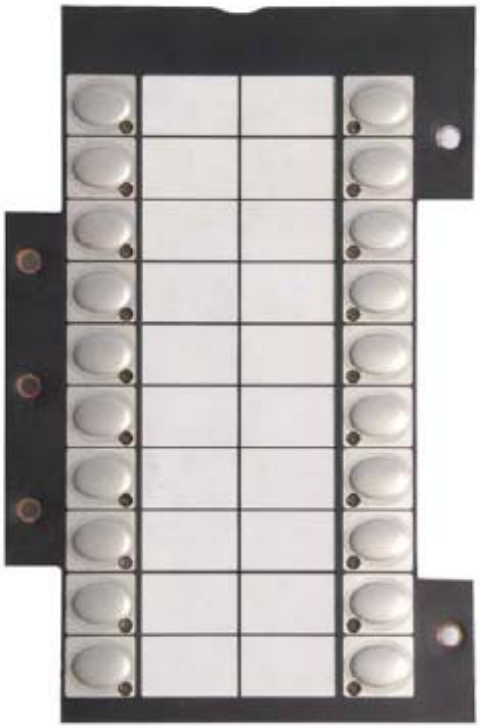
Product Manual

10-2730

Supplemental Fire-Phone Card



P/N 06-560, Rev. 1
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DEVELOPED BY	Fike 704 SW 10th Street P.O. Box 610 Blue Springs, Missouri 64013 U.S.A. Phone: (888) 628-FIKE (3453) (816) 229-3405 Fax: (866) 211-9239
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TABLE OF CONTENTS

LIST OF EXHIBITS

1.0 ABOUT THIS MANUAL

This manual is intended to be a complete reference for the installation, operation and service of the Fike Supplemental Fire-Phone Card. The information contained in this manual shall be used by factory trained service technicians who are authorized to work on this product. This manual also serves as the Operations Manual for the component.

The first-time installer and/or user should thoroughly read and understand the instructions contained within this manual before using this device. These instructions must be followed to avoid damage to the equipment itself or adverse operating conditions caused by improper installation and programming.

1.1 DOCUMENT HISTORY

Document Title: Supplemental Fire-Phone Card, Product Manual

Document Reorder Number: 06-560

Revision	Section	Date	Reason for Change
0	All Sections	05/2010	Initial Release
1	Section 3.3	06/2011	Corrected DIP-switch settings, Exhibit 8

1.2 PRODUCT SUPPORT

If you have a question or encounter a problem not covered in this manual, you should first try to contact the distributor who installed the Fike system. Fike has a worldwide distribution network. Each distributor sells, installs, and services Fike equipment. Look on the back of the cabinet door, there should be a sticker with an indication of the distributor who installed the system. If you can not locate the distributor, please call Fike Customer Service for locating your nearest distributor, or go to our web-site at www.fike.com. If you are unable to contact your installing distributor or you simply do not know who installed the system, you can contact Fike Technical Support at (888) 628-3453, Option 2, Monday through Friday, 8:00 am to 4:30 pm CST.

1.3 SAFETY INFORMATION

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment.

⚠ Caution

Cautions are used to indicate the presence of a hazard which will or may cause damage to the equipment if safety instructions are not followed or if the hazard is not avoided.

Note: Provides information on installation, operation, maintenance, performance or general tips that are important but not hazardous to anything or anyone.

1.4 TERMS USED IN THIS MANUAL

Authority Having Jurisdiction – The organization, office, or individual responsible for approving equipment, materials, and installation, or a procedure.

Configure – Panel set-up to properly recognize and supervise a device as the design requires.

Fire Alarm Control Unit (FACP) – A system component that receives inputs from automatic and manual fire alarm devices and might supply power to detection devices and to a transponder(s) or off-premises transmitter(s). The control unit might also operate releasing circuits or solenoids, provide transfer of power to the notification appliances, or transfer of condition to relays or devices connected to the control unit. The fire alarm control unit can be a local fire alarm control unit or a master control unit.

Power Limited – A circuit designation given for wiring purposes. The amount of current flowing through the circuit is limited versus being unlimited, or non-power limited.

