

1. VIEW NEXT ALARM



Press "NEXT" key once -

- The LCD will display the next alarm.

2. ACKNOWLEDGE DISPLAYED ALARM



Press "ACK" key once.

- LCD will display "ACKD" for the displayed alarm.
- The flashing alarm LED for the zone will go steady.
- If all alarms are acknowledged, the ALARM LED will go steady.

3. RESET ALL ACKNOWLEDGED ALARMS *



Press "RESET" key once.

- LCD will display "Resetting acknowledged alarms".
- Alarm LEDs for acknowledged alarms will turn off.
- If all alarms are reset, the LCD will display "No more events in alarm list", otherwise the oldest unacknowledged alarm will be displayed.

4. ISOLATE ALL ACKNOWLEDGED ALARMS *



Press "ISOLATE" key once.

- LCD will display "Isolating acknowledged alarms".
- Isolate LEDs for acknowledged alarms will turn on.
- If all alarms are isolated, the LCD will display "No more events in alarm list", otherwise the oldest unacknowledged alarm will be displayed.

5. ISOLATE/DE-ISOLATE BELLS



Press "BELLS ISO" key once.

- If the "Bells Isolate" LED is OFF
- The "Bells Isolate" LED will turn ON steady.
- The bells will turn OFF if they are ON.
- If the "Bells Isolate" LED is ON
- The "Bells Isolate" LED will turn OFF.
- If any un-isolated alarms exist, the bells will ring.

6. BRIGADE TEST



Press and hold the "BRIG TEST" key for at least 2 seconds. If enabled:

- The FIP will signal Alarm to the brigade.
- Any ancillary functions controlled by MAF ALARM will turn ON, unless they are isolated.

* Attempts to reset or isolate network alarms may fail if this feature is disabled at the FIP.

VIGILANT
Fire and Evacuation Systems

F4000 NETWORK LCD
OPERATOR'S MANUAL SUPPLEMENT

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- A P P R O V A L S -

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**VIGILANT FIRE & EVACUATION SYSTEMS
END USER LIABILITY DISCLAIMER**

The F4000 Fire Indicator Panel provides a configuration programming facility, which may be accessed via a programming terminal using a password.

Because this programming facility allows the user to define in detail the operation of the F4000 System which is being customised, changes may be made by the user that prevent this installation from meeting statutory requirements.

VIGILANT FIRE & EVACUATION SYSTEMS therefore cannot accept any responsibility as to the suitability of the functions generated by the user using this programming facility.

AMENDMENTS

ISSUE	DATE	AMENDMENT	ECN
1.0	08/09/94	Original - as per F4000 s/w V2.11	-
1.1	08/11/94	Upgraded for software V2.12 - Zone Recall/Search and System Functions	-
1.2	11/04/95	Made consistent with V2.13 software	-
2.20	30/01/96	Made consistent with V2.20N software	-
2.23	25/07/96	Made consistent with V2.23N software Section 1.3, 1.4, 3.1, 3.3, 3.8, new Section 9.	2468
2.30	15/10/97	Made consistent with V2.30 software Fire Fighter's Guide. Sections 1.1, 1.3, 1.4, 3.3, 3.6, 3.8, 3.9, 7, 9.3	2621
2.31	27/04/98	Made consistent with V2.31 software. Sections 1.1, 1.4, 3.6, 3.8, 3.9, 9.3	2800
2.35	01/02/00	Converted to Word 97. Made consistent with V2.35 software. Changed Sections 1.1, 1.3, 1.4, 2.1, 9.3. Added Section 3.10. Updated Fire Fighter's Guide.	2983

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1 F4000 NETWORK LCD DESCRIPTION

1.1 GENERAL

This manual is a supplement to the LT0117 F4000 Operators Manual. It describes network specific keypad/LCD operations that are additional to or changed from those in the standard F4000 V2.3x software.

The F4000 Network LCD FIP is an enhancement of the F4000 LCD FIP that allows it to communicate with other Panel-link compatible devices to share:

- (i) Alarm information for display and control of alarms on the LCD. Alarms on one FIP can be displayed at other FIPs and Colour Graphics displays. Alarms can be acknowledged, reset and isolated from the FIPs and Colour Graphics displays.
- (ii) Output Logic status, allowing status and controls generated by the Output Logic at one FIP to be used by the Output Logic at another FIP, eg. for extended AS1668 Fan Controls.
- (iii) MAF Status, so that one FIP can be a common brigade interface point for a number of FIPs elsewhere on site.
- (iv) Event Information for status monitoring and network event printing.
- (v) Bells controls for activating, isolating and silencing the bells on remote FIPs as a result of alarms or operator controls on the local FIP.
- (vi) Zone Circuit and Point Status for monitoring applications.
- (vii) Control of F4000 LCD/keypads.

Networked F4000 FIPs allow an operator to send single zone and zone range reset, isolate and de-isolate commands to other FIPs, to recall and search for zone status on other F4000 FIPs, and to alarm, fault auto reset and operate test zones on other F4000 FIPs.

Networked F4000 FIPs allow an operator to send System commands to System, Battery and Bells test other FIPs, and to isolate and de-isolate bells and ancillaries at other F4000 FIPs. Network F4000 FIPs can receive commands sent by other devices on the network, eg. Colour Graphics, for control and test purposes.

Networked F4000 FIPs transmit local events and status onto the network for use by network printers and Colour Graphic systems to allow remote logging of events, eg. one or more system-wide event printers.

Networked F4000 FIPs are in most respects identical to a stand-alone F4000 FIP, except for the addition of a networking card, cable and software, and the extra memory required.

Note, however, that configuration of a network F4000 may result in the functionality of the LCD being essentially the same as a non-networked F4000.

A programming terminal operator can connect to another F4000 over the network, and control and view that F4000 via its LCD and keypad as if the operator was at that F4000.

1.2 ZONE FUNCTION CHANGES

The zone functions at a networked F4000 are altered in the following ways:

- (i) Network zone number and ranges entry is permitted, although not all functions can be executed on Network Zones.
- (ii) Reset, Isolate and De-Isolate commands can be issued to Network Zones and Zone Ranges.
- (iii) Zone tests can be issued to zones on other network FIPs.
- (iv) The status of zones on other network FIPs can be recalled, and can be searched for, across the network.

