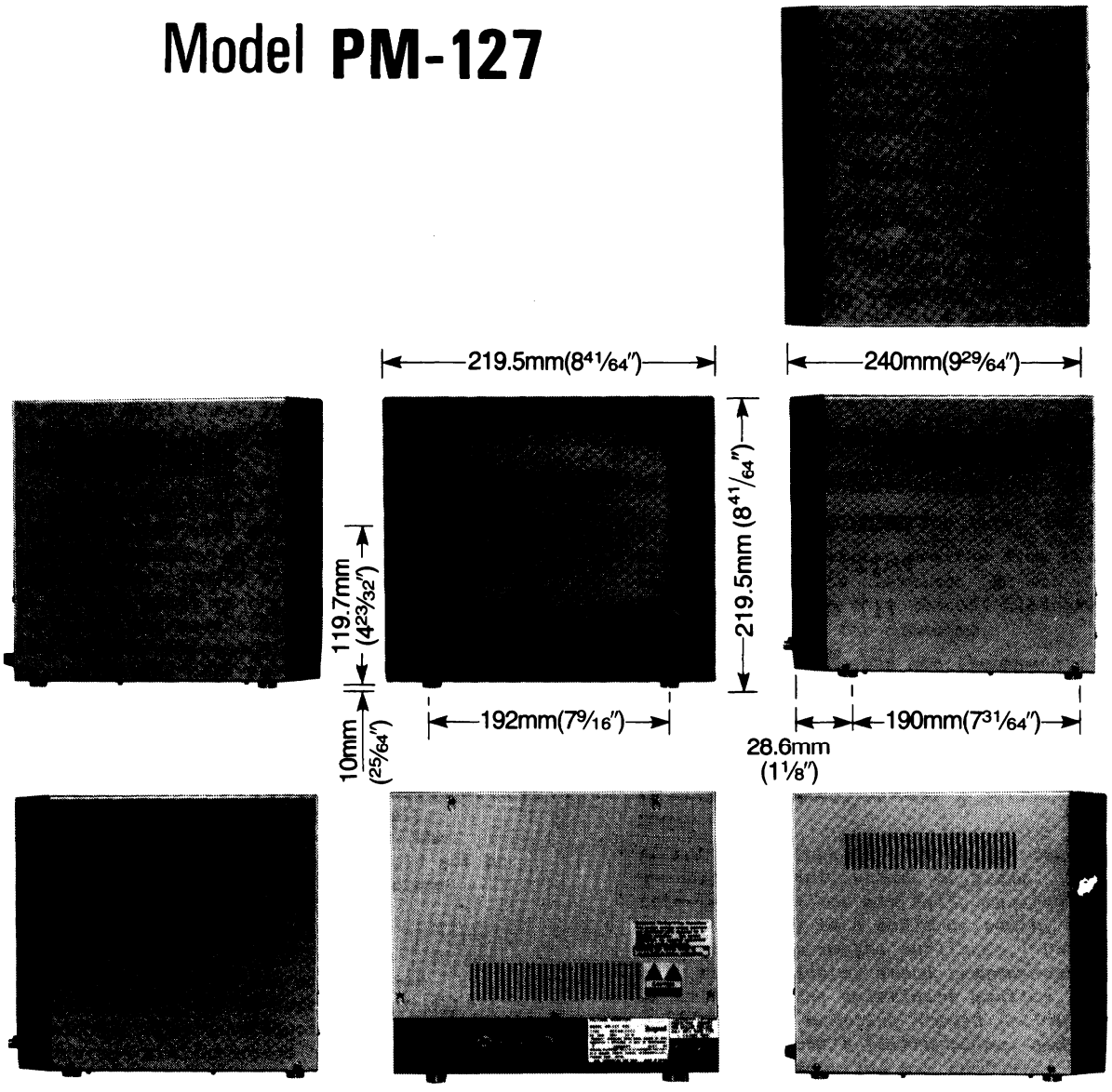
Ikegami®

INSTRUCTION MANUAL

12" CCTV PICTURE MONITOR

Model **PM-127**



OUTDOOR USE WARNING
WARNING— TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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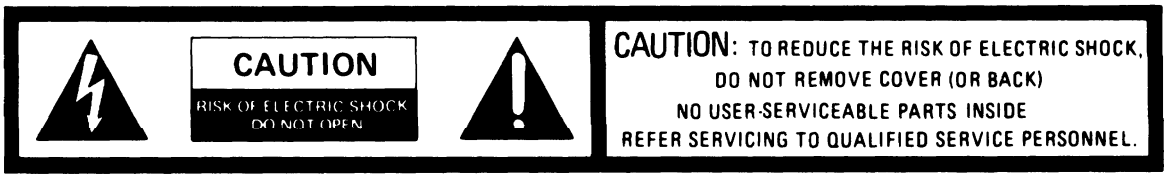


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

PRELIMINARIES

PM-127 incorporates a 12" diagonal CRT. This solid state design, utilizing top quality integrated circuits and silicon semiconductors, assures an excellent picture with long term reliability. The simple circuit design and compact construction present this unit as an economical device.

