

# Fully Automatic, Portable Camping Satellite System

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## Instruction Manual

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## About This Manual

This document is part of the product.

- ▶ Read this manual before using the CAP 500M camping satellite system for the first time.
- ▶ Perform all operating steps described in the manual in the specified sequence.

For the most up-to-date version of this document, go to [www.kathrein-ds.com](http://www.kathrein-ds.com).

A German version of this user manual is available at [www.kathrein-ds.com](http://www.kathrein-ds.com).



Keep this manual in a safe place for future reference and enclose it with the unit when passing it on to the next user.

## Intended Use

The CAP 500M fully automatic camping satellite system is designed for receiving digital TV and radio channels **via Astra 19.2° East exclusively**. This antenna cannot receive terrestrial signals (e.g. DVB-T, DVB-T2).

The CAP 500M is a receiver-independent solution and can be used in conjunction with any satellite-enabled end device. No additional control unit is required for controlling the system.

The system is designed for private use and is not suitable for commercial purposes.

**Any other use will invalidate the warranty and guarantee.**

**The following circumstances will result in the loss of warranty and liability claims towards the manufacturer:**

- Improper installation
- Structural changes or interference with the components
- Improper or forcible opening of the components
- Failure to observe the safety notes in this manual

## Features

- Self-aligning (Astra 19.2° East)
- Light and portable for mobile and flexible use
- TV reception within 90 seconds (typically)
- No additional control unit required
- No power consumption in standby mode
- No complex assembly required
- Low space requirement due to compact design
- Anti-theft protection

## Optional Accessories

### LCD 89 (order no. 21510004)

Always use the supplied extension cable to extend the coaxial cables. If the supplied extension cable is not long enough, use the LCD 89 antenna cable from KATHREIN Digital Systems or a comparable coaxial cable.

Always make sure that the coaxial cables are connected properly. We recommend using the EMU 03 (order no. 273246) from KATHREIN Digital Systems.



### EV 06 (order no. 218464)

The EV 06 is an outdoor F-type outlet for caravans and motor homes. The outlet can be used to transfer TV signals from outside the camping vehicle to the inside and vice versa.



## Scope of Supply

- CAP 500M, fully automatic, portable satellite system
- Coaxial cable, 10 m
- Instruction manual

## Important Information

### Safety notes



To avoid possible harm, carefully read and follow these safety notes before putting your CAP 500M into operation. The manufacturer assumes no liability for damage arising from improper use or failure to comply with the following safety notes:

- ▶ Only use the unit in a moderate climate.
- ▶ Never open the unit. Any attempt by non-skilled persons to repair the unit is dangerous and will result in the guarantee and warranty to become void.
- ▶ Any intervention or repair that may be required may only be carried out by skilled persons.
- ▶ If liquid has entered the unit, switch it off immediately and contact the service.
- ▶ Do not expose the unit to heating sources that add to the heat generated by normal use.
- ▶ If you notice any defect, unusual odour, smoke, significant malfunction, or damage to the housing, switch off the unit immediately and contact the service.
- ▶ Install the unit in a suitable place depending on the installation environment (flat surface where the unit can be set up safely). Failure to comply with this safety precaution may damage the unit or cause an accident.
- ▶ Do not put the unit into operation if you detect any other damage.
- ▶ Do not operate the unit near swimming pools or the like.
- ▶ Never attempt to repair a defective unit yourself. Always contact our service and repair centre.
- ▶ This unit is not intended to be used by persons (including children) with limited physical, sensory or mental capabilities, or lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or have received instructions how to operate the unit.
- ▶ Children must be supervised to ensure that they do not play with the unit.
- ▶ Damaged units or damaged accessories must no longer be used.



**Risk of injuries due to the satellite antenna and the antenna cable! Avoid tripping hazards!**

- ▶ Position the antenna and lay the antenna cable in such a way that no one can trip over it or be obstructed or endangered in any other way.
- ▶ Before moving the unit, switch it off and disconnect all cables. If you move the antenna with cables connected, there is a risk of tripping over the cables and injuring yourself. The unit may only be connected after installation has been completed as instructed.

### Legal notes

#### Simplified EC Declaration of Conformity

KATHREIN Digital Systems GmbH herewith declare that the equipment CAP 500M (order no. 203500003) is in conformity with Directive 2014/53/EU. The full text of the EC Declaration of Conformity is available at the following internet address: [www.kathrein-ds.com](http://www.kathrein-ds.com)

KATHREIN Digital Systems GmbH are not liable for product damage due to external influences, wear or improper handling, unauthorised repair, modifications or accidents.

