5. Audio Systems

The RDS tuner has a worldwide platform. The frequency and the AM and FM spacing for the Europe / USA / LATAM / ASIA configuration are accessible via the radio menu by the end user. Vehicle manufacturers all over the world no longer worry about which radio to install without knowing the final destination of the vehicle. Some models are equipped with a DAB tuner for digital radio technology and guarantee maximum sound quality.

Each radio has a backup system to store the memory of all user settings and preset stations when the main power is interrupted. The Bluetooth® functionality is now integrated for secure phone conversations and for streaming audio content from your smartphone. The CAN bus feature offer to OE manufacturer a powerful communication data bus for the creation of customized HMI.

5.1 Radio

5.2 Loudspeakers

5.3 Accessories

5.1 Radio

The radio proposal has been extended by creating two ranges: VDO brand and Continental brand. The two ranges are the same and stand out only for the color of the backlight: orange for Continental, blue or white for VDO.
All models are available at 12 and 24V and the TR radios have a short chassis to simplify installation in small spaces.

Main features

Tuner RDS - Worldwide platform

WORLDWIDE TUNER

The AM and FM frequency ranges for Europe, USA, LATAM, Asia and North Africa are accessible from the user menu. It is possible to receive radio stations all over the world!

DAB / DAB+ / DMB Digital Audio Broadcasting Tuner

DIGITAL AUDIO BROADCASTING

DAB + is the new digital radio transmission technology, already used all over the world, for an unprecedented sound quality.

USB and Bluetooth®connectivity

USB CONNECT

Bluetooth®

MP3/WMA

It allows the listening of a large number of songs in compressed format on USB key. The Bluetooth® connection makes the phone conversations in a safe and comfortable car, as well as allowing you to listen to your favorite music via streaming with your smartphone.

Backup memory / Permanent storage of radio stations and settings

BACKUP MEMORY

It stores all stored radio stations and settings when the vehicle battery is disconnected

Logic ON/OFF

LOGIC ON
LOGIC OFF

Logic ON limits the use of the radio to an hour after the vehicle is turned off. Logic OFF prevents inadvertent ignition of the radio when the vehicle is switched off.

CAN Bus

The CAN Bus allows the cummonication data exchange between the radio and and external HMI unit (i.e. intelligent display with touch buttons controls)

Sirius XM Ready

Sirius XM Satellite Radio is a broadcasting company that provides three satellite radio and online radio services operating in the United States and Canada

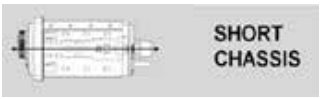
Certifications

The CE mark represents the European conformity mark and indicates that the product complies with the respective laws and regulations of the 2014/53 / EU directive

E-mark indicates that the product complies with the requirements on electromagnetic compatibility. Vehicles and their components must have both the E mark and the CE mark in order to be legally sold in Europe.

FCC is the US conformity mark and indicates that the product complies with the respective US laws and regulations or directives. The vehicles and their components must have the FCC certification to be legally sold in the USA.

TR version: without CD, short chassis



Depth: 10cm

RDS tuner with USB 2.0

Model	Part No.	Display color	Voltage
TR412U-WH	2910000285000	White	12V

External microphone not included

- Radio/USB/MP3/WMA
- 12V / white backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Logic ON/OFF
- BackUp memory
- Front AUX Input
- Bluetooth® HSP, HFP profiles (Hands Free)*
- Audio Streaming profiles (A2DP, AVRCP)*

*only TR412UB-WH

RDS Tuner Bluetooth® and USB 2.0

Model	Part No.	Display color	Voltage
TR412UB-WH	2910000284900	White	12V

External microphone not included

RDS Tuner with USB 2.0

Model.	Part No.	Display color	Voltage
TR711U-BU	TR711U-BU	Blue	12V
TR7411U-OR	TR7411U-OR	Orange	12V
TR722U-BU	TR722U-BU	Blue	24V
TR7422U-OR	TR7422U-OR	Orange	24V

- Radio/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Logic ON/OFF
- BackUp memory
- Front AUX Input

RDS Tuner Bluetooth® and USB 2.0

Model.	Part No.	Display color	Voltage
TR712UB-BU	TR712UB-BU	Blue	12V
TR7412UB-OR	TR7412UB-OR	Orange	12V
TR723UB-BU	TR723UB-BU	Blue	24V
TR7423UB-OR	TR7423UB-OR	Orange	24V