This manual contains initial set up procedures, operating instructions and service informations for PM-127.

Please note that the PM-127 picture monitor is a finely adjusted precision piece of equipment. To be assured of trouble-free operation, full performance capability and a long service life, we strongly recommend that you check these instructions completely before attempting to assemble, install or operate this monitor.

Although this picture monitor is a solid-state, modular unit using mainly low-voltage circuitry at nonhazardous energy levels, power supply voltages are present on certain parts of the interior. Such parts are not accessible in normal use, but while carrying out maintenance or repair EXTREME CARE should be taken. Mains voltages can be LETHAL!

It is strongly recommended not to tamper with them unless really necessary, and in such cases, always follow the procedure given in these instructions. Use appropriate tools. And note that the inside adjustments or repair should not be made by a fully qualified technicians.

CARE IN HANDLING

Careful handling of the monitor and accessories should be practiced at all times, avoiding unnecessary physical shocks and similar rough handling.

The monitor should always be set up in a well-ventilated area, and shielded from any heat sources, high-powered lights, especially strong magnetic fields (such as power transformers), which may cause picture swing or distortion.

Excessive moisture-, gas- or salt-laden atmospheres should be avoided as much as possible, since circuitry components and connector contacts may be adversely affected.

Dust accumulation should be avoided, since many parts of the unit will be adversely affected in time, and the service-life will be shortened.

Regularly check the connection cables, which are prone to damage, especially in outdoor use. The cable should always be handled with care, kept free from sharp bends and kinks, and relieved from strain near the connectors. Checking of the connectors for full insertion and tightness is also recommended, especially where the same set up is used for a long time.

IMPORTANT SAFEGUARDS

* Read all of these instructions.
* Save these instructions for later use.
* Unplug this television monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
* Do not use attachments not recommended as they may cause hazards.
* Do not use this television monitor near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
* Do not place this television monitor on an unstable cart, stand, or table. The television monitor may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended, or sold with the television monitor. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved.
* Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to ensure reliable operation of the television monitor and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the television monitor on a bed,

sofa, rug, or other similar surface. This television monitor should never be placed near or over a radiator or heat register. This television monitor should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.

* This television monitor should be operated only from the type of power source indicated on the making label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company. For television monitor designed to operate from battery power, refer to this operating instructions.
* This television monitor is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other) or 3-wire grounding-type plug (a plug having a third grounding pin). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrican to replace your obsolute outlet. Do not defeat the safety purpose of the polarized plug.
* Do not allow anything to rest on the power cord. Do not locate this television monitor where the cord will be abused by persons walking on it.
* Follow all warnings and instructions marked on the television monitor.
* For added protection for this television monitor during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damaged to the receiver due to lighting and powerline surges.
* Do not overload wall outlets and extension cords as this can result in fire or electric shock.
* Never push objects of any kind into this television monitor through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television monitor.
* Do not attempt to service this television monitor yourself as opening on removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
* Unplug this television monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions.
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the television monitor.
    c. If the television monitor has been exposed to rain on water.
    d. If the television monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television monitor to normal operation.
    e. If the television monitor has been dropped or the cabinet has been damaged.
    f. When the television receivers exhibits a distinct changing in performance-this indicates a need for service.
* When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
* Upon completion of any service or repairs to this television monitor, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.

SAFETY PRECAUTIONS

WARNING: The chassis is fully isolated from the mains supply.

The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while picture tubes are handled. Keep picture tube away from the body while handling.
2. When replacing a chassis in the cabinet, always ensure that all the protective devices are put back in place, such as, barriers, non-metallic knobs, adjustment and compartment cover or shields, isolation resistor capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to ensure correct lead dress in the high voltage circuitry a area.
4. Always use the manufacturer's replacement component. Especially critical components as indicated on the circuit diagram should not be replaced by other makes. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the instrument by the manufacturer has become defective, or inadvertently defeated during servicing. Therefore, the following checks are recommended for the continued protection of the customers and service technicians.

