

Service Manual

ViewSonic A91f+-1

Model No. VCDTS23283

19" Digital Controlled Color Monitor

Datasheet.World

(A91f+-1_SM_830 Rev. 1a – Apr. 2004)

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Revision History

Revision	Date	Description Of Changes		Approval
1a	06/15/04	Initial Release	DCN- 4408	Angela Lu

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1. Precautions And Safety Notices

WARNING!

This service information is designed for experience repair technicians only and is not designed for use by the general public.

It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians.

Any attempt to service or repair the product or products dealt within this service information by anyone else could result in serious injury or death.

1. CAUTION

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guide lines.

2. SAFETY CHECK

Care should be taken while servicing this CRT display because of the high voltage used in the deflection circuits.

These voltages are exposed in such areas as the associated flyback and yoke circuits.

3. FIRE & SHOCK HAZARD

- 3-1 Insert an isolation transformer between the CRT display and AC power line before servicing the chassis.
- 3-2 In servicing pay attention to original lead dress especially in the high voltage circuit. If a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- 3-3 All the protective devices must be reinstalled per original design.
- 3-4 Soldering must be inspected for possible cold solder joints, frayed leads, damaged insulation, solder splashes or sharp solder points. Be certain to remove all foreign material.

4. LEAKAGE CURRENT COLD CHECK

- 4-1 Unplug the AC cord and connect a jumper between the two prongs on the plug.
- 4-2 Turn the CRT display power switch “on”.
- 4-3 Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metallic part on the CRT display such as the metal frame, screwheads, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be 1.8 megohm minimum.

5. LEAKAGE CURRENT HOT CHECK

- 5-1 Plug the AC cord directly into the AC outlet. Do not use an isolation transformer during this check.
- 5-2 Connect a 1500 ohm, 10 watt resistor, paralleled by a 0.15uF capacitor between each exposed metallic part and a good earth ground (as shown in Fig.1).
- 5-3 Use an AC voltmeter with 1000 ohm/volt or more sensitivity and measure the AC voltage across the combination 1500 ohm resistor and 0.15uF capacitor.

- 5-4 Move the resistor connection to each exposed metallic part and measure the voltage.
- 5-5 Reverse the polarity of the AC plug in the AC outlet and repeat the above measurement.
- 5-6 Voltage measured must not exceed 7.5 volt RMS, from any exposed metallic part to ground A leakage current tester may be used in the above hot check, in which case any current measured must not exceed 5.0 milliamp. In the case of a measurement exceeding the 5.0 milliamp value, a rework is required to eliminate the chance of shock hazard.

Note : High voltage is present when this CRT display is operating. Always discharge the anode of the picture tube to the display chassis to prevent shock hazard.

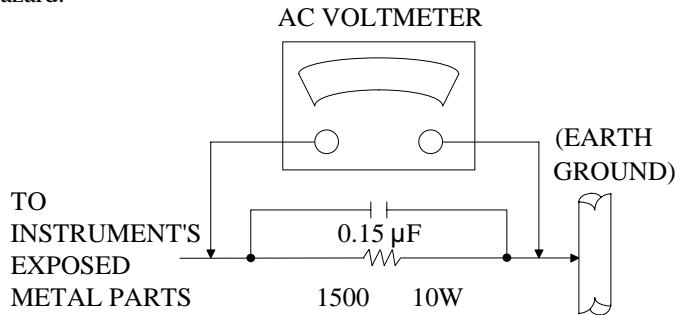


Fig. 1

6. IMPLOSION PROTECTION

Picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage and scratching during installation. Use only Panasonic replacement picture tubes.

7. X-RADIATION

WARNING : The only potential source of X-Radiation is the picture tube. However when the high voltage circuit is operating properly there is no possibility of X-Radiation problem. The basic precaution which must be exercised is to keep the high voltage at the following factory-recommended level.

Note : It is important to use an accurate periodically calibrated high voltage meter.

- 7-1 The procedure for adjusting high voltage is shown on page 21.
- 7-2 If can not be adjust 25.0 KV at immediate service is required to prevent the possibility of premature component failure.
- 7-3 To prevent X-Radiation possibility it is essential to use the specified picture tube.

IMPORTANT SAFETY NOTICE

There are special components used in this CRT displays which are important for safety. These parts are identified by the international symbol  on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design or this will void the original parts and labor guarantee.

2. Specification

GENERAL SPECIFICATION

1. SCOPE

1.1 THIS SPECIFICATION DEFINES THE PERFORMANCE OF K986 SBM 19 INCH MULTISYNC COLOR MONITOR

1.2 PRODUCT CONFIGURATION

TBD

1.3 MAGNETIC REQUIREMENTS

AMERICA (-M) BH = 250 + 10mG, BV = 450 + 10mG

2. INPUT REQUIREMENTS

2.1 AC POWER SUPPLY

2.1.1 POWER SOURCE 90~264VAC 50/60HZ

2.1.2 POWER CONSUMPTION LESS THAN 100W

2.1.3 INRUSH CURRENT LESS THAN 30AP. FOR 1/2 CYCLE AT 110V, LESS THAN 60 AP.
FOR ½ CYCLE AT 240V ON COLD STARTING

2.1.4 INPUT CURRENT 2.0 A MAX IN 110V

2.1.5 LEAKAGE CURRENT 3 mA AT AC 100V/240V

2.1.6 RIPPLE / NOISE SHOULD NOT CAUSE ANY VISIBLE INTERFERENCE

2.1.7 POWER CORD 1.8 METER

2.1.8 SIGNAL CABLE 1.8 METER,

2.2 VIDEO INTERFACE

2.2.1 RGB VIDEO ANALOG 0.7 VP-P AND 1 VP-P POSITIVE INPUT IMPEDANCE 75 OHM

2.2.2 MAX PC VIDEO SIGNAL 950mV WITH NO DAMAGE TO MONITOR

2.2.3 MAX MAC VIDEO SIGNAL 1250mV WITH NO DAMAGE TO MONITOR

2.2.4 SYNC SIGNAL SEPARATE OR COMPOSITE HORIZONTAL AND VERTICAL SYNC TTL LEVEL

2.2.5 INPUT CONNECTOR

15 PINS MINI "D" SUB

PIN NO.	SIGNAL	PIN NO.	SIGNAL
1	RED	9	5V OUT
2	GREEN	10	5V GROUND
3	BLUE	11	GROUND
4	GROUND	12	SDA
5	CHECK SIGNAL	13	H. SYNC
6	R RETURN	14	V. SYNC
7	G RETURN	15	SCL
8	B RETURN		

2.2.6 SIGNAL MEMORY MODES 13 PRESET MODES

2.2.7 PLUG & PLAY VESA DDC1 / 2B

2.3 SCANNING FREQUENCY

2.3.1 HORIZONTAL 30 KHZ TO 86KHZ

2.3.2 VERTICAL 50 HZ TO 180 HZ

3. ADJUSTMENT CONTROL

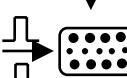
3.1 USER CONTROL

3.1.1 POWER SWITCH

3.1.2 OSD KEY

- 1 MENU BUTTON
- 2 ENTER / SELECT BUTTON
- ▼ DOWN / DECREASE BUTTON
- ▲ UP / INCREASE BUTTON

3.2 OSD ADJUSTMENT FUNCTION

-  CONTRAST / BRIGHTNESS
-  ZOOM / H-POSITION / H-SIZE / V-POSITION / V-SIZE
-  PINCUSION / PINBALANCE / TRAPEZOID / PARALLELOGRAM / ROTATION
-  9300^oK / 6500^oK / 5000^oK USER R G B
-  LANGUAGES ENGLISH / DEUTSCH / FRANCAIS / ESPANOL / ITALIC
-  H-MOIRE / V-MOIRE
-  OSD H-POSITION / OSD V-POSITION
-  INPUT LEVEL
-  MANUAL DEGAUSS
-  TOP/BOTTOM HOOK / RESET MEMORY RECALL

3.3 LED INDICATION

	STATUS	LED
POWER ON	NORMAL	GREEN
	POWER SAVING	AMBER
	OVER RANGE FREQUENCY	AMBER
POWER OFF		OFF

4. ELECTRICAL SPECIFICATION

A. ELECTRICAL SPECIFICATION

4.1 STANDARD CONDITION OF MEASUREMENT

- 4.1.1 BRIGHTNESS – 50% FACTORY SHIPMENT CONDITION
- 4.1.2 CONTRAST – 100% FACTORY SHIPMENT CONDITION MAX
- 4.1.3 OTHER SW – FACTORY SHIPMENT CONDITION
- 4.1.4 BACKGROUND COLOR – BLACK
- 4.1.5 BRIGHTNESS 30 FL FULL WHITE
- 4.1.6 TEMPERATURE 0~40 °C HUMIDITY 5 ~ 90% NON-CONDENSING
- 4.1.7 POWER INPUT –AC 90~264V 50HZ / 60HZ
- 4.1.8 TERRESTRIAL MAGNETIC FIELD – NORTHERN HEMISPHERE MAGNETIC FIELD
- 4.1.9 WARM UP TIME – START TESTING 30 MINUTES OR MORE AFTER POWER ON
- 4.1.10 TIMING CHART – REFER TO ITEM 7.2.
- 4.1.11 AMBIENT LIGHTING ENVIRONMENT – 400 TO 600 LUX
- 4.1.12 CRT FACE TO EAST

4.2 CRT SPECIFICATION

ITEM	SPEC
SIZE	19"
DIAGONAL	18"
DEFLECTION	90°
PERSISTENCE	MEDIUM SHORT
PHOSPHOR PITCH	0.25mm
MASK TYPE	SHADOW MASK FLAT
FACE PLATE	ANTI- REFLECTIVE, ANTI-STATIC
CRT	SDI/M46QCK761X214 LPD/M46QEF903X21

4.3 POWER SAVING

4.3.1 POWER SAVING

HORIZONTAL SYNC.	VERTICAL SYNC.	POWER CONSUMPTION	OSD INDICATOR	POWER LED	RECOVERY TIME
YES	YES	< 100 W	NORMAL	GREEN	N/A
NO	YES	< 5W	POWER SAVING	AMBER	10 SEC
YES	NO	< 5W	POWER SAVING	AMBER	10 SEC
NO	NO	< 5 W	POWER SAVING	AMBER	10 SEC
< 29 KHZ OR > 87KHZ	< 49 HZ OR >181 HZ	< 5W	FREQUENCY OVER RANGE	AMBER	10 SEC

B. SCREEN CHARACTERISTICS

4.4 PICTURE DISPLAY SIZE

HORIZONTAL SIZE 352 ± 4 mm

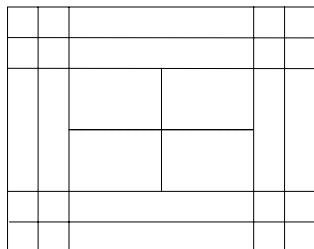
VERTICAL SIZE 264 ± 4 mm

4.5 PICTURE CENTER

PRIMARY MODE (1280X1024/75HZ) LA-BL < 4 mm, LC-DL < 4 mm.

OTHERS MODE LA-BL < 4 mm, LC-DL < 4 mm.

4.6 LINEARITY



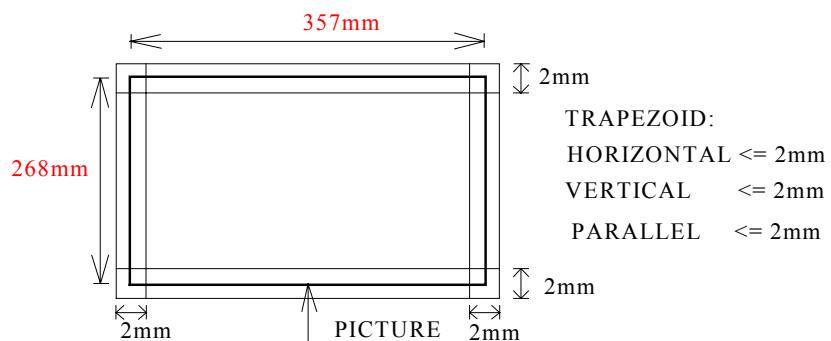
$$\text{H-LINEARITY: } \frac{X_{\max} - X_{\min}}{X_{\max} + X_{\min}} \times 100\% < 4\%; \text{ WORSE CASE} < 5\%$$

$$\text{V-LINEARITY: } \frac{Y_{\max} - Y_{\min}}{Y_{\max} + Y_{\min}} \times 100\% < 4\%$$

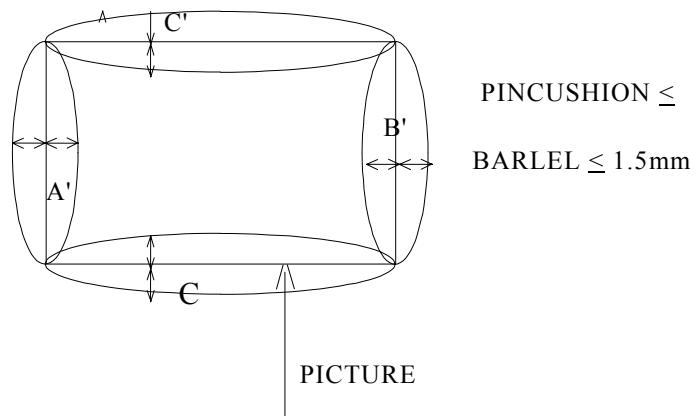
INPUT SIGNAL : BLOCK PATTERN
 12×10

4.7 PICTURE DISTORTION

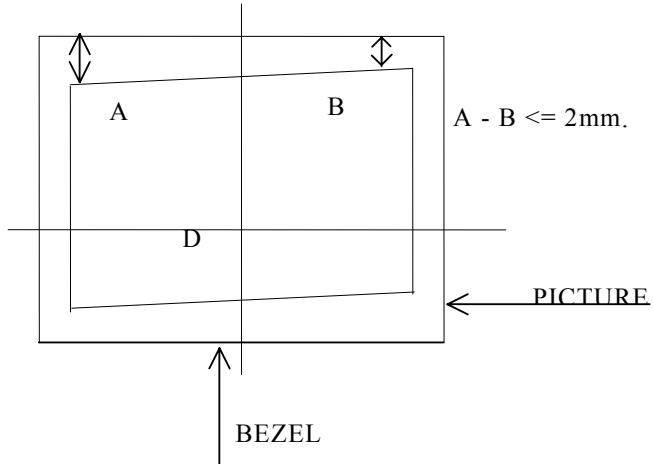
4.7.1 TRAPEZOID / PARALLELOGRAM



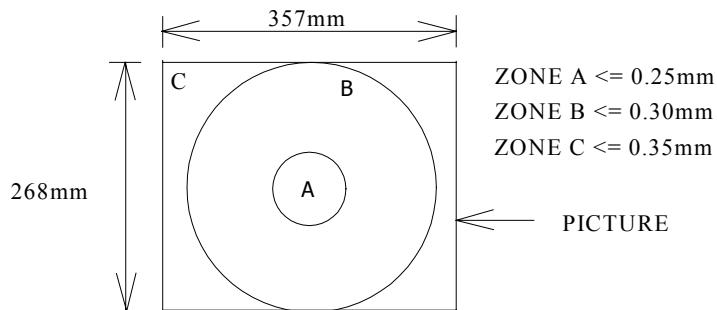
4.7.2 PINCUSHION / BARREL / PIN-BALANCE



4.7.3 TILT



4.8 MISCONVERGENCE



4.9 FOCUS

4.9.1 UNDER THE CONDITION OF BRIGHTNESS CENTER AND CONTRAST MAXIMUM

"ME" PATTERN CAN BE SEEN CLEARLY BY USING THE 1280X1024 69 KHZ/85HZ IF NECESSARY, LIMIT SAMPLE AGREED BY BOTH PARTIES WILL BE MADE FOR FINAL FOCUS JUDGMENT.

4.10 JITTERS

4.10.1 NO VISIBLE

4.11 WHITE BALANCE

4.11.1 COLOR TEMPERATURE USING THE CIE COLOR TEMPERATURE COORDINATE SYSTEM

COLOR 9300⁰K X = 0.283±0.015; Y = 0.297±0.015

COLOR 6500⁰K X = 0.313±0.020; Y = 0.329±0.020

COLOR 5000⁰K X = 0.346±0.020; Y = 0.359±0.020

4.11.2 COLOR PURITY IMPURITY SHOULD NOT APPEAR IN THE PATTERN OF ALL GREEN ALL RED ALL BLUE OR ALL WHITE

4.11.3 COLOR TRACKING: WHEN THE FULL WHITE PATTERN IS DISPLAYED AT PRESET (ONLY FOR 9300⁰K) CONDITION. THE DIFFERENCE OF WHITE BALANCE BETWEEN CONTRAST 30 FL AND LOW CONTRAST 10 FL MUST BE LESS THAN FOLLOWING VALUE

x AT CONTRAST 30 FL - x AT 25.75 FL < 0.005

y AT CONTRAST 30 FL - y AT 25.75 FL < 0.005

AND: x AT CONTRAST 25.75 FL - x AT 10 FL < 0.009

y AT CONTRAST 25.75 FL - y AT 10 FL < 0.009

4.11.4 VIDEO AMPLIFIER LINEARITY INPUT STEP AT 9300⁰K

x 600mV - x 700mV < 0.007

y 600mV - y 700mV < 0.003

4.12 LIGHT OUTPUT

AT 80 KHZ 1280X1024/75HZ MODE.

