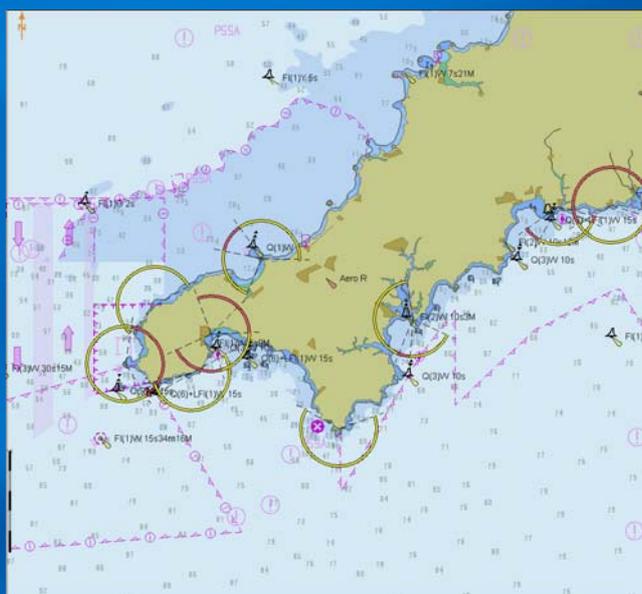


Using The Admiralty Vector Chart Service With The Furuno FEA 2107/2807 ECDIS

Admiralty Vector Chart Service



AVCS





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Introduction

Conventions Used in this Document

Italic font is used for:

- program and component names

Boldface is used for:

- chapter and section headlines
- important notes

Courier New font is used for:

- any text typed by the user
- file content and names

The note box displays important information which should not be ignored.

Select from the Menu Bar: →

- Indicates the menu options to select a particular ECDIS function.

Please note:

- Logos incorporating the Admiralty  are trademarks of the UKHO.
- Screen layouts illustrated in this user guide may differ from the actual layout that you see.
- The information described in this user guide may be subject to change without notice.
- Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Purpose of this Guide

ENCs contained within the Admiralty Vector Chart Service (AVCS) are produced and distributed according to well-defined international standards. However each ECDIS manufacturer has implemented the ENC import module differently. Users who are experienced in operating a particular model of ECDIS may require additional supporting information when managing AVCS ENCs on ECDIS equipment that they are not as familiar with. The purpose of this guide is to provide equipment-specific information to assist users in managing their AVCS ENC holdings.

This guide has been produced to take users through the installation of AVCS on ECDIS or ECS equipment. The actual instructions and screenshots are based on the version of the ECDIS installed at the UKHO as detailed on the front cover. However the method of managing AVCS and other digital data, e.g. ARCS, is common across equipment supplied from the same manufacturer, i.e. different versions and models. There may be minor differences between certain models and these will be highlighted in this guide where known.

AVCS User Guides are available for other ECDIS equipment; please visit www.ukho.gov.uk/AVCS to download a guide suitable for your ECDIS equipment.

This guide should be read in conjunction with the AVCS User Guide, as well as the ECDIS Operators Manual or other documentation as supplied by the equipment manufacturer.

Getting Started

New AVCS Customers

Your Admiralty Chart Agent will provide you with the following materials when you subscribe to AVCS for the first time:

AVCS Start-Up Pack

- AVCS Quick Start Guide;
- AVCS User Guide;
- AVCS Base Discs (a set of CDs or a DVD labelled 'Base');
- AVCS Update Disc (a CD labelled 'Update')¹;
- Admiralty Utilities installation CD;
- Admiralty Digital Data Services End User Licence Agreement (EULA).

AVCS Licence

This may be supplied with the *AVCS Start-Up Pack* on hard media, e.g. floppy, CD, etc. or separately by e-mail. The initial licence pack will contain the following:

- A "*Schedule A*", this is a PDF document listing the Folios and ENC Units that the user is licensed for. It also lists the "Home CD" where the licensed ENCs are held. This is particularly useful as it prevents unnecessary loading of those CDs that do not contain any licensed ENCs.
- A set of *ENC Permit* files (PERMIT.TXT and ENC.PMT) for each ECDIS installation.
- *AVCS Certificate* (a PDF document showing your vessel and license details).

For an initial installation, or a reinstallation of AVCS on a purged ECDIS you will need all of the above materials. If you are applying a weekly update, you will only need the latest AVCS update disc and possibly a new ENC Permit file. If you want to install additional coverage on the ECDIS you will need the latest base disc(s), the latest update CD and a new set of ENC Permit files.

AVCS Material Replacement

Most Admiralty Chart Agents will have a stock of AVCS Start-up packs, so base and update discs can be obtained from them. Usually digital files, such as ENC Permits, are sent as attachments to emails and these may be stored in your email system's inbox. If not, your Chart Agent will often hold copies of any permit files previously sent to you.

Pre-installation Checks

Data Cleansing

New AVCS customers who had previously subscribed to other ENC services are strongly recommended to remove (purge) all ENC Permits and ENCs from the system before installing AVCS. There is a good reason for doing this as previously installed ENCs may become out of date if they are not licensed in AVCS. If the system is not purged redundant ENCs may remain in the system database (SENC) and be available for use, even if the previous license has expired. However unlicensed ENCs cannot be updated and the user may be unaware of this if inadvertently navigating on one. Instructions on how to remove ENC Permits and ENCs are described later in the Data Cleansing section.

¹ Currently an *AVCS Update CD* will not be available if the customer joins AVCS coincidentally with a re-issue of the *AVCS Base CDs*. This may change in the future with the incremental issue of the AVCS bases.

Public Key – Is the Correct File Installed?

The ECDIS will not install ENC's from AVCS unless the correct Public Key is installed. If the correct Public Key is not installed the ECDIS will report an *Authentication Failure*.

Background

The ECDIS authenticates the source and integrity of encrypted ENC's from Service Providers against a pre-installed *Public Key*. The *Public Key* can be formatted in one of two ways, either an ASCII text file (.PUB) or an X509 Certificate (.CRT). Newer ECDIS (manufactured since 2003) often come with the IHO.PUB and/or IHO.CRT pre-installed as the IHO are the Scheme Administrator (SA) for the S-63 ENC Data Protection Scheme. The UKHO is a certified subscriber to this scheme. However, for historical reasons, it does not use the *IHO Public Key*. AVCS ENC's are currently authenticated against the *PRIMAR Public Key*. The reason for this being that many legacy ECDIS are configured to authenticate against this Public Key. The UKHO will migrate to the IHO public key in the future when it is considered safe to do so without causing any inconvenience to existing users.

Check the Public Key

Before installing AVCS ENC's, the user must check that the correct Public Key is installed on the system. The method of managing and viewing these will vary between different makes or versions of ECDIS. If the *PRIMAR Public Key* is not present on the system then it will have to be installed before AVCS ENC's can be loaded. See the **Error! Reference source not found.** section below for the method of managing the Public Key on this particular ECDIS.

ECDIS Authentication Warning

New build ECDIS, type-approved against the latest IMO ECDIS Performance Standards (Jan 2009), will report a warning when installing AVCS. The message reads as follows:

SSE26 - This ENC is not authenticated by the IHO acting as the Scheme Administrator

Users should acknowledge these, if prompted to do so, but should not be alarmed as the source and integrity of the ENC's are authenticated correctly against the *PRIMAR Public Key*. Other errors or warnings relating to the validity of the public key or certificate should be reported, see the section on **Getting Help**.

Emergencies

In certain circumstances it may be necessary for a vessel to get access to an AVCS ENC at very short notice, for instance, if having to divert from the planned route in a medical emergency. See **Emergency ENC Permit Generation** in the **Getting Help** section.

Activating the S-57 Mode

Before installing AVCS ENC's the system must be set to the correct mode of operation. In the case of AVCS this is "S57". There are three steps to this procedure which the following screenshot illustrates.

- 1 Make sure the "Menu" option is visible in the bottom right hand side of the viewer.
- 2 Right click the mouse or tracker ball assembly to display the "Chart Menu" drop down menu.
- 3 In the "Activate S57 chart" drop down menu select either "Ignore Scale" or "Sync Scale" (at this stage it does not really matter).

Menu: → right click mouse [Chart Menu] → Activate S57 chart → Ignore Scale or Sync Scale

If not already activated select "Activate S57 charts"

This is the option for managing and installing AVCS ENC's

[Activate S57 chart]
 Go Back
 Ignore Scale
 Sync Scale

③ Select either "Ignore Scale" or "Sync Scale"

② The following drop down "Chart Menu" menu will be displayed

① With the "Menu" option selected - right click the mouse or trackerball assembly

[Chart Menu]	
Activate S57 chart	▶
Load Charts	▶
Update Charts	▶
Load and Update History	▶
Remove Charts	▶
Chart Catalogue	
Chart Permits	
Licence	
Select Next Chart	
Open Chart	▶
Manual Updates	▶
System	▶
Close	

HDG (MAN)	000.0 °
SPD (MAN)	0.0 kn
SB (MAN)	0.0 kn
COG (MAN)	000.0 °
SOG (MAN)	0.0 kn
40°38.451'N	
001°58.893'E	
WGS 84	
DEAD RECKONING	
Route:	SMALLSCALE
Plan Speed	22.0 kn
Plan	255.0 °
Route	255.3 °
Ch LIM	185 m
Off track	< -9999 m
Outside channel	
To WPT	2
Dist WOP	5808 NM
Time	> 63 days
Turn RAD	0.8 NM
Turn rate	0.0 °/min
Next WPT	3
Next	242.9 °
UserChart	Notes
04 Nov 2010 08:39	
Local (UTC 00:00)	
41°28.117'S	
+ 139°43.633'E	
9028.2 NM 123.1 °	
TT DISP ON	< AIS FUNC OFF
T VECT(G)	12 min
Predictor	OFF
PASTPOSN	OFF
CPA	10.0 NM 30 min
CPA AUTO act.	ALL
Lost TGT alarm	ALL
SINGLE	06.02 06.02
759 LAN-adapter 1 error	
Menu	Info Chart Menu

- Ignore Scale: Display S57 ENC at the same scale used previously to open an S57 ENC.
- Sync Scale: Display S57 ENC at the same scale as the current ARCS chart in the viewer.

Preliminary System Checks

General

The Pre-installation Checks section identifies some pre-installation checks that the user should carry out before loading AVCS ENC's into the system. These checks are primarily aimed at systems which had ENC's from another service installed prior to converting to AVCS. It is also prudent to carry out the following checks when installing AVCS on newly delivered systems.

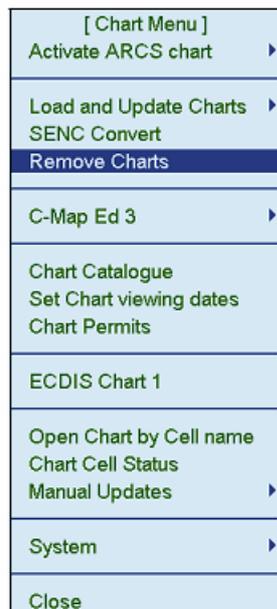
Data Cleansing

The Data Cleansing section highlights the need for new AVCS customers, who had previously subscribed to other ENC services, to remove (purge) all *ENC Permits* and ENC's from the system before installing AVCS. It also outlines the reasoning behind this recommendation, the following section outlines the method of carrying this out on this ECDIS.

