

Camera Alignment

Necessary Test tools:

Oscilloscope / DVM / Dosimeter

25mm AL Block, 1.5mm Cu / Grayscale

Resolution tool

ATTENTION:

DO NOT adjust pots 3, 4, 26, 28, 29, 35, or 36

Check Dipswitches (S1 – S3) for correct settings

Check jumper setting for operation mode = position 1.

Saturation Adjustment:

Mode: Fluoro/kV-Auto

Fluoro with object in beam and measure voltage on ST 19 (1V=10% saturation).

Now adjust **P 34** for 20% (+5%) CCD saturation.

Dose Pre-adjustment:

Mode: Fluoro/kV-Auto

Place 25mm AL block and 1.5mm Cu on Generator and make mechanical iris adjustment to approximately 76 kV.

Focus Adjustment:

Mode: Fluoro/kV-Auto

Place Resolution tool on I.I. and adjust the aluminum ring at the Optic for best resolution.

Tighten the hex setscrew.

Camera Position (Mechanical):

Mode: Fluoro/kV-Auto

Loosen the 3 mounting screws and adjust H-position/V-position by moving the Camera until it is in center and tighten the mounting screws.

ABC-Gain:

Adjust **P 42** to the left limit (page 4).

Auto Circle Adjustment:

Mode: Fluoro/kV-Auto

To show circle set dipswitch S3/3 to OFF

Adjust circle size to 9 cm with **P 28** if necessary.

Circle contrast **P 24**

Circle shape **P 27**

Circle position **P 8** (Horizontal), **P 7** (Vertical)

AGC Offset:

Mode: Fluoro/kV-Auto

Place grayscale in the center of the beam

Adjust **P 37** that all gray steps are visible at the oscilloscope.

Black level 75 mV (± 20 mV)

White shall not be at the limit (no cut-off) 1000mVss (± 100 mV)

Vignetting:

Mode: Fluoro/ kV-Auto

Place 2mm copper filter on Monoblock and fluoro

adjust **P 17** (H-Tilt), **P 20** (H-Dome), **P 11** (V-Tilt), **P 14** (V-Dome)

Video Offset:

Mode: Fluoro/kV-Auto

Adjust **P 23** to Videobaseline (one line between 1. and 2. Sync pulse that is only separated by the video).

Dose Adjustment:

Mode: Fluoro/kV-Auto

Adjust Dose with mechanical iris adjustment

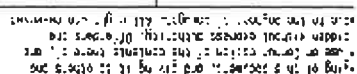
Adjust $\frac{1}{2}$ Dose with **P 33** to half the Dose adjusted before.

Measure			Grid		Decrease
0.55	uG/s	x	0.3 / 7.45	=	0.34y
0.275	uG/s	x	0.3 / 7.45	=	0.17y

Re-Check Focus, AGC offset and Saturation and re-adjust if necessary.

Amplitude Matching:

With **P 41** line attenuation's in the system (SERIES systems) can be compensated without changing other parameters.