1.3 SYSTEM FUNCTION CHANGES

The system functions at a networked F4000 are altered in the following ways:

- (i) When the SYSTEM key is pressed, a prompt is displayed allowing selection of either the local system or a system elsewhere on the network.
- (ii) The following functions can be initiated at a network F4000 by another network F4000 panel.
 - Ancillary Isolate/De-Isolate
 - Battery Test
 - Bells Isolate/De-Isolate/Test
 - System Test
 - System Reset
- (iii) A network F4000 may be programmed to act as a common brigade interface point for a system, and/or display the off-normal totals for the whole network system.
- (iv) A network F4000 may be programmed to allow control of its bells by other FIPs on the network. Alarms or Trial Evacuation (NZ) on other FIPs may turn the local bells ON. The bells may be silenced as a result of isolating the bells at another FIP or activation of Silence Alarms at another FIP (NZ).
- (v) A network F4000 can recall an overview of the system status of other FIPs on the network.
- (vi) A network F4000 may be programmed to have its internal sounder silencable as a result of the actions of remote operators.

1.4 OPERATIONAL DIFFERENCES

For V2.3xN, operation of the LCD keypad is modified to take into account alarms in the FFCIF list and the displayable totals that have come from other FIPs on the network.

In the following, alarms in the FFCIF list include local and any remote alarms, and the totals are the combination of local and any remote totals.

(a) The Alarm LED will be on:

Flashing: Any unacknowledged alarm in the FFCIF list, or any unacknowledged zone alarm on the local FIP.

Steady: If any alarms are in the FFCIF list, and all are acknowledged, or if the alarms total on the base display is not zero, or if there is a zone in alarm on the local FIP.

(b) The Fault LED will be on:

Steady: If the faults total on the base display is not zero, or if there is a zone in fault on the local FIP.

(c) The Isolated LED will be on:

Steady: If the isolates total on the base display is not zero.

Flashing: If any point on the local FIP is isolated or a point on a network FIP is isolated and the F4000 is combining MAF status.

(d) The FIP buzzer turns on:

Steady: Upon a local fault or system fault, or the occurrence of a fault on a networked FIP whose SID is programmed into the SID list of this FIP and the local FIP is programmed to display network totals. At the base display, the Fault Action Text will also be displayed.

Pulsing: Upon a new alarm (local or network) being put into the FFCIF list, or a new MAF alarm on the local FIP.

Rapid Pulsing: Upon a local test failure, eg. system test.

The FIP buzzer is cancelled:

- Whenever a key is pressed on the FIP keypad.
- For Alarms when there are no more alarms in the FFCIF list or unisolated alarms on the local FIP.
- For Faults when there are no more unisolated faults on the local FIP, or on any networked FIPs which can turn the fault buzzer on at the local FIP
- Upon reception of remote System Fault Reset, FFCIF commands or any commands, if enabled by programming. (Refer 3.10).

OPERATIONAL DIFFERENCES (CONTINUED)

A number of keypad functions that take time to complete, eg. zone isolate/de-isolate and zone searches, have a simple flashing asterisk that indicates that the function is still operating.

A significant point to note is that the networking of FIPs introduces delays when showing data and responding to commands. These delays did not exist where there was only a single FIP to be controlled, because the information was immediately onhand. With networks, this is not the case, and delays arise due to the time taken to access the information.

Consequently, allowance must be made for these delays when operating a networked FIP. The effect of these delays are noted below, and in the following sections for the affected keypad commands.

There may be a noticeable delay at times when a network F4000 attempts to retrieve text and status from another network panel. If there will be a delay, F4000 will display a minimal description on the LCD, eg. Z1057 or Network Panel 75. The actual status will be shown when the true zone name text (if programmed at the remote FIP) is displayed.

Operators of networked FIPs must be aware that they should wait until the FIP has retrieved the information before issuing any command, partly to ensure that the command they send will not have an adverse effect, i.e. deisolating a zone in alarm, and also because operators on other FIPs or colour graphics displays may also be trying to control the same zone.

Confusion can also arise due to the delay if a zone has just been isolated: the FIP may briefly indicate that the zone is not isolated. However, after at most a few seconds, the display will be updated to show the correctly isolated status.

Network F4000 FIPs can combine the MAF status from other FIPs on the network. This combined status is then used to drive brigade relays, etc.

F4000 V2.3xN has special handling for a Standby condition received from another FIP. Remote Standby conditions do NOT result in the local FIP's Standby relay de-asserting itself, rather, the remote Standby condition is treated as a System Fault, i.e. the fault relay activates, the System Fault LED turns on, and the fault buzzer may sound. Standby and System Fault from the other FIP can be viewed as separate items in the System Fault Display.

1.5 NETWORK COMMAND TRANSFERS & RESPONSES

Whenever entry of a network command is completed, the F4000 attempts to send the command to the correct panel on the network. It will then wait for a response from the receiving panel.

The F4000 LCD display will show messages during this time to indicate what is happening.

"Network Command Sent" - the F4000 successfully stored the message for sending to the other panel. The F4000 network driver will send the message across the network.

"Network Command NOT Sent" - the F4000 could not send the message because of high network loading, or because the LCD display was still awaiting a response to its last request for data.

"Network Command Accepted" - the receiving F4000 received the command and processed it.

"Network Command NOT Accepted" - the receiving F4000 received the command but did not process it. This may be due to a number of factors:

- The command was invalid because, for example, the zone number was invalid, or the command issued could not be executed on the command subject, eg. trying to alarm test an ACZ.
- The command could not be executed because: a similar but mutually exclusive command was in progress (Reset); only one of the particular command could be executed at the same time (Alarm Test); or the receiving F4000 was in a state which means that the command could not be executed. (No processing).

"Network Command NOT Ackd" - the receiving F4000 should respond as soon as possible with an Accepted or NOT Accepted response. If network loading is high, or the remote F4000 is busy or is off line, a response may not be received within the programmed time. If the time limit is exceeded, the local F4000 displays the above message. Note that depending on the circumstances, the command may or may not have been received and processed.

2 NUMBERING SYSTEMS ON A F4000 NETWORK

2.1 NETWORK FIP AND NETWORK ZONE NUMBERING

When F4000 FIPs are networked together there must be a way to identify each FIP and the zones on that FIP.

In this manual, reference is made to "local" and "remote" panels. A local panel is the panel at which an operator is controlling the system from. Remote panels are all other panels on the network. This applies even if a number of networked panels are co-located.

When a networked FIP is configured, it is programmed with a unique number between 1 and 254. This is its System Identification Number, or SID. The SID is used to:

- (a) Identify a specific FIP.
- (b) Identify a zone on a specific FIP, by combining the SID and Zone number as detailed below.