- Radio/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Logic ON/OFF
- BackUp memory
- Front AUX Input
- Bluetooth® HSP, HFP profiles (Hands Free)
- Audio Streaming profiles (A2DP, AVRCP)

RDS Tuner DAB Bluetooth® and USB 2.0

Model	Part No.	Display color	Voltage
TRD7412UB-OR	2910000430600	Orange	12V
TRD7423UB-OR	2910000431200	Orange	24V

- Radio/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Tuner DAB/DAB+/DMB
- Logic ON/OFF
- BackUp memory
- Front AUX Input
- Bluetooth® HSP, HFP profiles (Hands Free)
- Audio Streaming profiles (A2DP, AVRCP)

CD Versions

RDS Tuner with CD/MP3 and USB 2.0

Model	Part No.	Display color	Voltage
CD716U-BU	CD716U-BU	Blue	12V
CD7416U-OR	CD7416U-BU	Orange	12V
CD726U-BU	CD726U-BU	Blue	24V
CD7426U-OR	CD7426U-BU	Orange	24V

- Radio/CD/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Logic ON/OFF
- BackUp memory

RDS Tuner with CD/MP3, Bluetooth® and USB 2.0

Model	Part No.	Display color	Voltage
CD716UB-BU	2910000080700	Blue	12V
CD7416UB-OR	2910000080600	Orange	12V
CD726UB-BU	2910000080800	Blue	24V
CD7426UB-OR	2910000080900	Orange	24V

- Radio/CD/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Logic ON/OFF
- BackUp memory
- Front AUX Input Bluetooth® HSP, HFP profiles (Hands Free)
- Audio Streaming profiles (A2DP, AVRCP)

RDS Tuner DAB with CD/MP3, Bluetooth® and USB 2.0

Model	Part No.	Display color	Voltage
CDD718UB-BU	CDD718UB-BU	Blue	12V
CDD7418UB-OR	CDD7418UB-OR	Orange	12V
CDD728UB-BU	CDD728UB-BU	Blue	24V
CDD7428UB-OR	CDD7428UB-OR	Orange	24V

- Radio/CD/USB/MP3/WMA
- 12V and 24V
- Orange (Continental) or Blue (VDO) backlighting
- Worldwide tuner FM/MW/LW
- Tuner FM RDS AF/TA/EON/PTY
- Tuner DAB/DAB+/DMB
- Logic ON/OFF
- BackUp memory
- Front AUX Input Bluetooth® HSP, HFP profiles (Hands Free)
- Audio Streaming profiles (A2DP, AVRCP)

	TR7411U-OR TR711U-BU	TR7422U-OR TR722U-BU	TR7412UB-OR TR712UB-BU	TR7423UB-OR TR723UB-BU	2910000284500 2910000284900	CD7416U-OR CD716U-BU	CD7426U-OR CD726U-BU	CDD7418UB-OR CDD718UB-BU	CDD7428UB-OR CDD728UB-BU	291-0000080700 291-0000080600	291-0000080800 291-0000080900
DESIGN:											
Clear, functional design	•	•	•	•		•	•	•	•	•	•
Black matt finished front panel	fix	fix	fix	fix		fix	fix	fix	fix	fix	fix
LCD, Orange/Blue illumination	dot	dot	dot	dot	dot (white ill.)	dot	dot	dot	dot	dot	dot
RADIO RECEPTION:											
DAB/DAB+ (digital radio)			TRD7412UB-OR	TRD7423UB-OR				•	•		
RDS Tuner FM with AF/AM	•	•	•	•	•	•	•	•	•	•	•
Band selection (EU/USA/LATAM/ASIA)	•	•	•	•	•	•	•	•	•	•	•
TA Traffic Announcement	•	•	•	•	•	•	•	•	•	•	•
Autostore (AST)	•	•	•	•	•	•	•	•	•	•	•
CD PLAYER:											
CD mechanics						•	•	•	•	•	•
CD/MP3/WMA						•	•	•	•	•	•
Scan/Repeat/Track/Random Play, Previous/Next, ID3 tags display						•	•	•	•	•	•
Electronic Shock Protection (ESP)						•	•	•	•	•	•
BLUETOOTH:											
HSP/HFP			•	•	• only 2910000284900			•	•	•	•
A2DP/AVRCP			•	•				•	•	•	•
Internal and external microphone			•	•	Only internal			•	•	•	•
USB HOST:											
Front USB connector	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
USB 1.1/2.0	•	•	•	•	•	•	•	•	•	•	•
MP3/WMA format	•	•	•	•	•	•	•	•	•	•	•
Max size of supported devices	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB	up to 8 GB
GENERAL:											
Dimension (W x H x D) mm	185x55,5x108	185x55,5x108	185x55,5x108	185x55,5x108	185x55,5x108	185x54,5x162	185x54,5x162	185x54,5x162	185x54,5x162	185x54,5x162	185x54,5x162
Antenna (ISO/DIN)	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Operating Voltage	12 V	24 V	12 V	24 V	12V	12 V	24 V	12 V	24 V	12 V	24 V
Output maximum power	4 x 41 W	4 x 41 W	4 x 41 W	4 x 41 W	4 x 45 W	4 x 41 W	4 x 41 W	4 x 41 W	4 x 41 W	4 x 41 W	4 x 41 W
Back up memory	•	•	•	•	•	•	•	•	•	•	•
AUX Input	front	front	front	front	front	rear	rear	rear	rear	rear	rear
Telephone mute (active level, hi-low)			low	low	low			low	low	low	low
input for steering wheel controls	•	•	•	•		•	•	•	•	•	•

