

PATEO INNOVATION

User Manual

HEAD UNIT

Infotainment System

PCCM Plus 997/987 II; PCCM Plus 991/981 I

AnpingTan

V1.0

2024/12/2

Revision History

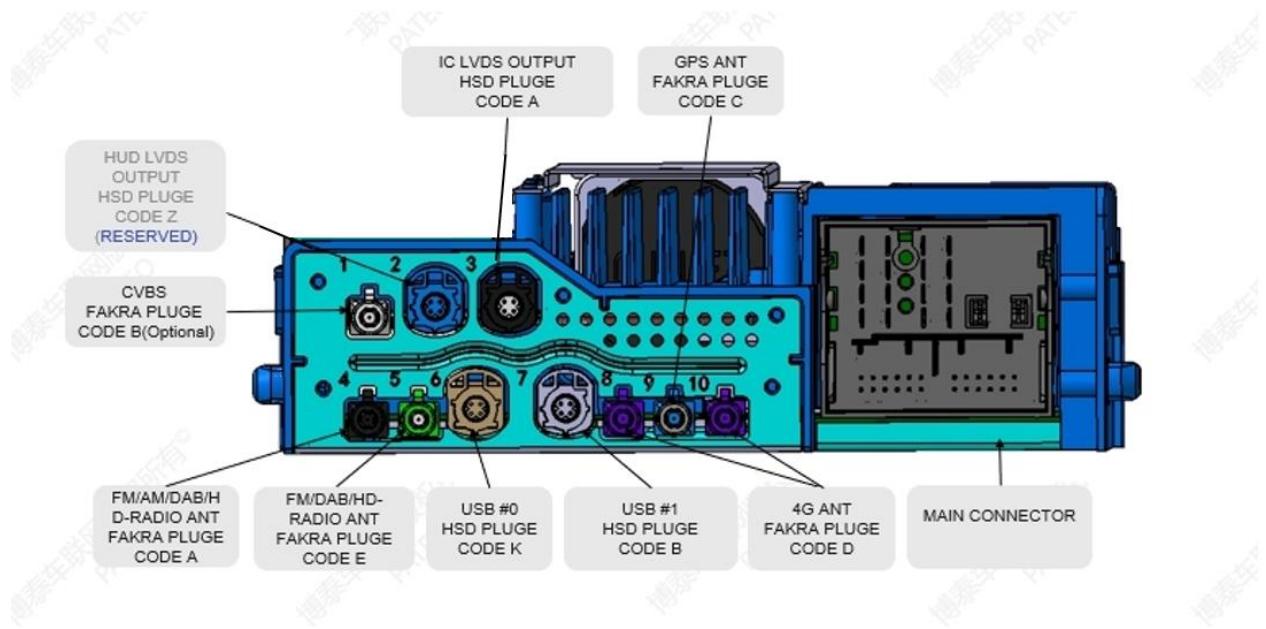
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1. Overview

This document specifies the specific requirements of the customer for the connectors, hardware and software functions, of the PCM3 Head Unit product.

2. Information of Connectors



3. Features of Hardware System

FEATURES	DESCRIPTION
DDR	8GB
UFS	128GB
DISPLAY	7 寸
FM/AM	Support
DAB	Support
MOST external Amplifier	Support
CVBS Reverse Video	Support
MIC (Analog)	External MIC * 1 + Internal MIC * 1
Amplifier (Internal)	4 Channels
USB	Front Panel USB TYPE C * 1 + backend USB 2.0 * 2
4G Netwrok	Support
CAN	1 Channel
Bluetooth	BT5.2
WiFi	802.11 a/b/n/ac
GNSS	support

4. Feature List

Module	Function	Sub-features
General	Startup Display	Disclaimer Porsche-Typical Start Screen
	Status Bar	Time Device Connection Status Signal Bluetooth Switch Status
		Application List
		My Screen (MyScreen)
	Application Running in Background	
	Content Function Blocking (CFB)	
	Notification Centre	
	Setup Wizard	
	Dock Bar	Application Entry
	FM / AM	Full Band Scan Playback Controls Radio Station List Radio Station Name RDS Radio Display Favourite / Unfavourite
Tuner		Playback Controls Radio Station List Radio Station Information Display Favourite / Unfavourite
DAB	Playback Controls Radio Station List Radio Station Information Display Favourite / Unfavourite	
	Playback Controls Radio Station List Radio Station Information Display Favourite / Unfavourite	
	Full Band Scan Playback Controls Radio Station List Radio Station Name Recognition Radio Station Information Favourite / Unfavourite	
HD Radio	Full Band Scan Playback Controls Radio Station List Radio Station Name Recognition Radio Station Information Favourite / Unfavourite	
	Supported Protocols Media Information Playback Controls	
Local Media	Bluetooth Music	Supported Formats Media Information Playback Controls
		Playlist
		Search and Genres
	USB Music	
Media List	Radio (FM/DAB/HD Radio)	
	Online Radio	List of favorites
		Top 100
		Languages
		Country

