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Installation Manual

Video Interface for New BMW with EVO I-Drive5 Model : QPI_BM16



Specification

Car Compatibility : 2017 BMW CAR with Evo2 I-Drive5 1,2,3,4,5,6,7 Series, Mini, X3, X4, X5 8.8", 10.2" **X Monitors with/without OEM touch are supported**

Components : Interface * 1ea

Multimedia interface Input/output spec

Input : Analog RGB*1, A/V*3, CVBS(Rear camera)*1 CVBS(Front camera)*1 Output : To LCD*1

Power spec

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

Switch input mode

- External video sources skip function : able to control input videos on and off via DIP switches.

- -Able to switch videos via the remote, button switch, and original buttons(Mode, #7)
- -Able to detect the rear view camera via CAN.

Features

Control external videos sources (DVD, DTV) via Multi Media Touch

Adjust external videos screen position

Check the improved Screen Display (User Friendly Interface)

Switch modes via original OEM button

Supply power to rear camera (Back up camera)

Assist your parking via Dynamic PAS(Parking Assistance System)

Product Exterior



Components



(HARETC0001) (HIRCAB0002) support@car-solutions.com

(REMOTE0001)

(HARETC0002) (HIRCAB0007)

(HARETC0233) www.car-solutions.com

* ON : DOWN / OFF : UP

PIN	Function	Dip S/W	
1	RGB mode	OFF : RGB mode display ON : RGB mode	
2	AV1 mode	OFF : AV1 mode display ON : AV1 mode skip	
3	AV2 mode	OFF : AV2 mode display ON : AV2 mode skip	
4		4-OFF, 5-OFF : 1440*540	
5	Wontor type	4-OFF, 5-ON : 1280*480 4-ON, 5-OFF : 800*480	
6	Car model	OFF : 5, 7 Series CAN ON : 3, 4 Series, X5 CAN	
7	Rear Camera	OFF : OEM rear camera ON : External rear camera	
8	TV Free Setting	OFF : BYPASS mode ON : TV FREE mode	

* Please make sure to disconnect the power cable of the interface and reconnect the power cable again to apply the dip switch setting whenever changing DIP switch. Otherwise, DIP switch setting will not be applied.

REMOTE CONTROL

	KEY	FUNCTION
POWER PIP	POWER & PIP	NO USE
0	MENU	Activating FACTORY MENU
	ОК	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.)
su	pport@car-solutions.co	Moving rightward ^m (If you press this button ଅୱିକେଶ୍ୱୋର୍ଯ୍ୟମୁନ୍ତ୍ର ତଥା can reset all the data about user environment.)

Factory setting



Adjust a current screen position and size.

H-POSITION : Move display horizontally V-POSITION : Move display vertically H-SIZE(NAVI) : Adjust the image of navigation horizontally

Menu of FACTORY		
IMAGE	PAS TYPE	
PARK	PAS SETUP	
UTIL1	REAR TYPE	
UTIL2	SAFE ENABLE	
INFO	RADAR ENABLE	
	PDC TYPE	
MENU to	Return SEL to Select/Save	

Adjust rear view camera setting.

PAS TYPE : Select type of parking guide line

- NOT USED : No use parking guide line
- PAS ON : Selecting Dynamic parking guide line
- PAS OFF : Selecting fixed parking guide line

PAS SETUP : Adjusting the position of the parking guide line



<h-position>

<V-POSITION>

REAR TYPE : Choose rear camera recognition.

- CAN : By connecting to "CAN" cable of the car gear, changing to rear camera mode when shifting into reverse. (Connect "CAN" cable of the power cable to the "CAN" cable of the car gear.)
- LAMP : By connecting to the rear lamp of the car, switch to rear camera mode when shifting into rear. (Connect "Rear-C" cable of the power cable to the rear lamp of the car.)

