ComNav Installation Manual

HILLS™ | DAS

Contents

Overview

Hills ComNav is a remote access integration module for the Hills Reliance security alarm system. It allows the security alarm system to be easily controlled via Internet or smartphone from anywhere in the world.

Remote control is offered via any DTMF telephone using the Personal Voice Guide (PVG) and Remote Control and configuration via the built-in web server using a standard web page, or a smartphone app.

Advanced Reporting Features allow you to receive event notification via voice, SMS or email.

Features

Connections	Features
Phone Line	Voice Reporting
	SMS Reporting
Network & App	Programming / Setup
	Reporting Setup
	Alarm Panel Control
	Email Reporting
	2x Onboard Relays
	Apple and Android App
	Automatic DHCP
	No Mail Server and Port Forwarding Set Up Required
	Built-In Web Server
General	4x Extra Zones
	Real Time Clock

Depending on how the ComNav module is connected to your Hills Reliance Security System, a wide variety of features are available to you for interacting with your Security System.

A standard phone line connection offers remote control via any DTMF telephone using the Personal Voice Guide (PVG). This also allows remote reporting through voice and SMS.

When a network connection is added, reporting can be expanded to include email reports without requiring an email server. Configuration options extend to offer both graphical configuration via the built-in web server and also App-based configuration using either an Apple or Android smartphone or tablet.

What's in the box

Your Hills ComNav package comes with the following:
Two (2) plastic PCB guides

Two (2) Phillips head screws

Terminating Resistors

One (1) ComNav PC Board
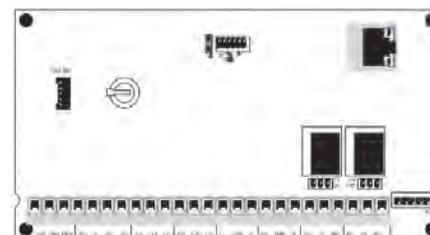
Diagram 2 - ComNav PC board

One (1) 5-wire audio interconnecting cable

What you need

1. A Phillips head screwdriver
2. A Flat head screwdriver
3. A small amount of cable
4. CAT-5 or higher Ethernet cable
5. Access to network port
6. Access to a configured network with a configured DHCP server, or an allocated IP address, IP gateway and subnet mask (for web or app-based configuration)
7. PSTN phone line for Voice and SMS reporting
8. A configured Hills Reliance security alarm system

Some ComNav functionality requires networking to be configured. DAS limits it's support to ComNav setup only, and is unable to offer detailed assistance on configuration of DSL modems, Routers, firewalls or any other 3rd party software. Please consult the customers IT department or qualified IT professional about implementing this product in to a clients network.

Configuration tools

Once installed, configuration of the Hills ComNav requires a number of steps, which can be performed via multiple devices:

1. **Web page**

2. **Smartphone app**

3. **VoiceNav code pad:**
   The VoiceNav uses a spoken menu system to announce your location within the ComNav configuration. You will need to listen to the announcements during configuration in order to enter information correctly.

   If you miss a voice prompt from the VoiceNav at any stage during configuration, pressing the Status button will cause the prompt to be repeated.

   For more information, please see the Hills VoiceNav User Manual.

4. **Standard code pad (Vertex, Icon or LCD)**
   Standard code pads use a combination of buttons, LEDs/LCD and a display to show information and your location within the ComNav configuration. You will need to watch the screen and LEDs during configuration in order to enter information correctly.

   For more information, please see your code pad User Manual.

5. **TouchNav code pad**

   The TouchNav uses a graphical touch-screen system to show your location within the ComNav configuration. You will need to read the screen options during configuration in order to enter information correctly.

   For more information, please see the Hills TouchNav User Manual.

Not all configuration can be performed on every device (eg: Email addresses cannot be programmed via code pad). Where a particular device is unable to perform the listed configuration, the manual notes this case.

For each task, this manual documents the steps for each possible device. You should follow the steps specific to your available device when performing configuration.

The Reference section of this document contains full feature listing for the Hills ComNav.

Installing the ComNav involves firstly inserting the ComNav board into the Reliance enclosure, then wiring the ComNav to the Reliance's NX-bus.

Installing the ComNav into the Reliance enclosure

1. **Record the ComNav serial number in the customer's User Manual**

   ❗ The serial number of the ComNav is on the back of the PC Board. Record the serial number on the Hills ComNav Customer Record in the User Manual.

2. **Select the required insertion points**

   The Reliance enclosure ships with a number of insertion points for either vertical or horizontal placement of add-on modules.

3. **Fit the top and bottom PCB guides**

   Ensure the grooves face inwards to hold the PC board. Fit the half-moon shaped protrusion into the larger hole. Locate the screws provided with the ComNav package and use them to secure the guides.

4. **Slide the PC board into the guides**

   Additional information

   The PC board should not require force to fit.
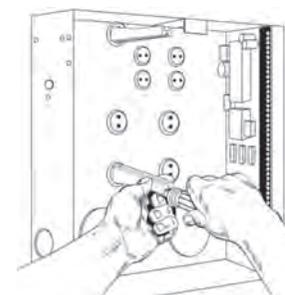   The PC Board should slide freely in the grooves of both guides.
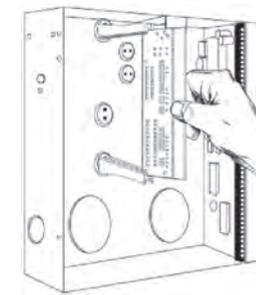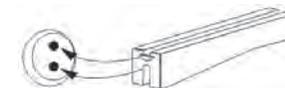

Diagram 3 - Installing PCB guides   Diagram 4 - Inserting PC board

2. Installing the Hills ComNav

Wiring the ComNav to the Reliance bus

1. **Remove all power to the Hills Reliance security system**

2. **Connect the ComNav to the Hills Reliance bus**

   Using your cable, connect the ComNav POS,
   COMM & DATA terminals to the corresponding terminals on the Hills Reliance board.

3. **Connect network communication**

   If using network communication, connect the CAT-5 (RJ-45) cable from the ComNav to
   the client's network.

4. **Connect telephone communication**

   If using PSTN communication, locate the supplied 5-wire cable and connect between
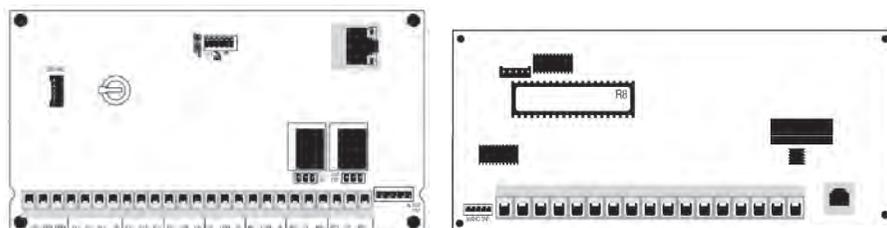   J1 (Audio Tap) on the ComNav and J4 (Audio Tap) on the Hills Reliance board.

diagram 5 - ComNav PC board layout

diagram 6 - Audio Taps

⚠ **Ensure the trace on the cable is aligned with pin 1 on both Audio Taps.**

---

2. Installing the Hills ComNav

Wiring optional modules

The following functionality would be wired in to the ComNav if required.

1. **Onboard Relay Contacts**

   The ComNav has 2 onboard relay contacts which can be configured to operate from a
   list of options and/or manually controlled from the web page or xConnect app.

   Links J10 and J11 can be used to provide power from the ComNav directly to the
   device being controlled (ensure the power requirements do not exceed the ComNav):

   Placing the link across GND and C will provide a negative switch to the device

   Placing the link across 12V and C will provide a positive switch to the device

2. **Additional Zones**

   The ComNav allows up to four (4) additional zones to be configured using zone
   doubling.

   a. **Connect the relevant resistors for zone requirements**

      Zones should be connected between the Z1, COM and Z2, COM terminals.

      For Single EOL, use 3.3K resistor

      Zone doubling:

      For lower zone EOL, use 3.74K resistor
      For higher zone EOL, use 6.98K resistor

      Please refer to the Terminal Descriptions table in the Reference Section.

   b. **Configure zones**

      Once all wiring is complete, please refer to Configuring the ComNav, Additional Zones
      for details on configuring zone doubling and setting the starting zone offset.
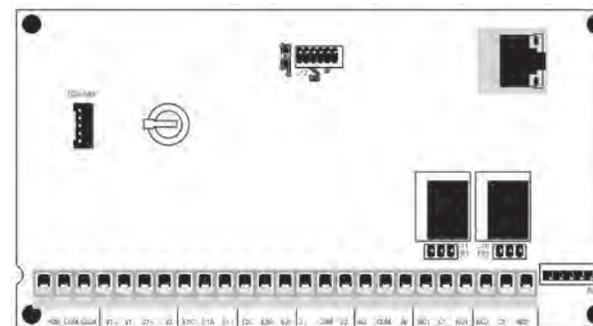
Powering up the ComNav

The ComNav is now connected to the Hills Reliance security system and you are ready to
power up the system, configure the installed module and configure remote access to the
ComNav.

1. **Power up the Hills Reliance security system and ComNav**

Defaulting the ComNav

On power up, Hills Reliance control panels can automatically find and configure any modules that are connected to the communications bus. This includes modules such as ComNav, keypads, zone expanders, wireless receivers and output boards.

Once stored, these modules are supervised via regular polls. If the Hills Reliance panel does not detect a previously enrolled module, a service condition will be generated.

To default the ComNav module, you will need to use a code pad connected to the system. The default process on the ComNav takes approximately 12 seconds.

To force both module and keypad enrolment, follow the instructions in your Hills Reliance Installation manual section 'Enrolling Modules and Code pads'.

Using a VoiceNav code pad

To default the ComNav via a VoiceNav code pad.

1. menu 0	selects advanced system configuration
2. Your 4 or 6 digit installer code	
3. 2	selects panel and device configuration
4. 1 9 1 enter	connect to device 191 (ComNav)
5. 9 1 0 enter	selects factory defaults. This is only required once
6. menu menu menu	exits from advanced system configuration

Using a standard code pad (Vertex, Icon or LCD)

To default the ComNav via a standard code pad.

1. * 8	selects advanced system configuration
2. Your 4 or 6 digit installer code	the Service LED will flash
3. 1 9 1 #	connect to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
4. 9 1 0 #	selects factory defaults. This is only required once
5. exit exit	exits from advanced system configuration

Using a TouchNav code pad

To default the ComNav via a TouchNav code pad.

1. menu	selects advanced system configuration
2. settings	selects advanced system configuration
3. Your 4 or 6 digit installer code	
4. program	
5. 1 9 1 enter	connect to device 191 (ComNav)
6. 9 1 0 enter	selects factory defaults. This is only required once
7. exit	exits from advanced system configuration

Enabling web browser access

The Hills ComNav offers the ability to arm/disarm individual areas, check system status, enable/disable user codes, modify email accounts and modify SMS/Voice phone numbers from any standard web browser using the ComNav Configuration Server. For security reasons, access is offered via https by default.

