Installation Manual

Multimedia Interface for BMW/MINI ID7

Model : BM16-ID7

•Specification

Compatibility: **_BMW/MINI EVO ID7 2019~_**

Components: _Interface Main*1_

Interface Input / Output specification :

Input: LVDS*1
A/V*2
CVBS(Front Camera)*1
CVBS(Rear Camera)*1

Input Option: **HDMI *2**

Output: To LCD*1
AUDIO OUT*1
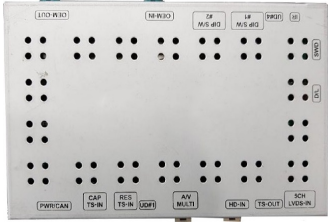
Power Spec:

Input Power: 8VDC ~ 18VDC
Consumption: 5WATT

Switch input mode:

1. External video sources skip function: Able to control input videos on and off via Dip switches
2. Able to switch videos via the remote and button switch
3. Able to detect the rear view camera by CAN or rear lamp cable

•Components

MAIN BOARD

POWER CABLE

LCD CABLE

AV CABLE

BUTTON CABLE

REMOTE CONTROL

IR CABLE

UART Touch Cable

OPTION

Power Cable

(UNDER IDRIVE)

DIP Switch Settings

* ON: DOWN / OFF: UP

Please make sure to disconnect the power cable of interface and reconnect to apply dip switch setting whenever changing DIP switch.

- **4POL DIP SWITCH SETTING**

DIP S/W	STATUS	DESCRIPTION
DIP1	OFF	LVDS Navigation Mode
DIP1	ON	LVDS Navigation Mode Skip
DIP2	OFF	AV1 Mode
DIP2	ON	AV1 Mode Skip
DIP3	OFF	AV2 Mode
DIP3	ON	AV2 Mode Skip
DIP4	OFF	Ext. Front Camera Mode
DIP4	ON	OEM Front Camera Mode

- **10POL DIP SWITCH SETTING**

DIP S/W	STATUS	DESCRIPTION
DIP1	OFF	No Use
DIP1	ON	No Use
DIP2	OFF	No Use
DIP2	ON	No Use
DIP3	OFF	No Use
DIP3	ON	No Use
DIP4	OFF	No Use
DIP4	ON	No Use
DIP5	OFF	No Use
DIP5	ON	No Use
DIP6	OFF	No Use
DIP6	ON	No Use
DIP7	OFF	OEM Rear Camera Mode
DIP7	ON	Ext. Rear Camera Mode
DIP8	OFF	CAN Data In/Out Mode
DIP8	ON	CAN Data Bypass Mode
DIP9	OFF	No Use
DIP9	ON	No Use
DIP10	OFF	No Use
DIP10	ON	No Use

Key	FUNCTION
POWER & PIP	N/C
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward
▼	Moving downward
◄	Moving leftward (If you press this button 2 seconds long, you can access the factory mode)
►	Moving rightward (If you press this button 2 seconds long, you can reset all the data about user environment)

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Menu of FACTORY

IMAGE    H-POSITION
PARK     V-POSITION
UTIL1    LVDS MODEL
UTIL2
INFO


MENU to Return     SEL to Select/Save
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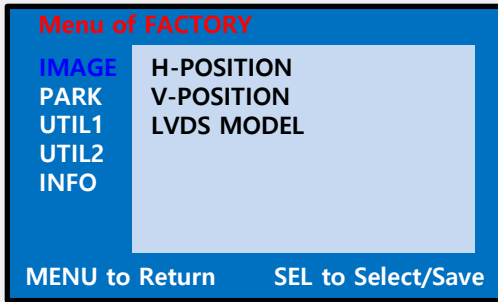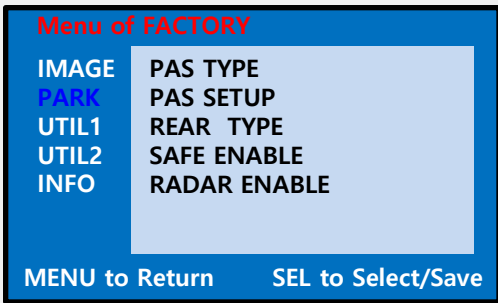
IMAGE