INSULATION

Insulation resistance should not be less than 50MΩ at 500V DC between the mains poles and any accessible metal parts. Also, no flashover or breakdown should occur during the dielectric strength test, to apply 1200V AC for one minute between the mains poles and accessible metal parts.

HIGH VOLTAGE

High voltage should always be kept at rated value of the chassis-no-higher. Operating at higher voltage may cause a failure of the picture tube or high voltage supply and, also, under certain circumstances could produce X-radiation moderately in excess of design levels. The high voltage must not, under any circumstances, exceed 12.0kV on the chassis.

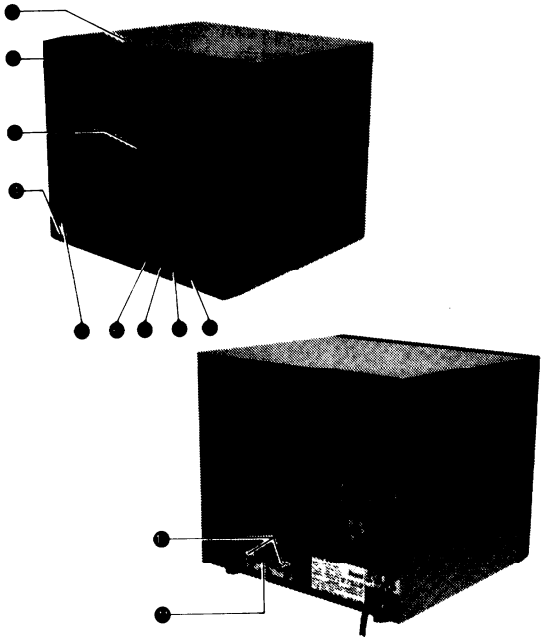
X-RADIATION

TUBES: The primary source of X-radiation in this monitor is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X-radiation.

For continued X-radiation protection, the replacement tube must be the same type as the original, IKEGAMI approved type.

FUNCTION LOCATIONS

1. Upper case
2. Front escutcheon
3. Picture tube (CRT)
4. Power switch
5. Power lamp
6. V. Hold (Driver control)
7. H. Hold (Driver control)
8. Brightness
9. Contrast
10. Video input connectors (bridged)
11. Video termination switch (75-ohm ON/OFF)



SET UP & OPERATION

Position the picture monitor in the desired location and connect the power cord to an AC outlet. And make sure that the monitor is installed securely, in a stable condition.

Make the coaxial-cable connection for video signal between the picture monitor and the signal source (video camera or VTR etc.). And make certain that all connectors are properly and fully mated, and the locking rings are securely tightened.

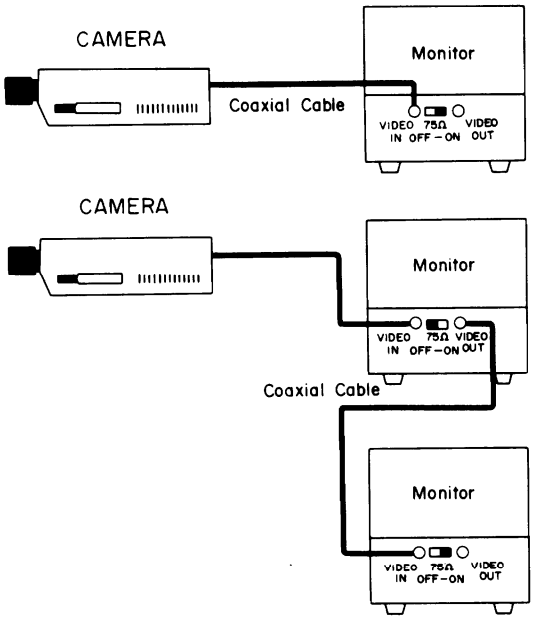
Set the video termination switch to 75-ohm if one monitor is to be used. (See below.)

In case one camera and several monitors are to be used, switch off the 75-ohm termination switches of all monitors except the last one in the train.

If provided, set the sync internal/external switch to internal (if applicable).

After switching on the monitor and setting up the raster, adjust the brightness and contrast controls for the most pleasing picture.

BASIC CONNECTION



INTERNAL ADJUSTMENTS

All internal controls are factory set and locked at the optimum position. Adjustment should not be undertaken except by a qualified service technician, and only when absolutely necessary. This information is provided only as a source of reference for the qualified service technician.

