Oyster® V

OPERATING MANUAL AND INSTALLATION

CONTENTS

1. GENERAL INFORMATION

1.1 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 a geostationary television satellite 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 for it in the on-board circuit.

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.
- Do not wash 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. Using parabolic antennas or LNBs other than the original parts is not permissible.
- The satellite system must be installed by a specialist workshop or qualified professional. 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 (wind exceeding 75 – 80 km/h; 8 Beaufort).

⚠ If the vehicle moves or is transported in reverse at speeds exceeding 30 km/h, especially when being transported by truck or train, the antenna must be secured against unintended unfolding by suitable means.

1. GENERAL INFORMATION

1.2 Safety precautions

Read the operating manual and installation instructions carefully before installing the system.

These instructions describe the functions of the automatic satellite system and how to operate it.

Correct and safe operation of the system can only be ensured if both the installation instructions and the operating instructions 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 any location in 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.

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

When installing, follow the instructions regarding the processing and curing times of the adhesive sealing compound (not included in the supply) provided by the compound's manufacturer before moving the vehicle! If these times cannot be observed for any reason, the mounting plate must be additionally secured with screws.

Depending on how your vehicle roof is made, it could be required to additionally secure the mounting plate using the 6 supplied screws.

Caution:

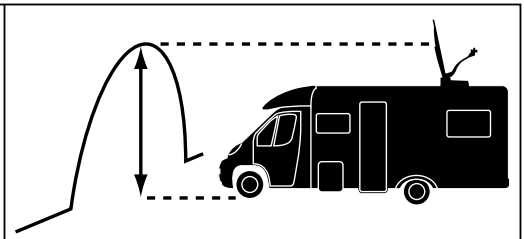
The equipment is sensitive. Never tear on the antenna arm. Do not manually lift or turn the antenna arm, as it must only be moved via the motor. The head bolts located to the left and right sides of the dish arm must not be loosened, except there is any disorder. Only lift it by the plastic shield or the aluminium plate. The screws of the housing must only be undone by the system manufacturer.

Caution:

Never reach into the area of the antenna unit while it is moving!

1. GENERAL INFORMATION

When correctly installed, the antenna automatically returns to its parking position and locks up when the ignition is switched on. If the system cannot fully or 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.

ACHTUNG	ATTENTION	
Zündung / Klemme 15 muss angeschlossen werden Zum automatischen Einfahren der Antenne bei Fahrzeugstart		
Ignition switch must be connected For automatic retraction of the antenna at vehicle start		
Démarrage doit être connecté Pour rétracter automatiquement l'antenne au démarrage du véhicule		

⚠ 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 antenna to make sure that it is fully retracted.

Information on the operation of the system on camper trailers:

The 12-V power supply provided by a power converter installed in camper trailer as standard equipment is often not reliable enough for the operation of the satellite system. To use the system with a camper trailer, we recommend using the power converter available from us.

⚠ To ensure that your satellite system works properly, it is essential that it is correctly connected to the ignition of your vehicle (see page 8, 2.2 paragraph 2: Power supply, 2. Power supply in camper trailers).