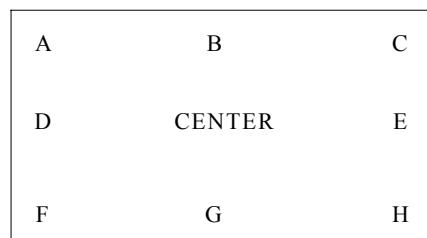
4.12.1 LL => AT BLACK PATTERN = 0.4 -1.2FL AT BRIGHTNESS 100%, CONTRAST 0%
FOR 9300⁰K

4.12.2 HL => AT WHITE BLOCK PATTERN = 37-43 FL AT BRIGHTNESS 50%, CONTRAST
100% FOR 9300⁰K

4.12.3 ABL => AT FULL-WHITE PATTERN 28-32 FL, BRIGHTNESS 50%, CONTRAST
100% FOR 9300⁰K

4.13 BRIGHTNESS UNIFORMITY

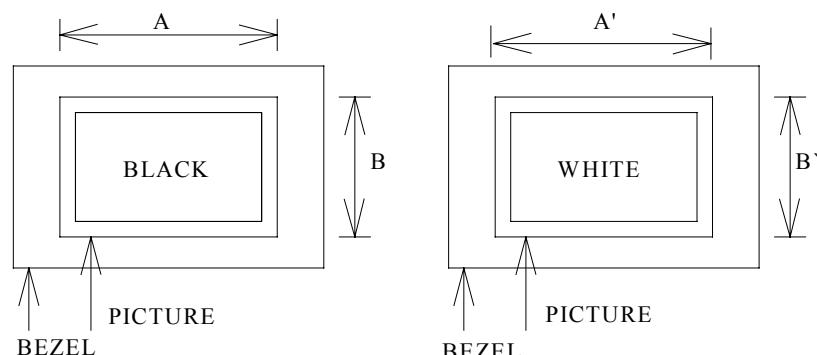
4.13.1 >75% MAXIMUM BETWEEN CENTER TO ANY EIGHT POINTS WITHIN THE
DISPLAY PICTURE FULL WHITE PATTERN



4.14 SIZE REGULATION

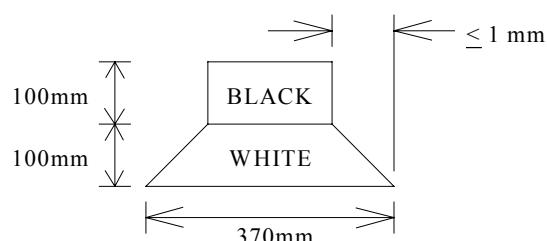
4.14.1 STATIC REGULATION

PICTURE GROWTH FROM MINIMUM LIGHT OUTPUT TO MAXIMUM LIGHT OUTPUT
SHALL BE LESS THAN 3mm WHEN PICTURE IS EXCHANGED FROM



4.14.2 DYNAMIC REGULATION

PICTURE GROWTH SHALL BE LESS THAN 1 mm WHEN PICTURE IS EXCHANGED FROM



5. ENVIRONMENTAL CONDITIONS

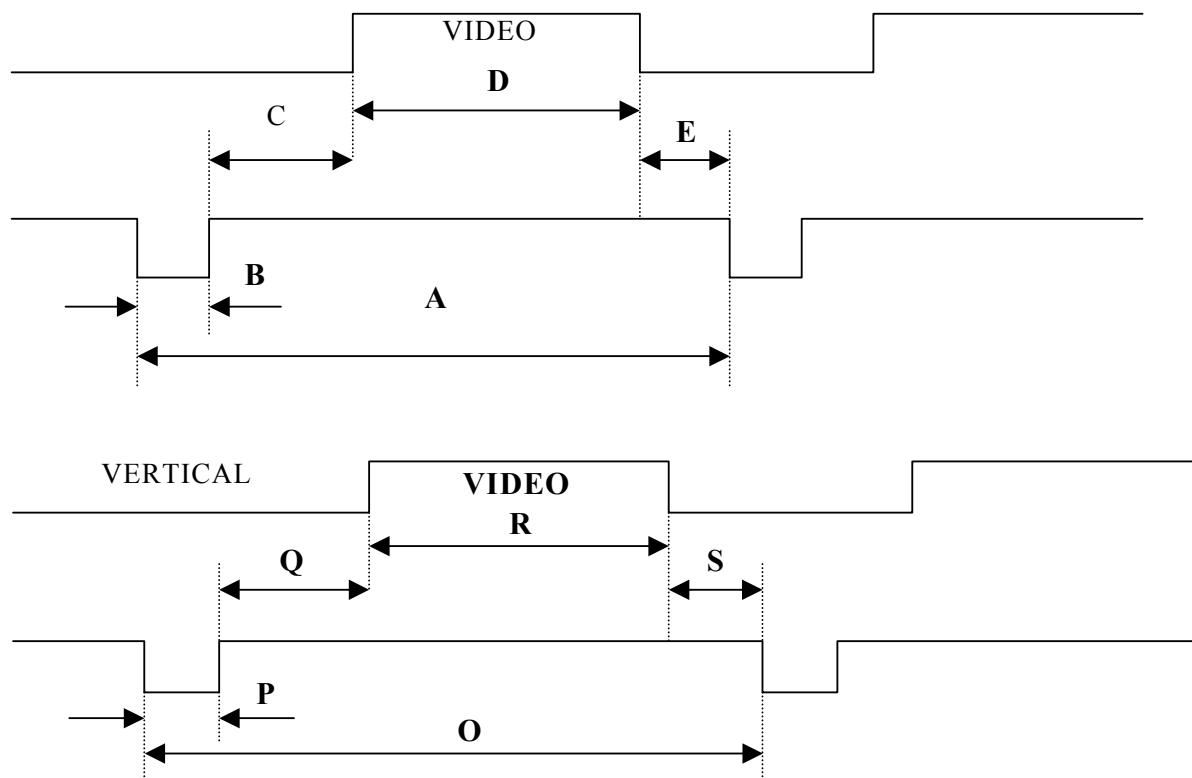
- 5.1 TEMPERATURE AND HUMIDITY AT OPERATION 0 ~ 40 °C
5 – 95 % RH WITHOUT CONDENSATION
- 5.2 TEMPERATURE AND HUMIDITY AT STORAGE - 40 ~ 60 °C
10 – 95 % RH LESS THAN 6 MONTH
- 5.3 VIBRATION TEST (PACKAGED)
FREQUENCY 5HZ –250 HZ – 5HZ
ACCELERATION 1.0G
SWEEP TIME 1 OCT/MIN.
TEST TIME 60MIN. / AXIS
- 5.4 DROP TEST (PACKAGED) 61 CM HEIGHT WEAK CORNER, 3 EDGES, 6 FACES, 1 TIME ON EACH TESTED UNIT, 4 SETS MIN. DROP QTY.
- 5.5 ALTITUDE
OPERATING 0~3000 METERS.
NON-OPERATING 0~12000 METERS.

6. PHYSICAL SPECIFICATION

- 6.1 DIMENSION
HEIGHT: 457 mm
WIDTH 445 mm
DEPTH 456 mm
MONITOR WEIGHT 19.2 KG.
- 6.2 MECHANICAL ADJUSTMENT
TILT - 5/+15 DEGREES
SWIVEL ± 90 DEGREES
- 6.3 PACKAGING
 - 6.3.1 CARTON DIMENSION
HEIGHT 498 mm
WIDTH 557 mm
DEPTH 577 mm
 - 6.3.2 SHIPPING WEIGHT 22.4 KG
 - 6.3.3 CONTAINER LOADING 320 UNITS WITH PALLET

7. FACTORY PRESET TIMINGS

7.1 TIMING DIAGRAM



TIMING OF INPUT SIGNALS NOMINAL INPUT LEVEL SPECIFICATION.

INPUT LEVEL

ANALOG VIDEO

RGB:	0.7V ± 3dB	
SYNC:	H.V. SEPARATE SYNC	
TTL COMPATIBLE H.V.	COMPOSITA SYNC	
LOW (0)	0V MIN.	0.65V MAX.
HIGH (1)	2.40V MIN. 3.5V NOM.	5.5V MAX.

TIMING OF INPUT SIGNALS

A: H-TOTAL TIME	O: V-TOTAL TIME
B: H-SYNC PULSE WIDTH	P: V-SYNC PULSE WIDTH
C: H-BACK PORCH	Q: V-BACK PORCH
D: H-DISPLAY TIME	R: V-DISPLAY TIME
E: H-FRONT PORCH	S: V-FRONT PORCH

7.2 PRESET TIMING TABLE

PRESET TIMING TABLE

MODE NO.	1	2	3	4	5	6	7
MODE NAME	VGA 640X 480	VGA 640X 400	VGA 640X 480	VESA 800X 600	VESA 1024X 768	VESA 800X 600	VESA 1024X 768
HORIZONTAL DOTS	640	640	640	800	1024	800	1024
VERTICAL LINES	480	400	480	600	768	600	768
PIXEL CLOCK (MHZ)	25.175	25.175	36.00	49.5	65.000	56.25	78.75
HORIZONTAL FREQ (KHZ)	31.47	31.47	43.269	46.875	48.360	53.674	60.023
SYNC. POLARITY	-	-	-	+	-	+	+
A H.TOTAL (US) (PIXELS)	31.778 (800)	31.778 (800)	23.111 (832)	21.333 (1056)	20.680 (1344)	18.631 (1048)	16.660 (1312)
B H.SYNC (US) (PIXELS)	3.813 (96)	3.813 (96)	1.556 (56)	1.616 (80)	2.09 (136)	1.183 (64)	1.129 (96)
C H.SYNC PORCH (US) (PIXELS)	1.907 (48)	1.907 (48)	2.222 (80)	3.232 (160)	2.460 (160)	2.702 (152)	2.235 (176)
D H.ACTIVE (US) (PIXELS)	25.422 (640)	25.422 (640)	17.778 (640)	16.162 (800)	15.75 (1024)	14.222 (800)	13.003 (1024)
E H.FRONT PORCH (US) (PIXELS)	0.636 (16)	0.318 (8)	1.556 (56)	0.323 (16)	0.370 (24)	0 (0)	0.203 (16)
VERTICAL FREQ (HZ)	59.94	70	85.008	75.00	60.000	85	75.029
SYNC. POLARITY	-	+	-	+	-	+	+
O V.TOTAL (MS) (LINES)	16.684 (525)	14.268 (449)	11.764 (509)	13.333 (625)	16.670 (806)	11.756 (631)	13.328 (800)
P V.SYNC (MS) (LINES)	0.064 (2)	0.064 (2)	0.069 (3)	0.064 (3)	0.12 (6)	0.056 (3)	0.050 (3)
Q V.BACK PORCH (MS) (LINES)	1.048 (33)	1.112 (35)	0.578 (25)	0.448 (21)	0.600 (29)	0.503 (27)	0.466 (28)
R V.ACTIVE (MS) (LINES)	15.254 (480)	12.711 (400)	11.093 (480)	12.800 (600)	15.880 (768)	11.179 (600)	12.795 (768)
S V.FRONT PORCH (MS) (LINES)	0.318 (10)	0.222 (7)	0.023 (1)	0.021 (1)	0.06 (3)	0 (0)	0.017 (1)
SCANTYPE INTERLACED	NO	NO	NO	NO	NO	NO	NO

PRESET TIMING TABLE (CONTINOUS)

MODE NO.	8	9	10	11	12	13
MODE NAME	VESA 1024X 768	VESA 1280X 1024	VESA 1600X 1200	MAC 640X 480	MAC 832X 624	MAC 1024X 768
HORIZONTAL DOTS	1024	1280	1600	640	832	1024
VERTICAL LINES	768	1024	1200	480	624	768
PIXEL CLOCK (MHZ)	94.5	135.00	162	30.240	57.270	80
HORIZONTAL FREQ (KHZ)	68.677	79.976	75.000	35.000	49.717	60.241
SYNC. POLARITY	+	+	+	-	-	-
A H.TOTAL (US) (PIXELS)	14.561 (1376)	12.504 (1688)	13.333 (2160)	28.571 (864)	20.115 (1152)	16.600 (1328)
B H.SYNC (US) (PIXELS)	1.016 (96)	1.067 (144)	1.185 (192)	2.116 (64)	1.118 (64)	1.200 (96)
C H.SYNC PORCH (US) (PIXELS)	2.201 (208)	1.837 (248)	1.877 (304)	3.175 (96)	3.911 (224)	2.20 (176)
D H.ACTIVE (US) (PIXELS)	10.836 (1024)	9.481 (1280)	9.877 (1600)	21.164 (640)	14.528 (832)	12.8 (1024)
E H.FRONT PORCH (US) (PIXELS)	0 (0)	0.119 (16)	0.395 (64)	2.116 (64)	0 (0)	0.4 (32)
VERTICAL FREQ (HZ)	85	75.025	60.00	66.667	74.55	74.927
SYNC. POLARITY	+	+	+	-	-	-
O V.TOTAL (MS) (LINES)	11.765 (808)	13.329 (1066)	16.667 (1250)	15.000 (525)	13.417 (667)	13.346 (804)
P V.SYNC (MS) (LINES)	0.044 (3)	0.038 (3)	0.04 (3)	0.086 (3)	0.060 (3)	0.050 (3)
Q V.BACK PORCH (MS) (LINES)	0.524 (36)	0.475 (38)	0.613 (46)	1.114 (39)	0.784 (39)	0.498 (30)
R V.ACTIVE (MS) (LINES)	11.183 (768)	12.804 (1024)	16.000 (1200)	13.714 (480)	12.552 (624)	12.749 (768)
S V.FRONT PORCH (MS) (LINES)	0 (0)	0.013 (1)	0.013 (1)	0.086 (3)	0(0)	0.05 (3)
SCANTYPE INTERLACED	NO	NO	NO	NO	NO	NO

EDID DATA for SAMSUNG CRT:

TIME: 09:20:50

DATE: FEB 12, 2004

VIEWSONIC CORPORATION

EDID VERSION # 1, REVISION # 3

DDCTEST FOR: VIEWSONIC A91F+

128 BYTES OF EDID CODE FOR SAMSUNG CRT

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	19	9E	01	01	01	01	01	0E	01	03
20	1D	24	1B	BE	2A	BB	B8	A3	52	46
30	98	24	0F	48	4C	FF	FF	80	81	80
40	C1	40	A9	40	81	40	71	4F	61	59
50	45	59	31	59	BC	34	00	98	51	00
60	2A	40	10	90	13	00	60	08	11	00
70	00	1E	00	00	00	FF	00	50	35	31
80	30	34	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	B4	1E	56	14
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	41	39	31	66	2B	0A	20
120	20	20	20	20	20	20	00	05		

EDID DATA for LG CRT:

TIME: 09:45:14

DATE: FEB 12, 2004

VIEWSONIC CORPORATION

EDID VERSION # 1, REVISION # 3

DDCTEST FOR: VIEWSONIC A91F+

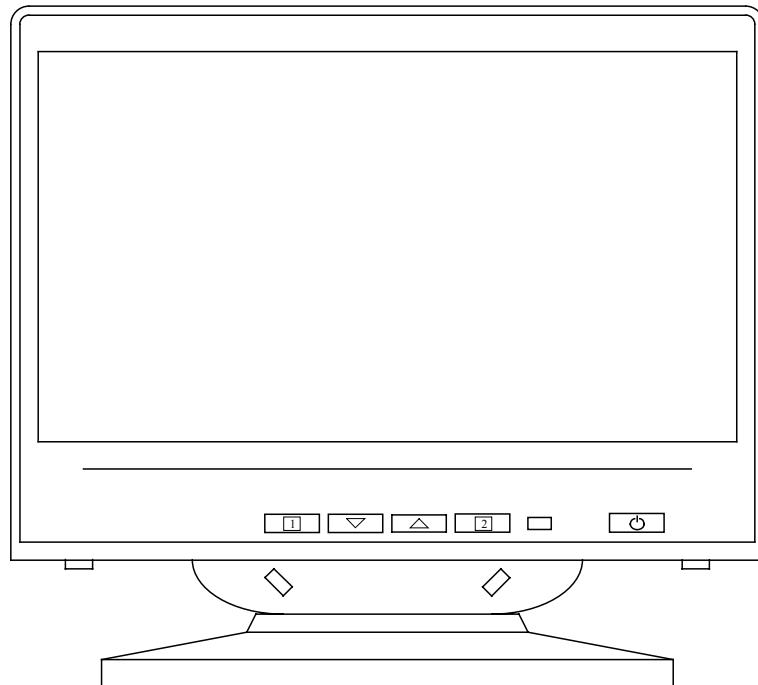
128 BYTES OF EDID CODE FOR LG CRT

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	19	9E	01	01	01	01	01	0E	01	03
20	1D	24	1B	CE	2A	05	78	A0	56	4A
30	99	26	12	48	4C	FF	FF	80	81	80
40	C1	40	A9	40	81	40	71	4F	61	59
50	45	59	31	59	BC	34	00	98	51	00
60	2A	40	10	90	13	00	60	08	11	00
70	00	1E	00	00	00	FF	00	50	35	31
80	30	34	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	B4	1E	56	14
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	41	39	31	66	2B	0A	20
120	20	20	20	20	20	20	00	E0		

3. Front Panel Function Control Description

Control function .

- A . User control .
- B . OSD function control .



A . User control .

- Power switch : Soft power control .
- Function select button : **[1]** , **[2]** .
- Adjustment control button : **▽** , **△** .

Control name .

- 1 . Power switch : Push-on / push-off switch for soft power control .

- 2 . LED indication .

Status	LED
Power on	Green
Off mode in 5 sec	Orange
Over range freq.	Orange
Power off	Off

3 . Function select button :

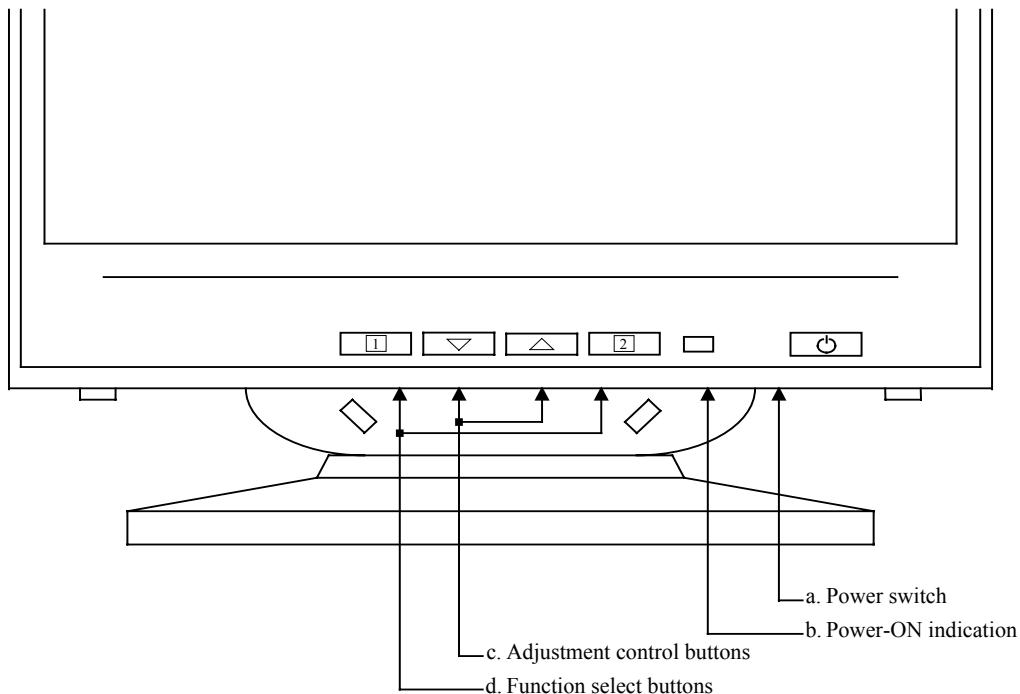
Press the ‘ **[1]** ’ button to display OSD menu .

Press the ‘ **▽** 、 **△** ’ button to select menu function or sub-function .

Press the ‘ **[2]** ’ button to enter the select function .

4 . Adjustment control button :

Push the increased ‘ **△** ’ or decrease ‘ **▽** ’ button for the desired adjustment , all adjustment are memorized automatically immediately .



B. OSD (on screen display) function control method.

. Main menu, Part 1.

