (4-20mA) = MINIMUM TO MAXIMUM AIRFLOW.  
 1-2 VDC (2-4mA) = BAS FAN OFF  
 NO SIGNAL (0-1 VDC, 0-2 mA) = MANUAL SPEED ADJUSTMENT.

- WIRING NOTES**
- INSTALLATION WORK AND ELECTRICAL WIRING MUST BE DONE BY QUALIFIED PERSON(S) IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
  - USE COPPER 75 C MIN. RATED SUPPLY WIRE FOR FIELD CONNECTIONS.
  - FIELD LOW VOLTAGE WIRING INSULATION MUST HAVE 300V RATING.

#### FFU - 115/277V, 1 $\phi$ ECM MOTOR W/ BACNET FLOW CONTROL (BFC) ▼



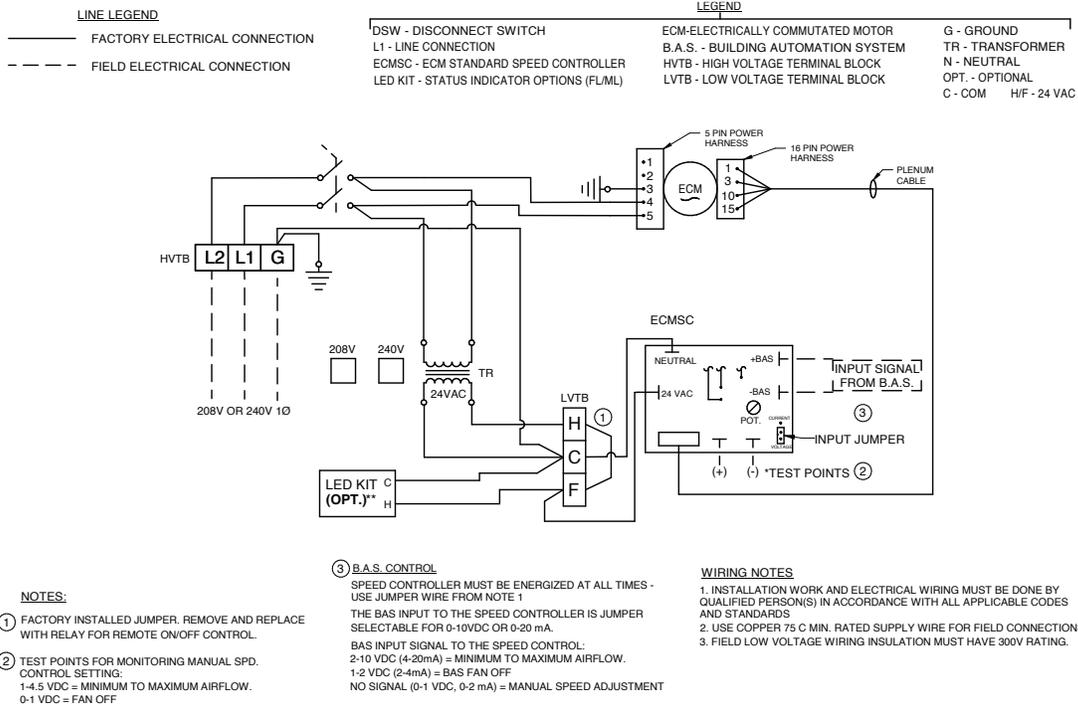
- NOTES:**
- 115V MOTOR HAS JUMPER BETWEEN PINS 1 AND 2 ON MOTOR HARNESS. 277V MOTORS DO NOT HAVE THIS JUMPER.
  - YELLOW LED INDICATOR LIGHT IS CREATED BY SIMULTANEOUS SIGNALS TO GREEN AND RED LED.  
 \*\* REFER TO DRAWING 266010 FOR LED KIT WIRING DIAGRAM
  - B.A.S. CONTROL**  
 IF BAS CONTROL IS REQUIRED, FIELD WIRE CONNECTIONS TO ANALOG INPUTS (A11/A12 & COM).  
 BAS INPUT SIGNAL TO THE SPEED CONTROL:  
 2-10 VDC = MINIMUM TO MAXIMUM AIRFLOW  
 1-2 VDC = BAS FAN OFF  
 NO SIGNAL (0-1 VDC) = MANUAL SPEED ADJUSTMENT  
 NOTE: BACnet CONTROL OVERRIDES BAS INPUT SIGNAL

