Overview

The NETCOM-1S allows GE Security fire alarm panels to communicate with a PC running FireWorks or ACDB software or a serial printer over Ethernet networks. The NETCOM-1S is ruggedly constructed industrial grade unit that connects to the fire alarm control panel's RS-232 serial port. LEDs on the front of the unit make it easy to determine its status. Flash ROM memory permits upgraded versions of operating firmware to be easily downloaded via the serial port. Power is supplied directly from the Fire Alarm Control Panel, ensuring a reliable and monitored source. For remote printer applications, an external 120VAC wall mount transformer is supplied.

The NETCOM-1S encapsulates RS-232 serial data to/from the fire alarm panel into packets and transports them over 10/100BASE-T Ethernet to a remote network location where the RS-232 serial data is reconstructed by either software or hardware means depending on the application.

The NETCOM-1S is supplied with NETCON-INS Configuration Software that is used to enter a static IP address, set up port, protocol and data handling configurations. NETDIRECT Communication Port Director software is also provided to facilitate the use of the NETCOM-1S interface with programs that to not directly support TCP/IP networking. The program is a 32 bit Windows® based utility that maps up to 32 communication ports to individual IP addresses.

The NETCOM-1S is suitable for desktop and surface mounting. The NETCOM-BRKT facilitates mounting one or two NETCOM-1Ss in an MFC-A enclosure and 3-CHAS7 Chassis.

Standard Features

- Connect alarm panels to a remote fireworks workstation over TCP/IP, LAN/WANs
- Access Control Database Support over LAN/WAN
- 10/100BASE-T Ethernet interface (RJ45)
- RS-232 Serial connection
- UL-1950 (ITE) Listed
- Configuration and port director software included
- Flash rom for easy software upgrade

Ethernet Device Server Network Interface

NETCOM-1S

Application

Fire Alarm Monitoring

Considerable thought and care must be used when combining life safety equipment and LAN technology. Systems that utilize LAN network technology for information and reporting purposes ONLY do not face the network and agency listing restrictions as systems that use the LAN to transmit *control* information between the fire alarm panel and the FireWorks workstation(s). This technology is listed for monitoring applications only. All life safety applications using LAN technology should be fully reviewed with the Authority Having Jurisdiction.

Each fire alarm control panel is equipped with a NETCOM-1S interface that connects the panel to a TCP/IP LAN/WAN. On the monitoring side of the LAN/WAN, a PC running FireWorks software is configured to look for the static IP addresses of the NETCOM-1S interfaces on the LAN/WAN. Panel data is then transferred over the LAN/WAN to the FireWorks workstation as if the workstation and the panel were hard wired together.

Access Control Database Support

The interface may be used to permit a remote computer running the Access Control DataBase (ACDB) program to connect with a Synergy enabled EST3 panel over an existing LAN/WAN. Simply install a NETCOM-1S in the EST3 panel and use the supplied NETDIRECT communication port director software utility and the ACDB software in remote PC equipped with a conventional network interface card.

Remote System Printer

This application requires one NETCOM-1S at the FACP and a second NETCOM-1S interface at the PT-1S printer.

Compatible Equipment

- EST3 /Synergy Networks
- EST2 Standalone FACP
- IRC-3/FCC Networks
- PT-1S Serial Printers
- NETSW-EIS6-xM Network Switches

Technical Requirements

- Each interface requires a static IP address assigned by the network administrator.
- An RJ-45 network jack must be located within 5 feet, of the interface.
- When connecting remote panels to a GE Security FireWorks system, network ping time can not exceed 500ms.
- Sufficient network bandwidth shall be made available at all times. Typical requirements for these applications are 1.8 Kbytes/Sec.
- All network security is the responsibility of the network administrator.
- The NETCOM-1S power source should be provided with battery backup to ensure reliable service during a power outage.

