*29 Menu Mode for IP and GSM Module Programming

This mode is for programming the Internet connection (IP) and optional GSM Module configuration, collectively referred to as the Internal Device.

NOTE: The Internal Device is automatically set to address 3 and cannot be changed.

The following section describes the programming of the Internal Device using an alpha keypad. Alternatively, these options can be programmed via the AlarmNet Direct website. After programming is complete, the **control must be registered** with AlarmNet **via the Internet connection**. Refer to the Registration with AlarmNet section for procedures.

IMPORTANT: The use of the IP connection or the VISTA-GSM module requires an AlarmNet–I account. Please obtain the account information from the central station prior to programming this module.

Using an Alpha Keypad as a 7720P Programming Tool

When programming IP/GSM features (with *29 menu mode), the alpha keypad mimics the functions of the 7720P Programming Tool. See figure at right and table below for 7720P key functions. Each key has two possible functions: a normal function and a SHIFT function.

Normal functions: The numeric values labeled directly on the keys and the left-hand functions shown in diagram on the ABC keys. To perform a normal key function, simply press the desired key.

SHIFT functions: Those functions shown in diagram above the numerical keys and the right-hand functions shown on the ABC keys. To perform a SHIFT key function, press SHIFT key (D key), then press the desired function key (shift function is indicated by the lit READY LED).



7720P Emulation Template for Alpha Keypads

Normal and SHIFT key Functions While in *29 Menu Mode

Key	Normal Key Function	SHIFT Key Function
(A) = BS/ESC	[BS]: Press to delete entry	[ESC]: Press to quit Program Mode
	Also, can reset EEPROM defaults [†]	
(B) = ↓/↑	$[\downarrow]$: Scroll down programming	[1]: Scroll up programming
(C) = N/Y	[N]: Press for "NO" answer	[Y]: Press SHIFT-Y for "YES" answer
(D) = SHIFT	Press before pressing a SHIFT key function. Will light READ	Y LED. LED goes out once a key is pressed. Press again
	for each SHIFT function desired.	
1/A	[1]: For entering the number 1	[A]: Used for entering C.S. ID number
2/B	[2]: For entering the number 2	[B]: Used for entering C.S. ID number
3/C	[3]: For entering the number 3	[C]: Used for entering C.S. ID number
4/D	[4]: For entering the number 4	[D]: Used for entering C.S. ID number
5/E	[5]: For entering the number 5	[E]: Used for entering C.S. ID number
6/F	[6]: For entering the number 6	[F]: Used for entering C.S. ID number
7/S	[7]: For entering the number 7	[S]: Press to display diagnostic status
8/T	[8]: For entering the number 8	[T]: Press to send TEST messages
9/X	[9]: For entering the number 9	[X]: Press to reset the IP/GSM
[*] / SPACE	[*]: Used to select programming options	[SPACE]: Not used
0	[0]: For entering the number 0	
[#] / ENTER	[#] / ENTER: Press to accept entries	No SHIFT function

[†] Active only when the "REVIEW?" prompt is displayed

Internal Device (Ip and GSM) Default Values

The programming default values for *29 Menu Mode are listed in the Table below.

	OPTION	STANDARD DEFAULT VALUE	ACTUAL ENTRY
1	Internal Device	IP	
2	Primary City ID	??	
3	Primary CS ID	??	
4	Primary Sub ID	????	
5	Supervision	24 Hours	
6	GSM Rollover Y/N	N (if GSM enabled)	
7	GSM 24Hr Tst Y/N	N (if GSM enabled)	
8	Old Alarm Time	10 Minutes	
9	IP Fault Time	60 Minutes	
10	GSM Fault Time	60 Minutes (if GSM enabled)	
11	Notify Panel Of	Neither Fault (if IP and GSM enabled)	
12	Use DHCP Y/N	Y (if IP or IP/GSM enabled)	
13	NIC IP Address	255.255.255.255 (if DHCP not used)	
14	Subnet Mask	255.255.255.255 (if DHCP not used)	
15	Gateway IP Addr	255.255.255.255 (if DHCP not used)	
16	DNS IP Addr.	255.255.255.255 (if DHCP not used)	

Status and Contact ID Reporting Codes

The Internal Device (IP/GSM) sends status messages to the control panel for network connectivity failures. Trouble messages are displayed on the keypad as "Check 103," with status displayed as "LngRng Radio" followed by a 4-digit keypad display status code, defined below.

