SIEMENS

Installation Instructions
Document No. 546-14403
December 8, 2011

2-Position Constant Volume Fume Hood Controller Board

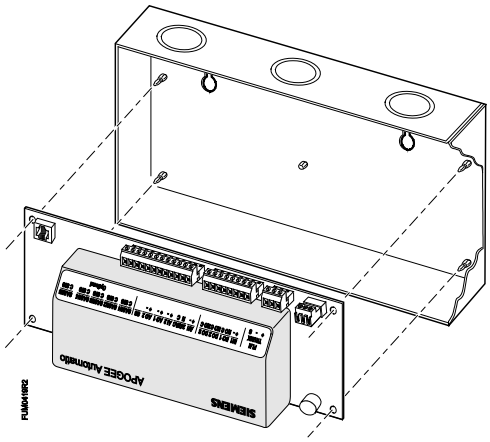

Figure 1. 2-Position Constant Volume Fume Hood Controller Board (Standard Enclosure).

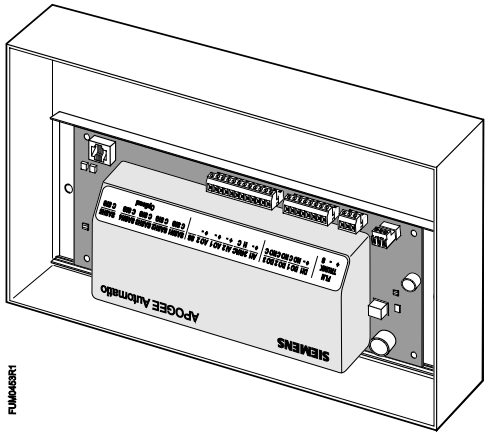

Figure 2. 2-Position Constant Volume Fume Hood Controller Board (Other enclosure).

Control Applications

940

Product Description

The 2-Position Constant Volume Fume Hood Controller Board (Figure 1 and Figure 2) is the main termination board for the Fume Hood Controller. The board comes with a ferrite filter to suppress electrical emissions from the 8-conductor cable. The ferrite filter must be installed to meet FCC and CE requirements.

Product Numbers

546-00750A	2-Position Constant Volume Fume Hood Controller Board – Application 940 with cover and mounting rail
546-00750AE	2-Position Constant Volume Fume Hood Controller Board – Application 940 with FHC enclosure
546-00750BE	2-Position Constant Volume Fume Hood Controller Board – Application 940 with FHC enclosure and ODP assembly

NOTE:
Keep the controller board in its static proof bag until you are ready to install.

Warning/Caution Notation

⚠ WARNING

Personal injury/loss of life may occur if you do not follow the procedures as specified.

⚠ CAUTION

Equipment damage or loss of data may occur if you do not follow the procedures as specified.

Expected Installation Times

23 minutes.

Required Tools and Materials

- Smallflat-blade screwdriver

Prerequisites

- Fume Hood Controller Enclosure is mounted and wiring has been roughed-in.
- Operator Display Panel is installed and cable pulled to location of controller.

Instructions

1. If the Fume Hood Controller will be used with a field panel, then disconnect the Field Level Network (FLN) trunk from the field panel.
2. Place the ESD wrist strap on your wrist and attach it to a good earth ground.
3. Carefully remove the controller board from the anti-static bag.
4. To mount the controller, do one of the following:
   - Center the controller board over the mounting posts in the bottom of the controller enclosure (Figure 1). Insert the corner holes of the board onto the mounting posts. Press firmly on the board to snap it securely into place. Repeat for all controllers.
   - Secure the mounting rail inside the enclosure at the controller's desired location and snap it into place on the mounting rail (Figure 2). Repeat for all controllers.
5. After installing all controller boards, verify that power is OFF. Connect a certified 24 Vac Class II power source to the Fume Hood Controller, see Figure 3.

NOTE:
To meet CE requirements, the enclosuremust be grounded.

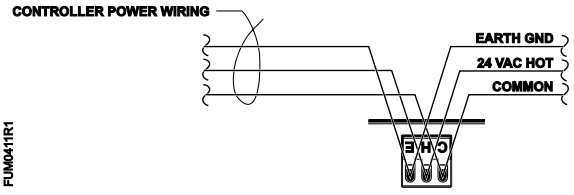

Figure 3. Power Trunk Wiring.

6. Connect the FLN trunk wiring as shown in Figure 4.
7. After all controllers are connected to the FLN reconnect the FLN trunk to the field panel.

CAUTION

Do not connect an earth ground to the FLN trunk shield terminal. The earth ground should be connected only at the field panel to prevent ground loop currents.