1. GENERAL INFORMATION

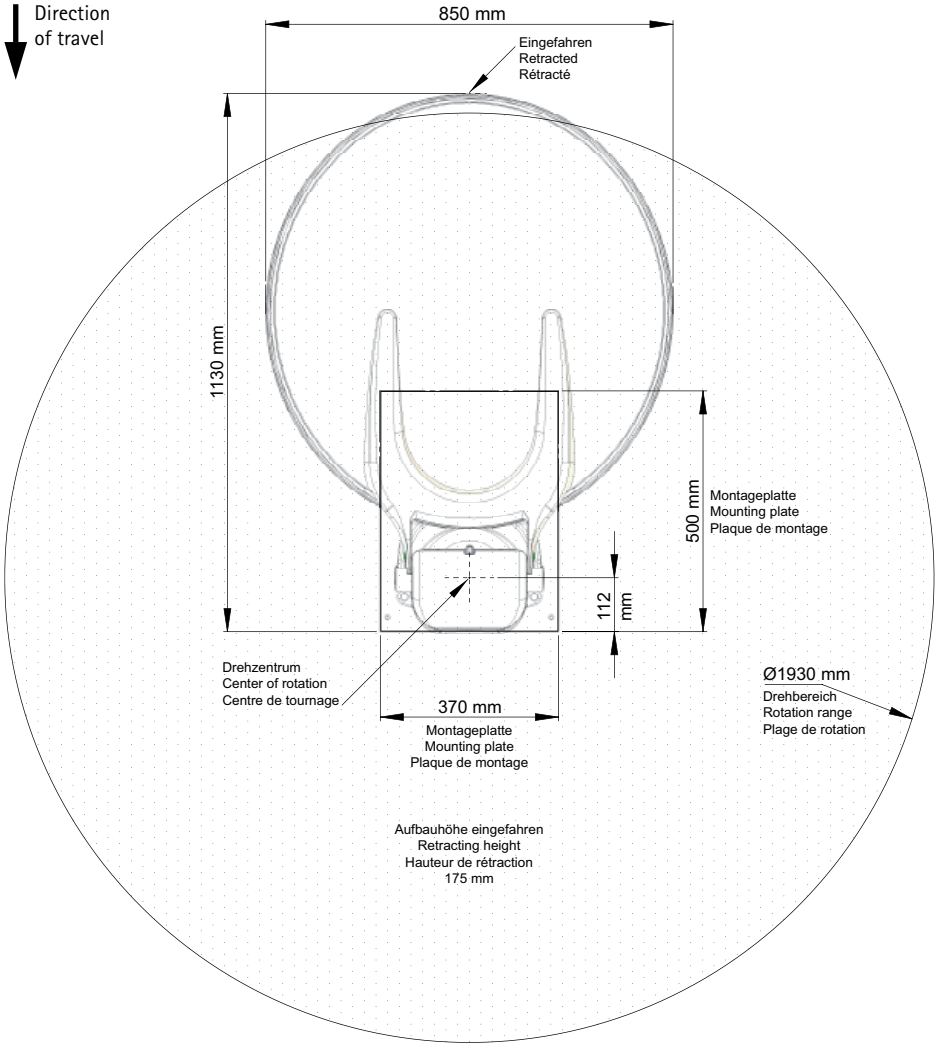
1.3 Scope of supply

Check that you have received all of the following items:

1. Antenna unit
2. 85 cm antenna panel
3. Mounting plate (fitted to external unit)
4. Wiring harness to external unit (coaxial cable)
5. FeatureBox
6. Control panel (without control panel, the system is controlled by the receiver or TV set connected to it)
7. Hardware bag (operating manual and installation instructions, fasteners package, power supply cable (FeatureBox), coaxial cable (to connect your satellite receiver to the FeatureBox)

2. INSTALLATION

2.1 Installation space required for the Oyster® V



2. INSTALLATION

2.2 Power supply

1. A sufficient power supply of the system must be ensured:

a) The system must be connected to the 12/24-V onboard electric system.

b) The minimum cross-section of the wires connecting the satellite system to the power supply is 2.5 mm². For wiring lengths above 6 meters, a cross-section of 4.0 mm² is required.

c) A connection to an existing line of the onboard electric system is usually not a sensible option. The wire cross-sections are often insufficient, and/or the line may already be feeding other consumers such as the TV set. The available voltage may then be insufficient.

d) We recommend installing a separate power line from the battery to the system as an optimal solution.

e) ⚠ Be sure to connect the black cable of the 3-line power supply harness to terminal 15 (switched ignition supply) of the vehicle. Alternatively, you can also connect the black cable to line D+ (generator positive terminal, only live when engine is running) instead of terminal 15, your vehicle's electric system permitting. In either case, be sure to make a function check! See section 2.4 in these instructions.

The power line must be protected on the battery side by a fuse rated with 10 to 20 Amps.

2. Power supply in camper trailers:

In camper trailers, a reliable or battery-supported 12-V power supply is often not available. In this case, the system must be supplied with power from the mains grid via a suitable 220 V/12 V power converter.

Do not use any battery chargers, simple transformers or unregulated power converters. Only electronically regulated fixed-voltage converters with a rated voltage of 13.8 V and a minimum continuous power output of 8 Amps must be used.

We recommend using the power converter available from us.

When installing the system in a camper trailer with a 12/24-V onboard electric system, the black cable of the 3-line power supply harness must be connected to a line which is only supplied with voltage from the vehicle pulling the trailer while driving. On a 13-pole trailer connector, this is typically line 10 (charge line). Be sure to check the installation for proper function! See section 2.5 in these instructions.