## Description of the CAP 500M

### General information

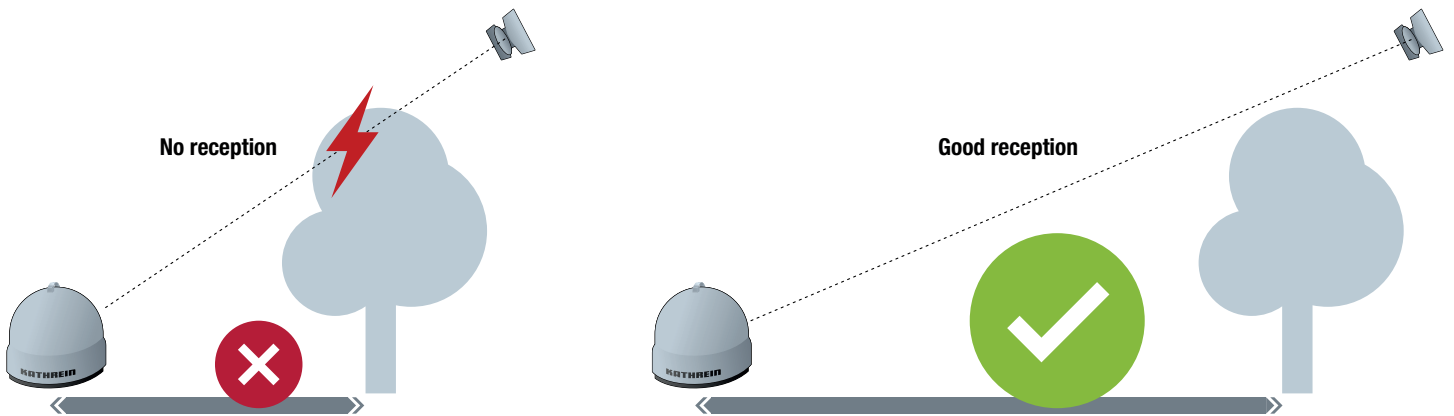
This manual describes the functions and operation of the fully automatic, portable CAP 500M satellite system. For correct and safe operation of the system, follow this manual.

The CAP 500M is a smart satellite TV reception system which is designed to automatically self-align to the pre-set satellite (Astra 19.2° East).

For general operation, ensure that the system always has a clear view in the direction of the desired satellite. If the satellite signal is blocked by obstacles such as mountains, buildings, vehicles or trees, satellite reception will be poor or impossible.

### Getting started

In order to receive a satellite signal, the antenna must be mounted outdoors with a clear view in the direction of the satellite toward the equator. Make sure that there are no obstacles, such as buildings, vehicles or trees, in front of the antenna, as these can reduce the quality of signal reception.



▶ Install the unit in a suitable place depending on the installation environment (flat surface where the unit can be set up safely). Failure to comply with this safety precaution may damage the unit or cause an accident.



▶ Before moving the unit, switch it off and disconnect all cables. If you move the antenna with cables connected, there is a risk of tripping over the cables and injuring yourself. The unit may only be connected after installation has been completed as instructed.



▶ Handle the unit with care. Impacts may damage the electronic components.

▶ Electric or magnetic fields near the antenna may have a negative effect on the signal reception.

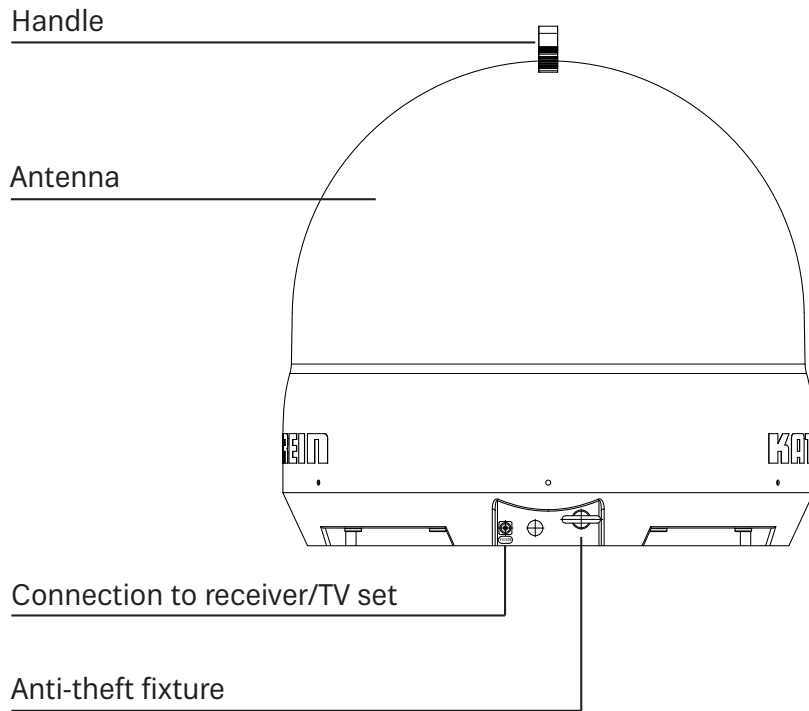
▶ Do not paint the antenna cover or attach any materials to it, as this will deteriorate the signal reception.

