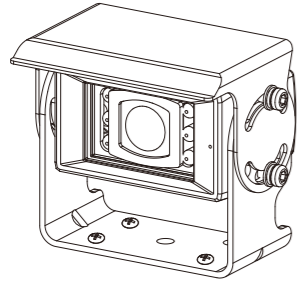










SV-690H-KIT

Owner's Manual














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- 3 CONNECTION WIRING**
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⚠ CAUTION BEFORE USAGE

-  1. PLEASE USE PRODUCTS AFTER READING MANUAL CAREFULLY FOR SAFE USAGE.
-  2. ASK EXPERIENCED TECHNICIAN FOR PRODUCTS INSTALLATION.
-  3. DO NOT OPEN OR MODIFY THE PRODUCTS. IT CAUSES PRODUCTS PROBLEM, AN ELECTRIC SHOCK & FIRE. ALSO, IT CAUSES WATERPROOF PROBLEM IN CASE OF WATERPROOF PRODUCTS. ASK YOUR DEALER FOR A/S IF YOU NEED REPAIRING.
-  4. DO NOT DROP OR GIVE EXTERNAL SHOCK TO THE PRODUCTS. IT CAUSES PRODUCT'S DISPLAY, FEATURE, MALFUNCTION OR COMPONENTS PROBLEM.
-  5. USE REGULATED VOLTAGE. MANUFACTURER DISCLAIM ALL THE RESPONSIBILITY FOR OVER VOLTAGE.
-  6. CONNECT MAIN POWER AFTER INSTALLATION.
-  7. USE SUPPLIED ACCESSORY & COMPONENTS. OTHERWISE, MANUFACTURER DISCLAIM ALL THE RESPONSIBILITY.
-  8. THE PRODUCTS IS DESIGNED FOR NORMAL CONDITION USAGE. PLEASE ASK OR DISCUSS WITH YOUR DEALER IF YOU USE THE PRODUCTS IN SPECIAL CONDITION. OTHERWISE, IT CAUSES PRODUCTS PROBLEMS IN ABNORMAL CONDITION USAGE.

⚠ SAFETY & CAUTION DURING THE USAGE

-  1. CHECK THE STATUS OF FIXED BRACKET BEFORE DRIVING. IT CAUSES PRODUCTS PROBLEM WHILE DRIVING. MANUFACTURER DISCLAIM ALL THE RESPONSIBILITY FOR USER'S FAULT.
-  2. DO NOT USE THE PRODUCTS IMMEDIATELY AFTER LEAVING IT ALONE FOR LONG PERIOD IN SUMMER OR WINTER.
-  3. DO NOT USE AND ASK YOUR DEALER IMMEDIATELY IN CASE OF BURNING SMELL OR OVER HEATING AT PRODUCTS.
-  4. DO NOT CUT THE CABLE, CUTTING CABLE CAUSES PRODUCTS MALFUNCTION OR WATERPROOF FUNCTION DEFECTS. OTHERWISE, MANUFACTURER DISCLAIM ALL THE RESPONSIBILITY.
-  5. MAKE SURE TO CONNECT POWER CABLE & CAMERA CABLE IN RIGHT DIRECTION. IT CAUSES A DAMAGE TO THE PRODUCTS IN CASE OF THE WRONG WIRE CONNECTION.
-  6. TIGHTEN CONNECTORS IN CASE OF CONNECTING EXTENSION CABLE. OTHERWISE, IT CAUSES CONNECTION PROBLEM OR WATERPROOF FUNCTION DEFECT ON PRODUCTS.
-  7. DO NOT WRAP THE PRODUCTS WHILE OPERATING. IT CAUSES PRODUCTS PROBLEM OR FIRE.
-  8. AVOID THE PRODUCTS IN ELECTROSTATIC CONDITION. IT CAUSES WRONG OPERATION.
-  9. DO NOT PILE UP HEAVY STUFF ON PRODUCTS. IT CAUSES PRODUCTS PROBLEM OR DAMAGE.
-  10. ASK YOUR DEALER AFTER DISCONNECTING POWER CABLE IN CASE OF FINDING ANY DEBRIS INSIDE OF PRODUCTS. IT CAUSES PRODUCTS PROBLEM OR AN ELECTRIC SHOCK.
-  11. DO NOT USE STRONG SOLVENTS SUCH AS THINNER OR BENZINE AS THEY MIGHT DAMAGE THE FINISH OF PRODUCTS OR PRODUCTS PROBLEM.

