



Patrol CCTV™

RVision Inc

2365A Paragon Drive
San Jose, CA 95131

www.rvisionusa.com

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660001-07

Patrol CCTV™



Installation – Operation
Care – Trouble Shooting
Manual

Mobile Vision System

Day/Night – Color/NIR Modes

RVision Inc 
Imaging Systems for Sight

WARNINGS

**READ COMPLETE MANUAL.
PERFORM PRE-OPERATIONAL CHECK.
DO NOT OPERATE WITHOUT TRAINING.**

INSTALLATION MAY NOT BE 'DO-IT-YOURSELF'

**DO NOT UNDERESTIMATE
DISTRACTION.**

STAY ALERT

USE WITH 12VDC NEGATIVE GROUND VEHICLES
OR APPROVED POWER SUPPLIES. INPUT
VOLTAGE 12-24VDC ONLY – 5AMPS.
UNPLUG WHEN NOT IN USE.

DO NOT EXCEED 10 lb OF FORCE ON JOYSTICK.

Patrol CCTV™ equipment complies with Federal Communications
Commission part 15, Class A, for EMI emissions.

TECHNICAL SUPPORT AND CUSTOMER SERVICE

Trouble & Problems:

1. Review trouble shooting, verify cables, and power.
2. Contact your local sales representative.
3. Contact Technical Support at:

RVision Inc
408-437-5777 Voice
408-437-9923 FAX
attention@rvisionusa.com

*Call for RMA number and form before shipping system for
repair. No systems are accepted in Receiving Department
without RMA number.*

Customer Service:

RVision Inc
408-437-5777 Voice - 8a.m to 6p.m. PST
408-437-9923 FAX

attention@rvisionusa.com

This warranty does not apply to uncrating, setup, installation, removal of the product or any of its components for repair or reinstallation of the product after repair.

This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of RVISION including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage or connection, defective rack or other mount not provided by RVISION, fire, flood or other Acts of God, or normal wear and tear. TFT Display component is warranted for 90 days.

This warranty is limited to either repair or replacement of the product by RVISION, the choice as to which is in the exclusive discretion of RVISION. The foregoing is in lieu of all other expressed warranties and RVISION does not assume or authorize any party to assume for it any other obligation or liability.

THE DURATION OF ANY WARRANTIES WHICH MAY BE IMPLIED BY LAW (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS) IS LIMITED TO THE TERM OF THIS WARRANTY. IN NO EVENT SHALL RVISION BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM (A) THE OWNERSHIP OR USE OF THE PRODUCT, OR FOR ANY MALFUNCTION, DELAY, FAILURE OR INADEQUACY OF THE PRODUCT DURING ANY USE AND CONDITIONS, WHETHER OR NOT AUTHORIZED BY FURNISHED INSTRUCTIONS; OR (B) ANY DELAY IN THE PERFORMANCE OF ITS OBLIGATIONS UNDER WARRANTY DUE TO CAUSES BEYOND RVISION'S CONTROL.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

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PACKING LIST

- 1. SEE pan/tilt/zoom camera
- 2. LOOK display/controller
- 3. Thule™ mount with Signal Cable
- 4. Power cable for cigarette lighter
- 5. Hex Wrench for Tamper Screw
- 6. Manual

TRAINING – SHORT COURSE

Read and understand complete manual.

Understand controls – Grip with right hand and use thumb.

Perform Pre-Operational Check List.

Operate from Co-Pilot seat for 8 hours.

Operate from Pilot seat with Co-Pilot for 8 hours.

DO NOT PAN & TILT WHILE VEHICLE IS MOVING.

RVISION LIMITED WARRANTY AND LIMIT OF LIABILITY

For a period of one (1) year from the date of purchase, RVISION warrants that each of the component parts of SEE™ will not malfunction, destruct, disconnect or fail to operate when operated properly according to furnished instructions. RVISION warrants that the SEE mount will not become disconnected from the rack, bar or other device to which the product is attached when mounted in accordance with furnished instructions; except that this warranty does not apply to disconnection resulting from impact to the product, mount, rack, bar or other mounting device or to the mobile site, motor vehicle, or stationary installation site by collision, traffic accident, vandalism, calamity, or Act of God. RVISION does not warrant the use of any particular rack or mount by any particular manufacturer for use in mounting the product to the motor vehicle or other mobile or stationary site. This warranty does not cover damages resulting from malfunction, defect, destruction, or failure of the rack, bar or other device to which the camera is mounted to a motor vehicle or other mobile or stationary site.

