

1. General Information

The functions needed to upgrade the software (SW) of the RT-500-M direction finder display-control unit (DCU) are all available in the DCU service menu (see 2. Service Menu).

CAUTION!!

To prevent the operating system from becoming corrupted during DCU SW update:

1. **The power supplied to the DCU must be stable**
2. **Do not connect/disconnect any device to/from the DCU**
3. **Do not move the DCU to avoid any power or USB momentary disconnection**
4. **Do not remove the USB flash drive until the update is complete**

To upgrade the RT-500-M DCU SW take the following steps:

1. Before the SW update - in case any issues arise from the update - create a backup of the RT-500-M configuration data by exporting the existing configuration, see 3. Export Configuration Files
2. Unzip file "update_2.20_to_3.06_051322_user.zip" provided by RHOTHETA
3. Copy the "update" folder into an USB flash drive
4. Update the DCU SW following the instructions in 4. Update DCU
5. Restart the RT-500-M after the update to complete the update process
 - For revisions under [Rev 2.26]: after restarting the RT-500-M DCU a new license key will be required. Contact RHOTHETA to obtain the license key. To enter the license key, see 5. Input License
 - For [Rev 2.26] and higher: no license key should be required
 - To ensure functionality of a new license key the RT-500-M must be restarted.
6. After update and licensing is complete, the old configuration data is automatically adopted. Restoring the configuration data is only necessary if the configuration will be changed after the update, see 6. Load Configuration Files

2. Service Menu

Refer to User Manual 7.4.5 Service.

Press “Service” to access the functions required during the SW update process.

The “Service” tab is password-protected and can be used only with administrator (“Admin”) access level.

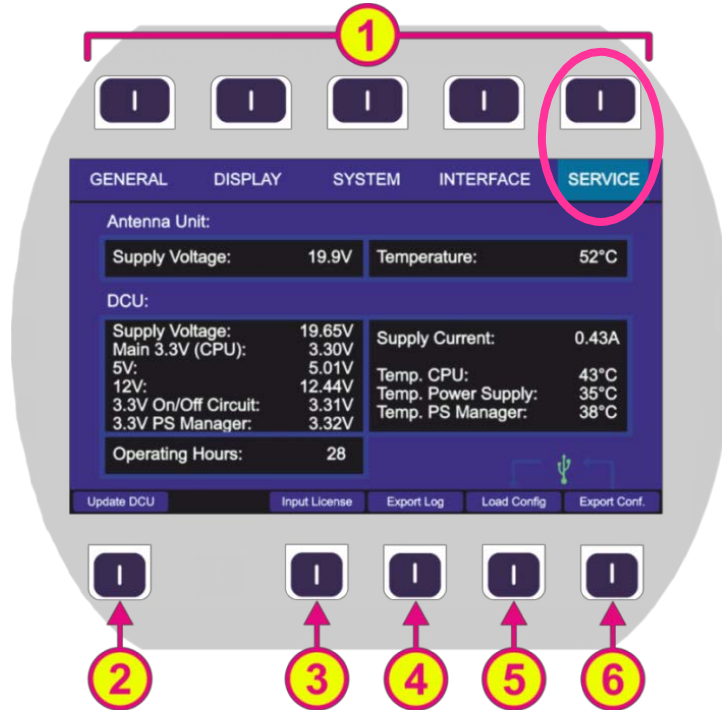


Figure: Setup page. Service menu

Indication on Setup Page, Service Menu		
Pos.	Element	Meaning / Description
①	(Top 5 keys)	“General”, “Display”, “System”, “Interface” and “Service” functions
②	“Update DCU”	Opens a page to start a software update (see chapter 4)
③	“Input License”	Opens a page to input a new license code (see chapter 5)
④	“Export Log”	Opens a page to export log files to USB
⑤	“Load Config”	Opens a page to import configuration files from USB (see chapter 6)
⑥	“Export Conf.”	Opens a page to export configuration files to USB (see chapter 3)

Service menu functions

In the “Service” screen the DCU displays operational parameters of AU (antenna unit) and DCU, such as temperature and voltage. Depending on the actual DF installation & setup (cable length, etc.) supply voltage/current values can differ slightly from the values adjusted on the power supply devices.

