Charts and Chart Objects

Settings for the Vector Chart and the Chart Objects

Selecting the objects to be displayed

Category (course selection): In the VISIBILITY SETTINGS dialog, select one of the standardized categories (BASE, STANDARD, ALL) of the display groups in the CATEGORY field. If necessary, add or remove individual display groups in the VISIBILITY GROUPS dialog by clicking on them.

After the removal or addition of display groups, a + or – is shown additionally in the CATEGORY field.

Reseting to the standardized selection of display groups for the chosen category: Click on the CATEGORY field and select the same category (supplemented by [DEF]).

Displaying the display of texts: In the CHART menu, in the TEXT LABELS field (at RADARPILOT and CHARTRADAR: with the TEXT LABEL button).

Also shows objects only intended for charts with a larger scale: In the VISIBILITY OPTIONS dialog, switch on the IGNORE SCALE MINIMUM function.

Suppressing time-dependent objects: In the VISIBILITY SETTINGS dialog, in the DATE DEPENDENT OBJECTS field, objects are displayed only during the time periods entered in the chart data.

Show the sectors and ranges of the lights: In the VISIBILITY OPTIONS dialog, switch on the FULL LIGHT SECTOR function.

Show light descriptions: Only if the display of texts is switched on: In the VISIBILITY OPTIONS dialog, switch on the LIGHT DESCRIPTIONS function.

Show located dangers situated in shallow water: In the VISIBILITY OPTIONS dialog, switch on the SHALLOW WATER DANGERS function.

Defining the form and type of presentation

Form of the symbols: In the VISIBILITY SETTINGS dialog (at RADAR-PILOT: in the CHART menu) using the SYMBOLS field.

Show special area objects in the VISIBILITY SETTINGS dialog, in the AREAS field choose SYMBOLIZED.

Marking of objects of the chart type ENC that were changed by official updates: In the VISIBILITY SETTINGS dialog, in the UPDATES field (LAST = mark only the objects changed by the last update).

Marking of objects for which additional information is available in the INFO window: In the VISIBILITY OPTIONS dialog, switch on the EXTRA INFO SYMBOLS function.

Defining the presentation of the depth areas and contour

All settings are made in the DEPTH CONTOUR dialog by entering the values in the appropriate fields. They can be entered at any CHARTPILOT or MULTIPILOT unit.

Depth values are distributed system-wide.

The safety contour denotes the boundary between the navigable and non-navigable areas.

The correct setting of the safety contour is particularly important because it forms a basis for chart monitoring.

If the DEPTH SHADES field is set to FOUR, the non-navigable area is divided by the shallow contour and the navigable area by the deep contour into two areas with different colours in each case.

Depth values contained in the chart that are less than the safety depth are marked in a prominent way.

Show depth values of the depth contours: In the field DEPTH CONTOUR LABELS.

Brilliance, Colour

Fine adjustment: Should be performed for correct chart presentation so that the two concentric squares in the BRILLIANCE menu can only just be distinguished from each other.

Settings of the Raster Charts

These settings are made in the CHART SETTINGS dialog (at RADAR-PILOT: in the CHART menu) using the SYMBOLS field.

Marking the chart regions which are not active: If the SHADE NON-ACTIVE AREAS function is switched on in the case of a chart which has several regions (e.g. harbour plans), then the regions which currently do not contain the own ship are shaded.

Marking of charted connections: Switch on the UPDATED CHART REGIONS function.

Automatic enlargement of the chart with the largest scale for the region situated ahead of the own ship: Switch on the AUTO SCALE function.

ECDIS Mode

2nd CHART Window

In the 2nd CHART window, another chart can be seen.

Opening the 2nd CHART window: With MORE, click on the PPI button on the position which is initially intended to be the center position of the 2nd chart, and then with MORE click on 2nd CHART.

Changing the size or position of the window: As usual for PCs (click on the frame and in the headline and then drag).

Storing the window settings: Click with MORE into the 2nd CHART window, click on SAVE WINDOW GEOMETRY (with DO) can be set with DEFAULT WINDOW GEOMETRY.

Closing the window: Move the cursor to the minimized rectangle at the bottom right, and then click on the CLOSE button which appears.

The buttons for the following settings appear when the initially minimized MORE button at the top left is clicked.

Specifying the position center graphically: Click on the initially minimized MOVE CHART button at the top right. Click into the 2nd chart, position the cursor, and then click again. If necessary, repeat the procedure. Ending the function: Click on the MOVE CHART button again, or automatically after about 7 seconds.

If the cursor is located on the 2nd chart, the cursor position is shown at the top right, otherwise the center position of the 2nd chart is shown.

If INFO appears next to the LON field: Information is displayed after INFO is clicked.

In the 2nd CHART window, the INFO window and a measurement line are provided: Click into the 2nd chart with MORE, then proceed as between these dialogs:

Taking over into the 2nd chart the chart settings of the chart area that were made after the 2nd chart was opened:

Manually by clicking on REFRESH, or continuously after switching on the AUTO function.

