Installation Manual

HDMI Interface for Mercedes Benz

NTG5.5 & NTG6.0

Manual Date : 2020.8

°Specification

Compatibility:

E-Class 8.4"/12.3" 2016~

S-Class 12.3" 2018~

Sprinter 7"/10" 2019~

C class 7"/10" 2019~

A Class 7"/10" 2019~

Components: *Interface Main board *1*

Interface Input / Output specification:

Input: LCD INPUT(CAR SYSTEM) *1

HDMI *1

Analog RGB *1

A/V *2

CVBS(Front Camera) *1

CVBS(Rear Camera) *1

Output: LCD OUTPUT(CAR SYSTEM) *1

AUDIO OUTPUT *1

VIDEO OUTPUT *2

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

° Components

MAIN BOARD
QCPASS1371

LCD DUAL FAKRA
HLCDCA0058

AV CABLE
HAVCAB0056

RGB CABLE
HRGBCA0013

MULTI CABLE
HARETC0240

REAR CABLE
HARETC0002

UART CABLE
HTOUCH0031

Res. T/S CABLE
HTOUCH0009

BUTTON CABLE
HARETC0001

IR CABLE
HIRCAB0002

REMOTE CTRL.
REMOTE0001

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* Power cable for NTG6.0

W177 POWER J BY J
HPOWER0231

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* Power cable for NTG5.5 [OPTION]

W222 POWER CABLE
HPOWER0177

W222 J BY J
HARETC0091

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◦ DIP Switch Setting

* ON : DOWN / OFF : UP

Please make sure to disconnect the power cable of the interface and reconnect the power cable again to apply the dip switch changes.
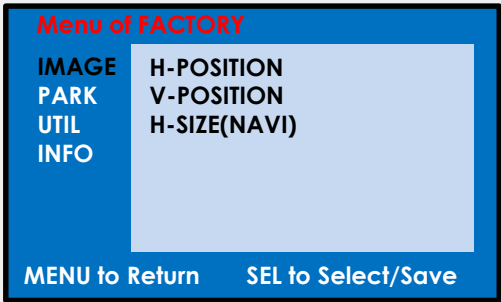
PIN	FUNCTION	Dip S/W SELECT
1	RGB	OFF : RGB MODE ON : RGB MODE SKIP
2	HDMI	OFF : HDMI MODE ON : HDMI MODE SKIP
3	AV1	OFF : AV1 MODE ON : AV1 MODE SKIP
4	AV2	OFF : AV2 MODE ON : AV2 MODE SKIP
5	LCD Resolution	OFF : 1920 * 720 ON : 960 * 540
6	LCD TYPE(CAR MODEL)	OFF : Without OEM T/S : C-CLASS(10") With OEM T/S : A-CLASS(10"), SPRINTER(7") ON : Without OEM T/S : E-CLASS(8.4"/12.3"), S-CLASS(12.3"), C-CLASS(7") With OEM T/S : GLE(10"), A-CLASS(7")
7	REAR CAMERA	OFF : OEM Rear Camera Mode ON : Ext. Rear Camera Mode
8	OEM Touch Screen	OFF : Without OEM Touch Screen ON : With OEM Touch Screen

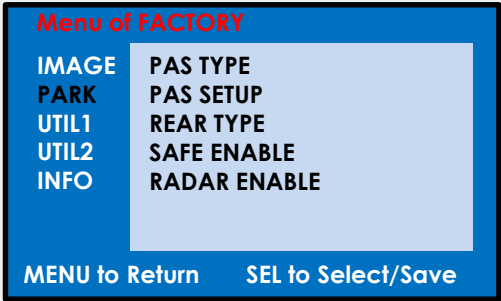| Key	FUNCTION
POWER & PIP	N/C
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward
▼	Moving downward
◄	Moving leftward (If you press this button 2 seconds long, you can access the factory mode)
►	Moving rightward (If you press this button 2 seconds long, you can reset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

°Factory Setting

```
Menu of FACTORY
  IMAGE    H-POSITION
  PARK     V-POSITION
  UTIL     H-SIZE(NAVI)
  INFO


  MENU to Return    SEL to Select/Save
```

IMAGE

H-POSITION: *Move the screen left and right.*

V-POSITION: *Move the screen up and down.*

H-SIZE (NAVI): *Adjust the left and right size of navigation.*

```
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
```

