

## Overview

The NETCOM-1F allows GE Security fire alarm panels to communicate with a PC running FireWorks or ACDB software or a serial printer over any multimode fiber optic Ethernet network. The NETCOM-1F 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-1F encapsulates RS-232 serial data to/from the fire alarm panel into packets and transports them over 10BASE-T or 10BASE-FL 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-1F is supplied with NETCON-INS Configuration Software that is used to enter an 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-1F interface with programs that do 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-1F is suitable for surface mounting. The NETCOM-BRKT facilitates mounting the NETCOM-1F in an MFC-A enclosure and 3-CHAS7 Chassis.

## Standard Features

- Connect alarm panels to a remote fireworks workstation over TCP/IP, LAN/WAN
- Access Control Database support over LAN/WAN
- 10base-T ethernet interface (RJ45)
- 10base-FL multimode fiber optic interface (ST)
- 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-1F



## 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 same 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-1F 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-1F 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. At the present time, this technology is listed for monitoring applications only.

### 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-1F in the EST3 panel and use the supplied NET-DIRECT communication port director software utility and the ACDB software in remote PC equipped with a network interface card.

### Remote System Printer

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

## Technical Requirements

- Each interface requires a static IP address assigned by the network administrator.
- An ST multimode fiber optic network connection 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 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-1F power source should be provided with battery backup to ensure reliable service during a power outage.

## Compatible Equipment

- EST3 /Synergy Networks
- IRC-3/FCC Networks
- EST2 Standalone FACP
- PT-1S Serial Printers

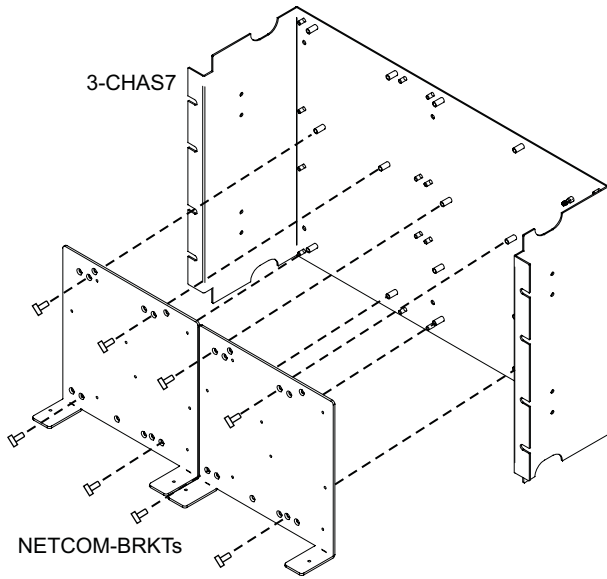
## Engineering Specification

The FACP to LAN/WAN network interface shall be an industrial grade 10Base-FL/10-Base-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 be supplied directly from the FACP, ensuring a reliable and monitored power source.

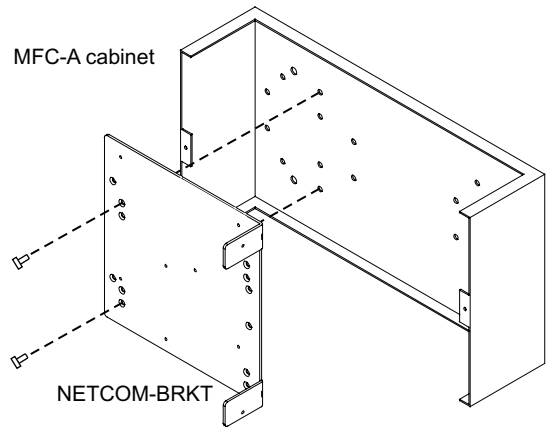
# Installation and Mounting

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

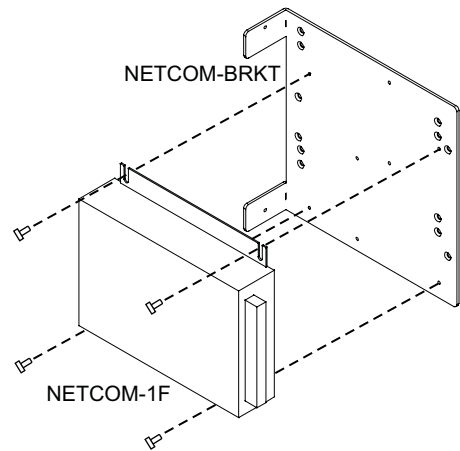
## Installing the NETCOM-BRKT in a 3-CHAS7



