Vision

OPERATOR MANUAL

www.ten-haaft.com

ten Haaft®

CONTENTS

1. GENERAL INFORMATION

1.1 Introduction

This operator manual describes the functions of the automatic satellite system and how to operate it. Please observe the installation instructions provided in the installation manual supplied with the system.

Correct and safe operation of the system can only be ensured if both the installation manual and the operator manual are observed.

Your automatic satellite system is a smart satellite TV reception system that automatically aims itself at a preset satellite as long as the system is located within the footprint of this satellite.

Please ensure that the system always has a clear view to the south. Seen from Europe, all satellites are more or less located in the South.

If the satellite's signal beam is interrupted by obstacles such as mountains, buildings or trees, automatic aiming will not work and no TV signal will be received. (See 5.1: "Reception in practice – aiming the satellite system")

The first pages of this manual explain the general system functions, followed by an explanation of the setup options.

Before switching on the system, make sure that the opening antenna does not face any obstacles such as branches or garage door.

1.2 Scope of supply

Control device; FeatureBox; external unit with antenna - optional with SKEW pivoting unit for optimised reception.

1.3 Intended use

This product has been designed for permanent installation on mobile homes or camper trailers with a permissible maximum speed of 150 km/h.

It is designed to automatically aim a vehicle-mounted antenna at geostationary television satellites transmitting directly to Europe. This requires the vehicle to be at standstill.

Power to the system must be supplied by a standard vehicle electric system with a rated voltage of 12/24 V DC. Do not use a switching-mode power supply if the system is to be installed in a camper trailer. Using the equipment for any other than its intended purpose is not permissible.

When the system is connected to the on-board electric system, a suitable fuse must be provided in the on-board circuit.

1. GENERAL INFORMATION

The manufacturer has designed your satellite system to be connected to standard on-board electrical systems with a rated voltage of 12 V / 24 V DC.

The manufacturer accepts no liability for direct or indirect damages or for consequential damages to the system itself, to battery systems, motor vehicles or other equipment or goods resulting from installation or wiring errors.

Please also observe the following instructions from the manufacturer:

- The system must only be installed on hard vehicle roofs which are sufficiently strong and inherently stable. Observe all relevant and approved guidelines of the automotive industry.
- The product does not require any regular maintenance. Opening housings and enclosures is not permissible. Inspection and maintenance may only be performed by a qualified professional.
- Avoid cleaning your mobile home or camper trailer with the mounted satellite system in a single-bay or drive-through car wash, and do not use a high-pressure cleaner.
- Any modification of the overall system by removing individual components or adding other components is not permissible. It is not permissible to use any parabolic antennas or LNBs other than the original parts.
- Installation must only be performed by sufficiently qualified personnel. The installation manual supplied as part of the operator manual must be carefully followed. If you encounter any problems, or if you are unsure about anything, please contact the manufacturer or an authorised service partner.

⚠ Retract the system during storms (75 – 80 km/h; 8 Beaufort).

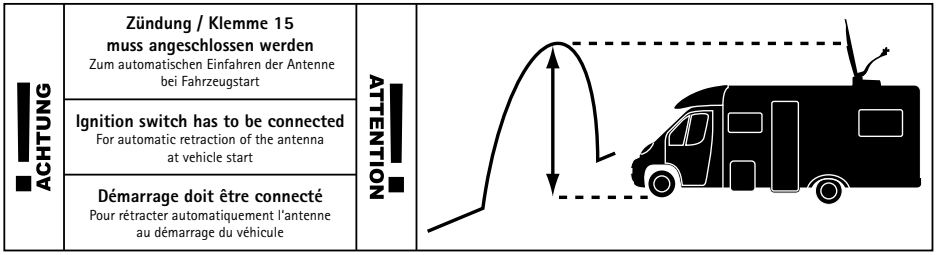
⚠ If the vehicle moves or is transported in reverse at speeds above 30 km/h, especially when being transported by truck or train, the antenna must be secured against unintended unfolding by suitable means (see 1.4 Safety precautions, page 5).

1. GENERAL INFORMATION

1.4 Safety precautions

⚠ To ensure that your satellite system works properly, it is essential that it is correctly connected to the ignition of your vehicle (see installation manual).

When correctly installed, the antenna automatically returns to and locks into its parking position when the ignition is switched on. If the system does not retract at all or cannot completely retract due to a fault, then it is your responsibility as vehicle operator to check and make sure that the antenna is correctly and completely retracted before driving off.



⚠ Road traffic regulations stipulate that the vehicle operator must verify the vehicle's roadworthiness before each use. This requires the operator to perform a visual inspection of the external unit to make sure that it is fully retracted.

Please also note that different legal requirements apply to the operation of electrical and electronic equipment in different countries. As the user of such equipment, you are responsible for ensuring compliance with the relevant laws and regulations.

STOP FUNCTION VIA THE CONTROL PANEL AND ISOLATION FROM OPERATING VOLTAGE DURING SERVICE WORK

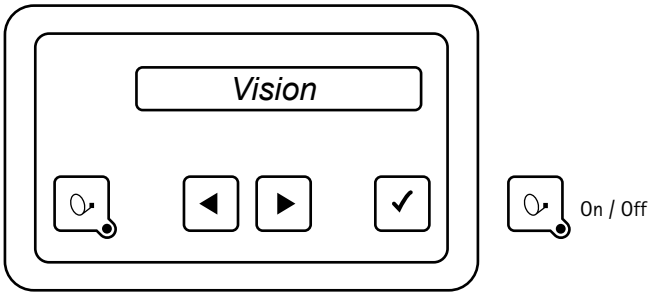
The Sat button on the control panel stops the motion of the antenna. In stop mode, no DiSEqC™ receiver commands or control commands are executed.