Zone – A defined area within the protected premises. A zone can define an area from which a signal can be received, an area to which a signal can be sent, or an area in which a form of control can be executed. This term is used to create the relationship between activation inputs to notification outputs and peripherals.

RS485 – A data communication standard produced by the Electronics Industry Association (EIA). This standard was developed to allow for reasonable success in transferring data over specified distances and/or data rates.

Fire Command Center – The principal attended or un-attended location where the status of the detection, alarm communications, and control systems is displayed and from which the system(s) can be manually controlled.

2.0 PRODUCT DESCRIPTION

The 10-2730, Supplemental Fire-Phone Card (See Exhibit 1) provides twenty (20) configurable switches that allow the system operator to selectively connect the fire-phone control modules to the system's phone bus. Fike's addressable firefighter's phone system allows up to 99 fire-phone control modules (P/N 24-135) to be connected to the system. This connection allows two-way communication between the master fire-phone located in the Fire Command Center (FCC) and remote phones located throughout the building. Each switch is provided with an LED that when lit, indicates the connected status of the selected phone module.

The Supplemental Fire-Phone Card must be used in conjunction with the fire-phone card (P/N 10-2728). The card communicates with and receives its operating power from the host control panel via a ribbon cable connection with the fire-phone card (P/N 10-2728). Up to four (4) Supplemental Fire-Phone Cards can be added to the system to suit your specific project requirements.

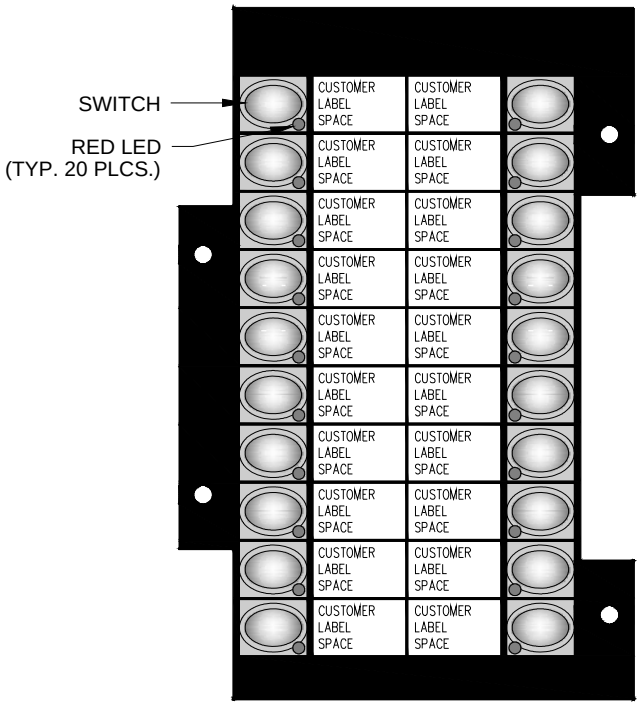

Exhibit 1: Operators View

2.1 COMPATIBILITY

The Supplemental Fire-Phone card is compatible with the following Fike Intelligent control panels: CyberCat 254 and CyberCat 1016 firmware version 5.XX and higher.

2.2 AGENCY STANDARDS AND COMPLIANCE

This Fire Alarm product complies with the following standards:

NFPA 70 - NEC, Article 300 Wiring Methods

NFPA 70 - NEC, Article 760 Fire Protective Signaling Systems

NFPA 72 - National Fire Alarm Code

UL 864 – Control Units and Accessories for Fire Alarm Systems

2.3 RELATED FIRE ALARM STANDARDS

NFPA 1 - Fire Prevention Code

NFPA 77 - Static Electricity

NFPA 101 - Life Safety Code

Applicable Local and State Building Codes

Requirements of the Local Authority Having Jurisdiction

2.4 RELATED DOCUMENTATION

Further details about the product referenced in this document can be found in the following manuals.

