

NX1000

- Handheld VHF Radio -



Installation and Operation Manual
English



IN CASE OF EMERGENCY

If your vessel requires assistance, contact other vessels or the Coast Guard by sending a distress call on Channel 16.

USE CHANNEL 16!

EMERGENCY CALL PROCEDURE

- 1. MAYDAY MAYDAY MAYDAY.**
- 2. THIS IS “Name of vessel”, followed by:**
- 3. Your call sign or other indication of the vessel.**
- 4. LOCATED AT “Your location”**
- 5. The nature of the distress and assistance required.**

RECOMMENDATION

CLEAN THE TRANSCIVER THOROUGHLY WITH FRESH WATER after exposure to saltwater, air dry it before operation. Otherwise, the transceiver’s keys, switches and controllers may become inoperable due to salt crystallization.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL, This manual contains important operating instructions for the NX1000.

FEATURES

- **Waterproof construction**

Built to a high standard to withstand the punishing marine environment, the NX1000 meets the IPX7 standard.

- **Dual watch function**

A convenient function that allows you to monitor the distress channel (Ch 16) while receiving a second channel of your choice—dual watch.

- **Large LCD, easy-to-read**

With dimensions of 32(H) × 39(W) mm, the NX1000's function display is easy to read and shows operating conditions at a glance. Backlight can be adjusted to suit your preference.

- **Easy-to-use**

8 large buttons on the front panel provide convenient operation. The independent volume and channel buttons are located on the front panel for convenient one-hand operation.

PRECAUTION

- **WARNING! NEVER** hold the transceiver in such a way that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm away from the lips and the transceiver is vertical.
- **AVOID** using or placing the transceiver in direct sunlight or in areas with temperatures below -15°C or above $+55^{\circ}\text{C}$.
- **KEEP** the transceiver out of the reach of children.
- **KEEP** the transceiver at least 1 metre away from your vessel's magnetic navigation compass.
- **BE CAREFUL!** The NX1000 is built to be fully waterproof, corresponding to the IPX7 industry standard, (1 m depth for 30 min.). However, once the transceiver has been dropped, waterproofing cannot be guaranteed due to the fact that the transceiver may be cracked, or the waterproof seal may have been damaged, etc.
- **MAKE SURE** the flexible antenna and battery pack are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to water may result in serious damage to the transceiver.

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1 OPERATION RULES

1.1 Priorities

- Read all rules and regulations pertaining to priorities and keep an up-to-date copy handy. Safety and distress calls take priority over all others.
- You must monitor Channel 16 when you are not operating on another channel.
- False or fraudulent distress calls are prohibited under law.

1.2 Privacy

- Information overheard but not intended for you cannot lawfully be used in any way.
- Indecent or profane language is forbidden.

1.3 Radio licenses

1.3.1 Ship station license

When your craft is equipped with a VHF FM transceiver you must be in possession of a current radio station license before using the transceiver. It is unlawful to operate a ship station which is not licensed. Inquire through your dealer or the appropriate government agency for a Ship-Radiotelephone license. This license includes the call sign that is your craft's identification for radio purposes.