▶ The use of non-insulated connectors will result in a loss of signal strength.

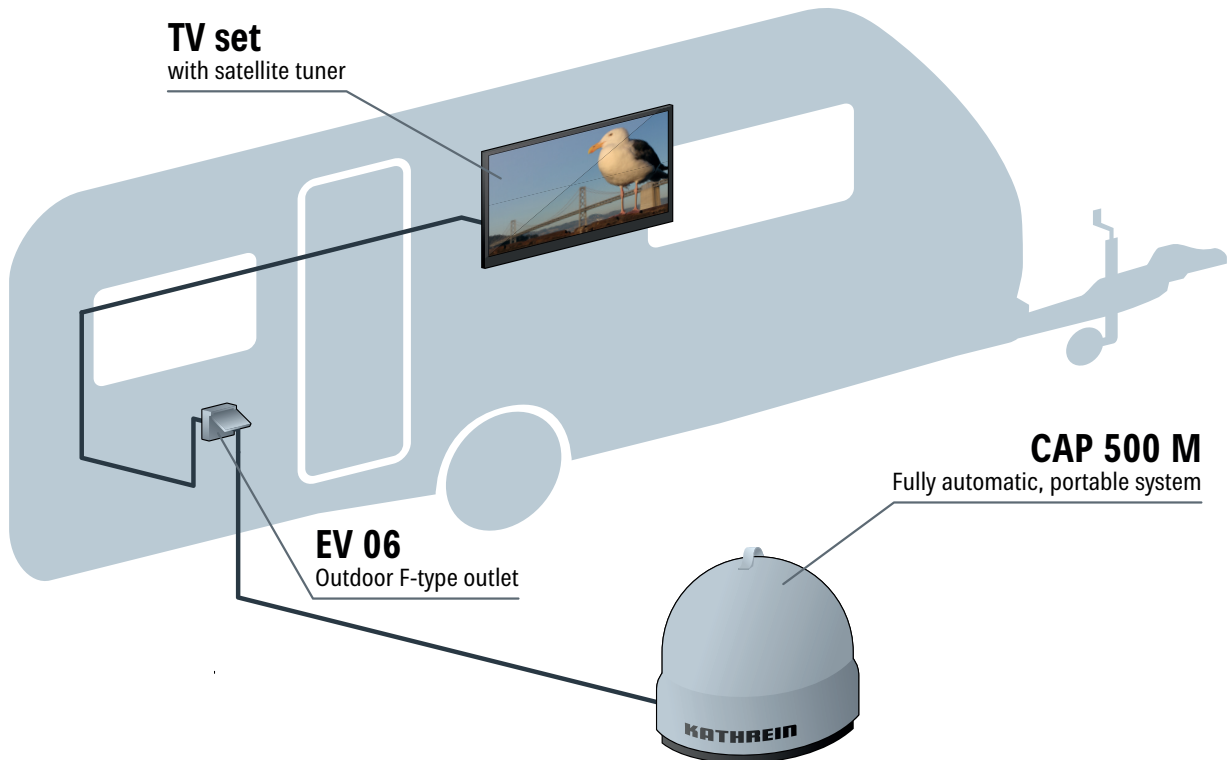
▶ The satellite signal may be temporarily affected due to heavy rainfall.

▶ Snow on the antenna may reduce the signal strength → snow should be removed as soon as possible.

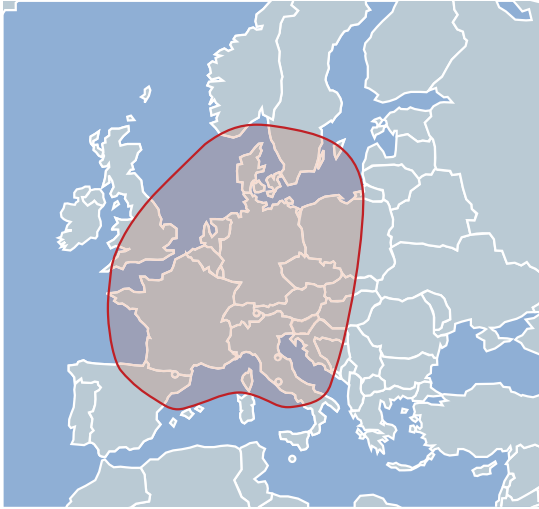
## Parts description



## Connection example



## Footprint for Astra 19.2° East



The footprint is the reception area on earth which a satellite covers with its transmission beam (spot) and in which satellite reception is possible. The transmission power is at its highest in the centre of this spot, and it becomes progressively weaker towards the edges.