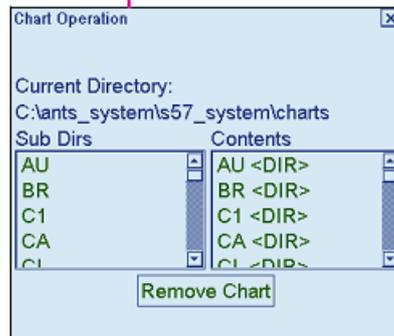
Furthermore the ECDIS will not install ENC's from AVCS unless the correct Public Key is installed. If the correct Public Key is not installed the ECDIS will report an *Authentication Failure*.

Removing Installed ENC's

Menu: → right click mouse [Chart Menu] → Remove Charts → "Chart Operation" window



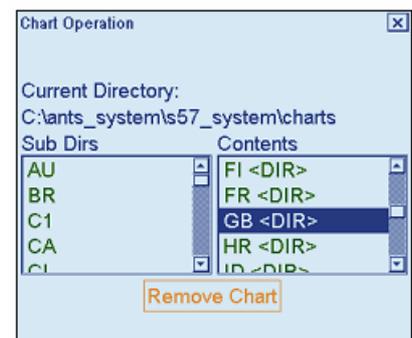
Select ,Menu>, <Chart Menu> and highlight "Remove Charts">



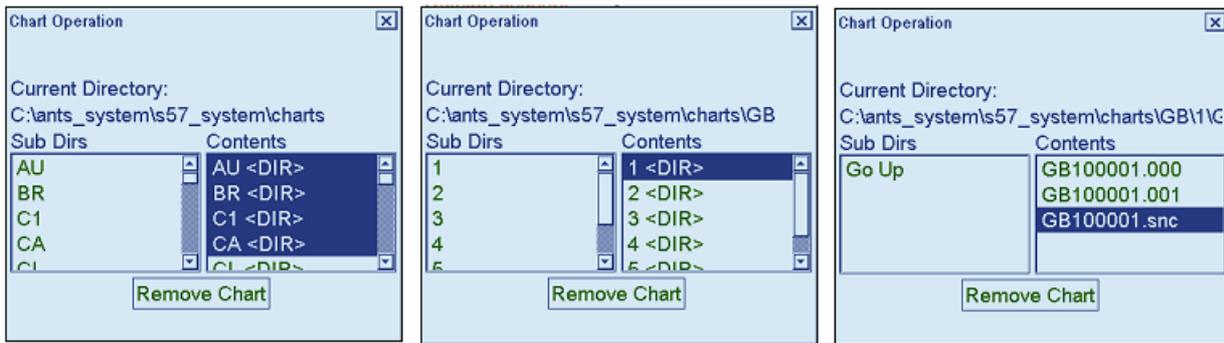
A "Chart Operations" box will be displayed. This allows user to carry out a number of different combination of remove options.

When the "Chart Operations" window is displayed the user can choose to remove (delete) some or all of the installed ENC's from the system database (SENC). The example across has the GB directory highlighted, clicking the "Remove Chart" button will remove all GB ENC's from the SENC. Users can choose from a number of remove options as follows:

- 1 Remove one or more countries ENC's in a single action.
- 2 A subset of a countries ENC's by usage band (navigational purpose)
- 3 One or more of a particular country's ENC's, e.g. a single ENC or selected number.



The following screenshots seek to illustrate the combinations listed above.



When the "Remove Chart" button is clicked the user will be asked to confirm the operation. Click "OK" to continue removing the ENC. As the ENCs are removed from the database a "Progress Dialog" is displayed.



Check the Public Key

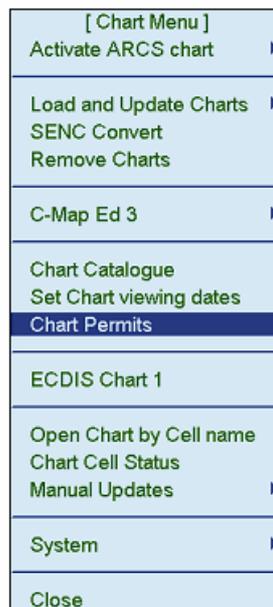
Before installing AVCS ENCs, the user must check that the correct Public Key is installed on the system. If the PRIMAR Public Key is not present on the system then it will have to be installed before AVCS ENCs can be loaded.

ECDIS Authentication Warning

New build ECDIS, type-approved against the latest IMO ECDIS Performance Standards (Jan 2009), will report a warning when installing AVCS. The message reads as follows:

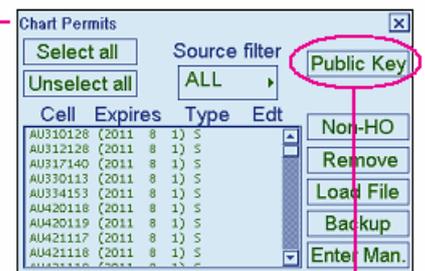
SSE26 - This ENC is not authenticated by the IHO acting as the Scheme Administrator

Users should acknowledge these, if prompted to do so, but should not be alarmed as the source and integrity of the ENCs are authenticated correctly against the PRIMAR Public Key. Other errors or warnings relating to the validity of the public key or certificate should be reported.

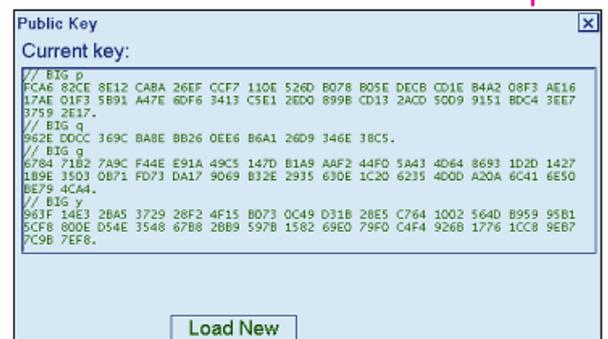


Select <Menu>, <Chart Menu> and highlight the "Chart Permit" option

Clicking on the "Public Key" button will display the "Public Key" window



"Chart Permit" window will be displayed



The installed Public Key can be viewed through the “Chart Permit” window. This can be accessed as follows:

Menu: → right click mouse [Chart Menu] → Chart Permits → click “Public Key” button

The “Public Key” window displays the currently installed public key. The Admiralty Vector Chart Service currently uses the PRIMAR.PUB, issued by Primar Stavanger, to authenticate its AVCS ENC’s.

The PRIMAR.PUB file

The following public key is used to authenticate ENC’s distributed through the Admiralty Vector Chart Service. The contents of the “Public Key” window should be checked to see if the correct one is installed.

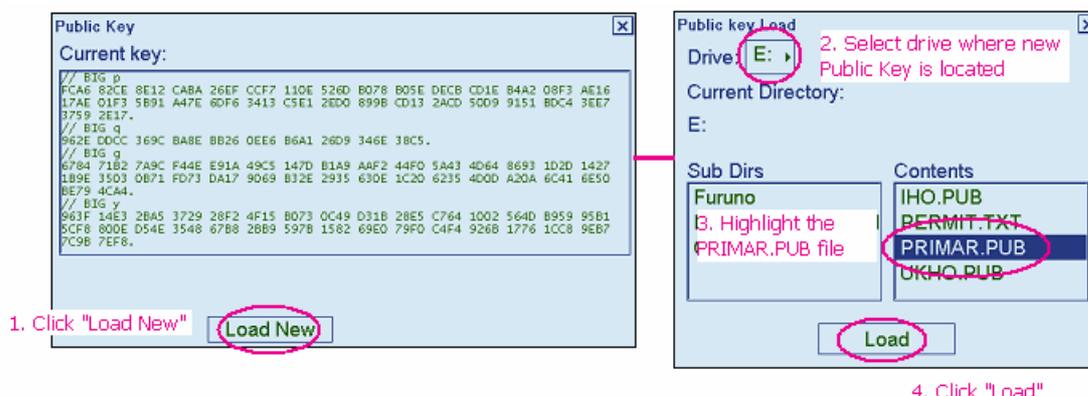
A copy of the public key file should have been supplied with this guide. If not the user can copy the text reproduced below under the heading *AVCS Public Key (PRIMAR.PUB)*. When copying start at “//Big p” and finish at the full stop at “C4BF.” Open *Notepad* and paste the contents into it. Save the resultant text file as “PRIMAR.PUB”. This can then be installed in the ECDIS as described below.

The AVCS Public Key File (PRIMAR.PUB)

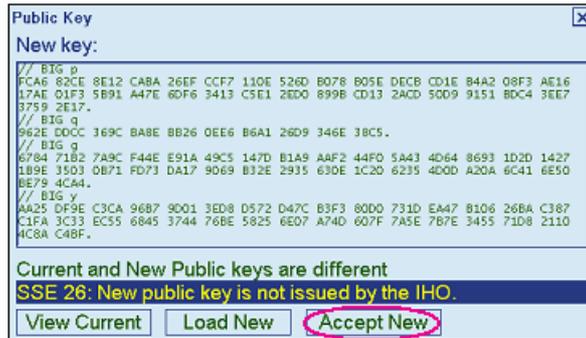
```
// BIG p
FCA6 82CE 8E12 CABA 26EF CCF7 110E 526D B078 B05E DECB CD1E B4A2 08F3 AE16
17AE 01F3 5B91 A47E 6DF6 3413 C5E1 2ED0 899B CD13 2ACD 50D9 9151 BDC4 3EE7
3759 2E17.
// BIG q
962E DDCC 369C BA8E BB26 0EE6 B6A1 26D9 346E 38C5.
// BIG g
6784 71B2 7A9C F44E E91A 49C5 147D B1A9 AAF2 44F0 5A43 4D64 8693 1D2D 1427
1B9E 3503 0B71 FD73 DA17 9069 B32E 2935 630E 1C20 6235 4D0D A20A 6C41 6E50
BE79 4CA4.
// BIG y
AA25 DF9E C3CA 96B7 9D01 3ED8 D572 D47C B3F3 80D0 731D EA47 B106 26BA C387
C1FA 3C33 EC55 6845 3744 76BE 5825 6E07 A74D 607F 7A5E 7B7E 3455 71D8 2110
4C8A C4BF.
```

Installing the PRIMAR.PUB file

Install the PRIMAR.PUB file by clicking the “Load New” in the “Public Key” window. A “Public Key Load” window will be displayed where the user can browse to the source of the PRIMAR.PUB file, highlight it and click “Load”.



A new “Public Key” window will shown displaying the “PRIMAR.PUB” public key file. This will not overwrite the currently installed public key until the user clicks on “Accept New”.



