# NexPump Ai Notification Guide



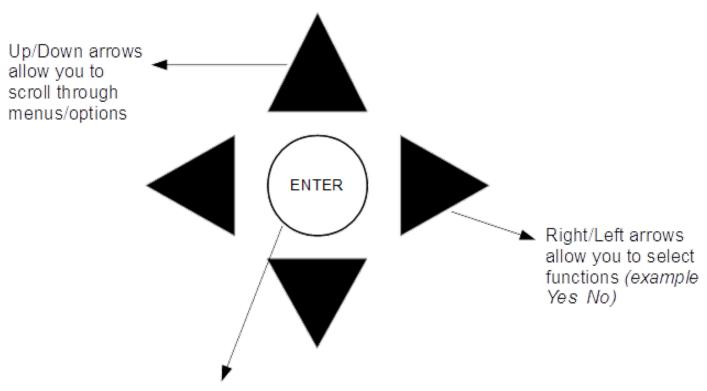
NexPump, Inc. Phone: 630-365-4639 Fax: 630-365-6919

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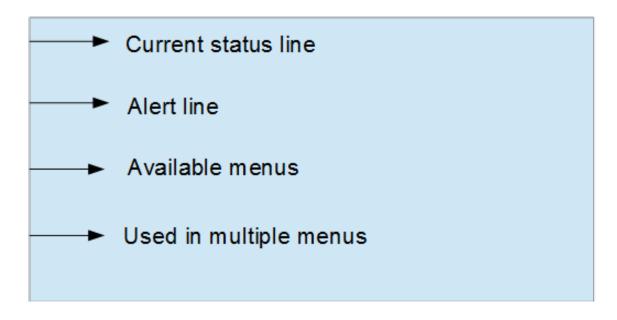
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# **Navigation Panel**



ENTER: To select a menu or a setting you must press ENTER. If no menu is selected it will revert back to the home screen

# **Display Screen**



# **Configuration Menu**

Note: These screens are only available with the notification units.

Send Status Email ? Yes No

#### **Send Test Status Email**

Used to send a test status Email. Send status is available on the 'Email Web Page' under 'Last Send Status'.

LAN Monitor? On Off

#### **LAN Monitor**

Turn on LAN monitor to continually monitor the LAN connection. When the LAN is not detected for approximately six hours, unit will sound an alert.

#### **Advanced Menu**

Note: These screens are only available with the notification units.

Lock Configuration ? On Off

#### Lock\Unlock Configuration

Lock configuration to prevent accidental changes. Unlock configuration to make changes. Press ENTER when cursor is over desired position.

DHCP? On Off

#### **DHCP**

'DHCP' stands for 'Dynamic Host Configuration Protocol'. By default this is turned on and allows for the Network IP Information to configure automatically. Recommended to be enabled. Press ENTER when cursor is over desired position.

E-Recurring?02

#### **Email Status**

Set this for the interval to receive status emails. Each number is the number of Self-Tests which occur every 12 hours. In the screen the Recurring amount is set to '02', which will send a status email after every two Self-Tests or every 24 hours.

Use the left and right arrows to adjust the number. The number will increment from '0-28', Press ENTER to select.

00 - Disables Status Email

# **Email Port? 025**

#### **Status Email Port:**

Used to set port for sending Status Emails Valid values are 25 and 587 Use the left, right arrows to change the number. Press ENTER to select.

HTTP Port?80

#### **HTTP Port**

Sets HTTP port valves: '80,"81,"82,"83,"84,"00.'
Defaults to Port '80.'
Use left, right arrows to select port. Range is 80-84.
00 – Disables HTTP
Press ENTER to select.

TFTP Update? On Off

#### **TFTP Update**

Update turns on TFTP firmware or image updates using the TFTP protocol. This should only be turned on to update firmware or web image images and then turned off.

The HTTP update process is the preferred method to update firmware or web images.

Press ENTER when cursor is over desired position.

#### **Reset Menu**

Note: These screens are only available with the notification units.

Clear Intruder? Y N

#### **Clear Intruder Detection**

If an invalid password is entered more than 10 times in 15 minutes, the system will automatically prevent access to the NexPump web interface for 15 minutes. If you want to access the web interface before that you can clear the intruder detection through this menu item. (Displays only if intruder is detected.)

Factory Reset ANiMod Confirm ? Y N

#### **Factory Reset ETH Module**

Resets ANi module to factory defaults. All configuration will be lost.

Reset ETH Config?
Reset Info? Y N

#### **Reset ETH Configuration**

Select 'Y' to Reset IP configuration to defaults.