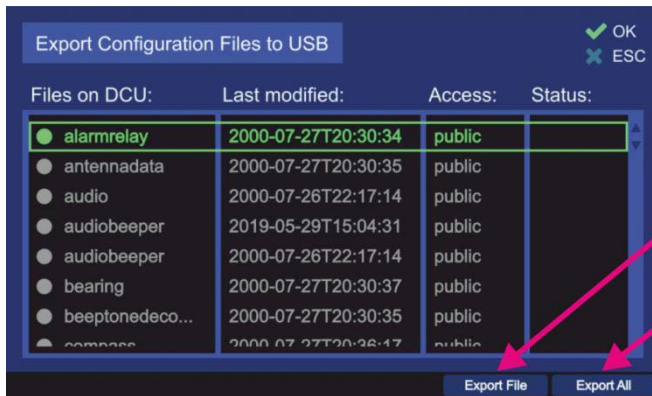
3. Export Configuration Files

Refer to 7.4.5.5 Export Configuration Files.

This page is used to select configuration files from the internal memory and export them to USB.

The “Export Conf.” hotkey is activated only if the USB flash drive is detected.

Pressing “Export Conf.” opens the following page:



Starts exporting of the currently marked configuration file

Starts exporting of all available configuration files

Figure: Export configurations page

- The “Export File” hotkey is visible only if the selected configuration file is labeled as “Public”. Pressing this hotkey starts exporting the configuration file to the USB flash drive.

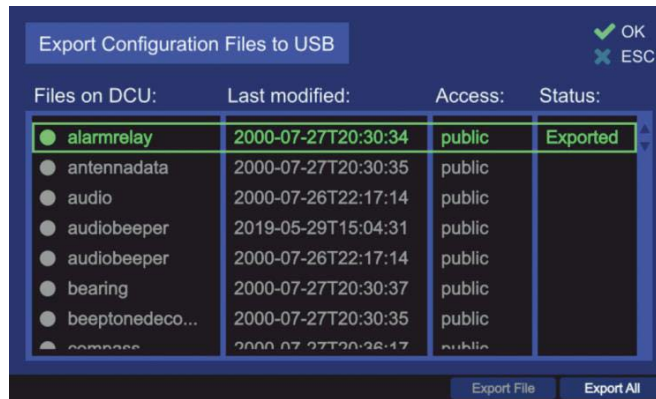


Figure: Export of a single file

After a successful file export, the “Export File” hotkey label turns gray.

The same export cannot be repeated without re-opening the page.

The “Export All” hotkey allows exporting all “public” configuration files to the USB flash drive.

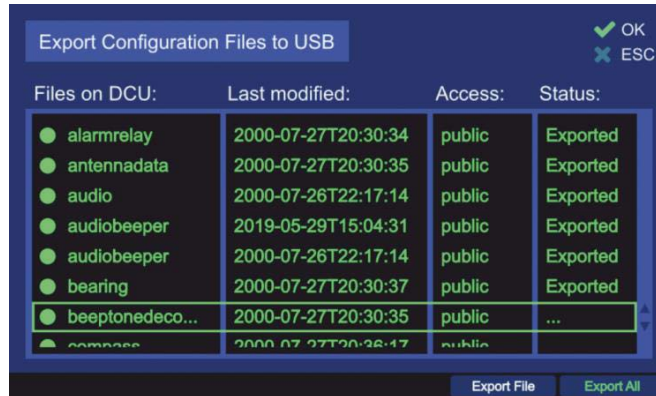


Figure: Export of all configuration files

After a successful export, the “Export All” hotkey name becomes gray.