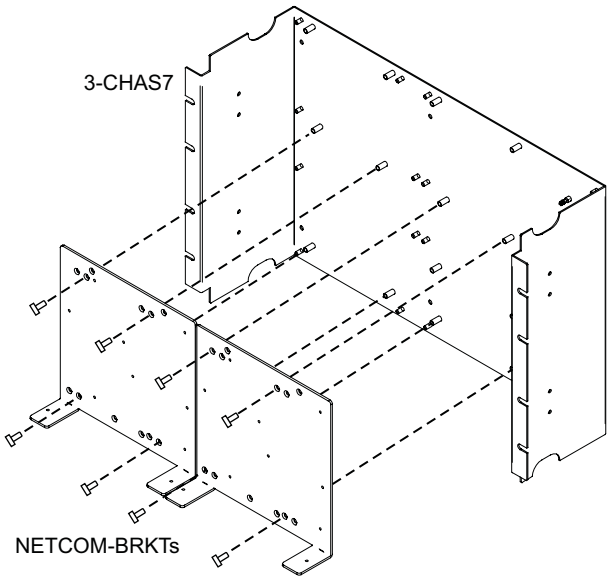
Engineering Specification

The FACP to LAN/WAN network interface shall be an industrial grade 10/100BASE T Ethernet® device server. The interface shall have diagnostic LEDs on the front of the unit make it easy to determine its status, and incorporate flash ROM memory facilitating upgrading the operating firmware. Power shall supplied directly from the FACP, ensuring a reliable and monitored power source.

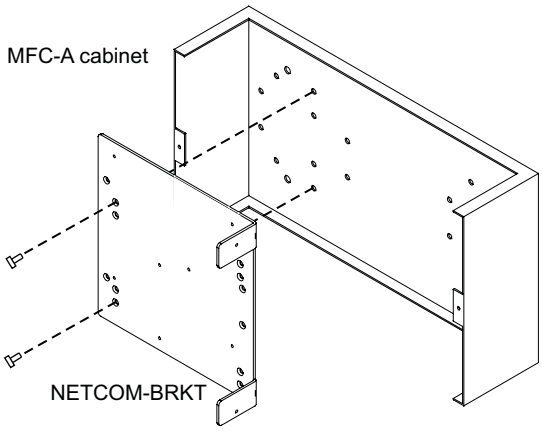
Installation and Mounting

The NETCOM-1S is installed in a NETCOM-BRKT, which fits into the cabinet options shown below.

