

COBHAM

SAILOR 621x VHF Service tool

Operation manual



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SAILOR 621x Service tool Operation manual

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1 Operation

This chapter describes the device specific configuration services available for the SAILOR 621x VHF Series. The manual is organized in the following sections:

- Channel configuration
- Radio configuration
- Phone book
- DSC logs

1.1 Channel configuration

Channels available in the radio are handled from the **Channel Table page**. A number of channel tables, representing the channel area modes, **Int**, **CA**, **US**, etc. are configurable under their individual tabs.

	Design	Allowed	Allowed A	Allowed B	Name	TX freq	RX freq	Duplex	Hi Allowed	TX Block	Wideband	Scan	Atis	Prop. for DSC
Edit	1	✓	✗	✗	PORT-PUBLIC	156050000	160650000	✓	✓	✗	✓	✗	✗	✗
Edit	2	✓	✗	✗	PORT-PUBLIC	156100000	160700000	✓	✓	✗	✓	✗	✗	✗
Edit	3	✓	✗	✗	PORT-PUBLIC	156150000	160750000	✓	✓	✗	✓	✗	✗	✗
Edit	4	✓	✗	✗	PORT-PUBLIC	156200000	160800000	✓	✓	✗	✓	✗	✗	✗
Edit	5	✓	✗	✗	PORT-PUBLIC	156250000	160850000	✓	✓	✗	✓	✗	✗	✗
Edit	6	✓	✗	✗	INTERSHIP	156300000	156300000	✗	✓	✗	✓	✗	✗	✓
Edit	7	✓	✗	✗	PORT-PUBLIC	156350000	160950000	✓	✓	✗	✓	✗	✗	✗
Edit	8	✓	✗	✗	INTERSHIP	156400000	156400000	✗	✓	✗	✓	✗	✗	✓
Edit	9	✓	✗	✗	INTERSHIP/PORT	156450000	156450000	✗	✓	✗	✓	✗	✗	✓
Edit	10	✓	✗	✗	INTERSHIP/PORT	156500000	156500000	✗	✓	✗	✓	✗	✗	✓
Edit	11	✓	✗	✗	SIMPLEX-PORT	156550000	156550000	✗	✓	✗	✓	✗	✗	✓
Edit	12	✓	✗	✗	SIMPLEX-PORT	156600000	156600000	✗	✓	✗	✓	✗	✗	✓
Edit	13	✓	✗	✗	INTERSHIP/PORT	156650000	156650000	✗	✓	✗	✓	✗	✗	✓
Edit	14	✓	✗	✗	SIMPLEX-PORT	156700000	156700000	✗	✓	✗	✓	✗	✗	✓
Edit	15	✓	✗	✗	INTERSHIP/PORT	156750000	156750000	✗	✓	✗	✓	✗	✗	✓
Edit	16	✓	✗	✗	DISTRESS/CALL	156800000	156800000	✗	✓	✗	✓	✗	✗	✗
Edit	17	✓	✗	✗	INTERSHIP/PORT	156850000	156850000	✗	✓	✗	✓	✗	✗	✓
Edit	18	✓	✗	✗	PORT-PUBLIC	156900000	161500000	✓	✓	✗	✓	✗	✗	✗
Edit	19	✓	✗	✗	PORT-PUBLIC	156950000	161550000	✓	✓	✗	✓	✗	✗	✗

Figure 1. Channel table for a channel table (example International channels in a SAILOR 6215).
All channels are represented in the same format.

The channel configuration features may vary depending on the SAILOR 621x series model under configuration.

1.1.1 Channel definitions

Each predefined channel table tab covers the standard channel set for the type of radio connected.

NOTE: Up to 40 private channels can be programmed. The channels programmed in the private channel table will be available in all channel modes (**Int**, **Bi**, **US**, **CA** and **Alt**) on the radio. Weather channels are programmed and available in either US or CA channel modes.

The **Alt** channel table is a full channel table which can be customized in the same way as the private channels.

1.1.2 Channel properties

Each channel property can be edited by pressing the **Edit** key for the specific channel. Fields that are not allowed to be changed will be in a grey shaded format.

Figure 2 Configurable channel property window.

Only private channels or channels in the **Alt** channel table have full flexibility on all fields.

The following describes the available configuration options:

- **Channel** - The channel designator to show on the radio display. The designator can be any number (up to 3 digits), or a combination of letters and digits. This option is only available for private channels and channels in the **Alt** channel table.

