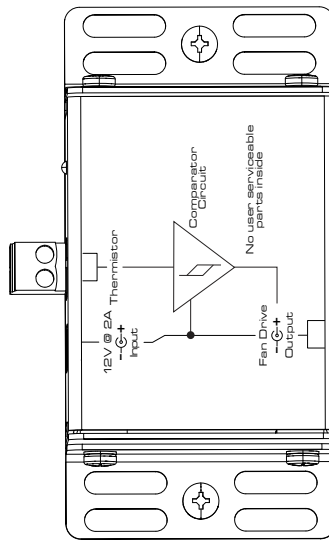# FC-DC

## ESSEX THERMOSTATIC FAN CONTROL KIT

$C \epsilon$



## THANK YOU

Thank you for purchasing the Essex FC-DC Thermostatic Fan Control Kit. Please read these instructions thoroughly before installing this product.

## PRODUCT FEATURES

• Controls up to 4 DC fans; turns fans on when temperature inside rack reaches 87°F and off when it cools to 85°F.
• Temperature probe with 5ft. wire reaches the hottest location within the rack.
• Works with all of the fans within the Essex line (QAR, MMR, RCS).

**Middle Atlantic Products**

# IMPORTANT SAFETY INSTRUCTIONS / INSTRUCTIONS IMPORTAANTES SUR LA SÉCURITÉ

DANGER HAZARDOUS VOLTAGE/DANGER HAUTE TENSION

The lightning flash with the arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

L'éclair avec le symbole de flèche dans un triangle équilatéral est destiné à alerter l'utilisateur de la présence d'une tension dangereuse non isolée dans l'enceinte du produit qui peut être d'une ampleur suffisante pour constituer un risque de choc électrique pour les personnes.

CAUTION/ATTENTION The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Le point d'exclamation dans un triangle équilatéral est destiné à alerter l'utilisateur de la présence d'importants instructions d'opération et de maintenance (entretien) dans la documentation accompagnant l'appareil.

**WARNING!** Failure to read, understand and follow the following information can result in serious personal injury, damage to the equipment or voiding of the warranty. It is the responsibility of the Installer/User to ensure that this product is loaded according to specifications.

**AVERTISSEMENT!** Refus de lire, comprendre et suivre la renseignements suivants peut traduire par de graves blessures, des dommages à l'équipement ou invalider la garantie. Il est la responsabilité de l'installateur / utilisateur de s'assurer que ce produit est chargé conformément aux spécifications.

**CAUTION!** The socket-outlet shall be installed near the equipment and shall be easily accessible.

**ATTENTION!** La prise de courant doit être installée près de l'équipement et doit être facilement accessible.

**CAUTION!** Use indoor in dry locations only.

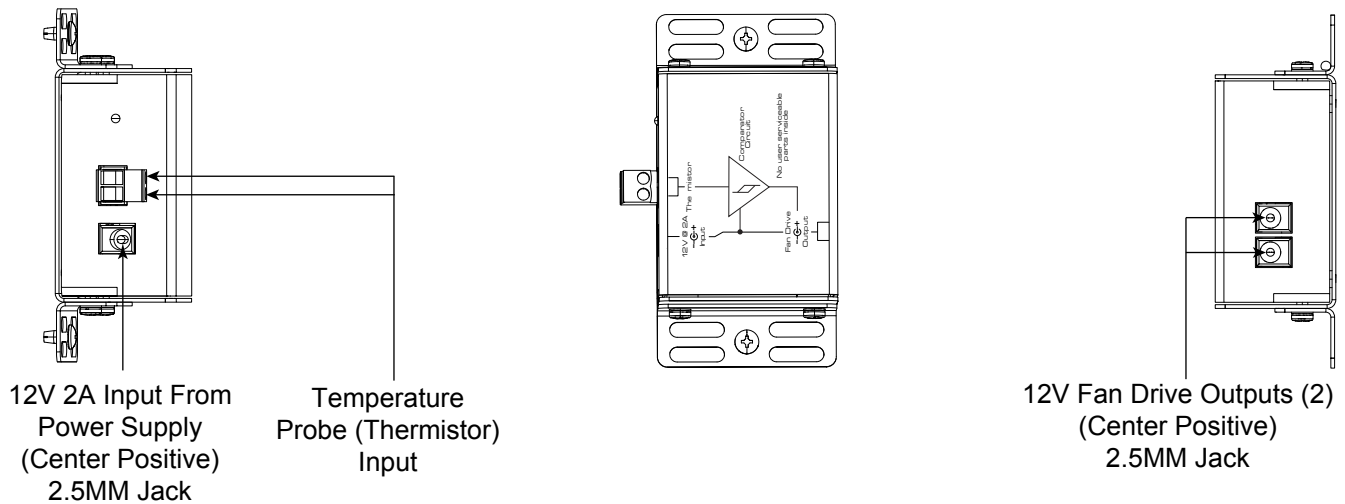**ATTENTION!** Pour être utilisé en intérieur dans un endroit sec seulement.

