

**THE TARGET RANGE**

**NAVTEX**  
**RECEIVER**

**INSTALLATION AND  
USER INSTRUCTIONS**

BY

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## INSTALLATION

Select a position which remains dry at all times and where lighting is adequate. Avoid direct sunlight as this may cause the display to overheat. Screw down the mounting cradle and fit the receiver unit using the side knobs. Adjust the unit for easy viewing and tighten the side knobs to lock into position. The unit is designed to run from the boat's 12 volt power supply. Connect the black wire to negative and the red wire to positive from a fused supply. It is recommended that a 1/2 amp fuse is fitted. If the receiver is fitted with internal back lighting there will also be an orange wire. Connect this to positive to back light the display.

If the unit is to be used on a domestic electricity supply then it must be used in conjunction with a 12 volt D.C. power supply. The negative terminal of the power supply must be grounded to the mains ground. (Just having a ground on the case of the power supply is not satisfactory).

## INSTALLATION OF ANTENNA

Due to the low frequency nature of the signal it is not necessary to mount the antenna at a great height. However many types of electrical apparatus emit interference and it is important that the antenna be well clear of such interference. Troublesome items are alternators, ignition coils, motors, strip lights, inverters, etc. Select a position as far from likely sources of interference as is practical and mount the aerial using the flange on the base. Ensure that the whip is at least 30 cms from other metal structures that are parallel to it. A mounting bracket with U bolts is available from your chandler. Run the aerial lead back to the receiver and push the moulded plug into the socket. The cable can be shortened or lengthened using standard 70 ohm coaxial cable. Alternatively a 7 metre extension cable is available from your chandler.

## OPERATION

If the receiver has not been in use for some days then the internal battery will be flat. When the 12 volt power is connected it will then be necessary to reset the unit. This is simply done by pressing all three keys:

▲ ▼ and **PROG** simultaneously.

The receiver will then display an asterisk in the top left of the screen. Adjust the contrast control on the back of the unit if necessary to get the sharpest display.

At this stage there are two options:-

### The Direct Mode

By pressing **PROG**, puts the receiver into the direct mode of operation, in this mode the unit will receive all messages from all stations. Most of the information will be either too specialised or too distant to be of any value. To be more selective the unit should be used in the program mode.

### The Program Mode

To select the program mode first reset the unit by pressing all three keys simultaneously. The asterisk will then appear at the top left of the display. Use the ▲ and ▼ keys to step through the "ident" letters until the required station code letter is selected. Enter this by a single press of the **PROG** key. A list of message types available will then be displayed.

Pressing the **PROG** key at this stage will enable all messages from the selected station to be received. The word **ALL** will be displayed after the station 'ident' code. Alternatively if individual message types are to be programmed out then use the ▼ key to move the arrow to the left of the message type to be programmed out. Press **PROG** to delete that message type. Any number of message types can be programmed out in this way. Use the ▼ key to continue stepping the arrow to the left until the asterisk appears ready for the next station.

At this stage pressing **PROG** will complete the programming and return to receive mode, alternatively the ▲ and ▼ keys can be used to select further stations to be programmed.

A maximum of 10 stations can be programmed. When programming is complete the Navtex will only receive the station and message types as listed on the program screen. (It will also automatically receive distress type messages from the programmed stations.) When programming is complete the display will read 'ZCZC PROGRAM IN NASA NAVTEX NNNN'. The unit is then in receive mode. As a safety precaution if the start of a message is corrupted the message will print.

E.G. To program NITON RADIO for the shipping forecasts and gale warnings only.

Press RESET (▲▼ and PROG simultaneously). Use either ▲ ▼ keys to select 'S' for Niton 'ident' code. Press PROG. The list of message 'ident' codes will be displayed. Press ▼ once to move the arrow cursor to the left of the message ident 'V'. Press PROG to delete that message type. Continue this process deleting all message types except 'B' and 'E'. Keep pressing ▼ until screen shows: - S B E \*  
Press PROG. Unit will go to standby mode ready to receive messages.

### USING THE TARGET NAVTEX

Over 8,000 characters can be stored in the memory. To view the memory use the scroll keys. A single press will step through line by line, holding the key will roster through the memory. Pressing PROG will return to the end of the last message.

All messages start with the letters ZCZC followed by the station ident code and the message number. All messages end with NNNN. If the signal is interrupted or fades out before the end of a message the receiver will attempt to re-acquire it. If, after 30 seconds re-acquisition is not possible then the message is terminated.

### INTERNAL BATTERY

An internal battery is fitted to protect data in the memory during loss of external power. The battery is automatically charged when the unit is connected to an external power source. It takes 40 hours to fully charge the internal battery. In the event of loss of external power the programmed out data will be stored for 48 hours. The text in the message memory will be held for several days. It is important that old stored messages are not confused with current messages.