NOTE: The channel designators for all standard channel tables are not editable. The channels cover all defined channels in a narrow band (12,5kHz) layout. Channels fitting into the wide band grid (e.g. channel 10 and channel 410) will only be listed once with the wide band designator (e.g. channel 10).

- **TX frequency** - The transmit frequency (in Hz). Frequencies in the range 148-164MHz can be set.
- **RX frequency** - The receive frequency (in Hz). Frequencies in the range 148-164MHz can be set.

NOTE: Both RX frequency and TX frequency shall always be entered. Frequencies entered are checked to be valid on each entry. The frequencies must be entered with a channel resolution of 25 kHz for a wideband radio configuration, and 12.5 kHz for a narrowband channel.

- **Allowed** - If this box is checked the channel will be available in the radio in the selected channel table with the corresponding channel designator (in Figure 2 this means that a channel with designator 2 will be available in the radio)
- **Allowed A** - If this box is checked an original duplex channel is made available as a simplex channel (this is often used in U.S. or Canadian channels). The transmit (TX) frequency of the duplex channel is used for the simplex frequency (if option was checked in Figure 2 this means that a channel with designator 2A will be available in the radio).
- **Allowed B** - If this box is checked an original duplex channel is made available as a simplex channel (this is often used in U.S. or Canadian channels). The receive (RX) frequency of the duplex channel is used for the simplex frequency (if option was checked in Figure 2 this means that a channel with designator 2B will be available in the radio).

NOTE: The three above mentioned check boxes can be used independently. The radio configured as shown in Figure 2 will therefore have all channels 2, 2A and 2B made available to the user.

- **Name** – A channel can be named with to 15 characters. The channel name is shown in the radio display in VHF idle mode along with the channel designator.
- **Duplex** – If this box is checked the channel is defined as a duplex channel. The frequency defined in **RX frequency** will be used for receiving, and another frequency defined in **TX frequency** is used for transmission.
- **Hi Allowed** – This box is checked to allow high transmission power on the channel. Otherwise only low power will be possible. For definition of high power and low power, please refer to the radio type specific manuals.
- **Wideband** – If this box is checked the channel is configured as a wide band (25 kHz channel spacing). If it is not checked it is configured as a narrow band channel (12,5 kHz channel spacing)
- **Scan** – Check this box to mark the channel as part of the memory scanning table.
- **TX Block** – If this box is checked transmission will not be possible on that channel.
- **Atis** – This option is used to define if ATIS should be transmitted or not on a specific channel.

Following options are only relevant for DSC enabled products (6215/6216):

- **Prop. for DSC** – This option will (if checked) allow for the DSC composer to propose the channel as a channel for subsequent communication.

1.2 Radio configurations

Under the Configuration it is possible to change the behaviour of the radio. These settings are related to the working environment and are configurable via the Service Tool only.

