TYPE TK-20A

TELEVISION FILM CAMERA CHAIN

MI-26910

INSTRUCTIONS

Manufactured by

RADIO CORPORATION OF AMERICA

ENGINEERING PRODUCTS DEPARTMENT

Camden, New Jersey, U. S. A.

Printed in U. S. A.

IB-36023



Figure 1. TK-20D Film Camera, Mounted on Pedestal

TECHNICAL SUMMARY

ELECTRICAL CHARACTERISTICS

OVERALL

Input Power

Line Rating	115-125 volts single phase
Line Frequency	50-60 cycles
Power	1000 watts
Current	10.1 amperes
Power Factor	0.94

Input Signals	Volts	Frequency	Pulse Width
Horizontal Drive	4	15,750 cps	10 percent
Vertical Drive	4	60 cps	4 percent
C.R.O. Drive[1]	8	mixed 30 and 7,875 cps pulses	
Mixed Sync[2]	4	Standard RMA signal	
Mixed Blanking	4	Standard RMA signal	

Output Signals

Picture Output	1.5	[1]peak-to-peak picture signal
Remote Monitor Output	1.5	[1]peak-to-peak picture signal

MASTER MONITOR

Input Power

Line Rating	105-125 volts single phase
Line Frequency	50-60 cycles
Line Current	1 ampere
B+ Voltage	280
B+ Current	490 milliamperes
Centering Voltage	−7 volts D.C.
Bias Voltage	−18 volts D.C.
Tally Light	6.3 volts 60 cycle

Input Signals (Nominal)

Horizontal Drive	4 volts
Vertical Drive	4 volts
C.R.O. Drive[2]	8 volts
Video Signal	1.5 volts

Output Voltages

Picture Gain Bias	0 to −18 volts D.C.
Pedestal Bias	0 to −18 volts D.C.

TECHNICAL SUMMARY (Continued)

FILM CAMERA AND CAMERA CONTROL[3]

Input Power

Line Rating		115-125 volts single phase
Line Frequency		60 cycles
Line Current		1¾ amperes
B+ Voltage		+280
B+ Current	Camera 260 ma Camera Control 215 ma	475 ma
Centering Voltage		–7 volts D.C.
Picture Gain Bias		0 to –18 volts D.C.
Pedestal Bias		0 to –18 volts D.C.
Tally Lights		6.3 volts, 60 cycles A.C.

Input Signal

Horizontal Drive	4 volts
Vertical Drive	4 volts
C.R.O. Drive[1]	8 volts
Standard Synchronizing[1]	4 volts
Mixed Blanking	4 volts

Output Signal

Picture Output	1.5 volts, peak-to-peak[1]
Monitor Output	1.5 volts, peak-to-peak[1]
Remote Mon. Output[1]	0 –1.5 volts, peak-to-peak

Miscellaneous (System)

Frequency response	Flat within 1 db to 5.0 megacycles
Input Impedance for Pulses	High (Grid Input)

[1] Output levels are adjustable
[2] Optional
[3] These units are so interdependent that they are considered as a single unit

MECHANICAL SPECIFICATIONS

CAMERA CONTROL

Height	24 inches
Width	12½ inches
Depth	22½ inches
Weight	35 pounds

CAMERA

Height	20 inches
Width (excluding mounting flanges)	11 inches
Depth	17½ inches
Weight	51 pounds

TECHNICAL SUMMARY (Continued)

PEDESTAL

Length of Base	32 inches
Base Width of Base	17 inches
Height (without cradle assembly)	51 inches
Weight	40 pounds