There are two adjustments on the monitor main board.

HORIZONTAL FREQUENCY: This is a screwdriver adjustment to control picture horizontal position when the H. Hold cannot follow.

VERTICAL HEIGHT: This is also a screwdriver adjustment to correct a height when the center circle of the test pattern is oblong vertically or horizontally.

MAINTENANCE

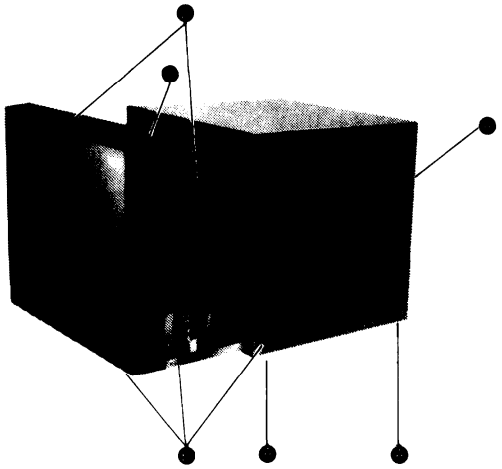
Although PM-127 picture monitor is designed to withstand long continuous service, it is recommended to conduct periodical inspections for longer satisfactory service with full performance.

Check the following points periodically,

(1) The knobs and adjustments for correct positions and connections.
(2) Connectors for good contact.
(3) Input and output circuits for short-circuit.
(4) Internal temperature drift.
(5) Soldering portions.

And keep the monitor interior clean as much as possible.

PICTURE TUBE (CRT) REPLACEMENT



(1) Switch off the power and unplug the power cord.

In the case of tube replacement, making sure that the monitor has been switched off for several minutes to allow the tube anode to discharge.

(2) Take out the 5 screw Ⓐ from a top cover, and remove the cover.

(3) Take out the 7 screws Ⓑ from a CRT support bar.

(4) Carefully remove CRT socket, connector to the deflection coil assembly and anode cap. Ⓓ

(5) Take out the 4 screws Ⓒ and remove old CRT.

(6) Put new CRT for replacement, and observe reverse sequence in assembling the cover.

Note that the picture tube (CRT) must be replaced only with identical part number.

CAUTIONS

(1) The face of the picture tube is a part of a high Vacuum. Scoring, scratching or applying undue pressure may result in implosion of the picture tube, and serious personal injury may result.

(2) The components marked with ★ in parts list and schematic diagram are critical ones of X-ray radiation emission. Replacement of these critical components should check +12V line to +12V ±0.5V and anode voltage of CRT to 11.0kV±1kV.

PM-127 PART LIST

❄ MARKED VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICE.
★ MARKED PARTS ARE CRITICAL COMPONENTS OF X-RAY RADIATION.
⚠ MARKED PARTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFTY.
IN CASE OF REPLACING THESE PARTS, USE THE PARTS SPECIFIED BY IKEGAMI.

(1) MAIN CHASSIS

NO.	PARTS	DESCRIPTION
C101	Polyester Film Capacitor	0.1μF 50WV
CN101	Faston Tab	43031-2 or 170001-3
CN102	Connector Housing	W-A5002-1N#02
	Contact	W-T0504-11
CN103	Connector Housing	171822-4
	Contact	170262-1 or 170204-1
CN104	Coaxial Receptacle	BNC-BR-D or BNC-RB3-8A
CN105	Coaxial Receptacle	BNC-BR-D or BNC-RB3-8A
CN106	Connector Housing	171822-6
	Contact	170262-1 or 170204-1
CN107	Faston Receptacle	STO-47T187N or 170038-2
CN108	Connector Housing	W-A5003-1N#02
	Contact	W-T0504-11
D101	LED	SEL-1110R
⚠ F101	Fuse	0.5A--------100V to 120V
		0.25A-------220V to 240V
F101-a	Fuse Holder	S-N1301 100V to 120V
		S-N2250 220V to 240V
★⚠ IC101	Integrated Circuit	SI-3122P
★⚠ L101	Deflection Yoke	ST4-B0400

NO.	PARTS	DESCRIPTION
⚠PC101	Power Cord	SPT-2 Cord or SJT Cord or CEE Cord
R101	Carbon Film Resistor	75 ohms 1/4W
⚠SW101	Power Switch	ESD-275DUS--100V to 120V ESD-3997----220V to 240V
SW102	Slide Switch	SW-76B
★⚠T101	Power Transformer	ST4-B27058-A4;100V ST4-B27058-B4;120V ST4-B27058-C4;220V to 240V
★⚠V101	Cathode Ray Tube	310GNB4 or Equivalent
	Insulock Tie	BK-1 T-30R