To setup the ComNav for initial web connection, you will need to test whether it can be accessed directly by name. As a guide, if the customer uses a Windows PC they may be able to access the ComNav Configuration Server simply by using the https://comnav URL. If the customer uses Chrome, Firefox, Safari or another browser on a Windows PC or Mac you may need to provide more information in the form of the IP address of the ComNav.

Use a code pad connected to the alarm system to either find the ComNav's DHCP-allocated IP address or manually configure an IP address and associated network information.

If the IP address is empty (or 0.0.0.0), and there is no DHCP server in the customer's network, DHCP must be disabled and an IP address, IP gateway, subnet mask and DNS servers configured into the ComNav.

IP addresses, gateways, subnet masks and DNS servers are made up of four (4) numeric segments, for example 192.168.0.1. When viewing, listening to or entering this information via code pad, each segment must be handled separately.

1. Test direct web access

Using a web browser

To test direct access to the ComNav via a web browser

1. Open https://comnav

   In your preferred web browser, open the https://comnav URL

   If you see a certificate error, you may skip straight to Section 4 - Setting the web connection method.

   If you see a search page or an "unable to connect" error you should continue to the next Section, Finding the IP Address.

2. Finding the IP Address

🛈 **Record the ComNav IP Address in the Hills ComNav Customer Record in the User Manual.**

Using a VoiceNav code pad

When listening to network specific information, the VoiceNav will announce information for each of the four (4) segments separately and then wait for permission before continuing to the next segment. You will need to touch "Menu" to navigate through each segment.

For example: IP Address = 192.168.0.10. ComNav will announce "192", after you touch "Menu" it will announce "168", after "Menu" it will announce "0", after "Menu" it will announce "10". You will then need to touch "Menu" again to exit this section.

To find the DHCP allocated IP address of the ComNav using a VoiceNav code pad

1.	menu 0	selects advanced system configuration
2.	Your 4 or 6 digit installer code	selects advanced system configuration
3.	2	selects panel and device configuration
4.	1 9 1 enter	connect to device 191 (ComNav)
5.	2 1 enter	scroll through each segment to hear the whole IP address
6.	menu menu menu menu menu	scroll through each segment to hear the whole IP address
7.	menu menu	exits from advanced system configuration

3. Configuring the Hills ComNav

Using a standard code pad (Vertex, Icon or LCD)

When viewing network specific information, Standard code pads will show information for each of the four (4) segments separately. Each segment of the IP address will be shown in binary and the installer is expected to convert between binary and decimal notation.

For example: IP Address = 192.168.0.10. On a Vertex code pad the LEDs 7 and 8 will display for the 1st segment (192). Touch "*" and LEDs 4, 6 and 8 will display for the 2nd segment (168). Touch "*" and no LEDs will display for the 3rd number (0). Touch "*" and LEDs 2 and 4 will display for the 4th number (10). Touch "*" again to exit this section.

To find the DHCP allocated IP address of the ComNav using a standard code pad

1.	(*) (8)	selects advanced system configuration
2.	(Your 4 or 6 digit installer code)	the Service LED will flash
3.	(1) (9) (1) (#)	connects to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
4.	(2) (1) (#)	displays the first segment of the current IP address The Armed LED will go out and the Ready LED will be solid.
5.	(*) (*) (*)	view the IP address and use "*" to scroll through each segment
6.	(exit) (exit)	exits from advanced system configuration

Using a TouchNav code pad

When viewing network specific information, the TouchNav will show information for each of four (4) segments separately. To navigate between segments, press the "<" and ">" (back and forward) icons next to "Segment" on the touch screen.

For example: IP Address = 192.168.0.10. ComNav will show "192", after you touch ">" it will show "168", after ">" it will show "0", after ">" it will show "10".

To find the DHCP allocated IP address of the ComNav using a TouchNav code pad

1.	(menu)	
2.	(settings)	selects advanced system configuration
3.	(Your 4 or 6 digit installer code)	the Service LED will flash
4.	(program)	selects advance

5.	(1) (9) (1) (enter)	connect to device 191 (ComNav)
6.	(2) (1) (enter)	displays the first segment of the current IP address
7.	(>) (>) (>)	scroll through each segment to view the whole IP address
8.	(exit)	exits from advanced system configuration

3. Setting the IP address, IP gateway, subnet mask and DNS servers

! **This configuration is only required if no IP address was discovered in the previous section.**

Using a VoiceNav Code pad

To manually configure networking information into the ComNav using a VoiceNav code pad

1.	(menu) (0)	selects advanced system configuration
2.	(Your 4 or 6 digit installer code)	the Service LED will flash
3.	(2)	selects panel and device configuration
4.	(1) (9) (1) (enter)	connects to device 191 (ComNav
5.	(1) (9) (enter)	IP Feature Settings
6.	(1) (menu)	disable DHCP
7.	(enter)	return to select Feature Settings
8.	(2) (0) (enter)	set the IP gateway
9.	(XXX) (menu) ...	enter your IP gateway address. Note each segment must be entered separately followed by the "Menu" button.

3. Configuring the Hills ComNav

10.	2	1	enter	set the IP address
11.	XXX	menu ...		enter your IP address. Note each segment must be entered separately followed by the "Menu" button.
12.	2	2	enter	set the subnet mask
13.	XXX	menu ...		enter your subnet mask. Note each segment must be entered separately followed by the "Menu" button.
14.	2	3	enter	set primary DNS server
15.	XXX	menu ...		enter the primary DNS server address. Note each segment must be entered separately followed by the "Menu" button
16.	2	4	enter	set secondary DNS server
17.	XXX	menu ...		enter the secondary DNS server address. Note each segment must be entered separately followed by the "Menu" button
18.	menu	menu		exits from advanced system configuration
	menu	menu		

Using a standard code pad (Vertex, Icon or LCD)

To manually configure networking information into the ComNav using a standard code pad

1.	*	8		selects advanced system configuration
2.	Your 4 or 6 digit installer code			the Service LED will flash
3.	1	9	1	#	connects to device 191 (ComNav) the armed LED will be solid and the Service LED will flash
4.	1	9	#	IP Feature Settings

3. Configuring the Hills ComNav

5.	1	*	*	disable DHCP
6.	2	0	#	set IP gateway
7.	XXX	* ...		enter your IP gateway using "*" to advance through each segment
8.	2	0	#	set IP address
9.	XXX	* ...		enter your IP address using "*" to advance through each segment
10.	2	3	*	primary DNS server
11.	XXX	* ...		enter your subnet mask use "*" to advance through each segment
12.	2	2	#	secondary DNS server
13.	XXX	* ...		enter the secondary DNS server address using "*" to advance through each segment
14.	exit	exit		exits from advanced system configuration

Using a TouchNav code pad

To manually configure networking information into the ComNav using a TouchNav code pad

1.	menu	
2.	settings	selects advanced system configuration
3.	Your 4 or 6 digit installer code	
4.	program	
5.	1 9 1 enter	connects to device 191 (ComNav)
6.	1 9 enter	IP Feature Settings

Step	Buttons	Description
7.	[1]	disable DHCP
8.	[feature] [2] [0] [enter]	set IP gateway
9.	[XXX] [>] …	enter your IP gateway using ">" after each segment
10.	[feature] [2] [1] [enter]	set IP address
11.	[XXX] [>] …	enter your IP gateway using ">" after each segment
12.	[feature] [2] [1] [enter]	set IP address
13.	[XXX] [>] …	enter your IP address using ">" after each segment
14.	[feature] [2] [2] [enter]	set the subnet mask
15.	[XXX] [>] …	enter your subnet mask using ">" after each segment
16.	[feature] [2] [3] [enter]	set primary DNS server
17.	[XXX] [>] …	enter the primary DNS server address using ">" after each segment
18.	[feature] [2] [2] [enter]	set secondary DNS server
19.	[XXX] [>] …	enter the secondary DNS server address using ">" after each segment
20.	[exit]	exits from advanced system configuration

4. Setting the web connection method

The Hills ComNav comes configured to offer network access via https by default. This is a security feature designed to increase the safety of your alarm system. The ComNav uses a method of identity assurance called "self-signed certificates" to vouch for authenticity over a web connection. The following browsers are supported:

1. Google Chrome
2. Mozilla Firefox
3. Apple Safari
4. Internet Explorer 7

Internet Explorer 8 does not accept self-signed certificates. If you require Internet Explorer 8, you will need to configure the ComNav to communicate without secure encryption. Alternatively you can follow the steps detailed in Trusting Self-signed Certificates in Internet Explorer 8 in the reference section of this manual.

Using a VoiceNav code pad

To disable SSL connections to the ComNav using a VoiceNav code pad

Step	Buttons	Description
1.	[menu] [0]	selects advanced system configuration
2.	[Your 4 or 6 digit installer code]	
3.	[2]	selects panel and device configuration
4.	[1] [9] [1] [menu]	connects to device 191 (ComNav)
5.	[1] [9] [1] [enter]	IP Feature Options
6.	[2] [menu]	disable SSL (https) connections
7.	[menu] [menu] [menu] [menu]	exits from advanced system configuration

3. Configuring the Hills ComNav

Using a standard code pad (Vertex, Icon or LCD)

To disable SSL connections to the ComNav using a standard code pad

1. (*) (8)	selects advanced system configuration
2. (Your 4 or 6 digit installer code)	the Service LED will flash
3. (1) (9) (1) (#)	connects to device 191 (ComNav) the armed LED will be solid and the Service LED will flash
4. (1) (9) (#)	disable SSL (https) connections
5. (exit) (exit)	exits from advanced system configuration

Using a TouchNav code pad

To disable SSL connections to the ComNav using a TouchNav code pad

1. (menu)	
2. (settings)	selects advanced system configuration
3. (Your 4 or 6 digit installer code)	the Service LED will flash
4. (program)	
5. (1) (9) (1) (enter)	connects to device 191 (ComNav)
6. (1) (9) (enter)	IP Feature Options
7. (2)	disable SSL (https) connections
8. (exit)	exits from advanced system configuration

3. Configuring the Hills ComNav

5. Allowing advanced configuration via web browser

By default, the ComNav only allows advanced configuration via a web browser whilst the Reliance security system is in program mode. If you will be using the web browser to configure your ComNav, it is recommended you enable web programming on the ComNav. Once web programming is enabled, advanced configuration options can be accessed by the installer, via the web page, without putting the Reliance in program mode.

❗ You must use a code pad to allow web programming/Advanced configuration.

Using a VoiceNav code pad

To enable web programming on the ComNav via a VoiceNav code pad.

