

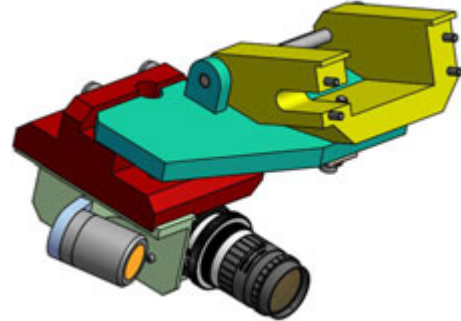
Lipstick Camera

User Guide for Fixed, Dual Station Models

P/N 22293052 & 22293052-0001

The fixed, dual station, lipstick color video camera enables the operator to view operations at a single valve station on an external monitor. The camera assembly can be mounted in either of two positions to view either station 1 or station 2.

Adjustments can be made to adapt camera alignment, angle, focal point, and lighting to current conditions. A camera lamp illuminates the viewing area for the lipstick video camera. The angle of the light can be changed, relative to the camera, by adjusting the position of the lamp mount.



Safety Notices



DANGER: Risk of Electrical Shock - Do Not Open. Do not attempt to disassemble the camera. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.



DANGER: Risk of Electrical Shock - Do Not Expose Camera to Moisture. Moisture can damage the camera and can create the danger of electric shock.



CAUTION: DO NOT bend, crush, or pinch the camera cable.



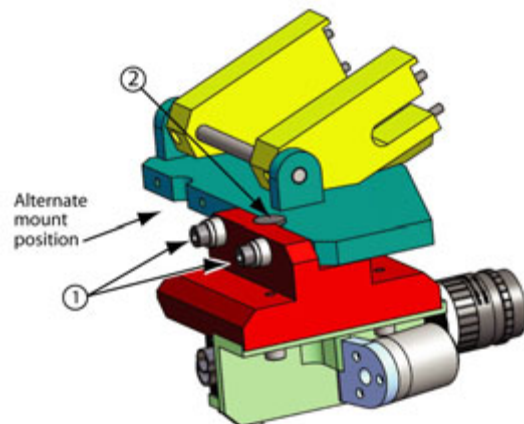
CAUTION: DO use caution when operating the camera in the vicinity of spot lights or other lights and light-reflecting objects. Never face the camera, whether in use or not, toward the sun.

Camera Mount Positions

This camera model can be mounted in one of two positions. The position shown here accommodates viewing valve station 2; use the alternate mount position to view valve station 1.

To change from one camera mount position to the other:

1. Remove the camera assembly by removing both mounting screws (Item 1).
2. Align the camera assembly in the desired position - the dowel pin (Item 2) should be firmly seated.
3. Secure the camera mount with both mounting screws.

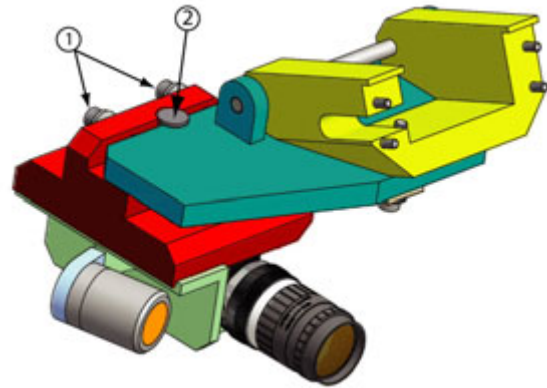


Adjustments

As needed, the camera assembly can be installed in either of two stations - one to view valve station 1, the other to view valve station 2. After repositioning the camera assembly in a new station position, some adjustments may be necessary: the angle and focal point of the camera may be adjusted, lamp angle can be altered, or camera position may be swiveled into precise alignment with the needle.

Camera-to-Needle Alignment

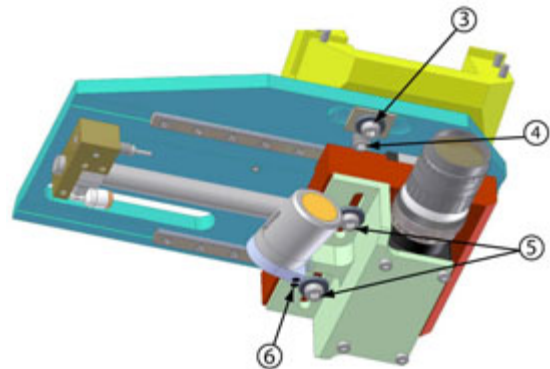
To adjust camera-to-needle alignment, swivel the camera assembly position around the swivel screw (Item 2) by loosening one of the two adjustment screws (Item 1) and tightening the other.



Camera Angle

Modifying the camera angle vertically requires adjustments to both the set screw (Item 4) and the swivel cap screw (Item 3):

1. To raise the camera angle, loosen the set screw (Item 4) and tighten the cap screw (Item 3).
2. To lower the camera angle, loosen the cap screw (Item 3) and tighten the set screw (Item 4).