Storing the window settings:

Making the window active:

Specifying the position by entering the geographical coordinates:

Click on the MORE button at the top left is clicked.

Switching the display of the chart on/off:

Click on the CHART button on the screen.

Switching the display of the AIS Aids-to-Navigation on/off:

Click on the AIS AID-TO-NAVIGATION button.

Switching the display of the User Chart Objects on/off:

Click on the USER CHART OBJECTS button.

In the 2nd CHART window, another chart can be seen.

With MORE, click in the PPI on the position which is initially intended to be the center position of the 2nd OPTIONS.

The following settings are made in the ECDIS mode and at all units operating in CHART SETTINGS with MORE, select the dialog.

Changing the size or position of the window:

If the cursor is located on the 2nd chart, the cursor position is shown at the top right, otherwise the center position of the 2nd chart is shown.

Taking over into the 2nd chart the chart settings of the chart area that were made after the 2nd chart was opened:

Manually by clicking on REFRESH, or continuously after switching on the AUTO function.

Specifying the position center graphically: Click on the initially minimized MOVE CHART button at the top right. Click into the 2nd chart, position the cursor, and then click again. If necessary, repeat the procedure. Ending the function: Click on the MOVE CHART button again, or automatically after about 7 seconds.

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If the cursor is located on the 2nd chart, the cursor position is shown at the top right, otherwise the center position of the 2nd chart is shown.

If INFO appears next to the LON field: Information is displayed after INFO is clicked.
Switching Over between Radar Mode, Chart Radar Mode and ECDIS Mode

The switch-over is performed by means of the RADAR MODE and CHART MODE buttons or, after clicking on the MENU button, with the buttons of the same name. In the Radar or Conning mode, CHART MODE at the MULTIPLOT switches the unit to the Chart Radar mode or to ECDIS mode, depending on which was activated last. After that, CHART MODE switches between these two latter modes. For switching on the Conning mode, see below.

RADAR, ARPA, ECDIS Mode

With regard to these functions, the ECDIS mode largely corresponds to the Radar mode (and the Chart mode), see the Brief Operating Instructions Radar; ARPA, AIS Functions. In the following, only the special features of the ECDIS mode are presented.

Radar Functions

Radar Function On/Off, Master/Slave

Settings not possible in ECDIS mode; it is necessary to switch over to Radar mode first.

Radar video, can only be displayed within the PPI.

Video Off: Radar video can only be displayed in the PPI.

Video On: Switching the video on/off: In ECDIS mode, the VIDEO OFF button becomes the VIDEO button. It can be used to switch between Radar and ECDIS mode only.

With the VIDEO OFF key, the video can also be suppressed temporarily.

Special features in the 96 NM range: The video can only be displayed if the own ship is located at the centre of the PPI. For this reason, the video settings VIDEO, MWA and Center/Off affect each other.

In the ranges > 96 NM: No video display

If the video is automatically switched off through the switch-over, then in need of some cases it must be turned on manually when the video display is possible again.

Raster chart selected: No video display

Range / Scale

Step-by-step switch-over (vector and raster charts): With the arrow buttons, as in Radar mode.

Chart selected:

Additional ranges: 200 NM, 400 NM and 600 NM

Direct switching between Radar mode and ECDIS mode is only possible on RANGE field with MORE, where:

• Chart selected: Safety Contour setting [supplement], the areas for which chart data are available are marked with ♦.

• Chart selected: Raster chart selected: The range is switched over through selection of the chart. When activating the chart type ARC/SAFETY CONTOUR, the RANGE field becomes the SCALE field.

Direct switch-over: As in Radar mode (click on RANGE field with MORE). The chart selected: Safety Contour setting [supplement] and the button "Display of available".

Rotating the orientation of the entire display to account for monitor arrangement (e.g. on the bridge wings):

Use the ORIENTATION button.

Switching the display of the elements on/off:

The chart selected: Safety Contour setting [supplement]. Entries are only possible if no relevant sensors are connected.

VRM, EBL, Measurement Lines, Parallel Index Lines

As in Radar mode, only within the PPI.

ARPA and AIS functions

In the Radar Monitoring, the alarm display function takes place when the video display is switched off.

CAUTION: In the chart area, the tracked targets located outside of the detection area are not displayed.

Conning-Displays

Switching the conning display on/off:

In the Radar, Chart Radar or ECDIS mode, the CHART MODE button or the MONITOR button switches on the conning display selected. Last selected CONN MODE switches between the available conning displays.

Alternative switch-over (only at the CONN MODE at the MULTIPLOT)

Displaying the menu items:

After clicking on the CONN MODE button, the buttons are displayed on the screen at a distance of 32 cm from the display or at a distance of 64 cm from the display (if the touchscreen is activated).