1. (menu) (0)	selects advanced system configuration
2. (Your 4 or 6 digit installer code)	
3. (2)	selects Panel and Device configuration
4. (1) (9) (1) (enter)	connects to device 191 (ComNav)
5. (1) (9) (enter)	IP Feature Options
6. (2)	disable SSL (https) connections
7. (menu) (menu) (menu) (menu)	exits from advanced system configuration

Using a standard code pad (Vertex, Icon or LCD)

To enable web programming on the ComNav via a standard code pad.

1.	* 8	selects advanced system configuration
2.	Your 4 or 6 digit installer code	the Service LED will flash
3.	1 9 1 #	connects to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
4.	1 9 #	IP Feature Options
5.	6 * #	enable web programming
6.	exit exit	exits from advanced system configuration

Using a TouchNav code pad

To enable web programming on the ComNav via a TouchNav code pad.

1.	menu	
2.	settings	selects advanced system configuration
3.	Your 4 or 6 digit installer code	the Service LED will flash
4.	program	
5.	1 9 1 enter	connects to device 191 (ComNav)
6.	1 9 enter	IP Feature Options
7.	6	enable web programming
8.	exit	exits from advanced system configuration

6. Accessing the ComNav via a web browser

Once the network settings and connection method are configured, you should connect to the ComNav Configuration Server.

1. **Open the ComNav URL**

   In the web browser address bar, type in https://[comnav] where [comnav] is the IP address of the ComNav.

   If you have disabled SSL, you should type http://[comnav]

Diagram 7 - ComNav Configuration Server

2. **Accept the self-signed certificate**

   Click the "Proceed anyway" button to accept the certificate

   Additional Information

   If you have set the connection method to http you will not see this certificate information.

   These instructions are specific to the Google Chrome browser. Other browsers use different methods to accept the certificate. You should refer to the specific browser's help section for more information on accepting self-signed certificates.
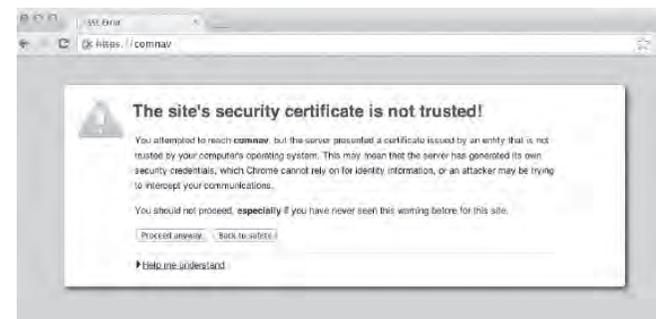

Diagram 8: ComNav certificate warning

3. **Sign in to the ComNav Configuration Server**

   Enter your installer name and password to continue.
   Default Installer Username:
   installer
   Default Password:
   9713

4. **Verify the IP Address**
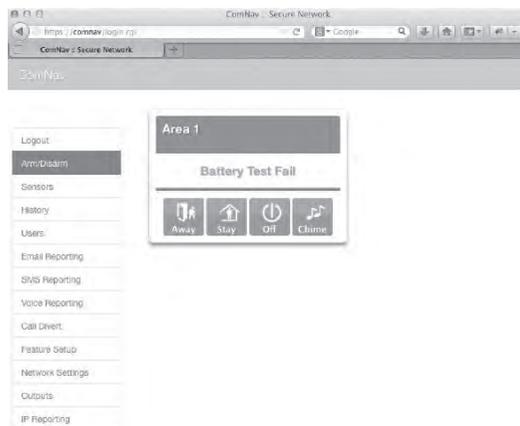
   Navigate to "Network Settings"

Diagram 9: ComNav Configuration Server main menu

⚠ **Record the ComNav IP address in the Hills ComNav Customer Record in the User Manual.**

7. Configuring alarm users

Alarm users can operate the Hills Security System using their PIN. If the user wishes to arm/disarm and control the system using either the web page or the smartphone app, they must have their own username and PIN configured into the web server.

The security system can have different users who can control different aspects of the system. Each user has an authorization level of either:

Standard code user – a user who may Arm/Disarm the system, view Zones and control Outputs.

Master code user – a user who may Arm/Disarm the system, view Zones, control Outputs, view History and perform configuration tasks such as entering Voice, SMS and email information.

Assigning areas to users, determines which sections (areas) of the security system a user may access.

Installers may configure the system via the web page using the installer login. By default the username is "installer" and the password is "9713".

The user's username and PIN/password should be recorded in the Hills ComNav Customer Record in the User Manual.

⚠ **Ensure you set up a user with Master code authorisation so the customer can create/modify other usernames in the system.**

Once configuration is complete, it is recommended that the Installer number, and Name be changed from the default so as not to allow unauthorised access. For more information on how to change the installer name please see the Hills Reliance Installer Manual.

Using a web browser

To configure a user on the Reliance system via a web browser

1. **Sign in to the ComNav configuration server**

   Login with your installer name and password

2. **Set username, PIN and authority**

   Navigate to "Users"

   Select the user number from the "Select a User" drop-down box.

   Enter the user's name in the "Name" box.

   Set a PIN or accept the offered PIN.

   Select the required user authority options in the "User Authority" section.

   Select the area numbers the user should have access to in the "User Areas" section.

   Click **"Save Config"**.

Diagram 10: ComNav Configuration Server add/edit users

🛈 **Write the user's Name and PIN in the Hills ComNav Customer Record in the User Manual.**

User configuration may also be performed via xConnect once it is installed and configured. Please see the ComNav User Manual for instructions.

Configuring smartphone and/or tablet access

Configuring smartphone and/or tablet access

The ComNav Configuration Server can also be accessed via smartphone app. The xConnect app is available for both Android and Apple devices. The user will need to know their username, PIN, ComNav serial number and ComNav web access passcode.

You can find the serial number of the ComNav either on the back of the PC card, or by using the web page.

The serial number of the ComNav should be recorded on the Hills ComNav Customer Record in the User Manual for the client.

1. Finding the ComNav serial number

Using a web browser
To locate the serial number of the ComNav via a web browser

1. **Sign in to the ComNav configuration server**

   Login with your installer name and password

2. **View the Serial number**

   Navigate to "IP Reporting"

Diagram 11: ComNav Configuration Server serial number

🛈 **Record the ComNav serial number in the Hills ComNav Customer Record in the User Manual.**

2. Allowing remote access
By default, the ComNav does not allow remote access via smartphone or tablet. This is a security measure. To allow these connections you must create a valid passcode for use with the xConnect app.

Using a web browser
To locate the serial number of the ComNav via a web browser

1. **Sign in to the ComNav configuration server**

   Login with your installer name and password.

2. **Set the web access passcode**

   Navigate to "Network Settings"

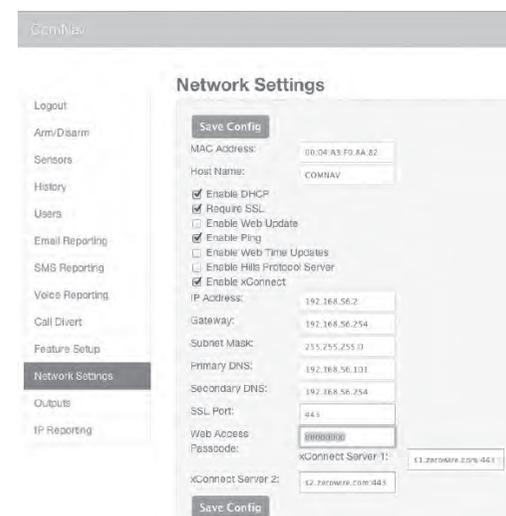   Enter your chosen passcode in the "Web Access Passcode" box.

   Click "**Save Config**".

Diagram 12 - ComNav Configuration Server network settings

🛈 **Setting the passcode to 00000000 will disable all remote access to the ComNav.**

3. Installing and configuring xConnect for Android or Apple

The xConnect app is available for download from the Google Play™ store for Android and the Apple® App Store™ for iPhone/iPad. A Google or iTunes account is required. Carrier charges may apply when downloading or using xConnect.

1. **Install xConnect for Apple**

   Use your Apple device to open the Apple® App Store™ and Search for xConnect.

   Install xConnect.

   OR

2. **Install xConnect for Android**

   Use your Android device to open Google Play™ and Search for xConnect.

   Install xConnect.

3. **Configure xConnect**

   a. Tap the xConnect icon to launch the app

   b. Tap the "+" to add a new site

   c. Enter the security system details.
      All information should be recorded in the Alarm Specific Details worksheet at the back of this manual.

   d. Tap "Done" to save your settings

   e. On Android only, Tap "OK" when the "Successfully added new site" message appears

   f. Tap "Sites" to exit to the main menu
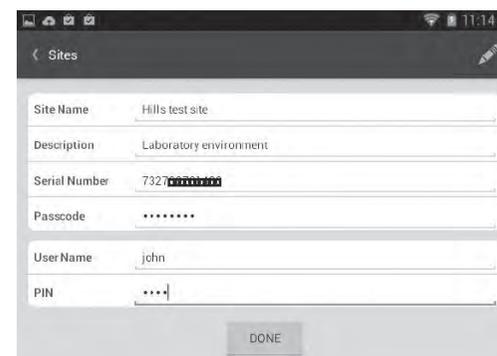
4. **Launch xConnect**

   a. Tap the xConnect icon to launch the app if it is not already running

   b. Tap the site name to connect to the Hills Reliance Security System
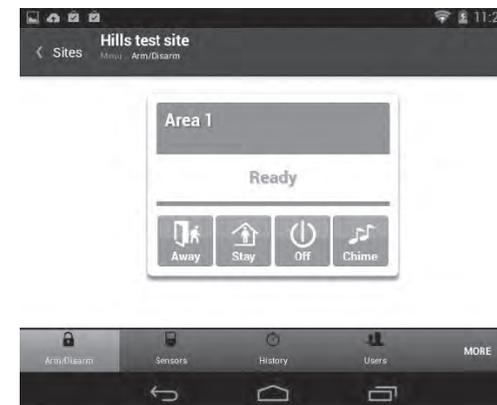

   Diagram 13 - ComNav xConnect App (Android)

Configuring output options

The ComNav is supplied with two onboard relays which are configured by default as Manual control. These relays can only be controlled via the web page or xConnect. For instructions on how to control relays, please see the ComNav User Manual – Controlling other household devices.

If you wish to change the default activation events, you must use the ComNav web interface.

Ensure you have the jumpers configured correctly for relay operation. See Wiring Optional Modules for more information.

Using a web browser

To modify output options via a web browser.

1. **Sign in to the ComNav configuration server**

    Sign in with your installer name and password.

2. **Configure the Output options**

    Navigate to "Outputs" and configure the required information.