For a networked F4000, zone numbers and zone ranges fall into 3 formats:

- (i) Zone number(s) less than 1000 are local zones, ie. specific to the panel at which the number is being entered or displayed, eg. Z57, Z135.189.
- (ii) Zone number(s) greater than, or equal to, 1000 are network zones, eg. Z32105 or Z17001.17095. The SID of the FIP that has the zone is the network zone number divided by 1000. The actual zone number on that FIP is the remainder after dividing by 1000. Eg.

Z1057	is	Zone 57	on FIP number 1.
Z35218	is	Zone 218	on FIP number 35.

Note that all zeros must be entered, eg. for Zone 1 on Panel 2, the entry must be 2001, ie. the intermediary 0's are necessary.

- (iii) Zone numbers less than 1000 preceded by the SID of the FIP that has the zone(s).
Eg. (a) Z57:1 - Zone 1 on Panel 57.
(b) Z2:135.208 - Zones 135 to 208 on Panel 2.
(c) Z61..72 - Zone 72 on Panel 61.
(d) Z85..24.154 - Zones 24 to 154 on Panel 85.

The SID comes before the colon ":" or double points "..".
The zone numbers come after the colon or double points.

A colon is entered using the SYSTEM key. Double points are entered by pressing the POINT or hidden key twice.

For F4000, zone numbers can be entered in any of the above formats. However, F4000 will reject any zone range that extends across more than one FIP, eg. Z35097.36002 is illegal.

F4000 always displays network zones in format (ii).

If a zone number or range is entered in formats (i) or (ii), and the SID is that of the local F4000, then the zone(s) may be converted back to format (i) for local processing.

When alarm events are sent from one FIP to another on the network, the zone number sent is automatically pre-formatted into the network zone format (ii) for display on the LCD.

2.2 ZONE NUMBER ENTRY EXAMPLES

(i) Zone 27 on Local Panel.



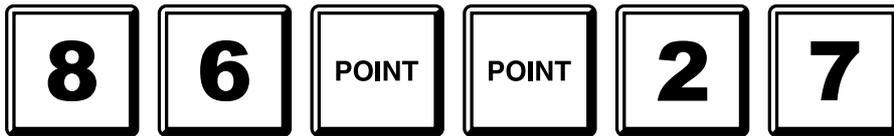
(ii) Zone 27 on Panel 86.



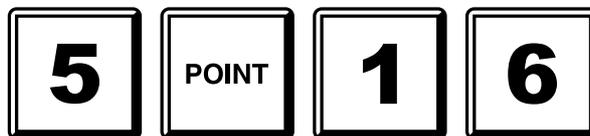
OR



OR



(iii) Zones 5 to 16 on local panel.



(iv) Zones 5 to 16 on Panel 7.



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3 SYSTEM FUNCTION OPERATING CHANGES

3.1 LOCAL SYSTEM FAULT RECALL

The System Fault Recall at a networked FIP has an extra fault that can be displayed - NetFlt = Network Fault.

The Network Fault status is displayed on Page 4 of the recall of FIP System Faults, and indicates a problem with the network, eg. total or partial scan failure of an FIP on the network, a cabling fault, etc.

The Network Fault status is included in the "others" total on the LCD, and will cause the system fault LED to turn on and a fault to be signalled to the brigade.

The actual type of Network Fault is printed to the event printer and can be recalled using the history display.

Version 2.23N or later software also provides up to 2 pages of faults and status for other FIPs on the network. These faults and status are the common statuses sent onto the network by each FIP - the level of detail will not be as great as shown on each FIP's local display.

Refer Section 9 Recall System Faults for more details on the other System Faults that can be displayed.

3.2 SYSTEM FAULT RESET

When a System Fault Reset command is actioned, a network FIP also clears any network faults present. If any of the faults still exist, they will be re-announced soon thereafter.

A System Fault Reset command received from the network will silence the local buzzer.

3.3 PRINTER/HISTORY EVENTS

The event printer output and history log for networked F4000s logs only local events, ie. events and alarms from other panels are not logged. A Network Printer that prints network events is available with the Protocol Translation Module (PTM), or Network Display Units (NDU) or Networked F3200 FIPs.

There are, however, a number of new events that can be produced by a networked F4000. Those events relating to a remote panel are identified by a description of SID XX, where XX is the SID of the panel that caused the event.

The new events are:

- (i) NET SCAN FAIL/NORMAL - FAIL: the specified panel failed to communicate on the network due to it being offline or there being a problem with the network cabling; NORMAL:the panel began communicating again.
- (ii) NET FOREIGN DEVICE - an unexpected panel is communicating on the Panel Link Network for Link Integrity testing.

PRINTER/HISTORY EVENTS (CONTINUED)

- (iii) NET COMMAND ACCEPTED - a network command was received from the specified panel and validated for further processing. The events immediately following this event may have been the result of executing the received command.
- (iv) NETWORK EVENT QUEUE OVERFLOW - the local F4000 was generating events faster than it could send them onto the network. Some events will have been lost. The lost events may have been recorded on the event printer or in the history log. This event should occur only in cases of extreme network loading, many events occurring on the FIP simultaneously or a network cable fault.
- (v) NET MSG DISCARDED - the local F4000 discarded a message that was repeatedly sent to another device on the network that did not acknowledge it. To allow other messages to be sent on the network, the unacknowledged message was discarded. Messages should be discarded only in cases of extreme network loading, if the system addressed does not exist or if it is currently off line, or if network cables are broken.

This event immediately generates a System Fault that will automatically clear itself 30 seconds after the last discard occurred.

Note that discards from SID 0 indicate that an acknowledgement to a broadcast was not received.

3.4 NETWORK SYSTEM COMMANDS

A Network F4000 is able to initiate the following system commands to other devices on the network:

- Ancillary Isolate/De-Isolate
- Bells Isolate/De-Isolate
- Bells Test
- Battery Test
- System Test
- System Reset

Entry of these commands is identical to that on a non-network F4000, except that the system to which the command is to be sent must be selected, as per Section 3.5.

Once the command has been chosen and the system selected, then:

- (i) If the selected system is the local F4000, the command is implemented at the local F4000.
- (ii) If the selected system is another device on the network, the command is transmitted to that system. The LCD displays "Network Command Sent".

If the command is accepted and implemented at the other device, the LCD will display "Network Command Accepted".

