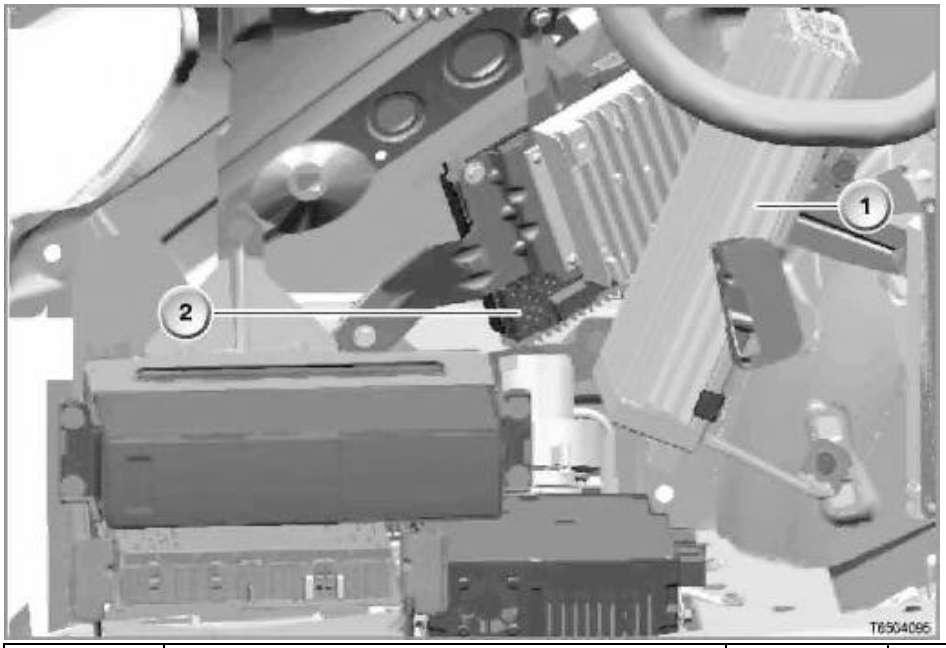
Satellite tuner: E60, E61, E63, E64, E90, E91

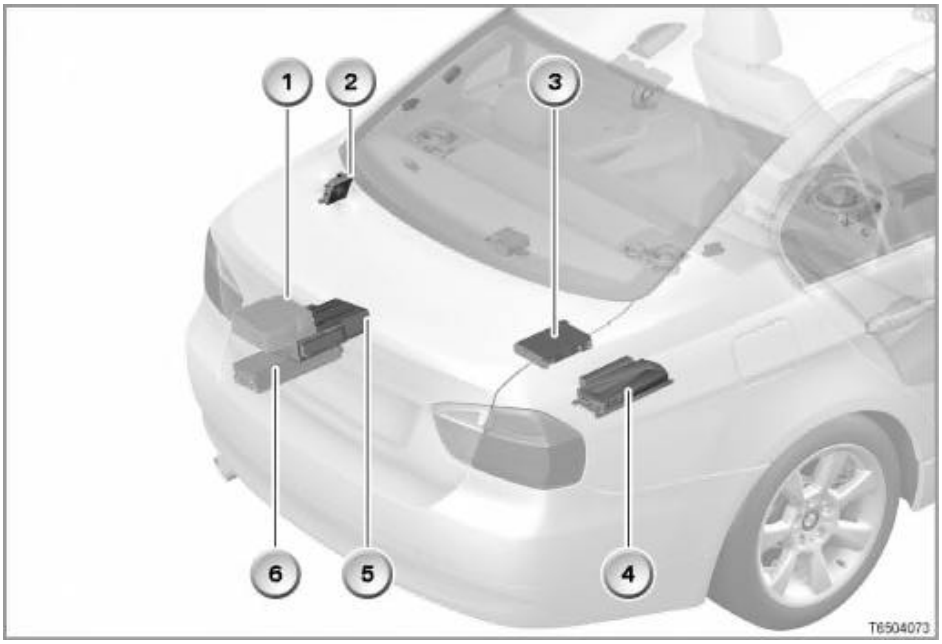
Installation location

> E60, E61, E63, E64
The satellite tuner is located on the side panel on the left-hand side of the luggage compartment.



Item	Description	Item	Description
1	Top-HiFi amplifier (AMP) (optional)	2	Satellite tuner (SDARS)

> E90, E91
The satellite tuner is located on the base plate in the luggage compartment.



