INSTALLATION AND SERVICE MANUAL



PART NUMBER 10-00779-150

Intellitec's Aerial-Eye Camera System has been designed specifically for aerial truck applications. The system consists of a color video monitor / control station, and a pan and tilt mechanism containing two color video cameras. The monitor / control station is connected to the pan and tilt mechanism with a 0.195 inch diameter interconnect cable.

Features:

Telephoto & Wide angle video cameras
Heavy duty 16 gauge stainless steel construction
Water-resistant
Bright TFT video display
Anti Glare view screen
Large push buttons for easy use
Small diameter interconnect cable
Electronics designed for vehicle application
Vehicle Activity sensor limits unwanted battery drain
Display self heats if needed during extreme cold

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System Components::

 Aerial-Eye Camera
 p/n 00-00779-000

 Video Cable 150ft.- Camera
 p/n 11-00779-150

 Monitor
 p/n 00-00780-000

 Sun shield
 p/n 64-00780-000

 Power Cable 20ft.- Monitor
 p/n 11-00780-020

INSTALLATION

Camera and Monitor are to be mounted using the RAM Mount [™] System. RAM p/n 101 or Equivalent. *For details see www.ram-mount.com PH (206) 763-8361*

Step 1. Connect Video Cable 150 ft.- Camera, p/n 11-00779-150. One end of cable to back of Monitor p/n 00-00780-000,

the other end to back of Camera p/n 00-00779-000. *Note: Connectors on both ends are the same.

Step 2. Connect Power Cable 20 ft. - Monitor p/n 11-00780-020. Cable end with 2 pin connector plugs into the back of The Monitor. The other end of this Cable assy consists of 2 wires; one black, the other white.

Make the following connections:

Blk wire: Ground

White wire: 5 Amp fused +12V Battery

OPERATION

- **Step 1.** Monitor Open the sun shield by pulling handle out and lifting cover. Side flaps will rest on Monitor. *Note: Sun shield may be removed, retract latch pins to remove cover.
- **Step 2.** Start system by pushing the "ON" button on the monitor. LED indicator will illuminate. Note: If Camera is connected, a color screen will appear.

 Navigate camera direction using arrow buttons and "zoom" feature.

Optional

Splicing kit (11-00779-700 Aerial Camera Cable Splicing Kit) can be used to cut, shorten and splice a video cable.

Kit contains: Wiring Diagram/Instructions and hot-melt, glue-lined heat shrink tubing. Allows wires to be soldered together in the field, then to cover the splices and jacket with the tubing, in order to produce a weather-proof connection.

<u>Pigtail (11-00779-800 Video Cable Pigtail)</u> is 5 ft. Long with connector on one end. It can be used along with the splicing kit to repair a connection at either end of a video cable.

The <u>Sun shield</u> (cover) is part of the Monitor. Additional Sun shield may be ordered under p/n 64-00780-000.

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The Monitor / Control Station:

Monitor:

Construction: 16 gauge, brushed 304 stainless steelEnhanced 6.4 inch diagonal, TFT color display Specially developed to improve viewing in sunlight by increasing the display's brightness over standard displays and by enhancements that reduce reflected light.

The monitor's electronic system also senses extremely cold conditions, which may hinder the operation of the video display. During these conditions, the display will "self-heat" if the electronic sensor detects that the vehicle is in operation. This will ensure that the display is ready to be used when it is needed.

Control panel:

consists of a water-resistant, UV protected

Graphic overlay covering long life push-button switches; these switches provide the ability to remotely position the cameras. Four, large push-buttons, allow a gloved operator to point the camera up, down, right, left and zoom. LED's indicate if the unit is ON and whether the camera is in wide angle, or telephoto mode. All of the control information and video information is carried by a 0.195 inch diameter cable, using Intellitec's multiplexing control system.

Controller:

microprocessor based

Provides unique features that are specific to vehicle applications.

Extremely resistant to noise and does not produce any adverse electrical noise

Protected against load dump conditions, which are common on vehicles and can produce extremely high voltages.

To prevent excessive battery drain, in the event that the operator forgets to turn the unit off, a special sensor detects activity in the vehicle's electrical system and shuts the system down when the vehicle has been idle for 20 minutes. Pressing the "ON" button will bring the system back to life.

The Camera:

Water resistant enclosure with a pan and tilt mechanism

Wide angle and a telephoto color video camera.

When connected to the monitor / control panel, the operator can point the cameras in the required direction and select the wide angle or telephoto camera.

The Interconnect Cable:

Designed to be used on aerial ladder systems

Should function well with reels and other methods of managing cable.

Each end is terminated with a weatherproof connector.

Each unit is also provided with 20Ft of 2-conductor power cable, terminated at one end with a waterproof connector. Standard units will be supplied with 150 feet of 0.195 dia cable.

OEMs may specify lengths specific to their vehicles.

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Specifications:

Monitor

Enhanced Video Screen 6.4" TFT index matched, reflective polarizer

Format 112,320 Pixels
Estimated Light output 500 nits nominal
Dimensions 13" X 7.5" X 2.5"

Cameras:

Two (2) Color CMOS Pixels 307,200 each

Usable Illumination 0.5 LUX @ f/1.2

Automatic Electronic Shutter Speed 1/60 1/100,000

Camera 1: Telephoto lens Camera 2: Wide Angle lens

General Specifications:

Nominal Voltage 12 Volt DC Video NTSC Operating Temp -30 to +60C

Power Cable 20 ft; Black GND / White +12VDC

Short Circuit protected, 3 Amp manual reset circuit breaker

Mounting:

Camera and Monitor are to be mounted using the RAM Mount [™] System. RAM p/n 101 or Equivalent. *For details see www.ram-mount.com PH (206) 763-8361*

The RAM [™] mounting system, allows the camera and monitor to be mounted in a wide variety of locations and situations. These mounts are flexible and provide the ability for the operator to adjust the viewing angle.

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