Note the SSE26 warning and read the section under the heading of "ECDIS Authentication Warning"

Click "Accept New"

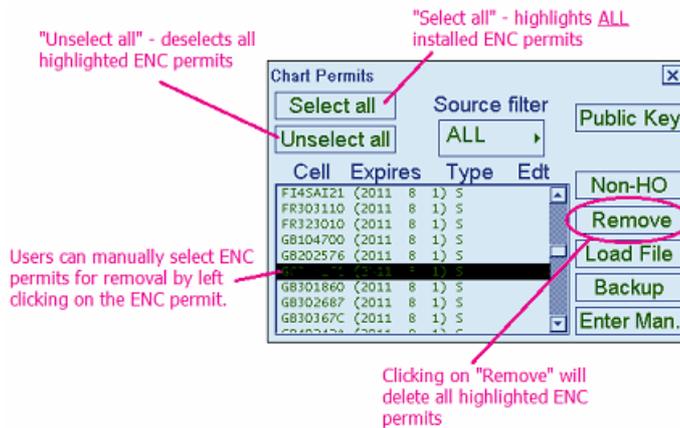
NOTE: Information relating to the SSE26 warning, as shown in the screenshot above, is provided in the paragraph headed *ECDIS Authentication Warning*.

Remove Installed ENC Permits

If the user has previously subscribed to another ENC service it is advised to remove these from the system. The following section on *Managing ENC Permits* describes how this can be done.

When removing ENC permits from the system the user has two options as follows:

1. Automatic: Remove all permits clicking on the "select all" option and clicking "remove". The "Unselect all" button reverses this "Select all" operation.
2. Manual: The removal of ENC permits by selecting an individual ENC permit or a selection of ENC permits.



Installing and Managing AVCS Permits

General

AVCS ENC's are currently distributed on CD-ROM and DVD media and are encrypted according to the International Hydrographic Organization (IHO) S-63 Data Protection Scheme. Initially the AVCS user is provided with ALL of the latest base and update discs which contain all the ENC's in AVCS. However these cannot be accessed by the ECDIS unless a valid set of S-63 *ENC Permits* is installed. Each *ENC Permit* is unique and is the method which gives the user selective access to particular ENC's required for an intended voyage(s). To obtain a set *ENC permits* the user must provide the Admiralty Chart Agent with a *User Permit*. The *User Permit* is 28 character alphanumeric string which should have been supplied with the paperwork that accompanied the ECDIS on delivery. The *User Permit* can also be viewed from within the system see the section on *Viewing the ECDIS User Permit*.

The AVCS Licence

The AVCS *ENC Permits* will be supplied to you by your Admiralty Chart Agent in a zipped file. The contents of this file will depend on the user's bridge configuration as each AVCS licence allows for use on up to 5 ECDIS. When extracted, one or more set of permit files (*PERMIT.TXT* and *ENC.PMT*) will be copied automatically into folder(s) named *MASTER*, *BACKUP*, *RESERVE1*, *RESERVE2* and *RESERVE3* depending on the number of ECDIS configured on the bridge. The contents should be extracted to a media, e.g. USB flash drive or floppy disk that can be read by the system.

Installing AVCS ENC Permits

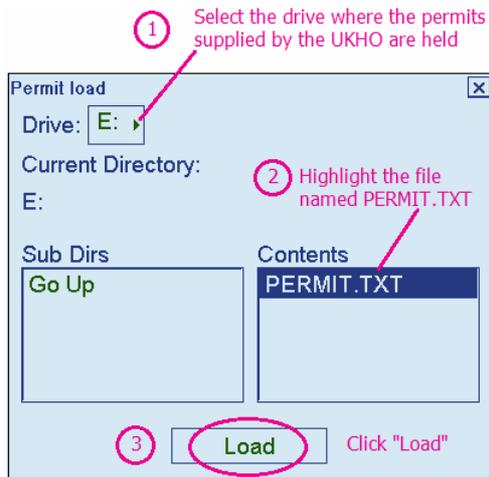
Menu: → right click mouse [Chart Menu] → Chart Permits → click "Load File" button

The "Chart Permits" window has several options for managing the users ENC Permit Holdings.

To install permits select "Load File"

Cell	Expires	Type	Edt
AU310128	(2011 8 1)	S	
AU312128	(2011 8 1)	S	
AU317140	(2011 8 1)	S	
AU330113	(2011 8 1)	S	
AU334153	(2011 8 1)	S	
AU420118	(2011 8 1)	S	
AU420119	(2011 8 1)	S	
AU421117	(2011 8 1)	S	
AU421118	(2011 8 1)	S	

The "Load File" button is used to initiate the ENC permit installation to the ECDIS. When selected a "Permit load" window will be displayed. In this window the user will have to identify the source folder or external drive where the ENC permits are stored. When the source has been selected the user must highlight the "PERMIT.TXT" file then click "Load" to install the AVCS ENC permits.

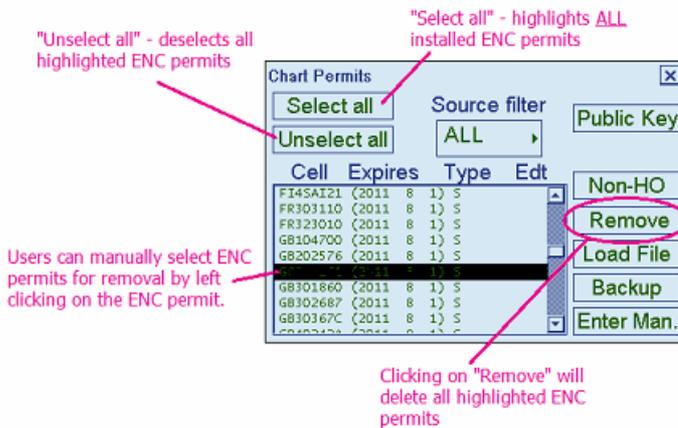


Removing ENC Permits

Menu: → right click mouse [Chart Menu] → Chart Permits → click "Remove" button

When removing ENC permits from the system the user has two options as follows:

1. Automatic: Remove all permits clicking on the "select all" option and clicking "remove". The "Unselect all" button reverses this "Select all" operation.
2. Manual: The removal of ENC permits by selecting an individual ENC permit or a selection of ENC permits.

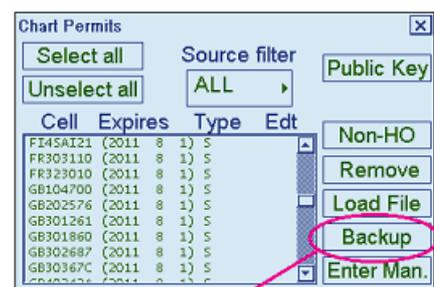


Backup ENC Permits

Menu: → right click mouse [Chart Menu] → Chart Permits → click "Backup" button

The "Backup" button is used to make a backup copy of the installed permits in case they are accidentally removed from the system.

Select "Backup" and a window will be displayed which allows the user to browse to either an internal or external drive. Users are advised to keep a note of where the permit files were saved.

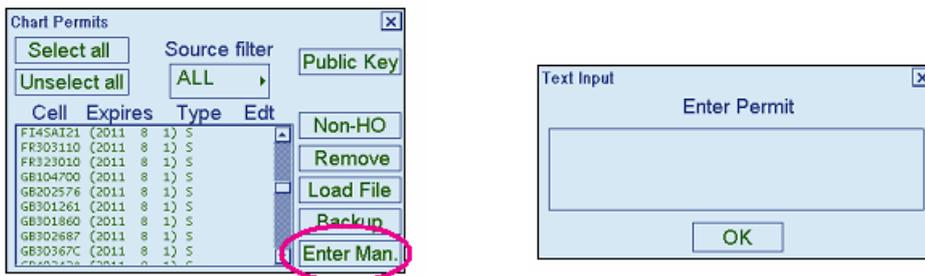


Manual Entry of ENC Permits

Menu: → *right click mouse [Chart Menu]* → *Chart Permits* → *click "Enter Man." button*

Selecting the "Enter Man." option allows the user to manually enter an ENC permit. In cases of emergency this function may be required. Especially if it is not possible to send new permit files to a vessel because they do not have e-mail capability or the mail server is down. The ENC permit string can be provided over the phone or using other methods, e.g. NAVTEX, etc.

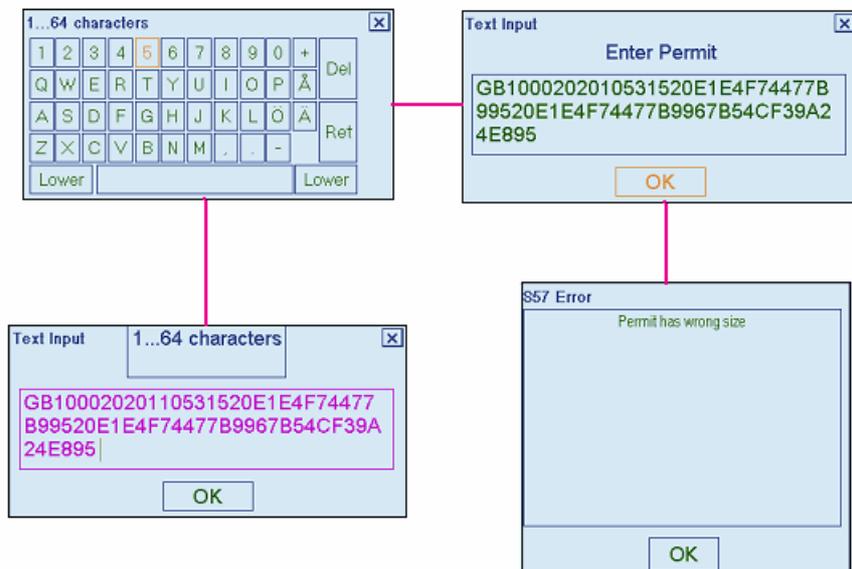
When selected the user is presented with a "Text Input" dialog box with an option to "Enter Permit". Right click in the text field and the user will be presented with option to select an "On screen keyboard". Selecting this option will display a keyboard as shown in the screenshot below. Alternatively, and if available, the user can input the string from a conventional keyboard.



After the ENC permit string has been correctly typed in the text field click "OK" to install the ENC permit.

Type in the 64 character alphanumeric ENC permit string. All characters are in the range of 0 - 9 and A - F

If the permit is invalid or the length of the ENC permit string is wrong the user will be informed



Viewing the ECDIS User Permit

Menu: → *right click mouse [Chart Menu]* → *System* → *User Permit* → "S57 Message" dialog

The *User Permit* is a 28 character alphanumeric string that is unique to each ECDIS installation or group of ECDIS, e.g. multiple bridge installations. The *User Permit* should have been supplied at the time of delivery and must be used when ordering an AVCS licence and ENC permits.

If the *User Permit* is mislaid it can be retrieved from within the system. Bring up the “*Chart Menu*” and select “*System*” and then “*User Permit*” as shown below. The *User Permit* is displayed in an “*S57 Message*” box.