## SUPPLIED COMPONENTS AND HARDWARE

| QTY | DESCRIPTION |
|-----|-------------|
| 4 | 6-32 x 3/16" Phillips Head Screws |
| 4 | 8-32 x 1/2" Phillips Head Screws |
| 2 | 8-32 x 5/16" Thread Cutting Phillips Head Screws |
| 4 | 8-32 Nuts |
| 2 | 18" Power Jumper Cables |
| 1 | Temperature Probe (Thermistor) |

## REQUIRED TOOLS

• #2 Phillips Head Screwdriver
• Small Flat Head Screwdriver
• Wire Strippers

## CONNECTIONS DIAGRAM

12V 2A Input From
Power Supply
(Center Positive)
2.5MM Jack

Temperature
Probe (Thermistor)
Input

12V Fan Drive Outputs (2)
(Center Positive)
2.5MM Jack

## FANPNL-2DC OR IFANPNL-2DC INSTALLATION

1. Install fan controller to fan panel as shown, using (2) Phillips head screws. **(FIGURE A)**

2. Connect fans to power jumper cables. **(FIGURE A)**

3. Connect power jumper cables to 12V fan drive output jacks on controller. **(FIGURE A)**

4. Connect power supply to 12V 2A input jack on controller, power supply provided with panel option. **(FIGURE A)**

