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# Installation manual (LVTX-1CH-Ford Explorer)

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# Warning / Caution



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## **1.1 Main Specifications**

- 1. Car Compatibility Ford Explorer 2014~
- 2. Components Multimedia Interface \* 1EA Sub-board \* 1EA
- 3. MULTIMEDIA INTERFACE INPUT
  - 3 \* A/V input (video external input)
  - 1 \* CVBS(Rear Camera) input
  - 1 \* Analog RGB input (Navigation system)
  - 1 \* LCD input (Car system input
- 4. MULTIMEDIA INTERFACE OUTPUT
  - 1 \* LCD OUTPUT(LCD)
  - 1 \* Audio OUTPUT
  - 2 \* CVBS OUTPUT
- 5. POWER Input Power : 8VDC ~ 16VDC Consumed Power : 4WATT (Max)
- 6. Switch input modes
  - External display skip function
    - : Through DIP switch, can control each video input
    - Through remote control and Toggle, can change input modes
    - Enable to switch modes with OEM buttons

### **1.2 Features**

- Easy Installation with a Plug & Play(Supply with LVDS cable)
- Able to adjust DVD, NAVI display on screen
- Add "SAFE" feature (Blocking Video output in driving)
- Screen display for Convenience oriented users

## 1.3 System Diagram



### **1.4 Component**



## **1.5 Exterior**



Dimension

Width 125mm Length 105mm Height 21mm

 $\textcircled{1} \mathsf{LED}$ 

- 2 POWER
- 3 RGB IN-2
- ④ R-CAM
- (5) AV(IN/OUT)
- 6 DIP Switch
- ⑦ TOUCH OUT TO NAVI
- 8 LVDS OUT
- ⑨ COMMAND\_IN
- 10 LVDS IN
- 1) T/S OUTPUT
- 12 LCD\_OUT
- 13 T/S INPUT



## 2.1 Diagram



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## 2.2 Cautions before Installation

- Ignition key should be taken off before starting installation, interface power connection must be the last step in installation.
- Power cable should be separated when connecting interface.
- Should be no any electronic devices or magnetic pole around installation place.
- All steps of installation should be done by well-trained specialist.
- Dismantling without manufacturer's permission can not be guaranteed, (No permission to break attached label on the board.)
- Kindly check all parts are in the box, when receiving the product, if anything missing, inform to the supplier or manufacturer.
- According to our sales policy, any problems caused by user's mistake, careless can not be guaranteed.
- It may not work on a camera with 12V

## 2.3 Installation / CAN Wires

 You will be able to find OBD port underneath a steering wheel.
 Please connect CAN HIGH in power cable to the port number #6 in OBD CAN LOW in power cable to the port number #14 in OBD





## 2.3 Installation



1) Please dismantle a monitor and disconnect LCD and cables.



2) A photo after disconnecting cables



3) Unscrew bolts shown in dotted line

## 2.3 Installation



4) Put supplied bracket and subboard as left photo.



68P FFC → COMMAND\_IN 4P FFC → T/S OUTPUT



5) Please connect the opposite side of 68pin FFC to OEM board.



6) Please connect the opposite side of 4Ppin FFC.

## 2.3 Installation



7) Please refer to the left photo.





Please connect ground cable as photo.



9) Please cut red marked part to place LVDS cable.



## 2.3 Installation







11) This is after cutting metal.



12) Please cover LVDS with protection material and place it.

## 2.3 Installation



13) Please connect OEM cable to supplied sub-board.



14) Please assemble the monitor.※ Please connect the opposite side of LVDS to the sub-board.

## 3.1 DIP Switch



X ON : DOWN / OFF : UP

- ※ Example DIP S/W usage
- Input mode : A/V2, RGB(Navigation)
- External NAVI
- Rear Camera : Connect to CVBS4
- $\triangleright \text{ DIP S/W}: 1 \rightarrow \text{OFF}$
- $\triangleright$  DIP S/W : 2,3  $\rightarrow$  ON(Input Skip)
- $\triangleright$  DIP S/W : 4  $\rightarrow$  OFF (A/V3 USEABLE)
- $\triangleright$  DIP S/W : 5  $\rightarrow$  OFF
- $\triangleright$  DIP S/W : 6  $\rightarrow$  OFF
- $\triangleright$  DIP S/W : 7  $\rightarrow$  ON (Rear Camera USEABLE)
- $\triangleright$  DIP S/W : 8  $\rightarrow$  OFF (Default)

PIN	기능	Dip S/W 선택	
1	RGB Input Skip	ON : Skip RGB OFF : Display RGB	
2	A/V 1 MUTE	ON : Skip A/V 1 OFF : Display A/V1	
3	A/V 2 MUTE	ON : Skip A/V 2 OFF : Display A/V2	
4	A/V 3 MUTE	ON : Skip A/V 3 OFF : Display A/V3	
5	No use		
5	Mode switch with OEM buttons	ON : Steering wheel Left "OK" OFF: Steering wheel "Voice"	
7	Rear Mode	ON : External Rear Camera OFF : OEM Rear Camera	
8	ON : OEM Navigation OFF : External Navigation (Default)		

% 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.
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### 3.2 Remote Control



\* FACTORY MODE (Interface setting)
: Long-Press Left arrow button(◀) for 5sec
Or Press ▲ → ▼ → ▲ → MENU in order.