This warranty does not cover adjustment of customer-operated controls as explained in furnished instructions. RVISION makes no warranty (a) that a motor vehicle or any other mobile site may be operated safely and with due care by use of the product, whether or not explained in or authorized by furnished instructions, or (b) as to the frequency an operator may make viewing changes by manual selections on the LOOK display/control, or as to the frequency or length of continuous time, if any, an operator may view and concentrate mental attention on the LOOK control/display and contemporaneously operate the motor vehicle ~ or other mobile site to which it is installed ~ and at the same time operate the motor vehicle or other mobile site in a safe manner and with due care and circumspection under any driving, roadway, traffic or other conditions or circumstances.

RVISION does not warrant that it is lawful to operate the product installed on a motor vehicle while contemporaneously operating the motor vehicle on public streets and highways of any state or locality in the United States or in any other country.

PRE-OPERATIONAL CHECK LIST

1. Visually inspect camera and verify locking screw is tight and camera is seated on mount.
2. Visually inspect camera bezel and clean with tissue and water when required.
3. Visually inspect camera mount and verify system is secure. Grab camera and yank to test if system is secure.
4. Inspect cable at all pressure points for insulation breakage. Replace if outer material is compromised.
5. Start vehicle, apply power from cigarette lighter and witness power LED illuminated (green) and live video within 10 seconds.
6. Perform operational check:
 1. Pan left/right slow then fast.
 2. Tilt up/down slow then fast.
 3. Zoom in then out.
 4. Zoom in and cycle stability on/off for image lock.
 5. Adjust brightness and witness bright to black.
 6. Turn off autofocus and manually focus near/far.

System is ready.

This instruction manual provides installation and user instructions for our SEE camera and LOOK controller. Please read all instructions carefully.

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Some of our Available Parts:



SEE Camera



Coax Cable



Pwr Supply



3/16" Hex



RS 232



RS 232 and RS 422



Software Dev Kit



Look Controller



M3G Camera w/Illuminator

INSTALLING QuickDisconnect MOUNT ON THULE™ BAR



Quick Disconnect Mount Thule Rack or Bar Bracket

Slide QDM over bar to desired location.
Tighten four outside socket screws.
Center hole tapped for tripod.

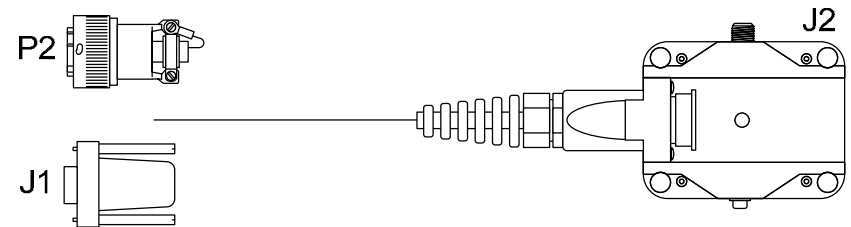
Place mount as close to the roof support for best stability. Use the included 3/16" hex wrench for the 4 socket head screws. After tightening, verify the mount is secure by tugging on the mount and try to remove from end of bar.

Removal of mount is accomplished by releasing the same four screws.

Camera Cable Pinouts (P2 Mil-Spec or Hidef to Shoe)

P2 Mil-Spec	J1 Hidef	AWG	Signal	J2 Shoe Pin
P2-A	J1-1	28	Video Ground	J2-1
P2-B	J1-2	28	Video	J2-2
P2-C	J1-3	20	SEE GND	J2-3
P2-D	J1-4	20	SEE Power	J2-4
P2-E	J1-5	28	TxD (RS232)	J2-5
P2-F	J1-6	28	RxD (RS232)	J2-6
P2-G	J1-7	28	Audio/Video2	J2-7
P2-H	J1-8	28	RS485- In a	J2-8
P2-J	J1-9	28	RS485- In b	J2-9
P2-K	J1-10	28	RS485-Out a	J2-10
P2-L	J1-11	28	RS485-Out b	J2-11
P2-M	J1-12	20	NIR GND	J2-12
P2-N	J1-13	20	NIR Power	J2-13
P2-P	J1-14	20	NIR GND	J2-14
P2-R	J1-15	20	NIR Power	J2-15

common power pins bussed together at both ends.
common gnd pins bussed together at both ends.