NETWORK SYSTEM COMMANDS (CONTINUED)

If the command is not accepted due to it being unsupported on the selected system or because of operational restrictions, the LCD displays "Network Command NOT Accepted" and the F4000 buzzer will beep.

If the selected system is off line or does not exist, F4000 will not get any response to the command message. After a short period of waiting, the LCD will display "Network Command NOT Ackd" and the F4000 buzzer will beep.

Note that initiation of tests at other panels on the network may result in reception of exception messages, eg. for test failure – refer Section 8.

Test failure at a remote F4000 may result in the fault/test fail sounder being turned on at that F4000. Initiating a System Fault Reset to that F4000 will silence the sounder.

3.5 LCD KEYPAD SELECTION OF A NETWORK SYSTEM

When a specific system (or panel) must be selected, F4000 displays a prompt querying whether the system is either the local system or whether another system is to be selected.



Press:

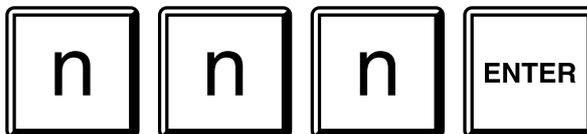
To select the local system - this completes the prompt.



or:

To select another system.

If another system is to be selected, a prompt is displayed requesting the system number.



Press:

Where nnn is the SID of the system to be selected. If the number is in the valid range for system numbers (1-254), the prompt is completed, and any subsequent network system commands will be initiated at the selected system.

3.6 NETWORK F4000 LCD DISPLAYS

A network F4000 may be programmed to display either its own off-normal totals or a combination of its own totals and the off-normal totals of other devices on the network.

Consequently, some totals may exceed the maximum totals expected for a single F4000 panel.

If there are no off-normals, the "base" display of the F4000 LCD displays the system name, date and time, and F4000 software version. The software version text can be replaced by text that indicates the operational state of the F4000, eg. testing, no processing, etc.

The number of texts that can be shown has been increased to handle the cases where tests have been started by operators at other panels on the network. The texts are:

"F4000 V2.3xN"	V2.3xN Default text.
"AUTOMATIC TESTING"	An automatic daily test is running.
"SYSTEM TESTING"	A remotely initiated system test is running.
"BATTERY TESTING"	A remotely initiated battery test is running.
"ACZ TESTING"	A remotely initiated ACZ test is running.
"ZONE TESTING"	A remotely initiated Zone test is running.

The Fault Action text will still override the above texts if the fault buzzer turns on.

3.7 NETWORK FAULT FINDING

When any network fault exists, F4000 annunciates a System Fault, signals fault to the brigade and turns on the System Fault LED. An operator who uses the System Fault Recall facility will then see in addition to any other faults "NetFlt" on Page 4 of the recall. The Network Panel System Fault pages will show which panels also have Network faults and/or are scan failed.

There are a number of faults that will turn on NetFlt and each generates a history/printer event as per Section 3.3 Printer/History events.

To discover the cause of the network fault, recall the history via the LCD keypad or a laptop, or review any event printouts. Network events have a time/date followed by "SID nnn", where nnn is the SID of the remote panel that caused the event and will usually be between 1 and 254. A SID of 0 will most likely occur for the NET MSG DISCARDED event and indicates that a broadcast message, i.e. a message that it is intended all panels receive, has been discarded.

Most network faults are non-latching.

All network faults can be cleared by a System Fault Reset command. If the fault still exists, then it will be re-annunciated.

3.8 NETWORK BELLS CONTROL

A V2.3xN F4000 can be configured to allow network bells control. The new functionality is primarily of use by networks in New Zealand, but some features can be used by Australian systems to achieve network-wide bells control.

Network Bells control consists of 2 functions:

- (i) Turning the bells ON, for alarms and Trial Evacuation (NZ).
- (ii) Silencing the bells on Network FIPs due to a Silence Alarms Activation (NZ) or optionally by having the Bells Isolated at one or more FIPs on the Network.

If the local F4000 has Network Bells Control enabled, an unisolated MAF alarm at another FIP on the Network will cause the local bells to turn ON, so long as the local bells are not silenced or isolated.

If the local F4000 has Network Bells Control enabled, Trial Evacuation (NZ) at another FIP on the Network will ALWAYS turn the local bells ON.

If the local F4000 has Network Bells Control enabled, reception of a Silence Alarms from another FIP will always turn the bells OFF, unless they are ON because of a Trial Evacuation.

In New Zealand, Silence Alarms is usually generated by operation of a switch.

For Australian and New Zealand operation, an F4000 can be configured to also send Silence Alarms whenever the Local Bells are Isolated. Consequently, isolating the bells at one FIP can silence all bells on the network.

The Bells Isolate LED now has 4 distinct cadences which identify whether the bells can ring, and, if not, how the bells have been silenced:

OFF	- Bells will ring on alarm.
ON	- Bells have been locally isolated.
SLOW FLASHING	- Bells have been silenced remotely, i.e. RZDU or another Network F4000.
2Hz FLASHING	- Bells have been locally silenced.

If the local F4000 is configured to send Silence Alarms whenever its bells are isolated, and other F4000s are configured for Network Bells Control, then isolating the local bells will cause the local Bells Isolate LED to be ON steady, whereas the Bells Isolate LEDs on the other F4000s will be slow flashing, indicating they are remotely silenced.

If more than one F4000 has its bells isolated or silenced, then ALL F4000 Bells Isolate LEDs will be slow flashing. In this situation, it will be necessary to find all FIPs with Isolated Bells or local Silence Alarms using the LCD keypad System Fault Recall.

When another F4000 is found to have its bells isolated, they can be de-isolated using the Network System Bells Isolate LCD/Keypad command. If an F4000 is found to have its local Silence Alarms activated, then it is necessary to un-silence that F4000 by checking its own Silence Alarms switch and the switches at any RDU connected to that F4000.

NETWORK BELLS CONTROL (CONTINUED)

Once all local and remote Bell Isolations and Silence Alarms have been removed, the local bells will be able to ring.

If a remote F4000 sending Trial Evacuation or Silence Alarms onto the network becomes scan failed, each condition can be cleared at a local FIP by activating Silence Alarms or Trial Evacuation, respectively, at the local FIP, or both conditions can be cleared by pressing Bells Isolate at the local FIP.

Other network F4000s receiving the new Silence Alarms / Trial Evacuation activations will clear these statuses from the scan failed F4000 in a similar manner, i.e. one F4000 can clear the conditions from the scan failed FIP at other F4000s on the network.