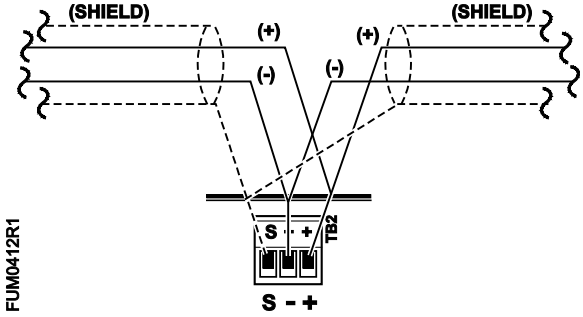

Figure 4. FLN Trunk Wiring.

8. Terminate both connections of a 24 Vac load directly to the controller board. The 24 Vac "H" terminal is switched through a triac to the NO terminations when the associated DO is energized.

CAUTION

The Fume Hood Controller DOs control 24 Vac loads only. The maximum rating is 12 VA for each DO. For higher ratings an interposing relay must be used.

9. Follow the instructions in Figure 5.

CAUTION

Ferrite filter(s) must be installed on the Operator Display Panel (ODP) cable. If not, the controller is not FCC and CE compliant.

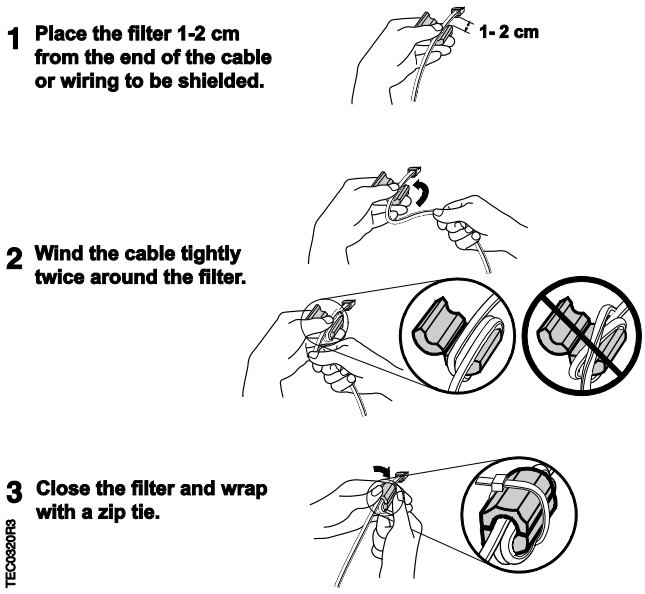

Figure 5. Installing a Ferrite Filter.

10. Plug the Operator Display Panel cable into the Operator Display Panel Communication port on the controller board (Figure 6 and Figure 7).

The installation is complete.

NOTE:
The ferrite filter must be installed on the cable inside the enclosure to meet FCC and CE requirements (Figure 6).

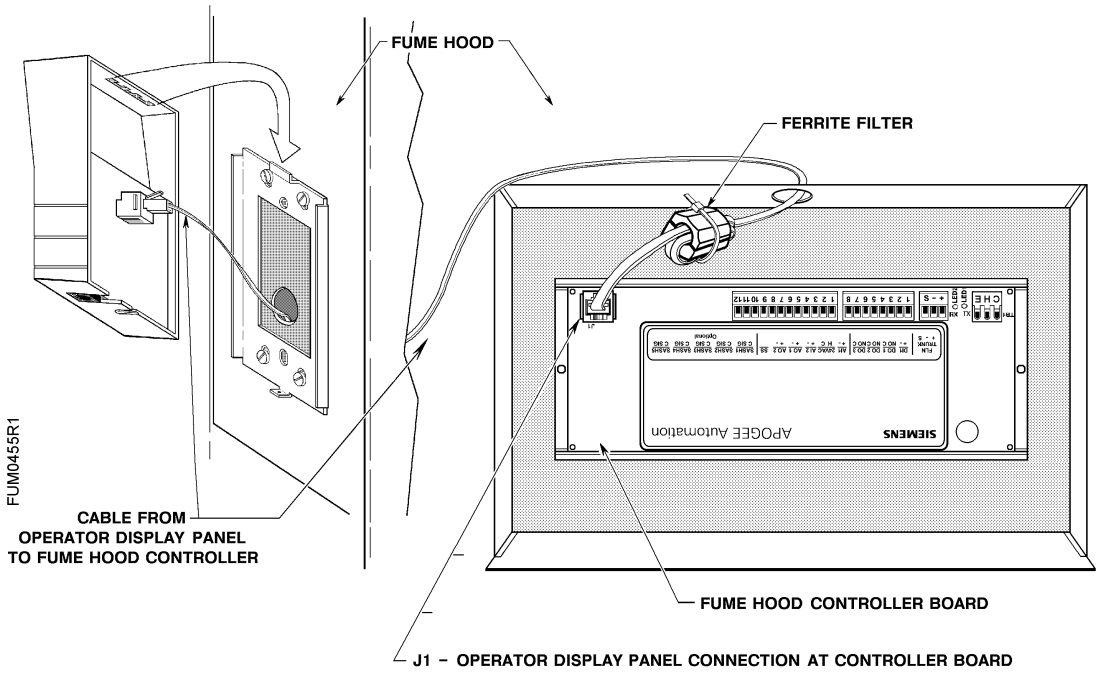

Figure 6.Ferrite Filter Installed.