H-POSITION/V-POSITION *Setting*

LVDS MODEL:

(Android, Car-play, Navigation Model Setting)

```
Menu of FACTORY

IMAGE    PAS TYPE
PARK     PAS SETUP
UTIL1    REAR  TYPE
UTIL2    SAFE ENABLE
INFO     RADAR ENABLE


MENU to Return     SEL to Select/Save
```

PARKING

PAS TYPE: *Select parking line type.*

> *NOT USED: Do not use parking line*

> *PAS ON: Use Flexible Parking Lines*

> *PAS OFF: Use fixed parking line*

PAS SETUP:

You can move the position of parking line.

REAR TYPE: *Choose rear camera recognition.*

> **CAN:** *Detecting the rear view camera by CAN signal. (Installer must connect "CAN" cable of the power cable to the "CAN" cable of the car)*

> **LAMP:** *Detecting the rear view camera via "Grey Rear" wire. (Installer must connect "Rear-C" cable of the power cable to the rear lamp of the car)*

SAFE ENABLE:

If enable, HDMI, RGB, and A/V mode doesn't show up while driving. (Default: OFF)

RADAR ENABLE:

Setting up parking distance alarm sensor. (ON/OFF)

•Factory Settings

```
Menu of FACTORY

IMAGE      AVOUT SELECT
PARK       FCAM TIME
UTIL1      IR MEMORY
UTIL2      CALIBRATE
INFO       FACTORY RESET


MENU to Return      SEL to Select/Save
```

UTIL1

AVOUT SELECT: *Select audio channel transmitted through AUX(Default/AV1/AV2)*

FCAM TIME: *Front Camera Display Setting*

IR MEMORY: *Register IR memory of remote control for DTV, DVD(AV1/AV2)*

CALIBRATE: *Able to calibrate touch screen (YES/NO)*

FACTORY RESET: *Factory mode reset (YES/NO)*

```
Menu of FACTORY

IMAGE      IDRV REMOTE
PARK       IDRV CONTROL
UTIL1      VOICE KEY
UTIL2      MEMORY KEY
INFO       CAR MODEL


MENU to Return      SEL to Select/Save
```

UTIL2

IDRV REMOTE: *Able to use remote control on DVD, DTV by selecting "User" after IR memory registered*

IDRV CONTROL: *Able to control UI remote by touch (OFF/ON)*

VOICE/MEMORY KEY: *(ON/OFF)*

CAR MODEL: *BMW-ID7*

```
Menu of FACTORY

IMAGE      <SYSTEM VERSION>
PARK
UTIL1      - MAIN : 191119
UTIL2      - SUB : 191119
INFO


MENU to Return      SEL to Select/Save
```

INFO

System version information
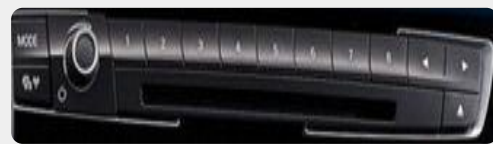
Activation with OEM Button

Switch mode or activate the function by OEM button

<Steering wheel>   <I-Drive>   <Memory Button>

Section	Button	Operation	Function
IDRV	IDRV MENU	long press**(3sec)**	Mode change
		short press	Return to orignal **(When entering the front camera mode, return to before mode)**
	IDRV MAP	long press**(3sec)**	Mode change
		short press	Return to orignal
	IDRV NAV	long press**(7sec)** - in ori.	TV Lock ON/OFF (DIP8 OFF)
	IDRV COM	long press**(7sec)** - in ori.	SAFE ON/OFF
	IDRV BACK	long press**(7sec)** - in ext.	Open Factory OSD MENU
		short press	Return OSD MENU
	IDRV WHEEL UP	short press	DTV CH+, DVD NEXT
			OSD MENU UP
	IDRV WHEEL DOWN	short press	DTV CH-, DVD PREV
			OSD MENU DOWN
	IDRV WHEEL PUSH	short press	OSD MENU DOWN
	IDRV MEDIA IDRV RADIO IDRV OPTION	short press	Return to orignal
	IDRV UP	short press	DTV CH+, DVD NEXT
	IDRV DOWN	long press**(3sec)**	PIP Mode function
		short press	DTV CH-, DVD PREV
HANDLE	VOICE	short press	Mode change
		short press - in ext. RCAM	PIP mode function
Memory	#7	Short press	Mode switch