The image shows three screenshots from the ECDIS AVCS interface. On the left is the 'Chart Menu' with options like 'Go Back', 'Activate ARCS chart', 'Load and Update Charts', 'C-Map Ed 3', 'Chart Catalogue', 'ECDIS Chart 1', 'Open Chart by Cell name', 'System', and 'Close'. The 'System' option is highlighted. In the center is the 'System' menu with options like 'Go Back', 'Log File', 'User Permit', 'Refresh Chart after Backup', 'Reset Files', 'S52 Presentation Library', 'SENC Convert Settings', and 'Restart drawing process'. The 'User Permit' option is highlighted. On the right is an 'S57 Message' dialog box with the text 'User permit: B41C2709584D8DAAE88EF1623132' and an 'OK' button.

From the <Chart Menu> select "System"
From the <System> menu select "User Permit"

A S-57 Message box will be displayed giving the 28 character alphanumeric userpermit stored in the security device, e.g. dongle.

The "User Permit" must be supplied when ordering AVCS ENCs

Installing AVCS Base CDs

General

AVCS data is delivered on a series of CD-ROMs² (or a single DVD) labelled Base and a CD-ROM labelled Update. Each Base disc contains all the ENC base cell files and associated updates for those producer nations identified on the CD label. Users are provided with all ENCs in the service but can only access those ENCs that they are licensed for. The *AVCS Base discs* are periodically re-issued to free up space on the *AVCS Update CD*, this is currently about every 6 to 8 weeks. The *AVCS Base discs* must be loaded first before any *AVCS Update CD* can be loaded.

The *AVCS Base disc* label contains the date and week of issue. Users should be careful to only load an *AVCS Update CD* that is newer than the installed bases. Users with internet access can check the status of the latest *AVCS Base CDs* using the following link:

<http://www.ukho.gov.uk/AVCS>

Click on the Licensing and Updating tag to view the AVCS distribution and issue dates.

NOTE: Although ECDIS equipment and ENCs are designed to be very reliable, there is a slightly increased risk of problems occurring when ENCs are being added, removed or updated. For this reason, you must not attempt to make changes to the installed AVCS ENCs when the equipment is being used for primary navigation or if the vessel is committed to an imminent departure.

Installing AVCS for the first time

It is recommended that users carry out the “Pre-installation Checks” before proceeding to install ENCs from the AVCS Base discs.

New AVCS customers will be provided with an AVCS licence (permit files) and a complete set of *AVCS Base CDs* by the Admiralty Chart Agent. The AVCS permit file must be installed first before any AVCS ENCs can be loaded. A *Schedule A* should also have been supplied with the permits files. This document informs the user which *Base discs* are required to install all the user’s licensed ENCs in the *Home CD* column.

There are currently 9 *AVCS Base CDs* but this number will grow as more ENCs become available for distribution within AVCS. It is unlikely that users will need to install all of the CDs in order to load all licensed ENCs. Reference to the *Schedule A* can avoid the unnecessary loading of some CDs and save the user time. A small sample of the information contained in the *Schedule A* is provided below.

RFA03 – English Channel		Holding Expiry Date 31.12.2010	
Cell	Title	Home CD	AVCS Update
GB301820	Isles of Scilly and Western Approaches	AVCS Base 3	N/A
GB301840	Land’s End to Falmouth	AVCS Base 3	AVCS Update
GB302020	Falmouth to Looe	AVCS Base 3	N/A

PACAS Asian Seas		Holding Expiry Date 31.12.2010	
Cell	Title	Home CD	AVCS Update
GB202868	Tokongkemudi to Natuna Utara	AVCS Base 9	N/A
GB202870	Pulau-Pulau Leman to Badas	AVCS Base 9	AVCS Update
GB202872	Selat Karimata and Approaches	AVCS Update	N/A

Note: If the user does NOT have a copy of the *Schedule A* then the complete set of *AVCS Base CDs* must be installed to ensure that all licensed ENCs are imported to the system.

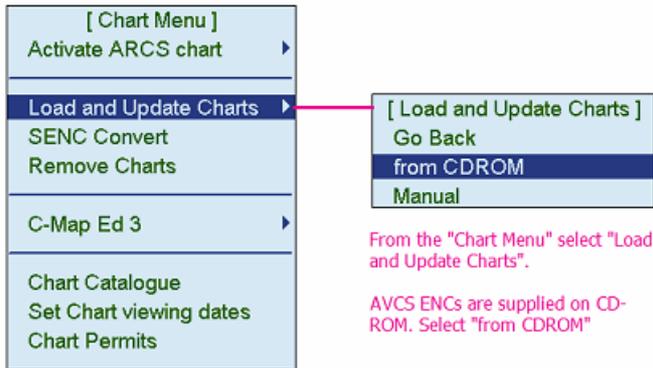
² All the latest AVCS Base CDs are available for download from the UKHO website. This can be found using the following link <http://www.ukho.gov.uk/ProductsandServices/ElectronicCharts/Pages/AUS.aspx> and by following the instructions in the *Digital Products Downloads* box. These are contained in a series of zipped files named AVCS_WKWW_YY_BaseN, where WW is the week number, YY the year and N is number of the base.

Installing the AVCS Base CDs

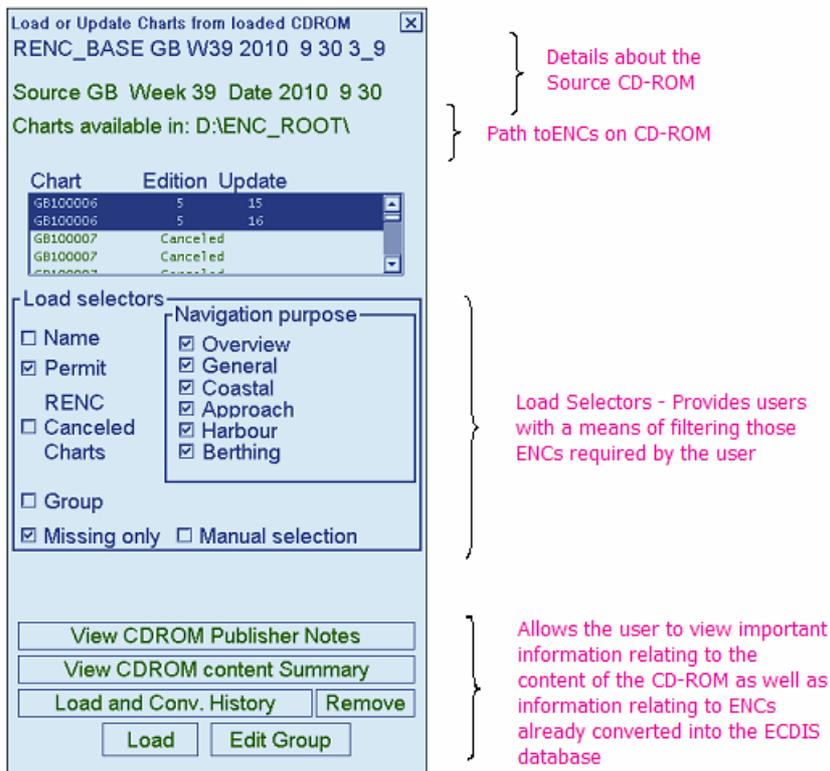
Menu: → *right click mouse* [Chart Menu] → Load and Update Charts → from CDROM

With the first AVCS Base CD installed in the CD-ROM drive select the “Load and Update Charts” option from the “Chart Menu” then select “from CDROM” from the “Load and Update Charts” menu.

NOTE: If there is no CD-ROM in the drive the software will prompt the user to browse to an alternative source.



The following “Load or Update Charts from loaded CDROM” window will be displayed. A high level description of the contents of this window is provided below:



AVCS CD Identification

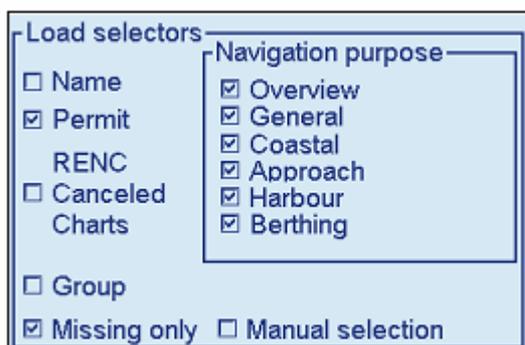
The “Load or Update Charts from loaded CDROM” window identifies the source, week number, date of the installed CD-ROM as well as base CD identifier. In the above example this is “RENC_BASE GB WK39 2010 9 30 3_9” and converts as follows:

RENC_BASE GB WK39 2010 9 30 3_9
Source GB Week 39 Date 2010 9 30

“RENC” Official data issued by a RENC
 “BASE” Flags either a BASE or UPDT
 “GB” Service Provider is GB
 “W39” Week of issue is week 39
 “2010 9 30” This is the date the CD was issued, i.e. 30th September 2010
 “3_9” AVCS Base CD 3 installed from a set of 9 CDs

Choosing the Load Selectors

In the **Load Selector** section, you can select what ENC’s to install:



Option	Description
Name:	The ECDIS will display the ENC Cell Name inside the ENC limits on the graphical presentation.
Permit:	ECDIS will highlight the ENC’s which are available on the CD-ROM which have installed permits.
RENC Cancelled Charts:	ECDIS will display ENC’s in the list which are cancelled by the RENC and contained on the CD-ROM.
Group:	If the user has a predefined group of charts, e.g. voyage plan, the ECDIS will highlight those ENC’s in that group which are available on the CD ROM.
Missing only:	Loads and displays on graphical presentation only ENC’s and updates which are not already loaded into the ECDIS
Manual Selection:	The user can highlight desired ENC’s from a list
Navigation purpose	All 6 usage bands (Navigational purposes) are listed, users can filter out those usage bands not required for a particular leg of a voyage. It is prudent to have <u>ALL</u> the usage bands checked as above.

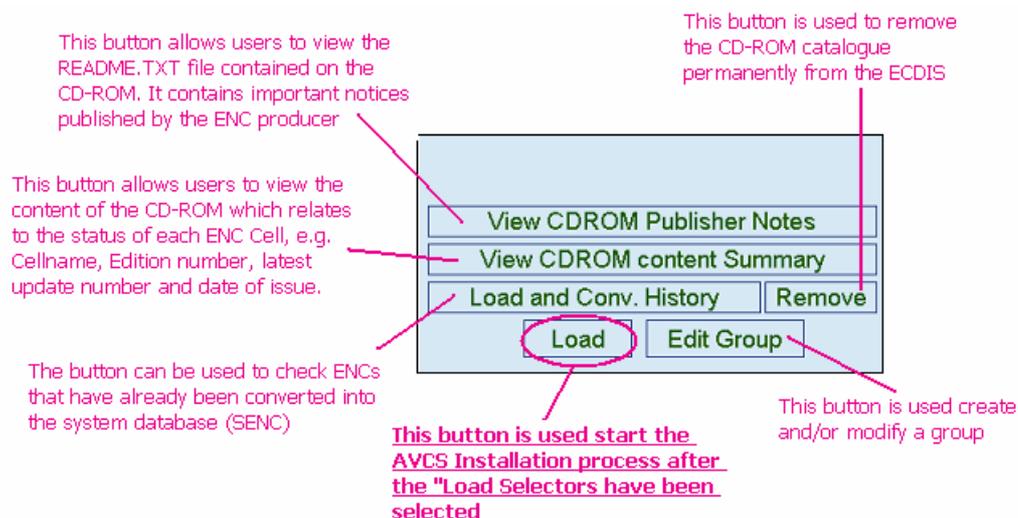
NOTE: It is not recommended to install cancelled ENC’s even if permits are available. **Cancelled Charts (ENC’s) are not updated and can quickly become out of date and as such unsafe for Navigation.** If however “Cancelled” ENC’s are installed a “Permanent Message” will be displayed as illustrated below.