- WIRING NOTES**
- INSTALLATION WORK AND ELECTRICAL WIRING MUST BE DONE BY QUALIFIED PERSON(S) IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
  - USE COPPER 75 C MIN. RATED SUPPLY WIRE FOR FIELD CONNECTIONS.
  - FIELD LOW VOLTAGE WIRING INSULATION MUST HAVE 300V RATING.
  - 3-WIRE CONNECTION IS REQUIRED FOR BACNET MS/TP TERMINAL BLOCK (+, -, NETCOM).

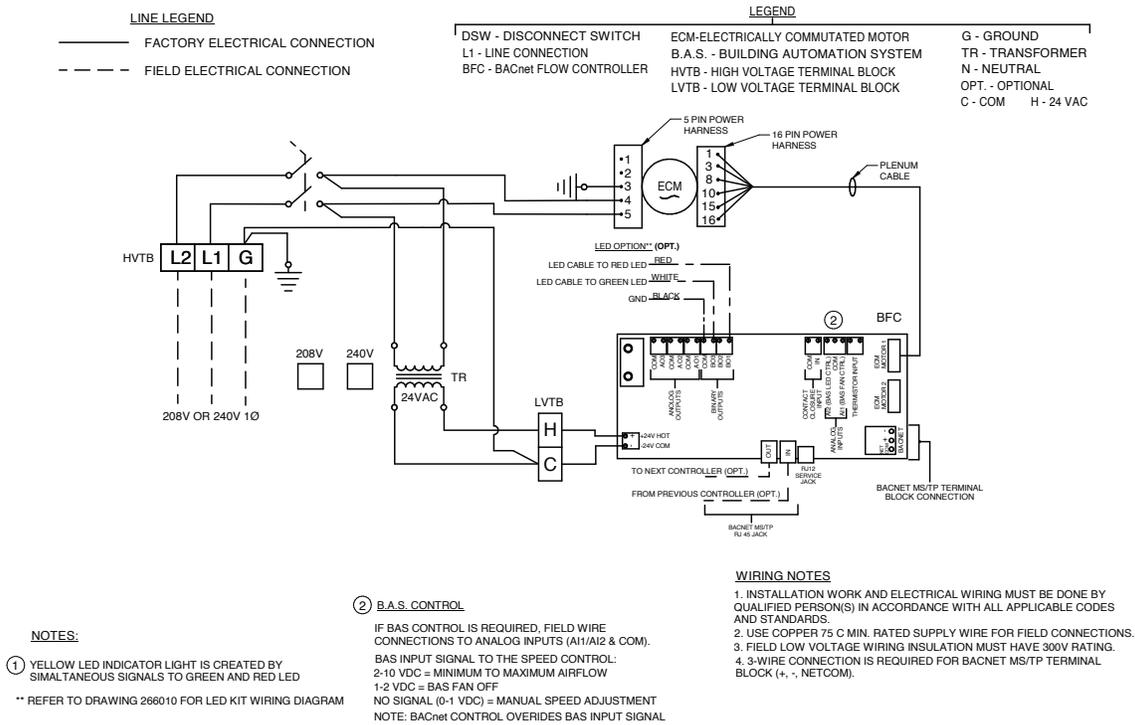
# FAN FILTER UNIT

## WIRING DIAGRAMS

### FFU - 240V, 1Ø ECM MOTOR W/ STANDARD ECM SPEED CONTROL (ECMSC) ▼



### FFU - 240V, 1Ø ECM MOTOR W/ BACNET FLOW CONTROLLER (BFC) ▼



**NOTE:** For details on installation and wiring of the **FFU with integrated LED lighting (UFFU)** please refer to the [URDC Ultra Remote Driver Cabinet Manual](#) on [priceindustries.com](#)