## Installing the NETCOM-BRKT in an MFC-A cabinet

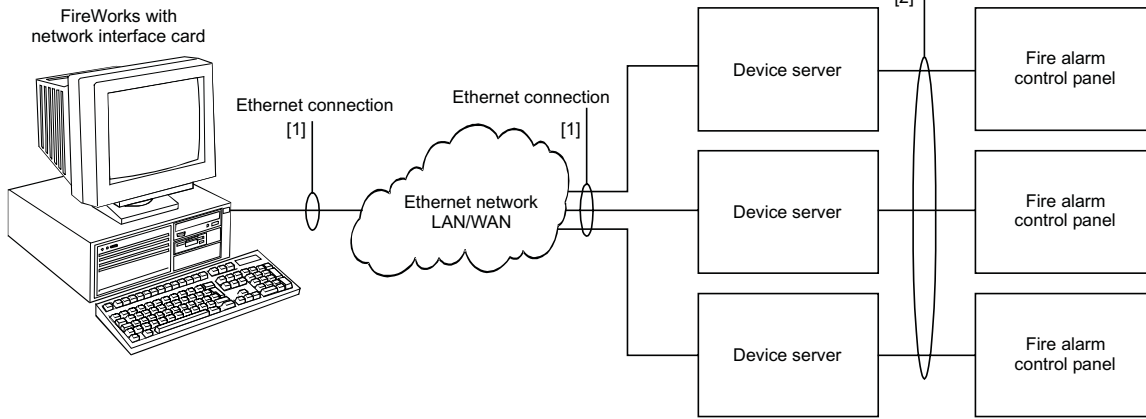


## Connecting a NETCOM-1S to the NETCOM-BRKT



# Typical Applications

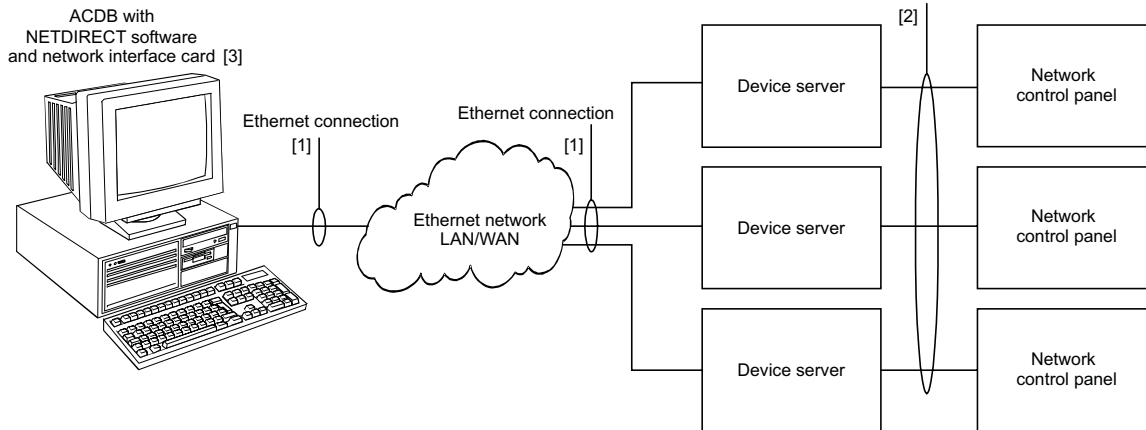
## FireWorks to FACP



### Notes

- [1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m); 62.5/125 multi mode fiber optic (NETCOM-1F)
- [2] Serial RS-232 connection: Maximum distance 50 feet (15 m)
- [3] Network ping time should not exceed 500 ms.

## Access Control DataBase (ACDB)



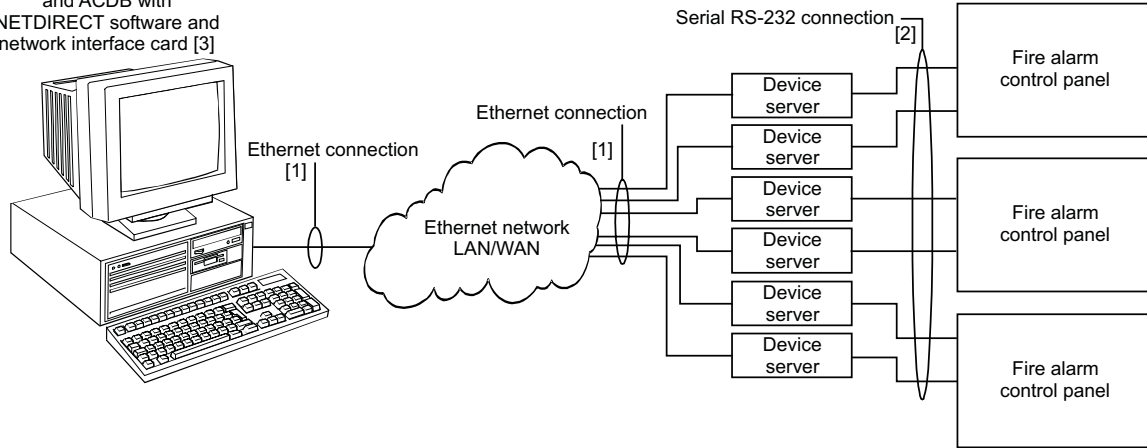
### Notes

- [1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m); 62.5/125 multi mode fiber optic (NETCOM-1F)
- [2] Serial RS-232 connection: Maximum distance 50 feet (15 m)
- [3] NETDIRECT software is on the NETCOM-CD supplied with NETCOM-1S