Defaults: Address-'192.168.1.105', Mask-'255.255.255.0' Gateway-'192.168.1.51', DNS-'192.168.1.51', DHCP-'On',

HTTP Port-'80', Clears All Email and WIFI (If Installed) Information

# Reset Web Password? Confirm ? Y N

#### **Reset Web Username and Password**

Resets the username and password to defaults.

Defaults: Username-'NPAdmin', Password- Serial #.

Restart ANiMod?YN

#### **Restart ANiMod**

Restarts ANi module if needed.

#### **Network Menu**

Note: These screens are only available with the notification units.

Manual Configuration?
On Off

#### **Manual Configuration Mode**

This will automatically scan for wireless networks.

WIFI Config? On Off

#### WIFI Config Mode (Wireless module ONLY)

Use WIFI Config Mode to set up your own Wireless Configuration. See WIFI Configuration.

WPS Config? On Off

#### WPS Config Mode (Wireless module ONLY)

Use WPS Config Mode to setup your own wireless configuration. This is an automatic mode for configuration between the NexPump and your router.

See WPS section in WIFI configuration for more information.

#### **Information Menu**

Note: These screens are only available with the notification units.

**Network Name: TestNetwork** 

**IP Address:** 192.168.1.100 IP Mask:

255.255.255.0

Displays WIFI network name the NexPump is connected to.

Displays configured IP address and IP mask.

IP Gateway: 192.168.1.100 **DNS Address:** 75.75.75.75

HTTP Port:=80

Displays configured IP gateway and DNS address.

Displays configured HTTP port.

Web User:

**NPAdmin** 

Web Password:

NPB01234567

ETo:

test@gmail.com

**EHost:** 

smtp.gmail.com

Displays current username and password for the

NexPump unit.

Displays configured status email to address and email host address.

EUser:

test@gmail.com

**EPass:** 

**Test1234** 

ERecurring:=14

EPort:=587

**ELast:Success** 

05-05-2018 12:00PM

Displays configured status email username and password.

Displays configured status email recurring time, port and last send status.

**Alert History** Display?YN

Displays last ten alerts on the system including date and time. To select, move cursor over Y and press ENTER.

#### **LAN Monitor**

#### **LAN Monitor Operation**

LAN Monitor, when enabled, will monitor the LAN or router connection and alert when it no longer detects a connection. LAN Monitor by default is set to the Off position. Once a LAN or router connection is no longer detected, an alarm will sound, in addition to the alert displayed below.

#### **LAN Problem**

#### **Notification Module**

In the event of a Notification Module alert, the alert below will be displayed.

### **ANiMod Problem**

#### **LAN Disconnected Warning**

For the Wired Internet Module, the alert below is displayed when the LAN Cable is not detected.

## LAN Cable Check!

For the Wireless Internet Module, the message 'WIFI' will toggle when the module is not connected to a wireless router.

#### WIFI Check! Cxx-Sxx

In addition, the following WIFI Connection Code will also display. The code will be in a format of Cxx-Sxx.

Cxx - Code; Sxx - Sub Value

#### Code '00'

Sill performing initial connection attempt. There is no sub value for this parameter.

#### Code '01'

Connection Successful There is no sub value for this parameter.

#### Code '02'

Connection failed.

Sub values:

'02' – Join Failure

'03' - Authentication Failure

'04' - Association Failure

'05' – WEP Handshake Failure

'06' - PSK Calculation Failure

'07' – PSK Handshake Failure

'08' – AdHoc Join Failure

'09' - Security Mismatch

'10' – No Suitable AP Found

#### Code '03'

Connection Temporarily Lost

Sub values:

'01' – Beacon Timeout

'02' - Deauth Received

'03' - Disassociate Received

#### Status Code '04'

Connection Permanently Lost

Sub values:

Same as Status Code '03'

#### Status Code '20'

Connection timeout.

A timeout occurred attempting connection.

Will keep retrying.

There is no sub value for this parameter.

#### Status Code '20'

Connected but DHCP is not bound.

There is no sub value for this parameter.

#### **Network Defaults:**

IP Address - '192.168.1.105'

IP Mask - '255.255.255.0'

IP Gateway - '192.168.1.10'

DNS - '192.168.1.51'

HTTP Port - '80'

Username: 'NPAdmin' (Case Sensitive)

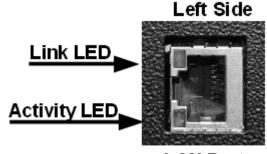
Password: Unit Serial Number (Case Sensitive)

## **Wired Network Setup**

The NexPump wired internet module is an IEEE 802.3 compatible Ethernet device with a speed of 10/100Mbps and accepts a standard RJ45 LAN cable.