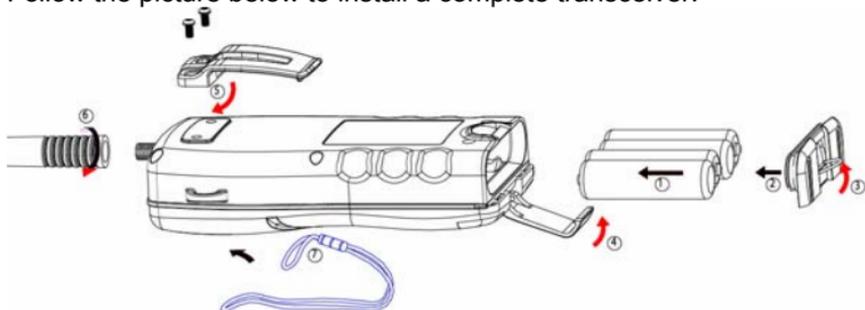
1.3.2 Operator's license

A restricted Radiotelephone Operator Permit is the license most often held by small vessel radio operators when a radio is not required for safety purposes. The Restricted Radiotelephone Operator Permit must be posted near the transceiver or be kept with the operator. Only a licensed radio operator may operate a transceiver. However, non-licensed individuals may talk over a transceiver if a licensed operator starts, supervises, ends the call and makes the necessary log entries. A current copy of the applicable government rules and regulations is only required to be on hand for vessels in which a radio telephone is compulsory. However, even if you are not required to have these on hand it is your responsibility to be thoroughly acquainted with all pertinent rules and regulations.

2 INSTALLATION AND ATTACHMENTS

2.1 Installation

Follow the picture below to install a complete transceiver:



2.2 Accessories

Number	Supplied accessories	Qty.
(1)	4 pcs. AA Batteries (not supplied)	4
(2)	Battery lid	1
(3)	Pull ring	1
(4)	Battery fixer	1
(5)	Belt clip	1
(6)	Flexible antenna	1
(7)	Hand strap	1

2.3 Attachments

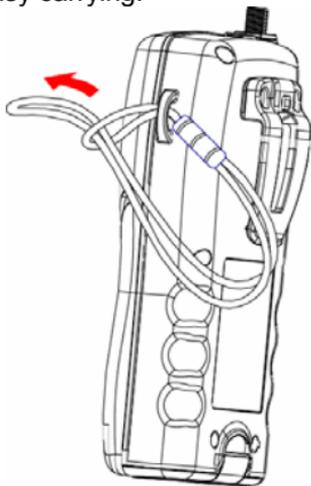
2.3.1 Flexible antenna

Connect the supplied flexible antenna to the antenna connector.

- **NEVER HOLD** by the antenna when carrying the transceiver.
- Transmitting without an antenna may damage the transceiver.

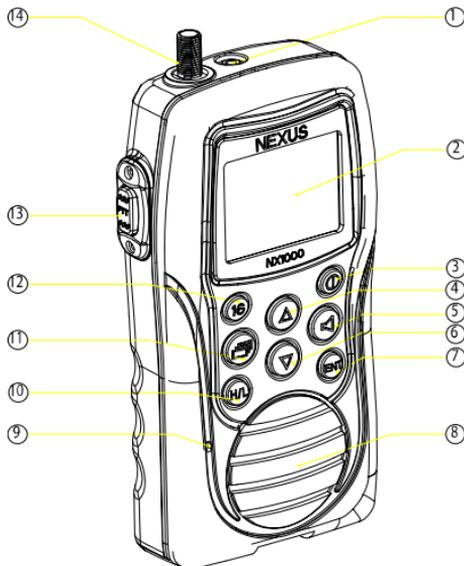
2.3.2 Hand strap

Pass the hand strap through the loop on the side of the transceiver as illustrated below for easy carrying.



