Part Number 250-8532
Image Processor-Multiplexer

Please read this manual thoroughly before operating the device, and keep it for future reference.

V1.3
4. Accessories

<table>
<thead>
<tr>
<th>Power Cable</th>
<th>4PIN female RCA-male</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR Remote Control</td>
<td>Remote control (optional)</td>
</tr>
</tbody>
</table>

**Special Notice**

Accessories may vary due to different applications.

4.1 System connection

4.1.1 Connection

1. VCC (red wire)
   - Connecting to the anode of power
2. GND (black wire)
   - Connecting to the cathode of power
3. CAMER A L TRIGGER (white wire)
   - Left-turn trigger wire, connecting to the positive wire of left-turn light
4. CAMER A F TRIGGER (green wire)
   - Front trigger wire, connecting to the positive wire of brake
5. CAMER A R TRIGGER (blue wire)
   - Right-turn trigger wire, connecting to the positive wire of right-turn light
6. CAMER A B TRIGGER (brown wire)
   - Back-up trigger wire, connecting to the positive wire of back-up light
7. SPLIT (yellow wire)
   - Trigger wire for dual picture, connecting to the positive wire of gate control
8. EMPTY (orange Wire)
4.2 Camera pin-out definition

5.Parts Identification

Front

Back
6. Control Operation

6.1 Remote control operation

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⚠️ Special Notice

1. Please align the remote control with remote control sensor window on monitor when operating.
2. Never disassemble the remote control or allow it to drop, or become wet.
① MUTE
   Reserve

② POWER
   Press to turn on/off the camera power
   Auto switches to AV mode after 4 seconds when the cameras are turned off.

③ MENU
   Press to show menu or exit menu

④ CA/F
   Item on menu selection up
   Press to select the front view camera

⑤ CA/B
   Item on menu selection down
   Press to select the back view camera

⑥ CA/L
   Item on menu selection left
   Press to select the left view camera

⑦ CA/R
   Item on menu selection right
   Press to select the right view camera

⑧ MODE
   Display mode (dual, triple, quad, PIP) selection. Short press to compile the next character when changing the name of camera

⑨ SEL.
   Jump key selector. Short press makes entry into JUMP KEY setup in SYSTEM SETUP

⑩ P/N
   PAL/NTSC TV system selector

⑪ IMG
   Reserve

⑫ REST
   System reset. Press to resume factory setup default

⑬ AV
   Press to select or exit AV
6.2 Operation of wired control panel (touch buttons)

![Image of wired control panel]

**Special Notice**

This device is optional as per requirement.
① CAF
Item on menu selection up
Press to select the front view camera

② CAL
Item on menu selection left
Press to select the left view camera

③ CAR
Item on menu selection right
Press to select the right view camera

④ CAB
Item on menu selection down
Press to select the back view camera

⑤ AV
Press to select or exit AV

⑥ QUAD
Displaymode (dual, triple, quad, PIP) selection. Short press to compile
the next character when changing the name of camera

⑦ JUMP
Jump key selector. Short press makes entry into JUMP KEY setup in
SYSTEM SETUP

⑧ MENU
Press to show menu or exit menu

⑨ AUTO LIGHT CONTROL
Backlighting indicator lights up when it is getting dark.

⑩ IR
Align the remote control with this position for remote operation

⑪ CONNECTOR OF TOUCH-BUTTON CONTROL
Connects to the 5PIN port “KEY IN” on the device

⑫ SPEAKER SWITCH
Push up to cancel the warning tone; push down to turn on the “BEEP BEEP”
warning tone.

⑬ SPEAKER
"BEEP BEEP" sound window
7. Menu

Press MENU to display the master menu:

![Menu Interface](image)

7.1 CAMERA SETUP

1. Press CA F / CA B / SEL to select CAMERA LEFT, and then press CA L / CA R to enter into CAMERA SETUP:

![Camera Setup Interface](image)

