Camera quad control box
CI-SW-4SCR-T

Product features

> ➢ Single-, dual-, triple- or quad image display
> ➢ camera images mirrorable
> ➢ Inputs manually or automatically selectable
> ➢ Automatic image splitting
> ➢ Audio output in single display mode
> ➢ switchable by control pad
> ➢ switchable by active triggering
> ➢ PAL / NTSC compatible (automatic detection)
> ➢ 4 X video inputs with 4pin screw
> ➢ 4 X 4pin to RCA /cinch adapter cables
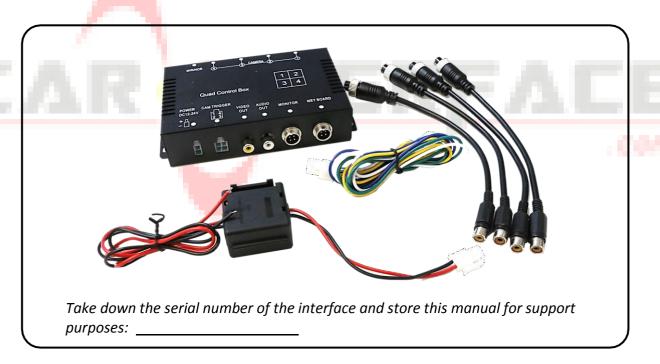> ➢ video / audio output by RCA / cinch

Manual

Contents

Legal Information

By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from installation or operation of this product. Apart from using this product in an unmoved vehicle, it should only be used to display fixed menus or camera video when the vehicle is moving (for example the MP3 menu for DVD upgrades).

1. Prior to installation

Read the manual prior to installation. Technical knowledge is necessary for installation. The place of installation for the video switch box must be free of moisture and away from heat sources.
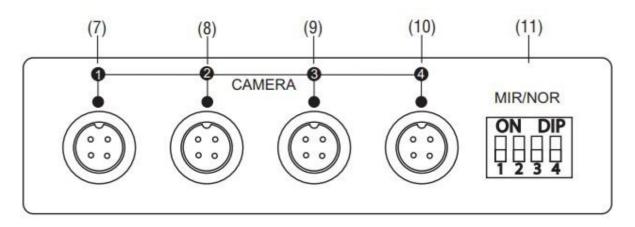
1.1.   Delivery contents

Take down the serial number of the interface and store this manual for support purposes: _____

1.2. Connectors – video switch box

Front-panel

(1)	(2)	(3)	(4)	(5)	(6)
POWER DC12-24V	CAM TRIGGER	VIDEO OUT	AUDIO OUT	MONITOR	KEYBOARD

(1)   DC 12V / 24V input. Red-cable + 12Volt (ignition). black cable to ground.

(2)   Trigger-line for the respective camera input (1-4).

(3)   RCA yellow, video output.

(4)   RCA white, audio output (camera and monitor dependent)

(5)   Monitor connector (optional, Pin1 + 12V out, Pin2 GND, Pin3 Audio Out, Pin4 Video)

(6)   Connection for external control unit.

Rear-panel

(7)	(8)	(9)	(10)	(11)
1	2 CAMERA	3	4	MIR/NOR

ON DIP
1 2 3 4

(7) - (10)   camera-inputs (Pin1 + 12V out, Pin2 GND, Pin3 Audio IN, Pin4 Video IN)

(8)   DIP switch to mirror/unmirror the respective camera image.

1.3. Dip switch settings

Each dip switch belongs to the corresponding channel number.
In case of a desired mirrored display turn the setting to "ON"(up).
For normal, unmirrored displaying, the setting has to be "OFF" (down).
The "M" on the top-left of the display shows mirror display setting of the corresponding cam image.

After each Dip-switch-change a power-reset of the video switch box has to be performed!
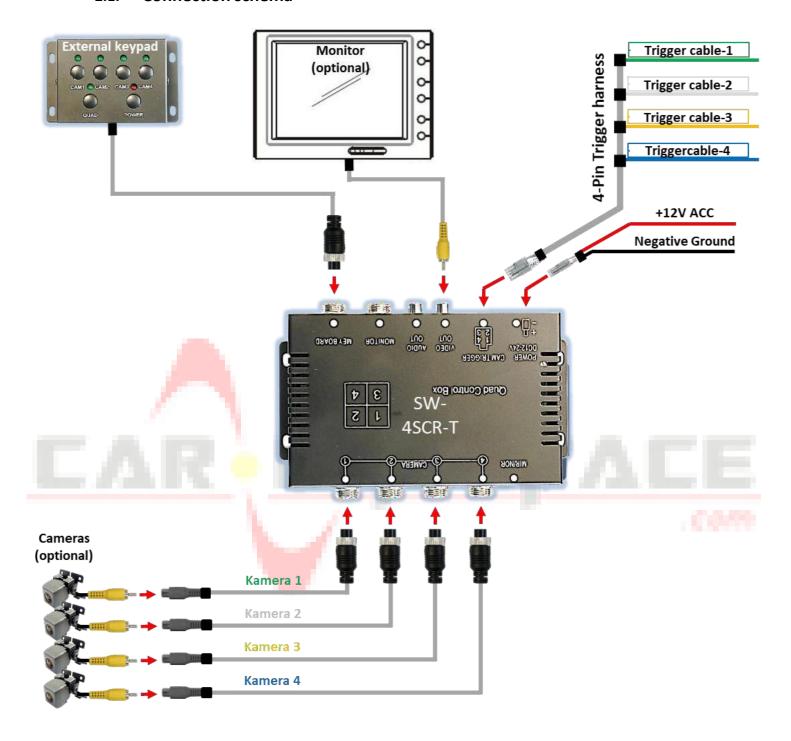
2. Installation