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		Schools (Genres)
		Podcasts
		Playlist
		Artist
		Album
		Composer
		Song
		Tracks
		Compilation
		Audiobooks
	Adapt sorting of sources	
	Adapt sorting of favourites	
Media Options	Radio settings	Display traffic notices
		Station tracking to similar stations
		Online station tracking in case of weak reception
		Alarm messages
Navigation	Basic Features	Display View
		Map Information
		Vehicle Icon
		Route Information
		Enlarged View of Intersection
		Map Interface Operation and Display
		Go Home / Go to Office
		"Return to Vehicle Location" Button
		Tap to mute broadcast / unmute
		Tap to turn on / off "Traffic Display on Map Interface"
		Navigation Preferences
		Route Planning Information Display
		Route Management
		Guidance (TBT Information)
		Exit Navigation
		Alternative Route
		Dynamic Route Calculation
		Weather Warning
		Destination Parking Lot
		Route Editing
		Resumed Navigation
		Voice Broadcast
		Navigation Settings
		Storage Location
Offline Map		Storage Location
		GPS Signal
		Path Guidance
Online Map	Online Map	POI Search
		Search Along Route
		Nearby
		At destination
		At stopover
		Presearch
		Search Results
		History
		Real-Time Traffic

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		Traffic Signs
	Map Update	Upgrade Method
	Route Prediction	
Vehicle	TRIP	Data Field
		Cumulative Total (Continuous)
		Since Ignition (Since···)
		Customization (Personal)
		Reset trip since
		Reset total trip values
		Reset max trip values
		Reset all trip data
	Assisted Parking	Reversing Camera Display
		3D Car Model
		Park Distance Control (PDC) area
Phone Call	Personal Preferences Memory (Individual Memory)	Daytime Running Lights
		Afterglow Duration
		Automatic Rear Wiper
		Automatic Rear sensor
		Orientation light
		Screen button
		Air conditioning
		Effective Scope of Unlocking
		Auto-Lock
		Door opener
	Configure trip personally	
	Personal Speed limits	
Phone Call	Bluetooth Connection	Bluetooth Pairing
		Automatic Reconnection
		Synchronise Data after Successful Connection
		Clear Data after Disconnection
	Basic Services	Answer / Hang Up
		Steering Wheel Control
		Simultaneous Connection
	Dual Phone Connectivity	Functions Supported
		Set as Primary Phone
	Address Book	Synchronise Data Stored in the Phone
		Display Contacts in Alphabetical Order
		Support Indexing by First Letter

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	Support One Tap to Dial
	Contact information
Phone settings	Delete contacts
	Voicemail number
	Sorting criteria
	Mute navigation during call
	Synchronise Data Stored in the Phone
Call Log	Contacts Sorted by Time
	Support One Tap to Dial
	Search by Initial Letter
Search for Contacts	Search by Phone Number
	Add favourite
Favourites	Favourites list
	Answer / On a Call / Hang Up
Phone Call	Phone Call Window
	Numeric Keypad Display
Dial Pad	Predictive Number Input
	Dial
	ADB
	Android Function Debugging
	Connection Manager
	Device name
	Apple CarPlay
Settings	Android Auto
	Factory Reset
	Switchover for Day/Night Design
	Brightness
	5 to +5
	Touch tone setting
	Off, Quiet, Medium, Loud
	Switch off central display
	You can reactivate the central display by touching it.
	Navigation anouncements
Connected Device Control	0 - 10
	ParkAssist
	oud / regular / Quiet
	Volume lower whenParkAssist is acitve
	0 - 5
	oed-dependent volumeadaption (only withoutBose or Burmester)
	0 - 7
	Mute navigationduring call
	ON / OFF
	Bluetooth Switch
Connected Device	List of Connected Bluetooth Devices
	Device Connection Control
	Device Permission Control
	Phone settings
	Bluetooth setting
	WiFi settings
	Configure Wi-Fi hotspots
	Select preferred phone
	Select device to use music
	Select equipment information
	Select device to use carplay
	Select device to use call
	List of known devices
	Serial number (IMEI)
	Connect new phone
	Connect new music player
	Connect Apple CarPlay
	Connect Android Auto

