ALERTEX - NXFFA Instructions

Alertex Fire/First Aid Alert System

Pre-Installation Notes

Unpacking.

On receipt, inspect the package and contents for signs of damage. If damage has occurred, advise the carrier and/or supplier immediately. Inspect the contents to confirm that all items are present and undamaged. If any items are missing or damaged, contact the supplier Immediately. It is advised that the original carton is retained as this forms the safest transport container in case a unit needs be returned for any reason.

Servicing.

This unit should not require general servicing. Any repairs work should only be undertaken by Sentura Group Ltd.

Moisture

Do not expose the internal electronics of this unit to moisture i.e. take care during installation not to allow rain or damp into the product. When product is sealed it is water resistant to IP66.

Box Contents.

1 X Alertex Wireless Fire/First Aid Unit.

1 x aerial and plastic spacer

4 x wall screws and wall plugs

INDEX	PAGE

Introduction

The NXFFA Fire & First-Aid Call Point is a battery-powered, wireless critical alert system designed for maximum portability and ease of installation. Each unit can be paired with up to 63 additional units to create a comprehensive, site-wide alert network.

When activated, the NXFFA delivers up to 10 watts of high-quality audio annunciation, complemented by bright, strobing LEDs for visual alerts. Any unit can be configured as a master unit, capable of identifying and announcing which specific unit has been triggered.

For enhanced communication, an optional IP Bridge can be integrated into the system, allowing email and SMS alerts to be sent to designated recipients. SMS functionality requires a Twilio account.

Upon activation of the Fire button, all units will broadcast a prerecorded alert message, with the master unit identifying the source of activation. In the case of a First-Aid alert, only the activated unit and the master unit will sound, though all units can relay the wireless signal across the site.

Features

- **Power Requirements:** 2 x 3.6V Lithium D cells (not supplied)
- **Battery Life:** Up to 2 years with normal usage
- **Low Battery Warning:** Flashing LEDs on units, wireless report to IP bridge
- **Optional Power:** 12V DC (eliminates the need for Lithium D cells)
- **Audio Output:** Up to 10 watts
- **Audio Quality:** 44.1 kHz / 16-bit samples (CD quality)
- **Visual Warning:** 4 high-power white LEDs, configurable strobing sequence
- **Transmitter Power:** 10mW at 434.525 MHz (license exempt)
- **Reception Range:** Up to 1 km (line of sight)
- **Site/Unit Codes:** 32 site codes, 64-unit codes within radio range
- **Weather Rating:** IP66
- **Operating Temperature:** -10°C to +60°C

Quick Start

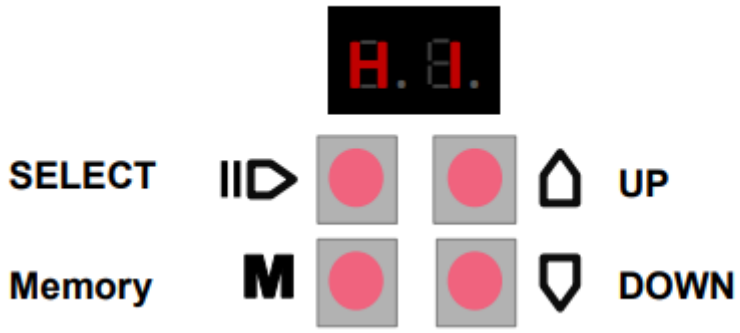
1. Place the spacer washer over the screw stud, then attach the aerial.
2. Remove the lid by pressing down and turning each of the six screws a quarter turn.
3. Insert the two provided SPC1550 super capacitors, ensuring correct polarity (these remain for the product's lifetime).
4. Insert two 3.6V Lithium D cell batteries (LSH20 or equivalent), observing correct polarity.
5. The LED display will show "HI," followed by the firmware version number, indicating the unit is powered on.
6. Use the four programming buttons below the display to configure the parameters.
7. To fully remove the lid, unplug the ribbon cable if necessary.

How to Program the Units

1. Press the **SELECT** button twice to enter the menu.
2. The first menu option (SI) will appear, followed by its current value (e.g., 01).
3. Use the **UP and DOWN** buttons to adjust the settings.
4. Press **SELECT** to navigate through the menu options.
5. To save a setting, press and hold the **M** button. The display will show dashes moving from bottom to top, indicating the setting has been stored.

While the default settings are suitable for most applications, it is crucial to configure the SITE and UNIT numbers:

- All units on the system must share the same SITE number (choose any number from 1 to 32) and ensure that every unit is set to this same number.
- Each unit must have a unique UNIT number, ranging from 1 to 64. No two units should have the same UNIT number.