To install the switch box, first switch off the ignition and disconnect the vehicle's battery.
Please read the owner`s manual of the car, regarding the battery`s disconnection! If required, enable the car`s sleep-mode (hibernation mode)
In case the sleep-mode does not succeed, the disconnection of the battery can be done with a resistor lead.
The chosen +12V ACC power supply connection has to be checked for being constantly stabile.
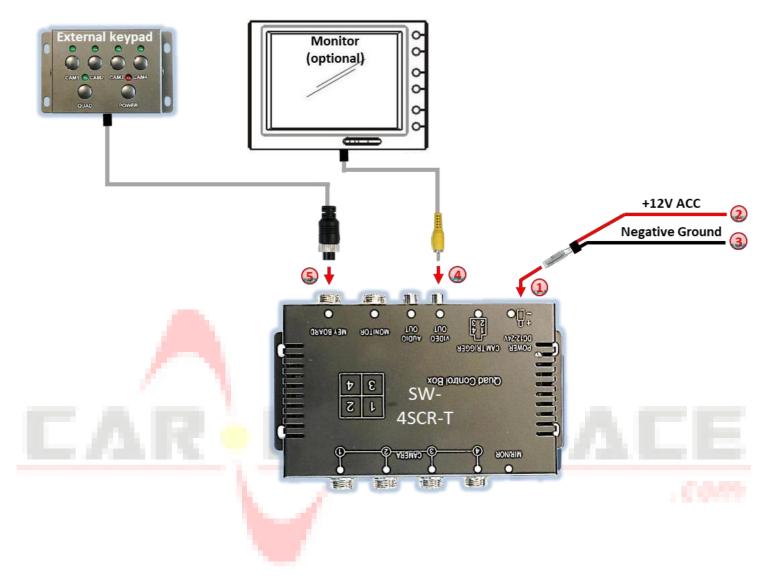
2.1. Connection schema

Note: The connection of any desired trigger line requires the input of a +12V trigger voltage depending on the current driving mode!

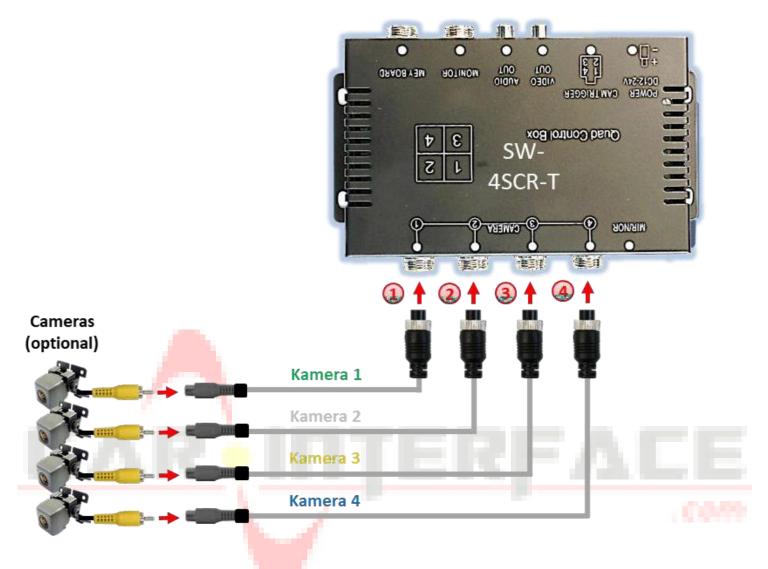## 2.2. Connection – Power, external keypad and monitor

① Connect the female 2-pin connector of the 2pin power cable to the male 2pin connector of the video switch box.

② Connect the single red cable of the 2pin power cable to **+12V ACC** accessory power

③ Connect the single black wire of the 2pin power cable to vehicle ground.

④ Connect the male cinch connector of the monitor to the female cinch connector "VIDEO OUT".

⑤ Connect the female 4-pin connector of the external keypad to the male 4pin connector of the video switch box.

Note: An eventually existing audio signal from a connected video will be given out at the female cinch connector "AUDIO OUT".

2.3.   Connection – cameras

① Connect the female 4pin connector of the adapter cable to the male 4pin connector of camera input-1 of the video switch box and the opposite female cinch connector of the adapter cable to video source-1.

② Connect the female 4pin connector of the adapter cable to the male 4pin connector of camera input-2 of the video switch box and the opposite female cinch connector of the adapter cable to the video source-2.

③ Connect the female 4pin connector of the adapter cable to the male 4pin connector of camera input-3 of the video switch box and the opposite male 4pin connector of the adapter cable to the video source-3.