3 PANEL DESCRIPTION

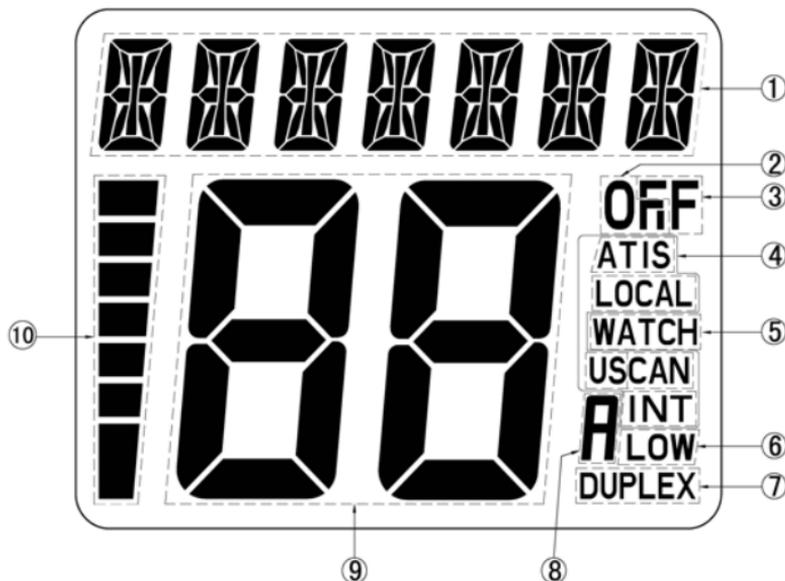
3.1 Front, top and side panels



1. **External audio jack**
2. **LCD display**
3. **POWER SWITCH/CANCEL button.** Press and hold to turn power ON and OFF. Cancel current task with a short press on this button.
4. **UP button select an operation channel.**
5. **VOLUME and SQUELCH button** A short press on this button and the display will show a number corresponding to the **VOLUME** level that was set initially or before by the user. A second press on this button and the display will show a number corresponding to the **SQUELCH** level that was set initially or before by the user. Adjust **VOLUME** and **SQUELCH** levels with the **UP** or **DOWN** buttons. After 5 SEC (without action) the display will return to showing the main screen. Enable the **MONITOR** function with a long press.
6. **DOWN button.** Select an operation channel. Select a preference function in **MENU** mode.
7. **ENT button.** • Set the current channel as a tag channel when short pressed. Clear current tag channel's tag with a second short press. Confirm a preference selection in **MENU** mode with a short press.
8. **SPEAKER**
9. **MICROPHONE**
10. **H/L button.** Used to alternate power output between 2W and 1W transmission power

11. **.MENU button.** Press **MENU** to access more functions and the preference settings. Display shows **D/WATCH**, Use **UP** or **DOWN** button to select a preference function. Press **ENT** to confirm you selection. To exit current menu mode, press the **CANCEL** button or press **CH16** button.
12. **CHANNEL 16 button.** Press the button for instant access to **CHANNEL 16**. This is also the "HOME" button, enabling the user to return to channel 16 from any other function. In HUNTS channels, this button enables the return to the main screen but not channel 16 when pressed.
13. **PTT button.** Push and hold to transmit; release to receive.
14. **ANTENNA CONNECTOR** Connects the supplied antenna.

4 FUNCTION DISPLAY



1. **TEXT AREA** All the menus or settings are displayed when it is under the menu. Also show the status of this transceiver.
2. **Not used.**
3. **Not used**
4. **CHANNEL GROUP INDICATOR.** "INT" appears when International is selected; "US" appears when USA is selected; "CAN" appears when CANADA is selected;
5. **DUAL WATCH INDICATOR** Appears during dual watch (not used in this version)
6. **LOW POWER INDICATOR.** "LOW" appears when 1W transmission power is selected.
7. **DUPLEX INDICATOR.** Appears when a duplex channel is selected.
8. **Indication of "A" channels.**
9. **CHANNEL NUMBER READOUT.** Indicates the selected operating channel number.
10. **BATTERY INDICATOR.** Indicates remaining battery power.

5 BASIC OPERATION

5.1 Channel selection

5.1.1 Channel 16

Channel 16 (the distress and hailing channel) is used for establishing initial contact with other stations and for emergency communications. Channel 16 is automatically monitored during both dual-watch.

Press **16** or **▲** / **▼** to select Channel 16, LCD will be displayed as below:



Channel 16

5.1.2 Specific channels

UK M1 and M2 channels

These appear between channels 88 and 01 when the U.K. or other channel group / Country is selected. The LCD will show UK M at top with C1 or C2 on main screen.



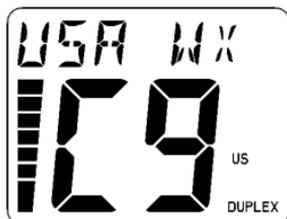
U.K. M1



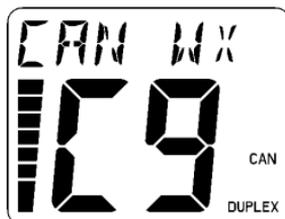
U.K. M2

5.1.3 Weather channels for USA and Canada

These appear between channels 88 and 01 when the USA or Canada channel group is selected. The LCD will show **USA WX** or **CAN WX** at top.