5. Connect temperature probe to terminal block on controller. **(FIGURE A)**

**NOTE:** It is recommended that the temperature probe be installed at the highest location in the rack containing the most amount of heat.
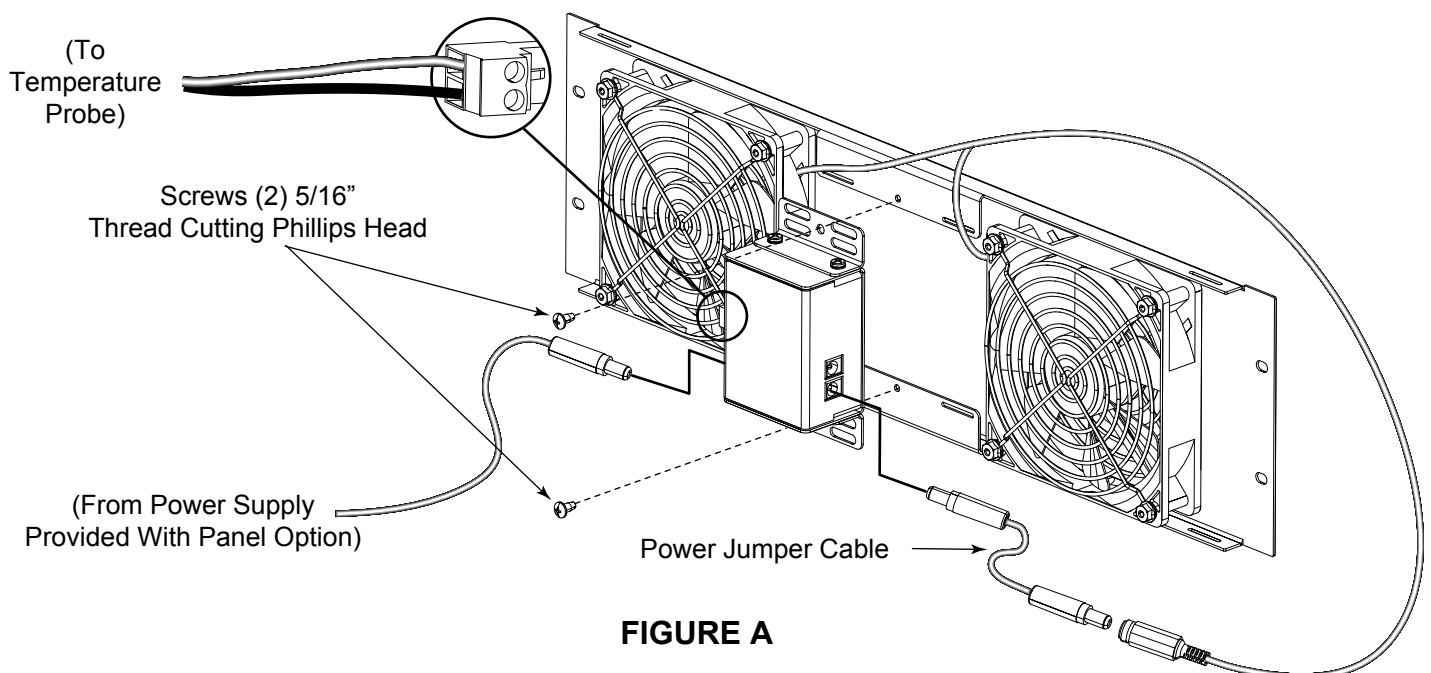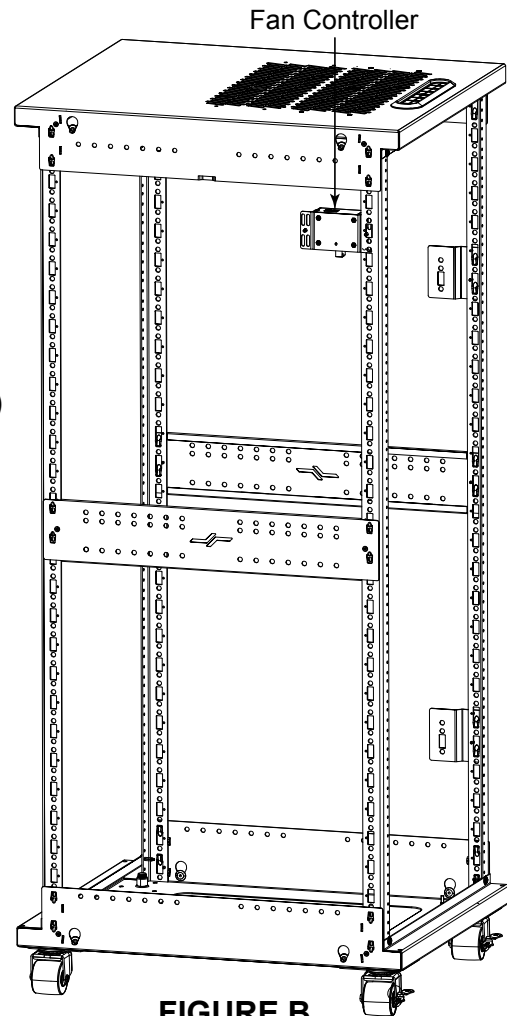
(To Temperature Probe)

Screws (2) 5/16"
Thread Cutting Phillips Head

(From Power Supply Provided With Panel Option)

Power Jumper Cable

**FIGURE A**

1. Install fan controller to rack in desired location using supplied hardware. **(FIGURE B)**

2. Connect fan panel(s) to power jumper cables. **(FIGURE C for single panel or D for dual panels)**

3. Connect power jumper cables to 12V fan drive output jacks on controller (see page 5). **(FIGURE C for single panel or D for dual panels)**

4. Connect power supply to 12V 2A input jack, **(See Page 2)** on controller. Power supply provided with top option. **(FIGURE C for single panel or D for dual panels)**