Focal Point

To modify coarse focus, loosen the cap screws (Item 5) and reposition the camera forward or backward relative to the valve. Re-tighten the screws.

To modify fine focus, adjust the camera lens setting.

Lamp Angle

To adjust the angle of the camera lamp relative to the camera, loosen the set screw (Item 6) located at the base of the lamp mount, pivot the lamp until the desired position is achieved, and then re-tighten the set screw.

Maintenance - Daily

After turning off system power:

- Use a soft dry cloth to clean the camera body and lamp body.
- Use pressurized air spray to clean the surface of the camera glass. DO NOT scratch the surface of the glass.
- Use lens cleaning paper to clean the lamp lens.
- While the camera is not in use, keep the lens or lens cap on the camera to prevent dust or contamination from getting in the CCD area and scratching or damaging this area.

Specifications

Lamp

Power supply DC 12V, 50 mA

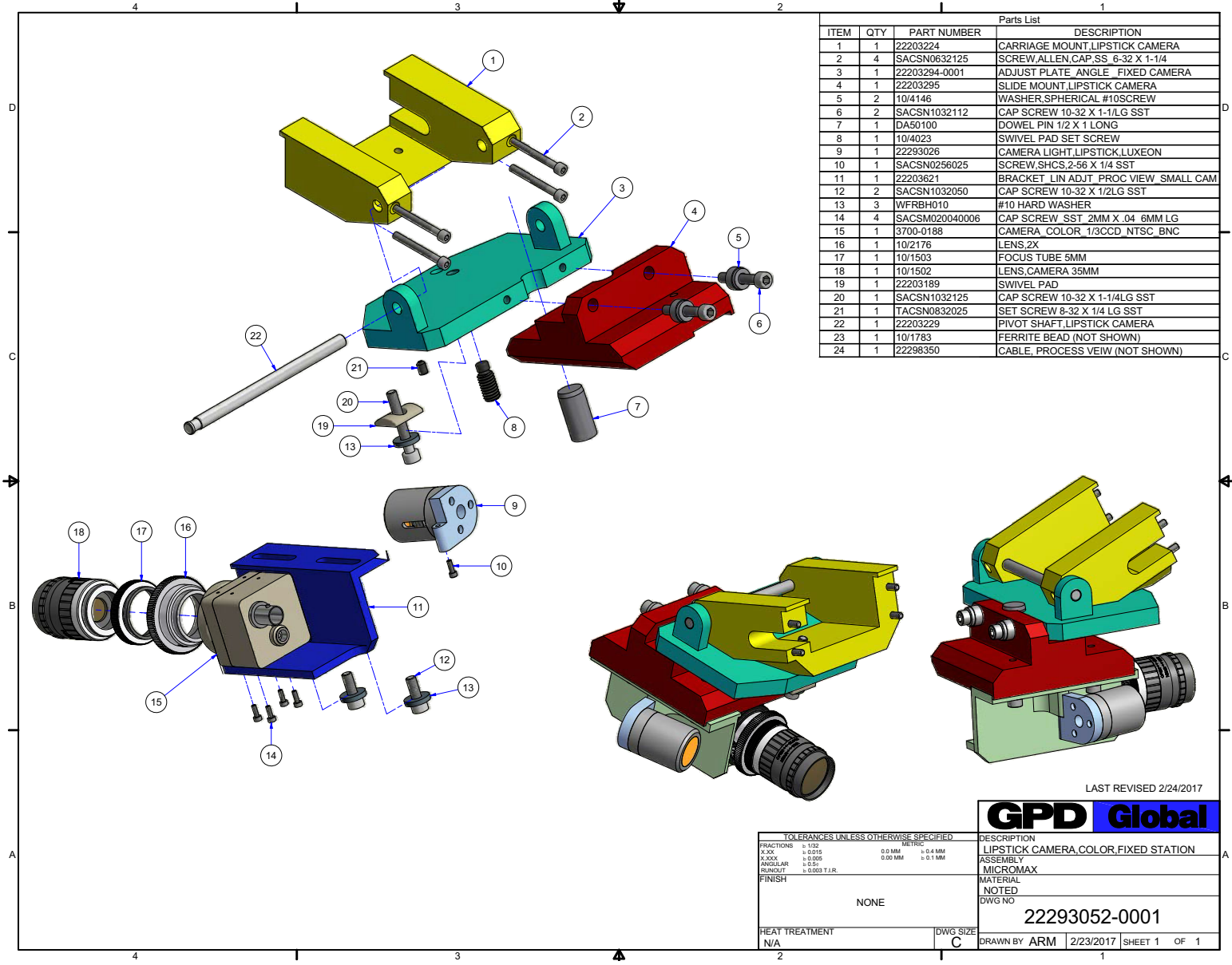
Video Camera (Compact NTSC Color CCD Video Camera)