    Relay trigger events are selectable and can be chosen from the drop down "Activation events" list.

Diagram 17 - ComNav Configuration Server - outputs

Using xConnect

To modify output options via xConnect.

1. **Launch xConnect**

2. **Configure the Output settings**

   Tap the "Output Settings" button at the bottom of the xConnect app. If you do not see the "Output Settings" button, tap the "More" button to show further options.

   Relay trigger events are selectable and can be chosen from the drop down "Activation Event" list.

   Tap "**Save Config".**

Diagram 18 - xConnect
Configure Output Settings

Using a VoiceNav code pad, Standard code pad or TouchNav code pad

You cannot modify relay options via a VoiceNav code pad, standard code pad or TouchNav code pad.

Additional Zones

The ComNav allows up to four (4) additional zones to be configured using zone doubling. If you wish to use the extra four zones you must enable both zone doubling and set the starting offset of the new zones. Ensure you have wired the zones correctly with the appropriate resistors. See Wiring Optional Modules, Additional Zones.

By default, the ComNav additional zones are set to "Single zone".

I. For more than two zones, enable Zone Doubling

Using a web browser

To enable Zone Doubling using a web browser.

1. **Sign in to the ComNav configuration server**

   Sign in with your installer name and password.

2. **Enable Zone Doubling**

   Select the "Feature Setup" menu.

   Tick the "Enable Zone Doubling" box.
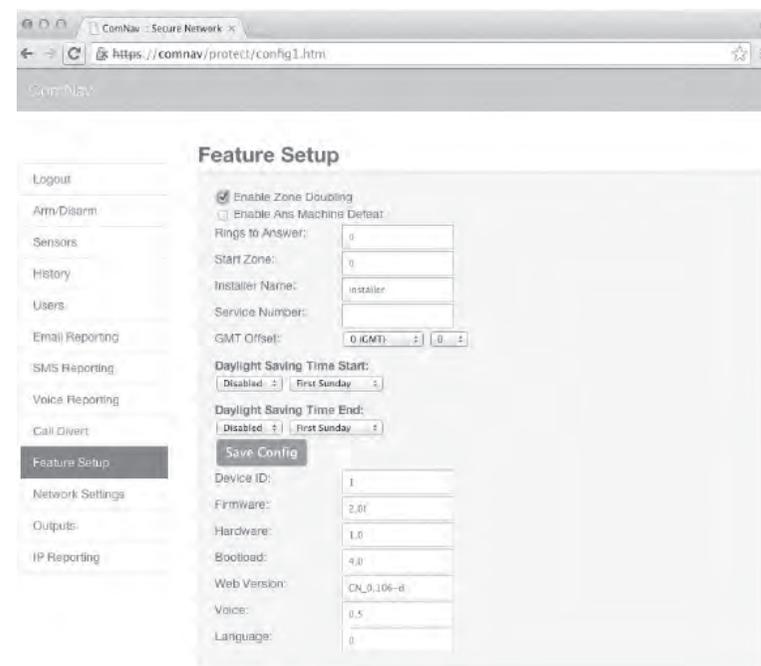
   Click **"Save Config"**

Diagram 19 - ComNav Configuration Server zone doubling

Using xConnect

To enable Zone Doubling using xConnect.

1. **Launch xConnect**

2. **Enable Zone Doubling**

   Tap the "Network" button at the bottom of the xConnect app. If you do not see the "Network" button, tap the "More" button to show further options.

   Tick the "Enable Zone Doubling" box.

   Tap **"Save Config"**.

Diagram 20: xConnect - Zone doubling

Using a VoiceNav code pad

To enable Zone Doubling using a VoiceNav code pad.

1.	menu 0	selects advanced system configuration
2.	Your 4 or 6 digit installer code	the Service LED will flash
3.	2	selects Panel and Device configuration
4.	1 9 1 enter	connects to device 191 (ComNav)
5.	1 menu	enable Zone Doubling OFF=Single zone ON=Zone Doubled
6.	enter	return to feature selection
7.	menu menu menu	exits from advanced system configuration

Using a standard code pad (Vertex, Icon or LCD)

To enable Zone Doubling using a standard code pad.

1.	* 8	selects advanced system configuration
2.	Your 4 or 6 digit installer code	the Service LED will flash
3.	1 9 1 #	connects to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
4.	1 #	ComNav features
5.	1 * * *	enable Zone Doubling OFF=Single zone ON=Zone Doubled
6.	exit exit	exits from advanced system configuration

Using a TouchNav code pad

To enable Zone Doubling using a TouchNav code pad.

1.	menu	
2.	settings	selects advanced system configuration
3.	Your 4 or 6 digit installer code	
4.	program	selects ad
5.	1 9 1 enter	connects to device 191 (ComNav)
6.	1 enter	ComNav Features
7.	1 enter	ComNav Features
8.	1	enable zone doubling OFF=Single zone ON=Zone Doubled
9.	exit	exits from advanced system configuration

2. Set the starting Zone number

The ComNav's additional zones add to the Reliance panel's zones. The ComNav's zones must be configured to start from an unused zone on the Reliance security system so they do not conflict with any other zone on the Reliance security system.

Refer to the ComNav Starting Zone Offset table in the reference section.

Using a web browser

To enter your starting zone offset using a web browser.

1. **Sign in to the ComNav configuration server**
2. **Sign in with your installer name and password. Enter the starting zone offset**

    Select the "Feature Setup" menu

    Enter the starting zone offset into the "Start Zone" box
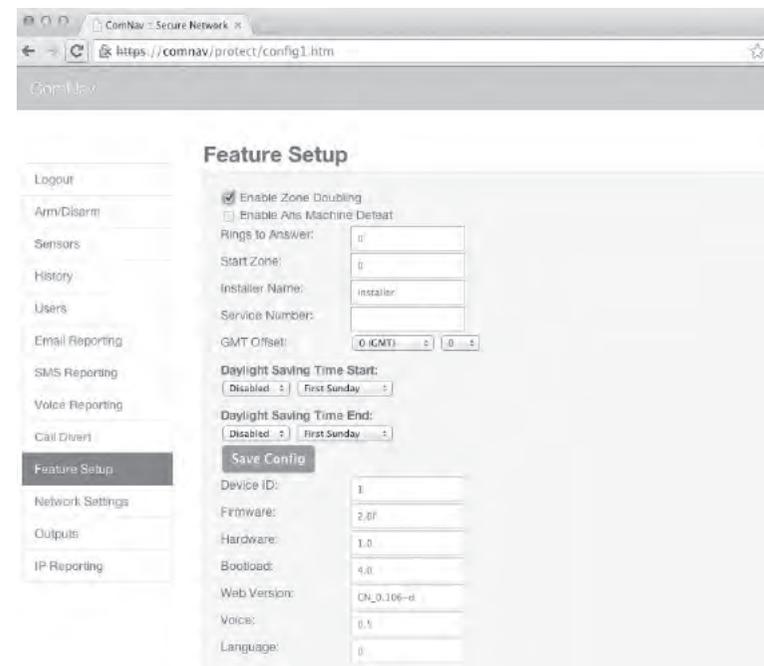
    Click **"Save Config"**

Diagram 21 - ComNav Configuration Server zone offset

Using xConnect

To enter your starting zone offset using xConnect.

1. **Launch xConnect**

2. **Enter the Start Zone**

   Tap the "Network" button at the bottom of the xConnect app. If you do not see the "Network" button, tap the "More" button to show further options.

   Enter your Start Zone value in the "Start Zone" box. See Reference, ComNav Starting Zone Offset for more information.

   Tap **"Save Config"**.

Diagram 22 - xConnect - Zone doubling

Using a VoiceNav code pad

To enter your starting zone offset via a VoiceNav code pad.

3.	menu 0	selects advanced system configuration
4.	Your 4 or 6 digit installer code	
5.	2	selects Panel and Device configuration
6.	1 9 1 enter	connects to device 191 (ComNav)
7.	1 8 enter	zone starting number
8.	starting zone offset menu	refer to Reference, ComNav Configurable Features, Feature 18 to calculate.
9.	menu menu menu menu	exits from advanced system configuration

Using a standard code pad (Vertex, Icon or LCD)

To enter your starting zone offset via a standard code pad.

1.	* 8	selects advanced system configuration
2.	Your 4 or 6 digit installer code	the Service LED will flash
3.	Your 4 or 6 digit code	
4.	1 9 1 #	connects to device 191 (ComNav)
5.	1 8 #	zone starting number
6.	starting zone offset *	See Reference, ComNav Configurable Features, Feature 18 for zone offset information.
7.	exit exit	exits from advanced system configuration

3. Configuring the Hills ComNav

Using a TouchNav code pad

To enter your starting zone offset via a TouchNav code pad.

1.	menu	
2.	settings	selects advanced system configuration
3.	Your 4 or 6 digit installer code	
4.	program	
5.	1 9 1 enter	connects to device 191 (ComNav)
6.	1 8 enter	selects factory defaults this is only required once
7.	starting zone offset enter	
8.	exit	exits from advanced system configuration

4. Configuring reporting

The ComNav can be configured to report via voice, SMS or email when selected events occur in the system. In order for accurate times to be recorded for each event you must ensure the ComNav maintains the correct time.

The ComNav contains a Real Time Clock (RTC) which maintains system time in the event of a power outage. The RTC is synchronized with timeservers over the internet to ensure the current time is always accurate. To ensure the local time reported by the ComNav is correct, GMT Offset (timezone) and daylight saving settings must be configured.

I. Setting the system time

Using a web browser.

To configure local system time via a web browser.

1. **Sign in to the ComNav configuration server**

   Sign in with your installer name and password

2. **Enter GMT offset and daylight savings**

   Navigate to "Feature Setup".

   Use the drop down box to set the GMT offset.

   Use the drop down boxes to enter daylight savings time start and end.

   Click "**Save Config**".

3. **Enable Web Time Updates**

    Navigate to "Network Settings".

    Tick the box to enable Web Time Updates.

    Click "**Save Config**".

Using xConnect.

To configure local system time via xConnect.

1. Launch xConnect

    Ensure you sign in with your installer code

2. Enter GMT Offset and daylight savings.

    Navigate to "Features". If you do not see the "Features" button, tap the "More" button to show further options.

    Use the drop down box to set the GMT offset.

    Use the drop down boxes to enter daylight savings time start and end.

    Tap **"Save Config".**

3. Enable Web Time Updates

Navigate to "Network". If you do not see the 'Network" button, tap the "More" button to show further options.

Tick the box to enable Web Time Updates.

Tap **"Save Config"**.

2. Voice reporting via phone

Up to three (3) configured phone numbers can receive a voice message upon the activation of certain events from within the security system. Selected events are global, and all three of the phone numbers receive the message.