### KEYBOARD

During reception of messages the keyboard is disabled. If the display is scrolled to show a message then after a period of 60 seconds the unit will revert to receive mode and will return to the last message when a station is received or a scroll key is pressed. The Hash character '#' will appear when the unit is not receiving messages, the keyboard is enabled only when the Hash character is displayed.

|                    |   |                     |   |                           |   |
|--------------------|---|---------------------|---|---------------------------|---|
| <b>NAVAREA II</b>  |   | <b>Egypt</b>        |   | <b>Malta</b>              |   |
| France             |   | Serapeum (Ismailia) | X | Malta                     | O |
| Cross Corsen       | A | <b>France</b>       |   | <b>Spain</b>              |   |
| <b>Portugal</b>    |   | Cross la garde      | W | Tarifa                    | G |
| Lisbon (Monsanto)  | R | <b>Greece</b>       |   | Cabo de la Nao            | X |
| Azores (Horta)     | F | Limnos              | L | <b>Turkey</b>             |   |
| Spain              |   | Iraklion            | H | Izmir                     | I |
| Tarifa             | G | Kerkyra             | K | Samsun                    | E |
| <b>NAVAREA III</b> |   | <b>Israel</b>       |   | Istanbul                  | D |
| Bulgaria           |   | Haifa               | P | Antalya                   | F |
| Varna              | J | <b>Italy</b>        |   | <b>Ukraine</b>            |   |
| <b>Croatia</b>     |   | Ancona              | U | Odessa                    | C |
| Split              | Q | Augusta             | S | Mariupol                  | B |
| <b>Cyprus</b>      |   | Caqliari            | T | <b>Russian Federation</b> |   |
| Troodos            | M | Roma                | R | Novorossiysk              | A |

## RADIO NAVTEX SERVICE

### Broadcasts will include:

- A : navigational warning
- B : meteorological warning
- C : ice report
- D : search and rescue information
- E : meteorological forecast
- F : pilot message
- G : Deca message
- H : LORAN-C message
- I : Omega message
- J : Satnav
- L, V : rig list and rig movements

### United Kingdom Information

#### AREA COVERED BY:

Cullercoats Radio - 62°N to the Thames Estuary, UK coastline to North Sea Median Line.

Portpatrick Radio - 62°N to 53°N west of Ireland and to a line between Tuskar Rock and St David's Head east of Ireland, between 15°W and 5°W, or the coastline of the UK, whichever is the most easterly.

Niton Radio - 55°N, west of Ireland, and from a line between Tuskar Rock and St David's Head, east of Ireland, to 48°N, between 15°W and the Straights of Dover.

#### Cullercoats Radio Broadcasts will include:

**Message Category A:** Navigation warnings affecting the coverage area originated by the Hydrographic Office. These will not generally include pilot warnings or warnings of a local nature. Broadcasts of warnings in the Navarea One series will be made on the 0448 and 1648 transmissions. Broadcasts of warnings in the WZ series will be made at any of the scheduled transmission times according to the Hydrographer's instructions.

**Message Category B:** Gale warnings. These will be issued by the Meteorological Office and will be broadcast by CULLERCOATS RADIO on receipt and at the next scheduled time.

**Message Category C:** Ice reports. This category is unlikely to apply to UK broadcasts.

**Message Category D:** Search and Rescue information. The first details of any casualty between 62°N and the Thames Estuary will be passed to CULLERCOATS by the appropriate UK coast station and will be broadcast by CULLERCOATS on receipt. Subsequent information will not be transmitted by CULLERCOATS as ships in the vicinity of the casualty must monitor all subsequent distress traffic on the appropriate international distress frequency.

**Message Category E:** Weather forecasts for North Sea area. These will be issued by the Meteorological Office and will be broadcast by CULLERCOATS RADIO at 0848 and 2048 GMT.

**Message Category Z:** No messages on hand at scheduled times.

#### Portpatrick Radio Broadcasts will include:

**Message Category A:** Navigational warnings affecting the coverage area originated by the Hydrographic Office. These will not generally include pilot warnings or warnings of a local nature. Broadcasts of warnings in the Navarea One series will be made on the 0530 and 1730 transmissions.

Broadcasts of warnings in the WZ series will be made at any of the scheduled transmission times according to the Hydrographer's instructions.

**Message Category B:** Gale warnings issued by the Meteorological Office will be broadcast by PORTPATRICK RADIO on receipt and at the next scheduled transmission time.