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8

• Installation Diagram

OEM Monitor

OEM Head Unit
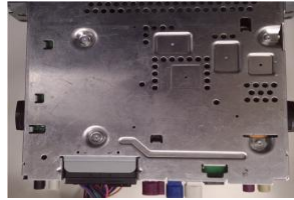
Supplied LCD Cable to interface "LVDS OUT"

OEM LCD Cable to interface "LVDS IN"

IR receiver

OEM-OUT OEM-IN DIP S/W #2 DIP S/W #1 UD#4 IR SWD DIL

PWR/CAN | CAP TS-IN | RES TS-IN | UD#1 | A/V MULTI | HD-IN | TS-OUT | 5CH LVDS-IN
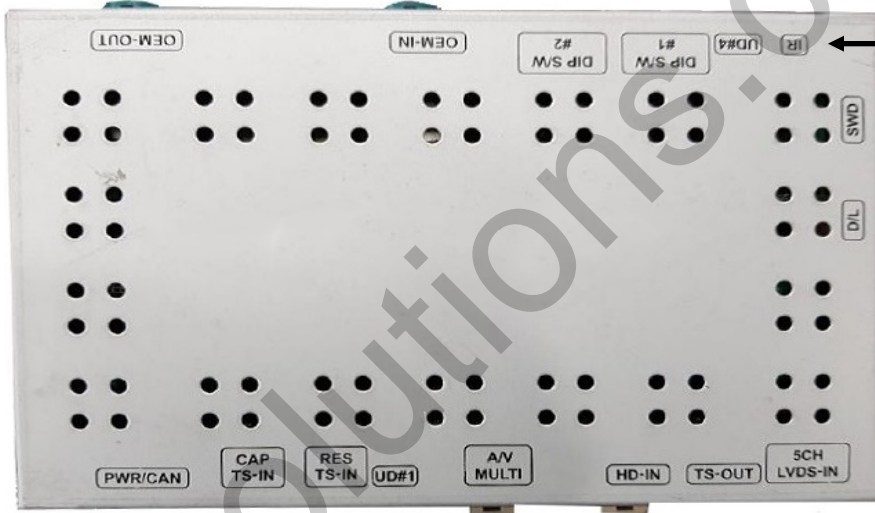
* Please Refer to Next page

A/V input *2
Rear camera input *1
Front camera input *1
AUX output *1

CARPLAY NAVIGATION BOX

Power/CAN

Resistive touch

Capacitive touch

HDMI*2 [Optional]

UART Touch Cable Pin assignment
RX
TX
**GND**

* Two ways to connect POWER/CAN cable:

1. Connect **I-Drive jack by jack cable** under I-Drive, in this case only supports CAN data bypass mode. **(TV free is not supported)**

* I-Drive Jack by Jack: Detach OEM cable from I-Drive and connect with supplied power cable.

