Cadillac Manual - Escalade 2016~ - CTS 2014~

- MODEL : ML-PAS-190402

- DATE : 2021.08.30

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1. Main Spec.

- 1. Input Spec. (MULTI VIDEO INTERFACE)
 - 1 x Digital RGB Input (Navigation System output)
 - 1 x Analog RGB Input (Navigation System output)
 - 1 x CVBS(REAR CAMERA) Input. (Rear camera source)
 - 1 x CVBS(FRONT CAMERA) Input. (Front camera source)
 - 1 x LVDS Input. (Car Command System)
- 2. Output Spec.
 - 1 x LVDS Output (LCD Operation)
 - 1 x Vertual Analog Touch (Navigation System source)
 - 1 x Uart Digital Touch (Navigation System source)
- 3. Power Spec.
 - Input Power : 8VDC ~ 24VDC
 - Consumption Power : 12Watt, Max
- 4. Switch Input mode
 - Possible to select CAR model while switching mode by DIP S/W
 - By button on the Commander in the car via CAN

2. Block Diagram





4. External Appearance



4. External Appearance



5. Connector Pin Assignment





6. Product Composition Option

* CarPlay Set Sales(option)



Interface 1 EA



Power Cable (500mm) 1 EA



AUX Cable 1 EA



ACC Board 1 EA





Microphone 1 EA

7. DIP S/W Setting

* ON : DOWN , OFF : UP

PIN	FUNCTION	DIP S/W Selection
1	NAVI	ON : Not Used OFF : Used
2	AV1 (DVB-T)	ON : Skipping Video OFF : Display
3	AV2 (DVD)	ON : Skipping Video OFF : Display
4	N.C	
5	N.C	
6		
7	CAR type SEL	Right Picture
8		

* DIP S/W Example



MALIBU2016_8.0" Vehicles without OEM navigation



MALIBU2016_8.0" Vehicles with OEM navigation



Cadillac XT5 2017~

7. DIP S/W Setting







MALIBU2016_8.0" Vehicles with OEM navigation



MALIBU2016_8.0" Vehicles without OEM navigation

8. Mode Change

* Screen switching method



DIP-SW 1 must be OFF in order to install Navigation



MENU	ChgMode Opt		NAVI
Config	FrontCam-Det	ExtWire	-
Option	FrontCam-RcvOpt		Os
Image	AV Out	USER	
Screen	B/T Call	On	
Parking	ChgMode Opt	Double	Long

* You can select between two methods when changing the screen by pressing HOME icon.

- Double: Press Home icon twice quickly.
- Long: Press and hold Home icon.

9. Touch Control

Touch control - Calibration



Press and hold for more than 11 seconds on NAVI, DVB-T, DVD screen. (Note that it only works the first time after switching screens)

OR

MENU	Calibration		NAVI
OSD	Factory Reset	Execute	Cancel
IR-Ctrl	Calibration	Execute	Cancel
Utility	Version	Version FDSHOOKR	
1. A.			

OSD menu -> Utility -> Calibration



+ Touch according to the shape coordinates.

9. Touch Control

DVB-T/DVD Control



OSD Control Board



MENU	When there is no OSD screen, pressing OSD ON When OSD screen is displayed, press OSD EXITT	
SEL	Item Selection, Value Selection	
UP	Item up Increase selected value	
DOWN	Item down Decrease selected value	

Mode State

MENU	Option		NAVI
Config	RearCam-Type	ExtDevice	
Option	RearCam-Power	Auto	
Image	RearCam-Det	GEAR	
Screen	AV Mode	Off	
Parking	FrontCam-Type	ExtDevice	

First Menu

Second Menu

Third Menu

OSD Option

First Menu	Second Menu	Third Menu	Description
	NAVI COM	HMS FINE :	Set up manufacturer of woodworking device for UART Touch use
		OFF	Disable feature
		OEM	Original Camera
	RearCam-Type	ExtDevice	Equipped with external camera
	RearCam-Power	ON	+ 12V continuous supply
Ontion		AUTO	+ 12V supply only in Rear camera mode
Option		OFF	+ 12V off
	RearCam-Det	PDC	Detected by CAN - It is operated by parking sensor
		GEAR	Detected by CAN - It works on reverse signal.
		WIRE	Detected by Rear-Det Wire
		OEM	Original Camera
	FrontCam-Type	ExtDevice	Equipped with external camera

MENU	RearCam-	Type NAVI
Config	RearCam-Type	OEM
Option	RearCam-Power	Auto
Image	RearCam-Det	GEAR
Screen	AV Mode	Off
Parking	FrontCam-Type	ExtDevice

OSD Option

First Menu	Second Menu	Third Menu	Description
		ON	+ 12V continuous supply
	FrontCam-Power	AUTO	+ 12V supply only in Front camera mode
		OFF	+ 12V off
	FrontCom Dot	CAN	Detected by CAN
	FrontCall-Det	WIRE	Detected by Front-Det Wire
Option	FrontCam-RcvOpt	ON	After RearCam shows FrontCam and returns to previous state
		OFF	Disable feature
	B/T Call	ON	Switch to OEM screen when you call
		OFF	Disable feature
	ChgMode Opt	Double	Press "HOME" button twice to switch screens
		Long	Press and hold the "HOME" button to switch screens