1 COMPOSITION

CAMERA

SUNSHIELD

MOUNTING BRACKET

L-Wrench (1)

T/H M5X16L STAINLESS BK (4)

P/H W/WASHER T5X16L STAINLESS, BK (4)

M4X10L W/SPRING FLATE WASHER, BK (4)

HEX M5XH5 STAINLESS (4)

20M CABLE (1) (OPTIONAL)

INSTRUCTION MANUAL

2 INSTALLATION

INSTALL CAMERA FIRMLY AT THE ADEQUATE POSITION OF VEHICLE AFTER CHECKING CAMERA'S FIELD OF VIEW. CAMERAS CAN BE INSTALLED AT SUITABLE POSITION OF VEHICLE'S REAR SIDE ACCORDING TO USER'S CONVENIENCE. ASK YOUR DEALER OR EXPERIENCED TECHNICIAN HOW TO INSTALL CAMERA & MONITOR DUE TO DIFFERENT TYPE OF VEHICLE.

- 1** Fix the mounting bracket to the vehicle.
- 2** Adjust the angle of the camera.
- 3** Adjust the angle of the sunshield and fix it to the camera.

2-1. FIX THE SUPPLIED MOUNTING BRACKET TO THE VEHICLE.
2-2. ADJUST ANGLE OF THE CAMERA.
2-3. ADJUST ANGLE OF SUNSHIELD AND FIX IT TO CAMERA. FASTEN THE SCREW FIRMLY AFTER ADJUSTING CAMERA & SUNSHIELD.

* ADJUST SUNSHIELD ANGLE TO AVOID LENS FIELD OF VIEW & SUN LIGHT.
* FASTEN THE SCREW FIRMLY TO AVOID PRODUCT'S DAMAGE OR OPERATION.

HOW TO ADJUST CAMERA SUNSHIELD & ANGLE

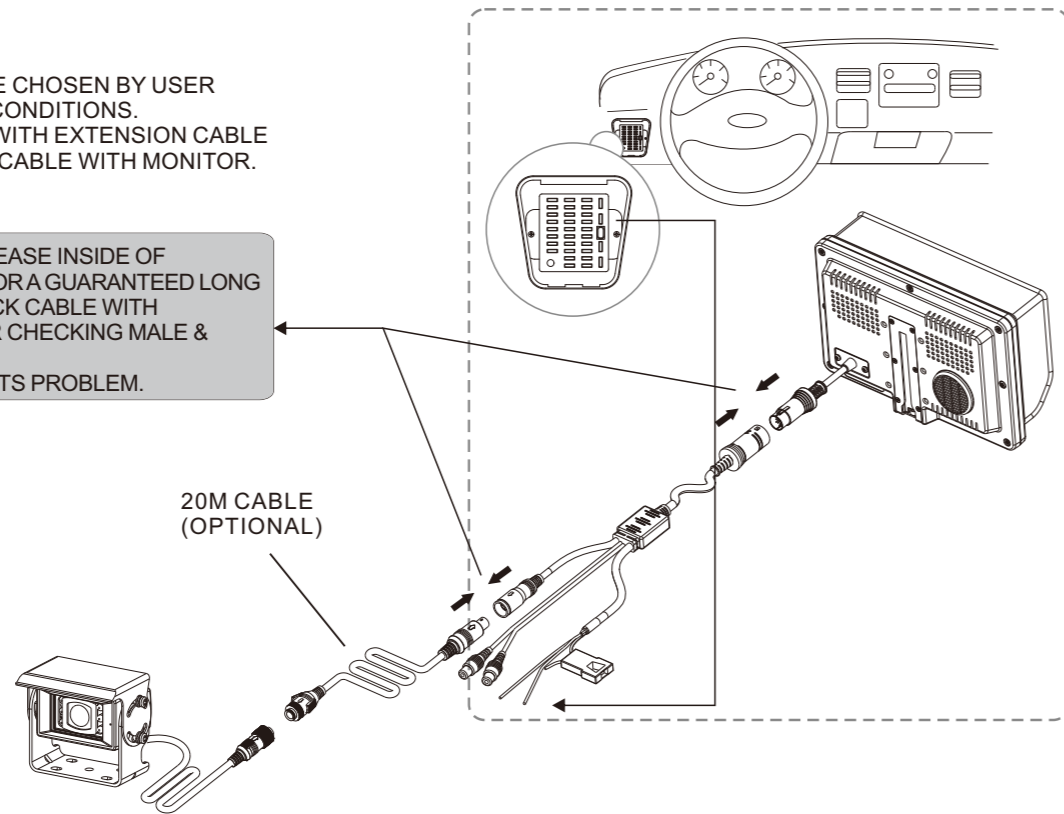
A RECOMMENDED GUIDE LINE FOR ASSEMBLING SUNSHIELD.
B USER CAN ADJUST THE INSTALLING ANGLE