Key	Function
POWER & PIP	No use
MENU	Activating OSD menu
OK	Making a selection, changing image display
4	Upward
T	Downward
•	Leftward(Press 5sec to get in factory mode)
►	Rightward(press 2 sec to reset all the data about user environment)

## 3.3 OSD (On Screen Display) / Analog RGB Mode

Menu of NAVI		
IMAGE	BRIGHTNESS	
OSD	CONTRAST	
UTIL	SHARPNESS	
MENU to	Return SEL to Select/Save	

### 

- \* BRIGHTNESS
- \* CONTRAST
- \* SHARPNESS



### 

\*LANGUAGE : Set OSD language (Only support English and Chinese) \* TRANS : Adjust OSD transparency \*H-POSITION : Move OSD horizontally \* V-POSITION : Move OSD vertically

Menu of	NAVI
IMAGE OSD UTIL	FACTORY RESET
MENU to	Return SEL to Select/Save

### 🗆 UTIL

- \* FACTORY RESET
  - : Reset any changes in NAVI or DVD (Enable to reset color or OSD and unable to reset video position)

## 3.3 OSD (On Screen Display) / Video Mode

Menu of AV1			
IMAGE OSD UTIL	BRIGHTNESS CONTRAST SATURATION HUE SHARPNESS		
MENU to	Return SEL to Select/Save		

### IMAGE

- \* BRIGHTNESS
- \* CONTRAST
- \* SATURATION
- \* HUE
- \* SHARPNESS



### 

\* LANGUAGE : Set OSD language (only support English and Chinese)
\* TRANS : Adjust OSD transparency
\*H-POSITION : Move OSD horizontally
\* V-POSITION : Move OSD vertically



### 

- \* FACTORY RESET
  - : Reset any changes in NAVI or DVD (Enable to reset color or OSD and unable to reset video position)

### 3.4 Factory Mode

FACTORY mode – Press  $\blacktriangleleft$  button 2 seconds long on the remote control.

Menu of FACTORY		
IMAGE PARK UTIL1 UTIL2	H-POSITION V-POSITION	
MENU to Return SEL to Select/Save		

### 

H-POSITION : Move display horizontally V-POSITION : Move display vertically

Menu of	FACTORY
IMAGE	PARK ENABLE
PARK	PARK SETUP
UTIL1	REAR SELECT
UTIL2	SAFE ENABLE
MENU to	Return SEL to Select/Save

### D PARK

- \* PARK ENABLE : Activate Parking Guide line
- \* PARK SETUP : Adjusting the position of the parking guide line
- \* REAR SELECT : Choose rear camera recognition
  - LAMP : Detecting the rear view camera via rear lamp (Installer must connect "Rear-C" cable of the power cable to the rear lamp of the car.)
  - 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.)
- \* SAFE ENABLE : If your car is connected with CAN cable and it is in "ON" state, you can NOT watch DVD or A/V except original image or navigation while driving. At that time the screen get back to the main (default : OFF)

### 3.4 FACTORY MODE- IMAGE, PARK

#### FACTORY mode – Press button 2 seconds long on the remote control.

Go to Factory menu  $\rightarrow$  PAS SETUP and press OK to set up the position of H-POS and V-POS in order

#### □ H-POS



You can adjust H-Position with right and left arrow buttons



You can adjust V-Position with up and down arrow buttons

## 3.4 FACTORY MODE-UTIL1

Menu of FACTORY			
IMAGE	NAVI MODEL		
PARK	CAR MODEL		
UTIL1	AVOUT SELECT		
UTIL2	IR MEMORY		
	DVD TYPE		
	DTV TYPE		
MENU to Return SEL to Select/Save			

**UTIL1 – NAVI MODEL** Select Navi model

DEFAULT, KD900(WVGA) MD7000(WVGA), MYVI(WVGA) PAPAGO(WVGA) GN3000(WVGA) ICUBE(WVGA) ICUBE(WVGA) I-ONE(WVGA)

\* First, Set up the resolution of monitor and go to FACTORY/ IMAGE to set up the size and position of navigation. Menu of FACTORYIMAGE<br/>PARK<br/>UTIL1<br/>UTIL2NAVI MODEL<br/>CAR MODEL<br/>AVOUT SELECT<br/>IR MEMORY<br/>DVD TYPE<br/>DTV TYPEMENU to ReturnSEL to Select/Save