Document Title	Part Number
CyberCat 254/1016 Installation Manual	06-326
CyberCat 254/1016 Operation & Maintenance Manual	06-326-2
Fire-Phone Card Product Manual	06-559

Exhibit 2: Related Documentation

2.5 SPECIFICATIONS

Operating Voltage Range:	24 VDC, regulated[1]
Maximum Current:	Alarm 38 mA (all LEDs on) Standby 18 mA (all LEDs off)
Operating Temperature:	0° to 49° C (32°to 120° F), 93% RH[2]
Wiring Connections:	All connections are Non Supervised and Power Limited
Card Dimensions:	3.75” (9.53 cm) W x 5.75” (14.6 cm) H

[1] Power for the card is provided via the ribbon cable connection to the Fire-Phone Card (P/N 10-2728).

[2] The useful life of the system’s standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this component be installed in an environment with a nominal room temperature of 15-27° C / 60-80° F.

3.0 INSTALLATION

The following installation instructions must be strictly adhered to when installing the card to prevent potential damage to the card and the associated control panel.

⚠Caution

The card and associated control panel contains static sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use anti-static packaging to protect electronic assemblies removed from the unit.

⚠Caution

Never remove or install boards, internal cables or components with power applied. Failure to follow the instructions provided in this section can result in irreparable damage to the system components. This damage may adversely affect the operation of the control unit but its effect may not be readily apparent.

3.1 MOUNT THE CARD

A dead-front enclosure must be used in order to properly mount the card inside the control panel. Refer to the associated control panel manual for system enclosure information.

1. Carefully unpack the card and check for shipping damage.
2. Fill out and install custom label in slot provided in card faceplate. Label templates can be downloaded from Fike's Forum web page.
3. Select the mounting location for the card on the dead-front panel and install onto the four threaded standoffs (See Exhibit 3).
4. Secure the card to the dead-front panel using the mounting hardware provided with the card.

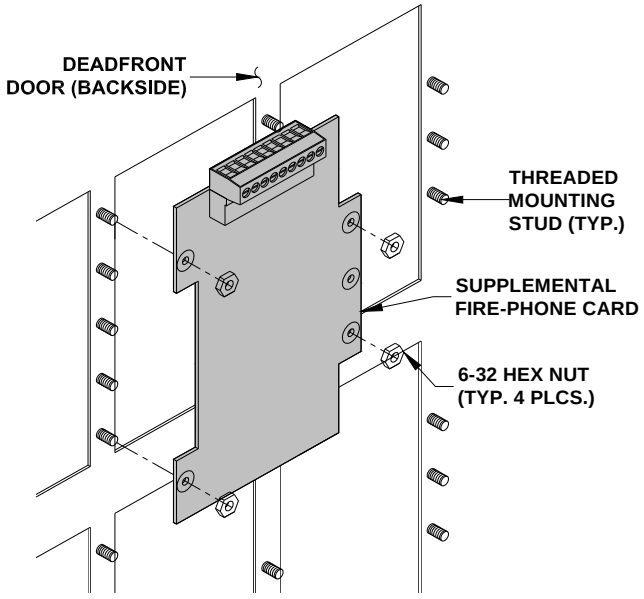

Exhibit 3: Mounting Card to Dead-front Panel

3.2 CONNECT RIBBON CABLE BETWEEN FIRE-PHONE CARD(S)

1. Disconnect AC power and batteries from the control panel and wait 60 seconds prior to connecting field wiring. Failure to do so can damage circuits.
2. Connect ribbon cable to fire-phone card(s). See Exhibit 4.