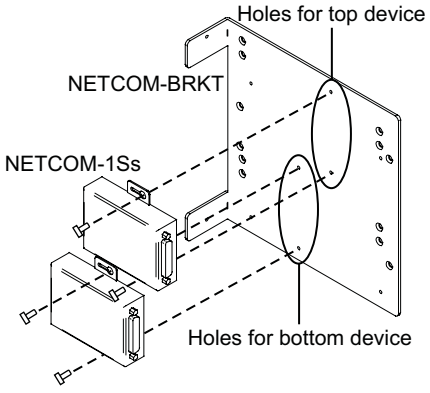
Installing the NETCOM-BRKT in a 3-CHAS7



Installing the NETCOM-BRKT in an MFCA cabinet

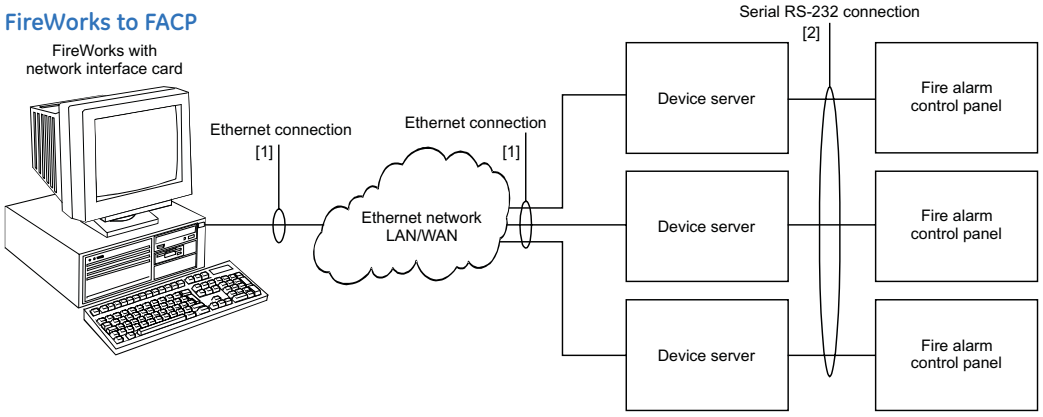


Connecting a NETCOM-1S to the NETCOM-BRKT



Typical Configurations

FireWorks to FACP



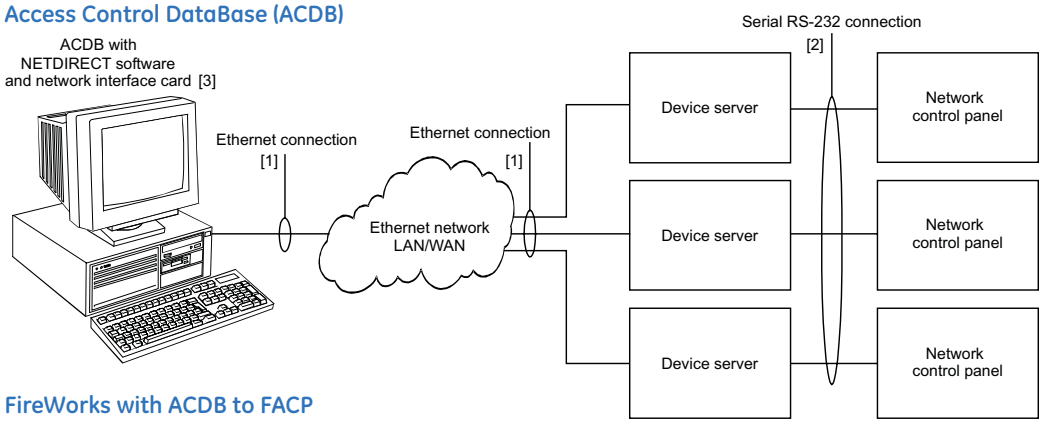
Notes

[1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m)

[2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

3 Network ping time should not exceed 500 ms.

Access Control DataBase (ACDB)



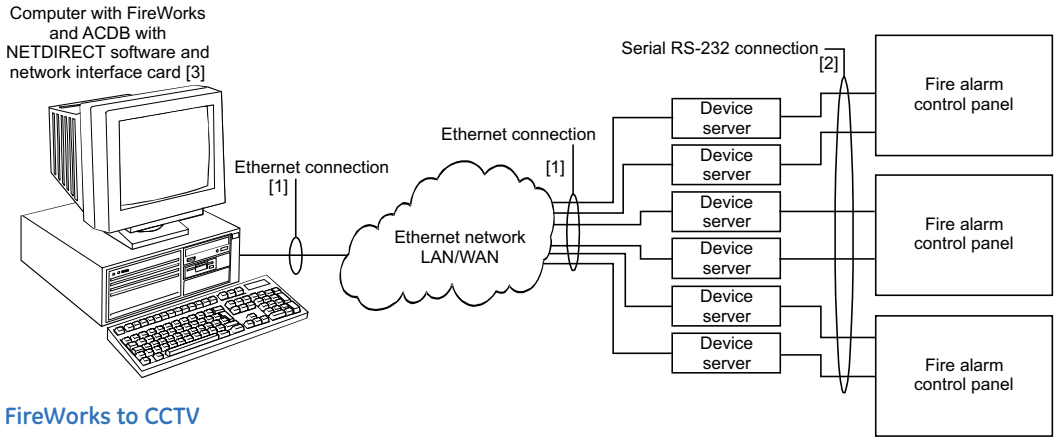
Notes

[1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m)