**UTIL1 – CAR MODEL** Selecting car model

- Explorer

- Edge, F350

Menu of FACTORY         IMAGE       NAVI MODEL         PARK       CAR MODEL         UTIL1       AVOUT SELECT			
UTIL2	IR MEMORY DVD TYPE DTV TYPE		
MENU to	Return SEL to Select/Save		

□ UTIL1 – AVOUT SELECT Selecting background sound after switching navigation or original mode

DEFAULT : Selecting AV sound which was played just before changing navigation or original mode from the AV mode

AV 1~3 : Sound of the selected AV source 1~3 support@car-solutions.com

### 3.4 FACTORY MODE-UTIL1

FACTORY mode – Press  $\blacktriangleleft$  button 2 seconds long on the remote control.

Menu of FACTORY		
IMAGE	NAVI MODEL	
PARK	CAR MODEL	
UTIL1	AVOUT SELECT	
UTIL2	IR MEMORY	
	DVD TYPE	
	DTV TYPE	
MENU to Return SEL to Select/Save		

### □ UTIL1 – IR MEMORY

In order to control remote control image on screen, You need to register remote control values of DVD, DTV

※ To use this function, select USER in DVD/DTV type

Menu of FACTORY			
IMAGE	NAVI MODEL		
PARK	CAR MODEL		
UTIL1	AVOUT SELECT		
UTIL2	IR MEMORY		
	DVD TYPE		
	DTV TYPE		
	Return SEL to Select/Ser		
MENU to	Return SEL to Select/Sav	e	



ſ	Menu of FACTORY			
	IMAGE PARK UTIL1 UTIL2	NAVI M CAR M AVOUT IR MEM DVD TY DTV TY	10DEL ODEL SELECT 10RY /PE PE	
	MENU to	Return	SEL to Select/Save	

□ UTIL1 – DTV TYPE Set up DTV model

### 3.4 FACTORY MODE-UTIL1

FACTORY mode – Long Press ◀ button on the remote control.

### UTIL1 – IR MEMORY

Menu of FACTORY				
IMAGE	NAVI MODEL			
PARK	AVOUT SELECT			
UTIL1	IR MEMORY			
UTIL2	DVD TYPE			
	DTV TYPE			
MENU to	Return SEL to Select/Save			

In IR MEMORY, you can choose AV source of DTV and DVD you want to use.



2 Picture above shows DVD remote control button value input, select menu you want to save. (To register DVD remote control button value, select IR MEMORY – DTV and follow below instructions.

#### Example)

- a. After select OK button on OSD menu, press intended I-Drive button
- b. Indicated part above will flicker, and press POWER on DVD remote control. (continue to next page)

### What is IR-MEMORY Mode?

**IR-MEMORY** is to allow touch screen to control other DVD or DTV (besides the existing,; for example : SANYO, NECVOX) by register remote control value.

## 3.4 FACTORY MODE-UTIL2

Menu of FACTORY		
IMAGE	CALIBRATION	
PARK	TOUCH ENABLE	
UTIL1	OEM SKIP	
UTIL2	HDMI SKIP	
	FACTORY RESET	
MENU to Return SEL to Select/Save		

UTIL2 – CALIBRATION Touch calibration

Menu of FACTORY					
IMAGE PARK UTIL1 UTIL2	CALIBRATION TOUCH ENABLE OEM SKIP HDMI SKIP FACTORY RESET				
	•				
MENU to	Return SEL to Select/Save				

### UTIL2 – OEM SKIP

Selecting whether to skip OEM mode after ignition

ON(Not use) / OFF(use)

Menu of FACTORY		
IMAGE	CALIBRATION	
PARK	TOUCH ENABLE	
UTIL1	OEM SKIP	
UTIL2	HDMI SKIP	
	FACTORY RESET	
MENU to Return SEL to Select/Save		

### UTIL2 – FACTORY RESET FACTORY MODE RESET



### UTIL2 – TOUCH ENABLE

Whether to activate remote image after touching the screen.

Menu of FACTORY			
IMAGE PARK UTIL1 UTIL2	CALIBRATION TOUCH ENABLE OEM SKIP HDMI SKIP FACTORY RESET		
MENU to	Return SEL to Select/Save		

**UTIL2 – HDMI SKIP** Selecting whether to use HDMI function or not

ON(Not use) / OFF(use)

# 4. Original button use



# 5. 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. Try to select "INITIAL" in OSD menu, 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 External image is not shown and but OEM image works fine.

A. Please swap the pin assignment of GVIF IN/OUT as follows, 123 <->456 and then swap purple cable with brown cable. after that please check if the image works fine.