2. Press CA L / CA R to select the camera to be set (LEFT, RIGHT, FRONT or BACK)
3. Press CA F / CAB / SEL to select BRIGHTNESS, and then press CA L / CA R to adjust the brightness level (0~100).
4. Press CA F / CAB / SEL to select CONTRAST, and then press CA L / CA R to adjust the contrast level (0~100).
5. Press CA F / CAB / SEL to select COLOR, and then press CA L / CA R to adjust the color level (0~100).
6. Press CA F / CAB / SEL to select HUE, and then press CA L / CA R to adjust the hue level (0~100).
7. Press CA F / CAB / SEL to select MIRROR, and then press CA L / CA R to select image display (OFF, H-V, V and H are optional as illustrated below:)

![Image Display Options](image)
8. Press CAF / CAB / SEL to select MOTO-CAM, and then press CAL / CAR to select ON or OFF. When it is ON, the motorized lens cover is open all the time; otherwise, the lens cover only opens when reversing trigger wire is activated.

7.2 CAMERA NAMING
Press MENU to go back to master menu, and then press CAF / CAB / SEL to select CAMERA NAME.

① press CAL / CAR to enter CAMERA NAME:

② Press CAF / CAB / SEL to select LEFT, RIGHT, FRONT or BACK (default name of each camera is also "LEFT", "RIGHT", "FRONT" and "BACK"). If you want to rename cameras, the letters can be revised by pressing CAL / CAR. Pressing CH- is to select the next letter in one word. There are totally 62 characters available.

③ Press CAF / CAB / SEL to select DISP, and then press CAL / CAR to select ON or OFF (default is ON). When it is ON, title of each camera is displayed; otherwise, it is not.

7.3 OSD SETUP
Press MENU to go back to master menu, and then press CAF / CAB / SEL to select OSD SETUP.
7.3.1 Rear gauge

1. Press CAL / CAR to enter OSD SETUP:

   ![OSD Setup Screen]

2. Press CAF / CAB / SEL to select REAR GAUGE, and then press CAL / CAR to select ON or OFF. When it is ON, there is distance grid displayed; otherwise there is not.

   ![ON and OFF Screens]

7.3.2 OSD lock

Reserve

![OSD Setup Screen]

7.3.3 Auto brightness setup

Reserve

![OSD Setup Screen]
7.3.4 Arrow setup
Press CAB / SEL to select TURN MARKER, and then press CAL / CAR to select ON or OFF. ON is applied when the monitor is for reversing, while OFF is applied for regular security.

7.3.5 Boundary color
Press CAB / SEL to select BOUNDARY, and then press CAL / CAR to select color of the boundary. WHITE, BLACK and GRAY are available.

7.4 System setup
Press MENU to go back to master menu, and then press CAB / SEL to select SYSTEM SETUP as below:
7.4.1 Record video output

① Press CAL / CAR to enter SYSTEM SETUP:

![SYSTEM SETUP](image)

② Press CAL / CAR / SEL to select REC-V OUT, and then press CAL / CAR to select LEFT, RIGHT, FRONT, BACK or QUAD. Thus the output image will be left, right, front, back or quad accordingly.

7.4.2 Auto Scan

① Press CAL / CAR / SEL to select SCAN as below:

![SYSTEM SETUP](image)

② Press CAL / CAR to select ON or OFF. When it is ON, cameras will be auto switched in the sequence of LEFT, RIGHT, FRONT, BACK, QUAD, LEFT, RIGHT... If there is no video input in any channel, the channel will be automatically skipped.

7.4.3 Auto switch time

① Press CAL / CAR / SEL to select SCAN DELAY:

![SYSTEM SETUP](image)

② Press CAL / CAR to set up auto switch time (1~60 seconds).

7.4.4 Jump key

Press CAL / CAR / SEL to select JUMP KEY, and then press CAL / CAR to set up display mode from “LEFT”, “RIGHT”, “FRONT”, “BACK”, “QUAD”, “L’R”, “F’B”, “L+R’F” and “B+L’R”. In this case, when monitor is out of “MENU”, pressing SEL will switch directly to the JUMP KEY image.
7.4.5 Switch-on mode
Press CA F / CA B / SEL to select P-ON MODE, and then press CA L / CA R to set up display from "LEFT", "RIGHT", "FRONT", "BACK", "QUAD", "L'R", "F'B", "L+R'F", "B+L'R" and AV when monitor is switched on.