When installed in a camper trailer without 12/24-V onboard electric system, and where the satellite system is **not** supplied with power while driving because of the design of the electric system, the connection of the black cable (terminal 15) is not mandatory. In this case, it is the vehicle operator's responsibility to always verify that the antenna has retracted into its park position before driving off.

2. INSTALLATION

2.3 Safety circuit

To prevent damage from driving with the external unit unfolded, the black cable of the FeatureBox' power supply harness must be connected to terminal 15. (A line connected to terminal 15 is live when the ignition is switched on and carries no voltage when the ignition is switched off.) When switching on the ignition, the antenna will retract and not open until the ignition is switched off.

Caution: If the antenna does not fully retract because of a malfunction (e.g. a trapped twig), it is compulsory to shut off the engine / ignition before resolving the malfunction.

If your vehicle's onboard electric system completely disconnects the power supply of your camper compartment when switching on the ignition, the safety circuit will not be operational! Please contact the manufacturer of your vehicle for clarification.

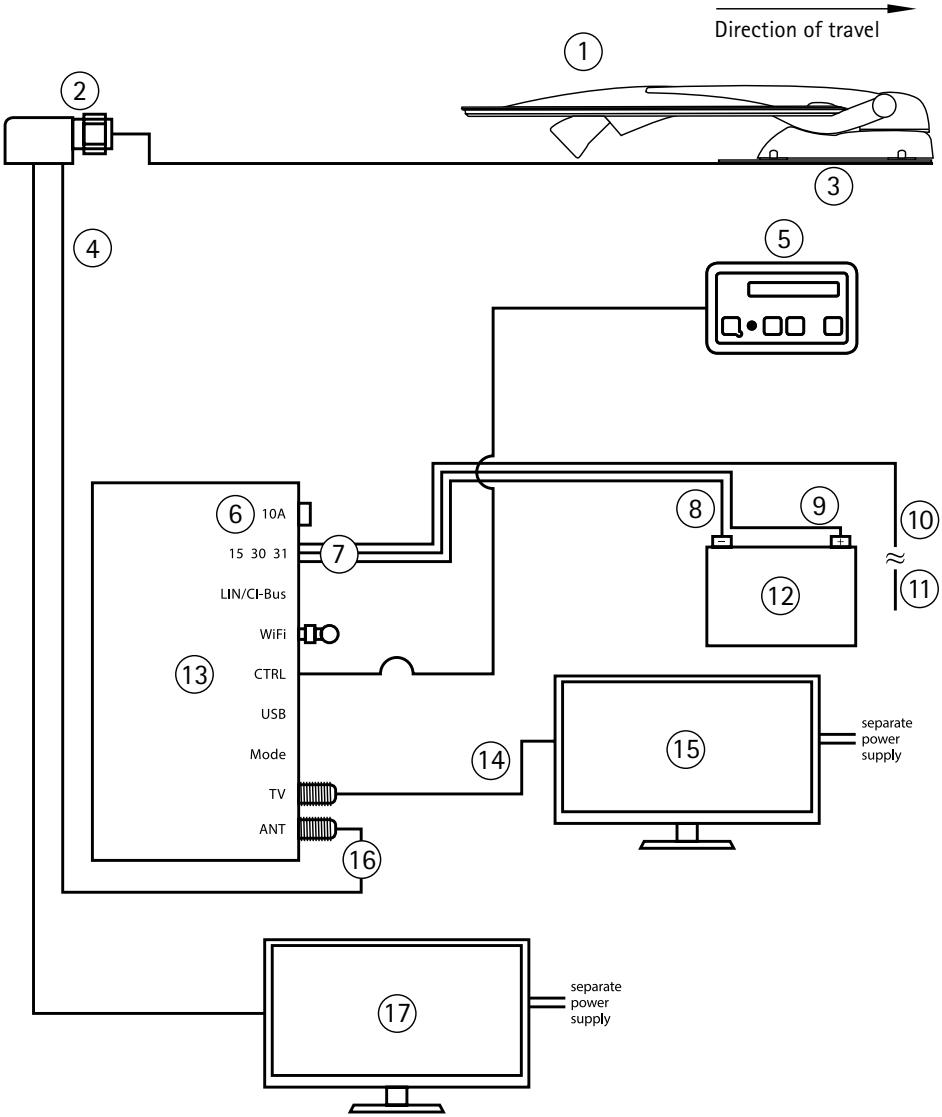
Note:
Alternatively to connecting the black cable to terminal 15 (supply via ignition lock), you may connect it to line D+ (generator positive terminal, charge voltage), if your vehicle's electric system is permitting. In this case, you must double-check that the safety circuit functions reliably! Keep in mind that in some vehicles it is not permissible to connect additional power consumers to the D+ line! Note that in some vehicles, the voltage on the D+ line may be switched off temporarily by the vehicle's electric system while driving. This would prevent the safety circuit from functioning properly! When deciding for this type of connection, make sure that the voltage on the D+ line is present at all times and stable while the engine is running. When in doubt, connect the safety circuit to a line supplied via terminal 15 (via the ignition lock).

