

USB adapter SKIF

(for Audi, BMW, Mercedes, Porsche)

Quick guide

1. Description

Adapter is designed to play audio files (mp3, wma, aac) stored on a USB-stick, using a original car audio system, as well as, while using accessories "Trioma", with a variety of external sound sources. It connects to the audio system to the optical MOST interface, emulates a original CD-drive and provides additional features.

Adapter can operate in the combination with a CD-drive, and without it. In general their work is similar.

File system the USB-stick must be FAT16 / FAT32. If the USB-stick is not connected or there are no read mp3-files, the adapter is completely disconnected from the interface MOST (becomes invisible). In this case, running a original CD-drive (if available). **Thus, to listen to an external audio source (AUX, Bluetooth) via the additional port, the USB-stick must be connected to the adapter, and it must be recorded a minimum of two mp3-file !!!**

2. Capabilities and features

- the adapter is compatible with vehicles equipped with interface MOST (~2002÷2009):

○ Audi (MMI2G - A6, A8, Q7, etc)	○ BMW (E60, E70, E90, etc)
○ Mercedes Benz (NTG2.0 - W164, W211, etc)	○ Porsche (PCM2.0, PCM2.1)

- It plays mp3, wma, aac files from USB-stick;
- It controls files and folders by using the buttons on the head unit and steering wheel.
- Maximum quantity of folders – 6 (12 folders for BMW with iDrive and activated support "MP3 Retrofit"), the maximum quantity of tracks in the folder – 99.
- It supports collective work with the original CD-drive;
- It allowed free names of folders and files, as well as the presence of non-music folders and files;
- It displays the number of folders and files, and their names (if head units supports);
- It translates Russian letters in titles of folders/files in the corresponding Latin, displays the Russian characters (if head units supports);
- It remembers the exact playback position on a USB-stick when you turn off the system or removing the USB-stick;
- It has an additional port for connecting accessories Trioma (AUX, Bluetooth).
- It has a possibility of user settings, quick start, Random mode, a simple algorithm update of firmware.

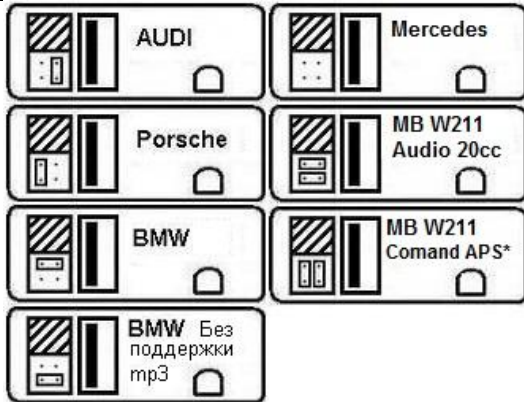
3. Connection

If the vehicle does not have an optical wiring, then for connecting the adapter require additional optical cable (not supplied) and activate optics (by diagnostic equipment). It occurs in cars, where in addition to the head unit is not the optical block (amplifier, NAV, phone, CD-changer).

Note to BMW:

- the vehicle does not have a original CD-drive (hereinafter CDC) - the head unit should be programmed to work with him (by diagnostic equipment).

- if the car has a DVD-drive on 6 disks, you need a special firmware adapter for the purpose of preservation DVD.



1) On adapter has a place for setting jumpers. They must be installed in accordance with the car and head unit before to connect the adapter. For head unit Audio 20cc (MB W211) is required to install two jumpers horizontally. Only for radio Comand APS NTG2 (MB W211): if you want to keep the original CD-drive, you need to install two jumpers vertically.

2) Connect the power cable to the adapter and to the car's electrical wiring: black wire - GND (ground), red wire - BATT (+12V battery). **Attention: Incorrect connection of the power cable (polarity reversal of the wires or the connection of the red wire to ACC) leads to the failure of the adapter or incorrect operation!!!**

3) Remove the cover from of the connector "MOST". To connect the adapter to the optical ring (attention - arrows on the connectors indicate the direction of the signal). How to deconstruct the optical connector and to move in it optic wires, see Apps 2.

If original external CD-drive is not needed, the adapter can be connected to any point of the interface MOST.

If you want to leave a original CD-drive in the audio system, then the adapter should be connected:

AUDI (MMI High color)	to any point of the interface
AUDI (MMI Basic Monochrome)	before CDC
Mercedes	before CDC
Porsche	before CDC
BMW	before CDC, in E65 (sometimes) after CDC

4. Collective work with the standard CD drive

For Audi (MMI High color) – on original monitor in the CDC mode is available 12 positions. The six positions correspond to the disks of original CD-drive, the other six positions correspond folders on the USB-stick.

For other systems – if the USB-stick is connected, the adapter is active when the head unit is in CDC mode. If the USB-stick is not connected more than 10 seconds, the adapter is completely disconnected from the interface the MOST, and in CDC mode active original CD-drive. When inserting the USB-stick, adapter is reconnected to the interface MOST.