Reypad Display Status Codes	Keypad Di	splay Status	Codes
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CODE	DESCRIPTION		
0000	Control panel lost communication with internal device		
0005	internal device has lost contact with AlarmNet		
000F	internal device is not registered; account not activated		
0019	GSM module shut down		
0400	internal device Power-on reset AND the control panel lost		
	communications with IP/GSM		

Contact ID Codes (as displayed at 685) sent to CS via IP/GSM

CODE	DESCRIPTION
E339 C803	Power-on reset
E350 C951	Primary communication path failure (Ethernet) **
R350 R951	Primary communication path restore (Ethernet) **
E350 C952	Secondary communication path failure (GSM) **
R350 C952	Secondary communication path restore (GSM) **
E355 C000	Module lost ECP communication with control
R355 C000	Module restore ECP communication with control
E353 C103	Long range transmitter fault trouble
R353 C103	Long range transmitter fault restore

** reports only if IP and GSM enabled

Start *29 Menu Mode by pressing *29 while in Data Programming mode.

ENABLE IP/GSM? 0=No, 1=Yes	Enable INT IP/GSM? 0 = no, not using either IP or GSM; 1 = yes using IP and/or GSM module; [*] to continue NOTE: Default = 1 (IP and/or GSM)
	IMPORTANT: If using an external communication device, first follow the instructions in the Inadequate Signal Strength paragraph in the VISTA-GSM Module Installation section for physical installation of an external communication device. When complete, enter 1 at this prompt and enter 1-Prog at the next prompt. Then program and register the external device using the Installation and Setup Guide included with the external communication device.
1=PROG 2=DIAG 0=QUIT	Programming/Diagnostics Select 1= Prog (program the IP/GSM options) 2 = Diag (enter diagnostic mode) Do not select if using an external communications device 0 = Quit; returns to data field programming mode

Internal Device Programming Prompts

The keys used to select and enter options now follow 7720P keypad emulation. Refer to the table on the previous page for detailed key functions. The following is a summary:

- [*] = scroll the options of a particular prompt
- [#] = accept the entry and move to the next prompt
- [A] = backspace or shift-[A} for escape
- [B] = scroll to next prompt or shift-[B] scroll to previous prompt
- [C] = answer No or shift-[C] answer Yes to prompt

[D] = shift key

Internal Device IP	Internal Device Selection Disable – IP – GSM – IP & GSM Select the desired type of internal device usage, IP and/or GSM (press [*] to scroll choices). Press [#] to continue
	NOTE IF USING GSM ONLY OPTION: For registration purposes, the internal device must first be set for IP & GSM (and the control must be connected to the Internet via the RJ45 connector). Follow the prompts to program appropriate values and use the default settings for the IP specific prompts. After the control is registered (see Registering the Control with AlarmNet paragraph later in this section), return to this prompt and set for GSM only.
Multi mode Disabled	Multi-Mode (email reporting) Disabled = no email reporting of events 4204 Sourced = up to four types of events reported (relay numbers 1-4 report as events 1-4 respectively) 2-4204 Sourced = up to eight types of events reported (first module's relay numbers 1-4 report as events 1-4 respectively; second module's relay numbers 1-4 report as events 5-8 respectively) [#] to continue
	Select the desired multi mode option (press [*] to scroll choices). This feature is available only after authorization for it is set via the web-based programming tool on the AlarmNet Direct website. Multi-mode emulates 4204 Relay Module outputs to send up to four (4204 sourced) or up to eight (2-4204 sourced) reports of system events to the user via email (email address is entered at the AlarmNet Direct website). Use the AlarmNet Direct website to customize event titles, if desired. If enabled, a multi-mode address must be entered in the next prompt. Use *79/*80 Menu modes to program each emulated relay output to trigger a desired system event that, upon occurrence, will be sent to the user's email address.
	 NOTES: Multi-mode has not been evaluated by UL. Multi-mode (email notification) is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.).
Multi mode Addr (12)	 Multi-Mode Address This prompt appears if Multi Mode is enabled. 12-15 =emulated 4204 Relay Module address. Select the desired address. If using "2-4204-sourced," the address of the second module is automatically assigned an address one higher than the first module's address.
	NOTE: A 4204 Relay module address is required for multi-mode purposes, but an actual 4204 Relay module is not used.
Primary City ID (??)	Primary City ID NOTE: Account information is provided by the central station administrator. 01-99 (decimal) = 2-digit primary city code
Primary CS ID (??)	Primary CS ID 01-FE (HEX) Enter the primary central station's system ID number,
Primary Sub ID (????)	Primary Subscriber ID 0001-9999 (decimal) Enter the 4-digit customer account number.
Remote AccessY/N (N)	Remote Access This feature is available only after authorization for it is set via the web-based programming tool on the AlarmNet Direct website. [Y] = use remote services [N] = do not use remote services [#] to continue
	Remote Services allow the end user to access their security system from their computer via the remote services website. Most system functions can then be performed.