To cancel stop mode, at the control panel scroll ◄ ► to menu "Automatic search" and or press the selection key ✓ or press the on/off button. This causes the antenna to retract. When servicing the antenna system, make sure that the entire system is isolated from operating voltage.

2. CONTROL ELEMENTS

2.1 Control panel

All controls are handled via the control device.



You may choose any location you like to install the control panel, but please bear in mind that it is not water-proof. You may still need to remove the protective film from the display.

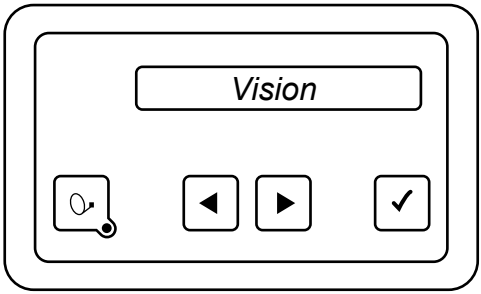
The display of the control device will show the various operating modes of the system. We recommend that the control device is positioned in an accessible location where it is easy to see this information.

The display is illuminated, so it is not a problem if it is installed in a very dark location.

To ensure safe and reliable operation of the system, please make sure the external unit is in rest mode before disconnecting the control device. Check that no text is displayed on the device – this is an indication that the system is in rest mode.

There is a separate manual – "Installation Instructions" – that covers the installation, wiring and initial taking into operation of your Vision system.

2. CONTROL ELEMENTS



On / Off - System starts the search from the last position

There are two ways of switching the Vision antenna system on and off:

With the button on the control device or by switching the receiver on and off. If you want the system to respond when switching the receiver on or off, then the menu item "Receiver control" must be enabled. See chapter 3.2 "Receiver control", page 16.

After switching on the system, the antenna unfolds and returns to the last position in which a satellite was received. If the vehicle position has changed since, the system will not receive any signals and the automatic search is started.

To switch the system off, press button again to retract the system and send it into rest mode.

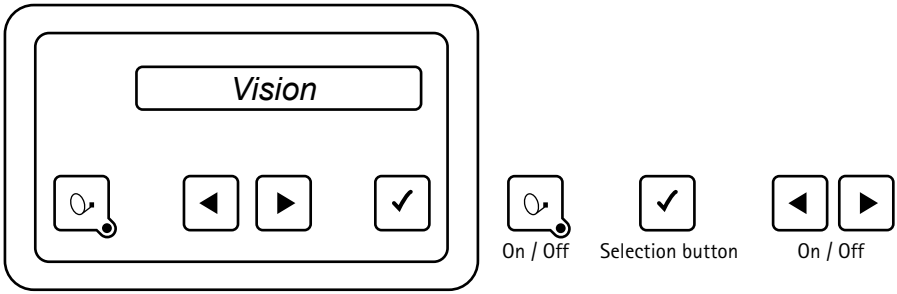
If you would like to stop the movement of the antenna while it is opening or retracting, simply press to instantly stop the antenna.

Notes:

Do not forget to switch off your TV set and the receiver, if applicable.

If the message "Manual search" is displayed after the antenna has opened, and if the system does not commence the search automatically, then the system was being operated in manual mode when it was last switched off.

2. CONTROL ELEMENTS



The arrow keys ◂ and ▸ are used to navigate through all levels of the menu.

With the aid of these keys you can select a desired submenu, function or setting.

Press ✓ to activate the displayed menu item. Within the adjustment settings, you can change the displayed values within set limits by pressing the arrow keys ◂ and ▸.

Then press ✓ to accept the adjusted value and return to the selection level.

Use ⏻ to return to the selection level without saving the data.

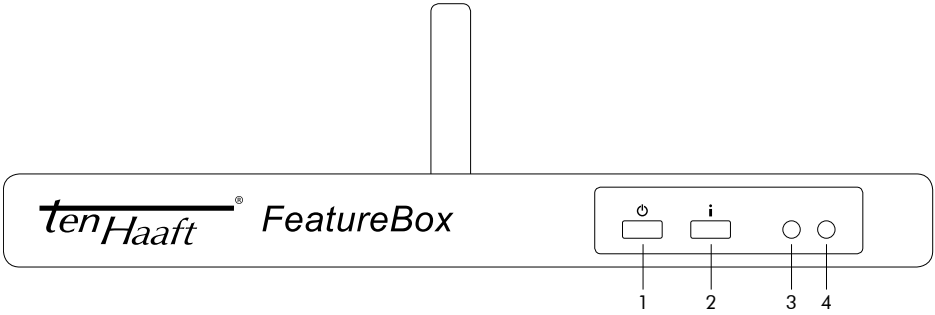
By selecting menu option "Return" and by pressing ✓ you can go back up one level in the menu structure.

USB PORT

The USB port on the underside is not operational in the Oyster V device.

