

Smart-Play Integration with Multi Camera Inputs & USB Player for Mercedes Benz vehicles with NTG5/5.1 Systems

PRODUCT FEATURES:

- Smart-Play Integration system allows connection of Android and other devices to the Mercedes Benz NTG5/5.1 infotainment system.
- Control Apps using smartphone's voice control feature or the factory Central Controller.
- Adds a USB port to play music and videos. USB port can also charge the smartphone.
- Adds front and rear-view camera inputs.
- Interactive parking guide lines with calibration function.
- Built-in on-screen display and setup.
- Provides a trigger output (+12V max. 1A) to power the front and rear cameras.

PARTS INCLUDED:



ACPMB-78Z Module



T- Harnesses



Smart-Play Interface Module







LVDS1 Cable (to Vehicle)

Video Input Harness

LVDS2 Cable (to Headunit)



Microphone



USB to Audio RCA Adapter Kit



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INSTALLATION DIAGRAM:



LED INFORMATION:





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CONNECTING THE INTERFACE MODULE & HARNESS:



- 1. Unplug the female Quadlock connector of the vehicle harness from the rear of the headunit.
- 2. Remove optical leads from the female Quadlock connector of the vehicle harness and insert them into the female Quadlock connector of ACPMB-78Z harness at the same position.
- 3. Plug in the female Quadlock connector of vehicle harness to the male Quadlock connector of ACPMB-78Z harness.
- 4. Plug in the female Quadlock connector of ACPMB-78Z harness to the male Quadlock connector of the headunit.
- 5. Plug in the female 8 pin connector of the ACPMB-78Z harness to the male 8 pin connector of the Power/CAN harness.
- 6. Connect the female 12pin AMP connector of the Power/CAN harness to the front side of the VRFMB-78N interface box.

LVDS CONNECTION:



- 1. Plug in one end of the F-F LVDS cable to LVDS IN of the ACPMB-78Z module.
- 2. Unplug the factory LVDS connector at the back of the headunit and plug it to the male end of the M-F LVDS cable.
- 3. Plug in the female LVDS connector of the F-F LVDS cable to LVDS OUT of the ACPMB-78Z module.
- 4. Plug the other end of the F-F LVDS cable to the Pink LVDS connector behind the headunit.

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SMART-PLAY CONNECTION:



Recommended mounting location of the ACPMB-78Z modules is behind the glove box but the installer must use his own discretion.

- 1. Plug in the 6 pin video harness to the ACPMB-78Z module.
- 2. Connect the power wires of the Smart-Play module harness to the power wires provided by the ACPMB-78Z harness. Make sure to connect the RED wire of the Smart-Play harness to the PINK wire (Power Out 1).
- 3. Route the RCA cable of the USB-3.5 (USB to Auxiliary Audio Adapter) from the center console (factory USB port location) towards the glove compartment. Plug in the audio RCAs of the Smart-Play harness to the female RCAs of the USB-3.5. Plug the USB-3.5 to the factory USB port. Set the radio to **AUX-IN** mode.
- 4. Plug in the 4 pin connector from the video harness to the UART port on the Smart-Play module.
- 5. Clip the micrphone to the desired location (we recommend above the A pillar) and route the microphone cable towards the glove compartment and plug it to the mic input of the Smart-Play module. Route the USB cable on the Smart-Play harness to an easily accessible location to plug in the smartphone's data cable.

OSD OPERATION:

The ACPMB-78Z has a built-in OSD menu to set features of the interface. To enter the OSD menu:

- 1 = Long press of the \uparrow button while in the factory screen mode
- 2 = Use the rotary knob to choose the options (up, down, left, right)
- 3 = Press the rotary knob to select option (enter)

NOTE: The screen has to be in the factory home screen mode for the OSD menu to pop up.





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Speed+Time Lines

Can

Cam V Class

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Logic

wer Out 1 wer Out 2

Tvpe

actory

Select OPT1 -> Power Out 1 -> Can

Graphic

Reset

OSD SETTINGS:

Smart-Play Setting

V. OGiC		
Input Opt1 Opt2	RVC FVC AV	On On SmartPhone
OptRVC OSD	Back	
Exit		

Select Input -> AV -> Smartphone

<u>Set</u>	Car	Type

OPT1	Car Type	A/B/C/CLA/CLS/E/G/GLA/GLC/	V. OGiC		
		GLE/GLS/SL/SLC/V/VITO/X Class	Input	Park Logic	Speed+Time
			Opt1	RVC Graphic	Lines

V. OGiC

Input

Opt1

Opt2 OptRVC

0SD

Info

Exit

V. Conc		
Input	Park Logic	Speed+Time
Opt1	RVC Graphic	Lìnes
Opt2	Power Out 1	Сан
OptRVC	Power Out 2	Cam
0SD	Car Type	V Class
Info	Factory Reset	
Exit	Back	

Camera Settings

Rear Camera Select Input -> RVC -> OEM / ON / OFF

Front Camera Select Input -> FVC -> ON or OFF

v <u>OGiC</u>		
Input Opt1 Opt2 OptRVC OSD Info Exit	RVC FVC AV Back	On On SmartPhone

Front Camera Setting

Select OPT1 -> Park Logic -> Speed+Time OPT1 -> Power Out 2 -> Cam

V. OGiC		
Input Opt1 Opt2 OptRVC OSD Info Exit	Park Logic RVC Graphic Power Out 1 Power Out 2 Car Type Factory Reset Back	Speed+Time Lines Can Cam V Class



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FRONT CAMERA CONNECTION:

Plug the front camera RCA video connector to the front camera input of the ACPMB-78Z module. Tap the camera power to the Power Output 2 (Green wire) on the ACPMB-78Z harness.