2.4 Fitting the dish

To fit the supplied sat-dish, please activate the unit and let the arm go upright, then stop the movement. See chapter 3. Do not loosen the two head bolts at left and right side of at the arm to fit the dish.

2. INSTALLATION

2.5 Connections



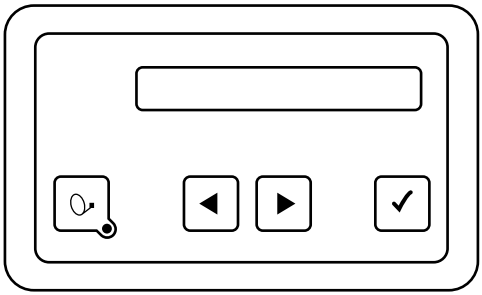
2. INSTALLATION

CONNECTIONS AT THE FEATUREBOX

Number	Explanation
①	Antenna unit
②	Elbow fitting / roof feed-through
③	Mounting plate
④	Satellite harness from exterior unit
⑤	Control panel (if included in supply)
⑥	Fuses
⑦	Connect the power-supply cable provided here. **CAUTION!** Ensure that the other end of the power-supply cable is correctly connected to the onboard electric system. If polarity is reversed, the FeatureBox may be destroyed! Onboard system terminal 15: Ignition / D+ (optional, see 2.3) Onboard system terminal 30: Onboard system voltage 12/24V DC Onboard system terminal 31: Vehicle ground / chassis
⑧	Connecting cable (brown – battery negative)
⑨	Connecting cable (red – battery positive)
⑩	Connecting cable (black – safety circuit)
⑪	Ignition-switched terminal 15 of vehicle
⑫	Body battery
⑬	FeatureBox
⑭	Coaxial cable to receiver
⑮	Receiver / TV with integrated receiver
⑯	Connect the antenna connector of the coaxial cable leading to the antenna unit here.
⑰	2. TV set only with TWIN-LNB

3. CONTROL ELEMENTS

3.1 Control panel (if included in supply)



On / Off

Menu command "forward"

Menu command "back"

Menu command "OK"

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 panel will show the various operating modes of the system. We recommend you to install the control panel in a location where the display is clearly visible.

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

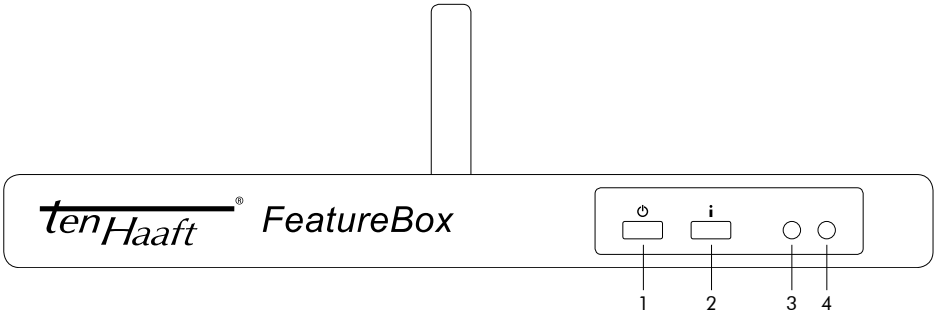
To ensure safe and reliable operation of the system, please make sure the external unit is in rest mode before disconnecting the control panel. Check that no text is shown in the display – this is an indication that the system is in rest mode.

Without control panel, the system is controlled by the receiver or TV set connected to it. You can also control the system using your mobile device or tablet with the free ten Haaft® app.