(2) MAIN P.W.B. MODULE

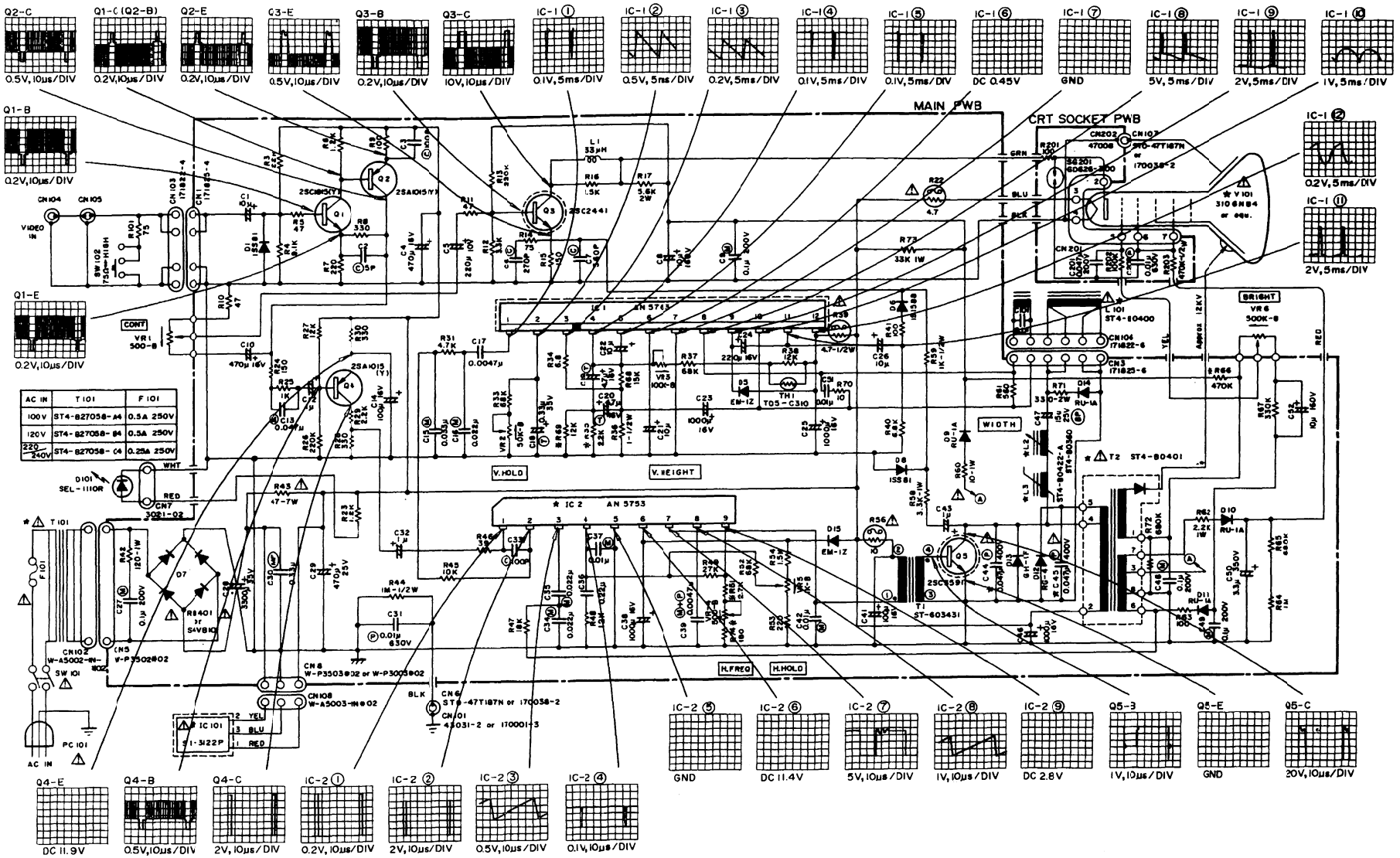
NO.	PARTS	DESCRIPTION		
C1	Electrolytic Capacitor	10μF	50WV	
C2	Ceramic Capacitor	5pF	50WV	
C3	Ceramic Capacitor	100pF	50WV	
C4	Electrolytic Capacitor	470μF	16WV	
C5	Electrolytic Capacitor	220μF	16WV	
C6	Ceramic Capacitor	270pF	50WV	
C7	Ceramic Capacitor	560pF	50WV	
C8	Electrolytic Capacitor	10μF	160WV	
C9	Polyester Film Capacitor	0.1μF	200WV	
C10	Electrolytic Capacitor	470μF	16WV	
C11	Not Used			
C12	Electrolytic Capacitor	1μF	50WV	
C13	Polyester Film Capacitor	0.047μF	50WV	
C14	Electrolytic Capacitor	100μF	16WV	
C15	Polyester Film Capacitor	0.033μF	50WV	
C16	Polyester Film Capacitor	0.022μF	50WV	
C17	Polyester Film Capacitor	0.0047μF	50WV	
C18	Tantalum Capacitor	0.33μF	35WV	
C19	Tantalum Capacitor	4.7μF	16WV	
C20	Tantalum Capacitor	4.7μF	16WV	
C21	Electrolytic Capacitor	10μF	50WV	
C22	Electrolytic Capacitor	10μF	50WV	
C23	Electrolytic Capacitor	1000μF	16WV	
C24	Electrolytic Capacitor	220μF	16WV	
C25	Electrolytic Capacitor	1000μF	16WV	
C26	Electrolytic Capacitor	10μF	50WV	
C27	Polyester Film Capacitor	0.1μF	200WV	
⚠C28	Electrolytic Capacitor	3300μF	35WV	UBU1V332MTA
C29	Electrolytic Capacitor	470μF	25WV	
C30	Metallized Polyester Film Capacitor	0.33μF	50WV	
C31	Polypropylene Film Capacitor	0.01μF	630WV	
C32	Electrolytic Capacitor	1μF	50WV	
C33	Ceramic Capacitor	100pF	50WV	
C34	Polyester Film Capacitor	0.022μF	50WV	
C35	Polyester Film Capacitor	0.022μF	50WV	
C36	Metallized Polyester Film Capacitor	0.22μF	50WV	
C37	Polyester Film Capacitor	0.01μF	50WV	
C38	Electrolytic Capacitor	1000μF	16WV	
C39	Polypro & Polyester Film Capacitor	0.0047μF	50WV	
C40	Not Used			
C41	Electrolytic Capacitor	100μF	16WV	
C42	Polyester Film Capacitor	0.01μF	50WV	
C43	Electrolytic Capacitor	1μF	50WV	
★⚠C44	Polypropylene Film Capacitor	0.047μF	400WV	ECQ-F4473K
★⚠C45	Polypropylene Film Capacitor	0.047μF	400WV	ECQ-F4473K
C46	Electrolytic Capacitor	1000μF	16WV	
C47	Electrolytic Capacitor	15μF	25WV	
C48	Polyester Film Capacitor	0.1μF	200WV	