Step 1: Plug one end into the NexPump LAN port and the other end into your LAN router or hub. The 'Link LED' should be steady green and the 'Activity LED' should blink amber. If you do not see the LED's active check your hub or router.

<u>Step 2:</u> By default 'DHCP' is enabled and in most cases 'DHCP' should be enabled on your network.



**LAN Port** 

- **Step 3:** Select the information menu on the NexPump and retrieve the IP address of your NexPump.
- **Step 4:** To access your NexPump, enter the IP address from step 3 above. The default username and password is below:

Username: NPAdmin (username is case sensitive)

Password: User Serial Number (include letters/case sensitive)

<u>Step 5:</u> You should change the username and password once you get access to the web interface. Password configuration is located at the bottom of the IP Config page.

You can also visit the NexPump website to view videos on network setup.

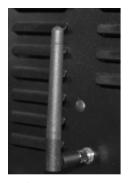
#### **Important:**

To be alerted of power outages, an Uninterruptable Power Supply (UPS) must be connected to your router or hub. The UPS needs to be able to operate for at least 45 minutes to send alert. Check with your internet provider about internet use on power outages.

# **Wireless Network Setup**

The NexPump Wireless Internet Module is a Wi-Fi 802.11gn compatible device. The following will guide you in the setup so the NexPump can be connected to your household wireless router. You can also visit the NexPump website to view videos on network setup.

The wireless antenna comes disconnected and needs to be attached. The antenna attaches to the Antenna Jack located on the left side of the NexPump. The antenna screws on to the Jack and should attach easily (be careful not to strip the threads). Rotate and pivot (90 degrees) the antenna as it appears in the diagram.



Left side antenna



Left side antenna jack

#### **Important:**

To be alerted of power outages, an Uninterruptable Power Supply (UPS) must be connected to your router or hub. The UPS needs to be able to operate for at least 45 minutes to send alert. Check with your internet provider about internet use on power outages.

#### **Wireless Connection to Your Network**

There are three methods of WIFI connection. The Manual Configuration Mode, WIFI Config Mode and the WIFI WPS Mode.

# **Manual Configuration Mode**

Manual Configuration ? On Off

#### **Step 1: Turn on Manual Configuration**

To turn the 'Manual Configuration' on, you will need to access the 'Network Menu'. Use the up, down arrows on the navigation panel to find 'Network Menu'. Select by pressing ENTER. When you reach the screen to the left, select 'On' by using the left, right arrows to move the cursor, then press ENTER.

Scanning Networks Please Wait...

#### **Step 2: Find your Network**

Once 'Manual Configuration' is turned on, you will see the screen 'Scanning Networks'. Soon after, a list of available networks will display.

Test123 Home456 House123 Test789

#### **Step 3: Select your Network**

Once you see your network, use the up, down arrows to move the cursor over your network. To select press ENTER.

Note: If you cannot find your network, use the right arrow to display the next four networks. Use the left arrow to return to the previous four networks.

xxxxxx abcdefghijklmnopqrst uvwxyzABCDEFGHIJKLMN OPQRSTUVWXYZ0123456789!

"#\$%&`()\*+,-./:;<=>?<mark>~~5}}</mark>

#### **Step 4: Network Password**

Once you have selected your network, you will need to type in the network password. Use the up, down, left, and right arrows to move the cursor over the desired letters or symbols. To select, press ENTER. Once finished, select 'Save & Connect' and press ENTER.

Note: You will see the password you are entering on the top line of the display. If your password is more than 20 characters, the display on the first line will shift automatically.

Highlighted above are the special characters. They are explained below.

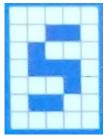
#### **SAVE & CONNECT**

Must select this after entering password for system to connect

#### **DON'T SAVE & EXIT**

Will exit current screen without saving

#### Spacebar symbol



Adds space between letters

#### **Backspace symbol**



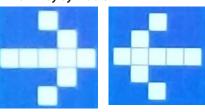
Deletes last character

#### Clear symbol



Clears entire password

#### Arrow key symbols



The arrow keys will appear to go to the next display screen or previous display screen.

# Waiting Connection

#### Step 5:

Once you have entered your password and have selected 'Save & Connect', it will show 'Waiting Connection'. It may take up to 30 seconds for the system to connect. Once connected, the screen will display 'Connected to Network' and 'IP Address'. (See below)

# Connected to Network Test1234 IP Address: 123.45.6.789

#### Step 6:

Once the system is connected, your network should be listed under 'Connected to Network'.