5. Connect temperature probe to terminal block on controller (see page 5).

   **NOTE:** It is recommended that the temperature probe be installed at the highest location in the rack containing the most amount of heat.
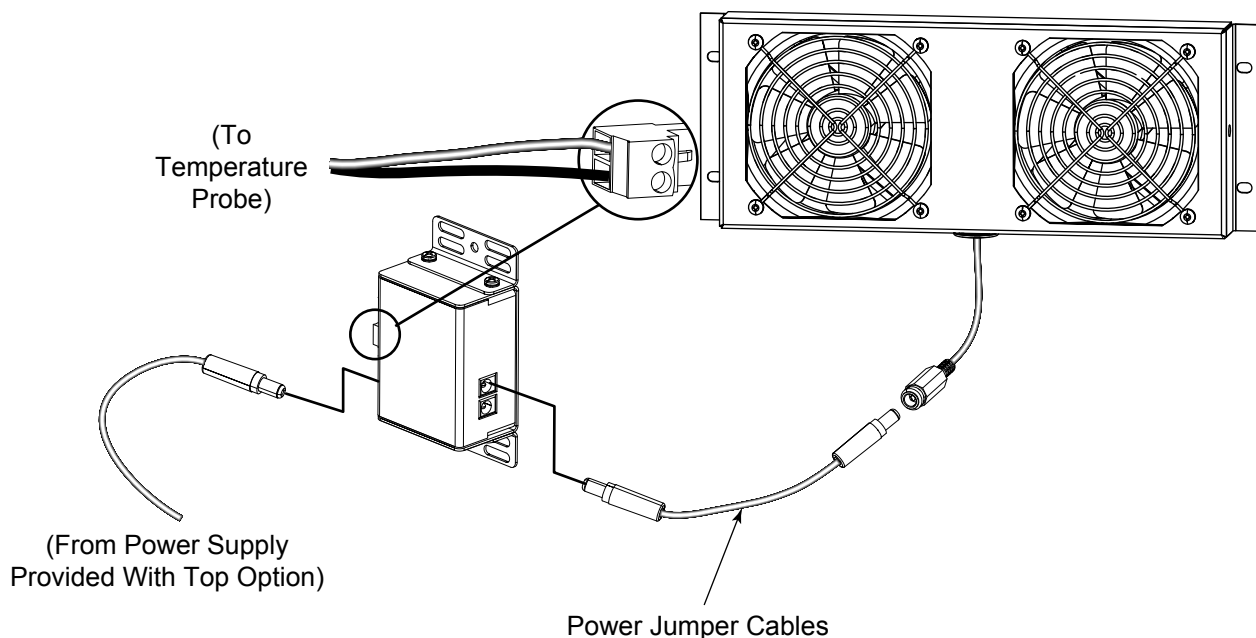
Fan Controller

**FIGURE B**
**(QAR SHOWN)**

(To Temperature Probe)

(From Power Supply Provided With Top Option)

Power Jumper Cables

**FIGURE C (Single Panel Wiring)**

(To Temperature Probe)