1. Contrast / Brightness.
2. H. size / Position.
3. V. size / Position.
4. Pincushion / Balance.
5. Trapezoid / Parallel.
6. Top/Bttom Hook.
7. ZOOM
8. Tilt

. Main menu, Part 2.

9. Degauss
10. H/V Moire.
11. OSD Position.
12. Input Level.
13. View match color.
14. Language.
15. View meter.
16. Memory Recall.

OSD function control :

Main menu, part1



Note : Press button [2] to toggle between all Controls that appear in pairs on the Main menu1.

- **Contrast** adjusts the foreground white level of the screen image.
▽ decreases contrast, △ increases contrast.
- **Brightness** adjusts the background brightness of the screen image.
▽ decreases brightness, △ increases brightness.
- **HORIZONTAL SIZE** adjusts the width of the screen image.
▽ decreases width of screen image, △ increases width of screen image.
- **HORIZONTAL POSITION** moves the screen image left or right.
▽ moves the screen image left, △ moves the screen image right.
- **VERTICAL SIZE** adjusts the height of the screen image.
▽ decreases the screen height, △ increases the screen height.
- **VERTICAL POSITION** moves the screen image up and down.
▽ moves the screen image down, △ moves the screen image up.
- **PINCUSHION** straightens the vertical sides of the screen image by curving them inward or outward.
▽ curves the vertical edges inward, △ curves the vertical edges outward.
- **PIN BALANCE** straightens the vertical sides of the screen image by curving them to the right or to the left.
▽ curves the vertical edges to the left, △ curves the vertical edges to the right.
- **TRAPEZOID** make vertical sides of the screen image parallel.
▽ narrows the top and widens the bottom, △ widens the top and narrows the bottom.
- **PARALLEL** (parallelogram) slants vertical edges of the screen to the left or right.
▽ slants vertical edges to left, △ slants vertical edges to right.



TOP HOOK

Straightens the top corners of the screen image. [▽] or [△] to adjust.



BOTTOM HOOK

Straightens the bottom corners of the screen image. [▽] or [△] to adjust.



ZOOM CONTROL

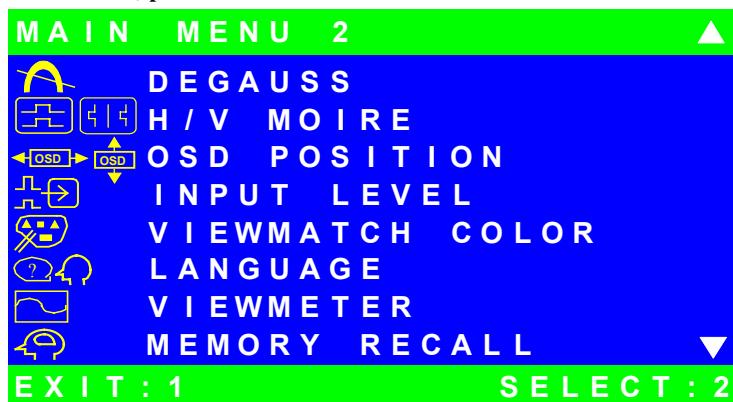
▽ to diminish H-Size & V-Size, △ to enlarge H-Size & V-Size.



▲ TILT rotates the entire screen image.

▽ rotates the screen counter-clockwise, △ rotates the screen clockwise.

Main menu, part12



DEGAUSS manual degauss function.

Press button **[2]** to active manual degauss function.



H MOIRE reduces vertical interference that causes unwanted color textures or patterns.

Press ▽ or △ to adjust.



V MOIRE reduces horizontal interference patterns that causes unwanted color textures or patterns.

Press ▽ or △ to adjust.



OSD H-Position control

Press the ▽, △ button.

▽ move OSD to left side, △ move OSD to right side .



OSD V-Position control

Press the ▽, △ button.

△ move OSD to up, ▽ move OSD to down.



INPUT LEVEL displays the voltage level of the video signal.

-  **VIEWMATCH COLOR** provides three color adjustment modes : 9300°K, 6500°K, 5000 °K and User.
Press button [2] to select color adjustment mode.
-  **LANGUAGE** to select a language use ∇ and Δ to highlight English, French, German, Italian, or Spanish,
Then press button [2].
-  **VIEWMETER** displays the signal input coming from your computer (horizontal scan and refresh rate).
Press button [2] to select this feature.
-  **MEMORY RECALL** returns adjustment back to factory setting only if the monitor is operating in a factory preset mode.
If you make an adjustment you don't like, press button [2] to recall factory setting.

DIAGNOSTIC MESSAGE:

1.If monitor into DPMS mode will show:

Display Time : 5 seconds



Back ground : Blue

Characters : White



Mode	Signals	
	Horizontal	Vertical
Off	No Pulses	Pulses
Off	Pulses	No Pulses
Off	No Pulses	No Pulses

Off mode in 5 sec



2.If input V-sync or H-sync out of pull-in range will show:

H:30KHz ~ 86KHz V:50Hz ~ 180Hz

Display Time : 25 seconds

Pull-in range :



Back ground : Blue

Characters : White

4. Circuit Description

1 . POWER SUPPLY .

1.1 Power supply .

A . Primary Side .

The raw DC voltage is built on C101 from AC line voltage through EMI filter, and bridge rectifier CR101 , then composes with main transformer(T101), switching MOSFET(Q101)and PWM IC(IC101)to form a DC-DC voltage converter by fly back switching topology, which means that the power energy is pumped up at primary winding of transformer during duty “ON” cycle, then transfer the stored energy to primary side, and voltage regulated by PWM IC (3842) using way of pulse width modulation .

The IC101 starts up through some components composed of R103, R104, R105, Q102, ZD101 D110.R118. R107 to build up VCC voltage at pin7, and supplied by transformer once secondary voltage is established .

IC101 have to work synchronously with horizontal sync by feeding fly back pulse through C110 .

R124 .R125, C112 and D114 composed a soft-start circuit to prevent over-stress occurred during power start .
The TP202 : 40V voltage can be adjusted through VR101 .

B . Secondary .

Each raw of DC voltage output from T101 .

- a . TP201 voltage output from T101 pin9 and is rectified by D202, C201 .
- b . TP202 voltage output from T101 pin14 and is rectified by D203, D214. C202 .
- c . TP203 voltage output from T101 pin15 and is received by D205, C205 .
- d . TP204 voltage output from T101 pin16 and is rectified by D206, C206 .
- e . TP205 voltage output from T101 Pin15 and is rectified by Q206, ZD201 and D208.C210. .
- f . TP206 voltage output from TP204 and is rectified by Q208.Q209., R214. R215.and R213 .
- g . TP207 voltage output from T204 . and is rectified by Q210 ZD202 D209 R217.C211and C212.

1.2 Power saving .

The EPA power management state as follows :

State	SUS	Pd	Power consummation	LED
Normal	H	H	110W	Green
Active off	L	L	$\leq 5W$	Amber

SUS = IC301 (MCU) pin17 output .

PD = IC301 (MCU) pin18 output .

There is no output from Q206 and Q203 while is in Active off mode and SUS (IC301 pin17) and PD (IC301 pin18) are at low level voltage . That is, there is no output for 12V and 6.3V .

1.3 Degauss .

When the powers is on and when press manual degauss , IC301 pin20 output high level voltage to turn on Q201 , RL101 and activate Degauss .

2 . VERTICAL .

- 2.1 Auto SYNC Deflection control and B+ control circuit Horizontal and vertical sync through IC401 TDA9113 transmit .

Deflection controller IC401 TDA9113 :

- a . The control input (V-position, H-position, V-size, H-size, Pincushion, Pin-Balance, Trapezoid, Parallelogram. TOP Corner. Bottom Corner. Zoom, moiré) are use I²C control .
- b . SYNC input :
 - H-sync (pin1) (From IC301 pin33) .
 - V-sync (pin2) (From IC301 pin32) .
- c . Output :
 - * B⁺ Driver (pin28) .
 - * H-Driver (pin26) .
 - * EW-Driver (pin24) .
 - * Focus (pin32) .
 - * V out (pin23) .

2.1.1 Horizontal .

- a . Then take a HFLB pulse from horizontal output Q407 collector C418 and C419 mid voltage to IC401 for AFC to make pin12 control H-Drive .
- b . Pin5 and pin6 (C410, R410) control horizontal hold in range .

2.1.2 Vertical .

- a. V-sync outputs from MCU IC301 pin32 to IC401 pin2, then than smite from pin23, pin 13 to IC501 TDA8172 pin1and pin7 .
- b. IC401 pin3, pin7 outputs to vertical hold in range is controlled by pin22 (C440) .

2.1.3 B⁺ control .

Take a pulse from T403 pin2 and accumulates to become a DC voltage via Q409, Q401.Q402. R418 ,and .R424 to IC 401 pin 28. (Step up circuit control).

2.2 Vertical deflection .

- a . IC401 pin23 and pin13 output to IC501 (TDA8172) pin7 and pin1 , then IC501 pin5 and pin7 make vertical deflection output .
- b . Vertical blank : IC501 pin3 take a blanking pulse , After passing Q501 buffer can supply video blanking signal .

2.3 Boost converter .

The Booster converter mainly composes of n-channel MOSFET Q409 Transformer T403 capacitor C442 and rectifier diode D408. IC401 pin28 B⁺ driver output via Q401, Q402, to driver Booster converter and provide a DC-voltage to provide B⁺ H-output circuit use , As H-freq. change, IC401 pin28 B⁺-driver will change its output, Booster converter will also change the B⁺ it provides, H-freq. will varies from 30K ~ 86KHz, B+ will varies from 40V ~ 180V .

2.4 X-RAY radiation protection .

FBT pin6 output one pulse to pass through D4407.ZD4403 .D4408 and C4420 integration DC voltage, and through D4420.Q4404.IC402.pin 2, when anode voltage abnormal increase, FBT pin6 and IC402 pin2 voltage to be increased, too .

As IC402 pin2 $\geq 0.6V$, IC402 X-RAY protection circuit immediately active, High voltage to shut-down .

The X-RAY radiation protection circuit used in this monitor is a latching type the monitor will shown down and continue until turn-off the monitor with power switch .

3 . Horizontal .

3.1 Horizontal driver circuit .

The output of IC401 pin26 H-Driver connect to Q403.Q404 H-Buffer transistor makes The Q403.Q404 push pull output to Q406 H-driver, push H-output Q407 to reach secondary via induction of T4401 . For T4401 is a Transformer of reduced voltage and converted pole, Q407 will be turn off when Q406 is on, on the contrary, went Q406 is turn off and Q407 will be on .

3.2 Horizontal output circuit .

Horizontal output circuit is composed by Q407 (Horizontal Transistor), CRT YOKE.D406.C418 and C419. H-output circuit, H-Driver circuit output via T4401to switch Q407 ON/OFF to output saw tooth wave and make DY able to control the circuit scanning of elections in the CRT .

L403, L404, C427, C432, C428 and C429 modify Horizontal linearity switching individually Dai RL401 , Q415, Q411 .

3.3 EW-Pincushion and width control circuit

The parabolic waveform and DC voltage and generated from IC401 pin24 to Q405, R421, R422 to IC401 pin15 .

The parabolic decreased or increased for compensating the pincushion effect the DC voltage control the H-width .

3.4 High-voltage circuit

High-voltage circuit is composed by Q4401.T401 (FBT) and.C4406 .High-voltage output stage .

The IC 402 is PWM duty-cycle control.

1. Q4405 High voltage buffer stage.
2. Q4401 High voltage output stage.
3. Q4402 PWM control Driver stage.
4. Q4407.Q4408 .and Q4410 Brightness control circuit .
5. Q4406 D4426.R4429.R4430.VR4402 andC4427. ABL control circuit.
6. VR4401 High voltage control.
7. VR4402 ABL Lever control.

4 . Video .

4.1 Video amplifier (IC601) .

The video amplifier module is composed of three amplifiers for Red, Green, Blue channel .

The video input signal is fed to the video preamplifier IC601 (KA2500) pin8 Red, pin5 Green, pin10 Blue, through AC coupling capacitor, C601, C601, C603 .

The clamping pulse comes from IC301 pin33 .

IC603 output amplifier for B、R、G channel respectively .

4.2 On Screen Display (OSD) (IC602) .

IC602 (NT6827-0047) is a on screen display generator, pin5 for H-sync input, pin10 for V- sync input .

The IC602 is controlled by IC301 via SCL, SDA bus IC602 (pin7, pin8) .

The on screen display signal is output from pin15 (r), pin14 (g), pin13 (b) and OSD BLK to IC601 pin2, pin1, pin3, pin4 .

4.3 Auto Beam Limit CKT (ABL CKT) .

When beam current pass through VR4402 over 500uA, the voltage build at base of Q4406 will be low enough to turn on Q4406, then the voltage of pin12 of IC601 will be pulled down accordingly to reduce the video preamplifier gain output .

4.4 Brightness Control .

Brightness is controlled by varying the DC voltage of G1 with the IC301 PIN1 (PWM) .

4.5 Blanking CKT .

IC501 (TDA8172) pin3 vertical blanking pulse are fed to the base of Q501, The blanking pulse O/P is coupled to G1 by C507 .

Horizontal blanking pulse are fed to IC601 pin19 and let video O/P amp cut off during the period of horizontal retrace , while mode change, IC301 pin19 will pull high to turn off . The G1 voltage will down to -180V then CRT will cut off the video output .

5 . Tilt .

IC301 pin2 PWM to tilt circuit, Q211 and Q213 control flow of current of Rotation coil, when the base of C215 increase from 0 to 12V, As Q211 will turn on gradually, the current starts from 14V to 6.3V via Rotate coil . When C215decrease from 12V to 0V, the current will change from 6.3V to GND .

6 . Micro (IC301) .

6.1 HS/VS Processor .

HS/VS input pin39 (HS), pin40 (VS), IC301 individually to work on frequency, polarity, process of H+V and power saving, then output horizontal sync (pin33) and vertical sync (pin32) of positive polarity to IC401 TDA9113 pin1, pin2 .

6.2 PWM Control .

The PWM control of IC301 is pin1 (Brightness) and pin3 (Rotation), the PWM output via R, C after rectified may control each function .

6.3 Power saving / Mute / LED control .

IC301 pin17, pin18 are power saving control pin, the condition of power saving and mode change, pin19 will change from Low to Hi and active Mute function .

	Normal	Active	
Mute	L	H	
SUS	H	L	(Off mode)
PD	H	L	(Off mode)

IC301 pin17 (SUS) function as LED control, the mode is as listed :

	Power On	Power saving	Over range freq .
Pin17	Hi	Low	Low

6.4 CS control (CS1 ~ CS3) .

To count H-SYNC by the output frequency, then output the cumulating as listed :

Freq.	CS1	CS2	CS3
< 30K	1	0	0
30K~34K	1	0	0
34K~36.5K	1	1	0
36.5K~41K	1	1	1
41K~52K	0	0	0
52K~62K	0	0	1
62K~72K	0	1	0
> 72K	0	1	1

6.5 Key Control: IC301 pin26~pin29 function as DAC switch input to control OSD display function .

Pin26 : 1 .

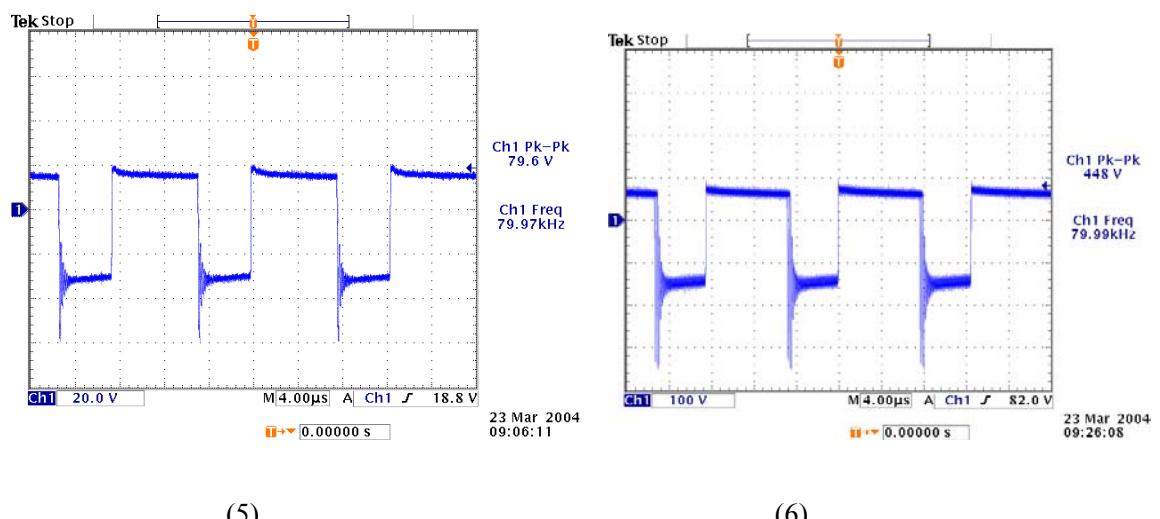
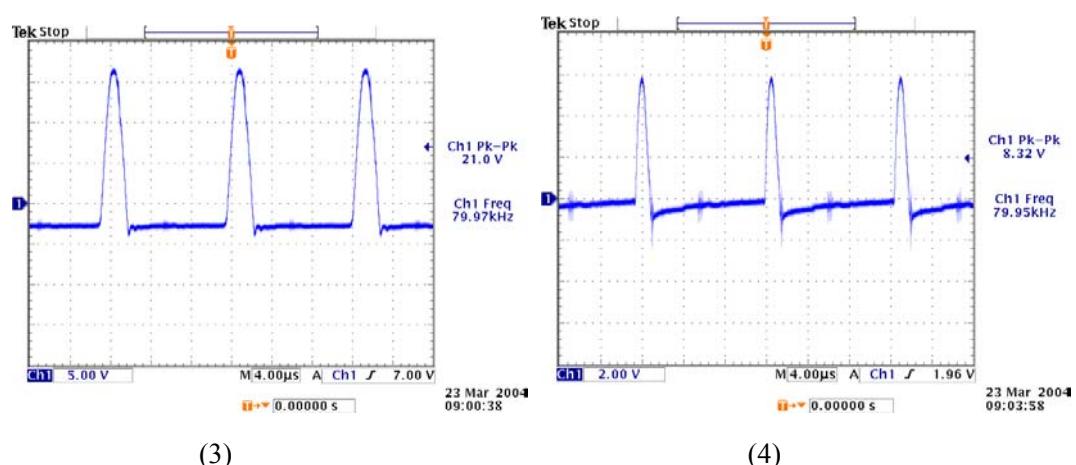
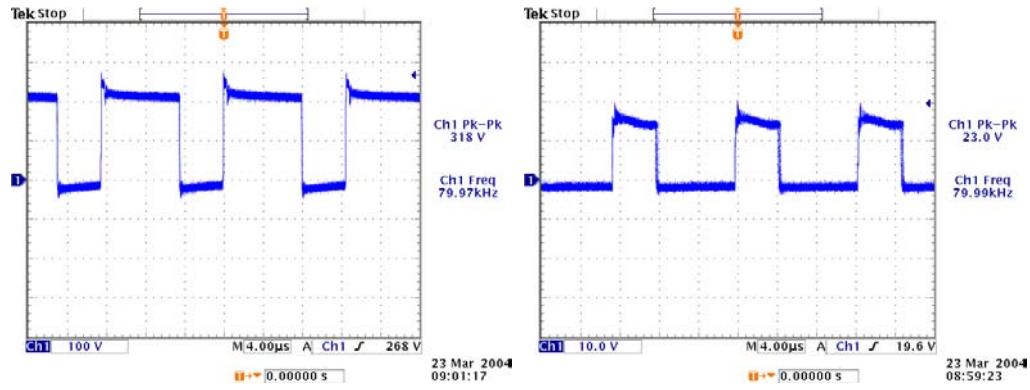
Pin27 : ▽ .