## FireWorks with ACDB to FACP

## Notes

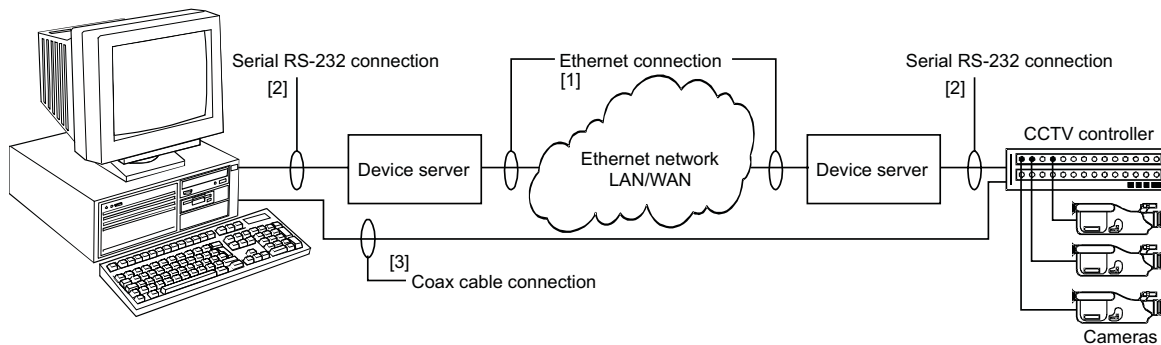
Computer with FireWorks and ACDB with NETDIRECT software and network interface card [3]



- [1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m); 62.5/125 multi mode fiber optic (NETCOM-1F)
- [2] Serial RS-232 connection: Maximum distance 50 feet (15 m)
- [3] NETDIRECT software is on the NETCOM-CD supplied with NETCOM-1S
- 4 Network ping time should not exceed 500 mS.

## FireWorks to CCTV

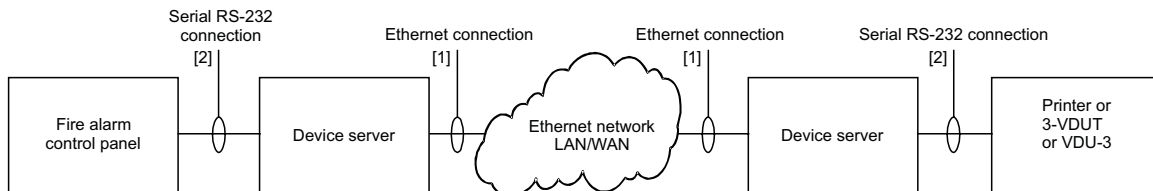
## Notes



- [1] Ethernet connection: CAT 5/6 cable, maximum distance 300 feet (100 m); 62.5/125 multi mode fiber optic (NETCOM-1F)
- [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); 62.5/125 multi mode fiber optic (NETCOM-1F)
- [2] Serial RS-232 connection: Maximum distance 50 feet (15 m)

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Australia  
T 61 3 9259 4700  
F 61 3 9259 4799

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## Specifications

Agency Listings	CE, FCC-B, UL-1950, ULC
Installation	Surface mount, or optional NETCOM-BRKT bracket
<b>Network Interface</b>	
Network Connectors	Ethernet 10Base-T; 10Base-FLRJ-45 (10Base-T) ST (10Base-FL multimode fiber)
Supported Protocols	ARP, UDP, TCP, ICMP, SNMP, DHCP, TFTP, Telnet, HTTP
Fiber Optic Budget	10dB
<b>Serial Interface</b>	
Interface	RS-232, RS-485
Connectors	DB9 (DTE configuration) DB25 (female, DCE configuration)
Data Rates	Up to 115,200 bps
Characters	7 or 8 data bits
Parity	Odd, even, none
Stop Bits	1 or 2
Modem Control	RTS, CTS, DSR, DTR, DCD
Flow Control	XON/XOFF, RTS/CTS
Management	Serial login, SNMP (read only), telnet login
Diagnostic LEDs	Tx Data (yellow), Rx Data (yellow), Good Link (green), Collisions (red), Channel status (green & yellow), Fault indicator (red)
Dimensions (HWD)	1.57in x 6.1in x 7.2in (4.0cm x 15.5cm x 18.3cm)
Power Requirements	12 to 30 VAC/VDC @ 9 watts (380 mA @ 24 VDC) 120/230VAC wall transformer included
<b>Environmental</b>	
Operating Temp	41°F to 122°F (5° to 50°C)
Storage Temp	-40° to 151°F (-40° to 66°C)

## Ordering Information

Catalog Number	Description	Ship Wt. lb (kg)
NETCOM-1F	Ethernet Device Server Network Interface – 10Base-T, 10Base-FL	2.9 (1.3)

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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