<p>Permanent Message</p> <p>At least one of used charts is canceled.</p> <p>Use Chart Menu - Chart Catalogue to check charts.</p> <p>Use Chart Menu - Remove Charts to remove chart.</p>

The filtering options provided above are aimed at users with a good understanding of ENC standards. Filtering can reduce the installation times but should NOT be used if the user is unsure of the consequences.

Important User Information

In the "Load or Update Charts from loaded CDROM" window at the bottom are several buttons that can be used to access important information, manage groups, etc. It also contains the button that starts the AVCS ENC Installation process.

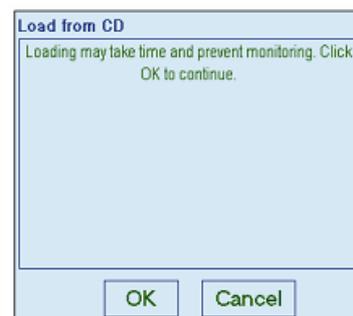


Menu: → Chart Menu → Load and Update Charts → from CDROM → Load

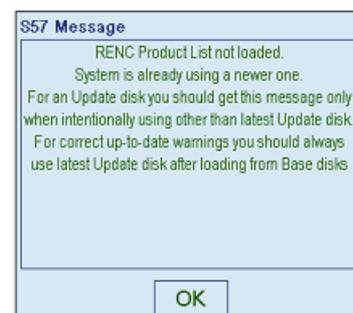
Clicking the "Load" button initiates the AVCS ENC Installation and Conversion.

AVCS ENC Installation and Conversion

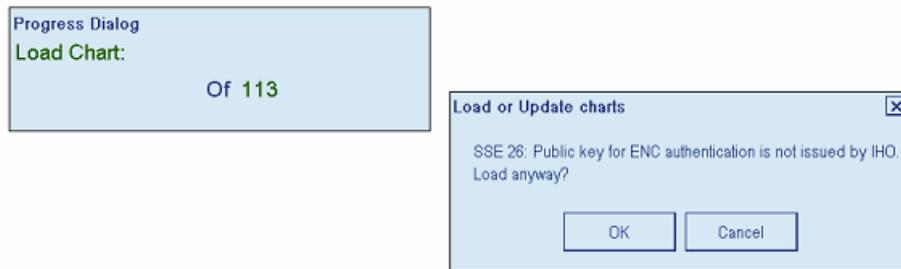
After selecting the "Load" option the system will display the following "Load from CD" window (across). This informs the user that "Loading may take time and prevent route monitoring. Click OK to continue." The load times will depend on the number of ENCs licensed in the permit file.



Occasionally the following "S57 Message" window will be displayed informing the user that "RENC Product List not loaded". This normally occurs when ENCs are reloaded from AVCS base CDs after a later Update CD has been applied. Each CD-ROM in the AVCS service contains a file (PRODUCT.TXT) in the INFO folder. It is continually updated each week to inform the ECDIS of the precise status of the Admiralty Vector Chart Service. The ECDIS always stores the latest version of this file. Installing new ENCs from the base CDs can invoke this message.

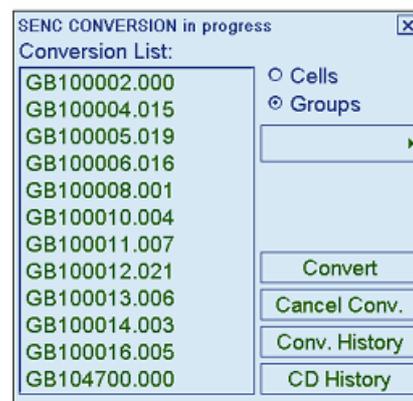
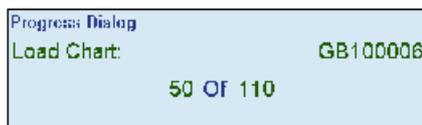


After all windows have been acknowledge by clicking "OK" a progress dialog will be displayed.



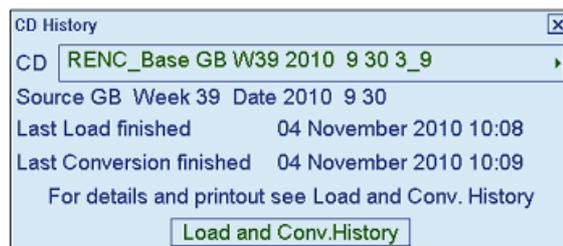
A “*Progress Dialog*” will be displayed but before it begins to cycle through the validation and copy process a SSE26 message is displayed in a “*Load or Update Charts*” window. This is to be expected and the window should be acknowledged by clicking “OK”. See the paragraph on *ECDIS Authentication Warning* for further information on this message. It will only be displayed once at the beginning of each *Load* or *Update* process.

The system will now copy the encrypted AVCS ENC’s to the hard drive prior to conversion from S-57 to the system database format (SENC).



When the system has cycled through all the licensed ENC’s a “*SENC CONVERSION in progress*” window will be displayed. This window shows all licensed ENC’s and the corresponding updates, as each one is converted it is removed from the list. At the end of the process the list will be empty.

The following “*CD History*” window will be displayed informing the user of the source of the ENC’s and details about the *Load* and *Conversion* dates and times.



Users can now view the *Load* and *Conversion* log file by clicking on the “*Load and Conv. History*” button. A *Notepad* window labelled “*TEXT VIEW*” will be displayed listing all converted ENC’s. Additional information is listed against each ENC which includes the date and time of processing, the edition and update number of each ENC and the latest issue date, plus whether the conversion was successful or not. An example is provided below.

```
SENC Conversion log for RENC_Base GB W39 2010 9 30
04.11.2010 08:46 Successful auto. conv: ENC: GB100001.000, edt: 7, upd: 0 / 2010 8 6
04.11.2010 08:46 Successful auto. conv: ENC: GB100002.000, edt: 16, upd: 0 / 2010 8 6
04.11.2010 08:46 Successful auto. conv: ENC: GB100004.015, edt: 11, upd: 15 / 2010 9 7
04.11.2010 08:46 Successful auto. conv: ENC: GB100005.019, edt: 5, upd: 19 / 2010 8 18
04.11.2010 08:46 Successful auto. conv: ENC: GB100006.016, edt: 5, upd: 16 / 2010 8 4
04.11.2010 08:46 Successful auto. conv: ENC: GB100008.001, edt: 14, upd: 1 / 2010 5 24
04.11.2010 08:46 Successful auto. conv: ENC: GB100010.004, edt: 10, upd: 4 / 2010 8 5
04.11.2010 08:46 Successful auto. conv: ENC: GB100011.007, edt: 8, upd: 7 / 2010 9 21
04.11.2010 08:47 Successful auto. conv: ENC: GB100012.021, edt: 9, upd: 21 / 2010 8 20
04.11.2010 08:47 Successful auto. conv: ENC: GB100013.006, edt: 4, upd: 6 / 2010 6 25
04.11.2010 08:47 Successful auto. conv: ENC: GB100014.003, edt: 5, upd: 3 / 2010 3 8
04.11.2010 08:47 Successful auto. conv: ENC: GB100016.005, edt: 6, upd: 5 / 2010 7 23
```

See the section on *“Reviewing the Installation Log”* for more details about the various warnings that may be displayed in this log.

Installing AVCS ENC Updates

General

AVCS is updated on a weekly basis and updates are distributed on CD-ROM³. The only exception to this is in a week when the *AVCS Base discs* are re-issued; in these instances an *AVCS Update CD* will not be issued. The *AVCS Update CD* contains all new ENC's, new editions of ENC's and ENC updates issued since the last set of *AVCS Base discs* were issued. The CD is cumulative so the user only has to load the latest week number. Users can update their system using the *AVCS Update CD* or remotely over the Internet using the *Admiralty Updating Service (AUS)*.

The Weekly Update CD

Your Admiralty Chart Agent will provide you with a weekly *Update CD*, when it is practical to do so.

The *AVCS Base discs* are re-issued about every 6 to 8 weeks depending on the amount of data on the *Update CD*. It is important that users do not attempt to load an *Update CD* that is not consistent with the *Base discs*. For example, you should not attempt to load an update that is older than the *Base discs* held on board. When new *AVCS Base discs* are issued the user must install these before attempting to load the latest *Update CD*.

Periodically the user will be supplied with an updated set of *AVCS ENC Permits*. New permits must be issued for any ENC that has had more than one new edition.

NOTE: On older ECDIS equipment the AVCS permit file is specific to a particular week as described in the *Schedule A*. It is important that users do not install these unless they have the corresponding *Update CD* for the same week. Failure to follow this advice could render some of the installed ENC unavailable for use in the ECDIS. The only exception to this rule is if additional coverage is required in case of emergency or a change to a planned route. **Furuno systems which have been type approved after January 2009 are not affected by this issue.**

Re-Issue of the AVCS Base CDs

In the weeks when the AVCS ENC Base CDs are re-issued it is important that the user installs all the relevant base CDs (see *Installing AVCS for the first time*). This is because the base CDs will contain New Editions or Updates necessary to keep the users system database (SENC) up to date. Failure to apply the new AVCS base CDs will result in errors when installing a later AVCS Update CD.

The Admiralty Updating Service

The *Admiralty Utilities Installation CD* which comes with the *AVCS Start-Up Pack* contains a copy of the *Admiralty Updating Service* application. This application, when installed, provides the user with the capability to download updates directly, over the Internet or by e-mail, from a server hosted in the UKHO. For more details see the EOUS (ENC Online Update Service) Customer Service Guide on the *Utilities CD*.

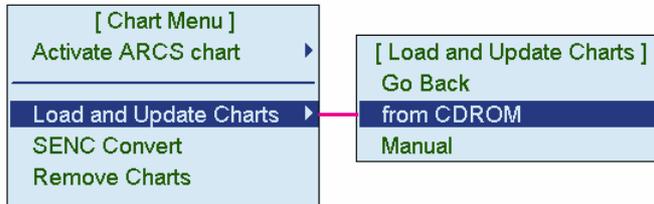
NOTE: Although ECDIS equipment and ENC's are designed to be very reliable, there is a slightly increased risk of problems occurring when ENC's are being added, removed or updated. For this reason, you must not attempt to make changes to the installed AVCS ENC's when the equipment is being used for primary navigation or if the vessel is committed to an imminent departure.