Weather channels for USA



Weather channels for Canada

5.2 Normal channel selection

Press / to select the operating channel. Each press on selects the next higher channel number. Each presses on selects the next lower channel number. When the key is held down, the channel changes at the rate of 12 channels per second.

5.3 Adjusting the volume and squelch levels

Press to access volume control mode. "VOLUME" will appear at the top of LCD. The volume level displays on the main screen. In volume control mode, press will access SQUELCH control mode. Press will access SQUELCH control mode. Press again and it will toggle between VOLUME and SQUELCH control mode. In SQUELCH control mode, "SQUELCH" appears at the top of the LCD, and the figure indicating the squelch level is displayed on the main screen. In the two modes if no operation is made within 5 seconds it will return to the main screen where pressing / will adjust the levels of VOLUME and SQUELCH.



VOLUME Control



SQUELCH Control

5.4 Receiving and transmitting

Turn on the radio and set the VOLUME and SQUELCH at suitable levels.

5.4.1 Receiving

When radio is receiving signals, "BUSY" appears at the top of the LCD.



Receiving

5.4.2 Adjust transmitter power

According to the regulations, some channels only have high power, some channels only have low power and some channels offer the choice of either high power or low power. If selected channel has both high and low power, to switch between high power and low power, press **H/L**. It will save power if low power is selected, but the communication range will extend if high power is selected.

5.4.3 Transmitting

Press and hold the PTT when transmitting and speak into the MICROPHONE. If the current selected channel is at high power, "TX HIGH" will appear at the top of LCD; instead, "TX LOW" will appear if it is at low power. Release the PTT returns the transceiver to at receiving mode.



High Power Transmitting



Low Power Transmitting

IMPORTANT: To maximize the readability of your transmitted signal, pause a few seconds after pushing [PTT], hold the microphone 5 to 10 cm from your mouth and speak into the microphone at a normal voice level.

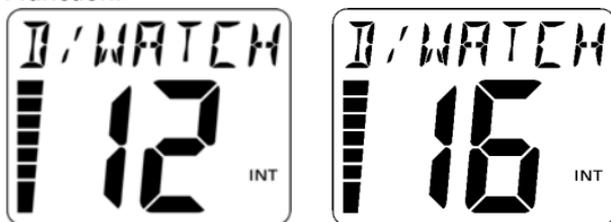
NOTE: The transceiver has a power save function to conserve the battery power. The power save function activates automatically when no signal is received for 3 seconds.

6 MENU

6.1 Dual watch

Dual watch monitors Channel 16 while you are receiving another channel. If a signal is received on Channel 16, dual watch pauses on Channel 16 until the signal disappears.

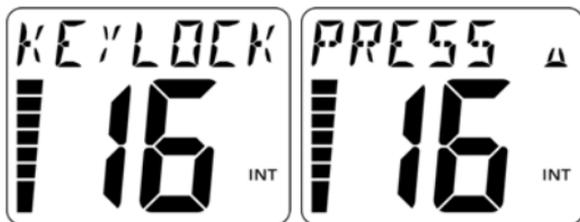
When accessing the main menu in non-private channel mode, press   to select D/WATCH and press  to confirm. Then the D/WATCH function is activated. Press ,  or  to cancel D/WATCH function.



Dual Watch

6.2 Automatic KEYLOCK function

This function will lock the keys automatically. Press  to access the MENU and select KEYLOCK by pressing   and press  to access the KEYLOCK list. There are two options in the list: OFF and ON. If select OFF, the key lock function doesn't work. If OFF IS select, the key lock is activated if no key is pressed within 10 seconds. Press and hold  for 3 seconds to temporary unlock.