PARK

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.*
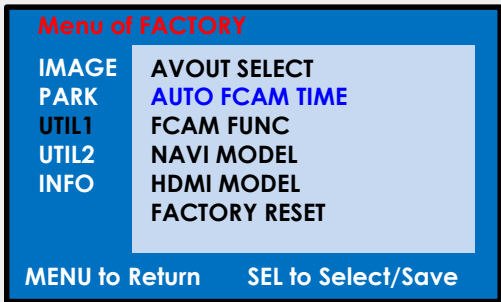
REAR TYPE : *Choose rear camera recognition.*

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

RADAR ENABLE: *Set the parking distance alarm sensor to ON/OFF.*

° Factory Setting

```
Menu of FACTORY
IMAGE    AVOUT SELECT
PARK     AUTO FCAM TIME
UTIL1    FCAM FUNC
UTIL2    NAVI MODEL
INFO     HDMI MODEL
         FACTORY RESET

MENU to Return    SEL to Select/Save
```

UTIL1

AVOUT SELECT:

Select audio channel transmitted through AUX (HDMI, AV)

AUTO FCAM TIME:

Front camera operation time adjustment

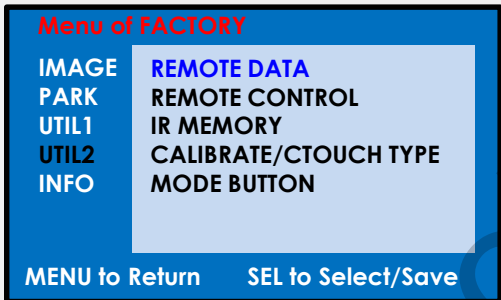**FCAM FUNC:**

Select front camera display (ORI. FCAM/EXT. FCAM)

NAVI MODEL: RGB navigation setting

HDMI MODEL: HDMI device setting

FACTORY RESET: Factory mode reset

```
Menu of FACTORY
IMAGE    REMOTE DATA
PARK     REMOTE CONTROL
UTIL1    IR MEMORY
UTIL2    CALIBRATE/CTOUCH TYPE
INFO     MODE BUTTON

MENU to Return    SEL to Select/Save
```

UTIL2

REMOTE DATA:

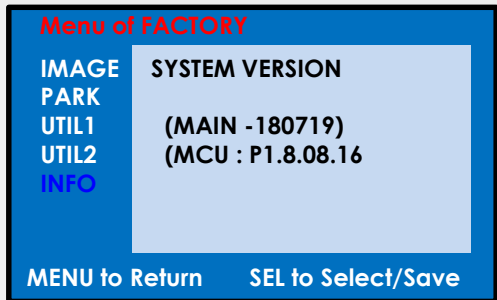Select model to control the DVD and DTV device

REMOTE CONTROL: YES / NO

IR MEMORY: Register remote memory of DTV, DVD

CALIBRATE: Shows when Cap. T/S not connected (Dip#8 OFF)