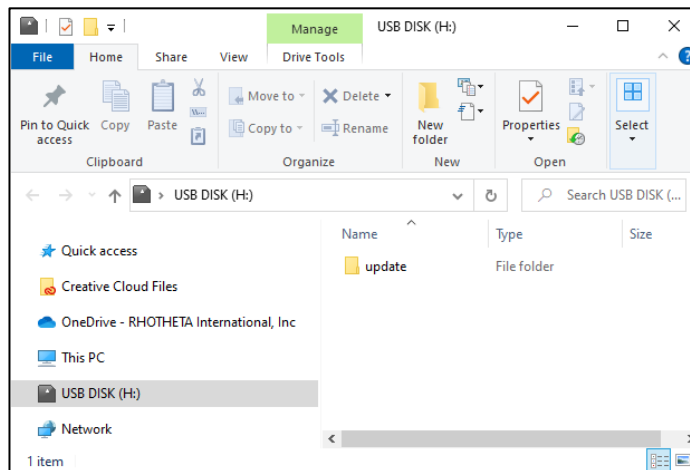
The same export cannot be repeated without re-opening the page.

4. Update DCU

Refer to User Manual 7.4.5.1 Update DCU

To load update files, use a flash drive that contains the “update” folder in the root of the drive.

The USB interface is found on the rear of the DCU by unscrewing the service cap.



The hotkey “Start Update” appears if a flash drive with a valid software version has been detected. The new software version is then displayed in the page under the label “New Version”.

Pressing the “Update DCU” hotkey opens the “Update DCU” page.

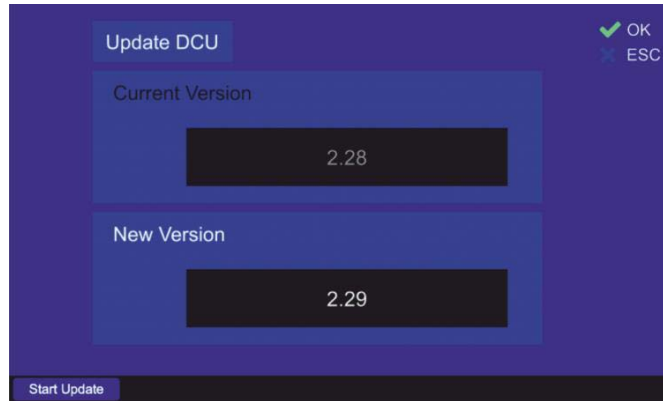


Figure: DCU update page, new version available

If a new software version is not available, the page will just display the current version.

Pressing the “Start Update” hotkey starts the SW update from the USB flash drive.

During the update, the “Start Update” hotkey changes to “Update...” and the “in progress...” annunciation appears.

The SW update takes approx. 1 min.

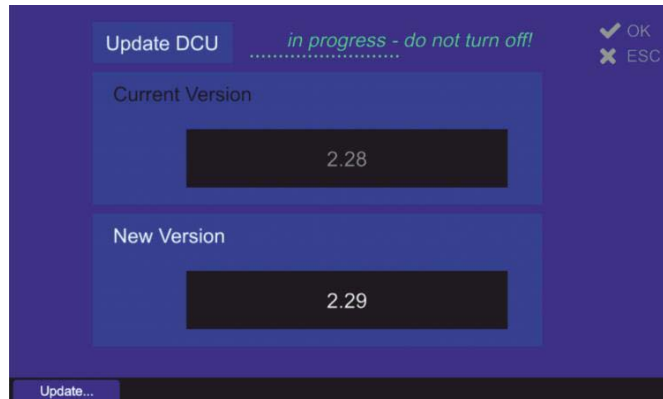


Figure: DCU update in progress

After a successful update the hotkey label turns back to “Start Update”.



Figure: DCU update finished

Confirm the new SW version by pressing "OK".

After the new SW version is confirmed, restart the system by pressing "OK".