Image sensor 1/3 inch Interline CCD, NTSC: ICX408AK
Effective Picture Element 768 (H) x 494 (V)
Chip Size 5.59 mm (H) x 4.69 mm (V)
Unit Cell Size 6.35 μ m (H) μ m x 7.4 μ m (V)
Pixel Clock Frequency . . 14.318 MHz
Horizontal Frequency . . 15.734 KHz
Vertical Frequency 59.94 Hz
Scanning Systems 2:1 interlace
Video Output Level 1.0 Vp-p / 75 Ohm
Horizontal Resolution . . 480TV Lines
Minimum Scene Illumination 0.17 Lux with F1.2 lens
S/N ratio More than 48 dB
y correction 0.45
White balance: Auto White Balance mode only
Aperture Correction. . . . ON
AGC ON
Pixel Blemish Correction ON
Flicker Compensation . . ON/OFF (DIP SW selectable)
Mirror Image ON/OFF (DIP SW selectable)
Back Light Compensation ON/OFF (DIP SW selectable)
Shutter Functions 1/60, Electronic Iris (DIP SW selectable)
Electronic Iris 1/60 - 1/100,000 sec
External Sync. Method . . None
Power Input Voltage . . . 10.5 - 14.0Vdd
Power consumption . . . 150 mA at 12Vdc
Dimensions 35 mm (W) x 42.5 mm (H) x 54.5 (D)
Weight, camera 63.5 g (2.24 oz)

Mechanical Drawings

- [Lipstick Camera, Fixed Station](#) (pg 4)
- [Lipstick Camera, Fixed Station, Modified Adjust Plate](#) (pg 5)

Lipstick Camera, Fixed Station, Modified Adjust Plate



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	22203224	CARRIAGE MOUNT LIPSTICK CAMERA
2	4	SACSN0632125	SCREW ALLEN, CAP, SS 6-32 X 1-1/4
3	1	22203294-0001	ADJUST PLATE ANGLE FIXED CAMERA
4	1	22203295	SLIDE MOUNT LIPSTICK CAMERA
5	2	10/4146	WASHER, SPHERICAL #10 SCREW
6	2	SACSN1032112	CAP SCREW 10-32 X 1-1/4 LG SST
7	1	DA50100	DOWEL PIN 1/2 X 1 LONG
8	1	10/4023	SWIVEL PAD SET SCREW
9	1	22293026	CAMERA LIGHT LIPSTICK LUXEON
10	1	SACSN0256025	SCREW SHCS, 2-56 X 1/4 SST
11	1	22203621	BRACKET LIN ADJT PROC VIEW SMALL CAM
12	2	SACSN1032050	CAP SCREW 10-32 X 1/2 LG SST
13	3	WFRBH010	#10 HARD WASHER
14	4	SACSM020040006	CAP SCREW SST 2MM X .04 6MM LG
15	1	3700-0188	CAMERA COLOR 1/3CCD NTSC BNC
16	1	10/2176	LENS 2X
17	1	10/1503	FOCUS TUBE 5MM
18	1	10/1502	LENS CAMERA 35MM
19	1	22203189	SWIVEL PAD
20	1	SACSN1032125	CAP SCREW 10-32 X 1-1/4 LG SST
21	1	TACSN0832025	SET SCREW 8-32 X 1/4 LG SST
22	1	22203229	PIVOT SHAFT LIPSTICK CAMERA
23	1	10/1783	FERRITE BEAD (NOT SHOWN)
24	1	22298350	CABLE, PROCESS VIEW (NOT SHOWN)

LAST REVISED 2/24/2017

<p>TOLERANCES UNLESS OTHERWISE SPECIFIED</p> <p>FRACTIONS ± .125 DECIMALS</p> <p>XXX ± 0.015 0.0 MM ± 0.4 MM</p> <p>X .XXX ± 0.005 0.00 MM ± 0.1 MM</p> <p>ANGULAR ± 0.5°</p> <p>FINISH ± 0.003 T.R.</p>		<p>DESCRIPTION</p> <p>LIPSTICK CAMERA, COLOR, FIXED STATION</p>
<p>FINISH</p> <p>NONE</p>		<p>ASSEMBLY</p> <p>MICROMAX</p>
<p>HEAT TREATMENT</p> <p>N/A</p>		<p>MATERIAL</p> <p>NOTED</p> <p>DWG NO</p> <p>22293052-0001</p>
<p>HEAT TREATMENT</p> <p>N/A</p>		<p>DWG SIZE</p> <p>C</p>
<p>DRAWN BY</p> <p>ARM</p>		<p>DATE</p> <p>2/23/2017</p>
<p>SHEET</p> <p>1</p>		<p>OF</p> <p>1</p>