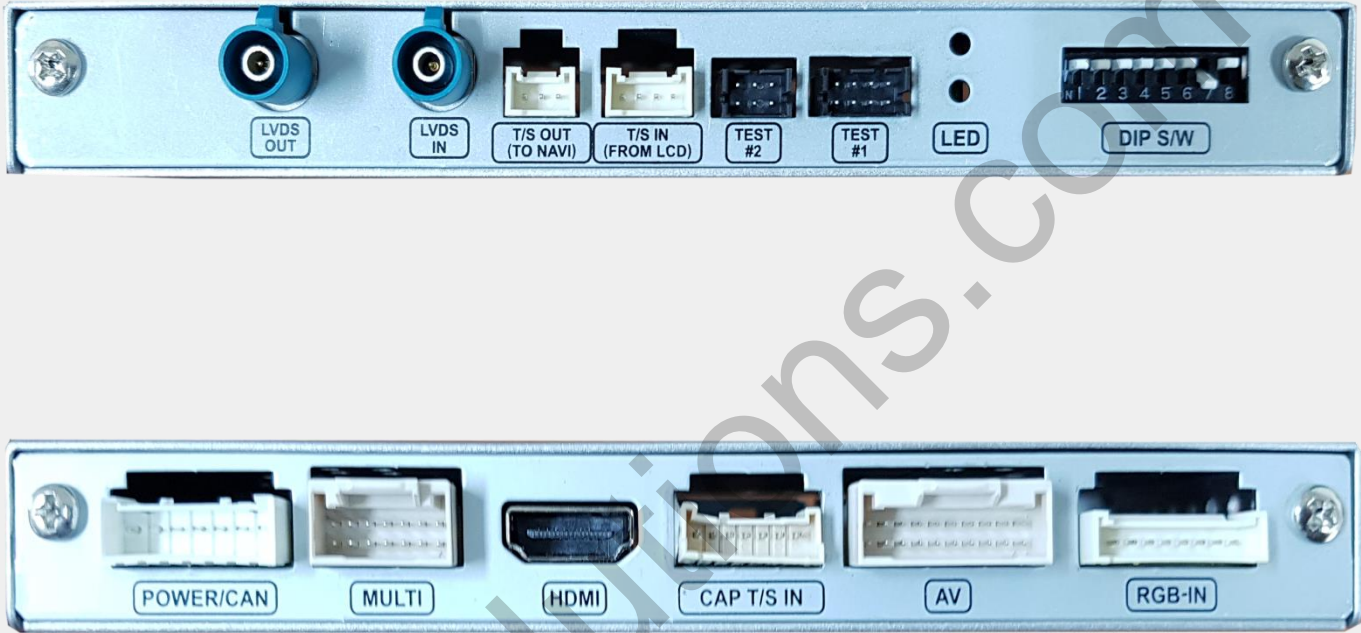**CTOUCH TYPE:** Shows when Cap. T/S connected (Dip#8 OFF)
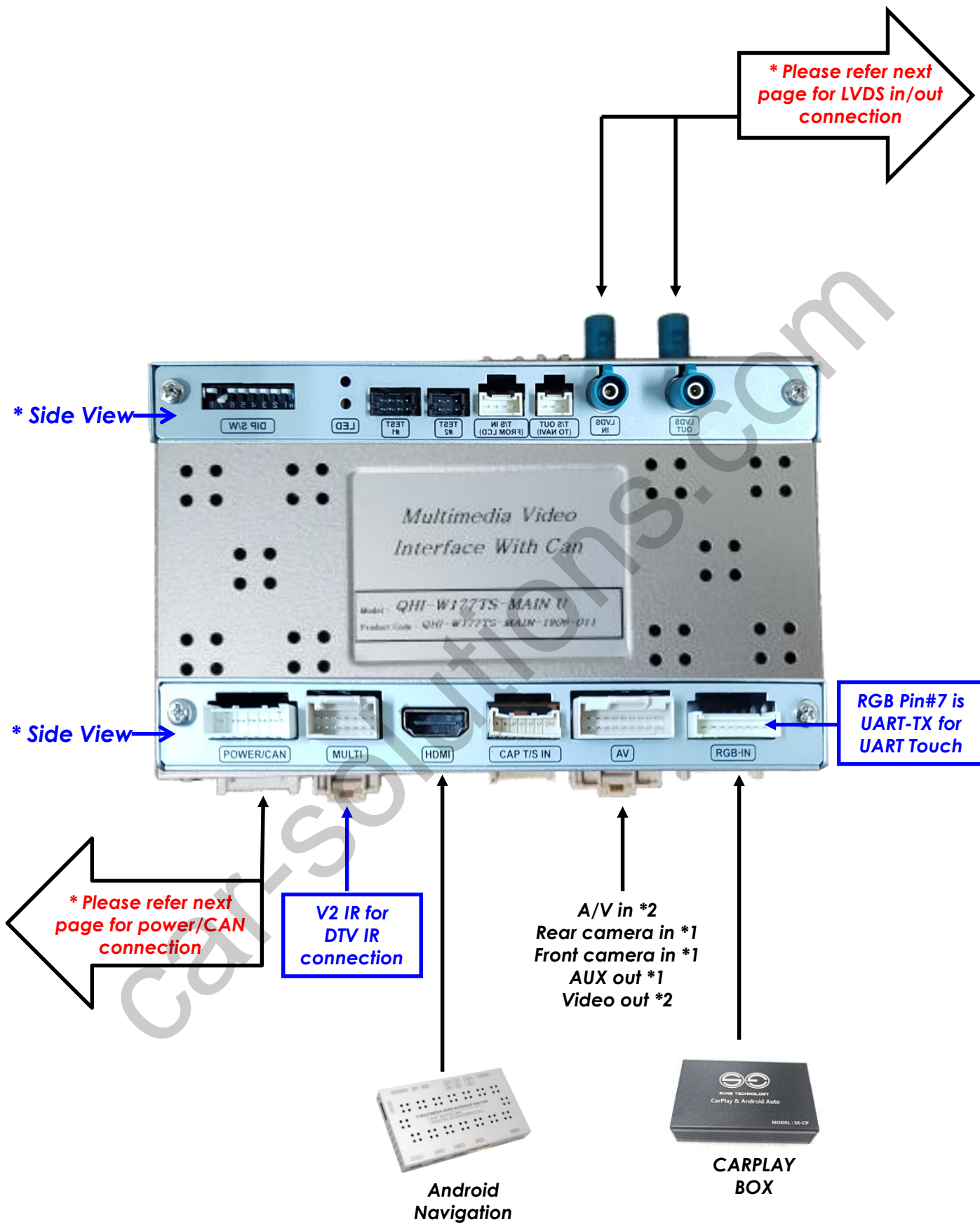
MODE BUTTON: YES / NO

```
Menu of FACTORY
IMAGE    SYSTEM VERSION
PARK
UTIL1     (MAIN -180719)
UTIL2     (MCU : P1.8.08.16
INFO

MENU to Return    SEL to Select/Save
```

