CHAPTER

4

CONTROL FIREWALL PLANNING AND DESIGN

This chapter contains the following topics.

4.1 General Planning References

Please refer to the following documents for planning and design details for the Experion system in general and the Fault Tolerant Ethernet supervisory network. For the sake of brevity, this Guide does not repeat the applicable general guidelines, considerations, cautions, and so on that are covered in these other Guides.

- Control Hardware Planning Guide
- Server and Client Planning Guide
- Fault Tolerant Ethernet Overview and Implementation Guide

4.2 Identifying Control Firewall Components

The following table identifies the Control Firewall components that will be needed to provide a FTE interface with a Series C control system. The CC/DC prefix in a model number means the component's printed wiring boards are coated to provide additional protection from the environment and the CU prefix means the boards are uncoated.

Component	Description	Honeywell Model Number
Control Firewall Module (CF9)	Module mounts on CF9 Input/Output Termination Assembly (IOTA).	CC-PCF901
CF9 Input/Output Termination Assembly (IOTA)	Provides physical connection to Control Firewall module and FTE cables. Mounts on carrier in Series C cabinet.	CC-TCF901
CF9 Input/Output Termination Assembly (IOTA) for Series C Mark II	Provides physical connection to Control Firewall module and FTE cables. Mounts on backplane in Series C Mark II cabinet.	DC-TCF901
Horizontal 9 Port FTE Control Firewall Input Output Termination Assembly (IOTA)	Provides connection for eight FTE cables from in-cabinet controllers. The 9th port provides an uplink to the FTE supervisory network.	CC-HCN911
Ethernet Cables	Please see Planning Your Series C Control System In Control Hardware Planning Guide for information about Ethernet cables.	
Single Mode Fiber Module	FTE Single-Mode Fiber Module that plugs into one	CC-

CAUTION

Unless the location is known to be non-hazardous, do not:

- connect or disconnect cables,
- install or remove fuses, terminal blocks, and so on, while the component is powered.

CAUTION

Do not connect Control Firewalls to interfaces configured for uplinks. Configure all Control Firewall interfaces for portfast before attaching the Control Firewall. Otherwise, interfaces connected to Control Firewalls will be blocked and cause loss of view upon recovery of a root switch in a network, which causes recalculation of the switch spanning tree topology. Control Firewalls do not use spanning tree.

5.2 Installing CF9 Input/Output Termination Assembly CC-TCF901

5.2.1 Fiber media reference specifications

Single-Mode Fiber Optic module CC-FSMX01

This module uses a dual-jacketed, dual-fiber cable (yellow) with an LC connector. Its applicable specifications are as follows.

Medium	Single-Mode Glass Fiber 9/125
Wavelength	1300 nm
Maximum Distance	15 km (9 miles)
Connector	LC
Voltage	3.3 V
Temperature	Industrial -40 C to +85 C (-40 F to +185 F)
Form Factor	SFP
Power	1 W Approximately

Multi-Mode Fiber Optic modules CC-FMMX01

This module uses a single-jacketed, dual-fiber cable (Orange) with an MT-RJ connector. Its applicable specifications are as follows.

Medium	Multimode Dielectric Fiber 62.5/125
Wavelength	1300 nm
Maximum Distance	2 km (1 mile)
Connector	MT-RJ
Voltage	3.3 V
Temperature	Industrial -40 C to +85 C (-40 F to +185 F)

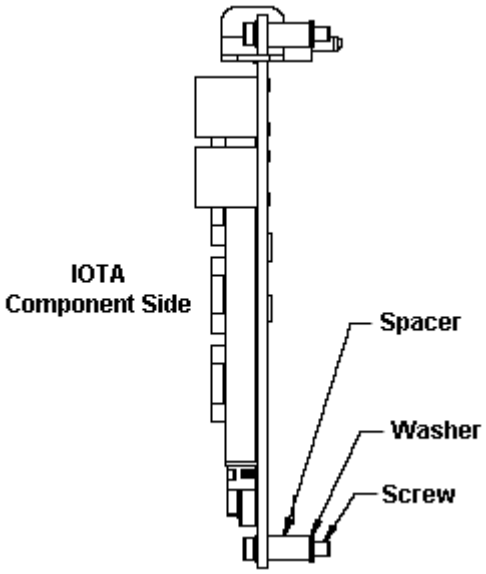
Form Factor	SFF
Power	1 W Approximately

5.2.2 To mount CF9 IOTA

> **CAUTION**
>
> Be sure you do not fully tighten the IOTA mounting screws before installing and tightening the screws in the 24V + and COM terminals to keep these screws from binding during IOTA installation.

Series C IOTA size is 6 inches.

1. Select desired mounting location on carrier and align mounting holes in IOTA with screw hole locations on the carrier. See the following dimension drawing for details.
2.
   - Be sure component side of IOTA is facing up. Secure IOTA to carrier using screws, washers and spacers provided.
   - Insert spacers and washers between bottom of IOTA and top of carrier.
   - **Only tighten mounting screws half way.**



3. Tighten the screws in terminals **24 Vdc +** and **COM** (logic ground) to the vertical bus bar to connect the cabinet resident 24 Vdc power supply to the IOTA.
4. **Fully** tighten the mounting screws.
5. Repeat Steps 1 to 4 to mount the second CF9 IOTA immediately below the one that was just installed.
6. This completes the procedure. Go to Wiring IOTA for connection details.