Pressing the Local Bells Isolate key will cancel any Trial Evacuation and Silence Alarms on the local F4000 that have been activated by a scan failed F4000. It will also cancel the Trial Evacuation state at other FIPs if the Local Bells Isolate state is configured to send a Network Silence Alarms state.

3.9 NETWORK TIME/DATE

F4000 V2.3xN can have its time/date automatically updated over the network by a Network Time Master. Included in this feature is handling of daylight saving.

In addition, F4000 V2.3xN can be programmed to be a Network Time Master. If this feature is enabled, then:

- Manually setting the time/date at the F4000 will update the time/ date at other network devices that support network time commands.
- The F4000 will automatically update other devices that support reception of network time mastering commands. The update occurs at 11:30pm and whenever the time is daylight saving adjusted. This synchronises the clocks, which is particularly useful when comparing historical event information.

3.10 NETWORK SOUNDER CONTROL

All F4000 FIPs silence their internal sounders when a key on the keypad is pressed.

All F4000 V2.34N or earlier FIPs silence their local sounder if they receive a System Fault Reset command from the network.

F4000 V2.35N may be additionally programmed to silence the sounder if an FFCIF command is received, or a Network command is received. Alternatively, Local Sounder Silencing due to any network command can be disabled.

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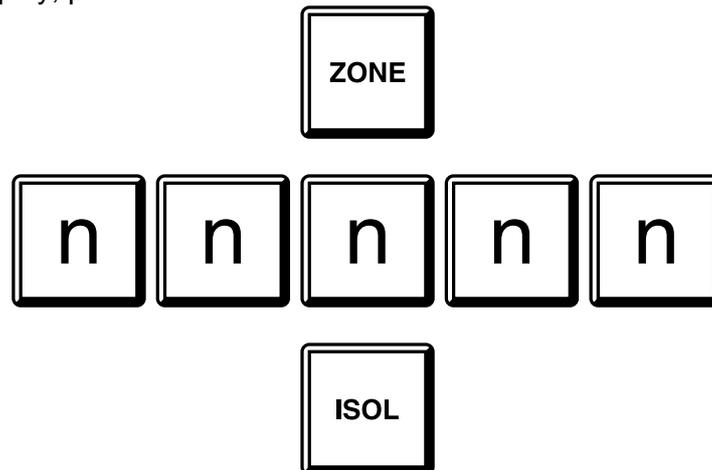
4 NETWORK ZONE OR ANCILLARY ISOLATE OR DE-ISOLATE

4.1 FUNCTION

To isolate or de-isolate a selected zone or range of zones on a network panel. If the network zone(s) entered are on the local panel, then the command is implemented locally as if the command had not used the network numbering format.

4.2 OPERATING SEQUENCE - SINGLE NETWORK ZONE

From the base display, press:



To isolate or de-isolate network zone n n n n n.

Refer to Section 2 for the format of network zone numbers.

The LCD will display the selected network zone, plus the options to isolate or de-isolate it. The displayed status of the zone is retrieved from across the network. There may be a delay of a few seconds before this is displayed. Wait until the data is displayed before proceeding.

To isolate and de-isolate the network zone, press:

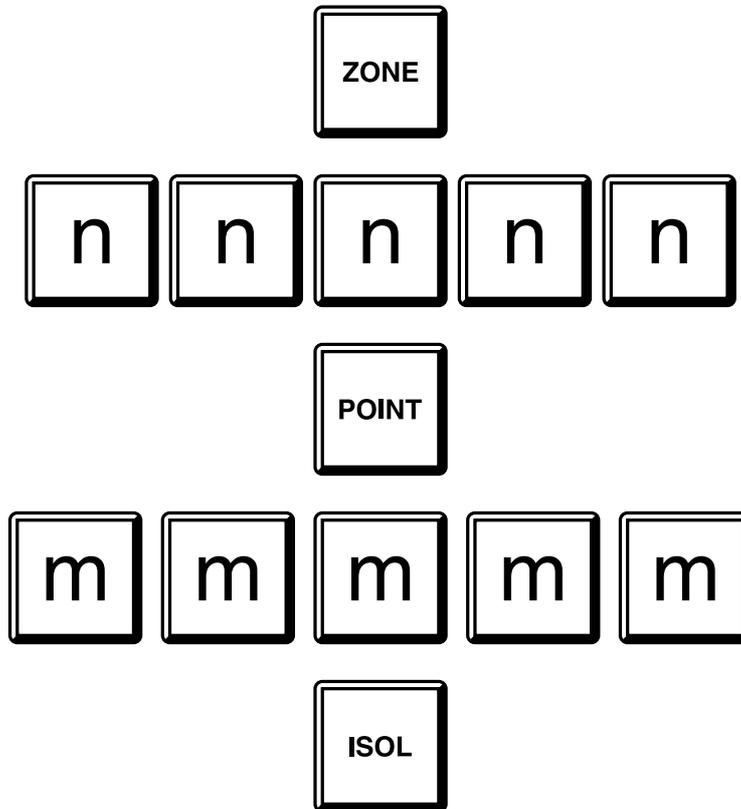


The LCD will display the network zone with a message saying "Network Command Sent". After a brief period the message should change to "Network Command Accepted". Refer to Section 1.5 for more detail on these and other possible LCD display messages.

4.3 OPERATING SEQUENCE - NETWORK ZONE RANGE

If a zone recall is being displayed, then press the CLEAR key repeatedly until the LCD is at the base display.

To isolate a range of network zones.



The LCD will display the selected range of zones, i.e. zone n n n n n to zone m m m m m inclusive, plus the options to isolate or de-isolate the range.

To isolate the range of zones, press:



To de-isolate the range of zones, press:



A prompt is then given to isolate or de-isolate...

Alarm Zones only, press:



OPERATING SEQUENCE - NETWORK ZONE RANGE (CONTINUED)

Ancillary Control Zones only, press:



All Zones, press:



The LCD will display the network zone range with a message saying "Network Command Sent". After a brief period, the message should change to "Network Command Accepted". Refer to Section 1.5 for more details on these and other possible LCD display messages.

Note that if the remote F4000 is unable to de-isolate all of the zones due to some of them having an alarm or fault status, an exception message can be received indicating this. Refer to Section 8 for a discussion of Exception Messages.