**Message Category C:** Ice reports. This category is unlikely to apply to UK broadcasts.

## NAVTEX TRANSMISSION TIMES (GMT), NAVAREA ONE

**Broadcast Schedules:** Schedules for all stations participating in the European systems are shown below:

| Ident letter | Station                                   | Times (UTC) |      |      |      |      |      |  |  |
|--------------|---|-------------|------|------|------|------|------|--|--|
| H            | Spurskate (Stockholm)                     | 0030        | 0430 | 0830 | 1230 | 1630 | 2030 |  |  |
| C            | Mumale                                    | 0010        | 0410 | 0810 | 1210 | 1610 | 2010 |  |  |
| S            | Nilsen                                    | 0018        | 0418 | 0818 | 1218 | 1618 | 2018 |  |  |
| U            | Stornes (Stockholm)                       | 0030        | 0430 | 0830 | 1230 | 1630 | 2030 |  |  |
| G            | Cullercoats                               | 0048        | 0448 | 0848 | 1248 | 1648 | 2048 |  |  |
| A            | Coran (Zeeu)                              | 0118        | 0518 | 0918 | 1318 | 1718 | 2118 |  |  |
| D            | Portpatrick                               | 0130        | 0530 | 0930 | 1330 | 1730 | 2130 |  |  |
| K            | Nilsen (French Coast, or Ha)              | 0140        | 0540 | 0940 | 1340 | 1740 | 2140 |  |  |
| L            | Rogaland                                  | 0148        | 0548 | 0948 | 1348 | 1748 | 2148 |  |  |
| M            | Costende (Dover Straits & Thames Estuary) | 0200        | 0600 | 1000 | 1400 | 1800 | 2200 |  |  |
| F            | Archevalik                                | 0200        | 0600 | 1000 | 1400 | 1800 | 2200 |  |  |
| T            | Gothenburg                                | 0248        | 0648 | 1048 | 1448 | 1848 | 2248 |  |  |
| V            | Vardo                                     | 0300        | 0700 | 1100 | 1500 | 1900 | 2300 |  |  |
| A            | Norjysk                                   | 0318        | 0718 | 1118 | 1518 | 1918 | 2318 |  |  |
| B            | Beck                                      | 0318        | 0718 | 1118 | 1518 | 1918 | 2318 |  |  |
| J            | Givovshammer (Stockholm)                  | 0330        | 0730 | 1130 | 1530 | 1930 | 2330 |  |  |
| P            | Netherlands Coastguard (Zeeu)             | 0348        | 0748 | 1148 | 1548 | 1948 | 2348 |  |  |

**Message Category D:** Distress alerting. The first details of any distress case in the coverage area will be passed to PORTPATRICK by the appropriate UK (and Irish Republic Coast Stations if agreed) and will be broadcast by PORTPATRICK RADIO on receipt.

Subsequent information will not be transmitted by PORTPATRICK as ships in the vicinity of the casualty must monitor all subsequent distress traffic on the appropriate international distress frequency.

**Message Category E:** Weather bulletins issued by the Meteorological Office will be broadcast by PORTPATRICK RADIO at 0530 and 2130. These broadcasts will include forecasts for sea areas Faeroes, Fair Isle, SE Iceland, Bailley, Hebrides, Rockall, Malin, Irish Sea, Lundy and Fastnet.

**Message Category Z:** No messages on hand at scheduled transmission times.

#### Niton Radio Broadcasts will include:

**Message Category A:** Navigational warnings affecting the coverage area originated by the Hydrographic Office. These will not generally include pilot warnings or warnings of a local nature. Broadcasts of warnings in the Navarea One series will be made on the 0418 and 1618 transmissions.

Broadcasts of warnings in the WZ series will be made at any of the scheduled transmission times according to the Hydrographer's instructions.

**Message Category B:** Gale warnings issued by the Meteorological Office will be broadcast by NITON RADIO on receipt and at the next scheduled transmission time.

**Message Category C:** Ice reports. This category is unlikely to apply to UK broadcasts.

**Message Category D:** Distress alerting. The first details of any distress case in the coverage area will be passed to NITON by the appropriate UK coast station and will be broadcast by NITON RADIO on receipt.

Subsequent information will not be transmitted by NITON as ships in the vicinity of the casualty must monitor all subsequent distress traffic on the appropriate International Distress frequency.

**Message Category E:** Weather bulletins issued by the Meteorological Office will be broadcast by NITON RADIO at 0818 and 2018. These bulletins will include forecasts for sea areas Thames, Dover, Wight, Portland, Plymouth, Biscay, Finstere, Sole, Lundy, Fastnet, Shannon, Irish Sea, Rockall and Malin.

**Message Category Z:** No messages on hand at scheduled transmission times.

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## ADDENDUM TO STANDARD TARGET NAVTEX INSTRUCTIONS

In pursuing NASA Marine's policy of continuous product improvement, this new Target Navtex unit is fitted with enhanced hardware and software.

- The unit is supplied with a power cable fitted with a 1 Amp fuse. Connect the red wire to positive and the wire with a black stripe to negative.
- Unlike the previous model, the UP and DOWN keys can be used at any time, even when a message is being received.
- The programming functions have been enhanced and simplified. A long press on the ENTER key will return to the Main Menu. Follow the instructions on screen to program the unit as desired.
- If a backlit display is fitted, a brief press on ENTER switches the backlight on or off.