2. CONTROL ELEMENTS

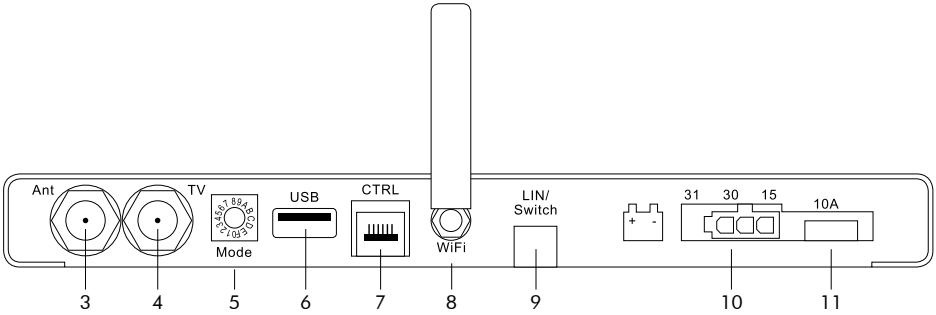
2.2 FeatureBox (front face)



Control buttons	
1. Power button	This button switches the entire antenna system on and off, and it also stops the antenna motion. It may therefore also be used as emergency stop button.
2. "i" button	This button has various functions that are indicated by the colour of the LED (see separate instructions).
3. LED (red / green)	Red = Standby Green = On
4. LED (red / green / blue)	Red = Do not switch off the power supply; do not remove the USB stick. Wait until the red light has extinguished. Blue = Update available, press "i" button to confirm (during the update, the system retracts and then unfolds again).

2. CONTROL ELEMENTS

2.3 FeatureBox (rear face)

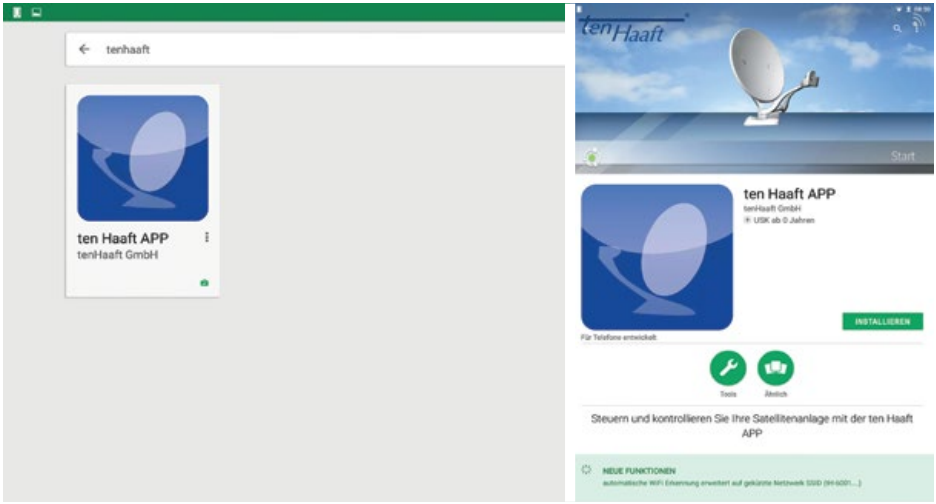


Inputs/outputs	
3. Ant	Antenna SAT IN of external unit
4. TV set	Receiver SAT OUT to TV set
5. Mode	SAT mode rotary switch
6. USB	USB port
7. CTRL	Control panel connection
8. Wi-Fi	Wi-Fi antenna
9. LIN / Switch	Option
10. Power supply	Ignition / terminal 15 / D+ / 12 V/24 V power supply
11. Fuse	10 A (red)

2. CONTROL ELEMENTS

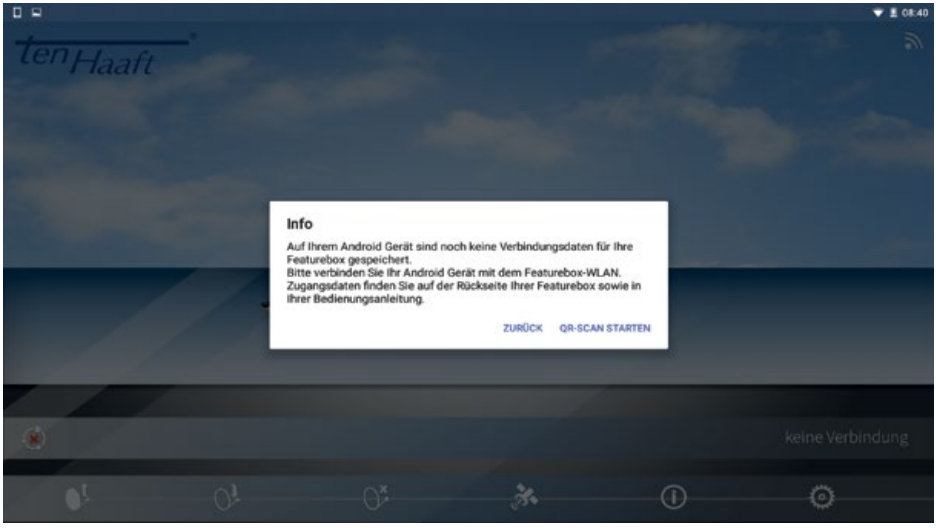
2.4 ten Haaft® app

1) Load the ten Haaft® app onto your mobile device (smartphone or tablet). You can download this app free of charge from the Google Play Store or iTunes Store.