The illustration shows the installation location of the satellite tuner in the E90. The installation location is similar on the E91

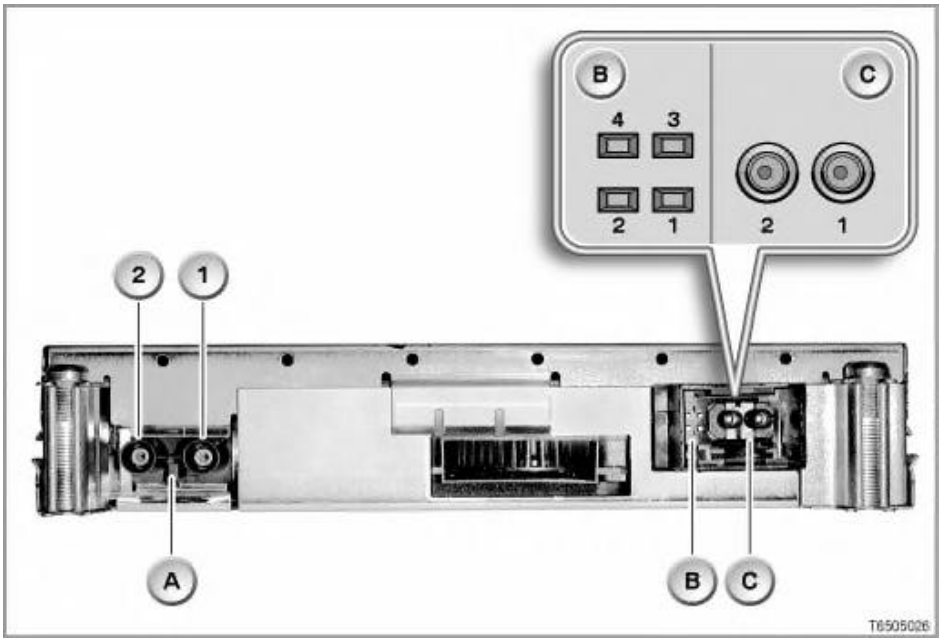
Item	Description	Item	Description
1	Video module (EUROPE version only)	2	Line compensator for telephone antenna
3	Satellite tuner (SDARS)	4	Telematics control unit (TCU)
5	CD changer (CDC)	6	Audio amplifier (HiFi amplifier or TOP-HiFi amplifier)

Design

The satellite tuner has connections for 2 SDARS antennas:

- 1 antenna connector for SDARS antenna for satellite reception
- 1 antenna connector for SDARS antenna for terrestrial reception

The satellite tuner is connected to the MOST bus via an internal interface. The same plug is also used for the power supply.



Item	Description	Item	Description
A	Connection for SDARS antennas, connector X14066		
1	Connection for antennas for satellite reception	2	Connection for antennas for terrestrial reception
B	Power supply for satellite tuner with 4-pin connector, X14062		
C	MOST interface > E60, E61, E63, E64: Connector X14063 > E90, E91: Connector X10636		
1	Output from MOST bus	2	Input to MOST bus

- Pin assignment

Pin assignments for connector X14062, 4-pin		
Pin	**Type**	**Description**
1	V	Terminal 30g (= terminal 30 active), activation of the Car Access System (CAS)

2	---	---
3	M	Terminal 31, earth
4	---	---
	M = Ground V = Supply For current specifications regarding pin assignments, please refer to BMW diagnosis system	

How it works

The digital signals (high-frequency signals) are fed to the satellite tuner from the following 2 SDARS antennas:

- SDARS antenna for terrestrial reception
- SDARS antenna for satellite reception

The digital signals have a varying modulation (frequency or time modulation) but carry the same information. They are first processed separately and then evaluated to ensure the best possible quality of data transmission.

After they have been amplified, the digital signals are routed to an intermediate-frequency amplifier and converted into intermediate-frequency signals (ZF signals)

The ZF signals are then sent separately to two analogue/digital converters and converted into digital signals.

The separate processing and evaluation of the signals ensures that the best possible combination of signals from the 3 separate sources (Sirius satellite 1, Sirius satellite 2 and stationary antennae for terrestrial reception) is always used.

The processed signals are converted into optical signals (light signals) in an integrated MOST transmitter/receiver. The optical signal generated in the MOST transmitter/receiver is emitted on the MOST bus.