System version information

* Side View for QHI-W177TS

LVDS OUT   LVDS IN   T/S OUT (TO NAVI)   T/S IN (FROM LCD)   TEST #2   TEST #1   LED   DIP S/W

POWER/CAN   MULTI   HDMI   CAP T/S IN   AV   RGB-IN

Installation Diagram

* Please refer next page for LVDS in/out connection

* Side View →

DIP S/W | LED | TEST #1 | TEST #2 | T/S IN (FROM LCD) | T/S OUT (TO NAVI) | LVDS IN | LVDS OUT

Multimedia Video
Interface With Can

Model : QHI-W177TS-MAIN II
Product Code : QHI-W177TS-MAIN-1909-011

* Side View →

POWER/CAN | MULTI | HDMI | CAP T/S IN | AV | RGB-IN

RGB Pin#7 is UART-TX for UART Touch

* Please refer next page for power/CAN connection

V2 IR for DTV IR connection

A/V in *2
Rear camera in *1
Front camera in *1
AUX out *1
Video out *2

Android Navigation

SUNE TECHNOLOGY
CarPlay & Android Auto
MODEL : SE-CP

CARPLAY BOX

*Please find beige LVDS connector from NTG5.5 head unit for **10"/12.3" screen***

*In case of **10" and 12.3"** screen of NTG 5.5, please use provided LVDS cable HLCDCA0058*

1. *Disconnect the OEM LVDS cable from the backside of head unit*
2. *Connect the OEM cable to the female connector of supplied LVDS Fakra cable*
3. *Connect the male connector of supplied LVDS cable to the backside of monitor*
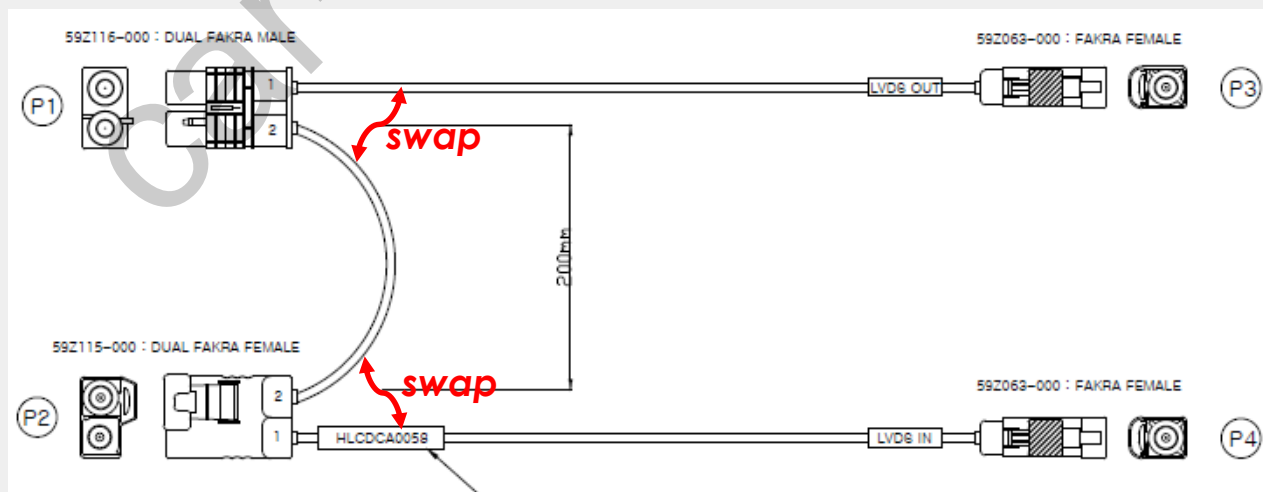