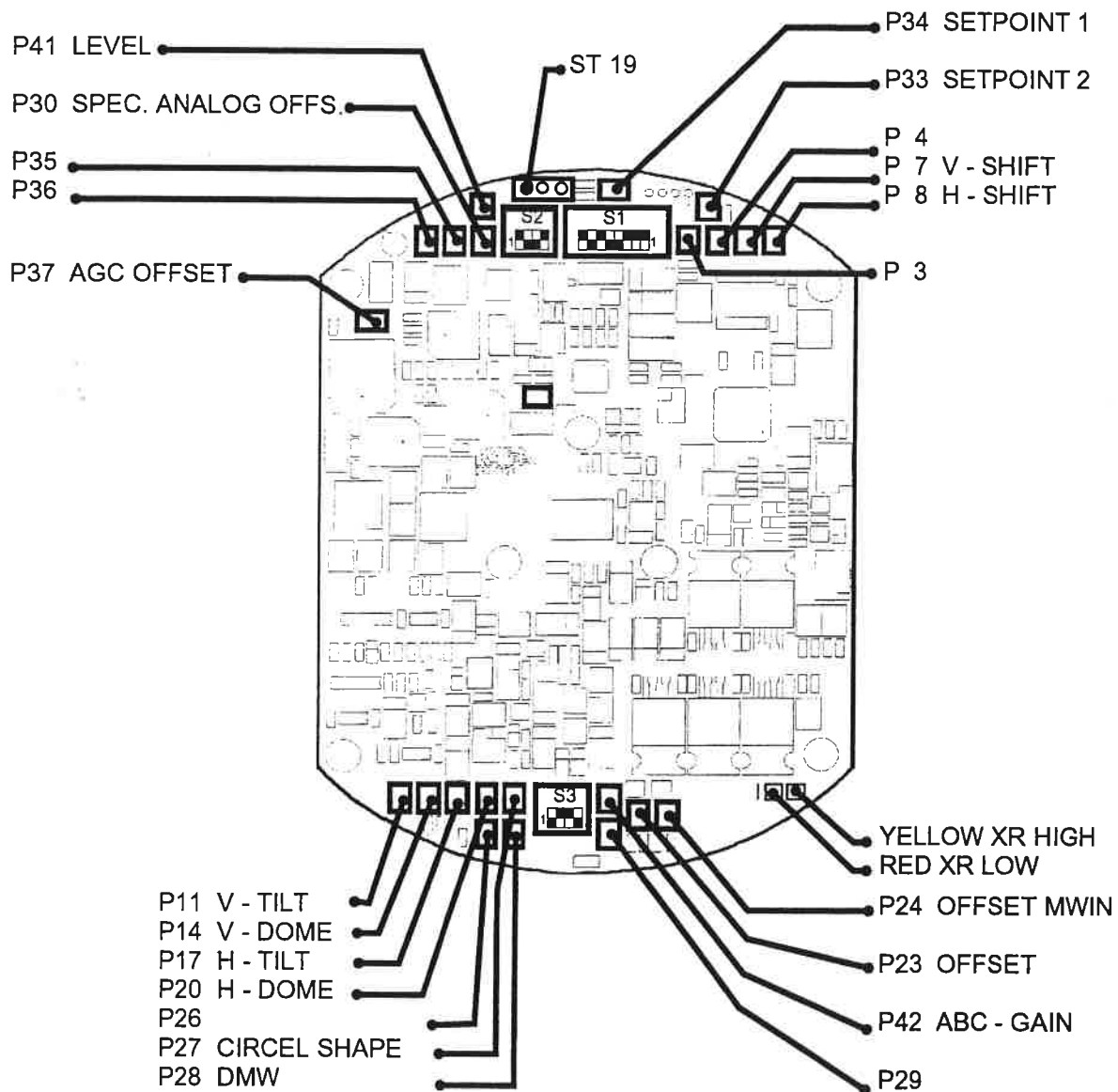


Zur Bildbrechung und Bildzerstreuung der KZ-Gehäuse (oben, für Image rotation und Image centering; die KZ-Gehäuse unten)

Κοιτάξτε το **Κόστος** (cost) και το **Ποσό** (amount).