Keypad Address (28)	 Keypad Address (for Remote Access) This prompt appears if remote access is enabled. 1, 2, 5, 6 = emulated AUI address 17-23 = emulated standard keypad address For enhanced remote access features, choose an AUI address. If no AUI addresses are available (all four AUIs are being used), choose an available standard keypad address (some remote access features will be unavailable). NOTE: An AUI or standard keypad address is required for remote access purposes, but an actual AUI device or keypad is not used 			
Supervision 24 Hours	Supervision if using IP and/or GSM if using IP only (not for GSM usage) • 30 day • US UL Line (6 Min) • 24-hours • US UL Line (90 Sec) • None (no supervision) • CN UL Line Lv1 3 (3 Min) • CN UL Line Lv1 4 (90 Sec) • CN UL Line Lv1 5 (75 Sec)			
	• 1 hour To scroll the choices: [*] key scrolls forward; [backspace] key scrolls backward [#] to continue The supervising station must hear from the IP/GSM at least once during the supervision period. AlarmNet transmits a communications failure alarm to the central station if the supervision message is not received within the period. This selection sets the supervision timing for one of the following values:			
GSM Rollover Y/N (Y)	 GSM Rollover Appears only if IP & GSM is selected as Internal Device option. [Y] = all messages (including AlarmNet network supervisory messages) are sent over the GSM network in the event of an Internet failure [N] = all messages (except AlarmNet network supervisory messages) are sent automatically over the GSM network in the event of an Internet failure 			
GSM 24Hr Tst Y/N N	<pre>GSM 24Hr Tst Appears only if IP & GSM is selected as Internal Device option. [Y] = have a message sent once a day to verify GSM operation. A "secondary communication path loss" message is generated if the message is not successfully delivered. [N] = disable 24hr test</pre>			
Old Alarm Time 10 Minutes	Old Alarm Time The old alarm time sets how long an undeliverable alarm is retried for delivery to AlarmNet. If the message is not validated, it is retried until the old alarm time is reached or the message is validated. The choices available are: • 10 Minutes • 4 Hours • 15 Minutes • 8 Hours • 30 Minutes • 12 Hours • 1 Hour • 24 Hours • 2 Hours To scroll the choices: [*] key scrolls forward; [backspace] key scrolls backward [#] to continue			
IP Fault Time (60 mins)	 IP Fault Time Appears only if IP or IP & GSM is selected as Internal Device option. 01-99 = time delay (in minutes) before the control notifies the central station that there is a loss of contact with the network over the Ethernet (IP) connection. 0 = no delay (valid only If using IP only) Must be two (2) minutes for III installations. 			
GSM FIt Time (60 mins)	 GSM Flt Time Appears only if GSM or IP & GSM is selected as Internal Device option. 01-99 = time delay (in minutes) before the control notifies the central station that a loss of contact with AlarmNet network has occurred. 0 = no delay (valid only if using GSM only) Must be two (2) minutes for UL installations. 			