Where multiple phone numbers are entered, the ComNav will call each number in turn until it is answered or the designated number of dial attempts has been reached. The number of dial attempts can be configured through the ComNav web page or via xConnect.

The ComNav will first call phone number 1, wait 25 seconds for a PIN to be entered, if not entered it will hang up for 6 seconds, then call phone number 2 and repeat the same process for both number 2 and number 3. At any point in the dial attempts, if a call is answered and an authorised code entered, the ComNav will not call any further numbers.

Users with Master code authorisation may also configure voice reporting phone numbers. Please see the ComNav User Manual for more information.

Using a web browser

Configuring voice reporting phone numbers via a web browser.

1. **Sign in to the ComNav configuration server**

Sign in with your installer name and password

2. **Enter phone numbers**

Navigate to "Voice Reporting".

Enter first, second and third phone numbers in the allocated boxes.

Enter the number of times to attempt dialling in the "Dial Attempts" box.

3.   Select the required events

Choose which event reports to send.

(Tick the corresponding boxes)

Click "**Save Config**"

Diagram 14 - ComNav Configuration Server voice reporting

Using xConnect

1.   Launch xConnect

2.   Add the voice phone numbers

Tap the "Voice" button at the bottom of the xConnect app. If you do not see the "Voice" button, tap the "More" button to show further options.

Enter up to three (3) phone numbers to accept voice reporting calls.

Enter the number of times to attempt dialling in the "Dial Attempts" box.

3.   Select the required events

Choose which event reports to send.

(Tick the corresponding boxes)

Click "**Save Config**"

Using a VoiceNav code pad

When programming phone numbers via a VoiceNav code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the "Menu" key to step to the next digit. For example, 92165510 would be entered as "9" "MENU" "2" "MENU" "1" "MENU" "6" "MENU" "5" "MENU" "5" "MENU" "1" "MENU" "0" "MENU". You must have the number "14" in the location straight after your last phone digit to signify the end of the phone number.

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which may be configured.

Please refer to ComNav Configurable Features, Feature 4 – Voice Reporting Features in the Reference section to view the available events and their codes.

To configure voice reporting phone numbers via a VoiceNav code pad:

1.	menu 0	selects advanced system configuration
2.	Your 4 or 6 digit installer code	
3.	2	selects panel and device configuration
4.	1 9 1 enter	connects to device 191 (ComNav)
5.	5 enter	alarm Phone Number.
6.	OR 6 enter	6 for 2nd phone number
7.	OR 7 enter	7 for 3rd phone number
8.	XXX menu ...	corresponding phone number pressing "MENU" after each digit
9.	14 menu	end of number notification
10.	XXX menu ...	corresponding phone number pressing "MENU" after each digit
11.	14 menu	end of number notification

12.	enter	return to Alarm Phone Number to add another phone number if required or continue to next step
13.	4 enter	configure Voice Reporting Features
14.	1-8 ...	segment 2: Choose event codes. See ComNav Configurable Features, Feature 4
15.	menu	complete segment 1 selection and move to segment 2
16.	1-8 ...	segment 2: Choose event codes. See ComNav Configurable Features, Feature 4
17.	menu menu menu menu	exits configuration

Using a standard code pad (Vertex, Icon or LCD)

When programming phone numbers via a standard code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the "*" key to step to the next digit. For example, 92165510 would be entered as "9" "*" "2" "*" "1" "*" "6" "*" "5" "*" "5" "*" "1" "*" "0" "*". You must have the number "14" in the location straight after your last phone digit to signify the end of the phone number.

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which can be configured.

Please refer to ComNav Configurable Features, Feature 4 – Voice Reporting Features in the Reference section to view the available events and their codes.

To configure voice reporting phone numbers via a standard code pad.

1.	* 8	selects advanced system configuration
2.	Your 4 or 6 digit installer code	the Service LED will flash
3.	1 9 1 *	connects to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
	5 *	alarm Phone Number. Use: 5 for 1st phone number

4.	OR ⬭6⬭ ⬭*⬭	6 for 2nd phone number
	OR ⬭7⬭ ⬭*⬭	7 for 3rd phone number
5.	⬭0-9⬭ ⬭*⬭ …	corresponding phone number pressing "*" after each digit.
6.	⬭14⬭ ⬭*⬭	end of number notification
7.	⬭#⬭	return to Alarm Phone Number to add another number if required or continue to next step. Armed LED solid, Ready LED out, Service LED will flash
8.	⬭4⬭ ⬭*⬭	invoice reporting features
9.	⬭1-8⬭ …	segment 1: Choose event codes. See ComNav Configurable Features, Feature 4
10.	⬭*⬭	complete segment 1 selection and move to segment 2
11.	⬭1-8⬭ …	segment 2: Choose event codes. See ComNav Configurable Features, Feature 4
12.	⬭*⬭	complete segment 2 selection. Armed LED solid, Ready LED out, Service LED will flash.
13.	⬭exit⬭ ⬭exit⬭	exits from Advanced system configuration

Using a TouchNav code pad

When programming phone numbers via a TouchNav code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the ">" key next to "Segment" to step to the next digit. For example, 92165510 would be entered as "9" ">" "2" ">" "1" ">" "6" ">" "5" ">" "5" ">" "1" ">" "0" ">".

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which can be configured.

Please refer to ComNav Configurable Features, Feature 4 – Voice Reporting Features in the Reference section to view the available events and their codes.

To configure voice reporting phone numbers via a TouchNav code pad.

1.	⬭menu⬭	
2.	⬭settings⬭	selects advanced system configuration
3.	⬭Your 4 or 6 digit installer code⬭	the Service LED will flash
4.	⬭program⬭	
5.	⬭1⬭ ⬭9⬭ ⬭1⬭ ⬭enter⬭	connects to device 191 (ComNav)
	⬭5⬭ ⬭enter⬭	alarm Phone Number. Use: 5 for 1st phone number
6.	OR ⬭6⬭ ⬭enter⬭	6 for 2nd phone number
	OR ⬭7⬭ ⬭enter⬭	7 for 3rd phone number
7.	⬭0-9⬭ ⬭>⬭ …	corresponding phone number pressing ">" after each digit.

4. Configuring reporting

8.	(feature)	return to Alarm Phone Number to add another number if required or continue to next step.
9.	(4) (enter)	Voice Reporting Features
10.	(1-8)...	segment 1: Choose event codes. See ComNav Configurable Features, Feature 4
11.	(segment >)	move to next segment
12.	(1-8)...	segment 2: Choose event codes. See ComNav Configurable Features, Feature 4
13.	(exit)	exits from Advanced system configuration

3. Email reporting

Up to three (3) configured email accounts can receive an email when selected events occur. By default the email will be sent via the Hills cloud servers. If you wish the emails to show a specific "From" address, you will need to enter details of the required email address and server information. These details should be entered in the "SMTP Server Settings" area.

Selected events are specific to each of the three (3) email addresses. (eg: a Manager may want to know when the security system is being Armed/Disarmed and any alarms, whereas a staff member may only receive alarm messages)

Using a web browser

Configuring email reporting via a web browser.

1. **Sign in to the ComNav configuration server**

    Sign in with your installer name and password

2. **Enter email addresses**

    Navigate to "Email Reporting".

    Enter up to three (3) email addresses in the allocated boxes.

3. **Select the required events**

    Choose which event reports to send to each configured email address.

    (Tick the corresponding boxes)

    Click **"Save Config"**.

Diagram 15 - ComNav Configuration - email reporting

Using xConnect

Configure email reporting via xConnect.

1. **Launch xConnect**

2. **Enter email addresses**

   Tap the "Email" button at the bottom of the xConnect app. If you do not see the "Email" button, tap the "More" button to show further options.

   Enter up to three (3) email addresses in the allocated boxes.

3. **Select the required events**

   Choose which event reports to send to each configured email address.
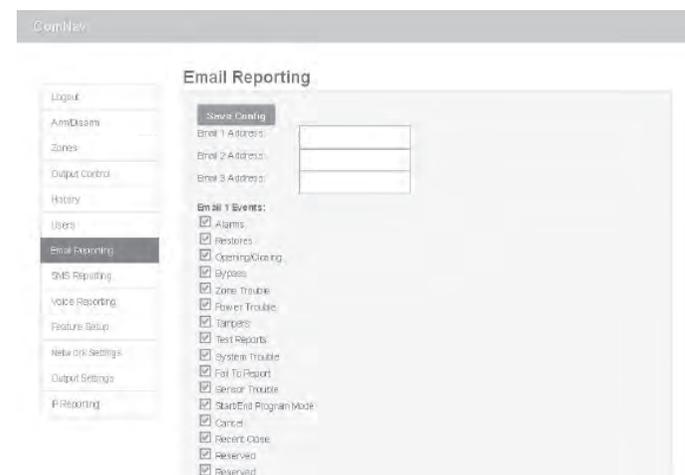
   (Tick the corresponding boxes)

   Tap **"Save Config"**.

Using a VoiceNav code pad, Standard code pad or TouchNav code pad

You cannot configure email reporting via a VoiceNav code pad, standard code pad or TouchNav code pad.

4. SMS reporting

Up to three (3) configured SMS recipients can receive an SMS when selected events occur. Where a user's name has been entered in the system, this name will be reported instead of their user number.

Selected events are specific to each of the three (3) phone numbers receiving the SMS messages (eg: a Manager may want to know when the security system is being Armed/Disarmed and any alarms, whereas a staff member may only receive alarm messages).

Access to an SMS server is required to send these messages. Telstra offers an SMS Service for sending SMS to mobile phones via phone line Modem. This option is charged to your originating line as a timed mobile call. The Telstra SMS server number is 125107.

Other telephone companies provide similar services, please consult the relevant company for details of their charges and to confirm connection details if you do not wish to use Telstra.

Using a web browser

Configuring SMS reporting via a web browser.

1. **Sign in to the ComNav configuration server**

   Sign in with your installer name and password

2. **Configure the SMS server**

   Navigate to "SMS Reporting".

   Enter the phone number for your SMS server in the "SMS Server" box.

   Additional Information

   The Telstra SMS Server number is 125107.

3. **Enter SMS numbers**

   Enter first, second and third SMS phone numbers in the allocated boxes.

4. Select the required events

Choose which event reports to send to each configured SMS number.

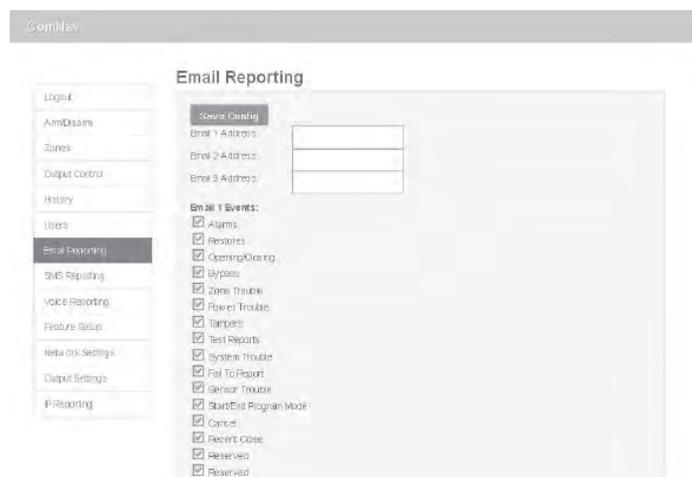(Tick the corresponding boxes)

Click **"Save Config"**.