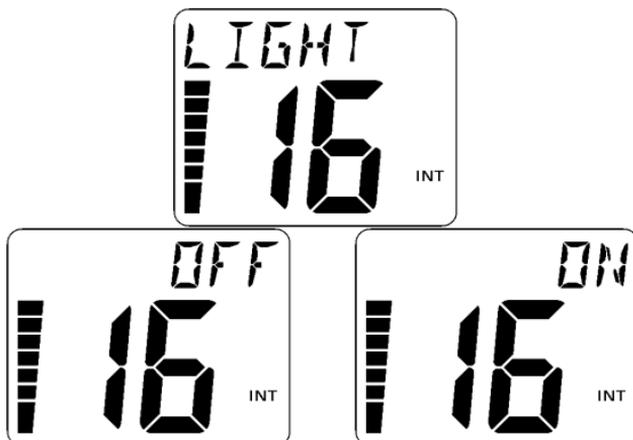
Locked

How to unlock

Unlocked

6.3 Automatic backlight function

If backlight is set to ON, a press on any key, will activate the backlight for 5 seconds. To turn the backlight continuously ON, press  to access MENU, and select LIGHT by pressing /. Press  to enter LIGHT list. Select OFF and press .



7 TROUBLE SHOOTING

Problem	Possible Cause	Solution
The transceiver does not turn ON.	1. The battery is exhausted.	1. exchange the batteries.
No sound from speaker.	1. Squelch level is too deep. 2. Volume level is too low. 3. Speaker has been exposed to water.	1. Set squelch to the threshold point. 2. Set volume to a suitable level. 3. Drain water from the speaker.
The displayed channel cannot be changed.	• Automatic keypad Lock function is activated.	• Refer to Automatic Keypad Lock function to unlock the keys
The transceiver returns to receiving mode during a long transmission.	The transmission time limit function is activated.	Release the PTT, and re-push to talk.

8 SPECIFICATIONS

8.1 General

- Frequency coverage: Transmit 156.025-161.425 MHz
Receive 156.025-163.275 MHz
 - Mode: FM (16K0G3E)
 - Channel spacing: 25 kHz
 - Current drain (at 6.0 V DC): TX at 2 W 0.7A typical
TX at 1 W 0.5 A typical
Max. Audio 110 mA typical
Power save 20 mA typical
 - Frequency stability: ± 1.5 kHz (-15°C to $+55^{\circ}\text{C}$)
 - Useable temperature range: -15°C to $+55^{\circ}\text{C}$
 - Dimensions: 73(W) \times 135(H) \times 34(D) mm
(Antenna and belt clip not included)
- Weight; no Battery: 287 g
Weight; with Battery: 378 g
Battery life (example 2400mAh) 28 hours – Based on duty cycle 90% Standby, 5% Receive, 5% Transmit (full power).

8.2 Transmitter

- Max Output power (at 6.0 V DC): 2W (Hi), 1 W (Low)

- Modulation system: Variable reactance frequency modulation
- Adjacent channel power: 70 dB
- Spurious emissions: Less than 0.25 μ W
- Frequency Deviation: 5 KHz max peak
- Audio Frequency Response: +1/ -3dB of +6dB/octave Pre-emphasis 300-3000Hz

8.3 Receiver •

- Receive system: Double-conversion super-heterodyne •
- IF Frequency Used: 21.7MHz; 450 KHz •
- Sensitivity (20 dB SINAD): +6 dB μ EMF (typical) •
- Squelch sensitivity (at threshold): 0 dB μ EMF (typical) •
- Inter-modulation rejection ratio: \geq 68 dB •
- Spurious response rejection ratio: \geq 70 dB •
- Adjacent channel selectivity: \geq 70 dB •
- Audio Frequency Response: +1/ -3dB of +6dB/octave Pre - emphasis 300-3000Hz •
- Audio output power: 0.2 W at 10% distortion with An 8 Ω load

9 DECLARATION OF CONFORMITY



Declaration Of Conformity

Nexus Marine AB

P.O. Box 998
S19129 Sollentuna
Sweden

Hereby confirms that this VHF Radio conforms to the essential requirements of the Radio and Telecommunications Terminal Equipment Directive 1999/5/EC and that all appropriate test suite measurements have been performed.