³ The latest AVCS Update CD is available for download from the UKHO website. This can be found using the following link <http://www.ukho.gov.uk/ProductsandServices/ElectronicCharts/Pages/AUS.aspx> and following the instructions in the *Digital Products Downloads* box. It is in a zipped file named AVCS_WKWW_YY_UPDT, where WW is the week number and YY the year.

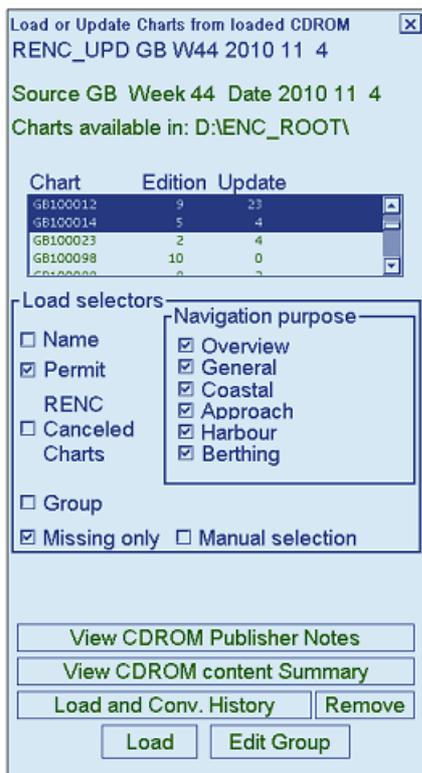
Installing AVCS ENC Updates

After all the relevant AVCS Base discs have been installed, the ECDIS can now be updated. The update process is very similar to installing the bases. Insert the latest AVCS Update CD in the drive.

Menu: → Chart Menu → Load and Update Charts → from CDROM → Load



In the "Chart Menu" select "Load and Update Charts", then select "from CDROM" from the "Load and Update Charts" menu. This will display a "Load or Update Charts from loaded CDROM" window.

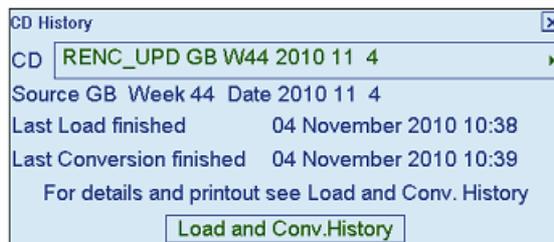


This should, if the correct CD is installed, identify the source as being an update as follows:



Confirm that the correct "Load selectors" have been chosen and click "Load".

The system will display similar progress indicator, warning message and conversion progress windows as for when loading AVCS base CDs. When the conversion process has finished the following "CD History" window will be displayed informing the user of the source of the ENCs and details about the Load and Conversion dates and times.



Users can now view the Load and Conversion log file by clicking on the "Load and Conv. History" button.

A Notepad window labelled "TEXT VIEW" will be displayed listing all converted ENCs. Additional information is listed against each ENC which includes the date and time of processing, the edition and update number of each ENC and the latest issue date, plus whether the conversion was successful or not. An example is provided below.

See the section on "Reviewing the Installation Log" for more details about the various warnings that may be displayed in this log.

SENC Conversion Log for RENC_UPD GB W44 2010 11 4									
04.11.2010	10:38	Successful	auto.	conv:	ENC: AU421117.001,	edt:	1,	upd:	1 / 2010 10 8
04.11.2010	10:38	Successful	auto.	conv:	ENC: AU421119.000,	edt:	2,	upd:	0 / 2010 9 10
04.11.2010	10:38	Successful	auto.	conv:	ENC: C1613185.003,	edt:	3,	upd:	3 / 2010 9 27
04.11.2010	10:38	Successful	auto.	conv:	ENC: DE316003.000,	edt:	8,	upd:	0 / 2010 10 22
04.11.2010	10:38	Successful	auto.	conv:	ENC: DK2FEMON.003,	edt:	17,	upd:	3 / 2010 10 7
04.11.2010	10:38	Successful	auto.	conv:	ENC: DK2KATGS.000,	edt:	25,	upd:	0 / 2010 10 25
04.11.2010	10:38	Successful	auto.	conv:	ENC: DK4ABFNF.000,	edt:	36,	upd:	0 / 2010 10 25
04.11.2010	10:38	Successful	auto.	conv:	ENC: GB100001.001,	edt:	7,	upd:	1 / 2010 9 30
04.11.2010	10:38	Successful	auto.	conv:	ENC: GB100004.018,	edt:	11,	upd:	18 / 2010 10 22
04.11.2010	10:38	Successful	auto.	conv:	ENC: GB100005.024,	edt:	5,	upd:	24 / 2010 10 19
04.11.2010	10:38	Successful	auto.	conv:	ENC: GB100010.005,	edt:	10,	upd:	5 / 2010 10 25
04.11.2010	10:39	Successful	auto.	conv:	ENC: GB100011.008,	edt:	8,	upd:	8 / 2010 10 25
04.11.2010	10:39	Successful	auto.	conv:	ENC: GB100012.023,	edt:	9,	upd:	23 / 2010 10 25
04.11.2010	10:39	Successful	auto.	conv:	ENC: GB100014.004,	edt:	5,	upd:	4 / 2010 10 13

Update Warning Message

Users may see the following SSE 27 warning message when in either route planning or route monitoring mode.



This message is displayed when viewing an ENC that not as up-to-date in respect of the latest PRODUCTS.TXT file loaded or maintained on the system. A permanent warning message be displayed on screen informing the user, e.g. *“ENC<cell name> is not up to date. A New Edition, Re-issue or Update for this cell is missing and therefore MUST NOT be used for Primary NAVIGATION”*.

User should carry out the instructions given in the *“Permanent Message”* dialog above and check the *“Load Conversion History”* to see if there were any problems when the ENCs were installed. If there were any critical warnings then these should be reported.

Automated Update Warning Message

The Furuno ECDIS periodically checks the date of the last installed product listing received from the RENC/Service Provider or when the latest base or update CD was applied.

If the installed product listing is more than 30 days old the system displays a *“S57 Message”* box stating the following:

“RENC Product List is more than 30 days old. User charts may not be up-to-date. Load Update disk issued within 30 days”.



Reviewing the SENC Conversion Log

General

The *SENC Conversion log* can be viewed by clicking on the *Load and Conv. History* button in either the “*Load or Update Charts from loaded CDROM*” or “*CD History*” windows. Alternatively it can be accessed at any time using the following:

Menu: → right click mouse [Chart Menu] → System → Log File → “Text View” window

It provides information relating to the import and conversion of ENC to SENC and reports appropriate messaging. The following section identifies (*in italics*) the various messages which may be reported when importing ENCs to the ECDIS. These are accompanied by a brief explanation of the consequences in respect of the SENC.

Conversion Messages

1. Correct conversion without errors from an Official Source

“Successful auto conv: ENC: GB203000.000, edt: 17, upd: 10 / 2010 10 18”

ENC converted without errors and can be used for primary navigation

2. Correct conversion without errors from a Non Official Source (i.e. non ENC)

“Successful auto conv: ENC: T1500400.000, edt: 1, upd: 0 / 2009 5 9 NON ENC”

A private S-57 vector chart cannot fulfil SOLAS requirements and users must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

3. ENC conversion with errors, but the ENC is partly usable

Successful auto conv with errors: ENC GB100001.000, edt: 3, upd: 4 / 2010 10 12

Use cell status to check details of errors. Note that the chart is still an ENC.

4. Conversion errors, but the ENC is partly usable as NON ENC

Successful auto conv with errors: ENC: GB402300.000, edt: 1, upd: 0 / 2010 1 4 NON ENC

Use cell status to check details of errors. Note that the chart is no longer an ENC if it was produced by a Hydrographic Office. Users must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

5. Failed conversion

Failed automatic conversion: ENC: GB203400.000, edt: 1, upd: 0 / 2001 12 17

ENC is not usable and the user cannot view or use it. You must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

6. Failed conversion of an update

Failed auto conv: ENC: GB500005.001, edt: 2, upd: 1 / 2007 9 26 Updating impossible before new edition of Base cell

ENC is partly usable, but it is not up-to-date and users will need to obtain the latest edition from the ENC producer. Note that the chart is still ENC, but no longer fulfils SOLAS requirements. Users must

refer to the paper chart as the means of primary aid to navigation when navigating in the area covered by this ENC.

7. Failed conversion. Checksum is not correct

Failed automatic conversion: ENC: GB612800.000, edt: 1, upd: 0 / 2010 12 25 CHECKSUM ERROR

ENC is not usable and users cannot view it. Try to reload the Base ENC or Update from the original media. If this does not work order a new CD-ROM from your Chart Agent. Users must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

8. Failed conversion. Checksum of an update is not correct (update may be corrupted)

Failed automatic conversion: ENC: GB512500.002, edt: 1, upd: 2 / 2008 11 11 CHECKSUM ERROR

ENC is partly usable, but it is not up-to-date. Try to reload the update from the original media. And if that doesn't work order a new CD-ROM from your Chart Agent. Note that the installed ENC no longer fulfils SOLAS requirements. Users must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

9. Failed conversion. At least one of the previous updates has failed in its SENC conversion

Failed automatic conversion: ENC: GB520005.003, edt: 1, upd: 3 / 2005 9 8 PREVIOUS Update MISSING

The system cannot accept additional updates unless all previous updates have been successfully applied and converted into the SENC. ENC is partly usable but it is not up-to-date. Try to reload the failed update from the original media (in this example the failed update is GB520005.002). And if that does not work, order a new CD-ROM from your Chart Agent. Note that the installed ENC no longer fulfils SOLAS requirements. You must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

10. Failed conversion. The Base cell has failed in its SENC conversion

Failed automatic conversion: ENC: GB432900.001, edt: 1, upd: 1 / 2007 9 8 PREVIOUS Base CELL OR Update MISSING

The system cannot accept updates unless the Base cell has been successfully converted into the SENC. ENC is not usable and you cannot view it. Try to reload the ENC Base Cell from the original media (in this example the failed Base cell is GB432900.000). And if that does not work order a new CD-ROM from your Chart Agent. You must refer to the paper chart as the primary aid to navigation when navigating in the area covered by this ENC.

NOTE: Always study both the "Failed SENC conversion" dialog and "Conversion history log" very carefully, because they may contain important information about the legal status of a particular ENC. An ENC may lose its legal equivalency to the paper chart as far as SOLAS requirements are concerned. In these instances users will need to refer to the paper chart as the primary aid to navigation.

Permanent Warnings Displayed in the ECDIS Viewer

General

Permanent warnings are provided to bring to the attention of the user the status of the installed ENC's and highlight those that may not be up-to-date on the ECDIS. In cases where ENC's are not up to date warnings are displayed permanently in the viewer to make the user aware that some correctional/remedial action is required to the ECDIS database (SENC). Only up-to-date S57 ENC's can be used as legal replacements for the paper chart. Permanent warnings will appear if the system detects a condition that may result in the use of the ENC's which are not up-to-date.