CAN Versions

The CAN bus line included offers an important opportunity to interface with HMI displays able to shoe the information in attractive graphic layouts and to receive the commands with touch buttons control interfaces. In this way the radio becomes an integral part of the vehicle's information system, to offer a unique multimedia experience. The radios are available either with direct front controls or as a black box that can be mounted hidden in the vehicle.
They are also available with a DAB / DAB + or Sirius XM receiver interface

CAN-Bus

Black box CR4612UBA

12V CAN FM RDS Tuner with MP3/WMA/ USB/Bluetooth

Model	Part No.	Display color	Voltage
CR4512UBA-OR	2910002093900	Orange	12V
CR4612UBA	2910002094200	- (black box)	12V

Design
- Clear and functional Design
- Matt black fixed front
- Dimmable LCD display and buttons (only CR4512UBA-OR)
- Orange illumination (only CR4512UBA-OR)

Tuner
- Worldwide FM RDS tuner AF/TA/EON/PTY
- LW,MW, and FM with AST
- 6 preset keys • FM12, FM-AST 6, MW 6, MW-AST 6, LW 6
- RDS clock

Bluetooth 4.2
- Cell Phone Hands-Free Profiles (HSP,HFP)
- Audio Streaming Profiles (A"DP, AVRCP)
- Internal and external microphone

USB-Host
- Front USB port with 2.1A max. charge
- Support of USB 1.1/USB 2.0
- Support of MP3/WMA format

Internal Amplifier
- Max. Music Power: 4x41 Watt
- RMS Power: 4 x 20 Watt
- Sound Presets (Classic, Pop, Rock, Jazz)
- Loudness Function/output for passive subwoofer
- Mute

General
- CAN J1939 BUS
- Non volatile memory of settings
- Logic ON/OFF function
- Front and Rear AUX inputs
- Dimensions (WxHxD) in mm: 188x58,5x114,7
- Power supply: 12V (10,8V - 16V)
- DIN/ISO connectors

Black box CRD4612UBA

12V CAN FM RDS & DAB Tuner with MP3/ WMA/USB/Bluetooth

Model	Part No.	Display color	Voltage
CRD4512UBA-OR	2910002094000	Orange	12V
CRD4612UBA	2910002094300	- (black box)	12V

Design
- Clear and functional Design
- Matt black fixed front
- Dimmable LCD display and buttons (only CR4512UBA-OR)
- Orange illumination (only CR4512UBA-OR)

Tuner
- DAB / DAB+ Tuner
- Worldwide FM RDS tuner AF/TA/EON/PTY
- LW,MW, and FM with AST
- 6 preset keys • FM12, FM-AST 6, MW 6, MW-AST 6, LW 6
- RDS clock

Bluetooth 4.2
- Cell Phone Hands-Free Profiles (HSP,HFP)
- Audio Streaming Profiles (A”DP, AVRCP)
- Internal and external microphone

USB-Host
- Front USB port with 2.1A max. charge
- Support of USB 1.1/USB 2.0
- Support of MP3/WMA format

Internal Amplifier
- Max. Music Power: 4x41 Watt
- RMS Power: 4 x 20 Watt
- Sound Presets (Classic, Pop, Rock, Jazz)
- Loudness Function/output for passive subwoofer
- Mute

General
- CAN J1939 BUS
- Non volatile memory of settings
- Logic ON/OFF function
- Front and Rear AUX inputs
- Dimensions (WxHxD) in mm: 188x58,5x114,7
- Power supply: 12V (10,8V - 16V)
- DIN/ISO connectors

CAN-Bus

SiriusXM Ready

NEW!