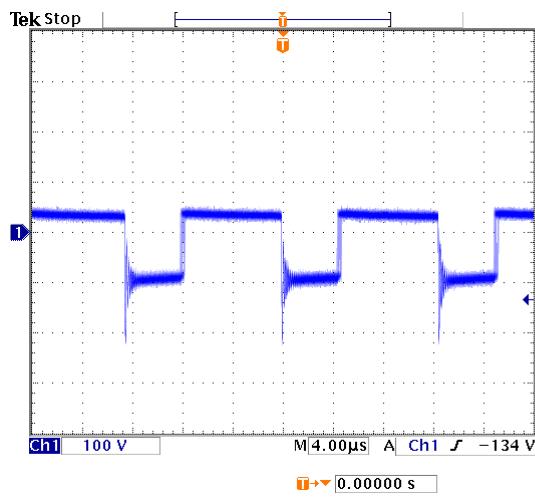
Pin28 : △ .

Pin29 : 2 .

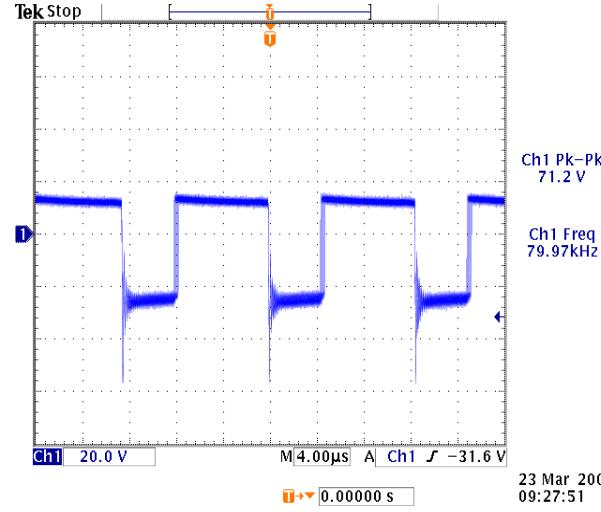
6.6 I²C Bus .

IC301 have two groups I²C bus to control E²PROM, IC401 deflection IC, Auto aliment, IC601 pre-AMP, IC602 OSD IC function .

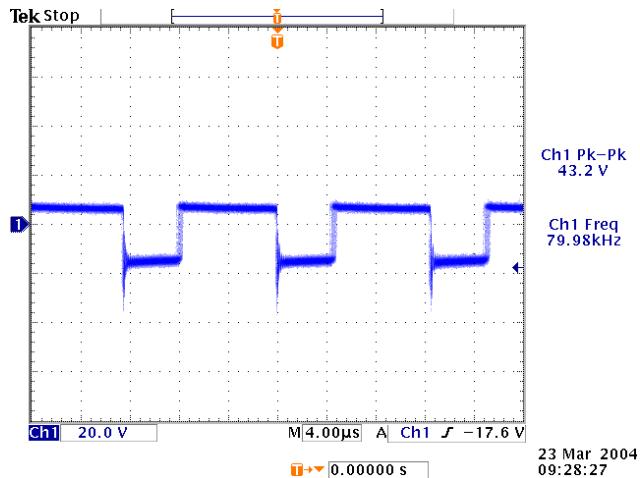




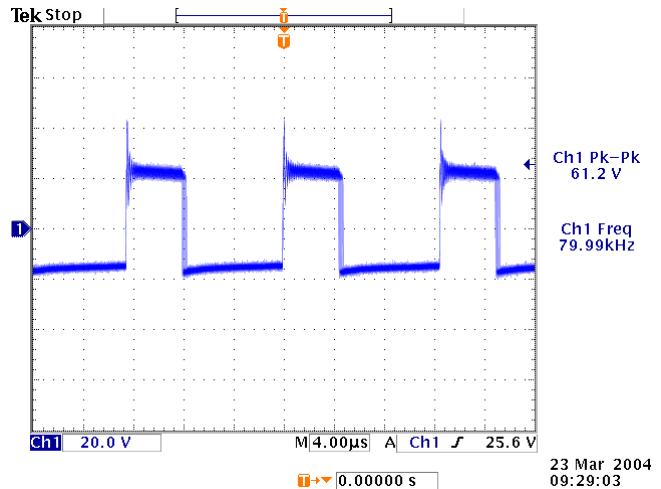
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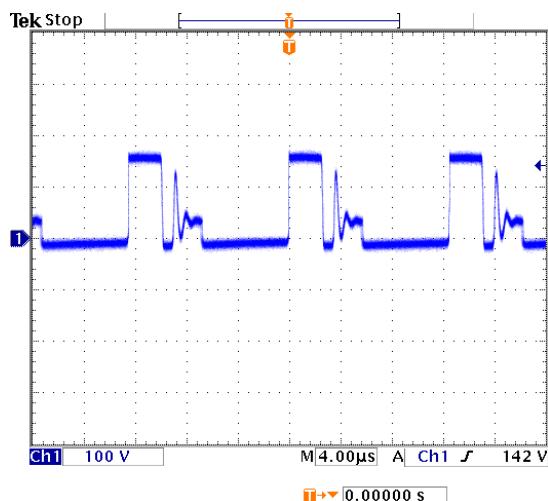
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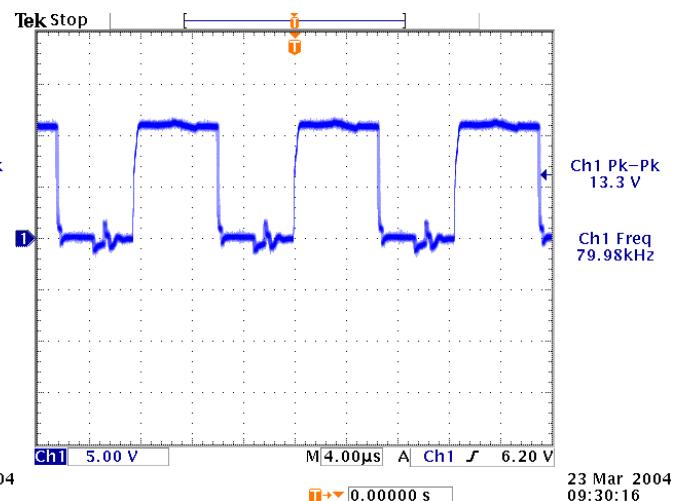
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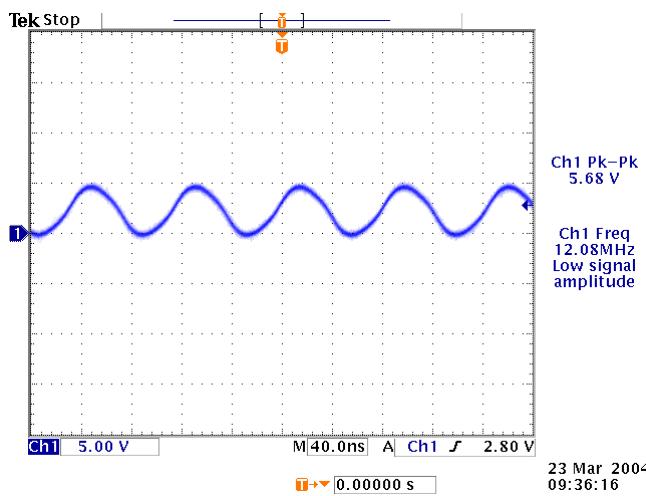
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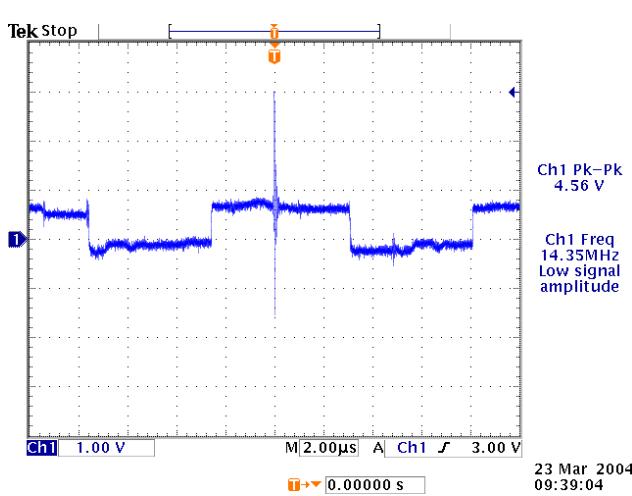
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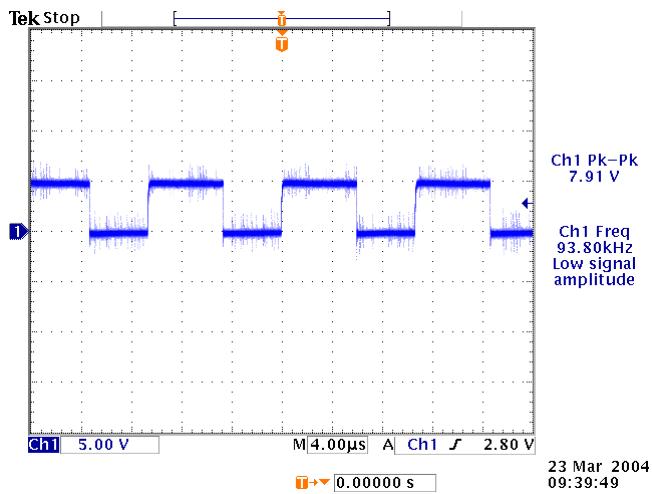
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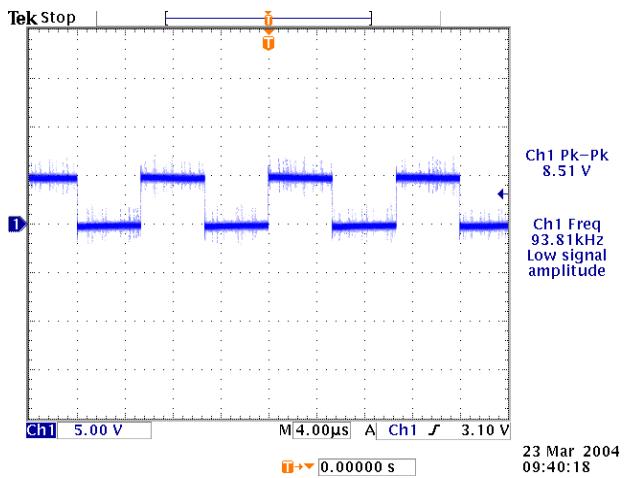
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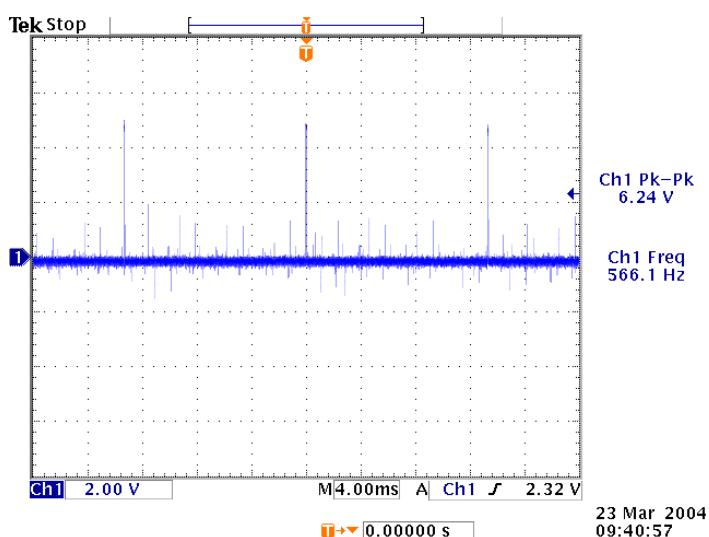
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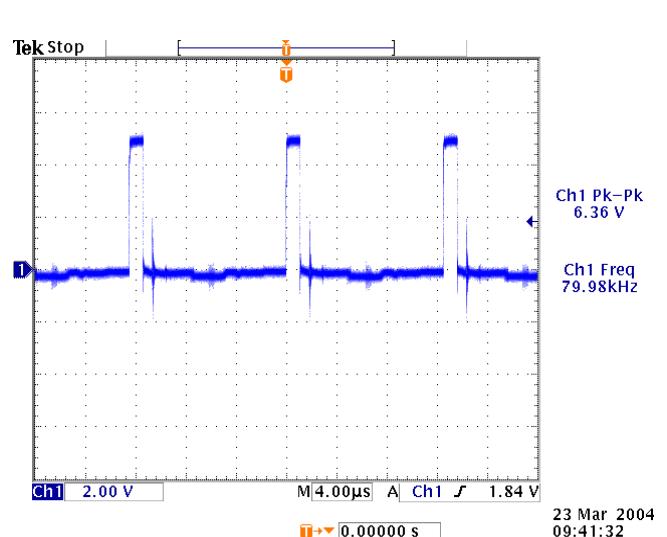
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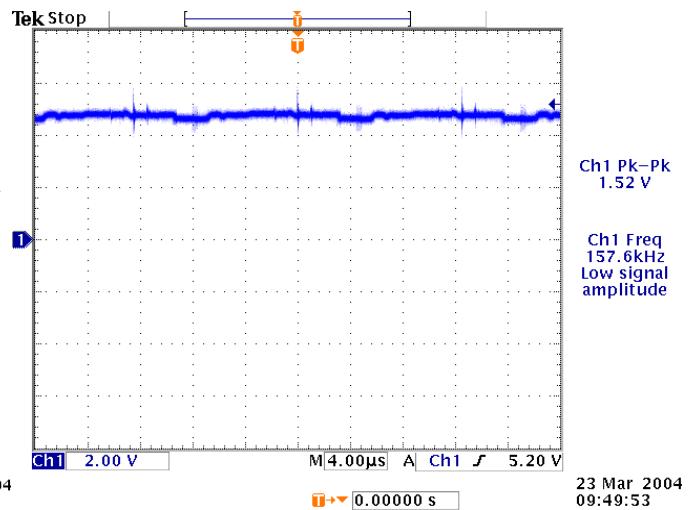
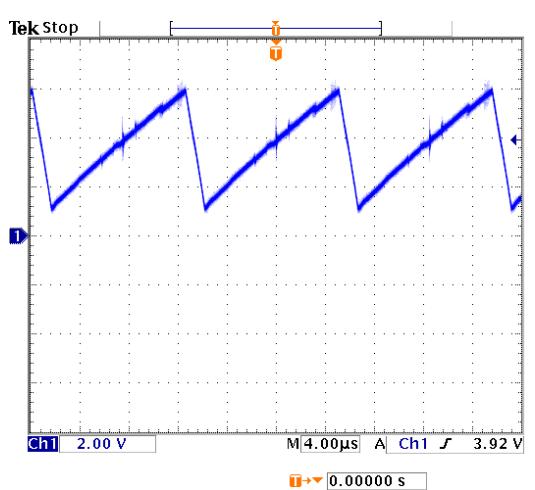
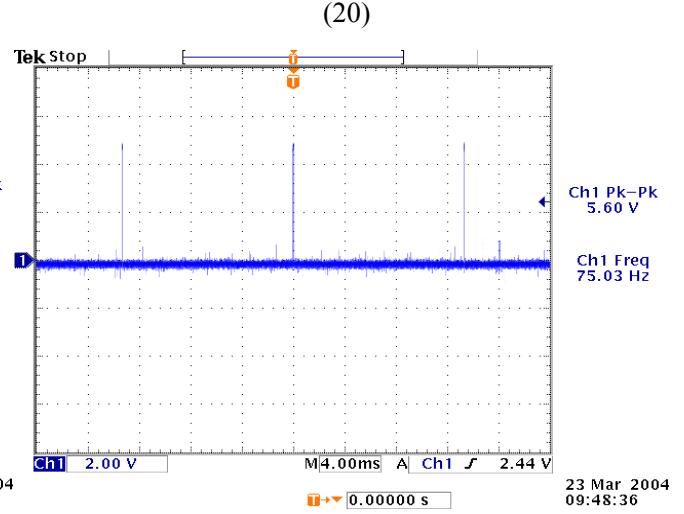
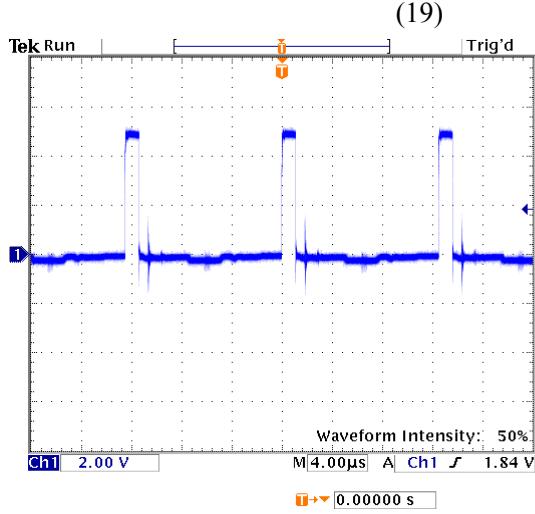
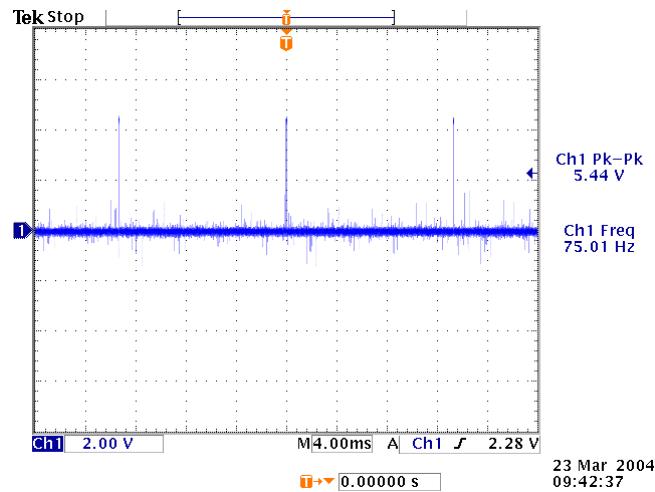
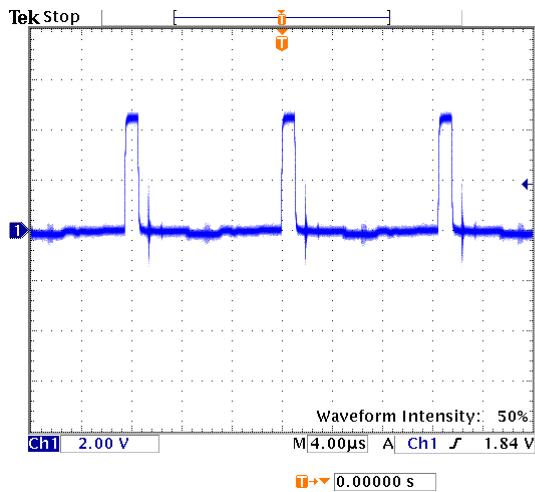
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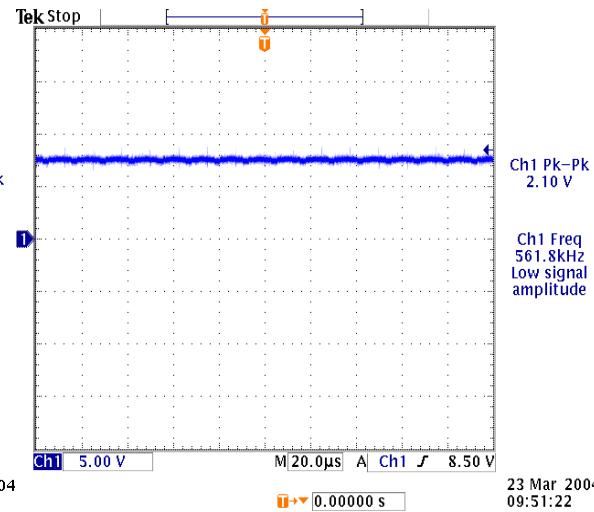
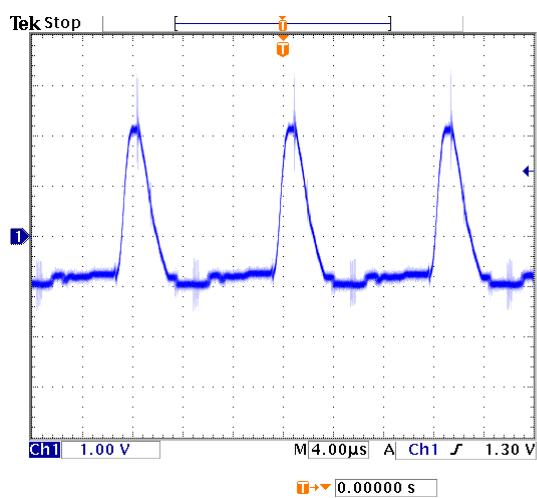