3. CONTROL ELEMENTS

3.2 FeatureBox (front face)

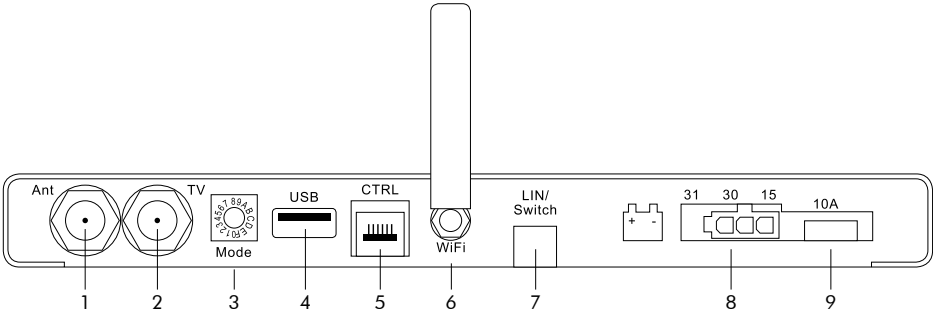
The FeatureBox controls either the functions of the external unit via a hard-wired control panel, via the app or via the receiver/TV set.



Control buttons	
1. Power button	This button switches the entire antenna system on and off. If you press this button while the antenna is in motion, it will stop immediately (emergency stop).
2. "i" button	This button has various functions that are indicated by the colour of the LED.
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. Green = For service purposes Blue = Update available, press "i" button to confirm (during the update, the system retracts and then unfolds again).

3. CONTROL ELEMENTS

3.3 FeatureBox (rear face)



Inputs/outputs	
1. Ant	Antenna SAT IN from external unit
2. TV set	Receiver SAT OUT to TV set
3. Mode	Rotary switch for SAT mode (default setting 0 = automatic mode)
4. USB	USB port (for updates via USB stick)
5. CTRL	Control panel (if included in supply)
6. WiFi	WiFi antenna
7. LIN / CI bus	Optional control input
8. Power supply	Ignition / terminal 15 / D+ and 12 V/24 V power supply
9. Fuse	10 A (red)

3.4 Warning Tone FeatureBox

The FeatureBox will sound a warning tone if the vehicle engine is started before the antenna is fully retracted and in its 'Park' position.

If the vehicle engine is started whilst the antenna is still open, the antenna will automatically retract. This can take up to 40 seconds. A short signal tone will indicate that the antenna must retract fully before the vehicle can be moved.

If the antenna, for whatever reason, cannot be fully retracted, a constant warning tone will be heard. This warning tone will only stop once the antenna is either fully retracted or the vehicles ignition (Terminal 15) is turned off.

4. APPENDIX

4.1 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

4. APPENDIX

4.2 Declaration of conformity CE

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:

Produktfamilie Oyster V, einschließlich aller Varianten den wesentlichen Anforderungen der folgenden Vorschriften entsprechen und somit ein CE-Zeichen in Übereinstimmung mit der RED-Richtlinie 2014/53/EU führen.

Product family Oyster V, including all variants are in compliance with the following specifications and bear the CE-Mark according to the provisions of the Electromagnetic Compatibility (RED) Directive 2014/53/EU.

Famille de produits Oyster V, y compris toutes les variantes sont conformes aux spécifications suivantes et portes la marque CE selon les lignes directrices de la Compatibilité Electromagnétique (RED) Numéro 2014/53/EU.

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:

EN55032:2015	EN 300328:V1.9.1
EN61000-6-3:2007+A1:2011	EN 301489-1 V2.1.1
EN61000-6-1:2007	EN 301489-17 V2.2.1

Keltern, den 06. August 2018

Roman Bittigkoffer
Geschäftsführer

4. APPENDIX

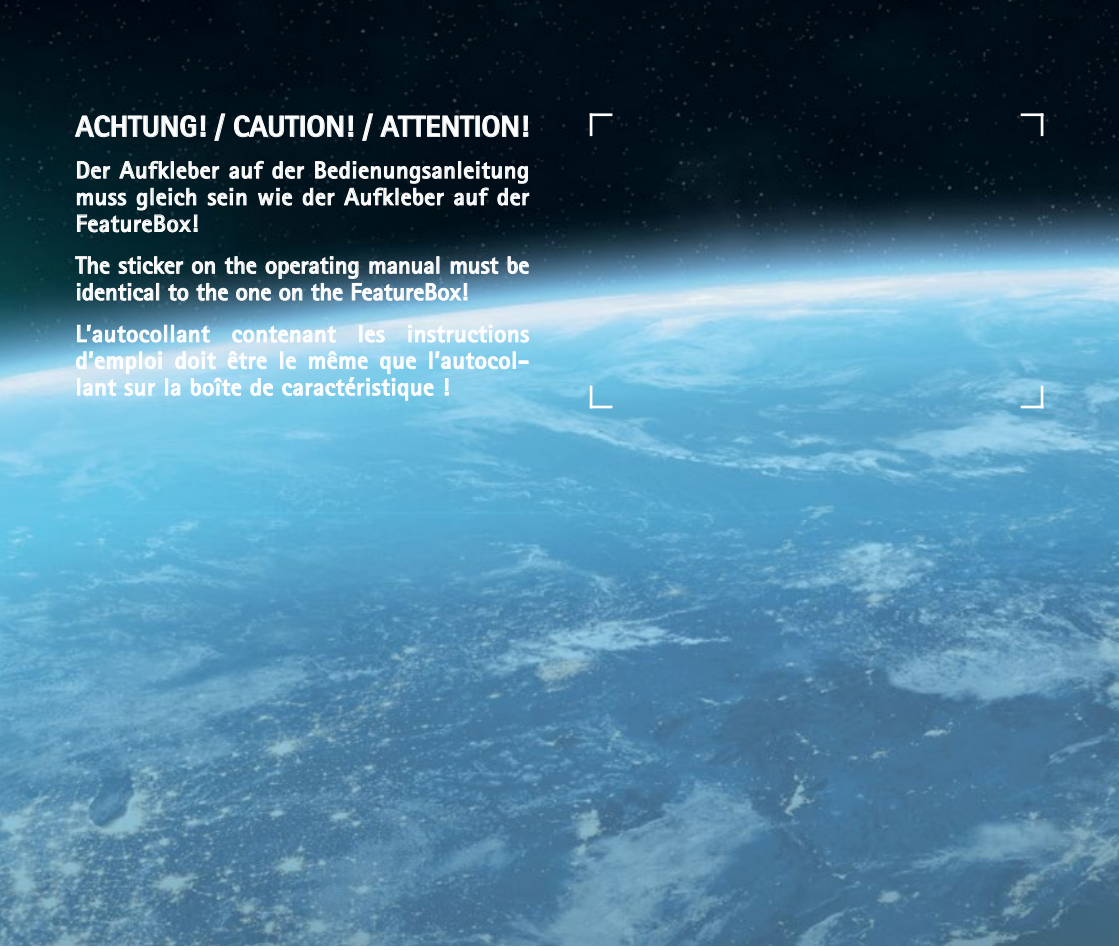
4.3 Type Approval

This product has authorised Type Approval as a motorised vehicle accessory.

Type Approval Mark:

4.4 Available models

Oyster® V Vision	Oyster® V Premium
Oyster V 85 Vision	Oyster V 85 Premium
Oyster V 85 Vision	Oyster V 85 Premium
Oyster V 85 Vision TWIN	Oyster V 85 TWIN Premium
Oyster V 85 Vision TWIN	Oyster V 85 TWIN Premium
Oyster V 85 Vision QUAD	Oyster V 85 QUAD Premium
Oyster V 85 Vision SKEW	Oyster V 85 SKEW Premium
Oyster V 85 Vision SKEW	Oyster V 85 SKEW Premium
Oyster V 85 Vision TWIN SKEW	Oyster V 85 TWIN SKEW Premium
Oyster V 85 Vision TWIN SKEW	Oyster V 85 TWIN SKEW Premium
Oyster V 85 Vision QUAD SKEW	Oyster V 85 QUAD SKEW Premium



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Öffnungszeiten

Montag – Freitag	08:00 Uhr – 12:00 Uhr
und von	12:30 Uhr – 16:30 Uhr

Office hours:

Monday – Friday	08:00 a.m. – 12:00 a.m.
and	12:30 a.m. – 04:30 p.m.

Heures d'ouverture

Lundi – Vendredi	08 h 00 – 12 h 00
et	12 h 30 – 16 h 30