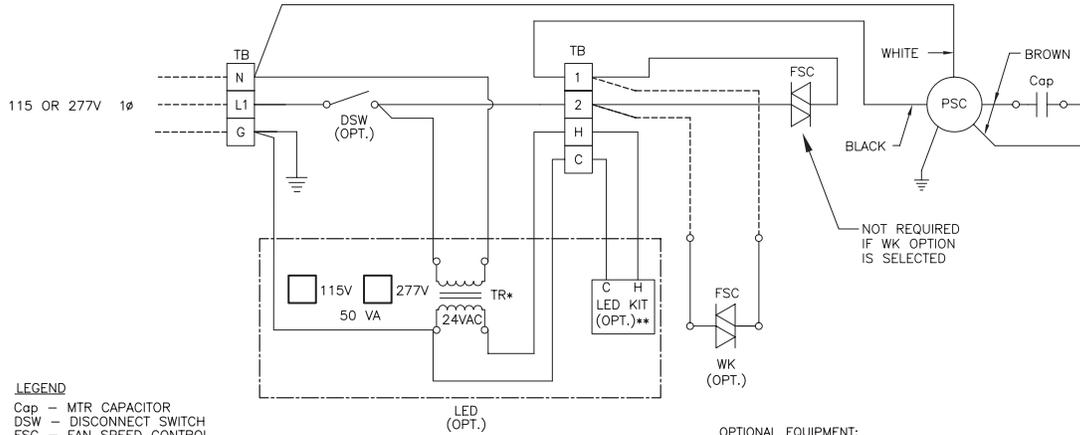
# FAN FILTER UNIT

## WIRING DIAGRAMS

### FFU - 115/277V, 1Ø PSC (STANDARD MOTOR) ▼

#### LINE LEGEND

- FACTORY ELECTRICAL WIRING
- FIELD ELECTRICAL WIRINGS



#### LEGEND

- Cap - MTR CAPACITOR
- DSW - DISCONNECT SWITCH
- FSC - FAN SPEED CONTROL
- L1 - LINE CONNECTION
- PSC - FAN MOTOR
- N - NEUTRAL
- OPT. - OPTIONAL
- TB - TERMINAL BLOCK
- WK - WALL MOUNTED SPEED CONTROLLER
- G - GROUND
- TR - TRANSFORMER
- H - HOT CONNECTION
- C - COMMON CONNECTION
- LED KIT - STATUS INDICATOR OPTIONS (FL/FBAS/ML/MBAS)

#### OPTIONAL EQUIPMENT:

- DISCONNECT SWITCH (DSW)
- WALL MOUNTED SPEED CONTROLLER (WK)
- LED (LED)

#### NOTES

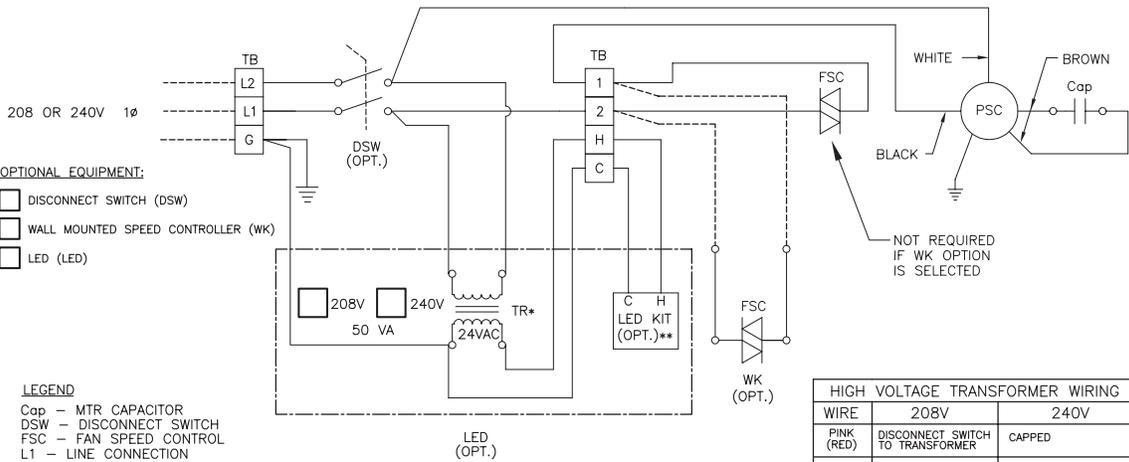
1. USE COPPER 75 C MIN. RATED SUPPLY WIRE FOR FIELD CONNECTIONS.
2. FIELD LOW VOLTAGE WIRING INSULATION MUST HAVE 300V RATING.
- \* TRANSFORMER INCLUDED ONLY WITH LED OPTION
- \*\* REFER TO DRAWING 266010 FOR LED KIT WIRING DIAGRAM