Diagram 16 - ComNav Configuration Server SMS reporting

Using xConnect

To configure SMS reporting via xConnect.

1. **Launch xConnect**

2. **Configure the SMS server**

   Tap the "SMS" button at the bottom of the xConnect app. If you do not see the "SMS" button, tap the "More" button to show further options.

   Enter the number for your SMS server in the "SMS Server" box.

   Additional Information

   The Telstra SMS Server number is 125107.

3. **Enter SMS numbers**

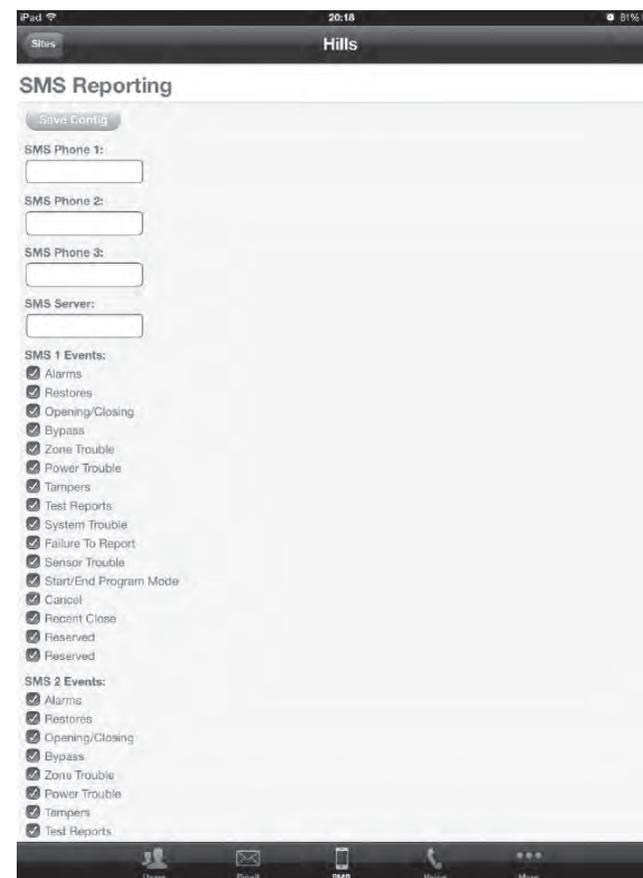   Enter first, second and third SMS phone numbers in the allocated boxes.

Using a VoiceNav code pad

When programming phone numbers via a VoiceNav code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the "Menu" key to step to the next digit. For example, 92165510 would be entered as "9" "MENU" "2" "MENU" "1" "MENU" "6" "MENU" "5" "MENU" "5" "MENU" "1" "MENU" "0" "MENU". You must have the number "14" in the location straight after your last phone digit to signify the end of the phone number.

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which can be configured.

Please refer to ComNav Configurable Features, Feature 10 – SMS Event Select for SMS in the Reference section to view the available events and their codes.

To configure SMS reporting via a VoiceNav code pad

1.	menu 0	selects advanced system configuration
2.	Your 4 or 6 digit installer code	
3.	2	selects Panel and Device configuration
4.	1 9 1 enter	connects to device 191 (ComNav)
5.	8 enter	SMS server number
6.	0-9 menu ...	corresponding phone number with "MENU" button after each digit.
7.	14 menu	end of number notification
8.	enter	move back
9.	9 enter	SMS Phone Number. Use: 9 for 1st phone number
10. OR	11 enter	11 for 2nd phone number
11. OR	13 enter	13 for 3rd phone number

12.	0-9 menu ...	corresponding phone number pressing "MENU" after each digit
13.	14 menu	end of number notification
14.	enter	return to SMS Phone Number to add another phone number if required or continue to next step
15.	menu	move back to feature selection
16.	10 enter	choose SMS Reporting Features. Use: 10 for 1st phone number
17. OR	12 enter	12 for 2nd phone number
18. OR	14 enter	14 for 3rd phone number
19.	1-8 ...	segment 1: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14.
20.	menu	complete segment 1 selection and move to segment 2
21.	1-8 ...	segment 2: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14
22.	menu menu menu	exits configuration

Using a standard code pad (Vertex, Icon or LCD)

When programming phone numbers via a standard code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the "*" key to step to the next digit. For example, 92165510 would be entered as "9" "*" "2" "*" "1" "*" "6" "*" "5" "*" "5" "*" "1" "*" "0" "*". You must have the number "14" in the location straight after your last phone digit to signify the end of the phone number.

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which can be configured.

Please refer to ComNav Configurable Features, Feature 10 – SMS Event Select for SMS in the Reference section to view the available events and their codes.

To configure SMS reporting via a standard code pad.

1.	`*` `8`	selects advanced system configuration
2.	`Your 4 or 6 digit installer code`	the Service LED will flash
3.	`1` `9` `1` `#`	connects to device 191 (ComNav) The Armed LED will be solid and the Service LED will flash
4.	`8` `#`	SMS server number
5.	`0-9` `*` ...	corresponding phone number pressing "*" after each digit.
6.	`14` `*`	end of number notification
7.	`9` `#`	SMS Phone Number. Use: 9 for 1st phone number
8.	OR `11` `#`	11 for 2nd phone number
9.	OR `13` `#`	13 for 3rd phone number
10.	`0-9` `*` ...	corresponding phone number pressing "*" after each digit.
11.	`14` `*`	end of number notification

12.	`#`	Return to SMS Phone Number to add another number if required or continue to next step. Armed LED solid, Ready LED out, Service LED will flash.
13.	OR `10` `#`	choose SMS Reporting Features. Use: 10 for 1st phone number
14.	OR `12` `#`	12 for 2nd phone number
15.	OR `14` `#`	14 for 3rd phone number armed LED out, Ready LED solid, service LED will flash
16.	`1-8` ...	segment 1: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14
17.	`*`	complete segment 1 selection and move to segment 2
18.	`1-8` ...	Segment 2: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14
19.	`*`	Complete segment 2 selection. Armed LED solid, Ready LED out, service LED will flash.
20.	`#`	Return to SMS Reporting Features to configure another number if required or continue to next step. Armed LED solid, Ready LED out, service LED will flash
21.	`exit` `exit`	exits from advanced system configuration

Using a TouchNav code pad

When programming phone numbers via a TouchNav code pad, each digit of the phone number has it's own location. You will need to enter each digit followed by the ">" key to step to the next digit. For example, 92165510 would be entered as "9" ">" "2" ">" "1" ">" "6" ">" "5" ">" "5" ">" "1" ">" "0" ">". You must have the number "14" in the location straight after your last phone digit to signify the end of the phone number.

When selecting events to report on, events are divided into two (2) segments for programming. Each segment has events labelled from 1-8 which can be configured.

Please refer to ComNav Configurable Features, Feature 10 – SMS Event Select for SMS in the Reference section to view the available events and their codes.

To configure SMS reporting via a TouchNav code pad.

1. menu	
2. settings	Selects advanced system configuration
3. Your 4 or 6 digit installer code	
4. program	
5. 1 9 1 enter	Connects to device 191 (ComNav)
6. 8 enter	SMS server number
7. 0-9 > ...	Corresponding phone number with ">" button after each digit.
8. feature	Return to feature select
9. OR 9 enter	SMS Phone Number. Use: 9 for 1st phone number
10. OR 11 enter	11 for 2nd phone number
11. OR 13 enter	14 for 3rd phone number
12. 0-9 >	Corresponding phone number with ">" button after each digit.
13. 14 >	End of number notification
14. feature	Return to add another SMS number if required or continue to next step.
15. OR 10 enter	Choose SMS Reporting Features. Use: 10 for 1st phone number
16. OR 12 enter	12 for 2nd phone number
17. OR 14 enter	14 for 3rd phone number
18. 1-8 ...	Segment 1: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14
19. segment>	Move to next segment
20. 1-8 ...	Segment 2: Choose event codes. See ComNav Configurable Features, Feature 10, 12, 14
21. exit	Exits from advanced system configuration

Frequently Asked Questions (FAQ)

Q. **If I am upgrading from a previous version of ComNav what do I need to do?**

A. The new ComNav will automatically configure itself in the cloud and provide email and remote access services without further configuration.

A. Older ComNavs (version 1) required port forwarding to allow remote access. Port forwarding is no longer required so any port forwarding settings should be removed from the customer's router. Routers configured with ComNav port forwarding settings may interfere with the new Hills Cloud service.

Q. **Do I need port forwarding?**

A. No, the ComNav no longer requires port forwarding. Built-in cloud services automatically configure remote connections to simplify remote communication.

Q. **Do I need an email server?**

A. You do not need an email account to send emails as the ComNav will send emails using a secure cloud service. This is automatically configured and you only need to specify the destination email address(es).

A. If you require emails from the ComNav to come from a specific email address, you may provide an email account and SMTP server settings for the ComNav to use. You should ask your email provider for this information.

Q. **How do I connect/program the ComNav?**

A. Connect the ComNav following the instructions below.

  a. Ensure your router supports DHCP (most do out of the box).

  b. Connect the ComNav to it using an Ethernet cable. The router should automatically assign the ComNav module an IP address.

  c. On a code pad connected to the Reliance security system, enter *8 [Master PIN] 0# 191# 21# which will tell you the IP address of the ComNav. Press * to scroll through each segment of the IP address.

  d. On a computer enter the IP address into a web browser to bring up the login page. Your ComNav must remain in program mode to allow access.

  e. Login to the ComNav. The default username/password is installer 9713

  f. You can now program any additional settings you require via the web interface

Q. **The ComNav has no IP address set, but I know there is a working DHCP server in my network.**

A. Ensure the RJ-45 cable is plugged in to a working network port with access to the customer's network.

A. Make sure the ComNav has DHCP enabled. See Feature 19, Segment 1, Option 1 in the Reference Section.

A. Ask a qualified IT professional to troubleshoot access to the DHCP server.

Q. **What if I cannot connect to ComNav with my computer?**

A. Check that your router has DHCP enabled; refer to your router manual for details.

  a. Default the ComNav. This will ensure DHCP is enabled.

  b. Check that an IP address has been allocated in Feature 21 of the ComNav. If it is 0.0.0.0 then DHCP is not working correctly. You should assign the ComNav a static IP address in Feature 21. Make sure that it is on the same subnet as your computer and that the IP address is not used by another device.

  c. Put the ComNav into program mode by using a code pad and enter device 191. By default this is an extra layer of security to prevent unauthorised remote access. Then try again from a web browser. You can also enable web access permanently on the ComNav in Feature 19, Segment 1, Option 6 = On

  d. While the ComNav is in program mode: On a windows computer, click Run, type cmd, press enter, then ping [ip address]. If there is an error it will show "timed out" and you should check your network. If you see a time then computer can talk to the ComNav. You can also enable ping permanently on the ComNav in Feature 19, Segment 1, Option 4 = On.