Notify Panel Of _	Notify Panel Of
Neither Fault	Appears only if IP & GSM is selected as internal Device option.
[]	Neith as Factor
	Neither Fault
	 Both IP and GSM must fail before fault code is sent (status code 4005 displayed); panel receives primary and secondary path failure messages. No message sent if only one or the other path fails.
	To scroll the choices: [*] key scrolls forward; [backspace] key scrolls backward
	• [#] to continue
	NOTE: IP failure will always be sent to the central station as Primary Path Failure, and GSM failure will always be sent as Secondary Path Failure.
IP address information	n prompts
The following prompts	appear only if IP or IP & GSM is selected as Internal Device.
It is recommended to u	se dynamically allocated IP addresses, but if fixed IP addresses are desired, contact your
network administrator	for the appropriate information.
NOTE A valid IP add	ress must be entered in each prompt before the system continues to the peyt prompt

NOTE: A valid IP address must be entered in each prompt before the system continues to the next prompt. Entries cannot be left with the default values.

Use DHCP Y/N (Y)	Use DHCP [Y] = have the IP addresses dynamically allocated (recommended), skip to Review prompt. [N] = use fixed IP addresses; continue with next prompt [#] to continue
NIC IP Address 255.255.255.255	NIC IP Address Enter the 4-part IP address for this device, separating each part with a space ([*] key, displayed as periods). [#] to continue
Subnet Mask 255.255.255.255	Subnet Mask Enter the 32-bit address mask used to indicate the portion (bits) of the IP address that is being used for the subnet address, separating each part with a space ([*] key, displayed as periods). [#] to continue
Gateway IP Addr 255.255.255.255	Gateway IP Addr Enter the 4-part IP address assigned to the Gateway, separating each part with a space ([*] key, displayed as periods). If unused set to 0.0.0.0. [#] to continue
DNS IP Addr 255.255.255.255	DNS IP Addr Enter the 4-part IP address assigned to the DNS (Domain Name System) server, separating each part with a space ([*] key, displayed as periods). If unused set to 0.0.0.0. [#] to continue
Review? Y/N	 Review (and Exit *29 Menu mode or Reset Defaults) You can review the *29 Menu mode options to ensure that the correct responses have been made. When satisfied with entries, select [N] to exit *29 Menu mode. To review prompts or exit *29 Menu mode: [Y] = review prompts and entries, starting with Internal Device. Use the up/down arrow keys to scroll through the program fields without changing any of the values. If a value requires change, simply type in the correct value. When the last field is displayed, the "REVIEW?" prompt again appears. [N] = Exit *29 menu mode and return to data field programming mode. The prompt briefly displays "DONE" before returning to data field mode prompt "Enter * or #." [#] to accept Y or N selection (# alone exits same as N)
	 To reset *29 Menu mode defaults: Press [ESC] at the Review prompt to display the "Reset Factory Defaults" prompt. [Y] = reset *29 menu mode options to factory values; if selected, all programmed *29 Menu mode options are reset to the factory settings [N] = cancel reset defaults function

Programming IP/GSM Options via AlarmNet Direct Website

To program the IP/GSM options via the AlarmNet Direct website (if you are already signed up for this service), go to: <u>https://services.alarmnet.com/AlarmNetDirect/userlogin.aspx</u>

If you are not signed up for this service, click on "Dealer Sign-Up.

Log in and follow the on-screen prompts.

Please have the following information available:

1. Primary City ID (two-digit number)

2. Primary Central Station ID (two-digit hexadecimal number)

3. Primary Subscriber ID (four-digit number)

4.MAC ID and MAC CRC number (located on the outside of box and on label inside module) or MIN number of the device you are replacing

5. Mode of operation of existing module if replacing a "C" series radio.

After programming is complete, you must transfer the data to the module and the module must be registered. Refer to the Registration section for details.

IP/GSM Diagnostic Commands (*29 Menu Mode)

Diagnostic commands can be used to quickly view your Internet and GSM connectivity settings and options. For each command (except $[\downarrow]$ and [0]) press the [shift] key and then the designated command key. For example, press [shift] then [1/A] to display the software revision screen.