#### ELECTRIC CONTROLS

### FFU - 208/240V, 1Ø MOTOR (STANDARD/PSC) ▼

#### LINE LEGEND

- FACTORY ELECTRICAL WIRING
- FIELD ELECTRICAL WIRINGS



#### OPTIONAL EQUIPMENT:

- DISCONNECT SWITCH (DSW)
- WALL MOUNTED SPEED CONTROLLER (WK)
- LED (LED)

#### LEGEND

- Cap - MTR CAPACITOR
- DSW - DISCONNECT SWITCH
- FSC - FAN SPEED CONTROL
- L1 - LINE CONNECTION
- L2 - LINE CONNECTION
- PSC - FAN MOTOR
- OPT. - OPTIONAL
- TB - TERMINAL BLOCK
- WK - WALL MOUNTED SPEED CONTROLLER
- G - GROUND
- TR - TRANSFORMER
- H - HOT CONNECTION
- C - COMMON CONNECTION
- LED KIT - STATUS INDICATOR OPTIONS (FL/FBAS/ML/MBAS)

HIGH VOLTAGE TRANSFORMER WIRING		
WIRE	208V	240V
PINK (RED)	DISCONNECT SWITCH TO TRANSFORMER	CAPPED
ORANGE	CAPPED	DISCONNECT SWITCH TO TRANSFORMER

NOTE: TRANSFORMER WIRE COLOUR MAY VARY CHECK LABEL ON TRANSFORMER TO CONFIRM

#### NOTES

1. USE COPPER 75 C MIN. RATED SUPPLY WIRE FOR FIELD CONNECTIONS.
2. FIELD LOW VOLTAGE WIRING INSULATION MUST HAVE 300V RATING.
- \* TRANSFORMER INCLUDED ONLY WITH LED OPTION
- \*\* REFER TO DRAWING 266010 FOR LED KIT WIRING DIAGRAM