4.4

NOTES

- (i) The effect of the isolate/de-isolate command is dependant upon the receiving FIP type, eg. which zones will be isolated/de-isolated, how a zone is affected by isolation/de-isolation, and so forth.
- (ii) If an F4000 receives a network isolate/de-isolate command:
 - (a) Isolated zone(s) will register and indicate alarm and faults but are prevented from operating system outputs.
 - (b) If the zone is in Auto-Reset mode, a zone de-isolate command will exit Auto-Reset mode and leave the zone isolated.
 - (c) An un-silenced alarm indication will go steady on isolate and any alarm will become unsilenced on De-Isolate.
 - (d) For zone range de-isolate, zones that are in Alarm, Operate or Fault will not be de-isolated, and at the end of de-isolation the F4000 will send an exception message to the source of the command indicating that not all zones were de-isolated.
- (iii) Isolate/De-Isolate commands to network zones that are on the local panel will be implemented as if the command has been entered using the local zone numbers. The network will not be used, and no network messages will be displayed.

5 NETWORK ZONE OR ANCILLARY RESET

5.1 FUNCTION

A Network Zone Reset command sends a Reset Zone(s) command to the remote FIP that has the zone(s). If the network zone(s) are on the local FIP, the command is implemented as a local zone(s) reset.

If an F4000 receives a valid Reset zone(s) command from the Network, it performs the following function.

(a) For Alarm Zones:

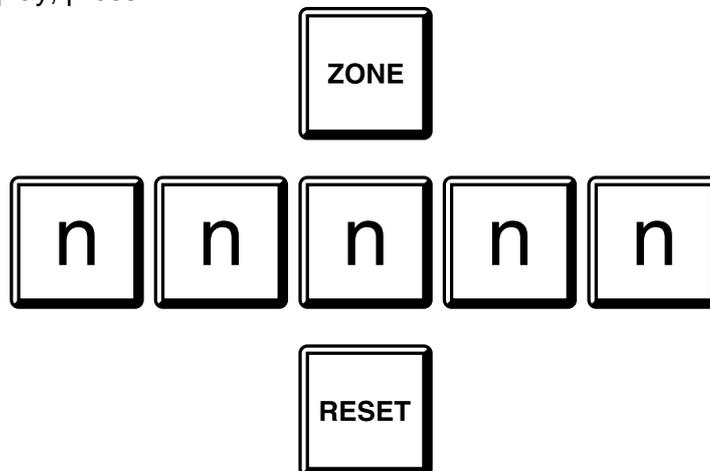
- Resets all circuits mapped to the selected zone.
- Clears ALARM and FAULT conditions and indications.
- Silences the alarm and fault sounder, if no other alarms or faults exist.
- Removes the Zone from Zone Test.
- Returns the Zone from Auto-Reset mode to normal operation.

(b) For Ancillary Control Zones:

- Resets any latched "FLT" indicator associated with the selected ancillary control zone.

5.2 OPERATING SEQUENCE - SINGLE NETWORK ZONE

From the base display, press:



to reset network zone number n n n n n. Refer to Section 2 for network zone number entry.

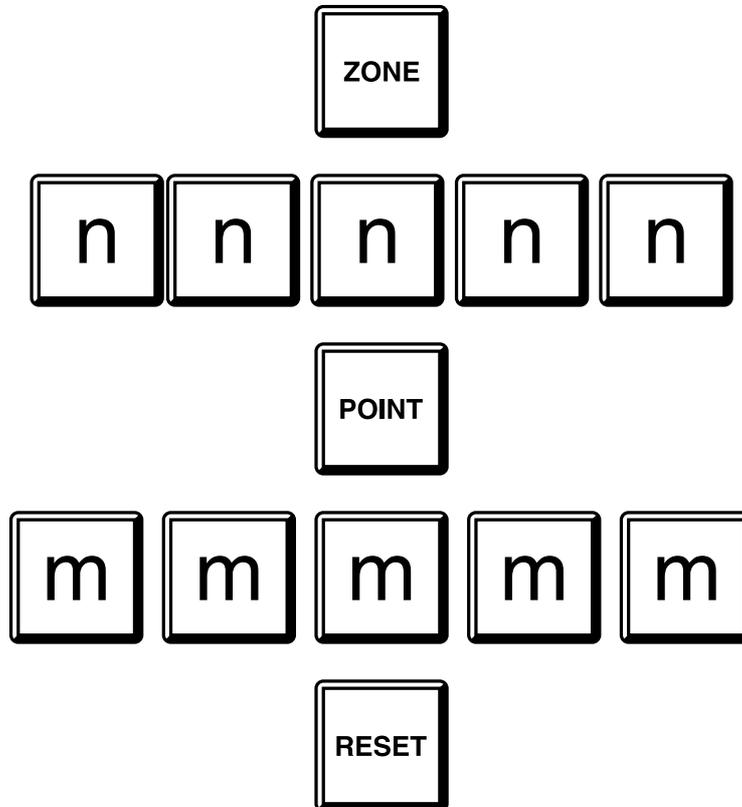
The LCD will display the network zone with a message saying "Network Command Sent". After a brief period the message should change to "Network Command Accepted".

Refer to Section 1.5 for more details on these and other possible LCD display messages.

If an exception occurs at the remote FIP, then an exception display may be received indicating the type of exception. Refer to Section 8 for a discussion of Exception Messages.

5.3 OPERATING SEQUENCE - NETWORK ZONE RANGE

From the base display, press:



to reset network zone numbers n n n n n to m m m m m. Refer to Section 2 for network zone number entry.

The LCD will display the network zones with a message saying "Network Command Sent". After a brief period the message should change to "Network Command Accepted".

Refer to Section 1.5 for more details on these and other possible LCD display messages.

If an exception occurs at the remote FIP, then an exception display may be received indicating the type of exception. Refer to Section 8 for a discussion of Exception Messages.

IMPORTANT The range of zones entered at an F4000 must be limited to zones on a single networked FIP, i.e. the range cannot encompass zones on more than one FIP.

5.4

NOTES

- (i) The effect of a network zone reset command is dependent upon the type of FIP that receives the command.
- (ii) If a network zone reset command is received by an F4000...
 - (a) If any circuit that is reset remains in alarm or fault, then the zone(s) mapped to by the circuit will also return to alarm or fault.
 - (b) If the amber fault indicator reappears, then isolate the zone and call service.
 - (c) For New Zealand mode FIPs, zone defects (faults) are always non-latching, whereas the LED indicators are always latching. Thus, a zone may be NORMAL, even though the DEFECT LED indicator is ON. In this case, the LED indicator can be cleared by resetting the zone.
- (iii) Reset commands to network zones that are on the local panel will be implemented as if the command had been entered using the local zone numbers. The network will not be used, and no network messages will be displayed.