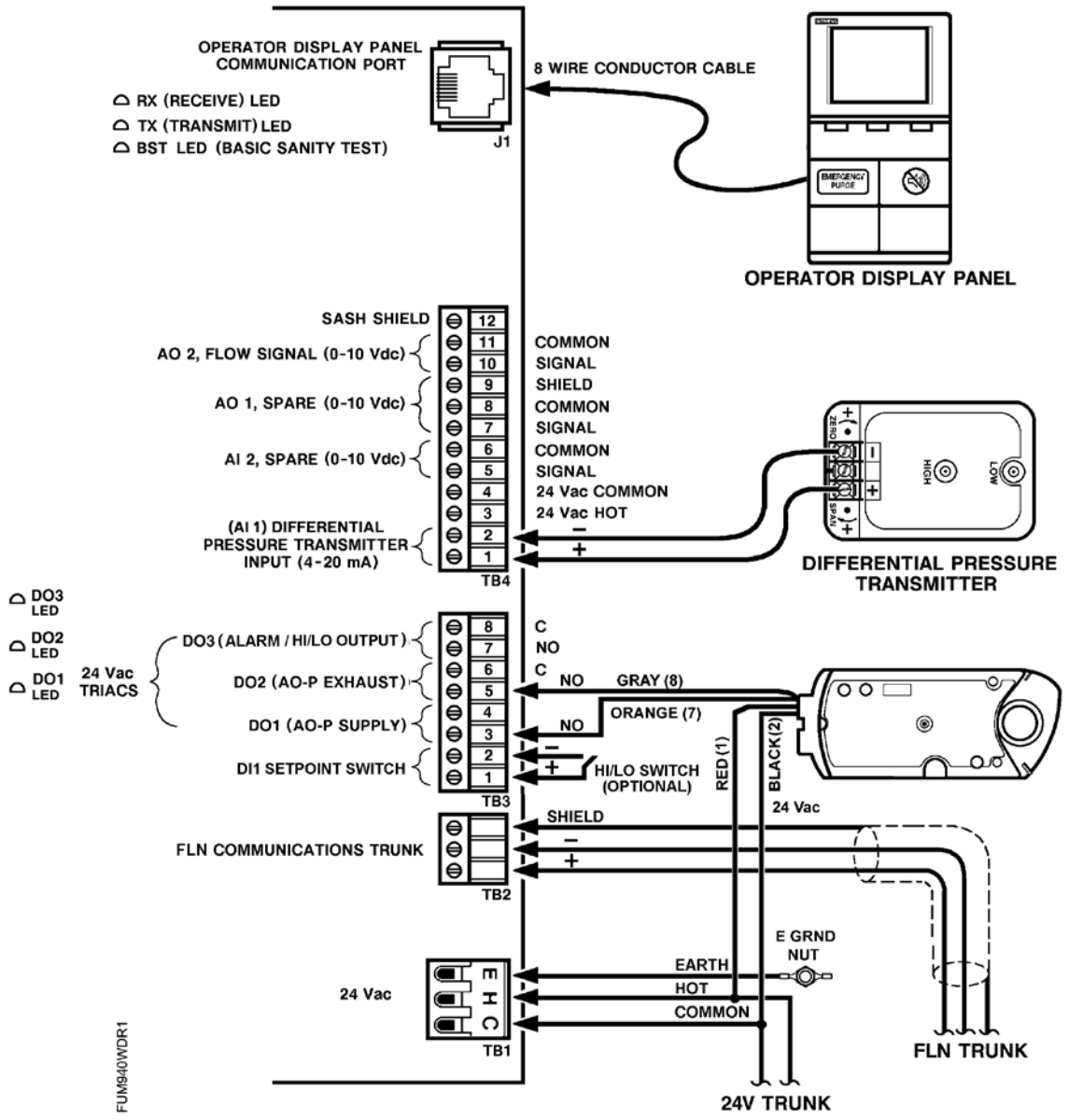

Figure 7. Fume Hood Controller Board Wiring (Application 940).

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