LCD DUAL FAKRA

HLCDCA0058
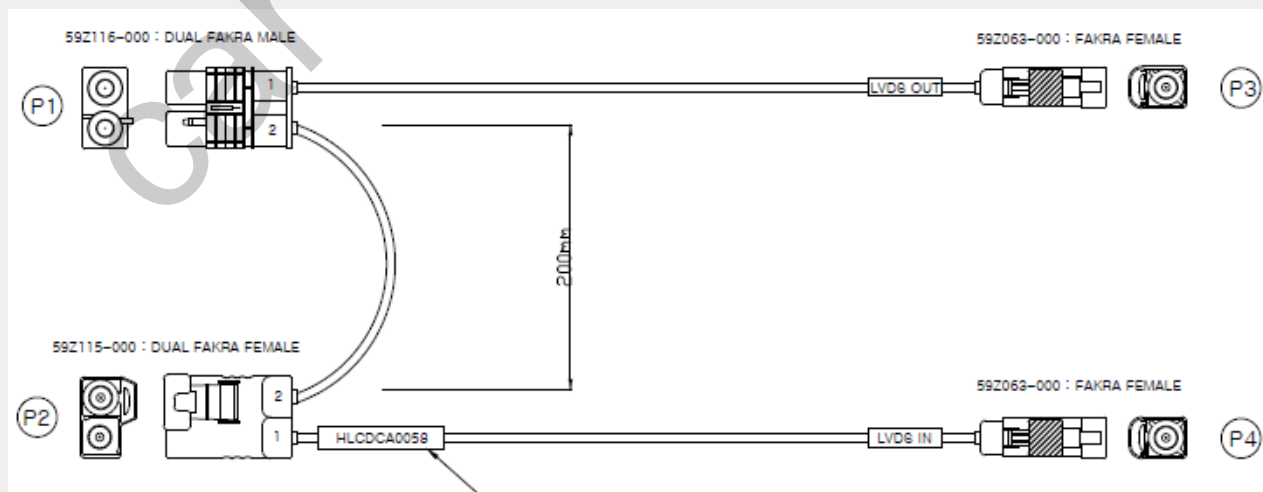
•LVDS IN/OUT connection (NTG5.5)

Please find blue LVDS connector from NTG5.5 head unit for **7"/8.4" screen**

In case of **7" and 8.4"** screen of NTG 5.5, please modify the pin location of provided LVDS cable HLCDCA0058, otherwise, screen display will be black.

* Swap location #1 and #2 both in male terminal and female terminal.

LCD DUAL FAKRA

HLCDCA0058

59Z116-000 : DUAL FAKRA MALE

59Z063-000 : FAKRA FEMALE

P1

LVDS OUT

P3

swap

200mm

59Z115-000 : DUAL FAKRA FEMALE

59Z063-000 : FAKRA FEMALE

P2

swap

HLCDCA0059

LVDS IN

P4

· LVDS IN/OUT connection (NTG6.0)

Please find purple LVDS connector from NTG6.0 head unit for 10" screen

Please use provided LVDS cable HLCDCA0058

1. Disconnect the OEM LVDS cable from the backside of head unit
2. Connect the OEM cable to the female connector of supplied LVDS Fakra cable
3. Connect the male connector of supplied LVDS cable to the backside of monitor

OEM Cable

OEM HU

Multimedia Video
Interface With Can

Model : QHI-W177TS-MAIN U
Product Code : QHI-W177TS-MAIN-1906-011

CAN Connection (NTG5.5)