OEM cable

Supplied Power cable
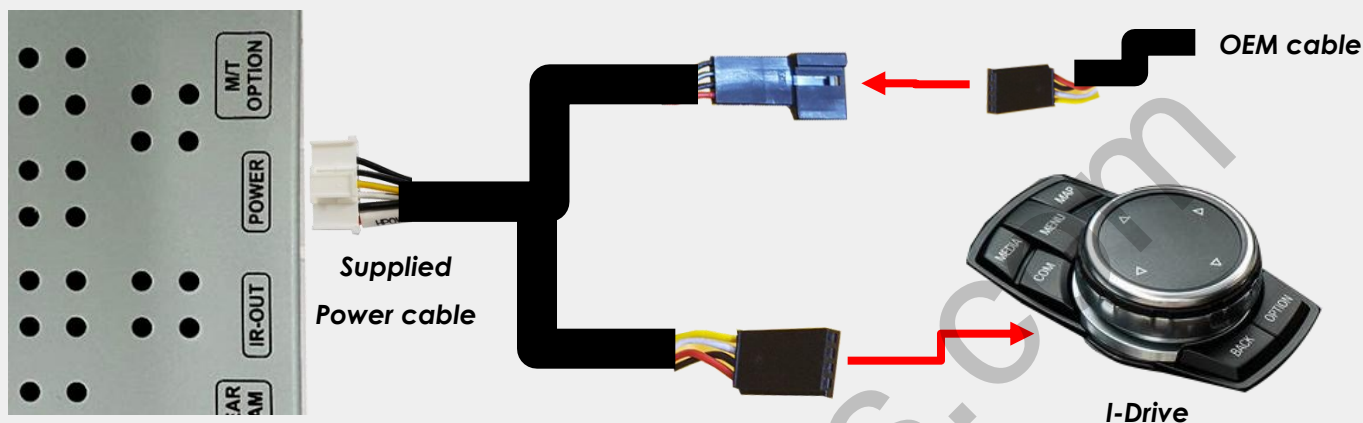
I-Drive

* Please note that ID7 7 series car have different I-Drive power/CAN pin map with other ID7 cars, make sure to check the pin map before installation under I-Drive.

| Car Model	Cable Type	#1	#2	#3	#4
ID7 7 Series I-Drive Power/CAN Pin Map	OEM Cable	ACC (Red/White)	Ground (Grey)	CAN-High (Orange/Green)	CAN-Low (Green)
	QDIS supplied cable	12V (Red)	Ground (Grey)	CAN-High (Green)	CAN-Low (Black/White)
ID7 common I-Drive Power/CAN Pin Map	OEM Cable	ACC (Red/White)	CAN-High (Orange/Green)	CAN-Low (Green)	Ground (Grey)
	QDIS supplied cable	12V (Red)	CAN-High (Green)	CAN-Low (Black/White)	Ground (Grey)
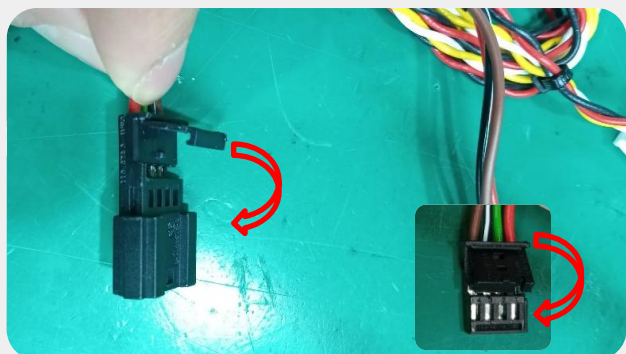
* Please find locker on male and female connector of supplied I-Drive power cable, once open the locker you could easily change the pin arrangement and lock it.

