

SERVICE AND IDENTITY PROGRAMMING RM2042

When the RM2042 units are shipped from S. P. Radio, they are in **service-mode**. This is done because the units has to be encoded with the correct MID-number. The service-mode switch is shown on the bottom right picture in chapter 4.1 in the "Technical Manual". The unit is in service mode if the switch is in the middle position or turned counter clockwise (to position **II**).

When the unit is in service-mode, you are able to do some things that are not allowed for the user to do. **Therefore remember to switch the unit back to USER MODE when the equipment has been installed, by turning the switch clockwise (to position **I/I**).**

The following things are allowed in service mode:

IDENTITY PROGRAMMING AND ATIS CALL SIGN PROGRAMMING

For software versions C1123A/C1124A and forward the installation technician must select if the Ship MMSI contain 9 or 10 digits. The 10 digits MMSI number must only be selected if the DSC unit is used for expanded address mode. In this mode it is possible to differentiate between various VHF DSC radio installations on the same vessel.

The primary VHF DSC radio installation must always have a '0' as the tenth digit.

This is done by following paragraph 4.4 in the 'Operators Manual'. When the text 'Ship MMSI containing' '9 10 digits' is displayed you can change by pressing the key < or > . Press NEXT to store the numbers of MMSI digits.

The unit must be encoded with the ships MMSI-number. This is done by following paragraph 4.4 in the 'Operators Manual'. When the text 'Ship MMSI< >' is displayed, you can now enter the ships MMSI (Note: There has to be a flashing cursor present in the display, if this is not the case, the unit is not in service mode). When the number has been entered, press ENT to accept.

For software versions C1109C/C1110C or C1123/C1124 and forward, you can also enter the ATIS call sign. This feature is only used for inland ships sailing on the Rhine river who must transmit ATIS (Automatic Transmitter Identification) each time the VHF transmitter has been keyed. When the text 'ATIS call sign < >' is displayed, the ATIS call sign can be entered. The ATIS call sign consist of one character and four digits. Enter the ATIS call sign using the numerical keyboard. Accept and store by pressing NEXT.

If the ship belongs to a group of ships, and is equipped with one or more group numbers, the group numbers can be entered if you press the up or down arrow keys.

VHF TYPE PROGRAMMING

The type of connected VHF can be programmed by following paragraph 4.5 in the 'Operators Manual'. When the unit is in service-mode the second line of the display is flashing with the type of VHF. This can be changed by using the up and down arrow keys and stored by pressing NEXT.

ADJUSTMENT OF MODULATION INDEX

According to the CCIR Rec. 493, the modulation index must be 2.0 +/-10%. This level can be adjusted by selecting FUNC and 'Test' when the unit is in service mode. This gives you access to continuously transmitting mark (1300Hz), space (2100Hz), dot pattern (alternating mark and space) or a testcall. The adjustment procedure is described in the 'Technical Manual' paragraph 3.5, 'Check of DSC call sensitivity'.

TEST-MODE PRINT OUT

The test-mode printout can be selected by following paragraph 4.7 in the 'Operators Manual'. When the unit is in service-mode and test-mode printout is selected, all calls, also the ones that are not addressed to the unit, will be printed. The printout format is three digit codes (000 to 127) representing the codes described in CCIR Rec. 493. The code 128 means that the character is erroneous. If the unit is in user-mode, only calls without errors will be printed in this way. This function is only to be used in service mode by national authorities during type approval tests.

SET-UP PROGRAMMING IN RM2042 USED FOR VESSEL TRAFFIC SERVICES

The Vessel Traffic Services (VTS) is a facility which mean, that the unit automatic can answer all incoming VTS calls. If the unit is prepared for VTS it is possible for the installation technician to select whether this option is activated.

SELECTING THE VTS FACILITIES

To set-up the option VTS facilities follow paragraph 4.11 in the 'Operators Manual'. When the text 'VTS activated: Yes No ' is displayed, press the key < or > to change the settings of the VTS facilities to 'VTS activated: **Yes** No ' and press NEXT to store.

If the VTS facilities is activated and the VHF DSC is used as VTS transponder it is possible to disable the distress and urgency audible alarm. This menu is only available when the VTS facilities is activated. When the text 'Disable audio alarm' 'dist. & urgency: Yes No' is displayed, press the key < or > to change the settings, and press NEXT to store.