SAFE ENABLE :

Enable -More than 20km/h;

RGB, and A/V mode will not be displayed (Default : OFF) Less than 20km/h; RGB, and A/V mode will be displayed again

RADAR ENABLE : Setting up parking distance alarm sensor (ON/OFF)

Factory setting

Menu of IMAGE PARK UTIL1 UTIL2 INFO	FACTORY CAR MOD AVOUT SI FCAM FUI AV3 SKIP FACTORY	EL BLECT NC RESET
MENU to	Return	SEL to Select/Sav

Navigation & Car model setting up

NAVI MODEL : Choose RGB navigation AVOUT SELECT : Selecting background sound via car AUX

FCAM FUNC :

FCAM_OFF : A shift in gear : $P \rightarrow R \rightarrow D$, Display the image shown while P mode FCAM_EXT : A shift in gear : $P \rightarrow R \rightarrow D$, Display the image of FCAM for 5 secs, then display the image shown while P mode FCAM_OEM : A shift in gear : $P \rightarrow R \rightarrow D$ Display the OEM image for 5 secs then display the image shown while P mode

AV3 SKIP: Display/skip AV3 mode (ON/OFF)

ACTORY RESET : Reset



Other options setting up

IDRV REMOTE : Able to use remote control on DVD, DTV by selecting "User" after IR memory registered IDRV CONTROL : Able/disable to control UI remote by touch IR MEMORY : Register IR memory of DTV and DVD *** Refer to "IR MANUAL" for more details** HANDLE KEY : Able/disable to use the OEM button on the handle (Default : OFF) MEMORY KEY : Able/disable to use the memory button (Default : OFF)

Menu of FACTORY		
IMAGE PARK	SYSTEM VERSION	
UTIL1	(MAIN -130723)	
UTIL2	(TRIP -130723)	
INFO		
MENU to	Support@car-solutions.c Return SEL to Select/Save	C

m

System version information.

OEM button

* Able to switch the mode or activate the function by OEM button



<Steering wheel>



<Memory Button>

Section	Button	Operation	Function
	VOICE	Short press	Mode switch
Steering		Short press	PIP mode choice
Wheel	Wheel up	Short press	Multimedia Channel UP
	Wheel Down	Short press	Multimedia Channel DOWN
Memory	#7	Short press	Mode switch
I-Drive	MAP	2 sec	Mode switch
	OPTION	7 sec	RESET
	ВАСК	7 sec	FACTORY mode: ON
		Short press	FACTORY mode: back
	MENU	2 sec	Mode switch
		Short press	Selection (FACTORY mode, Multimedia)
	Rotate left or right	Short press	Multimedia mode ON
	Push south	2 sec	PIP mode

* Return to OEM mode if any button of I-DRIVE is pressed for a short time except "back" button)

• A/V mode PIP

Able to display OEM&AV image together in A/V mode - Setting : Push I-Drive south for a long time to activate PIP mode ※ Image order : Full AV mode → PIP image<1> → PIP image<2>



Full AV mode



PIP image<1>



Display Full AV mode

Display AV&OEM mode together AV image is bigger than OEM image

Display AV&OEM mode together OEM image is bigger than AV image

PIP image<2>

Rear camera mode PIP

Able to display PDC + OEM PAS or PDC + supplied PAS while in reverse - Setting : Press voice button on the wheel for a short time to activate PIP while in Reverse.



< OEM reverse image>
support@car-solutions.com



 $\langle \mathsf{OEM} + \mathsf{supplied} \mathsf{PAS} \rangle$

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CAN/Power cable

XTwo ways to connect CAN/POWER cable

- 1. In case of connecting the cable from I-Drive, TV free is not supported(Dip switch #8-Off)
- 2. In case of connecting the cable from the Headunit TV free is supported(Dip switch #8-On)



• Headunit



Pull out the bunch of cables from the backside of command and Disconnect the marked optical fiber cable.



Connect the provided power support ar solutions com cable to the backside of monitor.



Connect the optical fiber cable to the supplied power cable.



Connect the bunch of original cables to the provided power cable (Female connector)

Q-ROI RGB&Uart Touch

*Connect IR-NAVI wire from RGB-In cable of QPI-BM16-7S to Uart wire from RGB-Out of Q-ROI RGB



Old IR-NAVI label for QPI-BM16-7S New IR-NAVI label for QPI-BM16-75

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Q-ROI2& Uart Touch

*Connect IR-NAVI wire from RGB-In cable of QPI-BM16-75 to Red wire of Uart-touch cable from QROI2 multi cable



Old IR-NAVI label for QPI-BM16-7S

New IR-NAVI label for QPI-BM16-7S

LVDS IN/OUT Connection

※ Remove OEM LCD cable from the monitor behind and connect it to LVDS IN of the interface. The supplied LCD cable shall be connected between the monitor behind and LVDS OUT of the interface.



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