Q. **Where do I find the ComNav serial number?**

A. The serial number should be written on the Worksheet in the back of the User Manual.

A. The serial number can be found printed on the back of the ComNav card inside the Reliance enclosure. Opening the enclosure may cause a tamper alarm to sound.

A. The serial number can also be viewed via web browser/xConnect in the "IP Reporting" section.

Q. **Where do I find the ComNav passcode or web access passcode?**

A. The passcode should be written on the Worksheet in the back of the User Manual.

A. The passcode can be viewed via web browser/xConnect in the "Network Settings" section.

Q. **Where do I find my Username and password?**

A. The username and password should be written on the Worksheet in the back of the User Manual.

A. The username and password can be viewed via web browser/xConnect in the "Users" section.

Q. I'm not receiving any emails!

A. Perform testing using a standard user PIN, the installer account by default does not send all reports.

   a. Check that the emails are not being captured in your SPAM folder or blocked by a firewall.

   b. Check the email address is correct.

   c. Check that the event is ticked in the ComNav settings.

   d. Check that you are receiving other emails.

   e. Check that the relevant reporting options are enabled in the panel programming.

   f. Try using xConnect app to verify your system is connecting to the servers

Q. The time is wrong

A. Check the daylight savings settings are setup correctly on the ComNav

A. Login to the ComNav Configuration server, Feature Settings, and check the following:

   a. Feature Settings -> GMT Offset

   b. Feature Settings -> Daylight Saving Time Start

   c. Feature Settings -> Daylight Saving Time End

   d. Network Settings -> Web Time Updates

Technical Support

End-User support

End users call their security provider for assistance with their existing system. The phone number of the security provider can be programmed into the VoiceNav and TouchNav code pads (See VoiceNav or TouchNav Installation Manual) and announced/displayed at each arm or disarm cycle whilst a system fault is present.

Using a web browser

To enter the service provider phone number using a web browser.

1. Open the ComNav URL

In the web browser address bar, type in https://[comnav] where [comnav] is the IP address of the Comnav.

If you have disabled SSL, you should type http://[comnav]
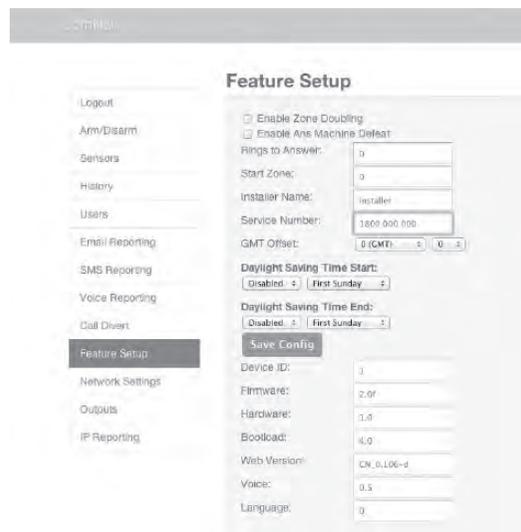
Sign in with your installer name and password.

2. Enter the Service Provider number

Navigate to "Feature Setup".

Enter the Service Provider phone number in the "Service Number" box.

Click **"Save Config"**.

Using a VoiceNav code pad

To enter the service provider phone number via a VoiceNav code pad

1.	menu 0	selects advanced system configuration
2.	Your 4 or 6 digit installer code	
3.	3	configure Service Provider phone number
4.	provider phone number	follow the voice prompts to enter or disable the installers phone number
5.	menu menu	exits from advanced system configuration

Using a standard code pad (Vertex, Icon or LCD)

You cannot enter the service provider phone number via a standard code pad.

Using a TouchNav code pad

To enter the service provider phone number via a TouchNav code pad.

1.	menu	selects advanced system configuration
2.	settings	selects advanced system configuration
3.	Your 4 or 6 digit installer code	
4.	installer	installer details
5.	installer name	follow the onscreen prompts to enter service provider name.
6.	installer number	follow the onscreen prompts to enter service provider number.
7.	exit	Exits from Advanced system configuration

Installer support

Installers may contact DAS directly for assistance with technical issues. To speak to a Support Technician call 1800 252 213.

Support can also be accessed via the http://www.das.com.au/support site.

References

Hills Reliance/NX Audio tap connections
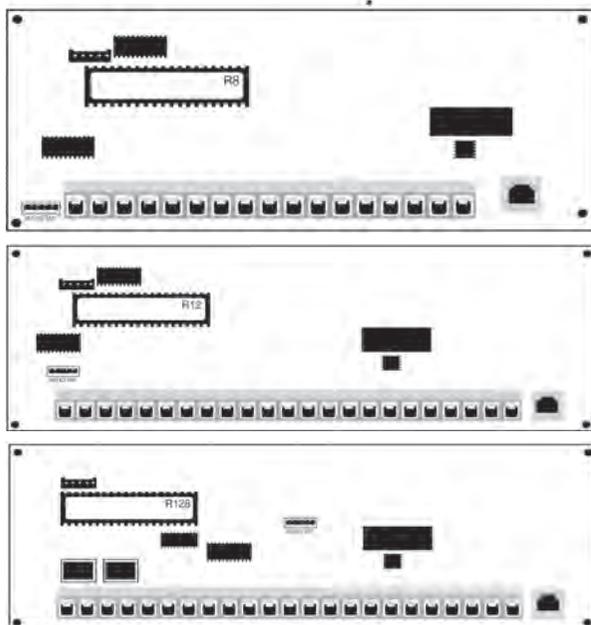
Diagram 23 - Hills Reliance audio tap connections

ComNav terminal descriptions

Terminal	Description			
1	Pos	Panel Bus	Positive terminal on the Hills Reliance panel	
2	Com		Common terminal on the Hills Reliance panel	
3	Data		Data terminal on the Hills Reliance panel	
14	Z1	Additional Zones	1st / 3rd Zone	3K3 = Single Eol's
15	Com		Common (-) return for Zone loop	3K7 = Low zones
16	Z2		2nd / 4th Zone	6K9 = High zones
20	NC1	Relay 1	Normal closed,	
21	C1		Common	
22	NO1		Normal open	
23	NC2	Relay 2	Normal closed	
24	C2		Common	
25	NO2		Normal open	

Trusting Self-signed Certificates in Internet Explorer 8

- Browse to the site whose certificate you want to trust.
    a. When told "There is a problem with this website's security certificate.", choose "Continue to this website (not recommended)."
    b. Select Tools→ Internet Options.
    c. Select Security→ Trusted sites→ Sites.
    d. Confirm the URL matches, and click "Add" then "Close".
    e. Close the "Internet Options" dialog box with either "OK" or "Cancel".
    f. Refresh the current page.
    g. When told "There is a problem with this website's security certificate." Choose "Continue to this website (not recommended)."
    h. Click on "Certificate Error" at the right of the address bar and select "View certificates".
    i. Click on "Install Certificate...", then in the wizard, click "Next".
    j. On the next page select "Place all certificates in the following store".
    k. Click "Browse", select "Trusted Root Certification Authorities", and click "OK".
    l. Back in the wizard, click "Next", then "Finish".

m. If you get a "Security Warning" message box, click "Yes".

n. Dismiss the message box with "OK".

o. Select Tools→ Internet Options.

p. Select Security→ Trusted sites→ Sites.

q. Select the URL you just added, click "Remove", then "Close".

r. Now shut down all running instances of IE, and start up IE again.

s. The site's certificate should now be trusted.

ComNav Starting Zone Offset

Data	Zones	Data	Zones	Data	Zones	Data	Zones
9 =	9 - 12	41 =	41 - 44	73 =	73 - 76	105 =	105 -108
17 =	17 - 20	49 =	49 - 52	81 =	81 - 84	113 =	113 - 116
25 =	25 - 28	57 =	57 - 60	89 =	89 - 92	121 =	121 - 124
33 =	33 - 36	65 =	65 - 68	97 =	97 - 100		

Diagram 25 - ComNav starting zone table

ComNav Configurable Features

Feature 1 - ComNav Features

Option 1 is used to set the zone-doubling feature. This feature will allow the two onboard zones to double to four zones. Please refer to feature 18 for starting zone number. If this feature is unselected, both onboard zones remain as single end of line zones and require 3K3 resistors.

When Zone doubling is enabled

Lower zones = 3K7

Higher zones = 6K9

Option 2. Answering machines usually answer calls after a long ring period. This segment is used to set the answering machine defeat feature and enable a connection to the ComNav before the answering machine answers the incoming call. When answering machine defeat is enabled, accessing the ComNav remotely is accomplished by calling the phone number the ComNav is connected to and allowing it to ring once or twice, then hanging up. Wait 10 seconds. Then calling back the ComNav, which will now answer the next incoming call. The second call must be made within 60 seconds of the first call.

Segments 2 & 3 are reserved

Segment 1	
(1)	Zone doubling
(2)	Reserved
(3)	Reserved
(4)	Reserved
(5)	Reserved
(6)	Reserved
(7)	Reserved
(8)	Reserved
Segment 2	Reserved
Segment 3	Reserved

Diagram 26: ComNav Feature 1
ComNav Features

Feature 3 – Dial Attempts

Feature 3 is used to enter the number of dial attempts the ComNav will make before ending the communication cycle. A value from 1 – 15 may be used, and the default is 6.