## Anti-theft protection

The CAP 500M is equipped with a mechanical anti-theft protection. Simply use the anti-theft fixture (see „Parts description“ on page 6) to chain the unit to a suitable fixed object (e.g. caravan/mobile home, tree, lamppost).

## Operation

The CAP 500M is supplied with power, as soon as the receiver/TV set is switched on. The antenna will first check (for about 5 seconds), whether a TV signal is already available. This is the case if you have not moved the antenna since last using it. The antenna will still be aligned to Astra 19.2° East.

If the CAP 500M does not receive a TV signal, the system will automatically start searching for Astra 19.2° East.

The duration of the search depends primarily on the distance between the last and the current location of operation. The greater the distance, the longer the search takes.

Switching off the receiver/TV set automatically disconnects the CAP 500M from the power supply. The current alignment of the antenna is retained.

If you move the antenna during TV reception or change its position, you must restart the receiver/TV set so that the antenna automatically aligns to Astra 19.2° East again.

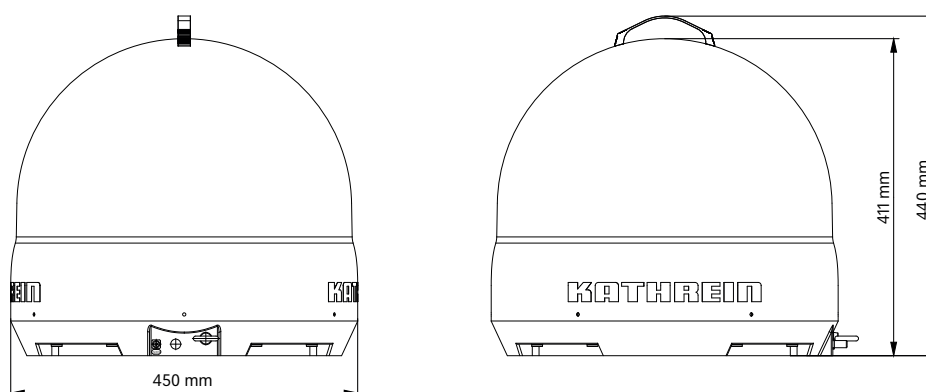
## Troubleshooting

There are a number of causes that can affect the signal quality or system operation. If you get a poor or no signal on your TV, proceed as follows:

- Check the connections on the receiver/TV set and on the CAP 500M
- Make sure that the satellite antenna has a clear view of the satellite (to the south)
- Switch off the receiver/TV set and switch it on again

## Dimensions and technical data

### Dimensions



## Technical data

Type   Order No.		CAP 500M 203500003
Input frequency	GHz	10.7–12.75
Polarisation		Horizontal / vertical
Antenna gain	dBi	31.0
EIRP min.	dBW	51
Search time (typically)	s	90
LNB outputs		1
LNB output frequency	MHz	950–2150
L.O. Frequency	GHz	9.75 / 10.6
Power supply	V DC	13–18
Power consumption max.	W	5.4 (during search)
Dimensions (D x H)	mm	450 x 440
Weight	kg	4.5

## Service Information

### Service and support

Customer Support  
Eiselauer Weg 13  
89081 Ulm, Germany  
Phone: +49 731 270 909 70  
Email: [support@kathrein-ds.com](mailto:support@kathrein-ds.com)  
Business hours:  
Mon. to Thurs. 8 am to 5 pm | Fri. 8 am to 4 pm (CET)

### Factory repair centre

CSS Caravan-Sat-Service GmbH  
Bahnhofstr. 110  
83224 Grassau, Germany  
Phone: +49 8641 699 84 27  
Email: [service@css-grassau.de](mailto:service@css-grassau.de)

### Service partners

Service partners can be found at:  
[www.kathrein-ds.com/support/servicestellen/](http://www.kathrein-ds.com/support/servicestellen/)

## Disposal



The packaging of the CAP 500M consists exclusively of recyclable materials. Use the return and collection systems available in your country (e.g. dual system) for recycling the sorted packaging waste. Electronic equipment is not domestic waste – in accordance with directive 2012/19/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 04th July 2012 concerning used electrical and electronic appliances, it must be disposed of properly. At the end of its service life, take this unit to a designated public collection point for disposal.



#### Danger of suffocation

► Keep packaging and all parts of it away from children. Danger of suffocation due to plastic sheets and other packaging material.