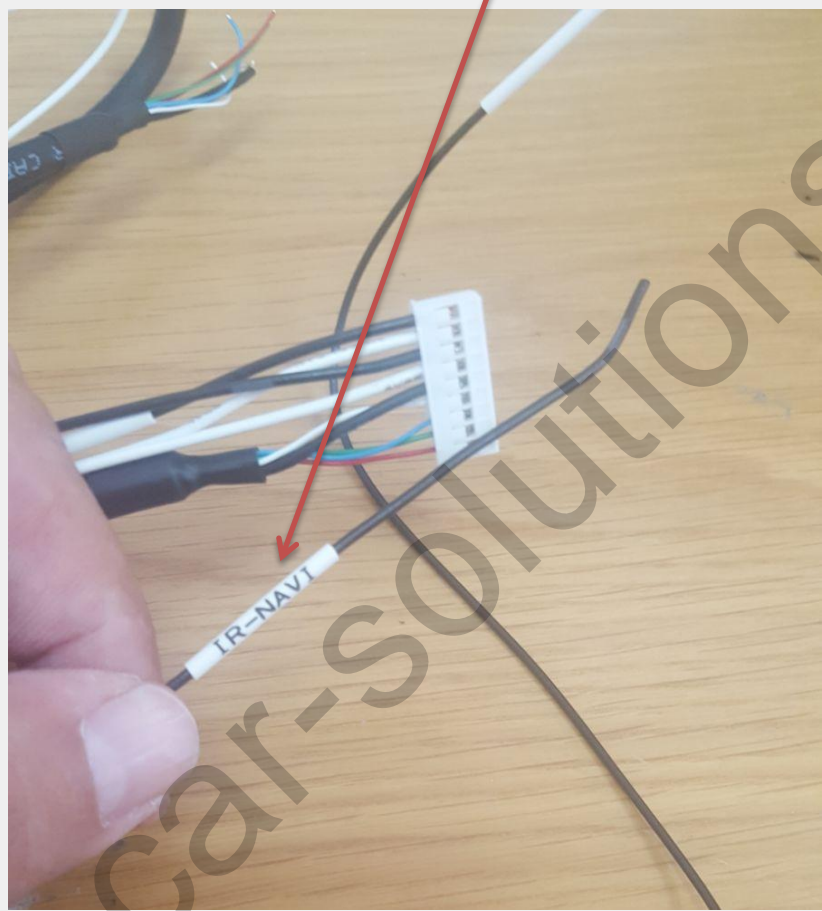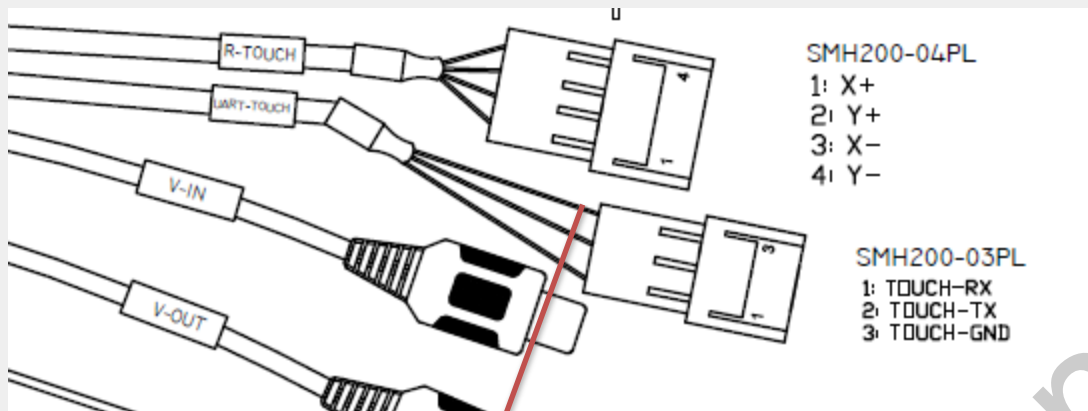•**Two ways to connect POWER/CAN cable:**

2. Connect **Head-unit jack by jack cable** behind Head unit, in this case CAN data in/out mode and bypass mode could be set by Dip switch #8. **(If you want to use TV free, please set Dip switch #8 to CAN data in/out mode)**