Black box CRS4612UBA

12V CAN FM RDS & DAB Tuner with MP3/ WMA/USB/Bluetooth /Sirius XM ready

Model	Part No.	Display color	Voltage
CRS4512UBA-OR	2910002094100	Orange	12V
CRS4612UBA	2910002094400	- (black box)	12V

Design
- Clear and functional Design
- Matt black fixed front
- Dimmable LCD display and buttons (only CR4512UBA-OR)
- Orange illumination (only CR4512UBA-OR)

Tuner
- Worldwide FM RDS tuner AF/TA/EON/PTY
- LW,MW, and FM with AST
- 6 preset keys • FM12, FM-AST 6, MW 6, MW-AST 6, LW 6
- RDS clock

Bluetooth 4.2
- Cell Phone Hands-Free Profiles (HSP,HFP)
- Audio Streaming Profiles (A"DP, AVRCP)
- Internal and external microphone

USB-Host
- Front USB port with 2.1A max. charge
- Support of USB 1.1/USB 2.0
- Support of MP3/WMA format

Sirus XM
- Compatibility with external Sirius module SXV-300

Internal Amplifier
- Max. Music Power: 4x41 Watt
- RMS Power: 4 x 20 Watt
- Sound Presets (Classic, Pop, Rock, Jazz)
- Loudness Function/output for passive subwoofer
- Mute

General
- CAN J1939 BUS
- Non volatile memory of settings
- Logic ON/OFF function
- Front and Rear AUX inputs
- Dimensions (WxHxD) in mm: 188x58,5x114,7
- Power supply: 12V (10,8V - 16V)
- DIN/ISO connectors

5.3 Loudspeakers

The VDO speakers faithfully reproduce the pure sound that good music deserves. Their power and sensitivity are compatible with the whole range of the VDO radios.

Loudspeakers	Loudspeaker 10 cm 2 ways, 50W	Loudspeaker 10cm 2 ways, 50W, screwable grille	Loudspeaker 13 cm 2ways, 60W	Loudspeaker 13cm 2 ways, 60W, screwable grille	Loudspeaker 13 cm 2 ways, 60W,white grille
Model Number	**HP1021**	**HP1022**	**HP1321**	**HP1322**	**HPW1321/16**
Part Number	**HP1021**	**2910000251700**	**HP1321**	**2910000251900**	**HPW1321/16**
EAN Code	**4103590678065**	**4103590676771**	**4103590676979**	**4103590676740**	**4103590676986**
Peak load (W)	50	50	60	60	60
Maximum load (W)	12	12	15	15	15
Sensibility (dB)	88	88	89	89	89
Frequency response (Hz)	120-18.000	120-18.000	90-18.000	90-18.000	90-18.000
Installation depth	47	47	44.5	44.5	44.5
Diameter (mm)	100	100	130	130	130
Nominal resistance	4	4	4	4	4
Grille color	Black (zinc plated)	Black uniblock (zinc plated)	Black (zinc plated)	Black uniblock (zinc plated)	White (RAL 9016) (zinc plated)
Cone material	Injected PP	Injected PP	Injected PP	Injected PP	Injected PP
Structure material	Metal	Metal	Metal	Metal	Metal
Accessories	Screws	Screws	Screws	Screws	Screws
Packing	1 pair	1 pair	1 pair	1 pair	1 pair
Quantity in a package	10 prs	10 prs	10 prs	10 prs	10 prs
Net weight (kg)	6.5	7.2	8.2	9.5	9.5
Gross weight (kg)	10	11	12.8	14	15.5

