







## CAN-Bus Steering Wheel Control Interface

### Vehicle Compatibility

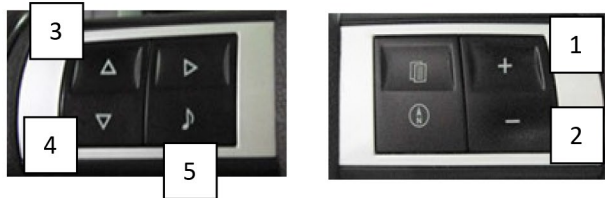
- Chrysler 300C (2004-2011)
- Chrysler Sebring (JS, 2007-2010)
- Dodge Caliber (2006-)
- Dodge Avenger (2007-2011)
- Jeep Grand Cherokee (WH, 2005-2010)
- Jeep Commander (XK, 2006-2010)
- Dodge Charger (2006-)

### Features Supported

-  Ignition
-  Reverse
-  Illumination
-  Speed
-  Park Brake
-  OEM Amp turn on

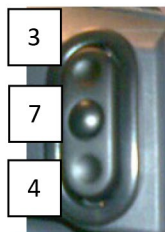
### Steering Wheel Remote Control

*steering-wheel type 1*

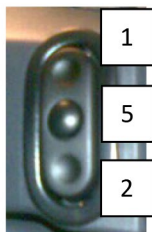









*steering-wheel type 2*

*left side*



*right side*



Steering Wheel Key		Command
1		Volume +
2		Volume -
3		Track +
4		Track -
5		Source
6		Mute
7		Preset +

Functions are vehicle dependent

### Steering Wheel Remote Control

Remove trim around radio

Remove screws with screwdriver and disconnect radio



#### Tools



Phillips screwdriver

*Not included*

# Setting the dipswitches

## Radio



Set the corresponding dipswitches as per the below table

DIP switches	1	2	3	4
- Audiovox	0	0	0	0
- Blaupunkt	1	0	0	0
- Alpine	0	1	0	0
- Kenwood	1	1	0	0
- JVC	0	0	1	0
- Blaupunkt II <sup>*1)</sup>	1	0	1	0
- Clarion	0	1	1	0
- Macrom	1	1	1	0
- Zenec	0	0	0	1
- Eclipse	1	0	0	1
- Zenec II <sup>*2)</sup>	0	1	0	1
- Axion II	1	1	0	1
- Grundig/Axion <sup>*3)</sup>	0	0	1	1
- Sony	1	0	1	1
- Pioneer	0	1	1	1
- Becker	1	1	1	1

Colour	Description
Green	CAN-Bus Active
Yellow	Ignition Output enabled

\*1) For all Blaupunkt radio devices of group 2

\*2) For Zenec ZE-NC514 only

\*3) For Axion radios of group 1 and Grundig radios

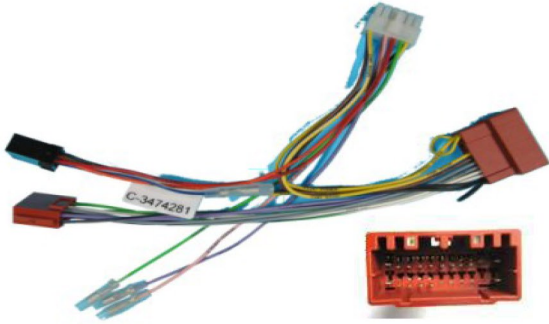


## Vehicle

#	DIP switches supported vehicle	DIP 5 – 8			
		5	6	7	8
1	- Chrysler 300C (2004-) - Chrysler Sebring (JS, 2007-2010) - Dodge Caliber (2006-) - Dodge Avenger (2007-) - Jeep Grand Cherokee (WK, 2005-2010)	1	0	0	0
Function Output 8: Parking Brake					



## Cable Harness



Vehicles with brown connector

Wire Colour	Signal
Pink	Speed
Purple	Reverse
Green	Park Brake

## OEM Amplifier

### *Setting fader/volume of factory-provided amplifier*

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*The interface turns the factory-provided amplifier on (if installed)*

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*Setup menu: press „preset +“ and „SRC“ in short succession*