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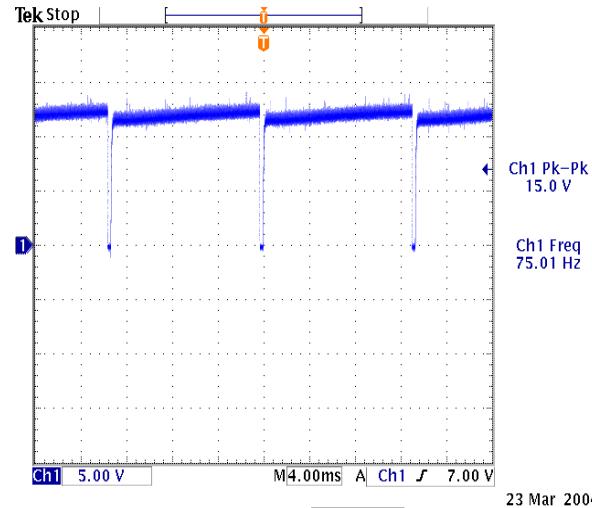
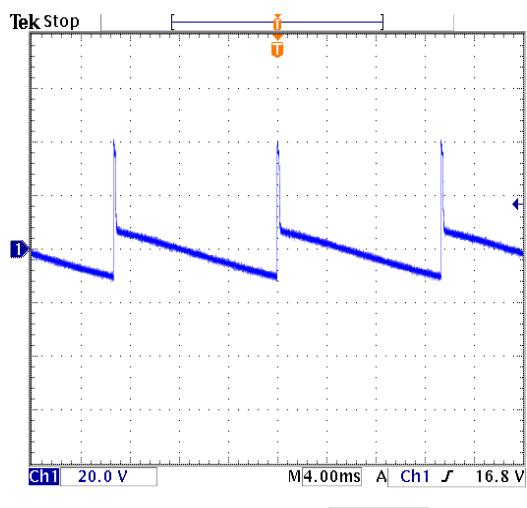


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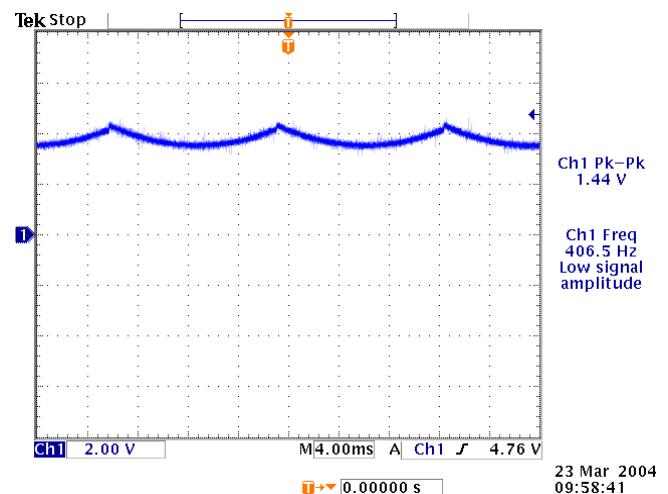
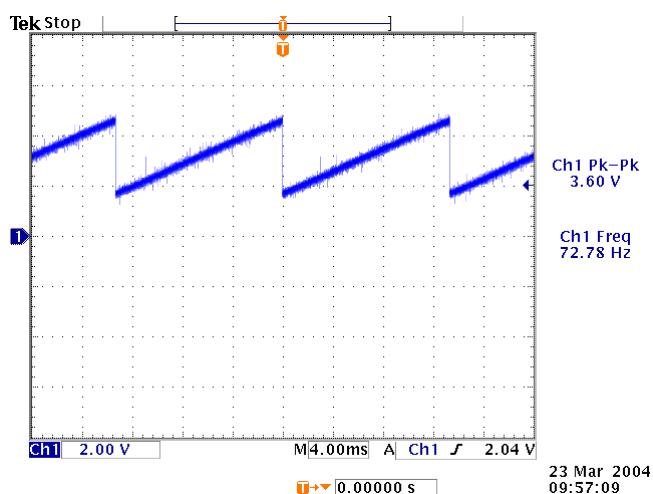


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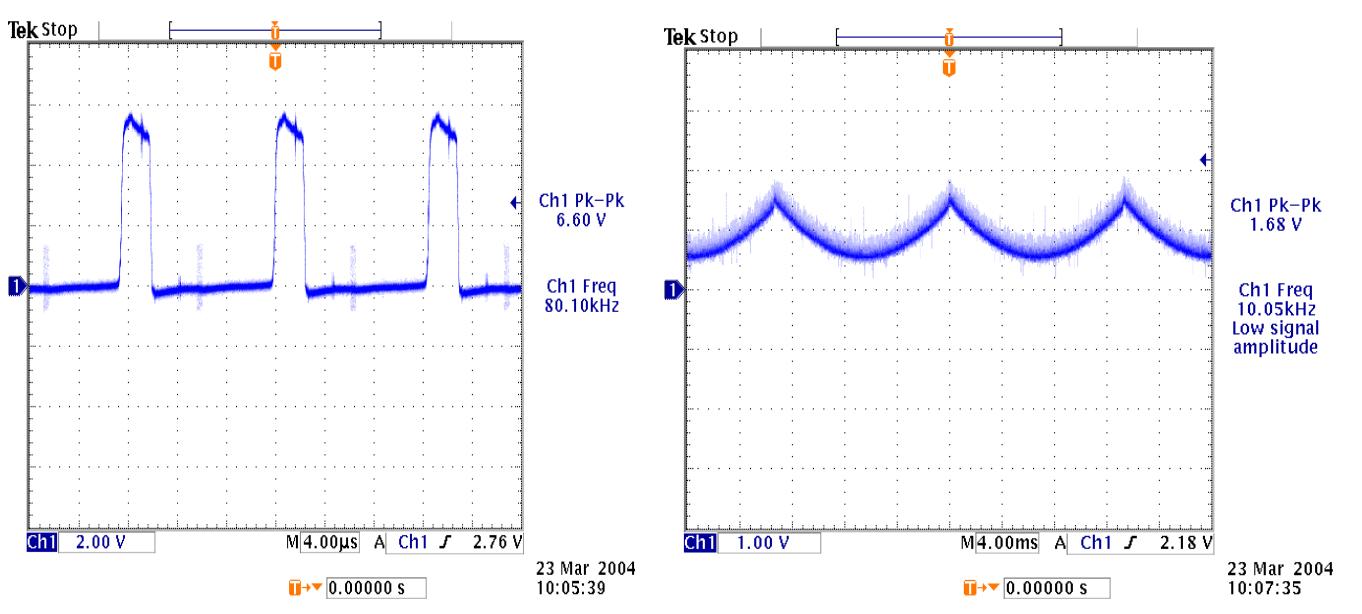
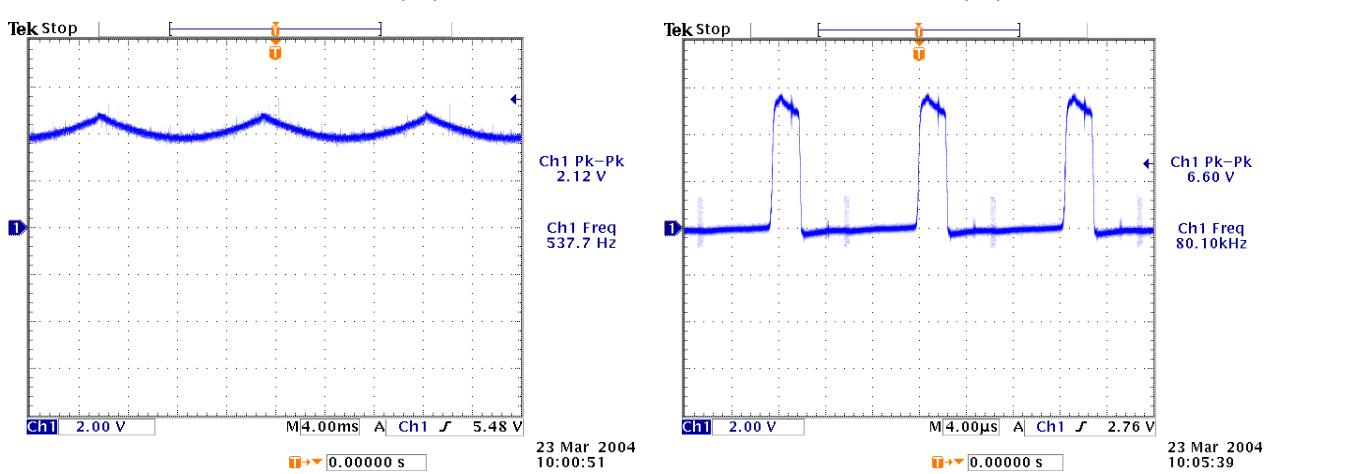
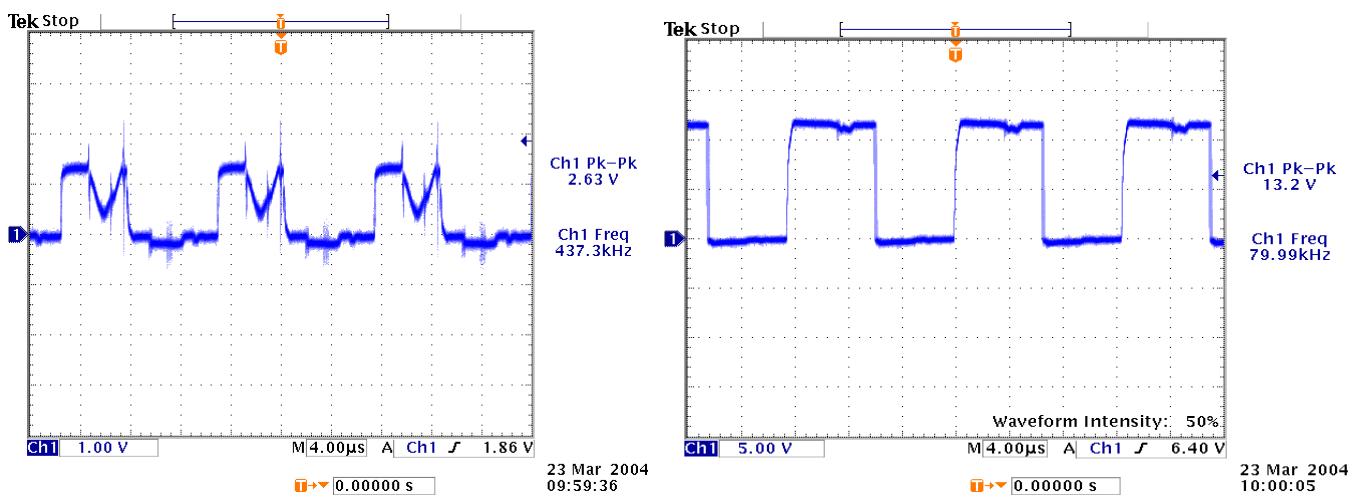
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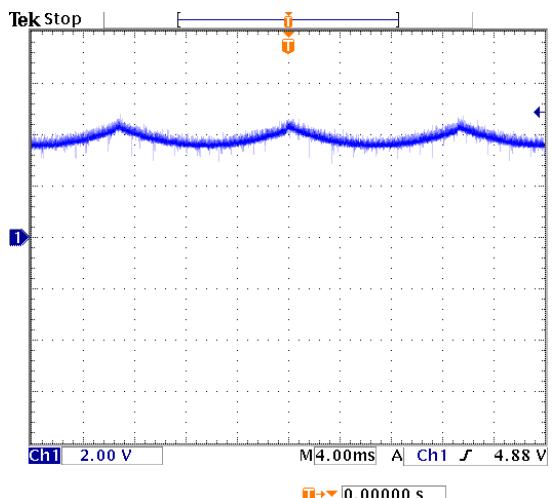
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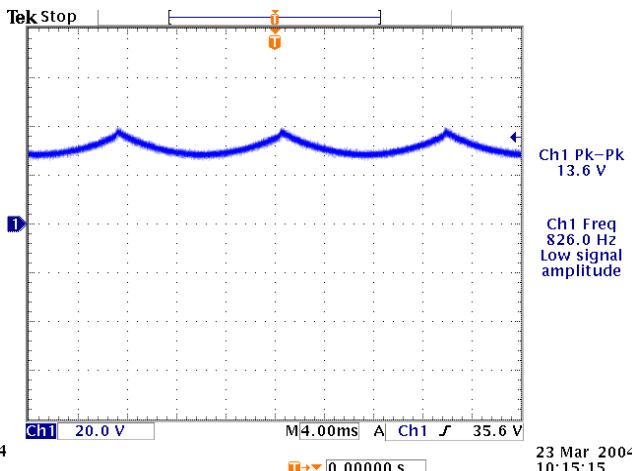
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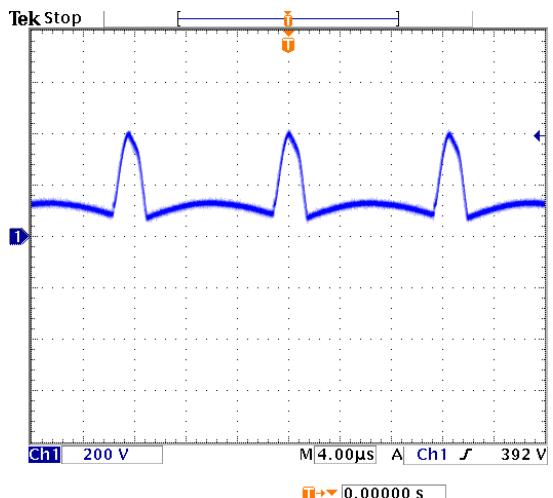




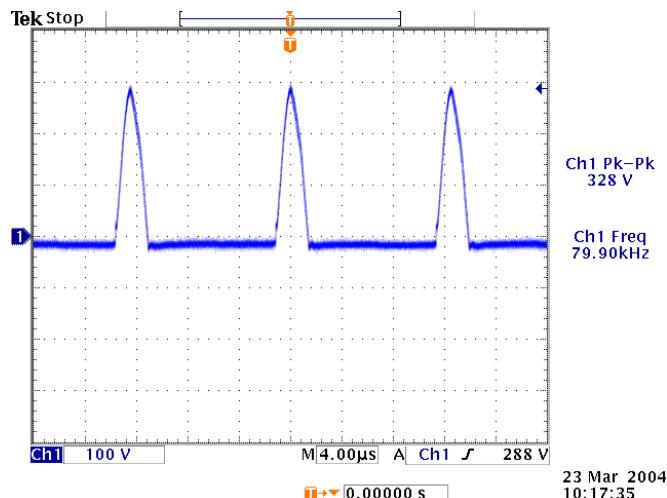
(37)



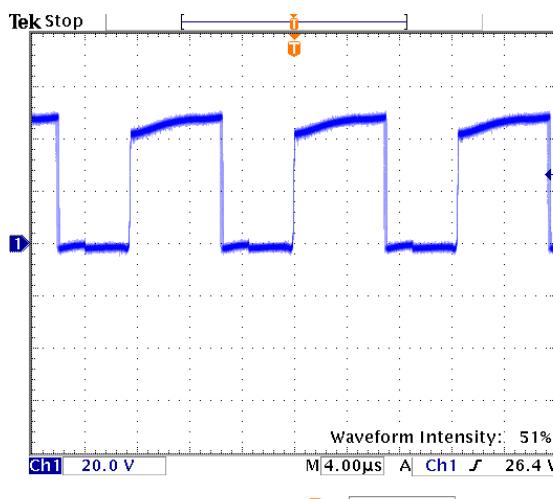
(38)