* Head-unit Jack by Jack:
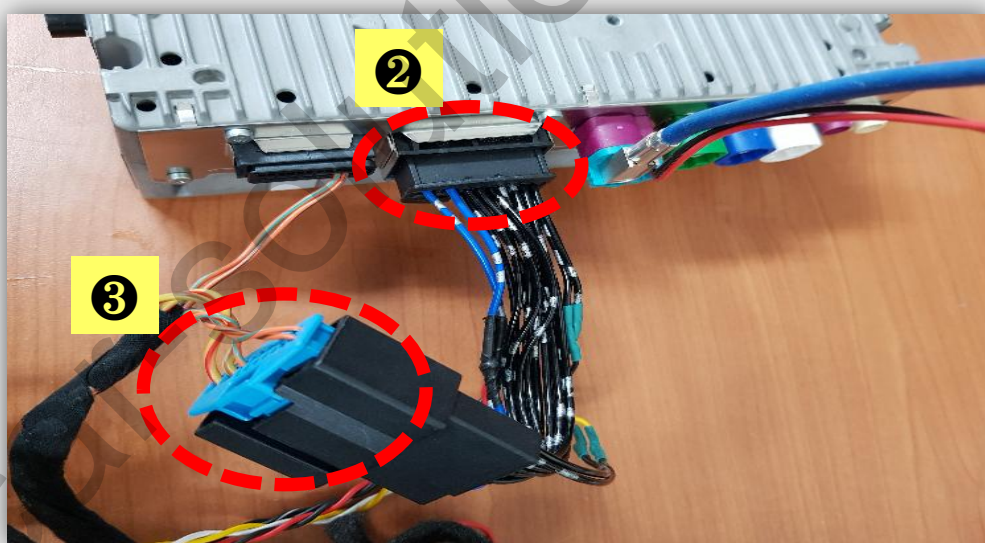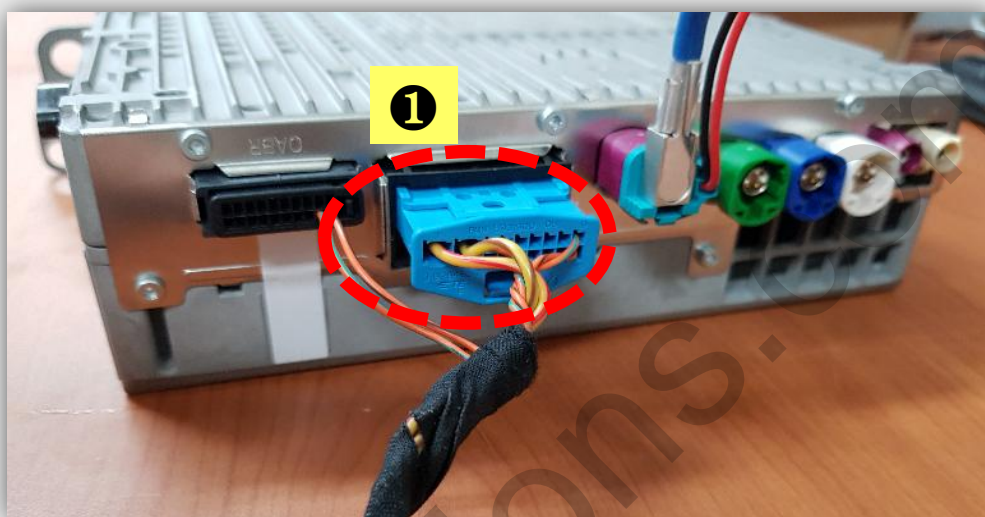
1. Pull out OEM cable from the backside of head unit as above
2. Plug in male connector of supplied power cable to the back side of head unit instead
3. Connect OEM cable to the female connector of supplied power cable

R-TOUCH
UART-TOUCH
V-IN
V-OUT

SMH200-04PL
1: X+
2: Y+
3: X−
4: Y−

SMH200-03PL
1: TOUCH-RX
2: TOUCH-TX
3: TOUCH-GND

IR-NAVI

QDIS CAP TS/OUT UART touch cable pin assignment

— RX
— TX
— GND

Some QDIS RGB cable Pin#7 is for NAVI-IR or UART-TX Touch Out

* Please connect IR-NAVI of "RGB Cable" or TX of "TS Out Cable" from the interface with TOUCH-RX of UART-TOUCH from "QROI2 MULTI CABLE" for QROI2 OEM TOUCH CONTROL.

○ Trouble shooting

Q. I cannot change mode
A. Check connection of Ground cable and IR Cable. Check LED lamp is on, if not check connection of POWER cable.

Q. All I got on the screen is black.
A. Check second LED lamp of the interface is on, if not, check A/V sources connected are working well. (Second lamp indicates AV sources connected works well) Check interface connection has been done well.

Q. Displayed image color is not proper (too dark or unsuitable color)
A. Press ▶ button on the remote control for 2 seconds and check how it goes, if it does not work, inform to manufacturer.

Q. I cannot watch the rear camera on the screen
A. Set the DIP switch #7 as state "ON".

Q. Set mode not appear
A. Check DIP Switch.

Q. OEM image is not displayed.
A. Check interface's LCD In/Out cable connection. If the status keeps on, inform to manufacturer.

Q. Screen only displays white color.
A. Check LCD out cable is connected well, if this status keeps, inform to manufacturer.

Q. If no image is shown on screen after connecting CAN wire with Park gear.
A. Go on the "FACTORY MODE", check "UTIL-Rear Select". If "LAMP", change the setting as "CAN" with the remote control. (* when connecting Rear-C wire of LAMP power cable to Backup lights, Setting should be like this / CAN : if controlling rear camera with CAN wire)