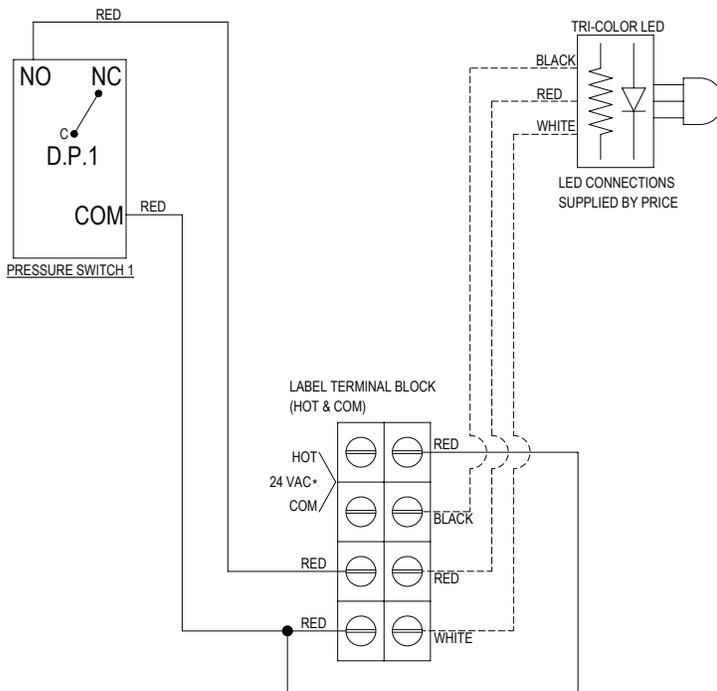
#### ELECTRIC CONTROLS

# FAN FILTER UNIT

## WIRING DIAGRAMS

### FFU LED Wiring Diagrams

#### FFU LED - FILTER LOADING ▼



**REQUIRES  
FACTORY TEST!**

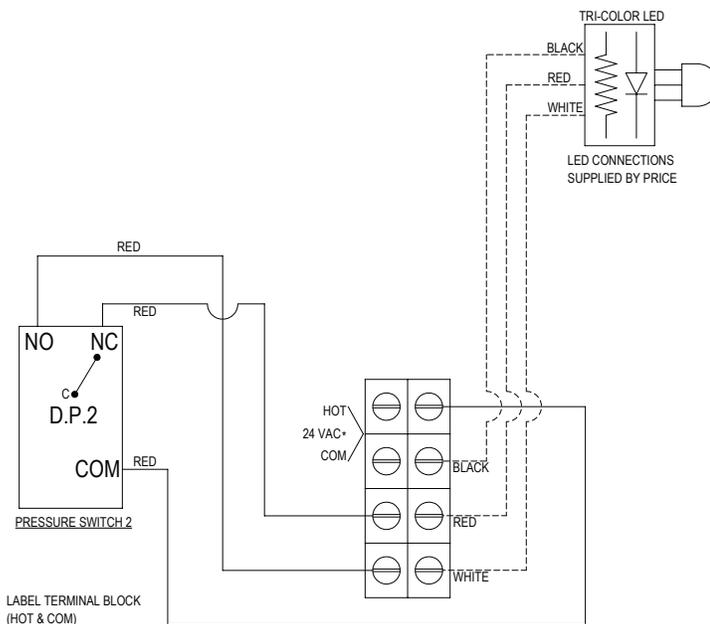
#### TRI-COLOR LED

- LED GREEN: INDICATES PRESSURE READING IS WITHIN OPERATING RANGE 
- LED AMBER: INDICATES PRESSURE READING IS ABOVE CALIBRATED MAXIMUM

- FACTORY CONNECTION
- - - - - FACTORY CONNECTION IF RSR FILTER  
FIELD CONNECTION IF BTR FILTER

NOTE:  
WIRE COLOUR MAY VARY FROM DIAGRAM  
TRACE WIRES TO CHECK ROUTING

#### FFU LED - MOTOR LOADING ▼



**REQUIRES  
FACTORY TEST!**

#### TRI-COLOR LED

- LED GREEN: INDICATES PRESSURE READING IS WITHIN OPERATING RANGE 
- LED RED: INDICATES PRESSURE READING BELOW OPERATING RANGE (0.2 IN. W.G.)

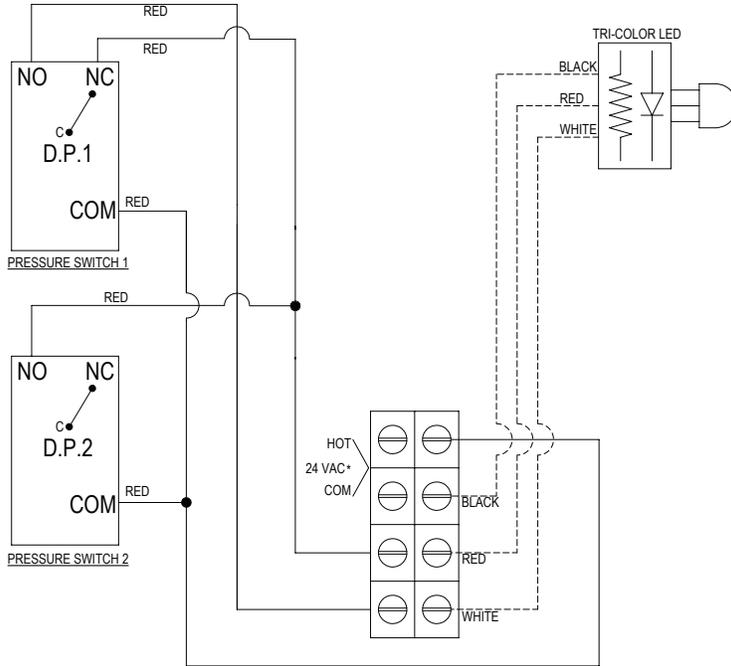
- FACTORY CONNECTION
- - - - - FACTORY CONNECTION IF RSR FILTER  
FIELD CONNECTION IF BTR FILTER