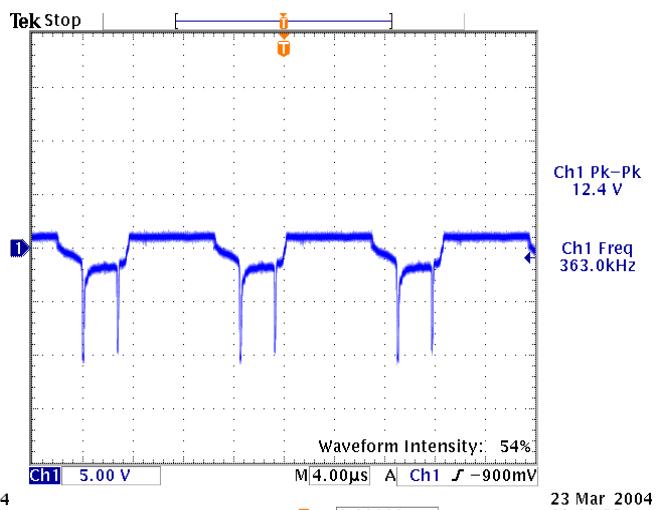
(39)



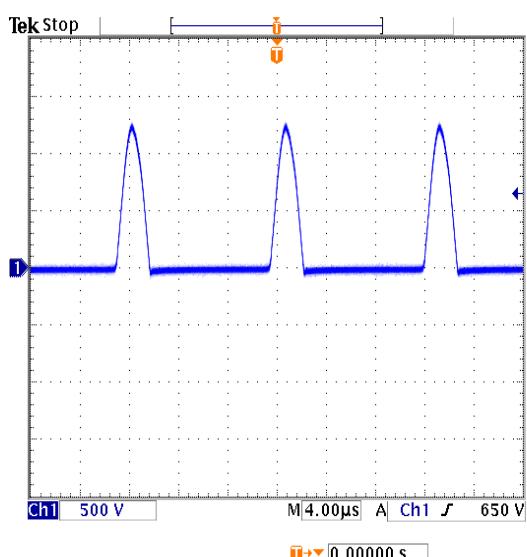
(40)



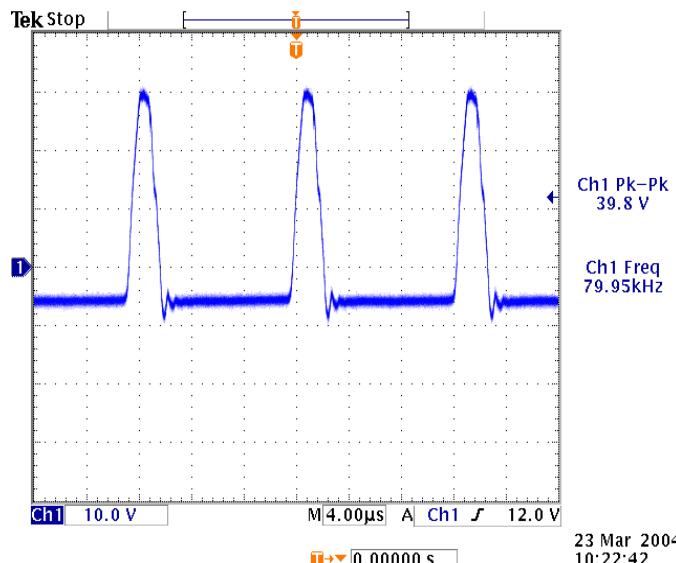
(41)



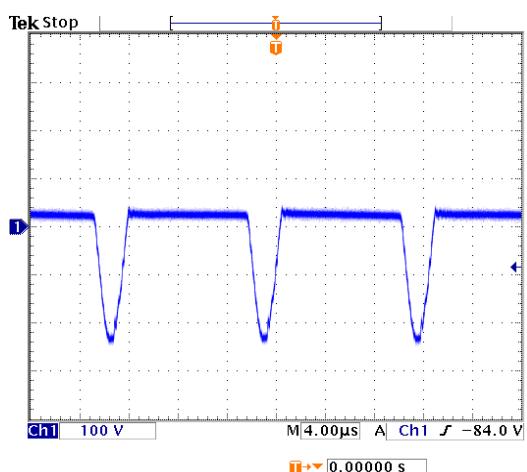
(42)



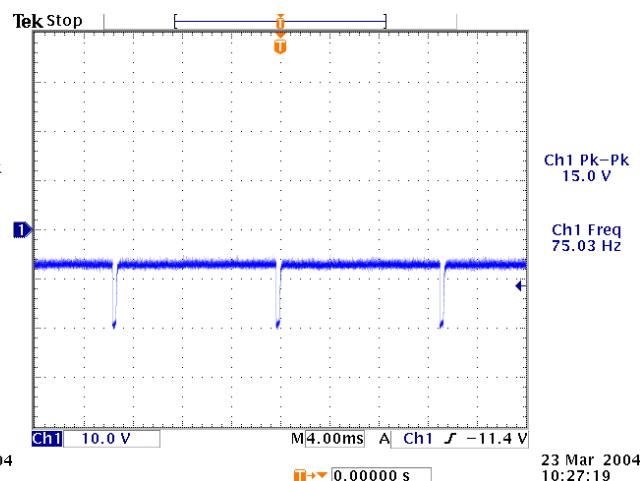
(43)



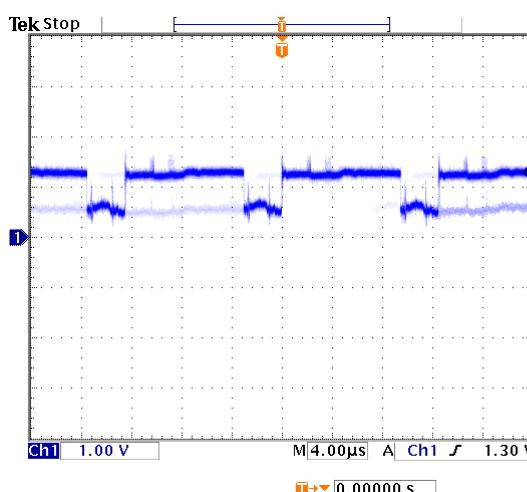
(44)



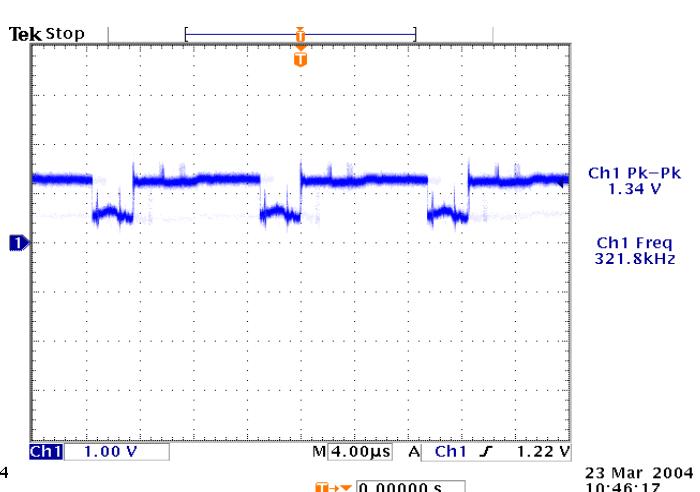
(45)



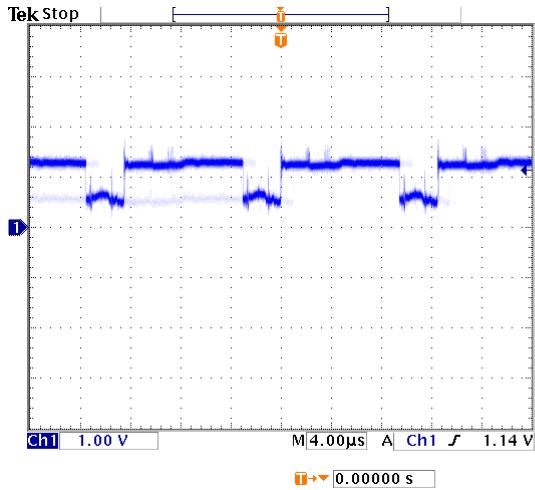
(46)



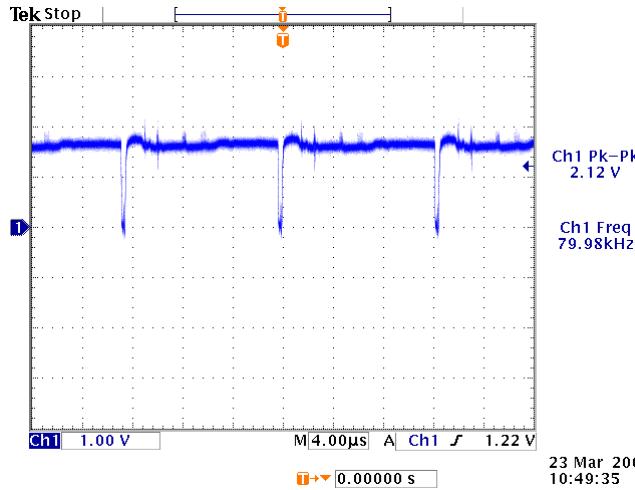
(47)



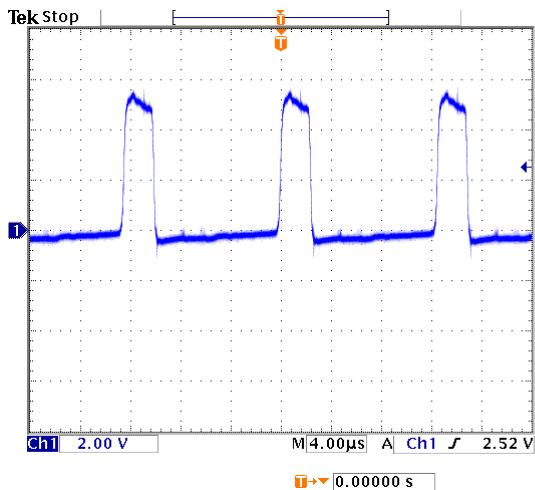
(48)



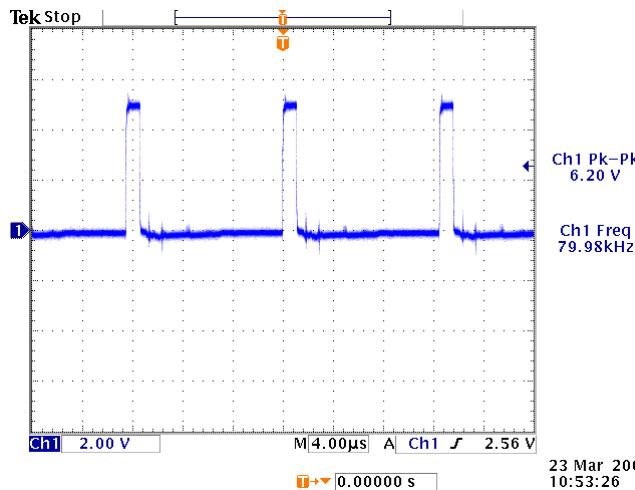
(49)



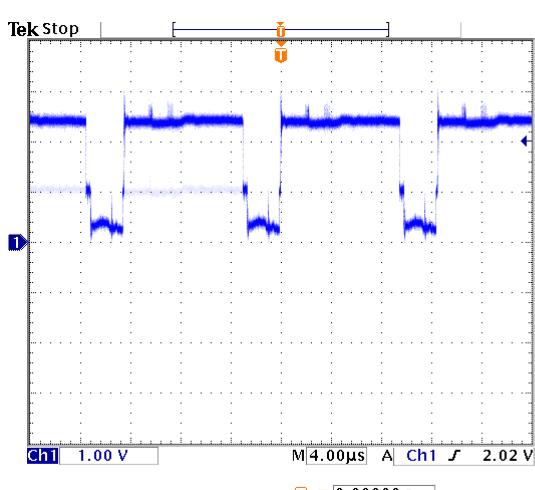
(50)



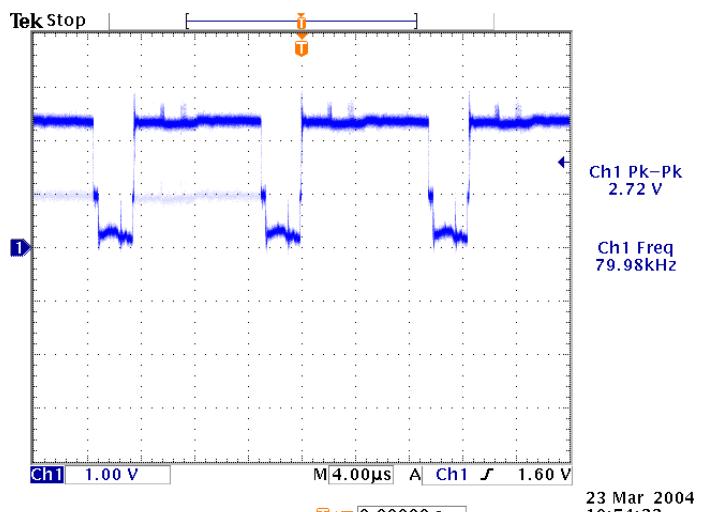
(51)



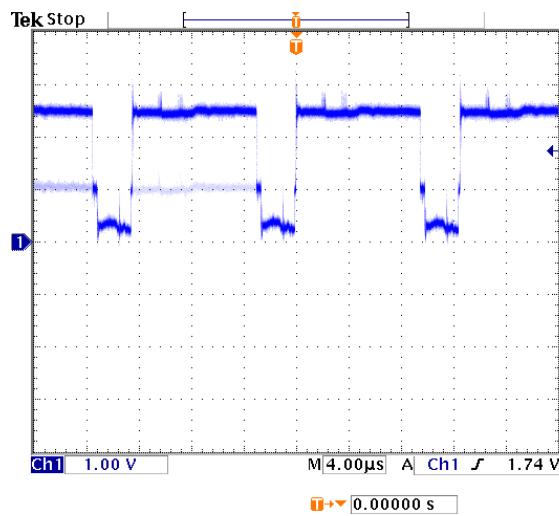
(52)



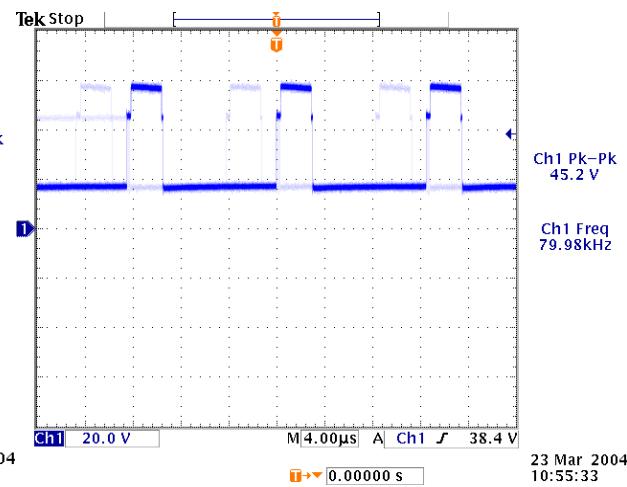
(53)



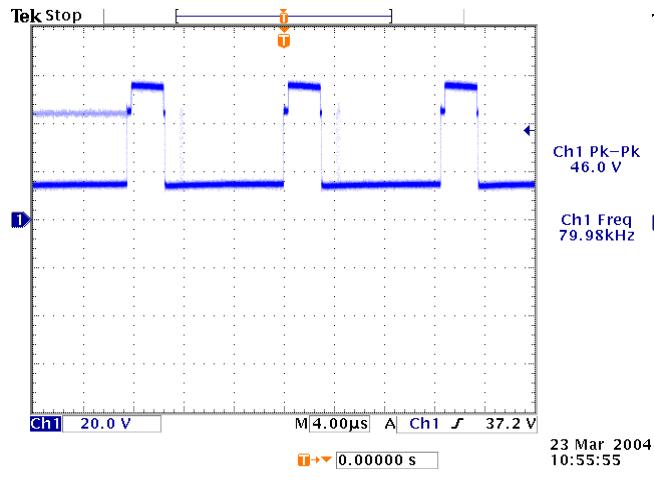
(54)



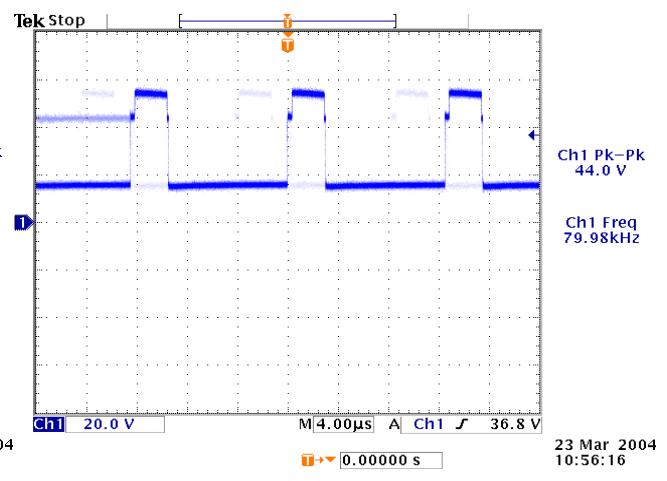
(55)



(56)



(57)



(58)

5. Adjusting Procedure

A . GENERAL .

1. All specification must be met over line voltage range of 90vac to 264VAC 50Hz / 60Hz, unless otherwise specified .
2. Operating temperature range is 0°C to 40°C with a relative humidity of 10% or less to 90% .
3. The monitor must be operational in a usable state within 30 minutes after turn-on .
4. All signal levels are measured assuming termination at the monitor's input jacks or in its characteristic impedance .
5. An ambient lighting level of 400 to 600 Lux is assumed when setting brightness for raster extinction threshold .
6. All purity related specifications must be met without external degaussing .
7. All controls must have excess range (no control may be left at an end stop when proper alignment is completed.
8. The monitor is not required to meet specs during the following but must tolerate, without damage to the CRT or circuits, any sequence or combination of power on and off, signal on and off, unplugging of power or signal, erratic, wrong frequency or noisy inputs while at any possible settings of user accessible controls likewise, the monitor should survive extended periods of operation with line voltage reduced below the specified minimum.
9. An isolation transformer should be used when performing alignment and tests . Portions of the power supply board are hot ground . The remaining boards are cold ground .
10. Discharge of CRT anode should be done only to CRT ground strap .
11. Geometric measurements assumed to be made along a straight surface with a flat rule or template .

B . INSTRUMENT ALIGNMENT .

1. Deflection Presets .

Control pots VR101、VR401、VR4401、VR4402 are set at middle point. Screen, Focus VR set to min .

2. Power Supply Alignment .

2.1 Input VGA (480) signal cross-hatch pattern & beam current set at 0 μ A .

2.2 Adjust VR101 until TP202 = 40V \pm 0.3V at TP202 .

2.3 Adjust VR4401 must be high voltage 26KV +/- 1.0KV .

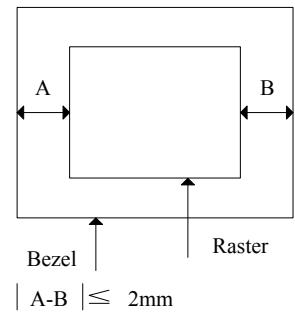
3. Size & Geometry Adjustment .