# Wireless setup is complete.

## **WIFI Config Mode**

# WIFI Config? On Off

#### Step 1: Turn on WIFI Config

To turn the 'WIFI Config' on, you will need to access the 'Network Menu'. Use the up, down arrows on the navigation panel to find 'Network Menu'. Select by pressing ENTER. When you reach the screen below, select 'On' by using the left, right arrows to move the cursor, then press ENTER.

# Waiting Connection

Once you have selected WIFI Config 'On', you will see the message to the left on the status screen.

#### Step 2: Connect to NexPump Network (You can use any device with wireless connectivity)

Under your device's Wi-Fi settings, find and connect to the "NexPump" network.

Note: With Apple products, make sure Auto-Join and Auto-Login is turned off, otherwise it may take a minute or longer for the webpage to display.

#### Step 3: Connect through a Browser

Open your browser (ex: Google Chrome, Safari). Enter 'npsetup. com' in the address bar. A username and password dialog should pop up. The default username and password is listed below:

Username: NPAdmin (username is case sensitive)

Password: User Serial Number (include letters/case sensitive)

#### **Step 4: Find Your Network**

Once you enter the correct Username/Password, you should be on the 'WIFI CONNECT' screen. Clicking the 'Scan for Wireless Networks' will list the networks in range. You can click one on the list or click 'Other Network', to enter one not listed. Once you enter the password for your wireless network, select 'OK'.



Connected to Network Test1234 IP Address: 123.45.6.789

#### **Step 5: Verify Network Connection**

Once you have entered your password and selected 'OK' the Nex-Pump should display 'Connected to Network' and 'IP Address' (*Note: this may take a few seconds*). If the 'Waiting Connection' screen is still showing after 30 seconds, repeat this process again, as you may have incorrectly entered some information. (*Note: password is case sensitive*).

# Wireless setup is complete.

# **WPS Config Mode**

WPS Config? On Off

#### Step 1:

To turn 'WPS Config' On, you will need to access the 'Network Menu'. Use the up, down arrows on the navigation panel to find 'Network Menu'. Select by pressing ENTER. When you reach the screen to the left, select 'On' by using the left, right arrows to move the cursor, then press ENTER.

**WPS Waiting** 

#### <u>Step 2:</u>

Once you have selected WPS Config 'On', you will see 'WPS Waiting' on the screen.

#### Step 3:

Once the NexPump is in the 'WPS Waiting Mode', press the WPS Button on your wireless router. If you are unfamiliar with the WPS Mode of your wireless router, please refer to the routers user manual for more information.

**WPS In-Progress** 

#### Step 4:

Once the WPS on your wireless router is initiated, you should see 'WPS In-Progress'. Once the screen switches to 'WPS In-Progress', it may take a few minutes to make the connection to your router. (Note: If WPS In-Progress changes back to WPS Waiting, press WPS button on your router again after it stops flashing.)

Connected to Network Test1234 IP Address: 123.45.6.789

#### Step 5:

When the NexPump is connected to your router you will see the 'Connected to Network' screen to the left. Verify it is your network.

# **Network Remote Access Setup**

Port Forwarding must be enabled on your router. See your router's user manual on how to set up port forwarding.

# **NexPump Internet Access**

#### Status Page

Bright Green - System OK

Dark Green - Setting is Off

Red – Alert Condition or Red Flag that Setting is On

Amber – Amber Flag that Setting is On

Purple - Manual Mode is On

Blue - Pump Activated or In Backup Mode

Cyan – In Primary Mode

#### **Command Page**

Run Commands, Set Configuration Parameters or Turn Functions On/Off from this screen.

#### **IP Configuration Page**

This screen can be used to manually configure IP Information when DHCP disabled. HTTP Port and Web Password can also be changed here.

#### WIFI Configuration Page (Wireless Version)

Once your wireless is configured, you can see your configuration or make changes from this screen.

#### **Email Configuration Page**

The Email screen is used to configure Status Emails. An Email\_To, Email\_Host, Email\_User and Email\_Password are required.

(Note: The Email settings are not dependent for the Notification System. The Notification System relies ONLY on an Internet Connection. These settings are ONLY for Status Emails.)

Enter EMail\_To with a valid Email Address.

Enter EMail\_Host with a valid domain name or valid IP Address of the Email Host server

If your account requires a login and password then enter those in the Email User and Password fields.

The Email Port can be set to 25,587.

TLS is supported. (Use Port 587 for TLS)

Recurring time can be set to 0 – 28. This represents a multiple of the 12 Hour Self-Tests. 0 will disable Status Email. A setting of 1 will send Status Emails every 12 Hours, 2 every 24 hours, etc.