5. The operation of the adapter. Mode additional port (AUX, Bluetooth)

Mode "USB" is equivalent to the mode "CDC". Folders on the USB-stick match the disks, files match tracks. All the regular functions of the CD-drive is applicable to the adapter - rewind inside a track, random playback, repeat, scan. The maximum quantity of files per folder is 99, the quantity of folders – 6 (some BMW are supported with 12 folders). The files in the root of the stick are considered to be located in a folder named "Root".

Switching between the adapter and original CD-drive is performed by insertion/extraction of the stick. The CD-drive becomes active through 10 seconds after eject, the adapter is completely disconnected from the interface MOST (becomes invisible) and it forces it to initialize. Connect the USB-stick puts the adapter in the active state.

Switching adapter with USB sticks on an additional port (and back) is on-off from any of the following functions: SCAN, Random (MIX), Repeat, switch-off delay should not exceed 3 seconds. For BMW cars with iDrive and activated support "MP3 Retrofit" (navigation directory of your USB storage device) for switching modes AUX and USB virtual directory with the name AUX and USB. The adapter remembers the current mode and when the re-inclusions system starts in the same mode that was used before switching off.

If the head unit supports CD-text, displays the names of folders and files (except BMW E65). Russian letters in names are converted to Latin. Text strings of the names of the folders and files are limited in length to 16 characters. Folders not containing mp3 files will not obstruct the operation of the device.

In AUX mode, the adapter transmits the audio signal from an external source in the original audio system.

6. Check and update adapter Software.

To check current version of software you must connect the USB-stick, which recorded only one mp3 file, and run the adapter on playback. The current software version will substitute in position of the current time for 5 sec.

To update the software you need:

- 1) to prepare a clean USB-stick and write on it only one mp3 file.
- 2) make sure that the file is played back by the adapter and, if necessary, to check current version of software;
- 3) add the update file on the USB stick (hereinafter – “prepared stick”);
- 4) connect the adapter to a normal USB-stick with mp3 files and play;
- 5) extract "playing" the USB-stick and, not earlier than 2 sec, but no later than 10 seconds, insert the prepared USB-stick;
- 6) during the update process on the head unit display remains static displaying the last state. If it is not, and instead plays a recorded mp3 file on a USB-stick, so the adapter is not updated. You should resolve the errors and repeat the procedure. During the update allowed the switching of head unit with CDC on RADIO;
- 7) no later than 20sec, the update process should be completed;
 - if the head unit in CDC mode, then, in most cases, the starts mp3 file recorded on a USB-stick.
 - if the head unit is in RADIO mode, then, in most cases, upon completion of the upgrade process will be logged short-term loss of sound. RADIO mode you can switch to CDC mode, in this case must be reproduced mp3 file recorded on a USB-stick.
- 8) during playback, recorded on the prepared USB flash drive mp3 file you can immediately see the firmware version;
- 9) to repeat the update process can be removed and with a pause of 2 to 10 seconds to re-insert the prepared stick;





Notes:

- * If the prepared stick was inserted earlier than 2sec, then the adapter may not start the upgrade procedure.
- * If the adapter was without USB-stick more than 10 seconds (regardless of the mode RADIO or CDC), you must put the adapter in the working condition of connection of any USB drive with mp3 files. After that you can make the update procedure.
- * Sometimes after a forced initializing interface MOST can be reset settings audio channels (observed as a mute). In this case, you should switch modes (CDC-RADIO-CDC) or turn off and turn on the head unit.



Application 1. Accessories Trioma (not included)

Cable for AUX	To connect any external audio source (phone, etc.) using the connector minijack of 3.5 "Plug". The adapter length is 1.5 m.
Bluetooth module BMT	For wireless reception of audio signals from the paired Bluetooth device (listening to music, command - switch tracks, play / pause, hands-free, pick up the phone / hang up). Mode "hands-free" only works in the case when the adapter is in mode an additional port (i.e. if you listening to FM radio or flash, then the Bluetooth module is not active).

Application 2. How to deconstruct the optical connector.

<p>Note: the arrows on the connectors indicate the direction of the optical signal.</p>	 <p>1. Carefully bend the retainer inner section</p>	 <p>2. Remove the inner section from the connector</p>	 <p>3. Half to pull the latch</p>	 <p>4. Carefully bend the latch and release of the optical wire</p>
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Application 3. Adapter connectors. The package contents

		<p>Package contents:</p> <ul style="list-style-type: none"> - adapter SKIF; - extension cable USB (1,5m); - power cable (0,4m, connector with red and black wires); - optical cable with connector (0,8m); - jumpers – 2pcs; - quick guide.
<p>Adapter connectors:</p> <ol style="list-style-type: none"> 1. power connector 2. connector MOST (with cover) 3. additional port 4. place for jumpers 5. connector USB 		<p>USB adapters SKIF developed and produced in Russia</p>

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