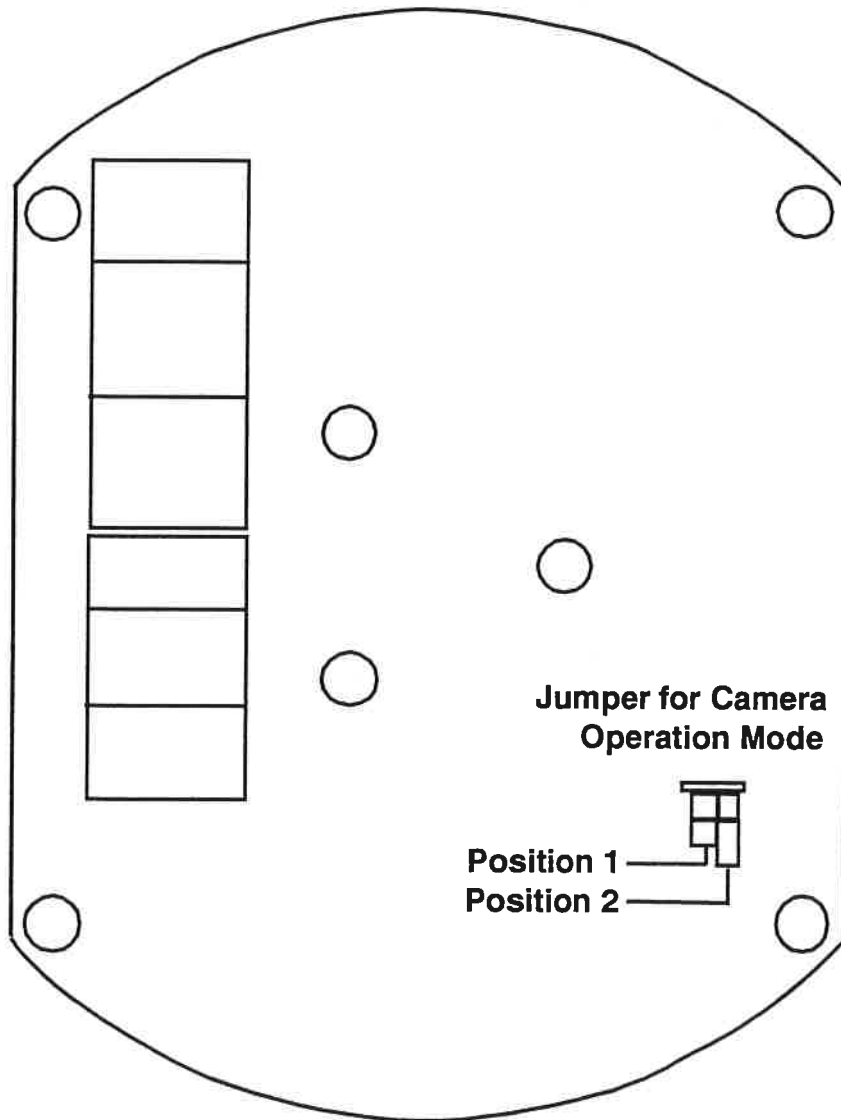
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Pots on CCD Camera Analog Board

Jumper on Power Supply Board



CCD Camera DIP Switches

Major Operating Controls and Their Functions

Analog Board

Switch S1		
No.	ON	OFF
1-3	Selection of Integration Time	
4	AGC or Adjust - Gain	Fixed Gain
5-8	Selection of AGC - Response	

Selection of Integration Time (Switch S1)

No.	1	2	3	Integration Time CCIR	Integration Time EIA
	OFF	OFF	OFF	40 ms	33.3 ms
	OFF	OFF	ON	16.7 ms	16.7 ms
	ON	OFF	ON	8 ms	8 ms
	OFF	ON	ON	4 ms	4 ms
	ON	ON	ON	2 ms	2 ms

NOTE: *Integration Mode is always Frame Integration*

Selection of AGC - Response (Switch S1)

No.	5	6	7	8	Response
	ON	ON	ON	ON	Used for Adjustment of Integ. Offset
	ON	ON	ON	OFF	Always Min. Gain
	ON	ON	OFF	ON	Always Max. Gain
	ON	OFF	ON	OFF	Standard AGC Response
	OFF	ON	ON	ON	Used for Adjustment of Integ. Gain

Switch S2

No.	ON	OFF
1	Gamma = 0.6	Gamma = 1
2	Always OFF	
3	Always OFF	
4	Always ON	