SRC



*for setting fader press buttons „track“*



*for setting booster press buttons „vol“*



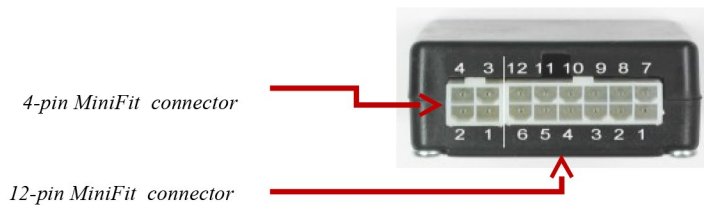
*to leave setup menu press „preset+“ and „SRC“ in short succession*



SRC

*If you use original amplifier please change rear and front loudspeaker cables. The amplifier uses the rear loudspeaker cables.*

# Inputs and Outputs



## 12 Pin Connector Configuration

Pin	Signal	Type	Description	Note
1	Kl. 31	In	ground	
2	Kl. 31	In	ground	
3	Kl. 58	Out*)	illumination	output 0 V: illumination off / output 12 V: illumination on
4	R	Out *)	reverse	output 0 V: $\Delta$ off / output 12 V: $\Delta$ on
5	BTP 3.15	Out	Becker® remote control	remote control of Becker® navigation (chamber C3, Pin15)
6	CAN L	In	CAN LOW	
7	Kl. 30	In	+ 12V battery plus	interface is designed for 12V d.c. voltage
8	Mute / HB	Out	mute parking brake	output ground is according to switch setting
9	Kl. 15 / ACC	Out *)	ACC / ignition	output 0 V: ignition off / output 12 V: ignition on
10	Speed	Out *)	rectangular signal, proportional to speed	rectangular signal 0 .. 12 Volt, approx. 1 Hz per km/h
11	BTP 3.16	Out	Becker® remote control	remote control of Becker® navigation (chamber C3, Pin16)
12	CAN H	In	CAN HIGH	

## 4 Pin Connector Configuration

Pin	Signal	Type	Description	Note
1	Kl. 31	Out	ground	
2	RC5 out	Out	remote control system digital	
3	RC3 in	In	steering-wheel key input analog	
4	RC3 out	Out	remote control systems analog	

\*) **The maximum rate of current per output is 180 mA.** Also, the **total current** of all outputs together **must not exceed 200 mA**. Otherwise, the interface could be damaged. In case a higher current is needed (ACC, reverse signal) a relay with a coil resistance of min. 75  $\Omega$  or min. 150  $\Omega$  by use of two relays. We advise to use our ER70.

Steering-wheel key in vehicle	Radio Function	Alpine		Pioneer		Kenwood		Clarion		Blaupunkt			Sony		Phonocar		Eclipse		Grundig		Axion			JVC		Macrom		Zenec		Audiovox			
		CD	Radio	CD	Radio	CD	Radio	CD	Radio	Group 1 CD	Group 1 Radio	Group 2 CD	Group 2 Radio	Group 3 CD	Group 3 Radio	CD	Radio	CD	Radio	CD	Radio	Group 1 CD	Group 1 Radio	Group 2 CD	Group 2 Radio	CD	Radio	CD	Radio	CD	Radio		
+	Vol +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
-	Vol -	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
▶	Track +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
▶	Track -	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
▶	Preset +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
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▶	Band	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
▶	Preset +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
▶	Preset -	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Folder +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Folder -	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Folder -	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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▶	Folder +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	accept call (*)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Reject call (*)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Tel. (*)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Source	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Mute	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Band	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Power	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	push to talk (PTT)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Preset +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Seek +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▶	Folder +	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Blaupunkt Gruppe 1/ Group 1: Orlando MP46 und ältere Geräte / and older devices

Blaupunkt Gruppe 2/ Group 2: Madrid 210, Toronto 410BT

Blaupunkt Gruppe 3/ Group 3: San Francisco 300

Axion Gruppe 1/ Group 1: CR1122D  
 Axion Gruppe 2/ Group 2: DVD1030 NAV  
 JVC Gruppe 1/ Group 1: KD-SH1000 und ältere Geräte / and older devices  
 JVC Gruppe 2/ Group 2: KD-R821BT

✓ : available  
 (\*): Only if supported by the radio device