

1. What are some of the common cell phone email addresses?
2. I have the optional modem installed and am setting up notification to a pager. I have selected phone number 1 and set the device to "Alpha-numeric pager." What is the difference between the "Number" and "Pager ID" fields?
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16. There is a generator annunciator panel in the data center that displays generator alarms. How can I bring these alarm points into the FMS?
17. What are the FMS's Ethernet port parameters?
18. Can the FMS accept two keypads?
19. I am able to communicate between the FMS and my PC using a crossover cable, but when I connect the FMS to the LAN, I cannot view the FMS's webpages. The link and activity LEDs on the front of the FMS are both on solid.
20. I cannot pull up the FMS's web pages. My PC is on the same LAN as the FMS. My PC, the FMS's IP address and net mask are all correct. The FMS and PC link lights are both on. I can ping the FMS, but Internet Explorer does not find it. Any ideas?

1. What are some of the common cell phone email addresses?

Answer: They are as follows:

AT&T Wireless	10digitphonenumber@txt.att.net or username@mobile.att.net or 10digitphonenumber@mmode.com
Cingular Wireless	10digitphonenumber@mobile.mycingular.net
Nextel	10digitphonenumber@messaging.nextel.com
Qwest	10digitphonenumber@qwestmp.com
Sprint PCS	10digitphonenumber@messaging.sprintpcs.com
T Mobile	10digitphonenumber@tmomail.net
Verizon Wireless	10digitphonenumber@vtext.com

2. I have the optional modem installed and am setting up notification to a pager. I have selected phone number 1 and set the device to “Alpha-numeric pager.” What is the difference between the “Number” and “Pager ID” fields?

Answer: For alphanumeric pagers, the “Number” field is for the TAP service phone number and the “Pager ID” field is for the 7 or 10 digit pager phone number. The following is a basic description on how a page is sent from the FMS:

- a. An alarm occurs and the FMS dials the TAP service (“Number” field) and establishes a connection using the TAP protocol.
- b. The FMS sends the message to the TAP service and asks the TAP service to forward the message to the pager phone number (“Pager ID” field).
- c. The TAP service verifies that the pager phone number is valid, converts the protocol to match the pager protocol and then forwards the message to the pager.
- d. The FMS registers a successful page once it hands the message off to the TAP service. There may be a delay between the TAP service and pager delivery.
- e. The TAP service phone number can be difficult to find. Contact the pager company to ask them for the number (sometimes referred to as the “modem phone”) and if it requires the pager’s 7 or 10 digit phone number. Another resource for locating the TAP service phone number is www.notepager.com. Notepage.com lists several TAP numbers, but does not specify if you need the 7 or 10 digit pager number. You may have to try both numbers to see which one works. In general if the TAP service phone number is a toll free number, the pager ID will typically require the 10 digit pager number. If the TAP service number is a local number, the pager ID will typically require the 7 digit pager number.

3. The FMS does not send an email to outside email addresses and the FMS SMTP log shows the following error: “550 Relaying is Prohibited.” What is this error and how do I fix it?

Answer: The “550 Relaying is Prohibited” or “550 Unable to Relay Message” is an error message that the FMS receives back from the SMTP mail server. MS Outlook or Outlook Express, etc. is used to compose emails. These programs then send the message to the mail server. The mail server forwards (relays) the message to the intended recipients. “Spammers” try to find email servers and use them to send out their “SPAM” email. In order to prevent this, companies configure their email servers to forward (relay) only those messages from known IP addresses (only from company computers). To fix the log error, the email system administrator needs to enable relaying for the FMS IP address.

4. I can view the FMS's web pages locally, and when I connect to the FMS with my remote PC over a VPN connection, I can log in. However, instead of displaying the FMS main page, I get a "Page Not Found" error. Why?