* CAN IN/OUT connection for NTG5.5

- Find a bunch of wires from the command behind the monitor as shown below

Find a bunch of cables from the command behind
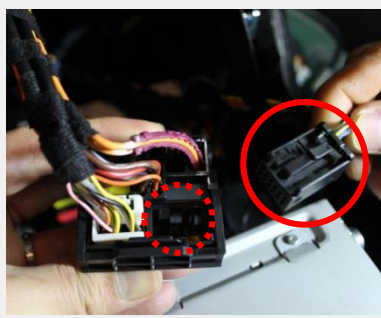
Remove the black connector marked with a red circle
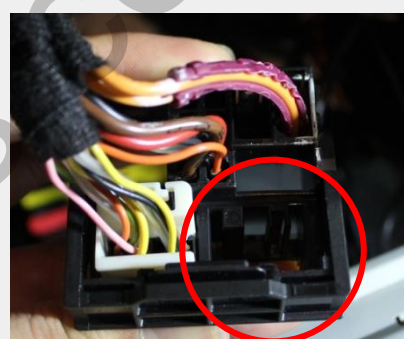

Take away the black connector cover
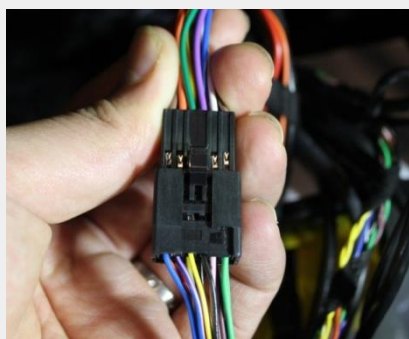
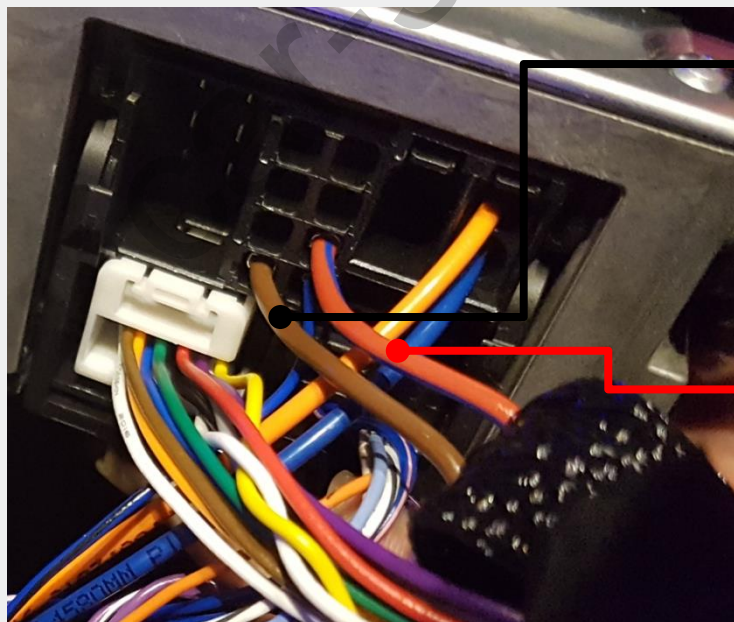*Connect the OEM connector to the supplied CAN IN/OUT*

Put the black connector cover onto the supplied CAN IN/OUT cable

Reconnect the supplied cable where the black connector was removed.

B+ / GND connection

GROUND

* Connect the black ground wire of the supplied power cable to the brown OEM wire