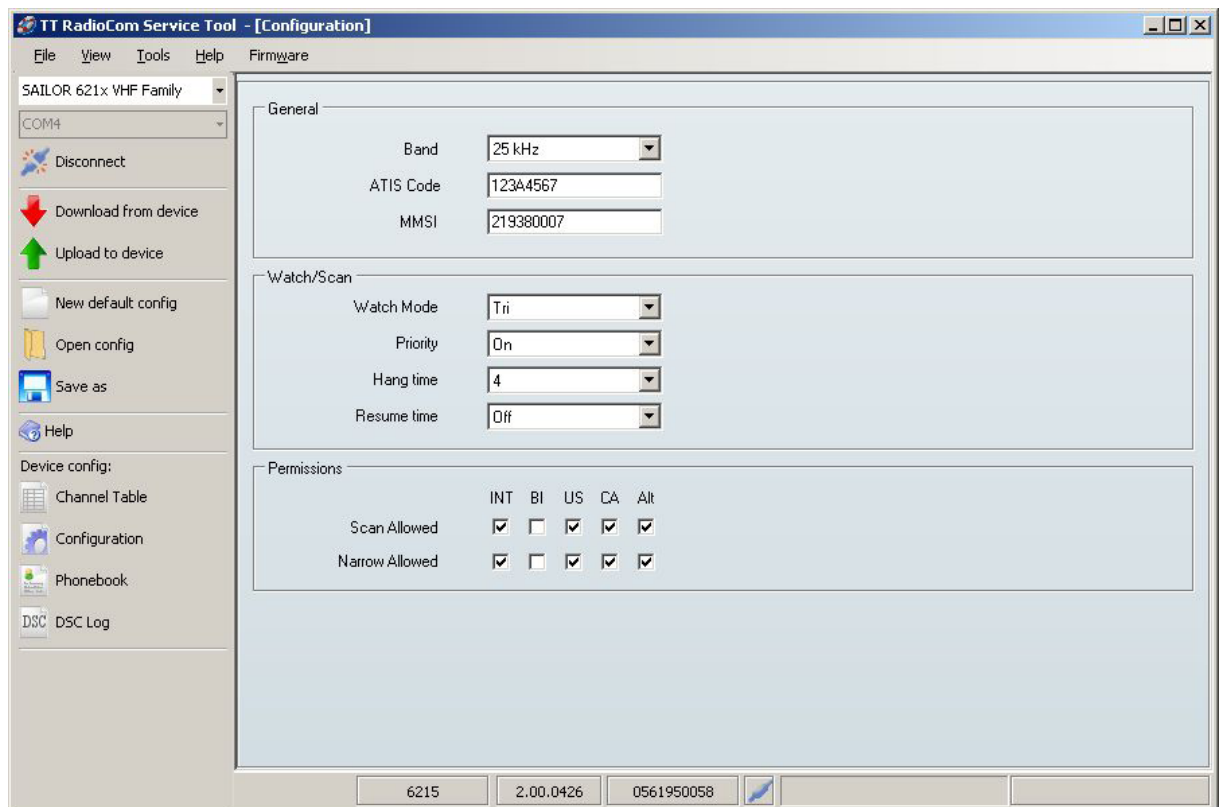


Figure 3 Radio configurations.

1.2.1 General Settings

In this section the basic operational mode and the radio identity settings are defined.

- **Band** – The operational channel band with is defined. This will allow for defining narrow band (12,5 kHz channel spacing) or wide band (25 kHz channel spacing) operation mode for all standard channel tables.
 - o **25 kHz** – Radio is in general operated in wide band mode
 - o **12,5 kHz** – Radio is generally operated in narrow band mode

NOTE: In narrow band mode standard channel designators will change to 3 digits.

- **ATIS Code** – The ATIS code can be entered or changed in this field. The ATIS code is used in areas where transmission of an identification string is required. The format of the programmed ATIS code is entered according to the following call sign prefix conversion table:

Character	Phonetic	Value	Character	Phonetic	Value
A	Alpha	1	N	November	14
B	Bravo	2	O	Oskar	15
C	Charlie	3	P	Papa	16
D	Delta	4	Q	Quebec	17
E	Echo	5	R	Romeo	18
F	Foxtrot	6	S	Sierra	19
G	Golf	7	T	Tango	20
H	Hotel	8	U	Uniform	21
I	India	9	V	Victor	22
J	Juliett	10	W	Whiskey	23
K	Kilo	11	X	X-ray	24
L	Lima	12	Y	Yankee	25
M	Mike	13	Z	Zulu	26

I.e. a Dutch (MID-number **244**) ship with call sign **SP1234**, should be programmed with the following number: **244P1234**.

Following options are only relevant for DSC enabled products (6215/6216):

- **MMSI** – The ship identity number can be entered or modified in this field. MMSI is required for

NOTE: Identity parameters (ATIS code and MMSI) must be re-entered after a firmware upgrade. They are not part of the „Save as...“ configuration parameters.

1.2.2 Watch/Scan Settings

In this section the specific watch and scanning settings are defined. These settings are all settings that can also be set up from SETTINGS on the radio.

- **Watch Mode** – This setting predefines if the radio shall run dual watch or triple watch when WATCH is pressed on the radio.
 - o **Dual** – Dual watch. Scanning the working channel and channel 16.
 - o **Tri** – Triple watch. Scanning the working channel, the programmed call channel (if any) and channel 16.
- **Priority** – Defines if priority scanning is enabled when running memory scanning on tagged channels.
 - o **On** – Channel 16 is part of the scanning sequence.
 - o **Tri** – Channel 16 is not part of the scanning sequence

- **Hang time** – Scanning hang time setup. The value defined for hang time defines the time scanning is paused on a channel where a signal has been detected.
 - o **OFF** – Hang time is not activated. The scanner is stopped on the receiving channel until the signal disappears.
 - o **4, 6, 8 or 10** – The hang time value in seconds.
- **Resume time** – Resume time setup. The resume time defines the time from scanning has been interrupted while it was in active scanning mode - either with PTT or by powering the radio off – until it is automatically resumed.
 - o **OFF** – Resume time is not activated. If the scanner is stopped it must always be restarted manually.
 - o **3, 6, 10, 15, 20, 25 or 30** – The resume time in seconds.

1.2.3 Permissions

Regional restrictions may disallow the use of different operational properties. This section lists the permissions to set up per configured channel mode.