3.1 Raster Centering .

3.1.1 Input cross hatch pattern at 60K 1024* 768 Hz mode .

3.1.2 Adjust contrast to 10FL , adjust screen just raster visible .

3.1.3 Adjust VR401 to center raster on screen such that the horizontal distance from the midpoint of the left display edge to the left bezel edge is within 2mm of the distance from the midpoint of the right display edge to the right bezel edge .

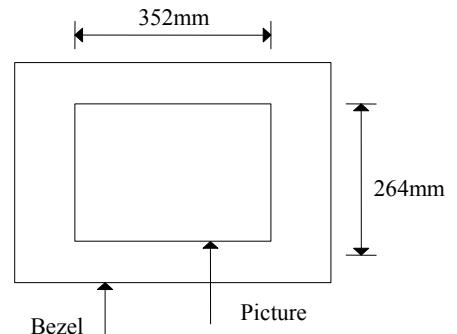


3.2 Picture Size .

Input mode 1~11 signal adjust V-size , H-size to achieve .

H-SIZE : 352mm \pm 4mm

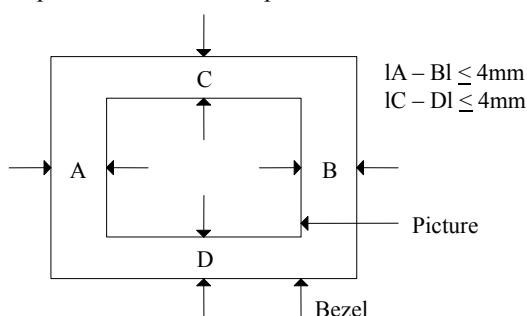
V-SIZE : 264mm \pm 4mm



3.3 Picture Centering .

Input mode 1~9 adjust V-position ,

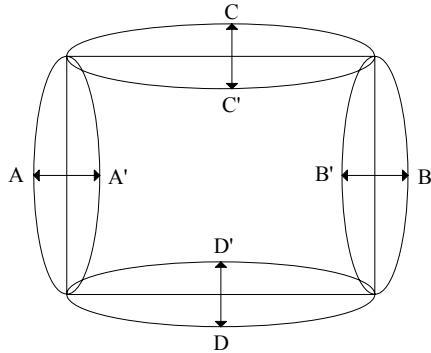
H-position such that the picture is centered with the screen .



3.4 Geometry Adjustment .

3.4.1 Input mode 1~11 .

3.4.2 Pincushion and barrel distortion .

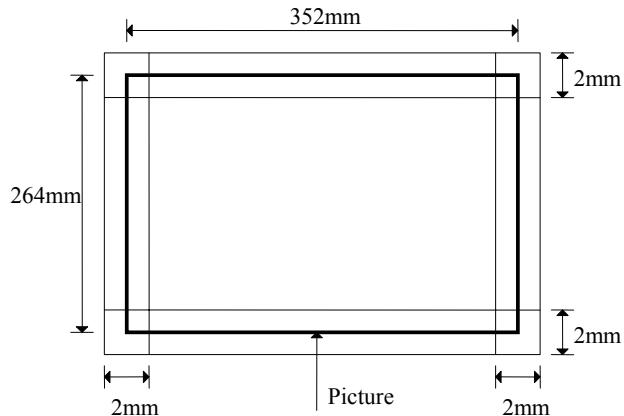


Pinchshion \leq 1mm (A',B',C',D')
Barrel \leq 1mm (A,B,C,D)

Pincushion / Barrel distortion

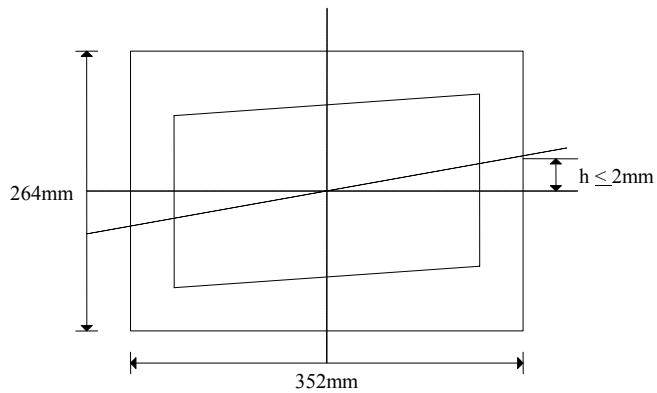
3.4.3 Trapezoid and parallelogram distortion

trapezoid / parallelogram \leq 1.5mm .



Trapezoid / Parallelogram distortion

3.4.4 Rotate adjustment .



4. Video Alignment / function memory recall .

4.1 Input 1024×1024 80KHz full black pattern .

4.2 Set Brightness 100%, Contrast 0%, turn the G2 knob to obtain raster light O/P about 0.4 FL .

4.3 Adjust R、G、B bias Control to meet following chromatically spec .

$9300^{\circ}\text{K} \rightarrow x = 0.283 \pm 0.003, y = 0.297 \pm 0.003, Y = 0.4 \pm 0.2 \text{ FL}$.

$6500^{\circ}\text{K} \rightarrow x = 0.313 \pm 0.003, y = 0.329 \pm 0.003, Y = 0.4 \pm 0.2 \text{ FL}$.

$5000^{\circ}\text{K} \rightarrow x = 0.346 \pm 0.003, y = 0.359 \pm 0.003, Y = 0.4 \pm 0.2 \text{ FL}$.

4.4 Adjust Brightness to 50%, Contrast 100% .

4.5 Apply 70mmx70mm green window pattern, adjust G-Driver to obtain green window pattern light O/P about 33 FL (9300°K) .

4.6 Apply white window pattern, adjust R-Driver, B-Driver to meet following chromatically spec .

$9300^{\circ}\text{K} \rightarrow x = 0.283 \pm 0.015, y = 0.297 \pm 0.015, Y = 40 \pm 2 \text{ FL}$.

4.7 Apply 70mmx70mm green window pattern, adjust G-Driver to obtain green window pattern light O/P about 32 FL (6500°K), (5000°K) .

4.8 Apply white window pattern, adjust R-Driver, B-Driver to meet following chromatically spec .

$6500^{\circ}\text{K} \rightarrow x = 0.313 \pm 0.020, y = 0.329 \pm 0.020, Y = 40 \pm 2 \text{ FL}$.

$5000^{\circ}\text{K} \rightarrow x = 0.346 \pm 0.020, y = 0.359 \pm 0.020, Y = 40 \pm 2 \text{ FL}$.

4.9 Apply full white pattern .

4.10 Adjust VR4402 to obtain light O/P = 33 ± 1 FL .

4.11 Apply full white pattern, adjust contrast from max to 10FL and check the chromatically meet following spec .

$|x(\text{at contrast, } 30) - x(\text{at contrast, } 10)| \leq 0.009$.

$|y(\text{at contrast, } 30) - y(\text{at contrast, } 10)| \leq 0.009$.

4.12 Functions “All mode recall” .

Push button “ ” and power switch on, the picture should restore to that of factory mode .

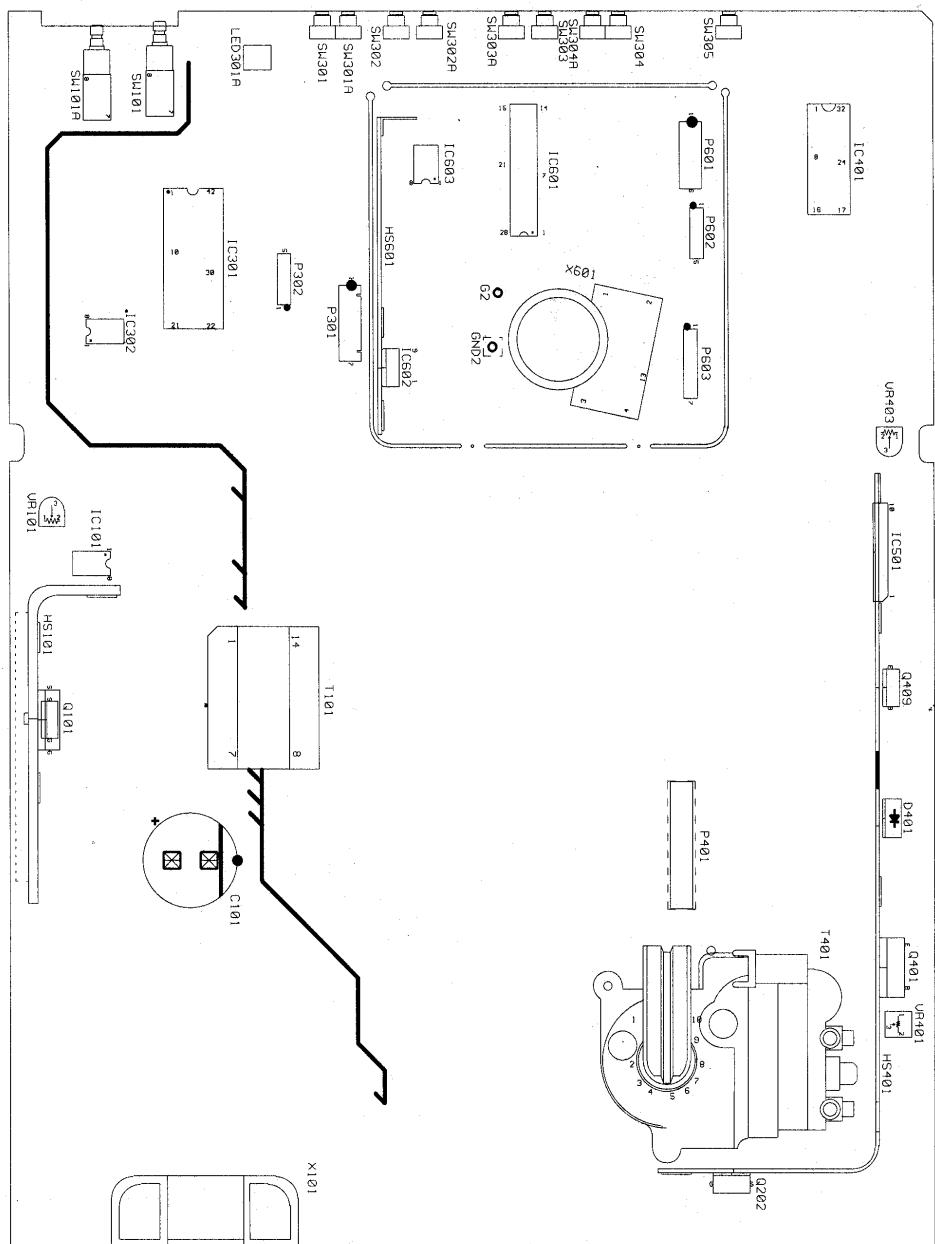
5. Focus Adjustment .

5.1 Apply signal ALL “ME” pattern at 1280*1024 80K mode .

5.2 Set Brightness 50%, Contrast 100% .

5.3 Set focus control for best focus .

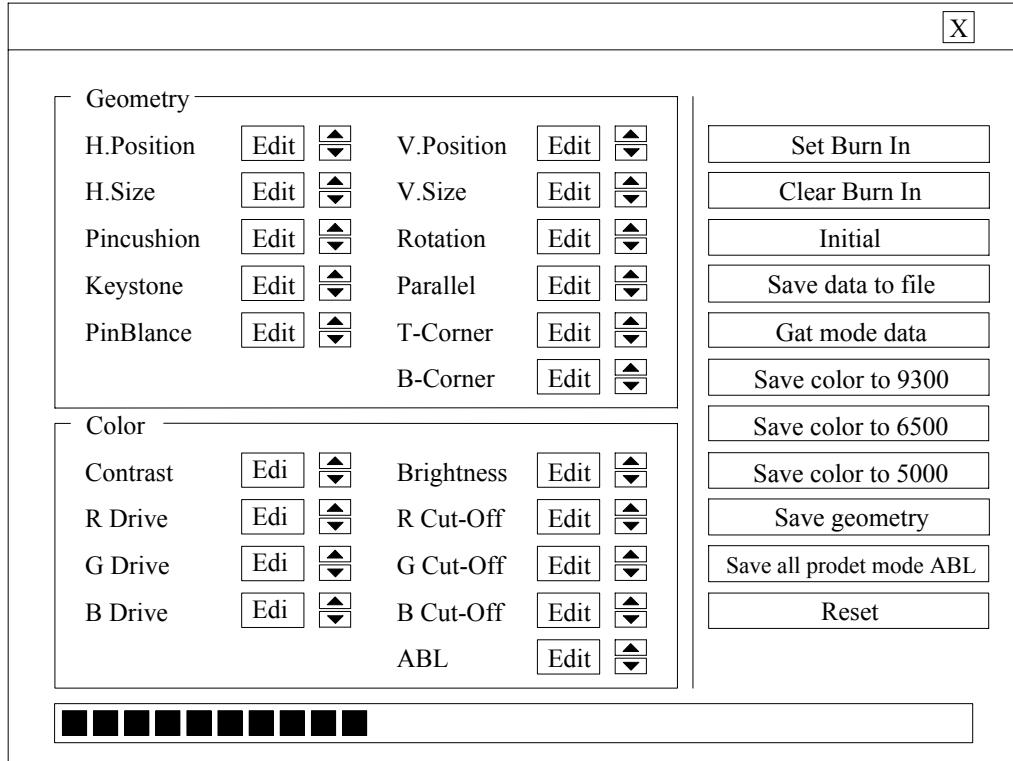
C . PCB defined .



D . Fixture Function Description .

- a. Used adjustment fixture .

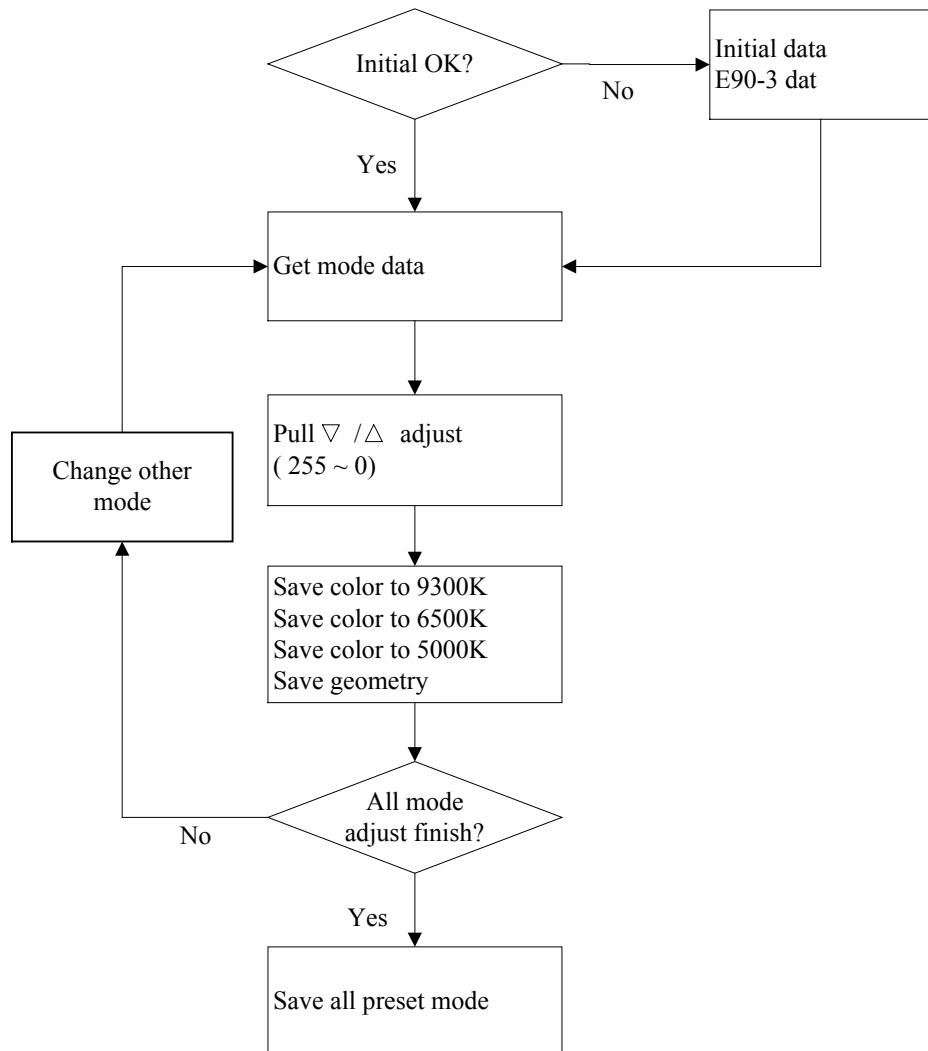
1. Fixture adjust .



2. Command define :

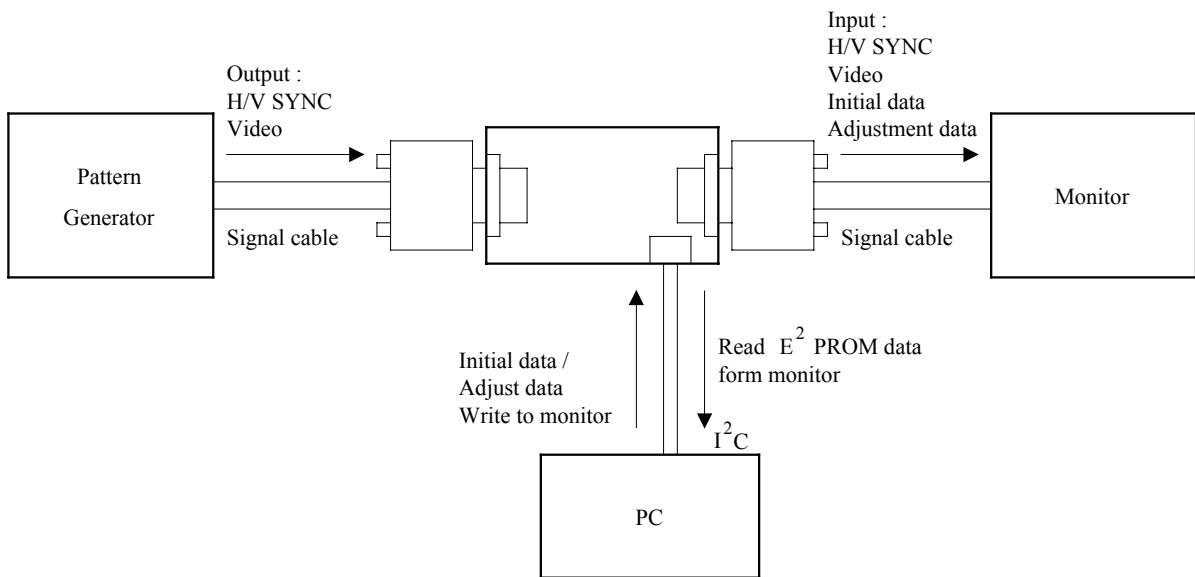
- 2.1 Set burn in : Set Burn In flag
- 2.2 Clear Burn In : Clear Burn In flag
- 2.3 Initial : Write initial data to E²PROM
- 2.4 Save data to file : Save initial data to file
- 2.5 Get mode data : Read E²PROM data (one mode adjustment value)
- 2.6 Save color to 9300 : Save color 9300K adjustment data
- 2.7 Save color to 6500 : Save color 6500K adjustment data
- 2.8 Save color to 5000 : Save color 5000K adjustment data
- 2.9 Save geometry : Save geometry adjustment data
- 2.10 Save all preset mode : Save adjustment data to E²PROM
- 2.11 Reset : Monitor Reset

3. Fixture adjust procedure .



4. Fixture Connect .

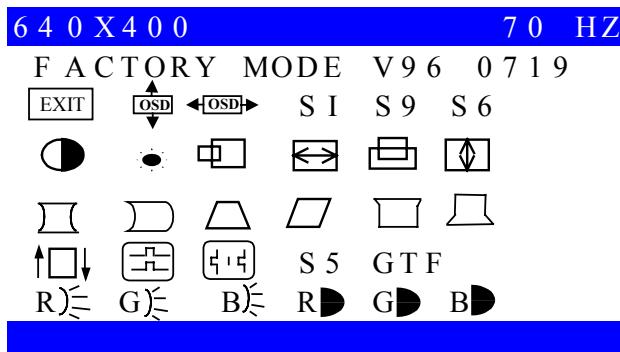
a. Fixture adjustment



5. Hot key function :

- Press **[1]** & **[▼]** & Power on key : Into OSD service mode.
- Press **[▼]** & **[▲]** & Power on key : Clear burn in flag.
- Press **[▲]** & **[2]** & Power on key : Set burn in flag.
- Press **[1]** & Power on key : All mode recall.