Answer: Try changing the setting for the TCP maximum segment size from 1436 to 536. (This is located on the Internet Protocol page.) This reduces the size of the Ethernet message the FMS sends out. A VPN connection has encryption (security) which reduces the maximum segment size on the VPN connection. Some of the bits in the Ethernet message are used for the encryption, so the maximum segment size is less than the standard size. When the FMS IP address is entered in the remote PC web browser, the FMS responds by sending the login page, which is small enough to pass thru the VPN connection (less than the standard maximum segment size). Once the login is entered, the web browser on the remote PC asks for the main page. The FMS responds and sends the main page (many messages at the standard maximum size). However, since the VPN connection's maximum size is less than the standard maximum size, the message is not passed thru and the web page is not displayed on the remote PC. Switching the FMS to use a smaller maximum segment size should fix the problem. For more information on maximum segment size and VPN connections, we recommend searching the web for "TCP Max Segment Size VPN". In some cases, you may not be able to remotely access the FMS's login page until you set its maximum segment size to 536.

5. What is the difference between common ground and individual ground?

Answer: These are RLE terms which refer to the digital inputs and how they are wired to the FMS. Equipment such as a UPS will have several dry contacts available for monitoring. The following UPS example shows the difference between an individual ground and a common ground dry contact (as defined by RLE). Notice the number of "commons". Dry contacts with an individual ground can be connected to any FMS input. Dry contacts with a common ground can be connected to any input except on the "A" expansion card.

- a. UPS with Individual Grounds (requires two wires per alarm to the FMS)

Terminal 1 = UPS on Bypass Common

Terminal 2 = UPS on Bypass Normally Open

Terminal 3 = UPS on Bypass Normally Closed

Terminal 4 = UPS Low Battery Warning Common

Terminal 5 = UPS Low Battery Warning Normally Open

Terminal 6 = UPS Low Battery Warning Normally Closed

Terminal 7 = UPS On Battery Common

Terminal 8 = UPS On Battery Normally Open

Terminal 9 = UPS On Battery Normally Closed

- b. UPS with Common Ground (requires one wire per alarm plus one common wire to the FMS)

Terminal 1 = UPS on Bypass Normally Open

Terminal 2 = UPS on Bypass Normally Closed

Terminal 3 = UPS Low Battery Warning Normally Open

Terminal 4 = UPS Low Battery Warning Normally Closed

Terminal 5 = UPS On Battery Normally Open

Terminal 6 = UPS On Battery Normally Closed

Terminal 7 = Common (UPS on Bypass, UPS Low Battery Warning, On Battery)

6. The FMS's web pages have a few abbreviations on them. What do they mean?

Answer: *The FMS uses a few RLE defined acronyms and several standard industry abbreviations:*

RLE Commonly Used Abbreviations

AI = Analog Input

DI = Digital Input

DOW = Day Of Week

DUN = Dial Up Networking

FMS = Facility Monitoring System

NC = Normally Close Contact

NO = Normally Open Contact

PCB = Printed Circuit Board

RO = Relay Output

RTN = Return to Normal

RU = Rack Unit

UOM = Unit of Measure

Standard Industry Abbreviations

DNS = Domain Name Server

DTMF = Dual Tone Multi Frequency

FTP = File Transfer

HTML = Hypertext Markup Language

HTTP = Hypertext Transfer Protocol

IP = Internet Protocol

MAC = Media Access Control

NTP = Network Time Protocol

PDA = Personal Digital Assistant

PPP = Point to Point Protocol

SMTP = Simple Mail Transfer Protocol

SNMP = Simple Network Management Protocol

TAP = Telelocator Alphanumeric Protocol

TCP = Transmission Control Protocol

TFTP = Trivial File Transfer Protocol

TTL = Time To Live

URL = Uniform Resource Locator

7. What are "universal" inputs?

Answer: *This can be a bit confusing. The first 8 inputs on the FMS are referred to as "universal". Expansion card "A" is also referred to as having "universal" inputs. Each of the FMS's first 8 inputs can individually accept a 4-20mA signal, a normally open dry contact signal, or a normally closed dry contact signal. The inputs on expansion card "A" can individually accept a 4-20mA signal, a normally open dry contact signal, a normally closed dry contact signal, a 0-5VDC signal or a 0-10VDC signal. Internal jumpers allow the user to select 0-5VDC and 0-10VDC.*