TROUBLE SHOOTING:

No Video Check red LED at cigarette lighter. If out, then check fuse in power adapter (near red LED) or vehicle fuse box. Use a 10Amp fuse.

Check green power LED on LOOK. If out, then check power cable connection. Wiggle power cord and look for intermittent green LED. If no green LED, disconnect Signal Cable to camera and re-apply power. Contact technical support.

Check pan and tilt operation then contact technical support.

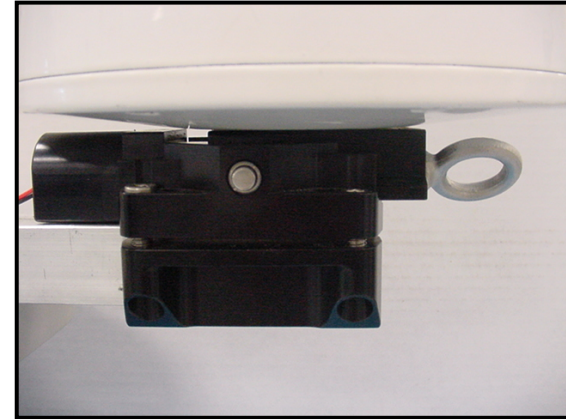
No Pan/Tilt Check cables (along route), power, and video. P/T not active until SEE completes calibration and any one of the buttons is depressed. Contact technical support.

Pan/Tilt Drifts Cycle power and do not touch joystick until the 'S' LED blinks twice. Joystick re-calibration.

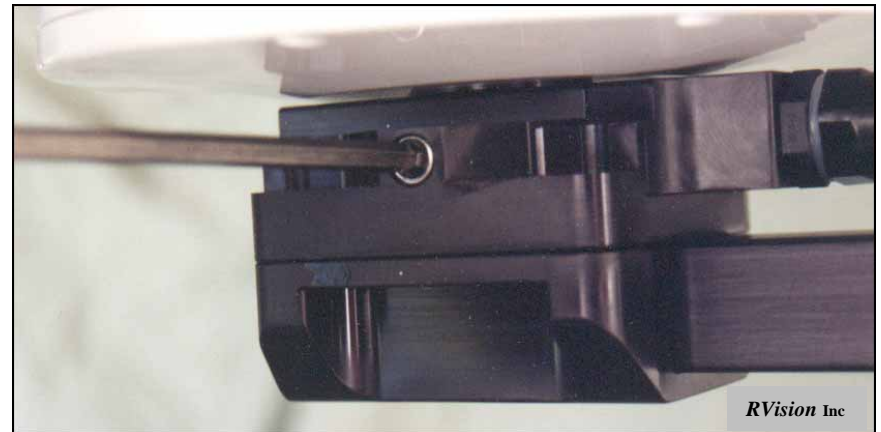
No Zoom Check cables (along route), power, and video. Contact technical support.

SEE MOUNTING

Position camera over mount and slide dovetail shoe into foot.



NOTE: Connector In First. Shoe snaps into place and retained.



ACTION – Tight Tamper Screw. Tug on camera and mount to test mechanical security.

SIGNAL CABLE INSTALLATION



Cable from mount wraps behind Thule™ rack clamp and along drivers door jam inside weather strip on GMC Suburban.

WARNING – No cable pressure points throughout the cable route. When door is closed, volumetric clearances for signal cable should be >0.3” diameter or >0.15” x >0.4” rectangular.



Tie-wrap cable under dash and away from feet and pedals.

Patrol CCTV Operation:

1. Perform Pre-Operational Check List.
2. Use gentle forces with joystick.
3. Familiarize yourself with camera pointing action, speed, and at different zoom settings. Push the joystick to left to move camera left and right for right. Push joystick forward to tilt camera down and backward to raise camera. Do not pan/tilt/zoom while vehicle is moving.
4. Twist Clockwise (CW) for Zoom in and Counter Clockwise (CCW) for Zoom out
5. Unplug cigarette power when operation is complete to avoid vehicle battery deep discharge.