To enter Diagnostic mode:

- 1. Press *29 while in data field programming mode.
- 2. Enter "1" at the "Enable IP/GSM" prompt then press [*].
- 3. Select "2" (Diag) at the next prompt.
- 4. Enter the desired command at the "Sel Key Command" prompt.

For subsequent commands, enter the next command at the currently displayed screen.

To exit Diagnostic mode, press ESC (shift-[A]).

Key	Prompt	Function	Key	Prompt	Function
[A]	INTERNAL IP/GSM x.x.xx mm/dd/yy	Software Revision "x.x.xx" indicates the installed software Revision. Mm/dd/yy indicates month, day and year of the revision.	[D]	Physical Link Good/Bad	Physical Link Only if IP or IP/GSM enabled. Indicates whether the device has detected a physical connection to the internet. [*] to continue to NIC IP address.
[R]	MAC XXXXXXXXXXXX MAC CRC yyyy	"xxxxxxxxxx" indicates the IP/GSM's unique identification number. Yyyy indicates the 4 digit MAC CRC needed to enroll		NIC IP Address xxx.xxx.xxx	IP Information Displays Displays the IP address assigned to this device. [*] to go to subnet mask. Displays the 32-bit address
	SCID XXXXX XXXXX XXXXX XXXXX	the device in dealer direct. [*] to go to SCID. Only if GSM or IP/GSM enabled. Displays the identification number			mask used to indicate the portion (bits) of the IP Address that is being used for the subnet address. [*] to go to gateway IP.
		assigned to the SIM card (SCID) in this device. [*] to go to IMEI.		Gateway IP Addr xxx.xxx.xxx	Displays the IP Address assigned to the Gateway. [*] to go to DNS server IP.
	IMEI XXXXXXX XXXXXX X	Only if GSM or IP/GSM enabled. Displays the identification number assigned to the GSM module in this device. [*] returns to MAC		DNS Serv IP xxx.xxx.xxx	Displays the IP Address assigned to the DNS (Domain Name System) server. [*] to go to encryption test.
[C]	Mon 01 Jan 2006 05:48:39 am	Time Retrieves the current date and time from the AlarmNet network in Greenwich Mean Time (GMT). This display		Encryption Test AES Passed! DHCP OK	Performs a self-test of the AES encryption algorithm. [*] to go to DHCP. DHCP (Dynamic Host Configuration Protocol) indicates server is okay. [*] returns to Physical Link
		is in sync with network.			prompt.

IP/GSM Diagnostic Commands (continued)

	g	GSM Status Displays	Key	Prompt	Function
[E]	PriRSSI GPRS REG -xxxdbm x x	Only if GSM or IP/GSM enabled. PriRSSI – Primary Site RSSI level in dbm GPRS – GPRS Service availability where "x" can	[S]	FLT OK	Status request OK = normal i = IP off line I = IP fault reported g = GSM off line G = GSM fault reported
		be: "Y" if GPRS is available "N" if GPRS not available REG – Registration status from GSM module where "x" can be: N – Not Registered H – Registered Home S – Searching D – Registration Danied	[T]	Test Msg Sent	Test Alarm Sends a Test alarm to AlarmNet. Functional for a registered IP/GSM only. If the device is not registered, a message is displayed indicating that the command cannot be executed.
		R – Registration Denied R – Registration Denied ? – Unknown Reg. State [*] to continue to next screen.	[X]	Reset CPU Y/N	Reset the IP/GSM. [N] = return to diagnostic mode (blank screen =
	Cntry Netw LAC xxx xxx xxxxx	Cntry – Country Code Netw – Network Code LAC – Reg. status from GSM. [*] to continue to next screen. Cell – Base Station ID			enter next command or escape). [Y] = resets the module (blank screen = when reset complete, enter next command or escape).
	Cell BaseSt Chan Xxxxx x xxx	BaseSt – Base Station Antenna Sector Chan – Control Channel in use [*] to continue to next screen.	[↑]	Registering	Registration (Shift-UP arrow) Registers a programmed IP/GSM with AlarmNet. If it is configured to report to AlarmNet, the IP/GSM will
	Second Site RSSI -xxxdbm	level in dbm. [*] to continue to next screen.	[↓]	Enter PIN#	register with AlarmNet. Registration with PIN
[F]	Testing Gateway Redir 1	Network Diagnostic Test Only if IP or IP/GSM enabled. Performs a set of network diagnostics that tests the			Module (DN arrow) Registers a programmed IP/GSM with AlarmNet if it is configured to report to AlarmNet.
		between the IP/GSM and the various connection points (Redirs) to AlarmNet.	[0]	Force Server Update Y/N	Force Upload of Configuration File to Server [Y] = force the device to upload its entire configuration file to the server. [N] = cancel the operation. NOTE: If the internet is not available, and the module is not initialized when you enter this command, the following
					screen will be displayed: Cannot Upload Try Later! _ Wait for the RSSI LEDs to light, indicating the module has completed its initialization, and try again.