MASTER MONITOR

Height	18¼ inches
Depth	20¼ inches
Width	13¼ inches
Weight	68 pounds

POWER SUPPLY—WP33A

Height	14 inches
Width	18⅞ inches
Depth	9⅝ inches
Weight	82 pounds



Figure 1—Film Camera, MI-26020

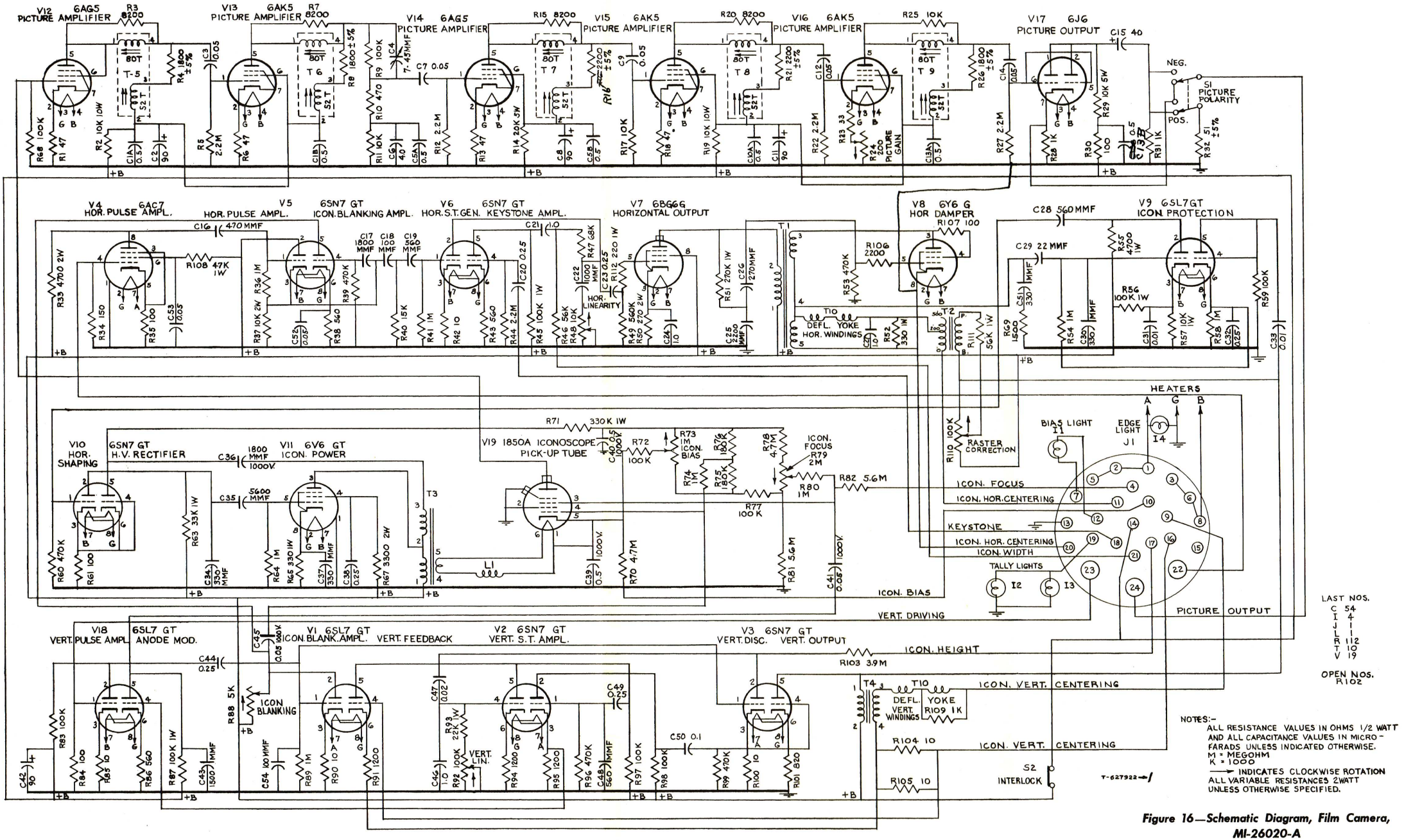


Figure 16—Schematic Diagram, Film Camera, MI-26020-A

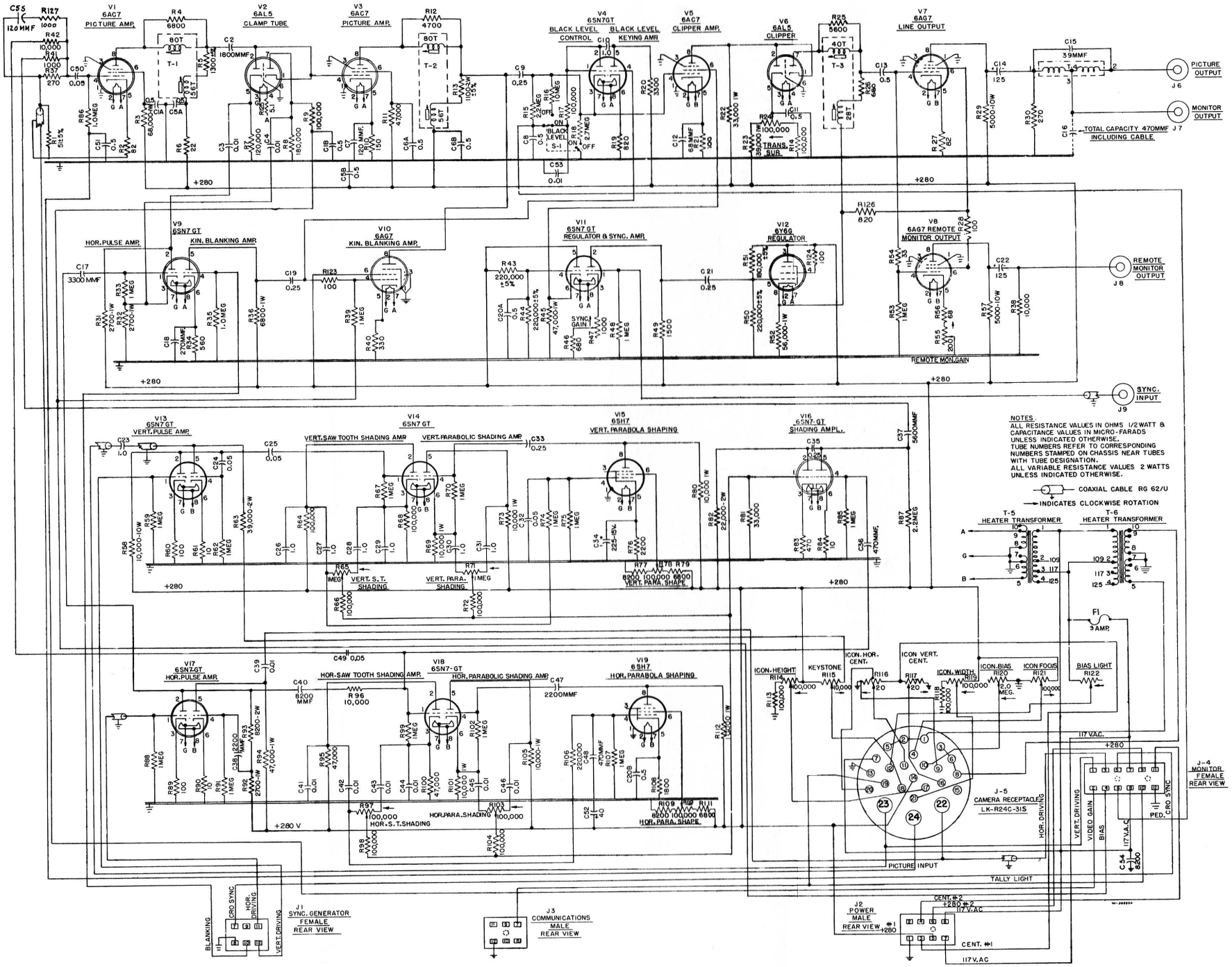


Figure 17—Schematic Diagram, Film Camera Control, MI-26075