NO.	PARTS	DESCRIPTION
C49	Polyester Film Capacitor	0.1μF 200WV
C50	Electrolytic Capacitor	3.3μF 350WV
C51	Polyester Film Capacitor	0.01μF 50WV
C52	Electrolytic Capacitor	10μF 160WV
CN1	Connector Plug	171825-4
CN2	Not Used	
CN3	Connector Plug	171825-6
CN4	Not Used	
CN5	Connector Plug	W-P3502#02 or W-3002#02
CN6	Faston Receptacle	STO-47T187N or 170038-2
CN7	Connector Housing	3021-02
	Contact	5159TL
CN8	Connector Plug	W-P3502#02 or W-P3002#02
D1	Diode	1SS81
D2	Not Used	
D3	Not Used	
D4	Not Used	
D5	Diode	EM-1Z
D6	Diode	1S1588
⚠ D7	Diode	RB401 or S4VB10
D8	Diode	1SS81
D9	Diode	RU-1A
D10	Diode	RU-1A
D11	Diode	RU-1A
D12	Diode	RG-4
D13	Diode	GH-1F
D14	Diode	RU-1A
D15	Diode	EM-1Z
IC1	Integrated Circuit	AN5763
★IC2	Integrated Circuit	AN5753
L1	Micro Inductor	33μH
★L2	H.Width Coil	ST4-B0360
★L3	H.Linearity Coil	ST4-B0422-A
Q1	Transistor	2SC1815(Y)
Q2	Transistor	2SA1015(Y)
Q3	Transistor	2SC2441
Q4	Transistor	2SA1015(Y)
Q5	Transistor	2SD3591
R1	Not Used	
R2	Not Used	
R3	Carbon Film Resistor	22K ohms 1/4W
R4	Carbon Film Resistor	9.1K ohms 1/4W
R5	Carbon Film Resistor	47 ohms 1/4W
R6	Carbon Film Resistor	1.2K ohms 1/4W
R7	Carbon Film Resistor	220 ohms 1/4W
R8	Carbon Film Resistor	330 ohms 1/4W
R9	Carbon Film Resistor	100 ohms 1/4W
R10	Carbon Film Resistor	47 ohms 1/4W
R11	Carbon Film Resistor	47 ohms 1/4W
R12	Carbon Film Resistor	3.3K ohms 1/4W
R13	Carbon Film Resistor	220K ohms 1/4W
R14	Carbon Film Resistor	75 ohms 1/4W
R15	Carbon Film Resistor	150 ohms 1/4W
R16	Carbon Film Resistor	1.5K ohms 1/4W
R17	Metal Oxide Film Resistor	5.6K ohms 2W
R18	Not Used	
R19	Not Used	
R20	Not Used	
R21	Not Used	
⚠ R22	Fusing Resistor	4.7 ohms 1/4W RF25S4.7 ohms J
R23	Carbon Film Resistor	1.2K ohms 1/4W
R24	Carbon Film Resistor	150 ohms 1/4W
R25	Carbon Film Resistor	1K ohms 1/4W
R26	Carbon Film Resistor	220K ohms 1/4W
R27	Carbon Film Resistor	12K ohms 1/4W
R28	Carbon Film Resistor	330 ohms 1/4W
R29	Carbon Film REsistor	2.2K ohms 1/4W
R30	Carbon Film Resistor	330 ohms 1/4W