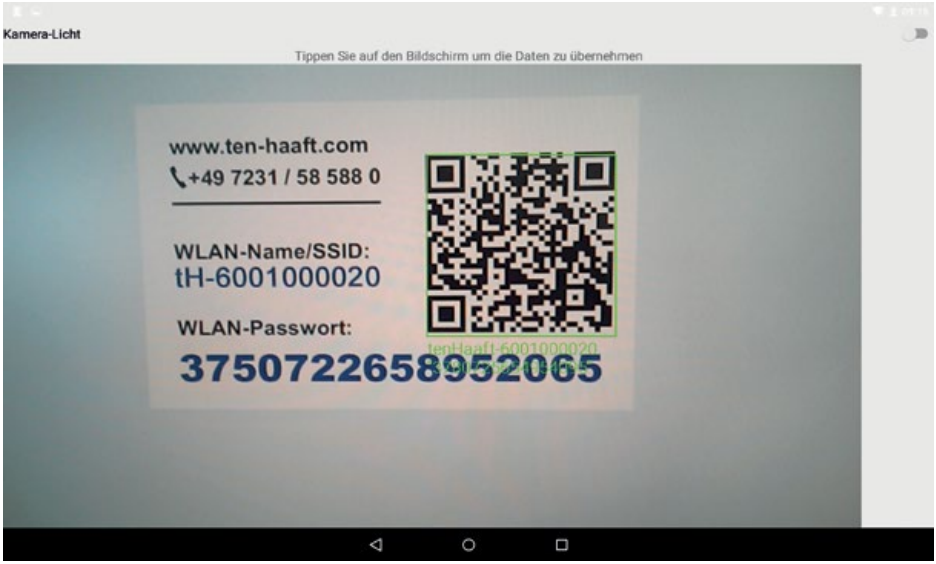
2) Once you have downloaded and installed the app, open it.

3) The app will then identify whether a connection to a ten Haaft® FeatureBox has already existed (which is not the case at initial installation). It then automatically opens the QR scanner.



2. CONTROL ELEMENTS

4) Scan the QR code on the sticker.



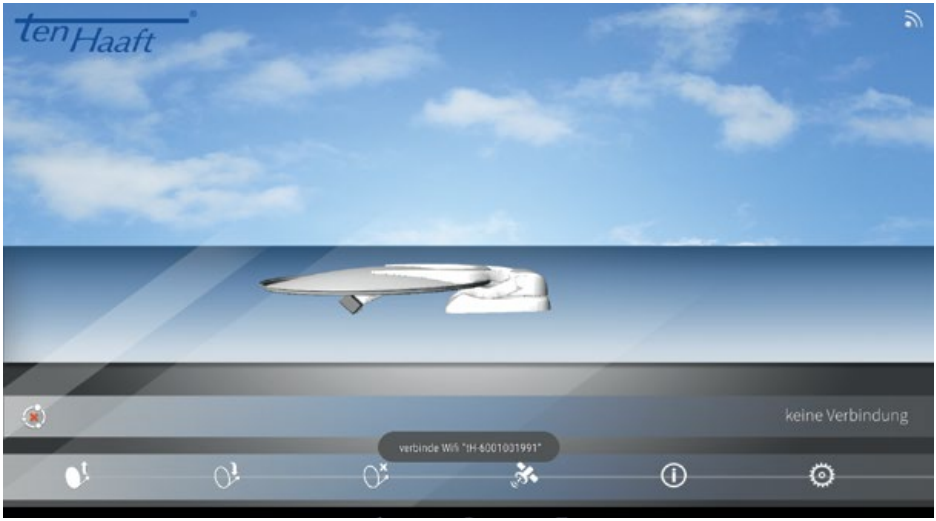
Note that your FeatureBox is provided with three identical stickers when leaving the factory. These stickers specify the Wi-Fi name/SSID and the Wi-Fi password for your FeatureBox. Each FeatureBox has a unique name and password!

One of the stickers is attached at the factory to the FeatureBox, another one is on the manual. The third sticker can be attached for your reference anywhere you like.

The sticker on your FeatureBox always has priority for the system control!

2. CONTROL ELEMENTS

5) In an Android system, the FeatureBox will automatically connect to the app via WiFi. In an Apple system, the WiFi connection of the FeatureBox must be selected in the device settings. The app indicates its connection to the WiFi system.



6) Your FeatureBox is now connected to your mobile device (see green dot)

Please contact us if you have any further questions! You can call us at +49 (0) 7231 / 58 588 0.

3. MENU GUIDANCE

3.1 Main levels

The menu guidance of the Oyster V systems adjusts itself to individual status of the external unit, showing only the steps that the system allows to be performed.

`Searching ASTRA1` = Display of the current operating status

- = Stop antenna motion
- ✓ = Displays current search transponder, timeout, return to display
- ◀▶ = Scroll through the control level

`ASTRA1` = Display of the current satellite

- = Antenna retracts
- ✓ = Displays signal strength, timeout, return to display
- ◀▶ = Scroll through the control level

`Sat search?` = Unfold the antenna

- = Antenna unfolds
- ✓ = Antenna unfolds
- ◀▶ = Scroll through the control level

`Continue search?` = Option to continue the preceding action, e.g. search

- = Antenna retracts
- ✓ = Continue search
- ◀▶ = Scroll through the control level

`Optimize?` = Option for the repeated optimisation

- = Return to display
- ✓ = Start optimisation
- ◀▶ = Scroll through the control level

`Stop` = Stops the system

- = Stop antenna motion
- ✓ = Stop antenna motion
- ◀▶ = Scroll through the control level

3. MENU GUIDANCE

Retract? = Retract the antenna

- = Retract
- ✓ = Retract

Open Sleep = Remains unfolded when the system is switched off

- = Back
- ✓ = System switches into Open-Sleep mode
- ◀▶ = Scroll through the control level