NOTE: The system can assist in keeping ENC's received from an official RENC or Service Provider up-to-date; see the section on "System Maintenance". For S-57 vector charts which have been loaded from sources other than a RENC, the system is unable to know the exact up-to-date status.

ECDIS Permanent Messages

Permanent Message

At least one of used charts has more than 1 week between "Approved Until" and/or "Displayed Until" and current system date. Use Chart Menu - Set Chart viewing dates

For further details see the section on "System Maintenance".

Permanent Message

SSE 27: At least one of used charts is not up-to-date. Get or load latest updates from your RENC service. Use Chart Menu - Set Chart viewing dates to check charts

For further details, see the section on "System Maintenance" and "Viewing ENC/AVCS Coverage". ENC Limits coloured orange in the catalogue are not up-to-date in the ECDIS.

Permanent Message

At least one of used charts is canceled.
Use Chart Menu - Chart Catalogue to check charts.
Use Chart Menu - Remove Charts to remove chart.

The user has loaded an update which contained a cancellation message for an ENC. The user has selected not to remove the cancelled chart and this permanent indication reminds users about the intended use of a cancelled ENC. Users should consider removing the ENC from the SENC. For information on how to remove S57 ENC's, see the section on "Removing Installed ENC's".

Permanent Message

At least one of used charts may not be up-to-date because Permit has been removed since SENC conversion.
Use Chart Menu - Permits to load Permits

Chart permit has been removed after ENC was loaded and converted to the SENC.

Permanent Message

SSE 25: At least one of used charts may not be up-to-date, because Permit is expired. Consider renewing of your Permits. Use Chart Menu - Permits to check Permits

The user has expired permit(s) for the chart in "Chart Permit" dialog. Remove permit or renew subscription for permit <cell name>. To remove the permit(s) see the section on "Removing ENC Permits".

System Maintenance

Viewing status and setting viewing dates of S57 ENC's

Menu: → Chart Menu → Set Chart viewing dates → “Chart viewing dates” window

When S57 ENC's are loaded and updated, the system sets “Display Until” of S57 ENC's as the current date of the system. To set “Approve Until” as current date of the system, you must open the “Set Chart viewing dates” dialog box and perform “Approve Until”.

Cell ID	RENC edt/ upd	SENC edt/ upd	Updates Displ. until	Updates Approv. until
GB100001	7/ 1	7/ 1	2010 11 4 (-)	2010 8 6 (-)
GB100002	16/ 0	16/ 0	2010 11 4 (-)	2010 8 6 (-)
GB100004	11/ 18	11/ 18	2010 11 4 (-)	2010 6 22 (-)
GB100005	5/ 24	5/ 24	2010 11 4 (-)	2010 6 16 (-)
GB100006	5/ 16	5/ 16	2010 11 4 (-)	2010 6 17 (-)
GB100008	14/ 1	14/ 1	2010 11 4 (-)	2009 3 27 (-)
GB100010	10/ 5	10/ 5	2010 11 4 (-)	2010 7 2 (-)
GB100011	8/ 8	8/ 8	2010 11 4 (-)	2010 3 1 (-)
GB100012	9/ 23	9/ 23	2010 11 4 (-)	2010 7 15 (-)
GB100013	4/ 6	4/ 6	2010 11 4 (-)	2010 6 16 (-)
GB100014	5/ 4	5/ 4	2010 11 4 (-)	2009 11 13 (-)
GB100016	6/ 5	6/ 5	2010 11 4 (-)	2010 4 21 (-)

Latest RENC Product List	2010 11 4	Source GB
Oldest date	2010 11 4	2009 3 27
Newest date	2010 11 4	2010 8 6
Manual Updates	---NVLD---	---NVLD---

Display Until Approve Until

Sync Manual Update Dates
 All SENCs

The recommended settings in the “Chart viewing date” window are as follows:

- Sync Manual Update Dates: checked (ticked)
- All SENCs: checked (ticked)

The “Chart Viewing Dates” window

RENC edt/upd: The column “RENC” contains edition/update status from Product List (This is always read from the latest PRODUCTS.TXT file included on either the AVCS base or update CD).

SENC edt/upd: The column “SENC” contains the edition/update status of the system database (SENC), i.e. status of ENC's loaded and converted in the ECDIS.

Updates displ. until (Date until updates are displayed): The user can enter the required date by using the “Display Until” field. The number after the date shows the number of updates for the displayed cell (number of displayed updates/number of updates in SENC format).

Updates approv. until (Dates Updates are approved to): The user can enter the required date by using the Approve Until field (number of approved updates/number of updates in SENC format).

Latest RENC Product List: This identifies the source of the RENC or RENC accredited service provider as well as the date it was issued. The RENC Product List contains information about all

ENCs available in the ENC service If the ECDIS does not contain any Product List, then the date of the Product List is displayed as not valid using the abbreviation “—NVLD—”.

Status of a ENCs from RENC/Service Providers

To keep ENCs up-to-date, you should check for updates from the RENC/Service Provider weekly. The ECDIS compares ENCs listed in the RENC/Service Provider *Product Listing*. If a Permanent Warning appears on the ECDIS viewer this is a result of a difference in the status of the currently installed ENCs and the Product Listing. It is usually an indication that one or more of the installed ENCs is not up-to-date. See the section on “*Permanent Warnings*”.

The information of available ENC and their up-to-date status is available both in the ECDIS “*Chart Catalogue*” and in the “*Chart viewing dates*” window.

NOTE: The easiest method to check if ENCs are up-to-date is to view the colour coded catalogue and check that the names of all required charts appear in green. The names of charts which are not up-to-date appear in orange. For further details see “*Viewing ENC/AVCS Coverage*”.

The RENC edt/upd column lists all installed ENCs and the corresponding edition and update numbers. This list is based on the latest product listing supplied by the service provider and copied to the ECDIS

The SENC edt/upd column lists all ENCs converted into the SENC with their corresponding edition and update numbers

KEY
 >>> RENC data is newer than the SENC, ECDIS needs updating.
 <<< SENC data is newer than the RENC, ECDIS is up to date as it has newer data.
 XXX Chart is Cancelled
 Blank Entry: RENC = SENC, updating not required.

Chart viewing dates									
Cell ID	RENC edt/ upd		SENC edt/ upd	Updates Displ. until	Updates Approv. until				
GB100001	7/ 1	>>>	7/ 0	2010 11 11 (-)	2010 8 6 (-)				
GB100002	16/ 1	>>>	16/ 0	2010 11 11 (-)	2010 8 6 (-)				
GB100004	11/ 18	>>>	11/ 15	2010 11 11 (-)	2010 6 22 (-)				
GB100005	5/ 24	>>>	5/ 19	2010 11 11 (-)	2010 8 2 (-)				
GB100006	5/ 16	>>>	5/ 16	2010 11 11 (-)	2010 6 17 (-)				
GB100007	Cancelled	XXX	Cancelled	2010 11 11 (-)	2010 1 14 (-)				
GB100008	14/ 1	>>>	14/ 1	2010 11 11 (-)	2009 3 27 (-)				
GB100009	Cancelled	XXX	Cancelled	2010 11 11 (-)	2009 4 7 (-)				
GB100010	10/ 5	>>>	10/ 4	2010 11 11 (-)	2010 7 2 (-)				
GB100011	8/ 8	>>>	8/ 7	2010 11 11 (-)	2010 3 1 (-)				
GB100012	9/ 25	>>>	9/ 21	2010 11 11 (-)	2010 7 15 (-)				
GB100013	4/ 6	>>>	4/ 6	2010 11 11 (-)	2010 6 16 (-)				
GB100014	5/ 4	>>>	5/ 3	2010 11 11 (-)	2009 11 13 (-)				
GB100016	6/ 5	>>>	6/ 5	2010 11 11 (-)	2010 4 21 (-)				
GB100018	Cancelled	XXX	Cancelled	2010 11 11 (-)	2009 12 14 (-)				
GB100019	Cancelled	XXX	Cancelled	2010 11 11 (-)	2009 9 30 (-)				
GB100020	Cancelled	XXX	Cancelled	2010 11 11 (-)	2009 12 16 (-)				
GB100021	Cancelled	XXX	Cancelled	2010 11 11 (-)	2009 11 25 (-)				
GB100022	1/ 2	>>>	1/ 2	2010 11 11 (-)	2010 3 1 (-)				
GB100023	2/ 3	>>>	2/ 3	2010 11 11 (-)	2010 7 14 (-)				
Latest RENC Product List				2010 11 11	Source GB				
Oldest date				2010 11 11	2009 3 27				
Newest date				2010 11 11	2010 8 6				
Manual Updates				---NVLD---	---NVLD---				
Display Until		11 Nov 2010		Approve Until		11 Nov 2010			
<input type="checkbox"/> Sync Manual Update Dates									
<input checked="" type="checkbox"/> All SENCs									
Manual Update Dates									

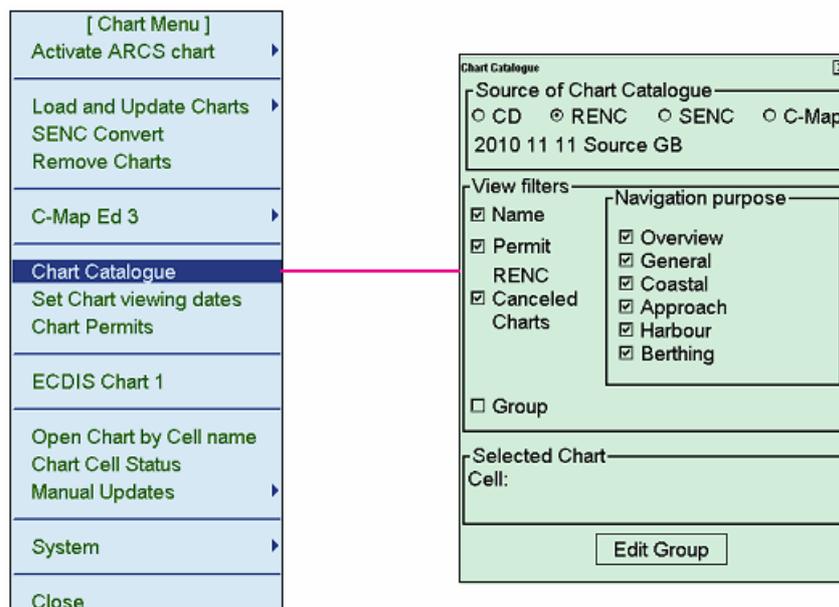
If an ENC is not available from a RENC but installed in the ECDIS the RENC edt/upd shows "- / -"

Viewing ENC/AVCS Coverage

General

To view the Product List in a graphical presentation, use the catalogue, which can be displayed by opening the “Chart Menu” and choosing the “Chart Catalogue” option. The catalogue of S57 ENCs shows the status when the user last received a product listing from the RENC and/or Service Provider or when loading the latest Base or Update CD ROM into the ECDIS.