REAR CAMERA CONNECTION:

Plug the rear camera RCA video connector to the front camera input of the ACPMB-78Z module. Tap the camera power to the Power Output 2 (Green wire) on the ACPMB-78Z harness.



BLUETOOTH CONNECTION:

Connect the smartphone to the vehicle's Bluetooth for Handsfree connection. Handsfree audio will be heard through the factory Bluetooth system.







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Interactive Parking Guide Lines

The ACPMB-78Z includes an Interactive Parking Guide Lines function that is added to the aftermarket rear view camera. Use the OSD menu to activate this feature.

NOTE: The screen has to be in the factory home screen mode for the OSD menu to pop up.

V OGiC		
Input Opt1 Opt2 OptRVC OSD Info Exit	Park Logic RVC Graphic Power Out 1 Power Out 2 Car Type Factory Reset Back	Speed+Time Lines Can Cam V Class

Select Opt1 -> RVC Graphic -> Lines



The height and width of the interactive parking guide lines can also be adjusted in the OSD menu. To make adjustments, put the gear to reverse and enter the OSD menu. Select **Opt2 -> Line Height -> xx** (adjust line height) **Opt2 -> Line Width -> xx** (adjust line width)

The transparency of the interactive guide lines can also be adjusted in this menu. Select **Opt2 -> Line Opacity -> xx %**

Select **Back** to exit this menu

Image Settings

To change the image settings: Select OptRVC -> Brightness/Contrast/Hue/Saturation/ Sharpness

Select **Back** to exit this menu

OSD Settings

The size, position and timeout function of the OSD menu can be configured in the OSD option.

Select Back to exit this menu

V OGiC		
Input Opt1 Opt2 OptRVC OSD Info Exit	Cam Trigger Line Height Line Width Line Opacity Back	CAN 0 40%

V. OGiC		
Input Opt1 Opt2 OptRVC OSD Info Exit	Brightness Contrast Hue Saturation Sharpness Back	50 50 50 0

V OGiC		
Input Opt1 Opt2 OptRVC OSD Info Exit	Pos X Pos Y Size OSD TimeOut Back	10 10 Small 20

Once all the settings are configured in the OSD menu: Select Exit to leave the OSD menu



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 To enter and exit the AV (Smart-Play) mode, press the back button ¹ for 3 seconds. Press the ¹ button to toggle between the video inputs that are enabled.
 RVC -> FVC -> AV ->...



2. For a wired connection, plug in the smartphone's original charging/data cable to the USB port on the ACPMB-78Z harness. Image above shows the "Home Screen" for the Apple device once the smartphone is connected.

FOR WIRELESS CONNECTION





1. Using the MMI knob of the vehicle, navigate the cursor to the Bluetooth icon. Image above will appear on the screen the BT device name and pairing code (0000).

Wi-Fi

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2:49

Setting

Wi-Fi

Default

Default.5ghz

DIRECT-B9-HP OfficeJet Pro...

HP-Print-21-Officejet Pro 8600

DIRECT-I9MFC-L2740DW

Carplay_wifi

Bluetooth

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\$

2. Go to "Settings" then "Bluetooth" on your Apple device and connect to "CRUX Smart-Play XXXX".

3. the ACMB-78Z has connected via Bluetooth, it will also connect to wifi automatically.4. Use the MMI knob to navigate the cursor to the "BACK" button.



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3. Image above shows the "Home Screen" for Android devices once the smartphone is connected.

VEHICLE APPLICATIONS:

Mercedes Benz			
2015 - 2017	A-class (W176)	2017 - Up	G (W463)
2015 - 2018	B-class (W24)	2017 - Up	GL (X166)
2015 - Up	C-class (W205)	2015 - Up	GLA (X156)
2015 - 2018	CLA (C117)	2015 - Up	GLC (X253)
2015 - 2017	CLS (W218)	2015 - Up	GLE (C292)
2015 - 2016	E-class (W212)	2015 - 2018	ML (W166)
		2016 - 2018	SL (R231)
		2016 - 2018	SLC (R172)

SUPPORTED RADIOS:

COMAND Online NTG5/5.1, Audio20 NTG5/5.1 with 4pin HSD LVDS connector on the monitor



COMAND Online NTG5/5.1 with Touchpad



Audio20 NTG5/5.1 Central Controller



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