Continue retraction? = Option to continue the preceding action, i.e. retraction

- = Antenna retracts
- ✓ = Antenna retracts
- ◀▶ = Scroll through the control level

Sat Change = Branch-off into satellite swap menu

- = Stop antenna motion
- ✓ = Opens the satellite swap menu, timeout, return to display
  - ◀▶ = Switches through the list of satellites
  - = Return to main menu
  - ✓ = Confirms the current selection, timeout, return to main menu
- ◀▶ = Scroll through the control level

Settings = Branch-off into settings menu

- = Stop antenna motion
- ✓ = Opens the settings menu, see 3.2, timeout, return to display
- ◀▶ = Scroll through the control level

3. MENU GUIDANCE

3.2 Settings

These settings can be made at the control panel or via the app.

- Settings
  - Satellite settings
    - Manual search
      - Azimuth
      - Elevation
      - SKEW option
    - Manual Transponder
      - Frequency
      - Polarization
      - Symbol rate
      - FEC-rate
      - Modulation type
      - ONID
      - Active
    - Receiver Control
      - Switch-on delay
      - Switch-off delay
    - DiSEqC allocation
      - Mode
        - Mode
      - Sat 1 (manual)
        - DiSEqC position
        - Satellite
      - Sat 2 (manual)
        - ...
      - Sat 3 (manual)
        - ...
      - Sat 4 (manual)
        - ...
      - DiSEqC status

3. MENU GUIDANCE

Left / right changes the azimuth (in increments of 1°)
Left / right changes the elevation (in increments of 1°)
Left / right changes the SKEW angle (in increments of 1°)

Frequency in MHz
High / low
Symbol rate
Selection from a list of applicable FEC rates
"QPSK", "QPSK-S2" or "8PSK"
Network ID
"Yes" or "No". The display shows "Manual mode" when a manual transponder is active.
"Off", "Automatic" or "OpenSleep" (LNB Off switches the system into sleep mode with the antenna unfolded)
Delay until the next check of the LNB voltage for power-up (3 – 90 sec.)
Delay until the next check of the LNB voltage for power-down (1 – 30 sec.)

Selection of four presets: „ten Haaft" (® default), „manual" (® Sat 1 - 4), „NL Canal Digitaal" and „NL Joyne" (® two fasctscan presets)

„Off" or 0 – 255 (position number of satellite)
Name of satellite to be shown for this position

... as with „Sat 1"

... as with „Sat 1"

... as with „Sat 1"

3. MENU GUIDANCE

- General settings
  - Language
  - Display
    - Brightness
    - Color
    - Fade-Out time
  - Antenna Light
    - Active
    - Brightness
  - Wi-Fi
    - Active
    - Channel
- Info
  - Antenna Type
  - UF Version
  - LNB offset
  - Signal information
  - Error messages

3. MENU GUIDANCE

Left / right changes the language (languages list)

Brightness 20% – 100%
Colour 0% – 100%
Fade-out time 2 – 60 sec.

"Yes" or "No"
Brightness 20% – 100%

"Yes" or "No"
Channel number

Display of corresponding data
Display of corresponding data
Display of corresponding data
Signal level, BER, ONID/TSID, ... (depending on technical conditions and availability -> tuning to effictive signal)
Scrolling through the error protocol list

4. AUTOMATIC SATELLITE SWAP

4.1 Automatic satellite swap via DiSEqC™

In most cases you will aim your automatic satellite system at one specific satellite only. Of course, your system can also receive many other satellites, allowing you to watch e.g. Dutch, Swiss, French, Spanish or other channels. You can select a satellite manually at any time via the control menu.

However, your system can also readjust to a different satellite automatically when you change to the corresponding channel. This may be necessary in countries where the channels are broadcast via different satellites. Using the automatic satellite swap requires some settings to be made at your TV set or receiver, and possibly also at your satellite system. If these settings are not defined at all or incorrectly, the automatic satellite swap will not work or a wrong and hence useless satellite will be received. The automatic satellite swap can be done using the DiSEqC™ feature (disabled at the factory).

The "Automatic satellite swap" of your Oyster / Cytrac / Caro VISION satellite system has been **disabled** at the factory to avoid problems and malfunctions! You can enable this feature at any time via the menu system. Note that it is then mandatory to make the corresponding settings at your TV set or receiver!

4.2 Settings at the Vision control unit

To be able to use the automatic satellite swap by means of the DiSEqC™ capability of your TV set or receiver, you first need to enable the DiSEqC™ function in the menu of your antenna system. See page 9 "Operating the system".

4.3 Enabling DiSEqC™ at the TV set

The settings required at the TV set or receiver are usually provided in a menu item called "DiSEqC™" or similar. For details please refer to the user manual of your TV set or receiver or contact the dealer.

The DiSEqC™ settings should provide the options 1.0, 1.1 and 1.2. We recommend selecting DiSEqC™ 1.2. You then need to assign a unique ID to each satellite as is already done at the Vision III control box. These IDs must be identical in the TV settings and in the Vision III control box (see table on the following page).

If your TV set does not permit these settings, please contact your dealer.

