

**CAW-ANT450**

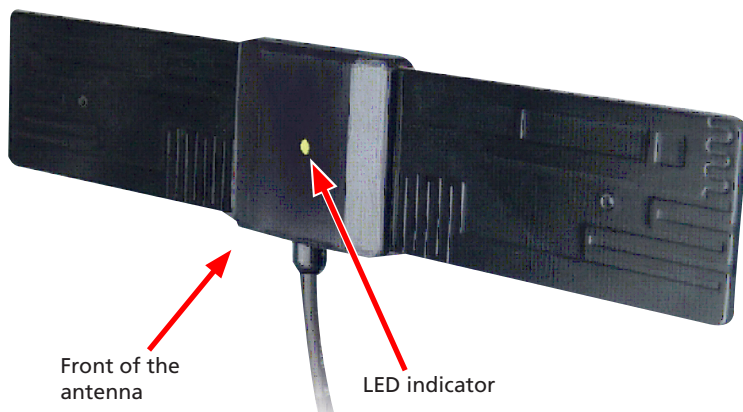
**Instruction manual**

## Installation instruction CAW-ANT450 Automotive

The CAW-ANT450 is a Digital Signal Collector for automotive use.

Because metal parts inside the car can influence the reception of digital signals, it is not possible to give a universal installation instruction that is applicable for every type of car.

Therefore this instruction describes general guidelines to assure optimal reception in most cases. Nevertheless it is recommendable in some situations to find the best arrangement by experimental trials.



The CAW-ANT450 is an active antenna, which means that it has to be powered with 5VDC via the coaxial cable. The majority of the receivers are currently equipped with this feature, and in this case, no further measures are necessary.

When powering from the receiver is not possible, a power-inserter is necessary to supply the antenna. This can be connected at the input of the receiver.

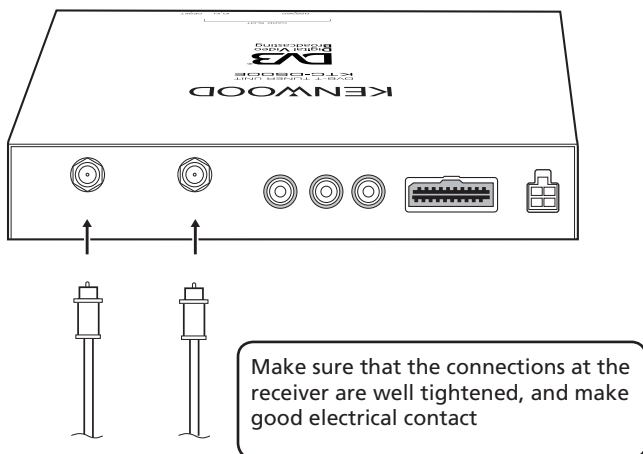
The CAW-ANT450 is equipped with a LED-indicator which indicates the presents of power. The LED is mounted in the middle of the antenna

### Please take note of the following installation guidelines:

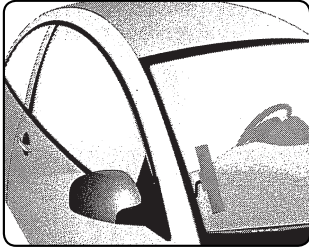
- Be sure that the antennas are separated from each other as far as possible. For example, place one antenna at the front (at the right side), and the other at the back of the vehicle (at the left side). (see figure 1A and 1 B)
- Place the back of the antenna (cable side) towards the metal of the car. Be sure that there is a few centimetres gap between metal and the antenna. Never place the antenna with the front towards metal parts (see figure 3A and 3B).
- Be aware of installed window heating inside the front or rear window. Sometimes very thin lines are present in the front window which act as a reflector and so disturb reception. If you experience problems with this, then there's often a free space for placing antennas directly behind the mirror.
- The horizontal wires which are often present in the rear window, have less influence on the reception.
- It is also possible to install the antennas inside spoilers, mirrors, sun covers, head rests, always under the condition that you take the above statements into account.

- Be aware that cables are installed so, that these can not get damaged by vibration or clamping. Fix all cables by using tie-wraps or similar.
- Make sure that the connections at the receiver are well tightened, and make good electrical contact. Also make sure that a good ground connection is present at the place where your receiver is installed. This is very important to ensure trouble-free reception in an automotive environment.
- A good starting point, with vertical DVBT-signals, is to place one antenna low at the front window and the other antenna high at the back window (see fig. 1A and 1 B). With horizontal DVBT -signals, the best starting point is to place both antennas as low as possible (see fig 2A and 2B).
- In case the DVBT signals are transmitted mainly horizontal in your region, then place both antennas horizontal (see fig. 2A and 2B).
- The bonnet and tailboard of the car (depending on the type) can have a positive or negative influence. If you still encounter problems with reception, after taking care of the above mentioned instructions, it is recommended to experimentally determine if mounting at the bottom or top of the window give better results.

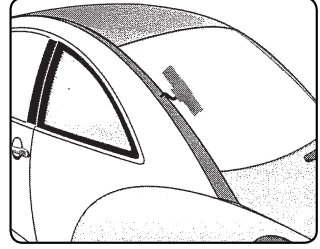
We have confidence that this information is useful and wish you success by installing the CAW-ANT450.



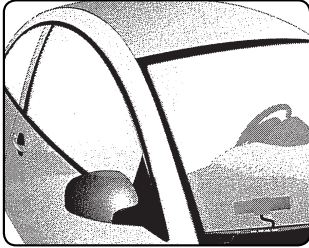
1A. Front window



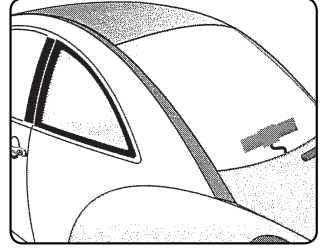
1B. Rear window



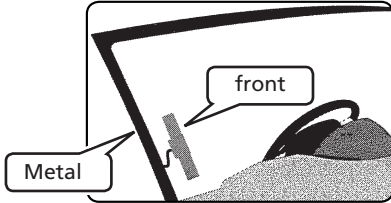
2A. Front window



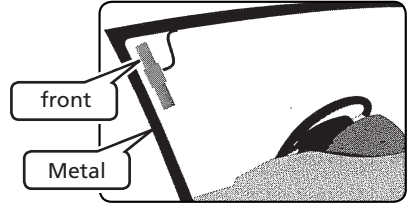
2B. Rear window



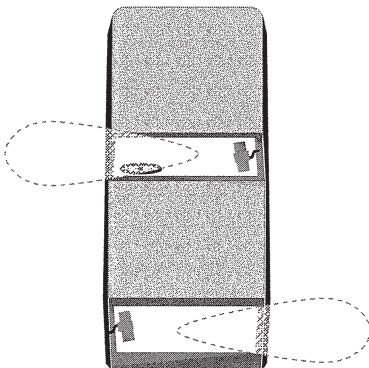
3A. Right



3B. Wrong



4A. Reception area



4B. Reception area