NO.	PARTS	DESCRIPTION
R31	Carbon Film Resistor	4.7K ohms 1/4W
R32	Not Used	
R33	Carbon Film Resistor	68K ohms 1/4W
R34	Carbon Film Resistor	6.8K ohms 1/4W
※ R35	Carbon Film Resistor	2.2K ohms 1/4W
R36	Carbon Film Ressitor	1 ohms 1/2W
R37	Carbon Film Resistor	68K ohms 1/4W
R38	Carbon Film Resistor	12K ohms 1/4W
⚠ R39	Fusing Resistor	4.7 ohms 1/2W RF50S4.7 ohms J
R40	Carbon Film Resistor	6.8K ohms 1/4W
R41	Carbon Film Resistor	100 ohms 1/4W
R42	Metal Oxide Film Resistor	120 ohms 1W
⚠ R43	Cement Filled Fixed Resistor	47 ohms 7W MPS07N470K
R44	Carbon Film Resistor	1M ohms 1/2W
R45	Carbon Film Resistor	10K ohms 1/4W
R46	Carbon Film Resistor	39 ohms 1/4W
R47	Carbon Film Resistor	18K ohms 1/4W
R48	Carbon Film Resistor	12K ohms 1/4W
R49	Carbon Film Resistor	27K ohms 1/4W
R50	Not Used	
※ R51	Carbon Film Resistor	2.7K ohms 1/4W
R52	Carbon Film Resistor	68K ohms 1/4W
R53	Carbon Film Resistor	220 ohms 1/4W
R54	Carbon Film Resistor	1.5K ohms 1/4W
R55	Not Used	
⚠ R56	Fusing Resistor	10 ohms 1/4W RF25S10 ohms J
R57	Not Used	
R58	Metal Oxide Film Resistor	3.3K ohms 1W
R59	Carbon Film Resistor	1K ohms 1/2W
⚠ R60	Metal Oxide Film Resistor	10 ohms 1W RSF1B10 ohms J
R61	Carbon Film Resistor	560 ohms 1/4W
R62	Metal Oxide Film Resistor	2.2K ohms 1W
R63	Carbon Film Resistor	100 ohms 1/4W
R64	Carbon Film Resistor	1M ohms 1/4W
R65	Carbon Film Resistor	680K ohms 1/4W
※ R66	Carbon Film Resistor	470K ohms 1/4W
R67	Carbon Film Resistor	330K ohms 1/4W
R68	Carbon Film Resistor	15K ohms 1/4W
※ R69	Carbon Film Resistor	12K ohms 1/4W
R70	Carbon Film Resistor	10 ohms 1/4W
R71	Metal Oxide Film Resistor	330 ohms 2W
R72	Carbon Film Resistor	680K ohms 1/4W
R73	Metal Oxide Film Resistor	33K ohms 1W
R74	Carbon Film Resistor	180 ohms 1/4W
T1	H. Drive Transformer	ST-603431
★⚠ T2	Flyback Transformer	ST4-B0401
TH1	Thermistor	TD5-C310
VR1	Variable Resistor	500 ohms Lin.taper
VR2	Variable Resistor	50K ohms Lin.taper
VR3	Variable Resistor	100K ohms Lin.taper
VR4	Variable Resistor	500 ohms Lin.taper
VR5	Variable Resistor	1K ohms Lin.taper
VR6	Variable Resistor	500K ohms Lin.taper
E1	Printed Wiring Board	PMP-127-10