MENU FrontCam-Power		ower	NAVI
Config	FrontCam-Power	Auto	
Option	FrontCam-Det	ExtWire	
Image	FrontCam-RcvOpt		Os
Screen	SteeringWheelBtn	Left	
Parking	UI DVB-T(DMB)	On	

OSD Option

First Menu	Second Menu	Third Menu	Description
Option	Key Off	ON	Switch to OEM screen when key off
		OFF	Disable feature
	Reset	Execute	Option Menu all Reset

MENU	UI DYD		NAVI
Config	UI DVD	On	
Option	ScrChg-Call	Off	
Image	ScrChg-Climate	Off	
Screen	ScrChg-Audio-Vol	Off	
Parking	NAVI COM	Off	
MENU	Reset		NAVI
MENU Config	Reset Reset	Execute	NAVI Cancel
MENU Config Option	Reset Reset	Execute	NAVI Cancel
MENU Config Option Image	Reset	Execute	NAVI Cancel
MENU Config Option Image Screen	Reset	Execute	NAVI Cancel

* Bluetooth Screen switching method

MENU	B/T Call		NAVI
Config	FrontCam-Det	ExtWire	
Option	FrontCam-RcvOpt		Os
Image	AV Out	USER	
Screen	B/T Call	On	Off
Parking	ChgMode Opt	Double	<u>NA</u>

Disable Bluetooth Phone

MENU	B/T Call	NAVI
Config	FrontCam-Det	ExtWire
Option	FrontCam-RcvOpt	Os
Image	AV Out	USER
Screen	B/T Call	On Off
Parking	ChgMode Opt	Double

Bluetooth Phone Usage



OSD Option -> FrontCam-RcvOpt

Front Camera Auto Mode

- 0 second = FrontCam-RcvOpt menu OFF
- 1~30 second = FrontCam-RcvOpt menu ON & time control

MENU	FrontCam-Rev	7Opt NAVI	MENU	FrontCam-Rev	70pt l
Config	FrontCam-RcvOpt	Os	Config	FrontCam-RcvOpt	
Option	SteeringWheelBtn	On	Option	SteeringWheelBtn	On
Image	UI DVB-T(DMB)	On	Image	UI DVB-T(DMB)	On
Screen	UI DVD	On	Screen	UI DVD	On
Parking	ScrChg-Climate	On	Parking	ScrChg-Climate	On



30s

* Channel button



* Press the Up button to switch to the OEM screen for 3 seconds and return.



- To use this function, turn it ON.
- Press the "BACK" button for 7 seconds to display "Auto Return: On" message.
- Press again for 7 seconds to display "Auto Return: Off" message on the screen.



Im

NAVI-RGB menu

First Menu	Second Menu	Third Menu	Action	
Image	Brightness		Adjust the value of brightness	
	Contrast		Adjust the value of contrast	
	Color-RED		Adjust the value of RED	
	Color-GREEN		Adjust the value of GREEN	
	Color-BLUE		Adjust the value of BLUE	
	Reset	Excute	Option Menu all Reset	

DVD,DVB-T(DMB),NAVI-AV,REAR,FRONT menu

First Menu	Second Menu	Third Menu	Action		
	Brightness		Adjust the value of brightness		
	Contrast		Adjust the value of contrast		
Image	Saturation		Adjust the value of Saturation		
	Hue		Adjust the value of Hue		
	Sharpness		Adjust the value of Sharpness		
	Reset	Excute	Option Menu all Reset		



<< Brightness >>



<< Contrast >>



<< Saturation >>

OSD – Screen Menu

First Menu	Second Menu	Third Menu	Description	
Screen	Horizontal		Output screen horizontal movement	
	Vertical		Output screen vertical movement	
	Scale X Up		Reduce / increase output	
	Scale X Down		screen width	
	Scale Y Up		Reduce / Increase Output	
	Scale Y Down		Screen Height	
	Reset		Screen menu all reset	

MENU	Horizontal N		
Config	Horizontal	50	
Option	Vertical	50	
Image	Scale X Up	50	
Screen	Scale X Down	50	
Parking	Scale Y Up	50	

OSD – Parking Menu

First Menu	Second Menu	Third Menu	Description	
		ON	Show OPS	
	OPS Display	OFF	Do not show OPS	
Parking	Warnings Lang		Set warning text language	
	Horizontal		Moving a parking line horizontally	
	Vertical		Moving a parking line vertically	
	Transparency		Parking line transparency	
	Reset		Parking menu all reset	

OSD Parking – OPS Display On / Off

MENU	OPS Display REAR			
Config	OPS Display	On	Off	
Option	Warnings Lang	English		
Image	Horizontal	DESCRIPTION OF TAXABLE	50	
Screen	Vertical	Internet and a second	50	
Parking	Reset	Execute	Cancel	

MENU	OPS Disp	OPS Display			
Config	OPS Display	On	Off		
Option	Warnings Lang	English			
Image	Horizontal		50		
Screen	Vertical	IENNERSKE COM	50		
Parking	Reset	Execute	Cancel		



OPS-PDC ON Screen



OPS-PDC OFF Screen

* Even if you do not have a sensor, you can not see the parking sensor in the above figure even if you control the OSD board.