8. What are the relay outputs typically used for?

Answer: Below are three common applications that use the relay outputs:

- A relay output(s) is used when there is a keypad connected to the FMS for room access. The relay output is wired to energize a door latch solenoid when the correct access code is entered on the keypad.
- The FMS has a status LED which turns on when there is an alarm present. This status LED is normally not very visible when the FMS is mounted in a rack. Each input is configured in the FMS to energize the same relay output (Falcon summary alarm). Then the relay output (Falcon summary alarm) is wired to turn on a strobe light and/or a horn located in a more visible location. The Falcon RA1x2 product can be used for this application.
- A relay output can also be used to trigger an IP camera to email a series of photos when a FMS input is activated such as when motion is detected or a door is opened.
- A relay output can be used to replicate a dry contact signal. A FMS can be placed in between an existing annunciator/monitoring panel and dry contact, connect the Dry contact wire to the Falcon Input and connect the annunciator/monitoring panel to the FMS relay output.

9. What do the first set of numbers and letters represent in the alarm history log entries?

Answer:

- Alarm History Log Entry Format:** (Alarm History Log Number)-(Alarm ID)-(Alarm Level)-(Date Time)-(If Analog, then Current Value and Unit of Measure)-(Input Label)
- Alarm History Log Number:** The alarm history has 256 entries. Once full, it overwrites the oldest alarm with the newest alarm. The AHxxx number is just the entry number from 1 to 256. It can be ignored.
- Alarm ID:** The alarm ID is a fixed unique number that represents an alarm. For example, input #1 has 5 alarm IDs. If input #1 is configured for digital NO or NC, the alarm ID is 10. If input #1 is configured as an analog input, the high limit 1 alarm ID is 11, the low limit 1 alarm ID is 12, the high limit 2 alarm ID is 13, and the low limit 2

alarm ID is 14. Input #2 alarm IDs are 20, 21, 22, 23, 24, etc. It is helpful to know this field for comparison purposes. If input #1 alarms on high 1 and high 2, the alarm history log will show "Alarm ID 21 High 1 and Alarm ID 23 High 2". When the input falls below the high limit 2, but is still above high limit 1, the alarm history log will show "Alarm ID 23 RTN". Looking at the alarm ID tells you that high limit 2 returned to normal. When the alarm history log shows "Alarm ID 21 RTN", you know that high limit 1 returned to normal (RTN).

- d. Alarm Level: Displays "Low2", "Low1", "High1", "High2" or "RTN" (Return to Normal) for analog points, and displays "On" or "RTN" for digital points.
- e. Date/Time: Displays the date and time when the alarm occurred.
- f. Current Value and Unit of Measure: If the alarm point is configured as an analog point, the current input value and unit of measure are entered into the log ("85 deg F"). This field is blank if the input point is configured as a digital NO or digital NC.
- g. Input Label: The text label entered when the input point is configured.

10. I am planning on using a FMS to monitor other points. Can I use the FMS as a relay replicator?

Answer: Yes, provided you have the available I/O on the FMS. The wiring is easier and you do not have to determine where to mount the relay replicator. The expansion card "A" works well for this. The "A" card has 12 universal inputs and 8 relay outputs; so it can replicate 8 digital inputs. In some cases, this is a more cost effective solution since you only need to purchase an option card rather than an option card and a relay replicator.

11. How can I turn on a relay output from the FMS webpage?

Answer: A relay output can be configured to be "button controlled" which allows a user read-only privileges to active the relay output. Once configured for "button controlled", the user can press a button on the relay control page to turn the relay on (or off or run a set time duration). (Main Page -> Relay Control)

12. When do I need to fill in the DNS IP addresses on the email configuration page?

Answer: The purpose of the DNS (Domain Name Server) is to convert a domain name such as www.rletech.com or mail.mycompany.com to an IP address. The "Mail (SMTP) Server" field on the email configuration page, the "Network Time (NTP) Server" field on the network time protocol page and the URL links are the only entries that accept a domain name. Any of these fields can accept a domain name or an IP address. If you enter a domain name in any of these fields, you must enter at least one DNS IP address.