Menu: → Chart Menu → Chart Catalogue → “Chart Catalogue” window



The “Chart Catalogue” window allows the user to select the “Viewing Filters” so that only the relevant coverage and ENC status can be examined. The filter option allows users to select to view ENCs from the catalogue of the following:

Note: The ECDIS automatically keeps the latest available Product List. Thus the ECDIS does not load the Product List if it is older than the one already loaded into the ECDIS.

If a newer one is already stored on the system the S57 Message” dialog will be displayed.

This will occur if the user reverts to the base CDs to install new or additional ENCs after updating the ECDIS with a newer update CD.



The Catalogue Colour Coding

The Furuno system uses a system of colour coding to highlight the status of each ENC. The display will very much depend on the filtering applied and the users installed ENC permits.

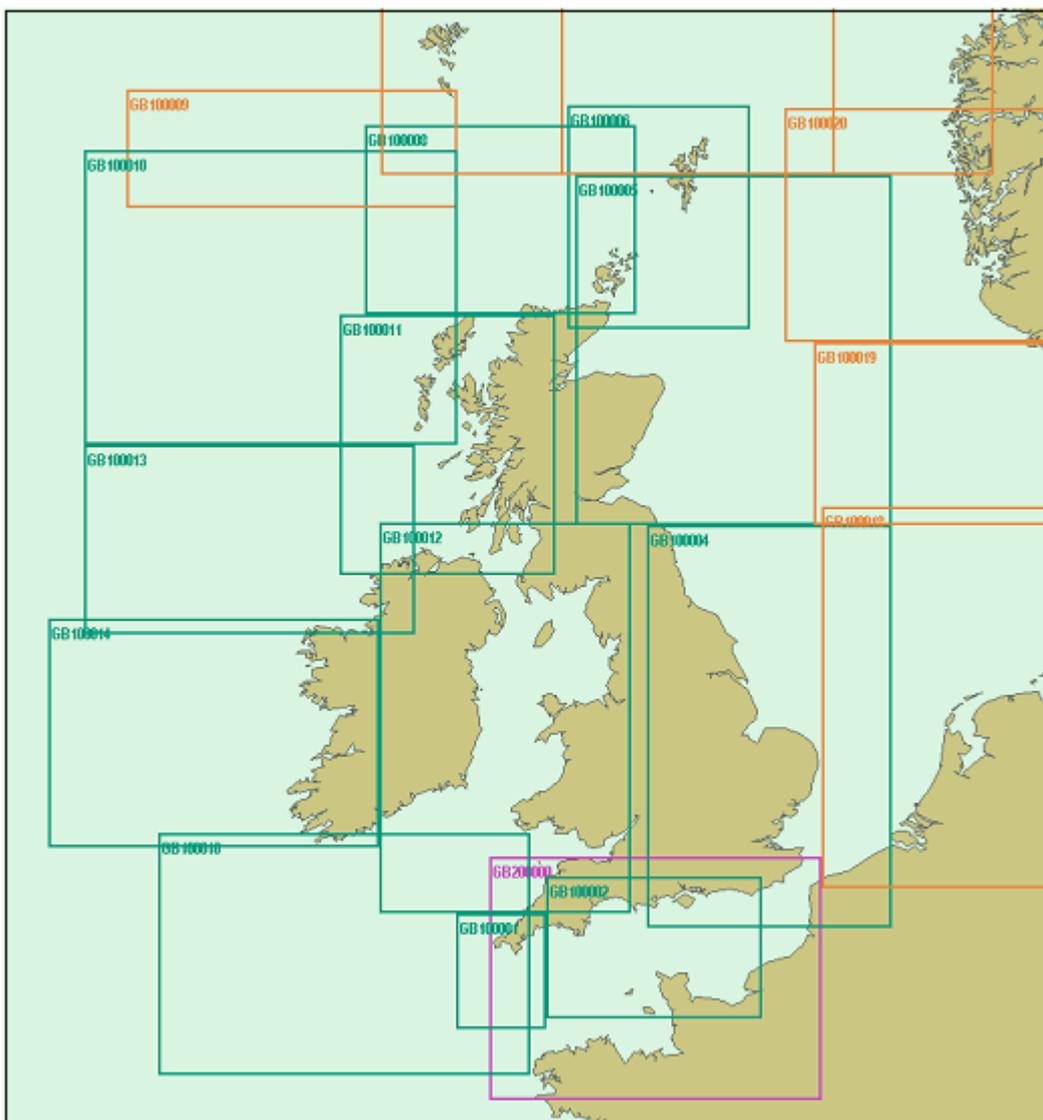
Green: The ENC is available for use in SENC format. If the source of the ENC is a RENC, then the ENC is also up-to-date. If the source of the S-57 vector chart is something other than a RENC then all loaded updates are included into the SENC.

Orange: The ENC is available for use in SENC format but it is either not up-to-date or has been cancelled. This could be for several reasons, either the SENC is from a previous edition, the latest SENC update was missed or the ENC has been cancelled.

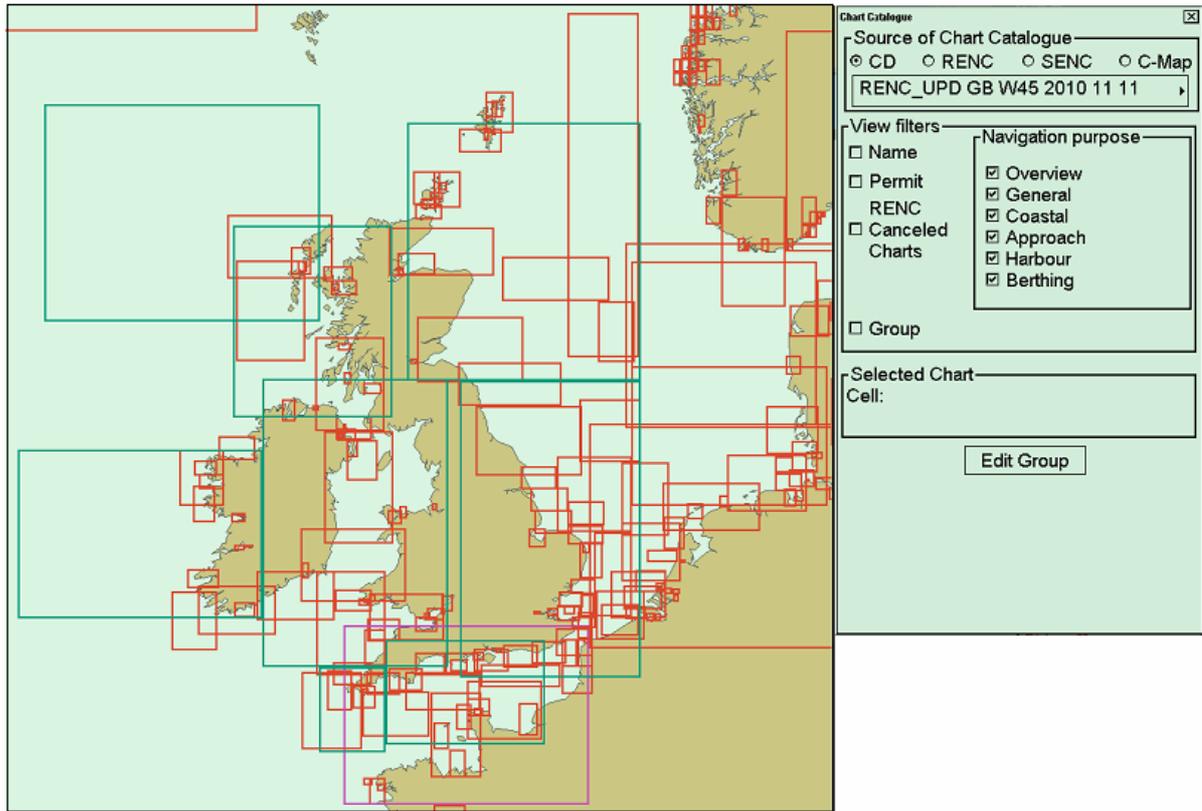
Red: If an ENC is installed in the SENC but does not have a corresponding permit installed then the ENC is no longer available for display in the viewer.

Blue: The chart is available either in ENC format, in SENC format for another software version or in SENC format for another ECDIS. For example the ENC is blue during SENC conversion and if you loaded a ENC into the ECDIS and the system could not convert the ENC into SENC format.

Magenta: You have a permit to use the ENC, but the ENC is not available in SENC format and thus you cannot use the ENC currently.



This particular example below shows the complete content of an installed CD-ROM with no filtering applied. The ENC limits shown in green identify ENCs that have valid permits installed and which can be imported into the ECDIS.



NOTE: The “CD” option is selected with ALL “Navigation purpose” usage bands checked (show all). None of the “View Filters” are checked.

Getting Help

Many of the difficulties that could be experienced when using AVCS with this system can be avoided by carefully following the instructions in this guide. However, issues that are known to have caused confusion in the past are detailed below in the Frequently Asked Questions (FAQ) section. Note that the FAQs in this document may well have been superseded and the most up to date version will be found at:

<http://www.ukho.gov.uk/Support>

If you encounter problems that are not solved by referring to the FAQs, you may wish to seek technical support. Please see the section below for contact details.

Frequently Asked Questions (FAQ)

None at the time of writing

Technical Support

Who should you contact?

You will receive the most effective support if you address your initial query to the correct organisation. This will usually be the manufacturer of the ECDIS equipment, or the Admiralty Chart Agent you obtain your AVCS ENC's from, but in certain circumstances you may need to contact UKHO Customer Services.

Problem	Contact
Hardware problems: difficulties with the keyboard, mouse, display or main system console, failure of a floppy disk or CD drive. Software problems: difficulties with configuring or using the ECDIS system software, interfacing problems.	ECDIS Manufacturer
ENC installation problems: problems with installing certificates, permits and AVCS ENC's, standard error codes displayed (see AVCS User Guide). ENC content problems: display anomalies or mismatched data displays.	Admiralty Chart Agent
Problems that have not been resolved by your Admiralty Chart Agent.	UKHO

Contact details are available on the last page of this guide.

When reporting a ENC-related problem, it is useful if you can provide the following details:

- The AVCS license number
- The ECDIS system (and model/version) being used (especially if you have more than one system on board)
- The date and week number of the latest base and update discs held on the vessel
- The issue date of the latest ENC Permits held. If the problem appears to be related to the permits it is best to send a copy of the latest ENC Permits held by email if this is possible.
- Any error messages displayed on the ECDIS (see page 18 of the AVCS User Guide)

Emergency ENC Permit Generation

In certain circumstances it may be necessary for a vessel to get access to an AVCS ENC at very short notice, for instance if she has to divert her route **due to a medical or safety emergency**. In these emergency circumstances only, individual AVCS ENC Permits can be obtained from the UKHO 24 hours a day, 365 days a year. These permits can be transmitted direct to the vessel by email wherever possible, by fax, or simply by reading the characters out over the telephone or radio. Each permit consists of 64 characters.

Contact details for the UKHO are available on the last page of this guide. Please quote your vessel name, the User Permit Number of your ECDIS system and the required ENC's.