NOTE:  
WIRE COLOUR MAY VARY FROM DIAGRAM  
TRACE WIRES TO CHECK ROUTING

# FAN FILTER UNIT

## WIRING DIAGRAMS

### FFU LED - MOTOR LOADING & FILTER LOADING ▼



**REQUIRES  
FACTORY TEST!**

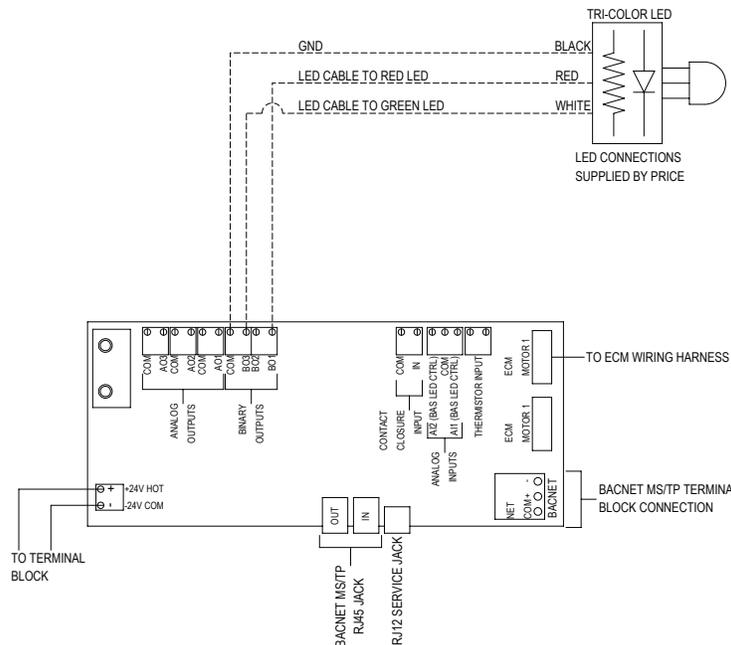
**TRI-COLOR LED**

- LED GREEN: INDICATES PRESSURE READING IS WITHIN OPERATING RANGE
- LED RED: INDICATES PRESSURE READING BELOW OPERATING RANGE (0.2 IN. W.G.)
- LED AMBER: INDICATES PRESSURE READING IS ABOVE CALIBRATED MAXIMUM

- FACTORY CONNECTION
- - - - - FACTORY CONNECTION IF RSR FILTER
- - - - - FIELD CONNECTION IF BTR FILTER

NOTE:  
WIRE COLOUR MAY VARY FROM DIAGRAM  
TRACE WIRES TO CHECK ROUTING

### FFU LED - MOTOR LOADING, FILTER LOADING, MOTOR BFC & FILTER BFC ▼



**REQUIRES  
FACTORY TEST!**

**TRI-COLOR LED**

- LED GREEN: INDICATES PRESSURE READING IS WITHIN OPERATING RANGE
- LED SOLID RED: INDICATES MOTOR OFF (SET POINT IS 0%)
- LED BLINKING RED: INDICATES PRESURE READING BELOW OPERATING MINIMUM (0.1 IN. W.G.)
- LED AMBER: INDICATES PRESSURE READING IS ABOVE CALIBRATED MAXIMUM (1.5 TIMES CLEAN FILTER PRESSURE)

- FACTORY CONNECTION
- - - - - FACTORY CONNECTION IF RSR FILTER
- - - - - FIELD CONNECTION IF BTR FILTER

NOTE:  
WIRE COLOUR MAY VARY FROM DIAGRAM  
TRACE WIRES TO CHECK ROUTING





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