4. AUTOMATIC SATELLITE SWAP

Sat ID	Rotary switch	Satellite name		DiSEqC™ ID
1	1	Astra 1	19.2° East	1
2	2	Astra 2	28.2° East	5
3	3	Astra 3	23.5° East	3
4	4	Hotbird	13.0° East	2
5	5	Eutelsat W5	5.0° West	4
6	6	Thor / Intelsat 10	0.8° West	7
7	7	Astra 4	4.8° East	6
8	8	Eutelsat 16	16.0° East	15
9	9	Eutelsat 7	7.0° East	9
10	A	Hispasat	30.0° West	14, 21
11	B	Eutelsat 9	9.0° East	18
12	C	Hellas Sat 2	39.0° East	10
13	D	Türksat	42.0° East	11
14	E	Intelsat 907	27.5° West	19
15		Eutelsat 8W	8.0° West	8
16		Eutelsat 10	10.0° East	12
17		Amos 2/3	4.0° West	13
18		Telstar 12	15.0° West	16
19		Astra 5	31.5° East	20
20		Hylas 1	33.6° West	22

* DiSEqC™ is a registered trademark of Eutelsat, 70, rue Balard, F-75502 Paris Cedex 15. www.eutelsat.com

5. SERVICE

5.1 Reception in practice – aiming the satellite system

Satellite antennas are aimed at a satellite along three adjustment planes:

1. AZIMUTH ANGLE (COMPASS HEADING)

The azimuth angle defines the horizontal setting of the antenna, specifying the angle between North and antenna heading. It depends on the geographic position of the receiver and the satellite selected.

For example, Astra 1 (orbital position 19.2° East) has an azimuth of 173° in Berlin but 143° in southern Spain.

2. ELEVATION ANGLE (INCLINATION)

The elevation angle indicates the height of the satellite above the horizon. Like the azimuth angle, it depends on the position of the receiver and the satellite selected. In Central Europe, it is typically between 25° to 35°, decreasing as you move further North.

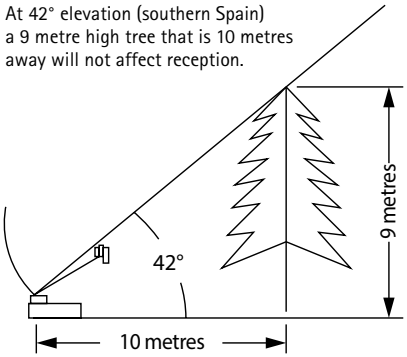
3. SKEW ANGLE (POLARISATION DEVIATION)

For optimal reception at the fringe of the satellites' footprints in southwestern and southeastern regions, the LNB may have to be rotated to compensate for the polarisation deviation caused by the earth's curvature.

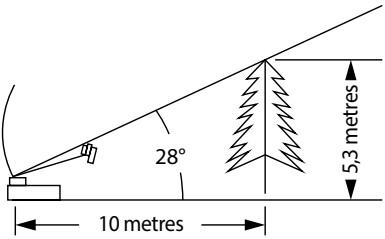
Oyster® systems are available with the optional SKEW function for automatic LNB adjustment.

OBSTACLES IN FRONT OF THE ANTENNA

At 42° elevation (southern Spain)
a 9 metre high tree that is 10 metres
away will not affect reception.



At 28° elevation (northern Germany)
a 5.3 metre high tree that is 10 metres
away will not affect reception.



5. SERVICE

5.2 Reception in remote areas

LNB SETTINGS IN DIFFERENT REGIONS:

This setting is done automatically at the Oyster® V Premium with SKEW option. This section describes how to fine-tune the LNB to optimise reception in the fringe of a TV satellite's footprint. This requires loosening the LNB or antenna bolts and turning the LNB or complete flat-panel antenna by a specific angle. This is only required in the fringe areas of a satellite's footprint. It should be performed by expert users only. All satellites broadcasting channels of interest to Central European viewers are aimed at Central Europe. In locations outside this area, the antenna has a "sideways view" on the satellite. This effect is known as the "SKEW angle" or "polarisation angle" and occurs particularly in southern regions such as Portugal, Spain, Morocco, Greece, Turkey, and most extremely on the Canary Islands. The effect is mostly compensated by the receiver's electronics, but sometimes some manual fine-tuning is required by pivoting the LNB (reception head) or the entire flat-panel antenna by some degrees.

OYSTER® V

5. SERVICE

The following definitions apply to the tables and specified angles below: To determine the direction of rotation, the viewer must look at the front face of the antenna as does the LNB, i.e. the viewer must be standing in front of the antenna. The long lines indicate increments of 10°.

- A rotation in CLOCKWISE DIRECTION is positive (+). I A rotation in COUNTERCLOCKWISE DIRECTION is negative (-).
- A rotation in "+" direction means that the BOTTOM of the LNB is turned to the LEFT.
- A rotation in "–" direction means that the BOTTOM of the LNB is turned to the RIGHT.