OSD Parking – Guide line On / Off



Parking Line ON Screen

Parking Line OFF Screen

OSD Parking – Change warning language

MENU	Parking / Warnings Long			
Config	OPS Display	English		
Option	Line Display	中文		
Image	Warnings Lang	한국어		
Screen	Horizontal	台湾		
Parking	Vertical	Россия		



OSD Parking – Adjust position of parking guide line

MENU Config Option Image Screen Parking	ParkingREAROPS DisplayOffLine DisplayOnWarnings LangEnglishHorizontal50Vertical50	Possible to adjust the position of parking guide line by Keypad in Horizontal / Vertical menu * Pressing this Horizontal / Vertical menu, The OSD screen automatically disappears. Please adjust from the parking line Screen.
		Press "UP" button
	Press "MENU" button	Press "SEL" button
		Press "DOWN" button

OSD – OSD Menu

First		Third		MENU	Horizonta	1	DVB-T
Menu	Second Menu	Menu	Description	OSD	Horizontal		50
Tiena		Пспа		IR-Ctrl	Vertical		50
	Horizontal	valuo	OSD Menu Horizontal Shift	Utility	Display Time		10s
	TIONZONIA	value			Transparency		- 30
					Language	English	
	Vertical	value	OSD menu vertical Shift	MENU	Reset		DVB-T
	Display Time	value	OSD Menu Display Time (in seconds)	OSD	Reset	Execute	Cancel
050				IR-Ctrl Htility			
030	Transparency	value	OSD menu transparency	othicy			
	Папэрагенсу	value				J.	
	Language		OSD menu display language				
	Lunguage						
	Reset	Execute	Initialize OSD settings				
	Reset	Execute	Inddize COD Settings				

* IR learning function



 $\ensuremath{^*}$ In order to work with the IR learning function, a separate IR cable is required.

MENU	IR-Ctrl / DVB-T(DMB) NAVI							
OSD	DVB-T(DMB)	Sel Learn Cancel						
IR-Ctrl	DYD	Sys						
Utility	Carl States							
		and the second second						
MEATI	ID Chail / DUP							
MENU	IR-LTI / DVD	-I(DHD) MAYI						
OSD	All-Clear							
IR-Ctrl	POWER							
Utility	SCAN							
2	CH+	· · · · · · · · · · · · · · · · · · ·						
Canal State	CH-	2						

- 1. In DVB-T / DVD menu, select User in Sys (OSD list) or User (learned contents).
- 2. Select Learn from the OSD menu.

3. Before using IR learning function, select All-Clear to delete existing stored data.

MENU	IR-Ctrl / DVB-T(DMB)	DVB-T					
OSD	New Code:						
IR-Ctrl	Cfm Code:						
Utility							
2/ -	Save Clr	Cancel					

4. Press the remote control button to be used in each ICON once in New Code, press once again in Cfm Code to confirm it is the same and save it.

OSD Utility

First Menu	Second Menu	Third Menu	Description	MENU Utility		N	AVI
				OSD IB-Ctrl	Factory Reset Calibration	Execute Car Execute Car	ncel ncel
	Factory Reset	Execute	Initialize all settings	Utility	Version	FDS302KRX-1'	71004
Utility	Calibration	Execute	Run Calibration mode				
	Version		FDS302KRX-171004 (Check for future upgrades)				
	Last Source	: <u>FDS302KRX-</u>	 Software Version Software Month Software Year Special Version National : CN=CHINA, K Hardware Version PIP model : S3=Sync3, P Motor model : FD=FORE 	R=KOREA, JP P=PIP, LV=LV D, BM=BMW,	=JAPAN, US=Unite /DS BE=BENZ, MA=MA	d States ASERATI, LX:L	EXUS

11. Install Manual

1. Installation LVDS connection without OEM Navigation



11. Install Manual

2. Installation LVDS connection with OEM Navigation



11. Install Manual

3. Installation CarPlay



12. Q & A

- 1. Check the LED status first when interface failure..
- If there is no abnormality after the power is applied, the green LED flashes in units of 1 second.
- If the red LED flashes for 1 second, there is no.
- If the red LED is on continuously, the interface itself is bad.
- If nothing turns on, check that the power and CAN signals are properly connected
- 2. Q : When the screen turns black
 - A : LVDS cable itself is bad or bad contact.
- 3. If you find any symptoms with these symptoms, please contact your distributor