Different display modes are as illustrated below:
7.4.6 DVD IMAGE

Press CAF / CAB / SEL to select DVD IMAGE, and then press CAL / CAR to select from "STA" (standard), "BRI" (bright) and "SOF" (soft). When the monitor is operated by remote control, on the screen will display "STANDARD", "BRIGHT", or "SOFT".

![System Setup](image)

7.4.7 TV system

Press CAF / CAB / SEL to select SYSTEM, and then press CAL / CAR to select "NTSC" or "PAL".

![System Setup](image)

E.G.:

![NTSC](image) ![PAL](image)

7.5 Trigger wire setup

Press MENU to go back to master menu, and then press CAF / CAB / SEL to select TRIGGER SETUP as illustrated below:

![Main Menu](image)

7.5.1 TURN IMAGE

Press CAF / CAB / SEL to select TURN IMAGE, and then press CAL / CAR to select the display mode at turning. When it is set to be DUAL, the images of left and right-side cameras will be displayed; when it is SINGLE, it shows image from either left or right-side camera.
7.5.2 Backup display
Press CAF / CAB / SEL to select REAR IMAGE, and then press CAL / CAR to select the display mode when backing up. If it is BACK, the monitor shows image from backup camera when reversing trigger is activated; if it is B+L'R, it shows images from back-up, left-side and right-side cameras on one screen when reversing.

E.G.: Images of BACK and B+L'R:

7.5.3 Trigger off delay
Press CAF / CAB / SEL to select DELAY, and then press CAL / CAR to set up the delay time (from 0~60 seconds) as illustrated below:

E.G.: If delay time is 5 seconds, the image will still be displayed for 5 seconds after the trigger wire is cut off.
7.5.4 Duplex split display
Press CAL / CAR to select LEFT, and then press CAL / CAR to select the camera to be displayed on the LEFT WARD. So does RIGHT.

<table>
<thead>
<tr>
<th>TRIGGER SETUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURN IMAGE</td>
</tr>
<tr>
<td>REAR IMAGE</td>
</tr>
<tr>
<td>DELAY</td>
</tr>
<tr>
<td>DOUBLE SPLIT</td>
</tr>
<tr>
<td>LEFT WARD</td>
</tr>
<tr>
<td>RIGHT WARD</td>
</tr>
<tr>
<td>AUDIO</td>
</tr>
</tbody>
</table>

1 Left, right, front or back-up camera could be either displayed on right ward or left ward on the screen. However, one camera could not be shown on both right ward and left ward. It could be only “RIGHT-LEFT”, “RIGHT-BACKUP”, “RIGHT-FRONT” etc.

2 Audio setup. The audio output is selectable from left, right, front and back camera.

7.6 Trigger Priority
Press MENU to go back to master menu, and then press CAL / CAR to select TRIGGER PRIORITY as illustrated below:

<table>
<thead>
<tr>
<th>MAIN MENU</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMERA</td>
</tr>
<tr>
<td>CAMERA</td>
</tr>
<tr>
<td>OSD</td>
</tr>
<tr>
<td>SYSTEM</td>
</tr>
<tr>
<td>TRIGGER</td>
</tr>
<tr>
<td>TRIGGER PRIORITY</td>
</tr>
<tr>
<td>RESET</td>
</tr>
</tbody>
</table>

1 Press CAL / CAR to enter TRIGGER PRIORITY:

<table>
<thead>
<tr>
<th>TRIGGER PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST PRIORITY</td>
</tr>
<tr>
<td>2ND PRIORITY</td>
</tr>
<tr>
<td>3RD PRIORITY</td>
</tr>
<tr>
<td>4TH PRIORITY</td>
</tr>
<tr>
<td>5TH PRIORITY</td>
</tr>
</tbody>
</table>

2 Press CAL / CAR to select 1ST TRIGGER PRIORITY, and then press CAL / CAR to set up which camera would be 1st trigger priority. Every priority level can be set up as LFET, RIGHT, FRONT, BACK or DUAL. Default priority settings are BACK, LEFT, RIGHT, FRONT and DUAL respectively from the first to the fifth.

7.7 Reset
Press MENU to go back to master menu, and then press CAL / CAR or RES on the remote control to select REST ALL. Any press on CAL / CAR will go back to default setting.