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Media setting	
Navigation setting	Route Overview
	Avoid
	Alternative routes
	Display routes when starting route guidance
	Further navigation settings
Notification centre settings	Receive vehicle messages
	Receive smartphone messages
	Receive information messages
Set date and time automatically	on / off
Set time manually	Time selection control
Set date manually	Date selection control
Set time zone automatically	on / off
Set time zone manually	Time zone list selection
Set time format	12h / 24h
Set date format	DD.MM.YYYY MM/DD/YYYY YYYY-MM-DD
Speed and Distance	km/h, km mph, mi
Temperature	°C °F
Consumption	l/100km mpg (US) mpg (UK) km/l
Standby	TBD
Software information	TBD
Free and Open Source Software Notice	TBD
Privacy	Legal Notice
	Data Privacy Information
Set-up assistant	TBD
Reset system to factory settings	TBD
Sound Effects Settings	Treble and Bass
	Sound Field Focusing
	Surround (only Bose)
	Linear (only Bose)
	AudioPilot (only Bose)
	Smooth (only Burmester)
	Surround (only Burmester)
	Live (only Burmester)
	Sound Conditioner (only Burmester)
	Balance and fader
	Loudness
	Channel Settings
	Speed-Adjusted/-Dependent Volume Control
	Bose Surround
MOST Bus	Bose Linear
	Burmester Listening Position
	Burmester Smooth
	Burmester Surround
	Burmester Live

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Other Settings		
Others	Text Language	Languages Available in the Device
		Keyboard
		Languages Required for User Manuals
Radio Features	System Upgrade (Update)	Upgrade (update) via USB
		Phase Diversity (FM/AM)
		MRC (DAB)
	Features Required	Background Scan

5. RF frequency

FCC Frequency	GSM 850	824 ~ 849	869 ~ 894
	GSM 1900	1850 ~ 1910	1930 ~ 1990
	WCDMA Band II	1850 ~ 1910	1930 ~ 1990
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 2	1850 ~ 1910	1930 ~ 1990
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 17	704 ~ 716	734 ~ 746
	Bluetooth- SISO	2400 ~ 2483.5	2400 ~ 2483.5
	Bluetooth LE- SISO	2400 ~ 2483.5	2400 ~ 2483.5
	Wi-Fi 2.4GHz- SISO	2400 ~ 2483.5	2400 ~ 2483.5
	Wi-Fi 5GHz (U-NII-1) MIMO 2*2	5150 ~ 5250	5150 ~ 5250
	Wi-Fi 5GHz (U-NII-3) MIMO 2*2	5725 ~ 5850	5725 ~ 5850
	GPS L1 C/A	/	1559 ~ 1610
	GLONASS G1	/	1559 ~ 1610
	Galileo E1	/	1559 ~ 1610
	FM	/	87.5 ~ 108
	AM (MF)	/	526.5 kHz to 1606.5 kHz
	DAB	/	174 to 240
Antenna Gain	WWAN antenna gain: 6.85 dBi		
	Bluetooth: 2.90 dBi		
	Wi-Fi 2.4GHz: 5.90 dBi		
	Wi-Fi 5GHz: 7.80dBi		

6. CE Caution:

RF Exposure

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

EU DECLARATION OF CONFORMITY

Hereby, PATEO CONNECT Technology (Shanghai) Corporation declares that the radio equipment type PCCM Plus 997/987 II/ PCCM Plus 991/981 I are in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address: <https://www.pateo.com.cn/>

Restrictions in the 5 GHz band:

According to Article 10 (10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium (BE), Bulgaria (BG), the Czech Republic(CZ),Denmark (DK), Germany (DE), Estonia (EE), reland (IE), Greece (EL), Spain(ES), France (FR), Croatia(HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania(LT), Luxembourg (LU), Hungary (HU), Malta (MT),Netherlands (NL), Austria(AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK).Finlanc(Fl). Sweden (SE).. Turkey (TR). Norway. Switzerland (CH). Iceland (IS), and Liechtenstein (LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

	ES	LU	RO	CZ	FR	HU	SI
	DK	HR	BE	BG	DE	EE	IE
	EL	IT	Cy	LV	LT	SK	MT
	NL	AT	PL	PT	FI	SE	TR
	NO	CH	IS	LI			

The radio equipment is so constructed that it can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.

Manufacturers:

PATEO CONNECT Technology (Shanghai) Corporation

Room 3701, No. 866 Dongchangzhi Road, Hongkou District, Shanghai, 200080, PR.China

7. FCC Regulations

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/ TV technician for help.
- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with FCC RF Exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for the transmitter must be installed to provide a separation distance of at least 24cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

8. ISED Statement

ISED STATEMENT

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference,

including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil n'doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

In order to avoid the possibility of exceeding the ISED radio frequency exposure limits, human proximity to the antenna shall not be less than 24cm (9.5 inches) during normal operation.

Afin d'éviter la possibilité de dépasser les limites d'exposition aux fréquences radio de la IC CNR102, la proximité humaine à l'antenne ne doit pas être inférieure à 24cm (9.5 pouces) pendant le fonctionnement normal.

9. Ending

This concludes the document