Loudspeakersi	Loudspeaker 10 cm 2 ways bulk, 50W	Loudspeaker 10 cm 2 ways bulk, 110W	Loudspeaker 13 cm dual cone bulk, 50W	Loudspeaker 13 cm 2 ways bulk, 50W	Loudspeaker 13 cm dual cone bulk, 50W con griglia
Model Number	**HP1021/B**	**HPS1021/B**	**HP1311/B**	**HP1321/B**	**HPG1011/B**
Part Number	**HP1021/B**	**2910000256700**	**2910000252000**	**2910000251800**	**2910000307300**
EAN Code	**4103590676955**	**4103590676962**	**4103590676764**	**4103590676757**	**4103590952822**
Peak load (W)	50	110	60	60	60
Maximum load (W)	10	25	15	15	10
Sensibility (dB)	86	87	86	88	88
Frequency response (Hz)	120-18.000	120-20.000	90-16.000	90-18.000	120-16.000
Installation depth	47	42	43	44.5	37.5
Diameter (mm)	100	100	130	130	100
Nominal resistance	4	4	4	4	4
Grille color	-	-	-	-	Black uniblock (zinc plating)
Cone material	Injected PP	Injected PP	Injected PP	Injected PP	Injected PP
Structure material	Metal	Metal	Metal	Metal	Metal
Accessories	No	No	No	No	No
Packaging	30	30	40	40	30
Quantity in a package	30 pcs	30 pcs	40 pcs	40 pcs	30 + 30 pcs
Net weight (kg)	95	14	16.5	16.7	8.5
Gross wright (kg)	10.5	15.4	18.3	18.5	9.6

Loudspeakers	Round grille, 10cm bulk, black	Round grille, 10cm bulk, Black (30pcs)	Round grille (for HPS1021/B) bulk, Black (30pcs)	Square grille, 10cm bulk, Black	Round grille, 13cm bulk, Black	Marine Loudspeaker 13cm, 2vie, white grille ASA 150W
Model Number	**051-018-0000**	**015-018-000/30**	**051-018-0005**	**XRC-1-96-101**	**051-018-003**	**051-018-011**
Part Number	**051-018-000**	**2910000251500**	**2910000329500**	**XRC-1-96-101**	**2910000251600**	**051-018-011**
EAN Code	**4103590676993**	**4103590676795**	**4103590677280**	**4103590677006**	**4103590676788**	**4103590677013**
Peak load (W)	-	-	-	-	-	200
Max. load (W)	-	-	-	-	-	30
Sensibility (dB)	-	-	-	-	-	87
Frequency response (Hz)	-	-	-	-	-	80-20.000
Installation depth	-	-	-	-	-	50
Diameter (mm)	100	100	100	100	130	130
Nominal resistance	-	-	-	-	-	4
Grille color	Black uniblock (zinc plated)	Black uniblock (zinc plated)	Black uniblock (zinc plated)	Black uniblock	Black uniblock (zinc plated)	White (RAL 9003)
Cone material	-	-	-	-	-	Injected PP
structure material	-	-	-	-	-	ASA (UV resistant)
Accessories	No	No	No	No	No	Screws and 2 ISO cables
Packaging	100	30	30	50	40	1 pair
Quantity in a package	100 pcs	30 pcs	30 pcs	50 pcs	40 pcs	10 prs
Net weight (kg)	4	tbd	1.65	1.65	1.9	12.5
Gross weight (kg)	4.5	tbd	2	2	2.5	15

5.3 Accessories

Antennas

Order No.	Description	Color	Rod	cable lenght
2910000111300 2910000291700 (version without cable))	Rigid AM/FM antenna for roof mounting 35mm 10-123 	Black	Glass fibre 348 mm	2,30 mt
10-124	Flexible AM/FM Antenna for roof mounting 	Black	Rubber 190 mm	2,30 mt
10-125E	Amplified antenna 15dB AM/FM for windscreen mounting 	Black	280 mm	1,50 mt
2910000144900	Passive DAB antenna for windscreen mounting 	Black		
2910000502900	Active "L" DAB antenna 	Black	-	3 mt - with SMB connector

Cables and adapters

Order Part No.	Description
561-060	Coaxial extension cable (DIN, male and female connection) lenght 3500mm
2910000075300	FAKRA to DIN adapter for passive antennas
2910000075400	FAKRA to DIN adapter for amplified antennas
2910000307400	Antenna cable 1,50 mt (for 10-123)
2910000291800	Antenna cable 2,40 mt (for 10-123)
2910000417400	Antenna cable 2,80 mt (for 10-123)
2910000272400	External microphone for Bluetooth® radios
2910000457200	Auxiliary input cable C1 with SRWC
2910000152300	1DIN housing
CA0504U-LS	ISO cables for supply and loudspeaker