[2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

[3] NETDIRECT software is on the NET-COM-CD supplied with NETCOM-1S

FireWorks with ACDB to FACP



Notes

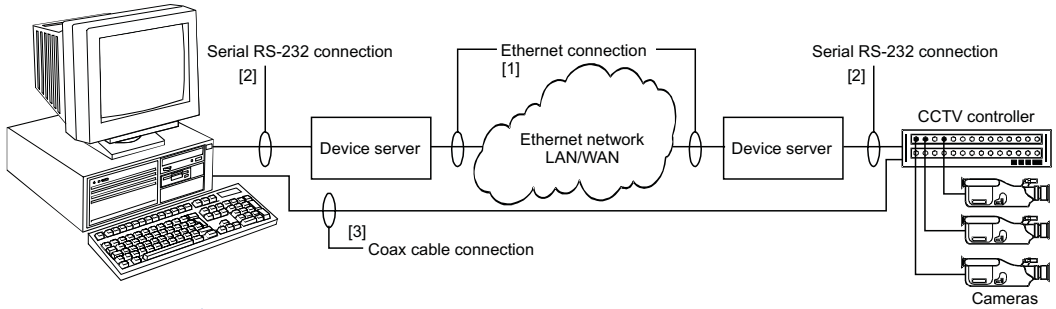
[1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m)

[2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

[3] NETDIRECT software is on the NET-COM-CD supplied with NETCOM-1S

4 Network ping time should not exceed 500 mS.

FireWorks to CCTV



Notes

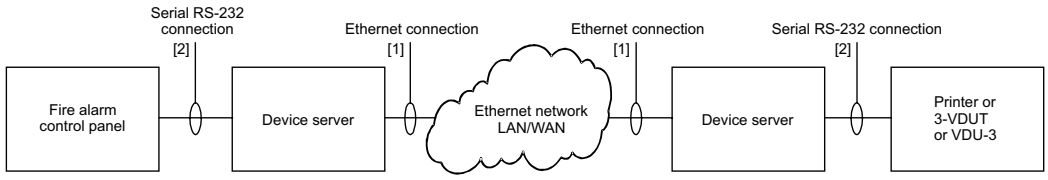
[1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m)

[2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

[3] Coax cable connection

4 Network ping time should not exceed 500 ms.

FACP to Remote Printer



Notes

[1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m)

[2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

GE
Security

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F 61 3 9259 4799

Europe
T 32 2 725 11 20
F 32 2 721 86 13

Latin America
T 305 593 4301
F 305 593 4300

www.gesecurity.com/est

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Specifications

Agency Listings	CE, CSA, FCC-B, TUV, UL/cUL-1950
Installation	Desktop, surface mount, or optional NETCOM-BRKT bracket
Network Interface	
Network	Ethernet 10Base-T, 100Base-TX
Connector	RJ-45
Supported Protocols	ARP, UDP/IP, TCP/IP, ICMP, SNMP, AutoIP, DHCP, TFTP, Telnet, HTTP
Serial Interface	
Interface Connector	RS-232, RS-422, or RS-485
Data Rates	DB-25 (female, DCE configuration)
Characters	300 to 115,200 bps
Parity	7 or 8 data bits
Stop Bits	Odd, even, none
Control Signals	1 or 2 RTS, CTS, DSR, DTR, DCD
Flow Control	XON/XOFF, RTS/CTS
Management	Serial login, SNMP, telnet login
Processor CPU Memory	Enhanced 80186,48 MHz 256KSRAM,1MB flash
Diagnostic LEDs	10 Link/Activity (green), 100 Link/Activity (green), Collision (red), Diagnostics (red), Status (green)
Dimensions (HWD)	0.9in x 2.5in x 3.5in (2.3cm x 6.4cm x 9.0cm)
Power Requirements	9 to 30 VAC/VDC @ 1 watt. (40 mA @ 24 VDC) 120VAC wall transformer included
Environmental	
Operating Temperature	41°F to 122°F (5° to 50°C)
Storage Temperature	-40° to 151°F (-40° to 66°C)

Ordering Information

Catalog Number	Description	Ship Wt. lb (kg)
NETCOM-1S	Ethernet Device Server Network Interface – 10/100BASE-T	3.0 (1.5)
Related Equipment		
NETCOM-BRKT	Bracket for mounting two (2) NETCOM-1S, one (1) NETCOM-1F, or one (1) NETSW-EIS6-xM in an MFC-A Enclosure or 3-CHAS7 chassis	1 (0.45)
MFC-A	Multifunction Fire Cabinet	19 (7.26)

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