(3) CRT SOCKET P.W.B. MODULE

NO.	PARTS	DESCRIPTION
C201	Polyester Film Capacitor	0.047μF 200WV
C202	Polypropylene Film Resistor	0.01μF 630WV
CN201	CRT Socket	1426-2 or S7-502B-05
CN202	Faston Tab	47008
R201	Carbon Film Resistor	100 ohms 1/4W
R202	Carbon Film Resistor	100K ohms 1/4W
R203	Carbon Film Resistor	470K ohms 1/2W
SG201	Spark Gap	GD-626-300V
E201	Printed Wiring Board	PMP-127-20



NOTE: 1. Resistors are in ohms, 1/4W unless otherwise specified.

: Fusing resistor.

2. Capacitors are in farads, 50WV unless otherwise specified.

(T): Tantalum cap, (M) polyester film cap.

(P): Polypropylene film cap, (C) ceramic cap.

: Electrolytic cap. (MF) Metallized polyester film cap.

3. ✱ Marked values are subject to change without notice.
4. ★ Marked parts are critical components of X-ray radiation.
5. ⚠ Marked components have special characteristics impotant to safety. In case of replacing these parts; use the parts specified by Ikegami.
6. Last parts No.
   Main PWB Q5, IC2, D16, VR6, T2, L3, TH1, CN8, R74, C52
   All over V101, CN108, T101, F101, SW102, R101, IC101, C101
   CRT socket PWB R203, C202, CN202, SG201

SPECIFICATIONS

PICTURE TUBE	30.5m(12") diagonal Implosion protected Type 310GNB4 or equivalent
VIDEO INPUT LEVEL	VS 1.0Vp-p
VIDEO INPUT IMPEDANCE	75Ω or high (switchable)
VIDEO OUTPUT LEVEL	30Vp-p
SCANNING RATES	
HORIZONTAL	15.75KHz or 15.625KHz
VERTICAL	60Hz or 50Hz
VIDEO FREQUENCY RESPONSE	7MHz (+1dB, -3dB)
HORIZONTAL RESOLUTION	650 lines or better (at center)
SIGNAL-TO-NOISE RATIO	60dB or better (except synchronous noise)
STABILITY	±10% of rated voltage
SPOT KILLER	Prevents spot burn-in of CRT with loss of power.
ISOLATION	More than 50MΩ between AC input terminal and Cabinet
BRIGHTNESS	More than 30FL continuously variable against rated input white signal
VIDEO AMPLIFIER CIRCUIT MAXIMUM GAIN	More than 38dB
FREQUENCY CHARACTERISTIC	Refer to 100KHz 60Hz to 7MHz: Within +1, -3dB below 60Hz, over 7MHz: falling down characteristic
WAVEFORM DISTORTION	Sag: less than 10% (against 60Hz square wave) Overshoot: Under 10% (against 15KHz square wave) Rise time: less than 70ns (against 250KHz square wave)
SIGNAL-TO-NOISE RATIO	Refer to input signal, output signal is as follows: Hum noise: less than -60dB Synchronous noise: less than less than -40dB
DEFLECTION CIRCUIT SYNC STABILITY	Operation stable within input signal range of VS 0.5 to 2.0Vp-p
LINEARITY	2% or less of picture height (refer to ballchart)
BLANKING DURATION	H within 19% V within 6%
ENVIRONMENTAL TEMPERATURE	-10°C to +45°C
CONNECTOR	BNC connector
POWER REQUIREMENT	100/120V 50/60Hz 120V 60Hz 220/240V 50Hz
POWER CONSUMPTION	Less than 25W
DIMENSIONS (W.H.D.)	320(W)×285(H)×305(D) 12-39/64"(W)×11-7/32"(H)×12"(D)
WEIGHT	7.7Kg (16.98 lbs) approximately

·Design and specifications are subject to change for improvement.

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