#### **Time Configuration Screen**

Set Time Configuration to the format you prefer and the Time Zone you are in.

#### **NOTIFICATION STATUS**

#### **Clear Notification Module Alerts**

To clear any Notification Alert, use Clear Alarm menu item.IP Configuration Page

(Note: In order to prevent repetitive notifications. Once an alert is cleared, the system unit will set a counter to approximately two hours before new notifications will be sent.)

#### **Testing**

Notification modules are tested on 12 hour self-tests or manual tests. Exceptions: Notification is active.

#### **Alerts**

The NexPump system monitors 38 critical points on the unit. In the case of an alert, the system will alarm followed by a notification if you have that option.

#### **Normal Alerts**

**Pump Activation** 

**AC Power Loss** 

Notifications: After approximately thirty minutes

Note: Pump Activation lets you know there may be an issue with your main pump. If you find you have a problem with your main pump you can switch the NexPump mode to 'Primary' until the main pump problem is corrected.

#### Critical Alerts

All other alerts

After approximately five minutes, except a High Water Alert, which is approximately one minute.

# **Ai Notification System**

#### **Initial Registration**

You must register your NexPump before notification use. Visit the NexPump's website at 'www.nexpump.com' and click 'Register My NexPump'. Fill in the initial form using your complete serial number (format 'NPBxxxxxxxx') and PIN number. On the following form, fill in all required information along with the phone numbers and email addresses you want the Ai notification system to use to contact you in the event of any alerts. Once you have registered successfully, you will receive an email confirming your setting.

#### **Changing Your Setting**

Visit the website at 'www.nexpump.com' and click 'Log In'. Once logged in, you can change your information and update. You can also change your login password if you want. Once you update your information, you will receive an email confirming the changes.

#### Notification Detail

When the NexPump detects an alert, the built-in alarm will start beeping. It will start beeping after approximately 30 minutes for normal alerts, five minutes for critical alerts and one minute for high water alerts. If the alert is cleared or silenced (activation or AC power loss) before the notification process timeout has expired, the notification will NOT take place. This is because the NexPump assumes someone knows about the alert since the alarm was cleared.

# Test Notification Submit Test ? Y N

#### **Notification Testing**

If you have a NexPump with an internet module you can run a 'Manual Self-Test' and at the end of the test you will be able to schedule a notification test.

#### **Notification Process**

#### Person answers the call

- 1. States alert(s), pressing one skips the message
- 2. Press one to acknowledge or zero to repeat
- 3. Call ends
- 4. Up to four emails sent with alerts and stats
- 5. Up to four emails sent with confirmation status

#### Answering machine or voice mail answers the call

- 1. States alert(s)
- 2. Call ends
- 3. Up to four emails sent with alerts and stats
- 4. Up to four emails sent with confirmation status

#### Important Information During an Event

During an event we have found that many owners will continuously clear the alert conditions and receive redundant notification calls. Please review the information below.

- 1. Once an alert is cleared, the NexPump sets a counter so repetitive notifications will not occur.
- 2. *Electric Failure, Pump Activation (Backup Mode)* 
  - To prevent notifications from reoccurring, you can **Silence the Alarm, DO NOT CLEAR ALARM**. If only the pump activation alarm is occurring, you can switch to the Primary mode for the duration of the event or if your main electric pump has failed.
- 3. High Water Alert
  - High Water Alerts should NOT be cleared, however the NexPump should be allowed to operate under this condition until the pump(s) are no longer operating 100% of the time. The alarm at this point should be cleared. If you decided to 'Disable the Alarm' you should monitor the situation.
- 4. Suspected Clog Alert with high rate of incoming water
  - When the incoming water rate is extremely high, the NexPump may warn of a Suspected Clog Error. This is indicated with Pump identifiers 'X' or 'x' and happens in normal operation. **Do not clear this alarm,** however, monitor the situation. Once the water rate slows down the condition should automatically clear.

# **Appendix**

#### **UPS Information**

A UPS is a device to supply AC Power during a power outage. You will need this if you want to be alerted on Power Outages with any NexPump Internet Module. A 250w UPS should be capable of powering an internet router for about 3-4 hours. Using a larger wattage UPS will increase the time. You need at least have 45 minutes for power outage alert.

#### **Notification Disclaimer**

Nexpump, Inc. reserves the right to temporarily disable notification from units which are considered in abuse of the notification system. This will include excessive repetitive notifications for the same alert issue without a corrective action taken.

## **Open Source Licenses**

NOTICE for ARMmbed TLS URL: <a href="https://github.com/ARMmbed/mbedtls">https://github.com/ARMmbed/mbedtls</a>

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