- **Scan Allowed** – Checking this box will allow watch and scanning facilities on the selected channel table. If not enabled the radio will report an error if multiple watch is attempted.
- **Narrow Allowed** – Checking this box will allow the selection of the narrow band mode in the selected channel table. If not enabled the RADIO SETTINGS will not show the menu item to select bandwidth.

1.2.4 Phone book

The phone book (contact list) can be managed via the service tool Phonebook page. The phone book can be used either to extract MMSI number and preferred channel for subsequent communication in the DSC call composer, or it can be used to select a new working channel for VHF communication.

NOTE: This section is only relevant for DSC enabled models (6215/6216).

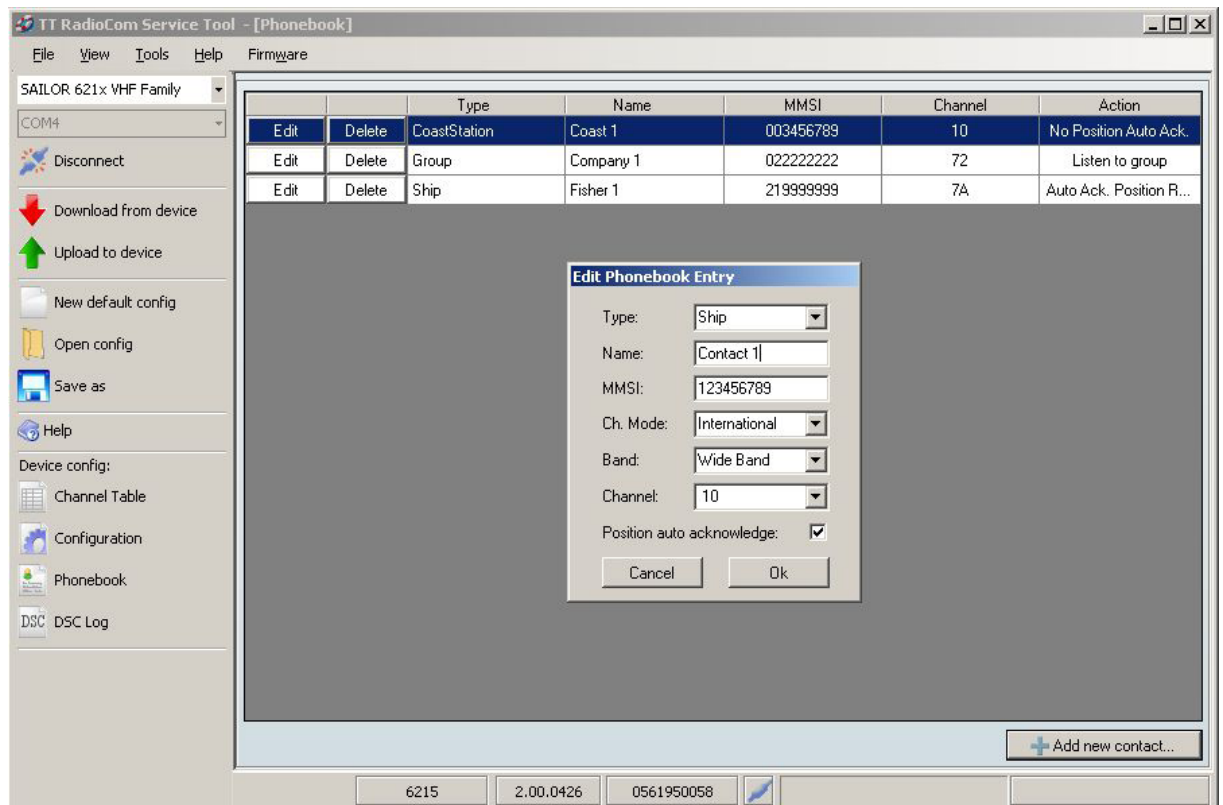


Figure 4. The phone book and entry window.

Entries in the phone book are listed one per line. The user has the possibility to:

- Edit an existing contact.
- Delete an existing contact.
- Add a new contact can be done by pressing the  button.