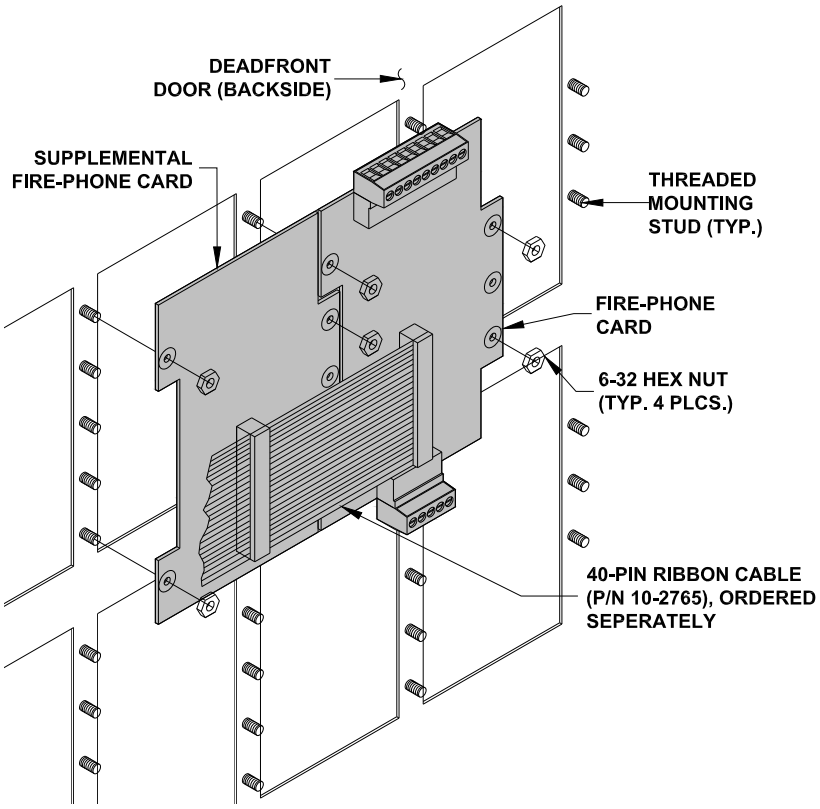

Exhibit 4: Ribbon Cable Connections

3.3 SET THE CARD'S SWITCH RANGE

Each Supplemental Fire-Phone Card is equipped with a six-position dip switch that is used to select the range of fire-phone module addresses that the card's switches will serve. Each fire-phone card can support up to twenty (20) addressable fire-phone modules (P/N 24-135). By default, the Fire-Phone Card (P/N 10-2728) supports the first twenty (20) addressable fire-phone modules. As each supplemental fire-phone card is added to the system to support additional fire-phone modules, it must be set to serve the next consecutive module address range (groups of 20). See Exhibit 5.

Fire-Phone Card	Address Range
Supplemental #1	21-40
Supplemental #2	41-60
Supplemental #3	61-80
Supplemental #4	81-99

Exhibit 5: Card Address Range

Note: As each fire-phone control module (P/N 24-135) is added to the system, it must be addressed in consecutive order (1 – 99).

Exhibit 6 below illustrates how the switches on the supplemental fire-phone card correspond to the fire-phone module addresses.

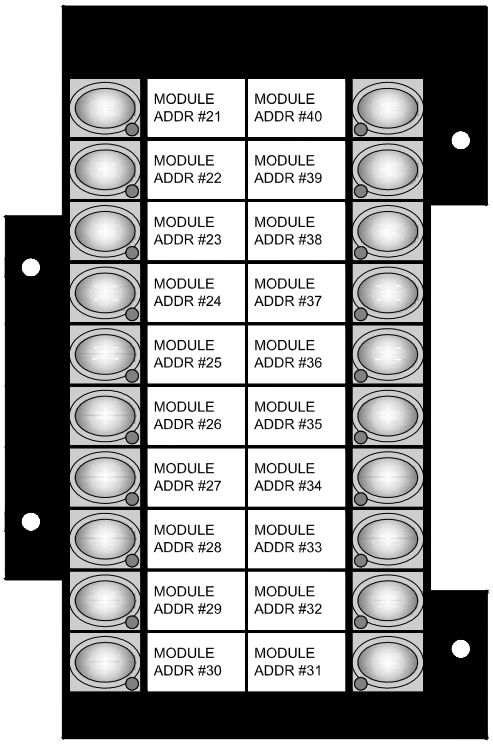

Exhibit 6: Supplemental Fire-Phone Card 1 Module Assignments

By default, the last unused switch on the last fire-phone card will operate as a SILENCE switch. When the switch is pressed, it will silence the integral sounder on the Fire-Phone Card, which sounds to signal an incoming call.

Exhibit 7 below shows the location of the dip switch on the supplemental fire-phone card that allows you to set the modules address range.