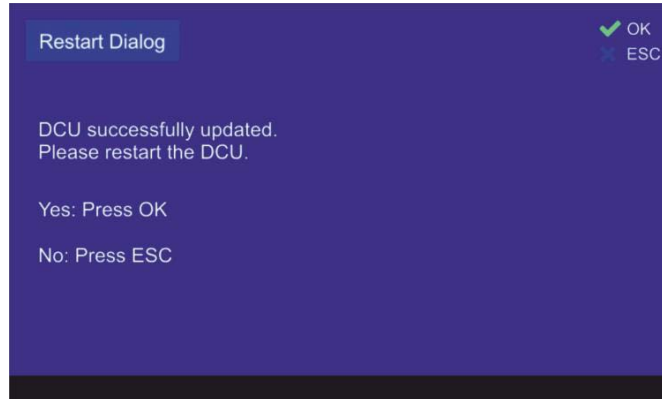


Figure: Restart page

Caution: Restart the DCU after the new software version was uploaded!

If the DCU will not reboot after the update, contact RHOTHETA.

If after restart the "Input License" page appears, enter the license received from RHOTHETA.

Refer to 5. Input License

The new software version can be verified under the "General" menu tab.



Figure: Update DCU control on the "General" page

5. Input License

Refer to User Manual 7.4.5.2 Input License.

Pressing the “Input License” hotkey opens the “Input License” page.

- o You can input the new license manually or load it from the USB flash drive
- o Use arrow buttons to navigate between letters on the virtual keyboard
- o Use the number keys of the DCU keyboard for input of the numbers.

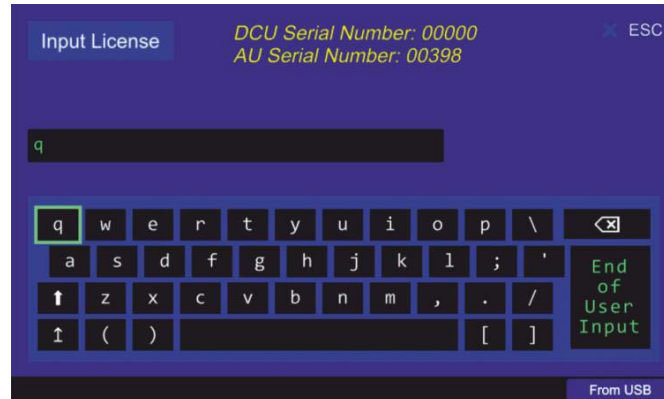


Figure: Input license page

- o To load the license file from a USB flash drive, press the “From USB” hotkey.
- o The software will search for a valid license code on the flash drive. If a valid license is found, the license text will be displayed in the license input field
- o After entering a valid license code, the device will show the “Valid License!” message and request the user to confirm the new license by pressing “OK”.

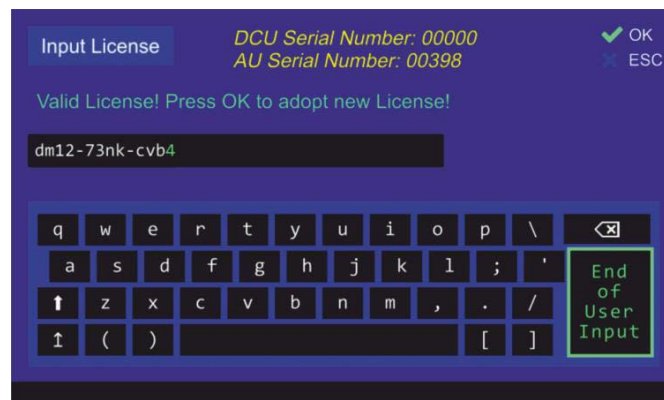


Figure: Input of a new license from USB

After confirming the new valid license by pressing “OK”, a page opens requesting to restart the system by pressing “OK”.