5. SERVICE

LNB settings in different regions:

Country	Eutelsat W5 5° West	Thor 0.8° West	Astra 4 4.8° East	Hotbird 13° East	Astra 1 19.2° East	Astra 3 23.5° East	Astra 2 28.2° East
Germany, Austria, Switzerland	-23°	-16°	-12°	-6°	0°	4°	8°
France	-15°	-11°	-5°	2°	7°	11°	14°
Benelux region	-16°	-12°	-8°	-2°	3°	6°	9°
England	-9°	-6°	-3°	3°	7°	10°	12°
Ireland	-6°	-3°	1°	7°	11°	13°	16°
Portugal	-4°	1°	8°	16°	22°	25°	28°
Southern Spain, Gibraltar	-8°	-3°	5°	14°	20°	24°	28°
Scandinavia	-19°	-16°	-14°	-9°	-6°	-4°	-2°
Greece	-38°	-35°	-29°	-20°	-12°	-7°	0°
Turkey, Ukraine, Belarus	-39°	-36°	-31°	-26°	-20°	-15°	-11°
Canary Islands	12°	18°	26°	34°	39°	42°	44°
Morocco	-8°	-2°	6°	17°	23°	27°	31°
Italy, Sicily	-27°	-24°	-17°	-8°	-2°	3°	8°
Croatia	-27°	-24°	-19°	-11°	-5°	-1°	4
Tunisia, Libya	-27°	-22°	-15°	-4°	4°	9°	15°

Note: The SKEW angles provided are for reference only. Adjustments of less than 8° are usually not necessary as long as reception is undisturbed. The fine-tuning of the SKEW angle often allows the reception of satellites in areas actually outside of their footprint. The footprints of the individual satellites can be found at www.lyngsat.com or www.satcodx.com. Both websites provide interesting general information about the channels and footprints of the various satellites.

5. SERVICE

5.3 Troubleshooting

Stop function

It must be possible to stop the antenna motion at any time. To stop or interrupt a satellite search, press the OK button (stop function) of the control panel, the power button of the remote of the Oyster TV or the power button of the FeatureBox (only at the Oyster® V). After either of these buttons has been pressed no control functions will be executed.

Resetting the stop function

To cancel the stop function, please press the OK button (stop function) of the control panel, the power button of the remote of the Oyster TV or the power button of the FeatureBox (only at the Oyster® V).

Error Description	Trouble-shooting
No satellite was found during search.	Do you have a clear view to the south? Are you inside the footprint of the satellite being searched? Does your position require the LNB's SKEW angle to be adjusted?
The antenna does not retract or unfold properly.	Is the motion obstructed by obstacles? Is the supply voltage too low (weak battery)?
The antenna does not react after activation or does not respond to commands.	Is the fuse OK? Are all cables properly connected?
Signal tone of featureBox	When the system receives the control command to retract (Ignition switch has to be connected), but no feedback to the FeatureBox was sent, a signal sound is heard and it is to ckeck whether the system is retracted.

5. SERVICE

5.4 FeatureBox update via USB stick

Further to automatic updates via the app, which is the option preferred for end customers, updates can also be performed manually using a USB stick.

You will need a USB stick formatted as FAT/FAT32 with the file tenhaaft.uf loaded into its root directory (top level).

The UF-file is available from our website.

The maximum file size is approx. 4 Mbyte, so the USB stick's storage capacity is not relevant.

Procedure	Description
	The upper image shows a FeatureBox that is switched off and in standby mode (left LED illu-minates red).
	The image shows a FeatureBox when active (left LED illuminates green).
 	Plug the USB stick into the port marked „USB" on the back side of the FeatureBox. The USB stick will then flash to indicate reading activity, and both LEDs on the front face illuminate (left LED green, then changing to red, right LED red or flashing red). In this mode, the data are loaded from the USB stick into the internal update memory of the FeatureBox. Depending on USB stick and file size, this procedure may take up to 2 minutes and should not be interrupted! The right-hand red LED turns off when this step is completed. You can then remove the USB stick from the FeatureBox. An LED illuminating blue may be ignored!

5. SERVICE

BLUE LED

Once the data have been uploaded into the internal update memory, they can be distributed to the hardware components connected to the FeatureBox.

This may happen automatically. However, it is often not possible to update all components at once because the FeatureBox cannot know which state a component is in (e.g. because the antenna is not connected when the update is performed).

This condition is neither unusual nor critical!

The LED illuminating blue shall make the user aware that an update can now be started by pressing the „i" button.

UPDATE SEQUENCE

The components connected to the FeatureBox are updated in a fixed sequence: At first the FeatureBox is updated, then the motor controller of the antenna, and then the control panel.

For safety reasons, the motor controller is only updated after it has been reliably identified and when the antenna is folded in. This is why the antenna may retract if you press the „I" button while the LED illuminates blue.

5. SERVICE

Update sequence	Description
	Device is switched off (standby) --> Switch device on
	Device is switched on --> Plug in the USB stick
 oder 	Data are being transmitted or updated --> Do not touch – wait!
After the right red LED has turned off permanently, you can remove the USB stick	
	--> Press the „I“ button

6. APPENDIX

6.1 Declaration of conformity

CE

Konformitätserklärung
Declaration of Confirmity
Déclaration de Conformité

Wir, der Hersteller	We, the manufacturer	Nous, le fabricant souscrit
	ten Haaft GmbH **Neureustraße 9** **D 75210 Keltern** **Germany / Allemagne**	
erklären hiermit, dass die Produkte:	declare hereby that the products:	dédrarons par la présente gue les produits:

Oyster V Premium **Oyster V Vision**

sowie deren Varianten, wahlweise mit oder ohne den im Gesamtsystem einzeln ab Werk verbauten Optionen
as well as their variants, either with or without the individually ex works in the integral system installed options
ainsi que leurs variantes, éventuellement avec ou l'ensemble du système individuellement des options installées en usine

SKEW / Single / Twin

den wesentlichen Anforderungen der folgenden Vorschriften entsprechen und somit ein CE-Zeichen in Übereinstimmung mit der RED-Richtlinie 2014/53/EU sowie der KFZ Richtlinie UN/ECE Regulation Nr. 10 Rev.5 (+Anhang 1) führen.