Level 1 Setting Options			
Name	**Range**	**Default Setting**	**Description**
SI	1 To 32	1	Site Number
UN	1 To 64	1	Unit Number
CP	3 To 65	60	Call Period
CR	0 To 64	0	Call Repeater. Beginning of group
CE	0 To 64	0	Call Repeater. End Of Group
MU	0 To 1	0	Master Unit
RF	0 To 5	0	Relay Function
TS	0 To 3	0	Tampers Selection
LS	0 To 1	1	Lost signal reporting

Level 1 Setting Options

Site Number (SI)

Site codes separate one site from another. The site is the area covered by all the units in one system. Choose a number between 1 and 32 and set this on all units in the system. Nearby units will be detected by the system, but if they are on a different site code, they cannot activate your system. If an IP Bridge is used with the system, it must have the same site number.

Unit Number (UN)

Unit numbers identify individual units on the site. There are 64-unit numbers available, which is the maximum number of units per site. Unit number should be unique to each individual unit.

Call Period (CP)

The "CP" or Call Period represents how often the unit checks in with the bridge (central monitoring station). It can be set to a value between 3 and 65. Here's how it works:

- If the value is between 3 and 60, it represents the number of minutes between check-ins (with 60 being the default, meaning 1 hour).
- If the value is 61, the unit will check in every 1.5 hours.
- A value of 62 means a 2-hour check-in interval.
- 63 represents a 3-hour interval.
- 64 means the unit will check in every 4 hours.
- 65 sets the check-in interval to 5 hours.

Call Repeat. Beginning of group (CR) and

Call Repeater. End of group (CE)

Where there are obstacles or great distances between units, it is recommended to select some units to function as repeaters. Keep this number to a minimum to minimise battery wastage.

You can set a unit to repeat calls from other units that otherwise may be out of range of the IP Bridge. EG: CR5 CE7. In this example, this unit only will repeat call messages from units 5,6 and 7.

Master Unit (MU)

Any unit can be set to be a master unit. In this mode, it will annunciate the same message as all the other units but with the addition of which unit in the system has been activated. Master units can also be used to reset the entire system.

Relay Function (RF)

Relay 1 has volt free contacts that will change state on activation of an alarm. You can select to make it change state for the duration of the alarm or just for 1 second when the alarm commences. This relay can be assigned to Fire only, First Aid only or both Fire and First Aid.

Tamper Selection (TS)

This unit has two tamper sensors that will transmit to an IP Bridge and also activate the onboard Relay 2. The relay will close contact for 2 seconds during the tamper period. A 3-axis inertia sensor detects when the unit is repositioned or moved. A lid tamper detects when the unit's lid is removed. In the settings you can either disable or select either or both tamper sensors.

0 = No tamper (default)

1= Lid detection

2= Accelerometer (position change)

3= Both Lid Tamper and Accelerometer

Lost Signal (LS)

If the unit cannot contact other units in the system, it will display lost signal by alternatively flashing the red and green LEDs around the buttons. Once communication has been restored, the flashing will stop.

If only one unit is used, then this setting should be set to off (0) otherwise it will continuously indicate lost communication.

Level 2 Setting Options (advanced)			
Name	**Range**	**Default Setting**	**Description**
PA	0 To 99	1	Playback on Activation FIRE
PD	0 To 99	0	Playback on Deactivation FIRE
PF	0 To 99	3	Playback on Activation FIRST AID
PE	0 To 99	0	Playback on Deactivation FIRST AID
PU	0 To 20	10	Fire Volume
FU	0 To 20	10	First Aid Volume
PS	0 To 99	1	Pattern Strobe light
NA	TIME	3	Number of Repetitions / Activation
ND	TIME	3	Number of Repetitions / Deactivation
NF	TIME	3	Number of Repetitions / First Aid
NE	TIME	3	Number of Repetitions / First Aid End

Level 2 Setting Options (Advanced)

- To enter level 2, press and hold the **SELECT** button until the display now shows n1.
- Now press the **UP** button to go to n2.
- Use the **SELECT** button to scroll through the level 2 menu and the **UP/ DOWN** buttons to make changes.
- Press and hold **M** to store the settings. Wait for the dashes to move from the bottom to the top of the display.

Playback on activation. FIRE (PA)

Sounds and messages that are played on activation of the Fire button are stored in the following file locations. The default is (1)

Playback on deactivation. FIRE (PD)

Sounds and messages that are played on deactivation of the Fire button are stored in the following file locations. The default is (0) which means that there will be no message on deactivation. Select (4) to sound All Clear on deactivation.