(From Power Supply Provided With Top Option)
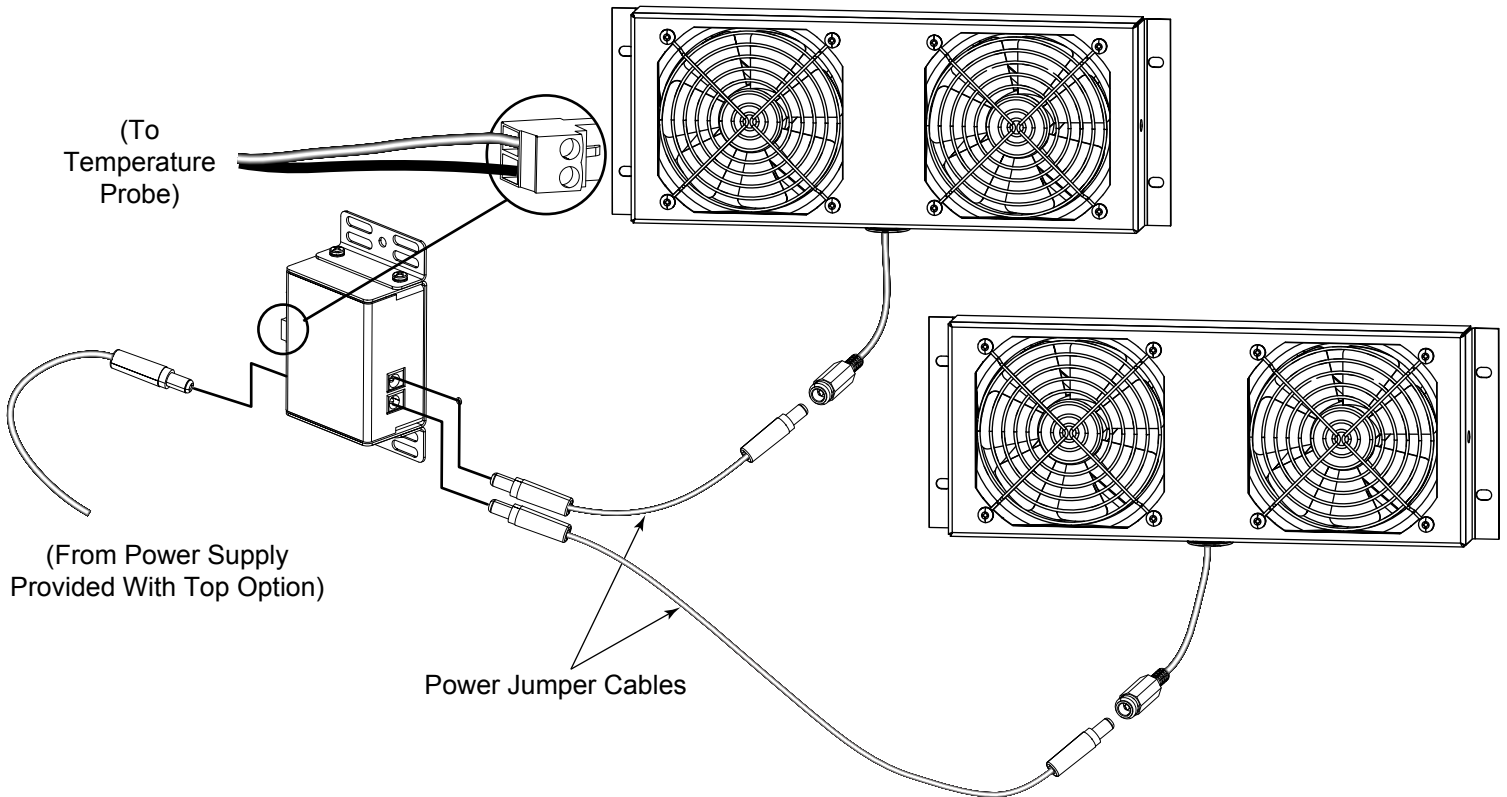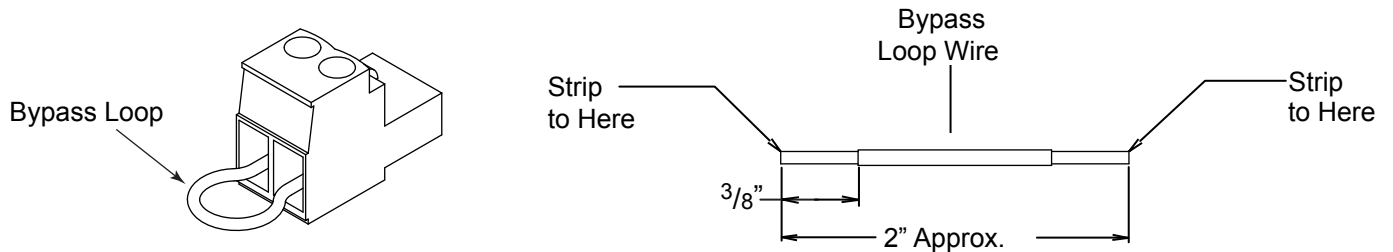
Power Jumper Cables

**FIGURE D (Dual Panel Wiring)**

## OPERATION

The controller varies fan speed based upon temperature to increase fan life while decreasing noise and power consumption.

**"ALWAYS ON" FAN OPTION:** To have your fans run at all times (regardless of the temperature), remove the temperature probe/thermistor, and replace it with a bypass loop as shown. The unit will then run whenever it is connected to a power supply. Save temperature probe/thermistor for later use.

Bypass Loop

Bypass Loop Wire

Strip to Here

Strip to Here

$3/8$"

2" Approx.

# ESSEX
## by Middle Atlantic

middleatlantic.com/essex        800.266.7225

**WARRANTY**

Middle Atlantic Products (the "Company") warrants the product to be free from defects in material or workmanship under normal use and conditions for a period of (3) three years from date of shipment by the Company.

The Company's entire liability to the purchaser, and the purchaser's (or any other party's) sole and exclusive remedy, under this warranty shall be limited, at the Company's option, to either (a) return of and refund of the price paid for, or (b) repair or replacement at the Company's factory of the products purchased, or any part or parts thereof, which the Company has determined to be defective after inspection thereof at the Company's factory.

This warranty does not cover damage due to acts of God, accident, misuse, abuse or negligence by parties other than the Company, or any modification or alteration of the products. In addition, this warranty does not cover damage due to improper handling, assembly, installation or maintenance.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF THE PRODUCTS PURCHASED, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE COMPANY'S LIABILITY TO THE PURCHASER (OR ANY OTHER PARTY) HEREUNDER, IF ANY, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCTS PAID TO THE COMPANY.

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