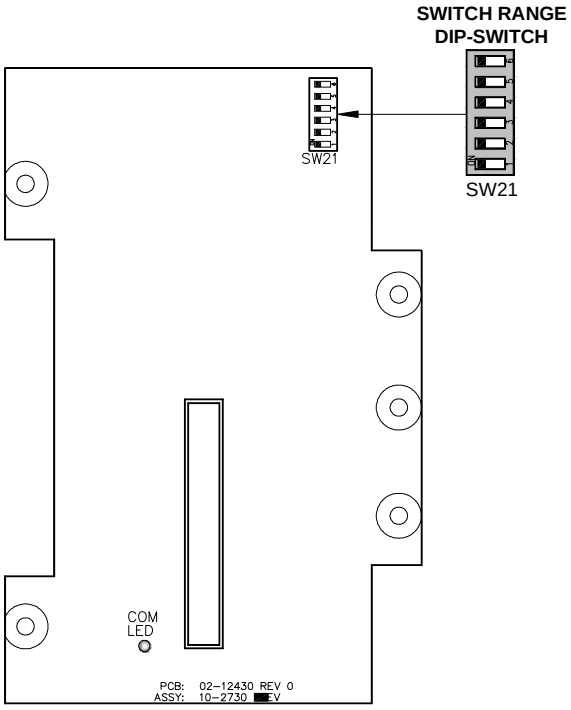

Exhibit 7: Address Range Dip-Switch

By turning on the appropriate switch (See Exhibit 8), the card's switches will default to the stated module address range.

Module Address Range	Dip Switch Number					
	1	2	3	4	5	6
21-40	**ON**	OFF	OFF	OFF	OFF	OFF
41-60	OFF	**ON**	OFF	OFF	OFF	OFF
61-80	OFF	OFF	**ON**	OFF	OFF	OFF
81-99	OFF	OFF	OFF	**ON**	OFF	OFF

Exhibit 8: Dip-Switch Settings

3.4 POWER-UP THE FIRE-PHONE CARD

1. After all cards, cables and components have been properly installed; reapply AC power and batteries (in that order) to the associated control panel or field power supply. Immediately remove power if the panel or card(s) shows signs of abnormal operation.
2. Reconnect RS485 connection to the control panel.

4.0 OPERATION

The Supplemental Fire-Phone card allows you to manually connect remote fire phones to the voice evacuation systems fire phone bus. The card provides controls and indicators for up to twenty (20) fire-phones. The function of the controls and indicators provided on the card are described as follows.

Normal Operation
All fire-phone card LEDs will be off.

Incoming Call Initiation
An incoming call is initiated when a firefighter plugs a portable handset into a remote phone jack or an emergency telephone handset is lifted. A red LED on the corresponding fire-phone card will flash and the integral audible on the fire-phone card (P/N 10-2728) will sound to signal the incoming call. The firefighter will hear a ringing tone in the handset until the call is connected.

Connecting and Incoming Call
Press the corresponding switch on the fire-phone card to connect the incoming call to the fire phone bus. After the call has been connected, the associated red LED will illuminate solid to signal that the call has been connected and the integral audible on the fire-phone card (P/N 10-2728) will silence. If the LED begins to flash red, a problem has occurred and the connection may be lost.

Additional Incoming Calls
The associated red LEDs will flash and the integral audible on the fire-phone card (P/N 10-2728) will resound. You can either choose to connect the incoming call to the fire phone bus as previously described, or you can choose not to connect them. The fire phone bus allows you to connect a maximum of five (5) remote phones to the phone riser at one time in a party-line configuration.

Silence Switch
By default, the last unused switch on the fire-phone card(s) is designated as a Silence switch. For example: If the last fire-phone module device address used is 72; then switch 73 on the fire-phone card will be defaulted to audible silence. When pressed, the switch will silence the integral audible on the fire-phone card. However, the red LED indicating the incoming call will continue to flash until connected.

5.0 TESTING AND PLACING INTO SERVICE

To ensure proper system operation, this product must be tested in accordance with the requirements of NFPA 72 after programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

6.0 SERVICING

There are no serviceable components on this card.

704 SW 10th Street
P.O. Box 610
Blue Springs, Missouri 64013

Tel: (816) 229-3405
Fax: (816) 229-0314
www.fike.com