Registering the Control with AlarmNet

The control must be registered with AlarmNet before internet communication (via IP or GSM) can occur. To register, the control must be connected to the Internet.

Register the control by using one of these methods:

Register by phone

1. Call 1-800-222-6525

- You will need the following information:
- MAC ID and MAC CRC number (found on the label).
- Subscriber information (provided by the central station), including a city code, CSID, and a subscriber ID.
- 2. When instructed to do so, triple-click the Test switch to complete the registration.

Register with AlarmNet Direct Website

To register via AlarmNet Direct Website, please go to: <u>https://services.alarmnet.com/AlarmNetDirect/userlogin.aspx</u>.

Log in and follow the on-screen prompts.

Please have the following information available:

- Primary City ID (two-digit number provided by central station)
- Primary Central Station ID (two-digit hexadecimal number provided by central station)
- Primary Subscriber ID (four-digit number provided by central station)
- MAC ID and MAC CRC number (located on outside of box and on label on control's PC board).

If you are not signed up for this service, click on "Dealer Signup" from the login screen to gain access to the Honeywell web-based programming.

Dealer Sign-Up Direct Link: https://services.alarmnet.com/AlarmNetDirectP_Sign-Up.

You will be instructed how to proceed upon completing the sign-up form. Only one sign-up per dealer is required. Once an initial user is established, additional logins may be created by that user.

Once the control is registered, you may log out of the AlarmNet Direct website.

Register with Alpha Keypad using *29 Menu mode

- 1. Enter *29 Menu mode, select Diagnostic mode, then press Shift then [↑] key (D key followed by the B key). The registration message is sent ("Registering" displayed) and the control waits for the acknowledgment.
- 2. "Registration SUCCESS" displayed, indicating successful registration.

Register with Test Switch on control's PCB (triple-click)

- 1. Click the switch three times.
- 2. Watch the GSM Status LEDs: The Message (yellow) LED and the Status (green) LED will blink slowly in unison while registration is in progress.
- 3. When registration is complete, the Status (green) LED goes out.

Upload/Download via the Internet

This control supports upload/download programming capability via the Internet by using the AlarmNet network and Compass downloading software. The control must be connected to the Internet (via the on-board RJ45 connector or VISTA-GSM module), have all IP features programmed (*29 Menu mode), and be registered with AlarmNet. The following is required at the Downloading Office:

- Broadband Internet Access and Broadband (Cable/DSL) Modem
- Broadband (Cable/DSL) Router (optional, if connecting more than one device to the Internet)
- Computer running Compass Downloading Software version that supports Internet upload/download for this control.

To perform upload/download functions:

- 1. Connect the computer to the Internet and start the Compass downloading software.
- 2. Open the control's account, then select the Communications function and click the **Connect** button.
- 3. At the Connect screen, check that the control's MAC address is entered and the TCP/IP checkbox is checked.
- 4. Click **Connect**. The Internet connection to the control is made automatically via AlarmNet.
- 5. Once connected, use the Compass downloading software as normal to perform upload/download functions.