④ Connect the female 4pin connector of the adapter cable to the male 4pin connector of camera input-4 of the video switch box and the opposite female chich connector of the adapter cable to the video source-4.

Note: The selection of the slots "Camera 1-4" must be made according to the desired positions in the display mode (see chapter "Display mode - Monitor").
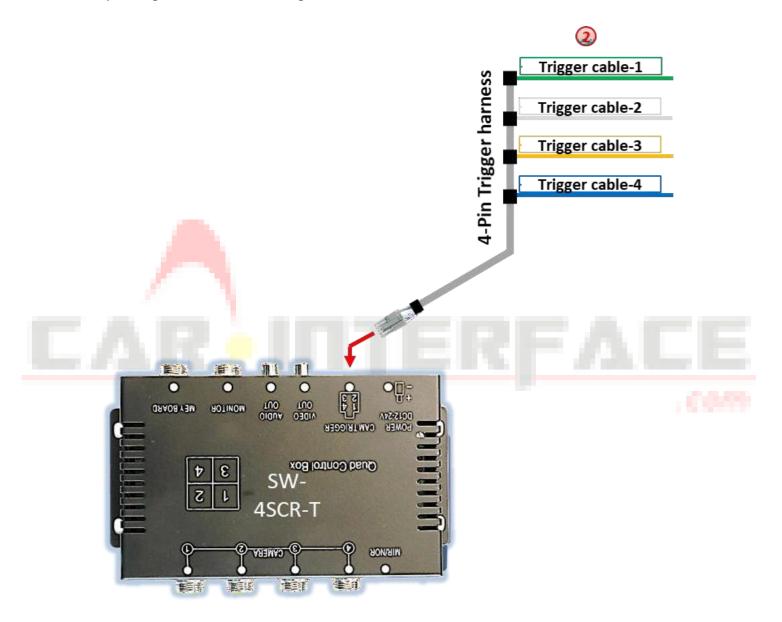
2.4.   Connection – Trigger cables

If desired, connect the trigger cables 1-4 to the corresponding current trigger sources (e.g. Reverse Power) to have the corresponding cameras displayed in case of automatic activation.

The connection of any desired trigger line requires the input of a +12V trigger voltage depending on the current driving mode.

① Connect the female 4pin connector of the 4-pin trigger harness to the male 4pin connector "CAM TRIGGER".

② Connect the +12V output voltage corresponding to the respective driving mode to the camera trigger line 1 to 4 assigned to the previously selected display mode (see also "Display mode monitor").

3. Operation by external keypad

CAM1-4 buttons

To display only one certain channel of the connected cameras

A full screen image will be shown on the monitor and the selected channel will light up its corresponding LED. Additionally, the number on the top-left corner of the LCD monitor gives information about the selected channel.

Quad button

To lead back to auto-detection status with channel overall presentation of all connected channels

The system will automatically detect and display each incoming video on the monitor and the Quad channel will light up its corresponding LED. In case of no incoming signal at one of the four channels, the quad blue screen will be displayed. In Quad mode, each channel with an incoming camera signal will be shown at the same time. Signal-free channels will be ignored.

Power button:

„ON" status:

The status of the video switch box after switching on the ignition is always "ON" - Red LED is off. Pressing the power button switches the video switch box off - Red LED lights up!

The shining power LED always shows the system's stand-by mode. Turned on (red LED –Off), the green "Quad" LED will light up and the quad control box will automatically display each detected corresponding video. By manually choosing one of the single channels, the corresponding LED will light up and the channel's video will be displayed.

"OFF" status

Pressing the power button will turn the system to "OFF" – Red Power LED lights up!

Switched to stand-by mode, the system will interrupt the power supply to the four cameras.

By trigger cable activated channels will **always** be displayed on the monitor, regardless of the switch box power status. While a channel is triggered by cable, the manual switching is out of function.
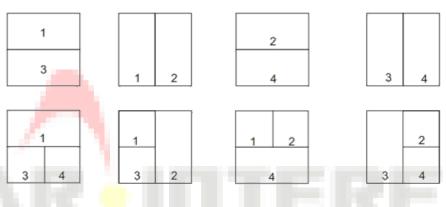
4. Display mode - monitor
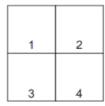
Display mode (1 Picture)

Display mode (2 x 3 Picture)

Attention: At a presented video signal (multiple) switches SW-QUAD-4P on each input.
Each additional camera will add another display mode.

Display mode (4 Picture)

- Quad display for all input video inputs (simultaneous) and manual selection on the control unit.

5. Automatic video input signal detection (PAL / NTSC)

To ensure that the system recognises the PAL / NTSC signal corresponding to the cameras, connect the cameras before switching on the unit or de-energise the unit once after connecting the cameras.

Note: To the system connected sources must have only one and the same input signal, otherwise this function cannot work!

Specifications

BATT/ACC range	12V - 24V
Stand-by power drain	8 Watts
Power	18 Watts
Video input formats	PAL/NTSC
Temperature range	-40°C to +85°C
Dimensions (box)	155 X 87 X 32 mm (W x H x D)

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