13. What is the purpose of the “Def Route” field on the IP configuration page, and when do I need to enter an IP address for it?

Answer: *The “Def Route” (sometimes called the “default router” or “default gateway”) is the device that connects the subnet to the Internet and handles traffic between the two. Assuming there is a LAN connection to the FMS, the FMS resides on the subnet. If the FMS needs to access a device that is on the Internet, it needs to have a default router IP address (obtained from you system LAN administrator).*

The “Def Router” IP address needs to be entered if any of the following are true:

- *Using DNS servers on the Internet (not on the local subnet).*
- *The SMTP mail server is on the Internet (not on the local subnet).*
- *The IP camera is on the Internet (not on the local subnet).*
- *Any configured URL link that points to a device that is on the Internet.*
- *The Network Time Protocol server is on the Internet (not on the local subnet).*
- *The NMS (SNMP) is on the Internet (not on the local subnet).*

14. Can the FMS be setup for DHCP, or does it require a static IP address?

Answer: *The FMS requires a static IP address.*

15. How can I access the FMS from any PC that is connected the Internet?

Answer: *This is a question for the system administrator that is responsible for the LAN that is connected to the FMS. This is an issue with the firewall setup at the FMS location. The FMS web interface can be configured to use a user specified port instead of using the default port 80 for HTTP (web pages). The FMS HTTP port can be changed on the IP configuration page.*

16. There is a generator annunciator panel in the data center that displays generator alarms. How can I bring these alarm points into the FMS?

Answer: *First, you need to verify that the generator is wired to the annunciator panel using dry contacts. Some newer systems may have a communications link between the generator and the annunciator panel. If there is a communications link, contact the genset (generator set) manufacturer to see if there are dry contacts available or how to go about adding dry contacts. Alternatively, if the generator communicates via Modbus, the FMS can accept Modbus signals. Then you have a set of unused dry contacts that can be wired directly into the FMS. If the generator has dry contacts wired to the annunciator panel, RLE’s Relay Replicator product (RR Series) can be used to duplicate the contacts from the generator. The wiring from the generator’s dry contacts to the annunciator panel is reconnected to the Relay Replicator. The Relay Replicator has two sets of outputs - one set is wired to the annunciator panel, and the other set is wired to the FMS.*

17. What are the FMS's Ethernet port parameters?

Answer: *The FMS's Ethernet port is configured for 10/100BaseT.*

18. Can the FMS accept two keypads?

Answer: *Yes, you can wire them in parallel. However, it can be a little confusing if both keypads are being used at the same time since the FMS cannot determine which keys are being pressed on which keypad. If one user is entering a code, and another user starts to enter a code on the second keypad, the FMS will see the keys as if they were from the same keypad and the number sequence will not match.*

19. I am able to communicate between the FMS and my PC using a crossover cable, but when I connect the FMS to the LAN, I cannot view the FMS's webpages. The link and activity LEDs on the front of the FMS are both on solid.

Answer: *The most common problem is due to the port settings on the switch that connects to the FMS. The port on the switch (which the FMS is connected to) needs to be set for auto detect or 10/100BaseT..*

20. I cannot pull up the FMS's web pages. My PC is on the same LAN as the FMS. My PC, the FMS's IP address and net mask are all correct. The FMS and PC link lights are both on. I can ping the FMS, but Internet Explorer does not find it. Any ideas?

Answer: *The issue may be with the proxy server on your network. Proxy servers are used by some companies to improve performance and prevent employee access to specific websites. Contact your system administrator to verify that the proxy server is configured to allow access to the FMS's IP address.*