The Add/Entry window gives the following options for managing a contact in the phone book:

- **Type** – Defines which type of contact is listed. Depending on the contact type a different set of options might appear.
 - o Ship – The entry is a ship station.
 - o Group – The entry is a group definition.
 - o Coast Station – The entry is a coast station.
- **Name** – Name of the contact can be any character (12 characters).
- **MMSI** – If an MMSI identity is required for the contact it can be entered in this field. The MMSI is used in the DSC call composer to select the address for the called ship. The valid MMSI numbers to enter will differ depending on the type of contact.
- **Ch. Mode** – Helper function (not part of the phone book storage) to assist in channel selection.
- **Band** – Helper function (not part of the phone book storage) to assist in channel selection.
- **Channel** – The channel for a contact is used for two purposes.
 - o It will be proposed as the channel used for subsequent communication when the phone book is used to seek a contact from the DSC call composer.
 - o It will be used to set the working channel in VHF communication mode.

NOTE: Proposed channels will be validated against the current channel mode, before they are actually used in the application.

- **Position auto acknowledge** – This option appears on **Ship** or **Coast Station** entry types only. If this option is checked the contacts MMSI will be approved for automatic acknowledgement of a received DSC routine position request call.
- **Listen to group** - This option appears on **Group** entry type only. If this option is checked the contacts will be approved for reception of a DSC group call to that specific group MMSI number.

1.2.5 DSC Log

The DSC call logs can be managed via the service tool DSC log page.

NOTE: This section is only relevant for DSC enabled models (6215/6216).

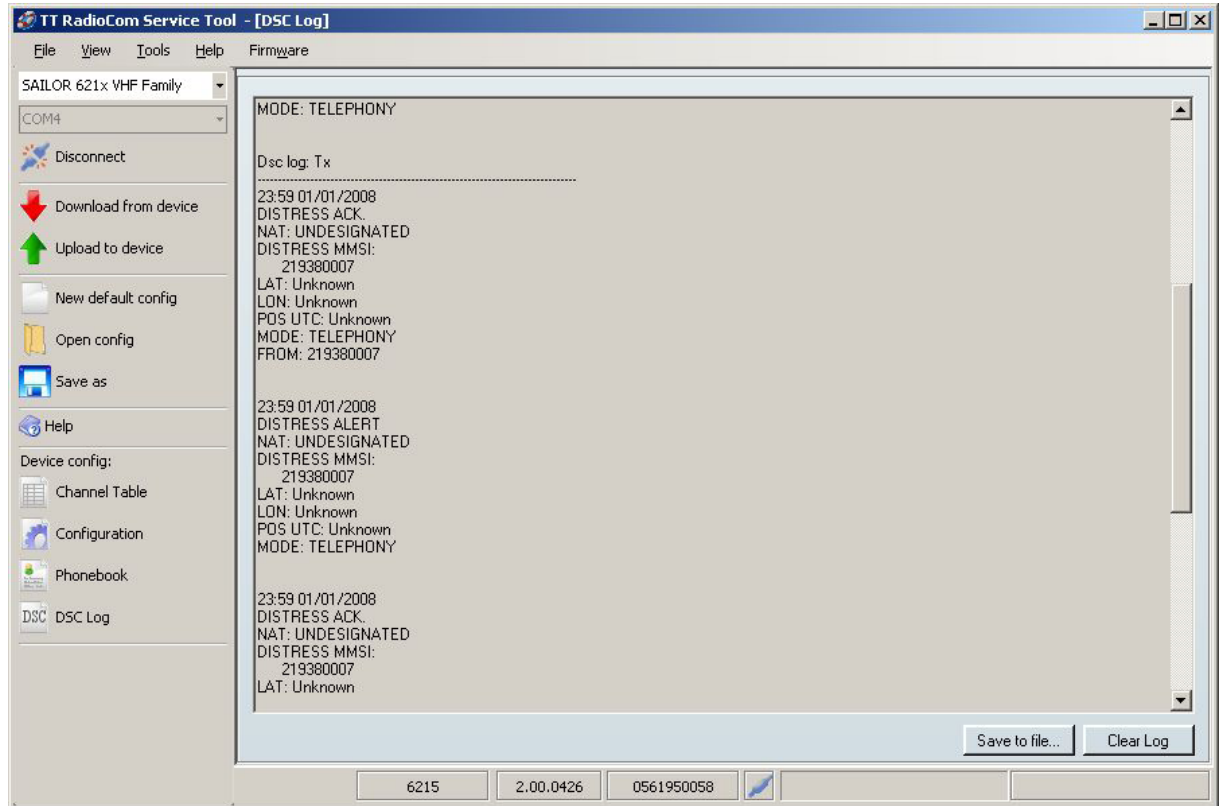


Figure 5. The available logs can be read out of the product immediately.

The logs are organized in the three available logs (e.g. DSC transmitted call log as shown in Figure 5). The user has the possibility to:

- Save the logs to a text file.
- Clear the log.