3 CONNECTION WIRING

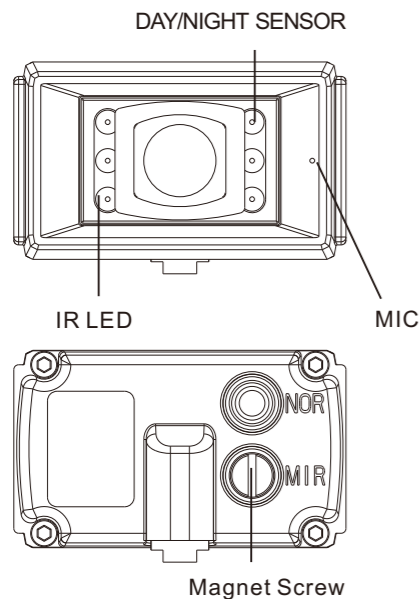
CONNECT CAMERA & MONITOR AFTER CHECKING SPECIFICATION OF MONITOR & EXTENSION CABLE. CONNECT POWER & GROUND WIRE OF MONITOR TO FUSE BOX OF VEHICLE WHEN YOU CONNECT MONITOR POWER.

* POWER CONNECTION SHOULD BE CHOSEN BY USER ACCORDING TO POWER SUPPLY CONDITIONS. CONNECT CAMERA BACK CABLE WITH EXTENSION CABLE AND THEN CONNECT EXTENSION CABLE WITH MONITOR.

* USE ACID FREE VASELINE OR GREASE INSIDE OF CONNECTOR BEFORE FIXATION FOR A GUARANTEED LONG LIFETIME. CONNECT CAMERA BACK CABLE WITH EXTENSION CABLE FIRMLY AFTER CHECKING MALE & FEMALE CONNECTOR. OTHERWISE, IT CAUSES PRODUCTS PROBLEM.



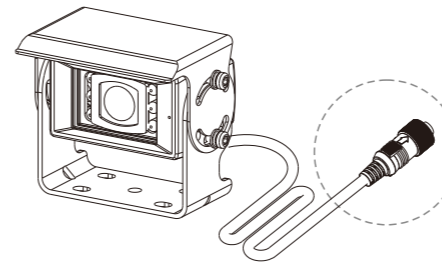
6 FEATURES



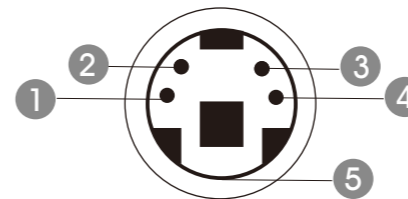
- 1/3" CCD High Quality Image Sensor (SONY SUPER HAD II)r
- Extra-wide Field of View
- Ultra Performance in Low Light With IR LED
- Normal/Mirror Image Switching(Patent Listed)
- Built in Microphone
- Vandal Resistant
- Automatic Heating Function
- Automatic Electronic Iris
- Wide Operating Temperature Range
- IP69K
- Optical Axis Correction

● **HOW TO CHANGE MIRROR & NORMAL IMAGE**
CHANGE MAGNET SCREW POSITION, MIR OR NOR USING DRIVER.