6 NETWORK ZONE TESTS

6.1 FUNCTION

To initiate a test of a zone at a remote F4000. The zone tests can:

- Test the circuit inputs of the selected alarm zone;
- Send test signals to the Brigade;
- Operate test an ancillary control zone;
- Auto reset an alarm zone,

as if the test was initiated by an operator at the remote F4000. Tests at the remote F4000s can also be aborted.

If the network zone to be tested is on the local FIP, the test menus continue as if a local zone number had been entered. Refer LT0117 for details on local zone testing.

6.2 OPERATING SEQUENCE

OPTION: To prevent mapped outputs from operating "ISOLATE" the zone first.

From the zone status recall display for the zone to be tested, press:



From other information displays or the base display, press:



OR



Where nnnnn is the number of the network zone to be tested.

OPERATING SEQUENCE (CONTINUED)

If nnnnn is a network zone, the network test prompt is displayed, querying for the type of test to be performed:

Press		for alarm test
		for fault test
		for operate test
		for auto reset test
		to abort a test in progress

The F4000 will then send the test command to the FIP with the selected zone on it.

The LCD will display the network zone with a message saying "Network Command Sent". After a brief period the message should change to "Network Command Accepted", and the test will begin. Refer to Section 1.5 for a description of these and other possible LCD display messages.

If an exception occurs at the remote FIP, eg. a test failed, then an exception display may be received indicating the reason why. Refer to Section 8 for a description of Exception Messages.

6.3**NOTES**

- (i) The effect of the test command is dependant upon the receiving FIP type, eg. how the zones will be tested, how other zones/FIPs, etc, are affected by the test, and so forth.
- (ii) If an F4000 receives a test command it will process it as if an operator at that FIP had initiated the command. If the LCD at that F4000 is at its base display, then the LCD will indicate that a test is in progress. It will not display the abort prompt that would normally be displayed for a locally initiated test.
- (iii) If the network zone number(s) entered correspond to local zone(s), the LCD/keypad test menu continues as if local zone number(s) had been entered. The network zone test menu is not used, thus no network messages are displayed.

Refer to LT0117 for details on local zone tests.

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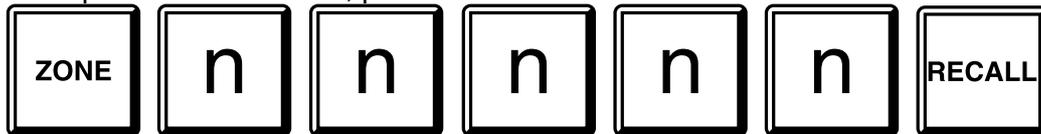
7 NETWORK ZONE RECALL/SEARCH

7.1 FUNCTION

Allows an operator to recall the status for a specific local or network zone, or, search for those zones meeting a specified criteria, e.g. in fault or alarm.

7.2 OPERATING SEQUENCE - LOCAL OR NETWORK ZONE STATUS

To recall a specific zone's status, press:



where nnnnn is a network zone number.

The first line of the LCD displays the zone number and any zone name programmed for that zone.

Note that there may be a delay between requesting a network zone status and display of the true status, due to network delays. In this case, F4000 will display default text, ie. just the network zone number, until the data is received. The display will update with the zone name and status when it is received,

The second line displays the zone alarm type text for that zone, followed by its status.

F4000 zone status consists of any of the following:

- Preaml - the zone is in pre-alarm.
- Alarm - the zone is in alarm.
- Operate - the ACZ is operated.
- Fault - the zone is in fault.
- Isolate - the zone is isolated.
- Test - the zone is currently being tested.
- ARst - the zone is currently being auto reset tested.
- Normal - the zone is normal.

The status returned by non-F4000 FIPs may differ.

To view the status of the other zones, press:



to view the status of the next zone.



to view the status of the previous zone.

If the F4000 must search across the network for the next zone, the LCD will temporarily display "Searching".

7.3 OPERATING SEQUENCE - NETWORK ZONE SEARCHES

The zone search functions allow an operator to query the local FIP and network FIPs for zones meeting specified status criteria, e.g. in alarm.

To start a search from the base display, or any information display, press:



Then select the option required. Valid options are:

Menu 1:

1	Status	zone status (Refer 7.2).
2	Alarms	search for any zones in alarm, whether or not they are isolated
3	Faults	search for any zones in fault, whether or not they are isolated.
4	More	accesses Menu 2.

Menu 2:

1	Isolates	search for any zones that are isolated.
2	Off Normal	search for any zones that are not normal.
3	Pre-Alarm	search for any zones in pre-alarm.
4	More	accesses Menu 1

OPERATING SEQUENCE - NETWORK ZONE SEARCHES (CONTINUED)

When an option has been selected, the FIP searches for a zone from the local ACZ 0 up to the local programmed maximum LCD zone that meets the specified criteria.

If there are no local zones that meet the criteria, the F4000 then polls the other FIPs on the network to determine whether they have any zones that meet the criteria.

Once a zone is found that meets the criteria specified, the LCD display reverts to a zone status display for that zone. When the NEXT or PREV key is pressed, the search continues for the next or previous zone, respectively, that meets the original search criteria. While the F4000 is determining the next or previous zone that meets the criteria the LCD display "Searching".

If no zones matching the criteria are found, the LCD briefly displays a message saying so, and reverts to the base display.

Note that due to network delays and delays due to processing at a number of remote FIPs, a zone search command may take some time to complete, especially for larger systems with no zones that match the search status.

8 NETWORK EXCEPTIONS

8.1 GENERAL

Network commands issued by one network FIP and sent to another may result in some event, error or "exception" that it is desirable to display at the source of the command.

These exceptions may occur a significant period of time after the original command was sent and accepted. An operator may need to remember what commands were sent to a particular network FIP to be able to interpret the exception correctly.

As an example of an exception, a multi-zone de-isolation may leave some zones isolated, because some zones have an active alarm or fault status.

A network panel is able to send special messages to the source of the command, indicating the type of exception that has occurred. The receiver of the exception can then recognise and display the data appropriately.

Exceptions have a level of priority assigned to them by the sender. An F4000 can be programmed as to which priorities of exceptions get displayed, and which get ignored. Consequently, some F4000s may only display more urgent exceptions, while others show both the more urgent and less urgent exceptions.