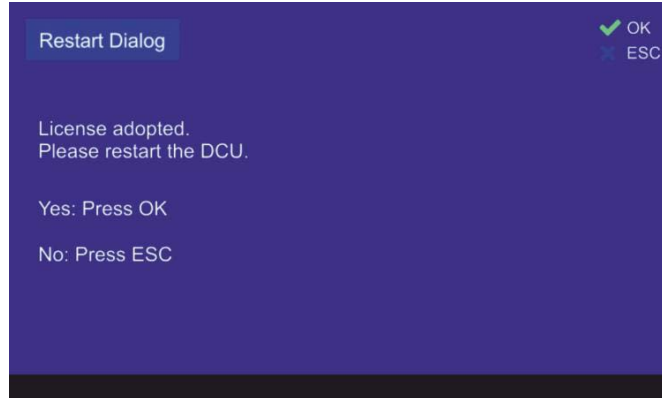


Figure: New license adopted

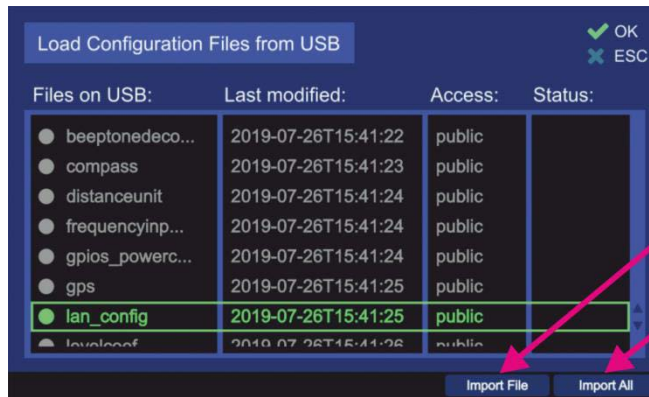
6. Load Configuration Files

See User Manual 7.4.5.4 Load Configuration Files.

The Load Configuration Files page allows importing configuration files into the RT-500-M DCU.

The “Load Config” hotkey is activated only if the USB flash drive is detected

Pressing “Load Config” opens the following subpage:



Starts importing of the marked configuration file into the DCU

Starts importing of all available configuration files

Figure: Importing a log file

- The “Import File” hotkey is only visible if a valid configuration file is selected.
- Pressing “Import File” starts importing the selected configuration file from the USB flash drive

- o After a successful import, the “Import File” hotkey label turns gray.

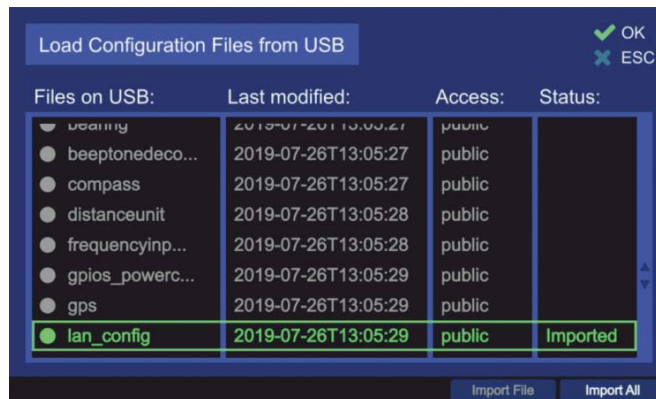


Figure: File imported

Importing the same configuration file cannot be repeated without re-opening the page.

- o The “Import All” hotkey is only visible if there is at least one valid configuration file in the flash drive
- o Pressing “Import All” starts importing all valid configuration files from the flash drive
- o After a successful import, the “Import All” hotkey label turns gray.

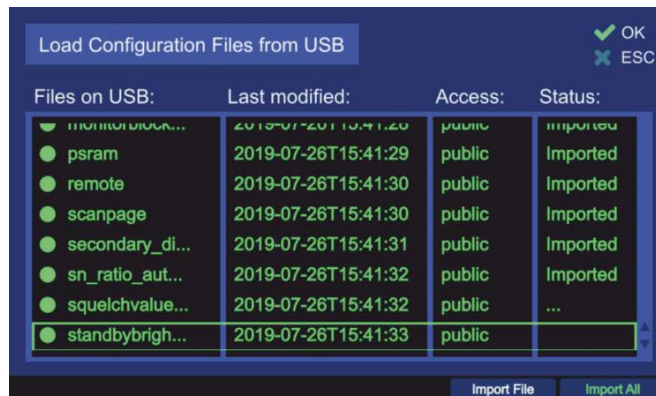


Figure: Importing of all files

- o The same import cannot be repeated without re-opening the page.

Congratulations!!
You have successfully updated this RT-500-M DCU :)