4 CAMERA INPUT CONNECTOR PIN DESCRIPTION

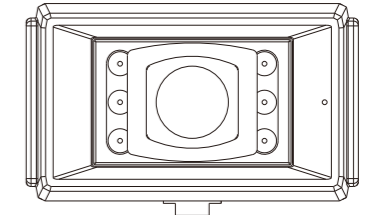


4P IP CONNECTER



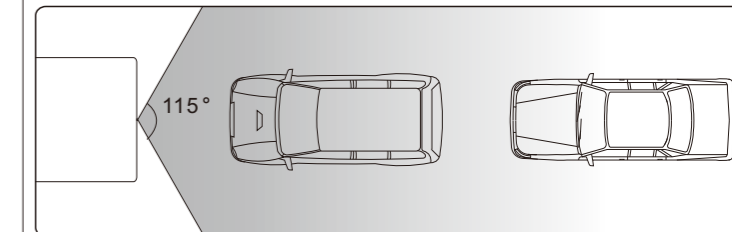
| Pin No. | Description |
|---------|--------------|
| 1 | Video Output |
| 2 | NC |
| 3 | Audio Output |
| 4 | Power DC 12V |
| 5 | Ground |

5 LENS SPECIFICATION

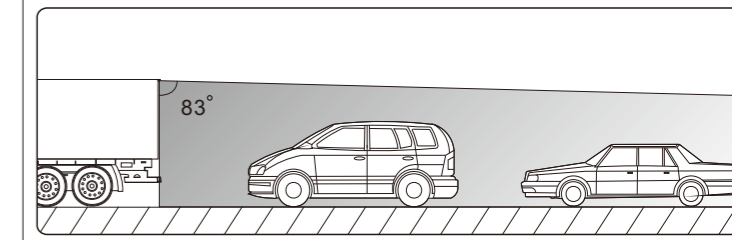


DIAGONAL ANGLE : 150 DEGREE
HORIZONTAL ANGLE : 115 DEGREE
VERTICAL ANGLE : 83 DEGREE

● HORIZONTAL FIELD OF VIEW

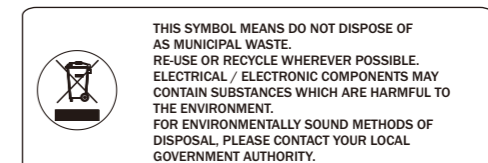


● VERTICAL FIELD OF VIEW



7 SPECIFICATIONS

| Model No. | SV-690H-KIT |
|-----------------------|---|
| Image | Interline transfertype CCD |
| Picture Element | NTSC: 410,000 pixels PAL: 470,000 pixels |
| Image Size | 1/3 Inch |
| Lens | Diagonal Angle : 150 degree |
| Synchronization | Internal |
| Horizontal Resolution | NTSC: More than 330TV lines PAL: More than 380TV lines |
| Min. Illumination | 0 Lux W/ IR LED |
| Signal To Noise Ratio | Better than 50dB(at AGC off) |
| Power Supply | DC 12V |
| Power Consumption | Max. 3.0W |
| Vibration | 7G |
| Impact | 100G |
| IP Factor | IP 69K |
| Operation Temp. | -30℃ ~ 80℃ (-22°F ~ 176°F) |
| Case Material | Window: Flat Glass Body: Aluminum |
| Weight | Approx. 210g |
| Dimensions | 69(W) X 41(H) X 51(D)mm |
| Supplied Accesories | Sunshield Mounting Bracket Screw Kits 20M Cable (Optional) Instruction Manual |



* Design and specifications are subject to change without notice.
* Patent registered.