are in compliance with the following specifications and bear the CE-Mark according to the provisions of the Electromagnetic Compatibility (RED) Directive 2014/153/EU as well as the Motor Vehicle Agreement UN/ECE Regulation No. 10 Rev.5 (+Addendum 1)

sont conformes aux spécifications suivantes et portes la marque CE selon les lignes directrices de la Compatibilité Electromagnétique (RED) Numéro 2014/53/EU ainsi que la directive de l´automobile UN/ECE régulation Numéro 10 Rev.5 (+Annexe 1)

Die Anlagen erfüllen die folgenden im Einzelnen genannten harmonisierten Normen
The systems meet the harmonised standards individually listed below
Les produits répondent aux normes suivants mentionnés dans la fiche harmonisée

RED 2014/53/EU:

EN61000-6-3:2007+A1:2011 EN 301489-1 V1.9.2

EN61000-6-1:2007 EN 301489-17 V2.2.1

EN 300328:V1.9.1

UN/ECE R10 Rev.5

ISO 11452-2:2004 CISPR 25:2002

ISO 7637-2:2004

Neulingen, den 14. Dezember 2017

Roman Bittigkoffer
Geschäftsführer

6. APPENDIX

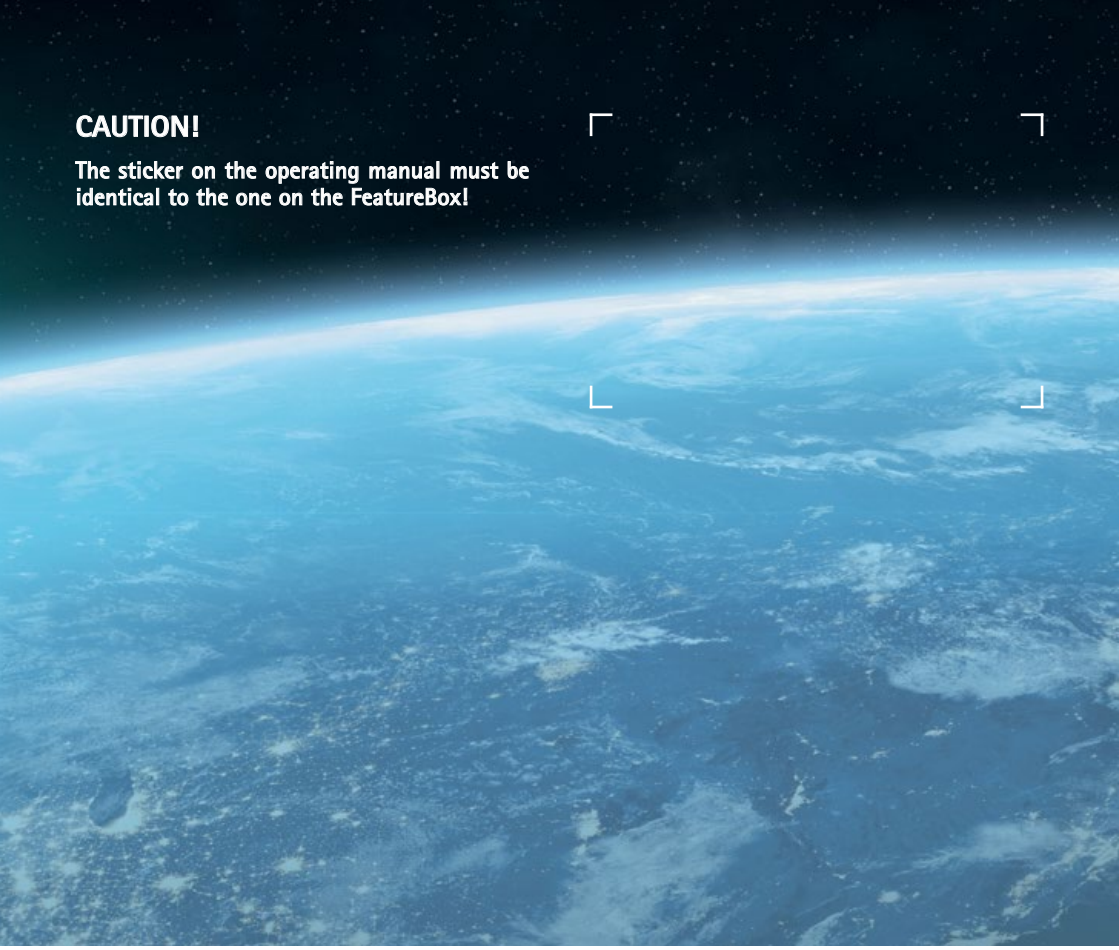
6.2 Notes on the protection of the environment

EC End-of-Life Vehicle Directive

The antenna system is certified and intended for use as an accessory of a motor vehicle. The system may be disposed of together with the vehicle in accordance with the End-of-Life Vehicle Directive ELV, 2000/53/EC. The antenna system does not contain any materials rated as hazardous to the environment according to the directive.

We hope your satellite system brings you lots of joyful entertainment hours.

Your ten Haaft team



ten Haaft GmbH

Neureutstraße 9
75210 Keltern
Germany

Telephone: +49 (0) 7231 / 58588-0
Telefax: +49 (0) 7231 / 58588-119
E-mail: service@ten-haaft.com

Office hours:

Monday – Friday 8:00 a.m. – 12:00 a.m.
and 12:30 a.m. – 4:30 p.m.

Release 01/2018 · Part number: 3.150.0115