TIPS:

1. Connect Power to LOOK before plugging into lighter.
2. Turn Stability ON when moving or to eliminate image jitter from rough engine idle.
3. Zoom OUT for fast pan and tilt.
4. Center object in display while Zooming IN.
5. **Looking to the rear is NOT MIRRORED.**
6. **DO NOT UNDERESTIMATE SYSTEM AS A DISTRACTION TO SAFE VEHICLE OPERATION.**
7. Turn AutoFocus OFF at low light conditions or when the vehicle is moving and viewing without changing Pan/Tilt/Zoom.

CARE:

1. Clean display with soft white cloth lightly moistened with water.
2. Clean camera bezel with soft white cloth lightly moistened with water.
3. **DO NOT POINT CAMERA DIRECTLY AT SUN.**
4. Perform Pre-Operational Check List on every mission.

LOOK OPERATION:

Pan/Tilt/Zoom Joystick Controls all three (and Cancels Preset Scanning)
 Move Stick to Left, Pans Left.
 Move Stick to Right, Pans Right.
 Move Stick Up, Tilts Up.
 Move Stick Down, Tilts Down.
 Twist Clockwise, Zoom In.
 Twist CounterClockwise, Zoom Out.

AutoFocus Three small buttons.
Manual Focus Active Top Red Button - Toggle On/Off
When A/F off Green LED will light when A/F On.
 Upper small white button – Far
 Lower small white button – Near

M Mode Toggle – Color/Near Infrared

Gear UP Up increases base Pan/Tilt speed. (3 step)
Gear DN Down decreases base Pan/Tilt speed.
Function 1 Go to Preset 1
Function 2 Go to Preset 2
Function 1+2 Start Preset Scan – LED Flashes Constantly
A/F Far Backlight mode – Compensates for bright spots
A/F Near Low Light Mode – Slow shutter, automatic

2ND Shift Key – Hold while pressing the following keys:
M Toggle NIR Illuminator (optional)
Gear UP Not Used
Gear DN Not Used
Function 1 Set Preset 1
Function 2 Set Preset 2
Display HI Image Stabilization
Display LO Not Used – Spare

P2 Junction Box (860015)

If you are using a P2 Junction box for installation, there will be an additional box (860015) between the camera and the Look controller and an extra cable between the junction box and the Look controller. Circular Mil-spec connectors are used for a rugged environment.

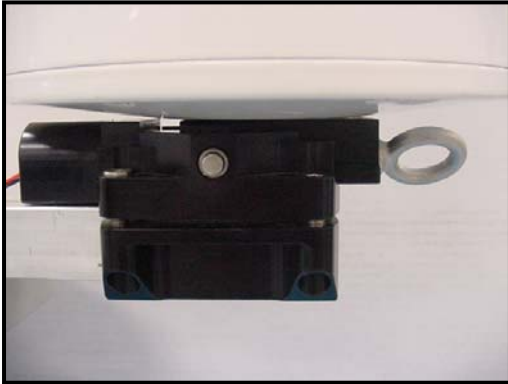


The Look and camera cable may be attached to either P2 connection on the junction box. Insert the connectors and twist clockwise until a 'click' is felt and the connectors are securely attached.

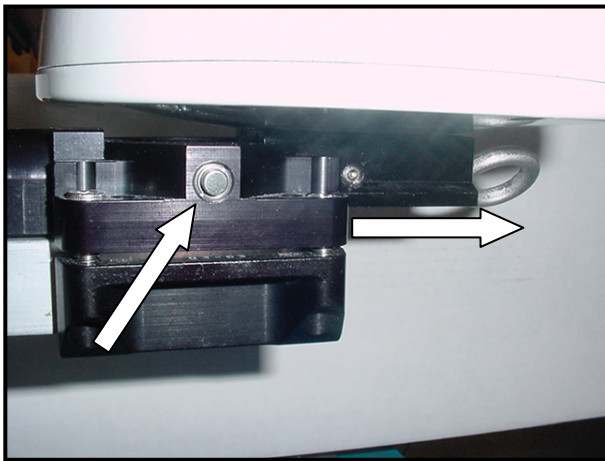


Attach power cable 700025 (center is positive) and witness the camera moving, and the lights on the Look controller flashing.

SEE REMOVAL



Depress silver button and slide SEE™ away from cable.



CAUTION – KEEP FIRM GRIP ON CAMERA, DO NOT DROP.

LOOK – Model 6



LOOK CONTROL DEFINITION