8.2 DISPLAY OF EXCEPTIONS AT AN F4000 LCD FIP

When an exception is received by an F4000, the following occurs:

- (i) If the FFCIF is not active:
 - (a) The LCD/keypad is interrupted from what it is displaying (although any background display processing still operates, eg. zone or point status searches).
 - (b) The LCD displays the SID number of the panel that sent the exception and a "Press any key" prompt on the first line, and the exception message received on the second line.
 - (c) Pressing any key will clear the exception display and the LCD keypad will revert to its original display.
 - (d) If the FFCIF becomes active while an exception display is being displayed, the exception is automatically cleared.
 - (e) Any new exception received before the current exception is cleared will be ignored.
- (ii) If the FFCIF is active, the received exception is discarded, so as not to disturb the alarm information displayed.

8.3 F4000 EXCEPTION EXAMPLES

Network F4000s are able to generate the following exception messages:

"Not All Zones De-Isolated"

The zone range de-isolation command processed did not de-isolate one or more zones because they were in alarm or fault.

"Zxxxxx Test Passed"

"Zxxxxx Test Failed"

"Zxxxxx Test Aborted"

"Zxxxxx Test Time Out"

The previous Zone test command issued to zone xxxxx had the noted result.

"System Test Passed"

"System Test Failed"

"System Test Aborted"

The previous System test command had the noted result.

"Battery Test Passed"

"Battery Test Failed"

"Battery Test Aborted"

The previous Battery test command had the noted result

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9 RECALL SYSTEM FAULTS

9.1

GENERAL

Allows an operator to view on the LCD the current causes of a "SYSTEM FAULT" indication.

These include problems with the FIP, any Responder or RZDU that could be connected to the FIP, and common status from other networked FIPs.

9.2

OPERATING SEQUENCE

From any information display or base display, press:



The Recall System Faults display may also be accessed by the RECALL SYSTEM FAULT command sequence.

The display will pause briefly while the FIP searches for the first system fault. If none is found, a brief message is displayed saying so, and the LCD reverts to the base display.

If a system fault exists, the LCD will display it. To view the next fault, press:



To view the previous fault, press:



9.3**NOTES**

The search for system faults first tests for any FIP faults, followed by responder and RZDU faults, and finally Network FIP faults.

The LCD display shows faults using a "Page" format, where each page is capable of displaying a number of different faults, but only those faults that are actually present are displayed.

There are up to 4 pages of faults for the FIP, 1 page per responder and RZDU, and up to 3 for each Network FIP.

The display is "real time", and the display updates once per second.

Consequently, if a fault is transitory, the display will show and blank the indication as the fault occurs and clears.

If all faults have cleared before the NEXT or PREV key is pressed again, the display will briefly display a message indicating that there are no more system faults, and then it will revert to the base display.

The information that can be displayed for each fault page is as follows:

FIP Page 1

SWFlt	-	A Software Fault was latched.
E2CRC	-	The FIP has previously detected a bad database.
STstF	-	The System failed its Powerup, Self or Automatic Test.
Brk1	-	No messages received by the FIP on Channel 1.
Brk2	-	No messages received by the FIP on Channel 2.
NoPrc	-	FIP processing has been stopped.
FRsp0	-	At some time, a foreign responder 0 was detected.

FIP Page 2

WDogL	-	The FIP has a latched watchdog indication.
DispF	-	There is a fault with the FIP LED display chain.
ChgrF	-	There is a Charger Fault at the FIP.
LpPwr	-	The FIP has detected an F4000 loop power fault.
BatLo	-	The FIP has a battery low condition.
BatFl	-	The FIP has a battery fail condition.

FIP Page 3 - NZ Mode FIPs Only

TEvac	-	Trial Evacuation active at FIP or RZDU.
SilAlm	-	Silence Alarms active at FIP or RZDU.
ExtDef	-	FIP External Defect Active.
ExtEvc	-	FIP External Evacuation Defect Active.
LatBVLo	-	FIP has latched a battery very low condition.
Abnml	-	FIP has an abnormal condition, e.g. EEPROM write enabled.

NOTES (CONTINUED)

FIP Page 4

- NetFlt - Local Network Fault present. Refer Section 3.3 for details on events that can cause a Local Network Fault.
- CmnPtl - A point on this FIP is isolated.
- MainsFl - A Mains Fail Fault is present on this FIP.
- BattDis - A Battery Disconnect Fault is present on this FIP.
- MaintAlert - One or more analogue detectors on this FIP are in Maintenance Alert.

Responders - On a per Responder Basis

- PRly - Responder has opened its Power Relay.
- Scan - FIP is not receiving data from this responder.
- Forgn - Responder is unconfigured, or more than one of same address.
- TypeM - Type mismatch between actual responder type and the type stored in the FIP database, or a SS database is being sent to an MPR that cannot process it correctly.
- Brk1 - No messages received by Responder on Channel 1.
- Brk2 - No messages received by Responder on Channel 2.
- RyBd - Relay Board fault.
- L2F - AAR or MPR fault e.g. Top Board Fault, Power Line 2 Fault, or device type mismatch.

RZDUs - On a per RZDU Basis

- Forgn - Reply received from an unconfigured RZDU.
- BatLo - Battery low at RZDU.
- DispF - Display fault at RZDU.
- BatFl - Battery fail at RZDU.
- Scan - FIP is not receiving data from this RZDU.
- StstF - RZDU failed its self test.
- ChgrF - Charger fault at RZDU.

Network Panels Page 0

- ScanF - The Local Panel is not receiving any data from the Remote panel indicated.
- LnkIA - The Local Panel is not receiving channel A test data from the Remote panel indicated.
- LnkIB - The Local Panel is not receiving channel B test data from the Remote panel indicated.
- SysFlt - The Remote Panel has a system fault.
- NetFlt - The Remote Panel has a network fault.
- Stdby - The Remote Panel has detected a standby condition.

NOTES (CONTINUED)Network Panels Page 1

Abnml	-	The Remote Panel has an Abnormal status present.
BellI	-	The Remote Panel's bells are isolated.
TEvac	-	The Remote Panel is asserting Trial Evacuation.
SilAlm	-	The Remote Panel is asserting Silence Alarms (Silence Bells)
BrigT	-	The Remote Panel is asserting Brigade Test.
SysFRcl	-	The Remote Panel has information that should be recalled on its own LCD display using the System Fault recall command.

Network Panels Page 2

CmnPtl	-	A point on this FIP is isolated.
TstFll	-	The FIP is signalling a test fail condition.
SysTst	-	The remote panel is currently executing a system test.

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