Segment 1	6

Feature 4 - Voice Reporting Features

Event Selection for **all** Voice dialling numbers

Segment 1	
(1)	Alarms
(2)	Alarm Restores
(3)	Open / Close (alarm system disarmed = Open, alarm system armed = close.
(4)	Zone Bypass and restores
(5)	Zone Trouble and restores
(6)	Power Trouble and restores (AC Failure or Low Battery)
(7)	Tamper and restores (Zones, Box, Code Pad and Zone Activity Monitor)
(8)	Test Reports

Segment 2	
(1)	System Trouble and restores (Siren, Phone, Expander, Short Circuit)
(2)	Failure to Communicate
(3)	Sensor Lost or Sensor Low Battery
(4)	Program mode, Download and Log Full (full log must be enabled in system options)
(5)	Cancel Code (cancel reporting must be enabled in area options)
(6)	Recent Closing, Exit Error
(7)	Reserved
(8)	Reserved

Feature 5 - alarm phone number one (1)

The first voice message phone number is programmed in feature 5

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = # *

11 =

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 29: ComNav Feature 5 - Alarm Phone Number 1

Feature 6 - alarm phone number two (2)

The second voice message phone number is programmed in feature 5

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = # *

11 =

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 30: ComNav Feature 6 - Alarm Phone Number 2

Feature 7 - alarm phone number three (3)

The third voice message phone number is programmed in feature 5

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = # *

11 =

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 31: ComNav Feature 7 - Alarm Phone Number 3

Note: If multiple phone numbers are entered, the ComNav will call each number in turn until it is answered or the designated number of dial attempts set in Feature 3 has been reached. The ComNav will first call phone number 1, wait 25 seconds for a PIN to be entered, if not entered it will hang up for 6 seconds, then call phone number 2 and repeats this process for phone number 3.

Feature 8 - SMS server number

The in-dial number of the SMS server (125107)

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 32: ComNav Feature 8 - SMS server number

Feature 9 – SMS Phone Number One (1)

The first SMS phone number is programmed in feature 9

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = #

11 = *

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 33: ComNav Feature 9 - SMS Phone Number 1

Feature 10 – SMS Event Select for SMS

Segment 1	
(1)	Alarms
(2)	Alarm Restores
(3)	Open / Close (alarm system disarmed = Open, alarm system armed = close.
(4)	Zone Bypass and restores
(5)	Zone Trouble and restores
(6)	Power Trouble and restores (AC Failure or Low Battery)
(7)	Tamper and restores (Zones, Box, Code Pad and Zone Activity Monitor)
(8)	Test Reports
Segment 2	
(1)	System Trouble and restores (Siren, Phone, Expander, Short Circuit)
(2)	Failure to Communicate
(3)	Sensor Lost or Sensor Low Battery
(4)	Program mode, Download and Log Full (full log must be enabled in system options)
(5)	Cancel Code (cancel reporting must be enabled in area options)
(6)	Recent Closing, Exit Error
(7)	Reserved
(8)	Reserved

Diagram 34 - ComNav Feature 10 - SMS Event Select for SMS

Feature 11 – SMS Phone Number Two (2)

The second SMS phone number is programmed in feature 11

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = #

11 = *

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 35: ComNav Feature 11 - SMS Phone Number 2

Feature 12 – SMS Event Select for SMS phone number Two (2)

Event selection for SMS phone number 2

Segment 1	
(1)	Alarms
(2)	Alarm Restores
(3)	Open / Close (alarm system disarmed = Open, alarm system armed = close.
(4)	Zone Bypass and restores
(5)	Zone Trouble and restores
(6)	Power Trouble and restores (AC Failure or Low Battery)
(7)	Tamper and restores (Zones, Box, Code Pad and Zone Activity Monitor)
(8)	Test Reports
Segment 2	
(1)	System Trouble and restores (Siren, Phone, Expander, Short Circuit)
(2)	Failure to Communicate
(3)	Sensor Lost or Sensor Low Battery
(4)	Program mode, Download and Log Full (full log must be enabled in system options)
(5)	Cancel Code (cancel reporting must be enabled in area options)
(6)	Recent Closing, Exit Error
(7)	Reserved
(8)	Reserved

Diagram 36 - ComNav Feature 12 - SMS Event Select for SMS Phone Number 2

Feature 13 - SMS Phone Number Three (3)

The third SMS phone number is programmed in feature 13

15 = Pulse dialling – in the segment where pulse dialling should begin

14 = Indicates the end of the phone number

13 = Creates a four second delay

12 = #

11 = *

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Diagram 37: ComNav Feature 13 - SMS Phone Number 3

Feature 14 - SMS Event Select for SMS phone number Three (3)

Event selection for SMS phone number 3

Segment 1	
(1)	Alarms
(2)	Alarm Restores
(3)	Open / Close (alarm system disarmed = Open, alarm system armed = close.
(4)	Zone Bypass and restores
(5)	Zone Trouble and restores
(6)	Power Trouble and restores (AC Failure or Low Battery)
(7)	Tamper and restores (Zones, Box, Code Pad and Zone Activity Monitor)
(8)	Test Reports
Segment 2	
(1)	System Trouble and restores (Siren, Phone, Expander, Short Circuit)
(2)	Failure to Communicate
(3)	Sensor Lost or Sensor Low Battery
(4)	Program mode, Download and Log Full (full log must be enabled in system options)
(5)	Cancel Code (cancel reporting must be enabled in area options)
(6)	Recent Closing, Exit Error
(7)	Reserved
(8)	Reserved

Diagram 38: ComNav Feature 14 - SMS Event Select for SMS Phone Number 3

Feature 18 - zone starting number

Feature 18 is used to enter the starting zone number of the additional zones on the ComNav. The two zones can also be zone doubled, please refer to feature 1 to enable the zone doubling feature. 0 = Disabled

Data	Zones	Data	Zones	Data	Zones	Data	Zones
9 =	9 - 12	41 =	41 - 44	73 =	73 - 76	105 =	105 -108
17 =	17 - 20	49 =	49 - 52	81 =	81 - 84	113 =	113 - 116
25 =	25 - 28	57 =	57 - 60	89 =	89 - 92	121 =	121 - 124
33 =	33 - 36	65 =	65 - 68	97 =	97 - 100		

Note: Additional zones are only available on the R128 and R12 panels (also NX12 and NX16).

As R12 (and NX12) can only expand to a maximum of 16 zones, only option 9 is available (zones 9 – 12)

This feature is not available for NX4, NX8 or R8 panels.

Segment 1

Diagram 39 - ComNav Feature 18 - Zone Starting Number

Feature 19 - IP feature options
Feature 19 is used to set required network settings.

Enable DHCP: DHCP or Dynamic Host Configuration Protocol, is a computer network protocol used by devices to obtain configuration information for operation in an Internet Protocol network. This protocol reduces system administration workload, allowing networks to add devices with little or no manual intervention.

Require SSL: SSL or Secure Sockets Layer is a security protocol for communication over networks such as the Internet and reduce the chance of someone eavesdropping on your interaction with the security system. If Require SSL is selected then port 80 (standard http:) will be disabled and you must use https: which by default is port 443. If Require SSL is not enabled then you can connect using either http: on port 80 or https: on port 443.

Enable Web page updates without a login: When enabled, allows updating of the ComNav Configuration Server's web pages via FTP. Normally disabled.

Enable Ping in the run mode: The "ping" command is always functional whilst the Comanv is in program mode and is defaulted to NOT operate whilst the ComNav is in the normal run mode. Enable this option to allow the ComNav to respond to "ping" commands in normal operation. For security reasons it is recommended this option remain disabled during normal operation.

Enable periodic update of clock via internet: The ComNav will check it's internal and use the internet to compare it against GMT time. This is done every 15min and will update itself if the variance is greater than 3 minutes.

Enable web programming: When enabled a user can access Network settings, Feature list, Outputs and IP reporting via the ComNavs web pages. Otherwise the ComNav will need to be in program mode to access these additional features. By default this is off to prevent an end-user access to these additional menus.

Enable Hills protocol server: Disabled by default, do not change.

Enable xConnect: Enabled by default. Enabling this option allows you to use the smartphone app (xConnect).

Segment 1	
(1)	Enable DHCP
(2)	Require SSL
3	Enable Web page updates without a login
4	Enable Ping in run mode
5	Enable periodic update of clock via internet
6	Enable Web programming of Network settings, Feature list, Outputs
7	and IP reporting without ComNav needing to be in program mode
8	Enable Hills protocol server
Segment 2	Reserved

Diagram 40: ComNav Feature 19 - IP Feature Options

Feature 20 - IP gateway

The 4 segments in feature 20 are used to set the IP address of the networks gateway.

In homes, the gateway is usually the Internet Service Provider (ISP) device that connects the user to the internet, such as a DSL or cable modem.

In an enterprise system, the gateway is the node that routes the traffic from a workstation to another network segment. The default gateway is commonly the node connecting the internal networks and the outside network (Internet).

Segments 1 - 4

Diagram 41: ComNav Feature 20 - IP Gateway

Feature 21 - ComNav IP address

The 4 segments in feature 21 are used to set the IP address of the ComNav so as it can be identified on the network.

Segments 1 - 4

Diagram 42: ComNav Feature 21 - ComNav IP Address

Feature 22 - Subnet Mask

The 4 segments in feature 22 are used to set the Subnet mask.

Segments 1 - 4

Diagram 43: ComNav Feature 22 - Subnet Mask

Feature 23 - DNS server 1

The 4 segments in feature 23 are used to set the networks DNS server address.

Segments 1 - 4

Diagram 44 - ComNav Feature 23 - DNS Server 1

Feature 24 - DNS server 2

The 4 segments in feature 24 are used to set the networks DNS server address.

Segments 1 - 4

Diagram 45 - ComNav Feature 24 - DNS Server 2

Feature 25 - UHS client server IP address

The 4 segments in feature 21 are used to set the IP address of the ComNav so it can be identified on the network by the UHS ultra agent. (Currently not supported)

Segments 1 - 4

Diagram 46: ComNav Feature 25 - UHS Client Server IP address

Feature 26 - UHS client reporting selections

Event selection for UHS client reporting

Segment 1	
(1)	Alarms
(2)	Alarm Restores
(3)	Open / Close (alarm system disarmed = Open, alarm system armed = close.
(4)	Zone Bypass and restores
(5)	Zone Trouble and restores
(6)	Power Trouble and restores (AC Failure or Low Battery)
(7)	Tamper and restores (Zones, Box, Code Pad and Zone Activity Monitor)
(8)	Test Reports

Segment 2	
(1)	System Trouble and restores (Siren, Phone, Expander, Short Circuit)
(2)	Failure to Communicate
(3)	Sensor Lost or Sensor Low Battery
(4)	Program mode, Download and Log Full (full log must be enabled in system options)
(5)	Cancel Code (cancel reporting must be enabled in area options)
(6)	Recent Closing, Exit Error
(7)	Reserved
(8)	Reserved

Diagram 47: ComNav Feature 26 - UHS Client reporting selections

Table of Diagrams

5. More information

Warnings

The level of security obtained with this system relates specifically to two major factors:

• The quantity, quality, and placement of security devices attached to this security system.

• The knowledge you have of the security system and how that knowledge is utilised in a weekly test of the complete system.

This product is to be installed by qualified SERVICE PERSONNEL only

The equipment should only be operated with an approved power adapter with insulated live pins.

CAUTION – RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF BATTERIES ACCORDING TO THE INSTRUCTIONS. CONTACT YOUR SERVICE PROVIDER FOR REPLACEMENT BATTERIES.

N3094

DAS