Equipment: **Marine Handheld VHF Transceiver**
Type-designator: **NX1000**

This compliance is based on conformity with the following harmonised standards, specifications or documents:

Standards No: EN3018433-2 V1.2.1
EN301178 V1.2.2
EN60215
EN50385
Statement No: G103724V

CE 0678 ⓘ

Tony Kent
Chief Operating Officer
Nexus Marine AB

10 WARRANTY

WARRANTY

GENERAL

All our products are designed and built to comply to the highest class industry standards. If the products are correctly installed, maintained and operated, as described in the installation and operation manual, they will provide long and reliable service. Our international Network of distributors can provide you with the information and assistance you may require virtually anywhere in the world.

Please read through and fill in this warranty card and send it to your national distributor for product registration.

LIMITED WARRANTY

The warranty covers repair of defective parts due to faulty Manufacturing and includes labour when repaired in the country of purchase. The warranty period is stated in the product manual, and commences from the date of purchase. The above warranty is the Manufacturer's only warranty and no other terms, expressed or implied, will apply. The Manufacturer specifically excludes the implied warranty of merchantability and fitness for a particular purpose.

CONDITIONS

- The supplied warranty card and receipt with proof of purchase date, must be shown to validate any warranty claim. Claims are to be made in accordance with the claims procedure outlined below.
- The warranty is non-transferrable and extends only to the original purchaser.
- The warranty does not apply to Products from which serial numbers have been removed, faulty installation or incorrect fusing, to conditions resulting from improper use, external causes, including service or modifications not performed by the Manufacturer or by its national distributors, or operation outside the environmental parameters specified for the Product.
- The Manufacturer will not compensate for consequential damage caused directly or indirectly by the malfunction of its equipment. The Manufacturer is not liable for any personal damage caused as a consequence of using its equipment.
- The Manufacturer, its national distributors or dealers are not liable for charges arising from sea trials, installation surveys or visits to the boat to attend to the equipment, whether under warranty or not. The right is reserved to charge for such services at an appropriate rate.
- The Manufacturer reserves the right to replace any products returned for repair, within the warranty period, with the nearest equivalent, if repair within a reasonable time period should not be possible.
- The terms and conditions of the warranty as described do not affect your statutory rights.

CLAIMS PROCEDURE

Equipment should be returned to the national distributor, or one of its appointed dealers, in the country where it was originally purchased. Valid claims will then be serviced and returned to the sender free of charge.

Alternatively, if the equipment is being used away from the country of purchase, it may be returned to the national distributor, or one of its appointed dealers, in the country where it is being used. In this case valid claims will cover parts only. Labour and return postage will be invoiced to the sender at an appropriate rate.

DISCLAIMER

Common sense must be used at all times when navigating and the Manufacturer's navigation equipment should only be considered as aids to navigation.

The Manufacturers policy of continuous improvement may result in changes to product specification without prior notice.

File id:

WARRANTY CARD
TO BE RETURNED TO YOUR NATIONAL DISTRIBUTOR

OWNER:

Name: _____

Street : _____

City/Zip Code : _____

Country: _____

Product name:

Serial number:

	A	B	C	1	2	3	4	5	6	7
_____	<input type="checkbox"/>									
_____	<input type="checkbox"/>									
_____	<input type="checkbox"/>									
_____	<input type="checkbox"/>									
_____	<input type="checkbox"/>									
_____	<input type="checkbox"/>									

Date of purchase: _____ Date installed: _____

Dealers stamp:

 Tick here if you do not wish to receive news about future products.

CE 0678   **0678** 

This equipment is intended for use in:

AUT	√
BEL	√
CZR	√
CYS	√
DEN	√

EST	√
FIN	√
FRA	√
GER	√
GRE	√

HUN	√
IRL	√
ITA	√
LAT	√
LIT	√

LUX	√
MAL	√
NET	√
POL	√
POR	√

SLA	√
SLE	√
SPN	√
SWE	√
UK	√

√Countries of use

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