Playback on activation. First Aid (PF)

Sounds and messages that can be played on activation of the First Aid button are stored in the following file locations. The default is (0)

Playback on deactivation. First Aid (PE)

Sounds and messages that can be played on deactivation of the First Aid button are stored in the following locations. The default is (0)

Alarm files.

1. Siren plus Fire message
2. Siren only
3. Fire only message.
4. First Aid requested.
5. All Clear
6. First Aid request Cancelled.

Fire Alarm Playback volume (PU)

Set the Fire Alarm volume from 0 lowest to 20 loudest. The default is (10)

First Aid alarm Playback volume (FU)

Set the First Aid request volume from 0 lowest to 20 loudest. The default is (10)

Pattern of strobe light (PS)

Set the flashing LED sequence. (0) deactivates the strobe LED's. The default is (1)

Number of repetitions Fire Alarm (NA)

This ranges from 0 (indefinite) to 40. A repetition is one play of a file. A file can contain sounds and speech and is limited to 180 seconds in length The default is (99) It is not recommended to use 0 (indefinite) as this will cause the batteries to deplete to the point that they need to be exchanged.

Number of repetitions Fire Alarm End (ND)

This ranges from 0 (indefinite) to 40. A repartition is one play of a file. A file can contain sounds and speech and is limited to 180 seconds in length The default is (3) It is not **recommended to use 0 as this will cause the batteries to deplete to the point that they** need to be exchanged.

Number of repetitions First Aid (NF)

This ranges from 0 (indefinite) to 40. A repetition is one play of a file. A file can contain sounds and speech and is limited to 180 seconds in length The default is (3) It is not recommended to use 0 (indefinite) as this will cause the batteries to deplete to the point that they need to be exchanged.

Number of repetitions First Aid End (NE)

This ranges from 0 (indefinite) to 40. A repartition is one play of a file. A file can contain sounds and speech and is limited to 180 seconds in length The default is (3) It is not recommended to use 0 as this will cause the batteries to deplete to the point that they need to be exchanged.

Setting Number of Repetitions or Time

The Range options are 1 - 50.

Selecting Value

Value 1 – 40 - Number of Repetitions (or)

Value 41 – 49 - Number of Minutes (or)

Value 50 - Continuous

Note: Setting 50 (continuous) will eventually deplete the batteries. Battery status should be checked after a full alarm.

Fire/First Aid repetitions	
1-40	= number of repetitions
41	= 1min
42	= 2min
43	= 3min
44	= 4min
45	= 5min
46	= 6min
47	= 7min
48	= 8min
49	= 9min
50	= Continuous

How to Operate the System

Activation

In the event of a fire, press the red fire alarm button on any of the units. This will cause all units on the site to play the alert file at the set volume. Additionally, the LEDs around the speaker will flash. The red LEDs around the button on the unit that was pressed will light and remain on. If one of the units is set to be a master, then this will also light up around the fire button and can also be pressed to stop and reset the alarm.

The system can also automatically activate from a Alertex smoke or heat sensor. Model numbers **NX-HEAT** and **NX-SMOKE**. If these products are used, it is essential to set one of the units to be a master in order that it will be used to stop and reset the system. **NB: All units can be set to be master's if preferred.**

Deactivation

Locate the activated button which will be illuminated with a ring of red LEDs. Press and hold the fire button for at least three seconds until the LEDs go out. This will send the stop command to all other units on the site.

Any unit that is set to be a master can also be used to stop and reset the system.

Battery status

The lithium D cell batteries are constantly measured and when they are depleted, the LEDS around the red fire and first aid buttons will flash for 200ms every 2 seconds.

Replace these batteries with the recommended type. **SAFT LSH20**

Signal strength.

Wireless communication between each unit is constantly monitored and indicated by a periodic flashing of the green LEDs around the first aid button. If the unit fails to receive signals it will alert the user by alternatively flashing the red and green LEDs around the fire and first aid buttons.

Make sure that the aerial is fitted and that the settings match the other units in the system.

Call signals can also be received and monitored by an IP Bridge if one is included in the system where it will notify the user of a unit that has failed to communicate.

Auxiliary Terminals

RS232 -These terminals are reserved for future accessories and are not currently implemented.

Power supply - The unit may be powered from an external power source. The requirements are 12 volts DC 500mA. Connect this to 0V and +12V.

IMPORTANT: DO NOT FIT LITHIUM D CELL BATTERIES WHEN POWERING FROM AN EXTERNAL SUPPLY.

The super capacitors must remain with the product.

Relay 1 - This is an alarm output for integration with third party products. See relay function (RF) page 7.

For any technical queries, please call 0208 368 7887.