B+

** Connect the red B+ wire of the supplied power cable to the orange/blue OEM wire*

* CAN IN/OUT Connection for NTG6.0

1. _Disconnect the OEM power cable from the backside of command_

2. _Connect the OEM cable to the female connector of supplied power cable_

3. _Connect the male connector of supplied power cable to the backside of monitor_
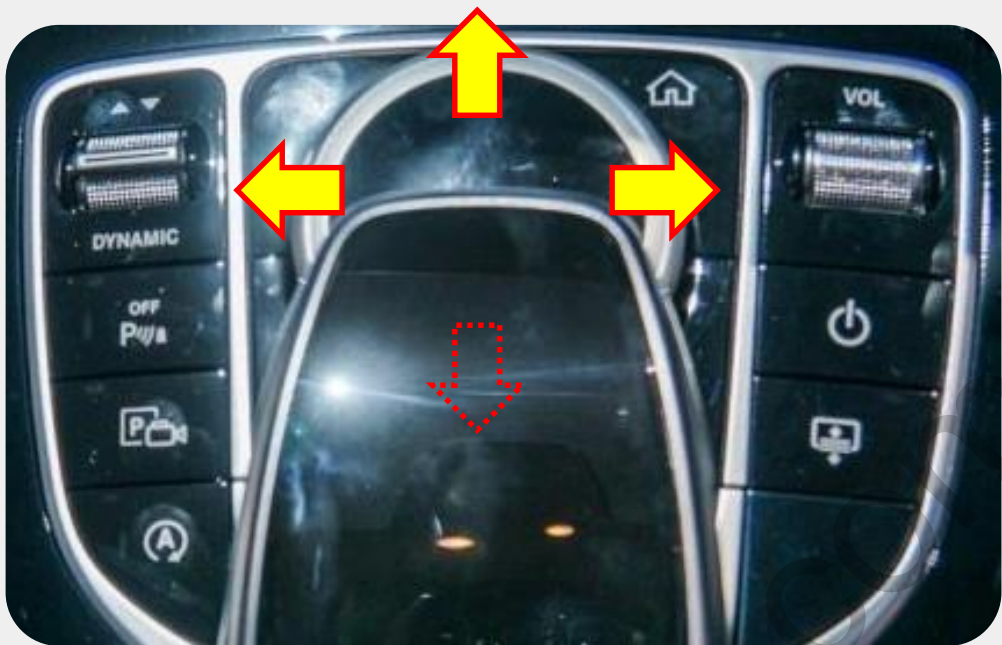
POWER CABLE

HPOWER0231

◦ OEM buttons (NTG5.5)

* Press high lighted OEM button for 3 seconds long to mode switch
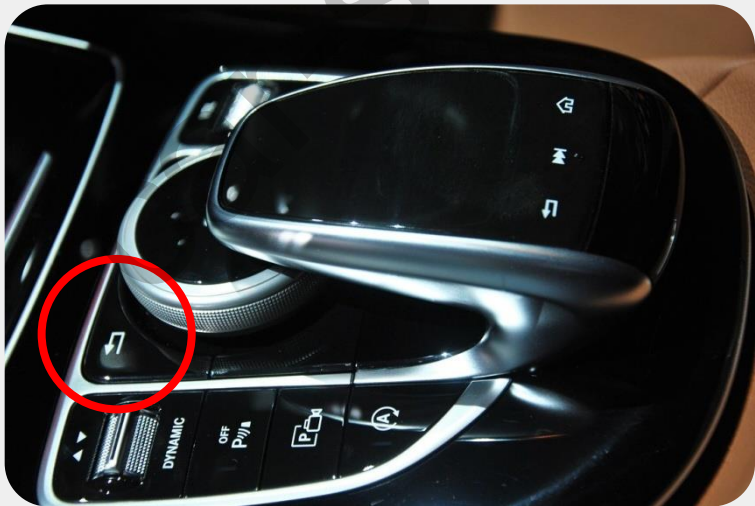
1. Rear Camera Mode Switch

Monitor	Joy shuttle Direction	Mode	Pushing Joy shuttle	Mode
12.3inch	←	Rear, Front Camera mode	Short	Ext. Camera <-> OEM Screen
8.4inch	↓	Rear, Front Camera mode	Short	Ext. Camera <-> OEM Screen

2. DVD, DTV OSD Control

OSD control remote will appear if the joy shuttle is moved to the left for a short time in DVD, DTV mode

Monitor	Direction	Mode	Pushing Joy shuttle	Movement
12.3inch/ 8.4inch	↑ ↓ ← →	DVD DTV	Short	UP,DOWN,LEFT,RIGHT
	←		Long	Select

● OEM buttons (NTG6.0)

1. Switch to OEM in Rear Camera Mode :

Short press below high lighted button in Ext. rear camera mode to switch OEM screen

2. DVD, DTV OSD Control ：

Slide arrow button right and left for DTV and DVD channel up(+) and down(-)

These functions can be used when SE-CP(NAVI MODEL – SE-CP(WVGA) installed.

Section	Button	Operation	Function
MMI	HOME/STAR	Short press	Select
		Long press (3sec)	Voice Control
	JOG LEFT	Short press	Left
	JOG RIGHT	Short press	Right
	JOG UP	Short press	Up/Track +
		Long press (3sec)	Home
	JOG DOWN	Short press	Down/Track -
		Long press (3sec)	Moving to Android Auto Down Side Menu

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)