ENTER THE SHIP NAME AND CALL SIGN

The unit must be encoded with the ship name and the ship call sign. This is done by following paragraph 4.13 in the 'Operators Manual'. When the text 'Ship name: ' is displayed, you can now enter the ship name using the alfa numerical keyboard. Accept the name by pressing ENT and the cursor will move to the second line where the text 'Call sign:< > 'is displayed. You are now prompted for the 4 to 7 digit Call sign. Enter the Call sign using the numerical keyboard. Accept and store by pressing NEXT.

COURSE DEVIATION

The unit must be encoded with the course deviation limit. Following paragraph 4.14 in the 'Operators Manual'. When the text 'Course deviation: 2° ' is displayed, you can change the course deviation using the ▲ and ▼ keys. Press NEXT to store.

DRAUGHT OF SHIP

The unit must be encoded with the ship draft. This is done by following paragraph 4.17 in the 'Operators Manual'. When the text 'Draft of ship: 10.0m ' is displayed, you can change the ship draft using the ▲ and ▼ keys. Press NEXT to store.

LENGTH OF SHIP

The unit must be encoded with the ship length. This is done by following paragraph 4.18 in the 'Operators Manual'. When the text 'Length of ship: 100m ' is displayed, you can change the ship length using the ▲ and ▼ keys. Press NEXT to store.

TYPE OF SHIP

The unit must be encoded with the type of ship. This is done by following paragraph 4.19 in the 'Operators Manual'. When the text 'Other types of ship ' is displayed, you can change the type of ship using the ▲ and ▼ keys. The following possibilities 'Special craft', 'Passenger ship', 'Cargo ship', 'Tanker' or 'Other types of ship' are available as main type of the ship. Press NEXT to store, when wanted type are flashing in display.

If 'Special craft' is selected a number of special ship types must be selected. The ▲ and ▼ keys are used to select between the following possibilities 'Pilot boats', 'Search and rescue boats', 'Tugs', 'Port tender', 'Vessel with anti-pollution facilities', 'Law enforcement vessels' or 'Medical transports Geneva Convention'. Press NEXT to store, when wanted type are flashing in display.

If 'Passenger ship', 'Cargo ship', 'Tanker' or 'Other types of ship' are selected, a second information can be added to the ship type. The ▲ and ▼ keys are used to select between the following possibilities 'All ships of this type', 'Hazard pollutant Cat.A', 'Hazard pollutant Cat.B', 'Hazard pollutant Cat.C', 'Hazard pollutant Cat.D', 'Not under command', 'Reduced manoeuvre', 'Constrained by draught' or 'No additional info.' Press NEXT to store the second information.

TYPE OF VTS EQUIPMENT

The unit must be encoded with the type of VTS equipment. This is done by following paragraph 4.21 in the 'Operators Manual'. When the text 'VTS equipment? **Standard**' is displayed, you can change between the four possibilities. The ▲ and ▼ keys are used to select the way of operation of the VTS equipment.

Standard:

Only a GPS is connected to the VTS equipment. Normal ship station.

Standard with PC interface:

Same as above, but the RM2042 can be controlled from a PC. The communication to the PC contain all characters which is received or must be transmitted.

VTS coast station:

Same as Standard, but the RM2042 can be controlled from a PC. The communication to the PC contain call where the information is separated in different fields.

System unit:

The communication to the PC contain all characters which is received or must be transmitted. The RM2042 do not check for the correct address, or valid calls.

Press NEXT to store.

If the "Type of VTS equipment" is set to "VTS coast station." the position can be entered in the "Coast stn. position" menu.

ACKNOWLEDGE RESPONSE TIME

The unit must be encoded with the Acknowledge time. This is done by following paragraph 4.22 in the 'Operators Manual'. When the text 'VTS Geogr. acknowledge time: 0 - **20** secs.' is displayed, you can change the acknowledge time using the ▲ and ▼ keys. Press NEXT to store.

In normal conditions the 'Acknowledge time' MUST be set to 20 seconds.

USE OF THE EXTENDED POSITION REPORT

The extended position report must be selected if the unit must transmit position report more often than 1 minutes. This is done by following paragraph 4.23 in the 'Operators Manual'. When the text 'Use extended position report? Yes **No**' is displayed, you can change the settings using the < and > keys. Press NEXT to store.

In normal conditions the 'Use extended position report?' MUST be set to NO.

MESSAGE READ OUT

The unit must be encoded to select, which kind of messages there will be read out in the display. This is done by following paragraph 4.24 in the 'Operators Manual'. When the text 'Message read out? Ackn. calls **All calls**' is displayed, you can change the setting using the < or > keys. Press NEXT to store.