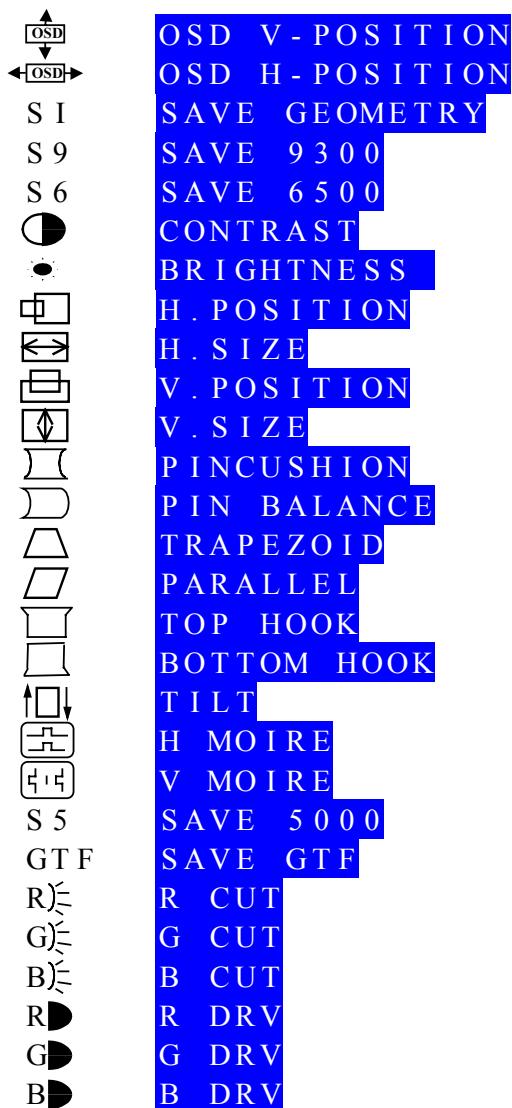
6. OSD service mode : Press [1] & **▼**key, turn on monitor, then Press [2] key to show OSD factory mode.



[2] : 1. SERVICE OSD DISPLAY
2. Input Adjust
3. EXIT Adjust

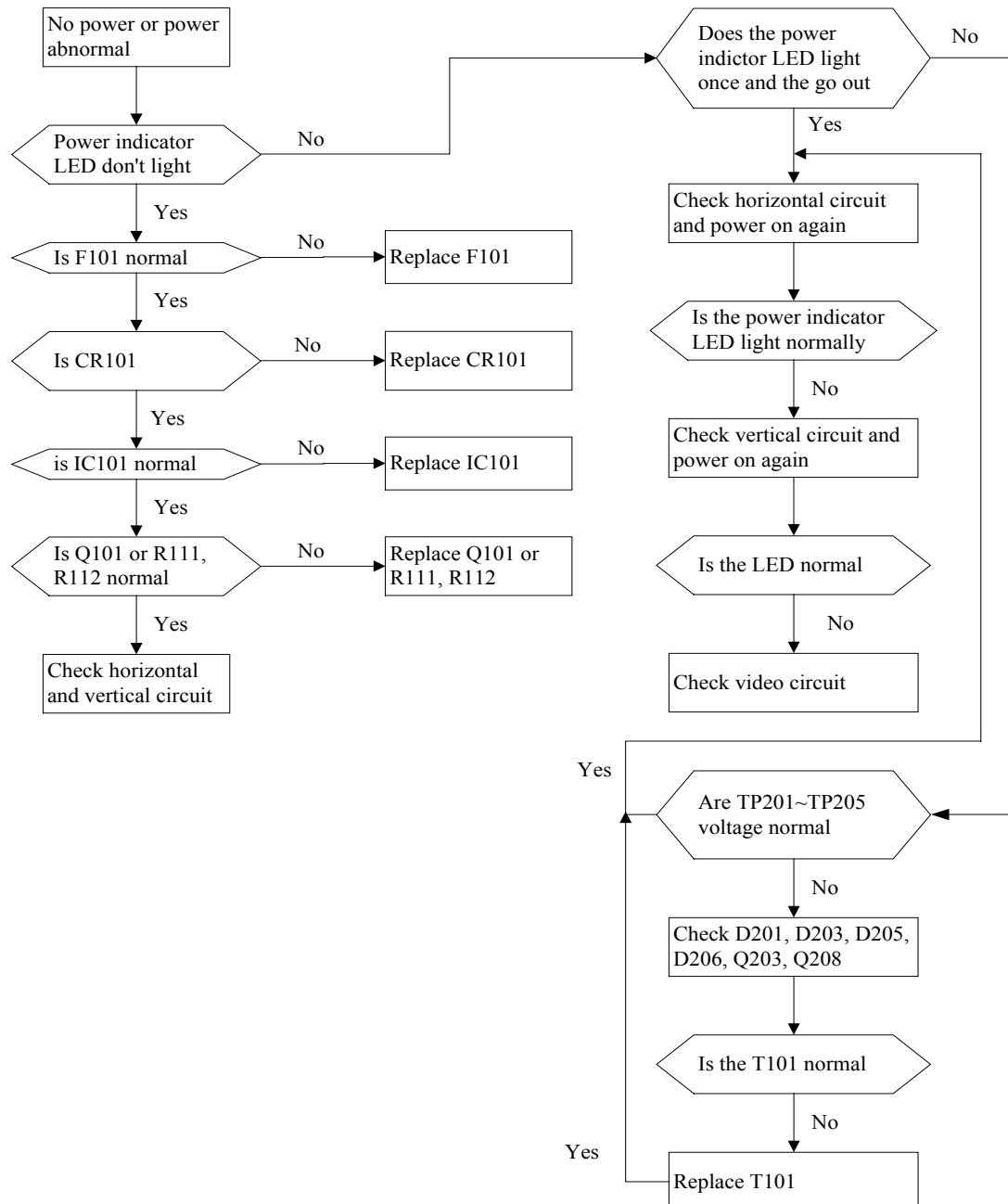
△ : 1. Adjust function
2. Select function

▽ : 1. Adjust function
2. Select function

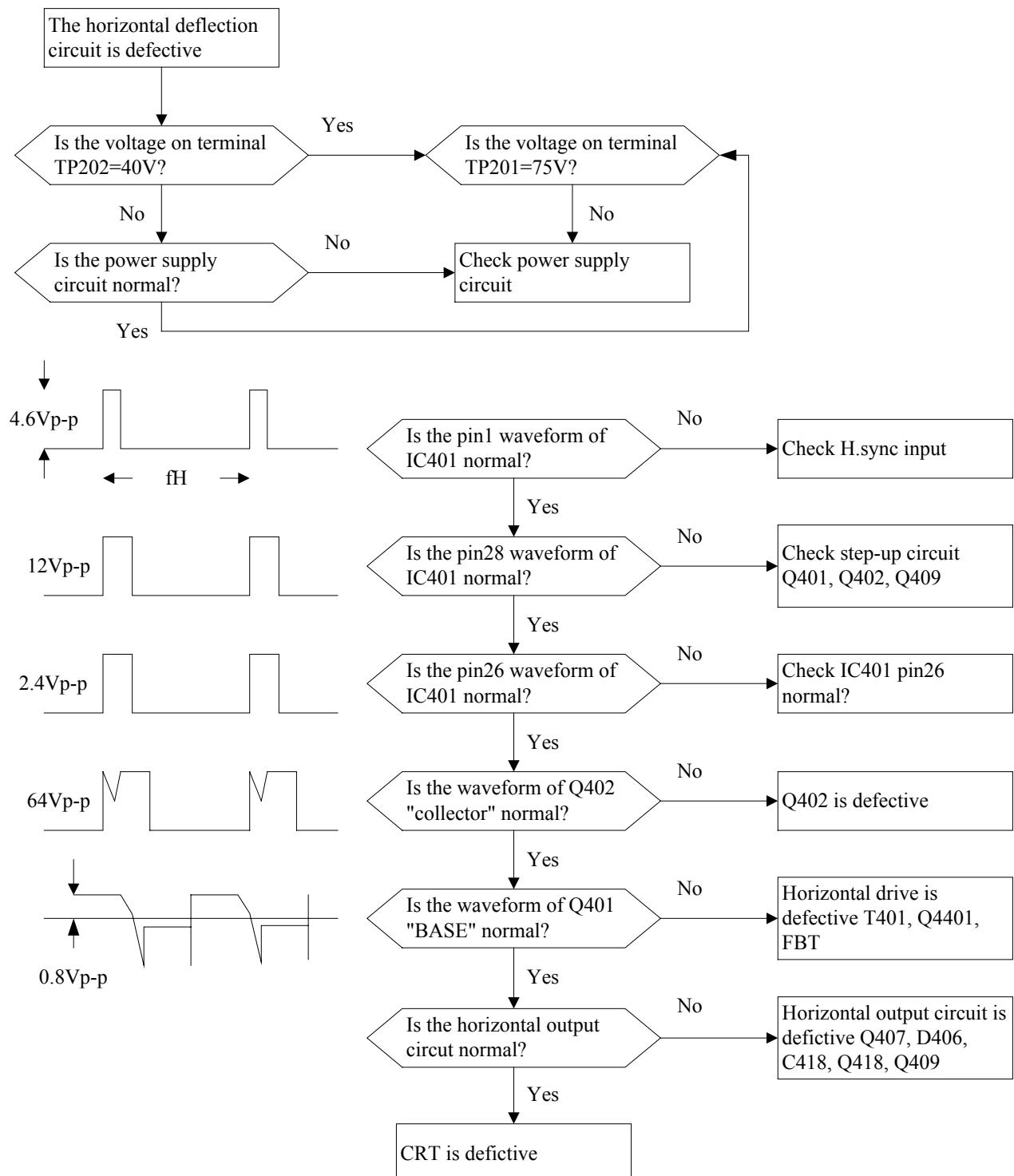


6. Trouble Shooting Flow Chart

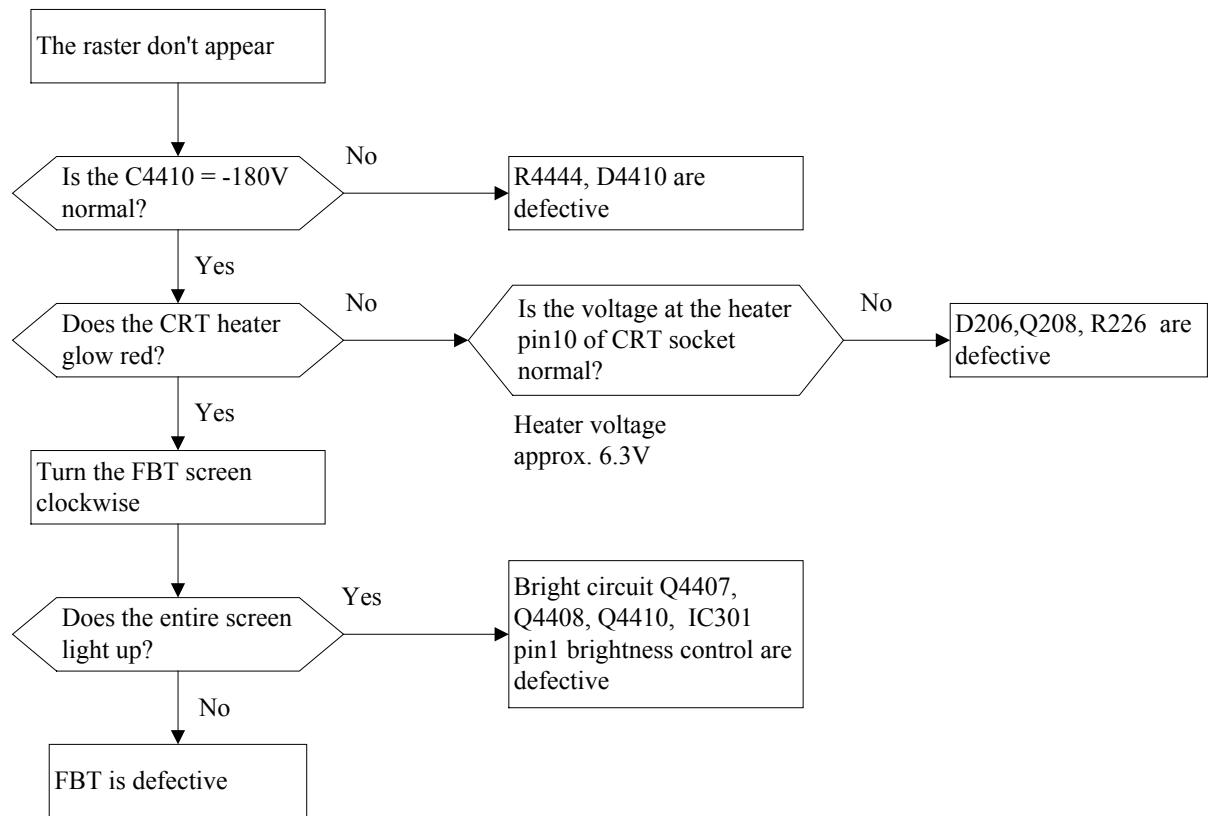
- Power supply is defective .



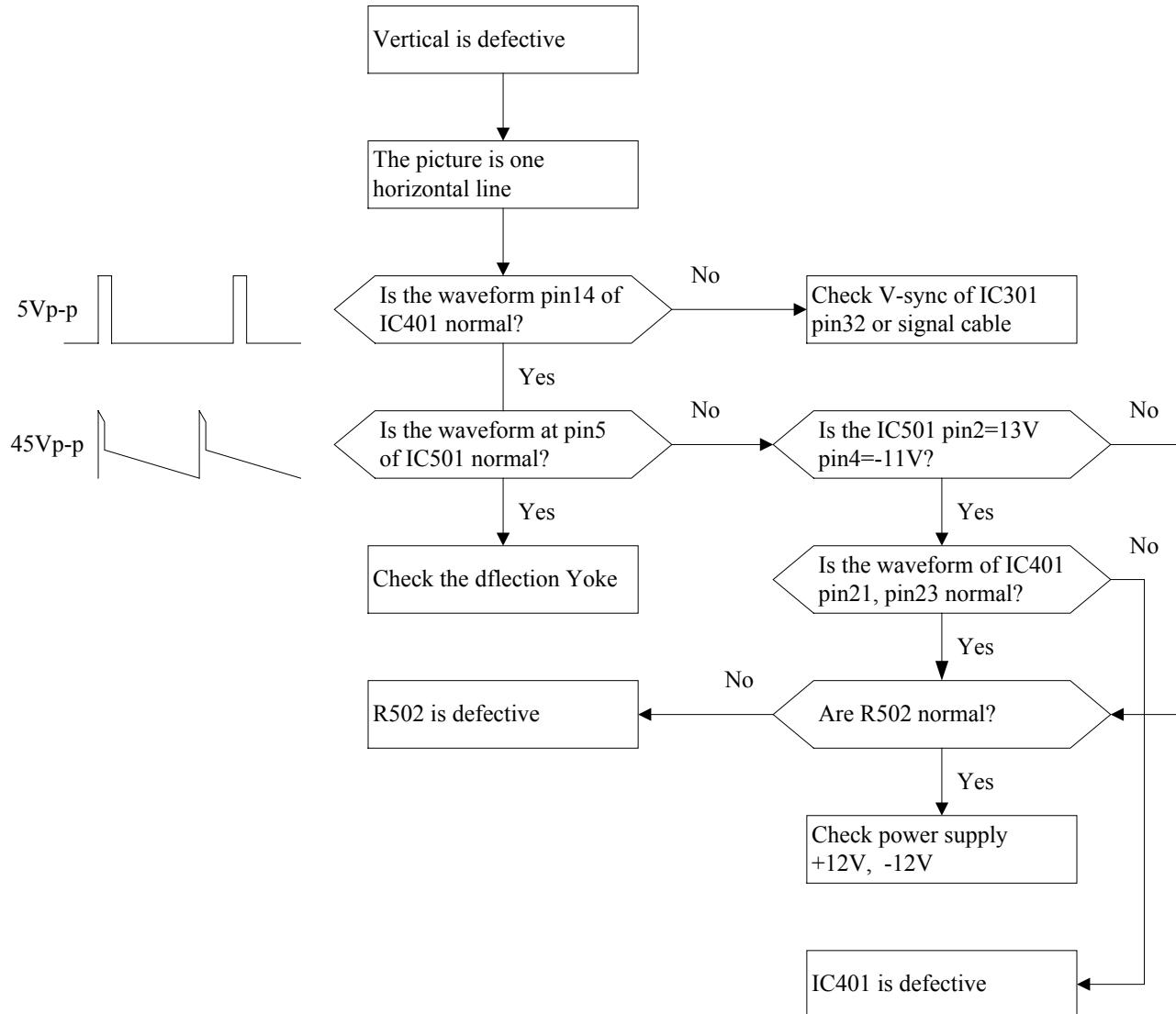
2. Horizontal deflection circuit is defective .



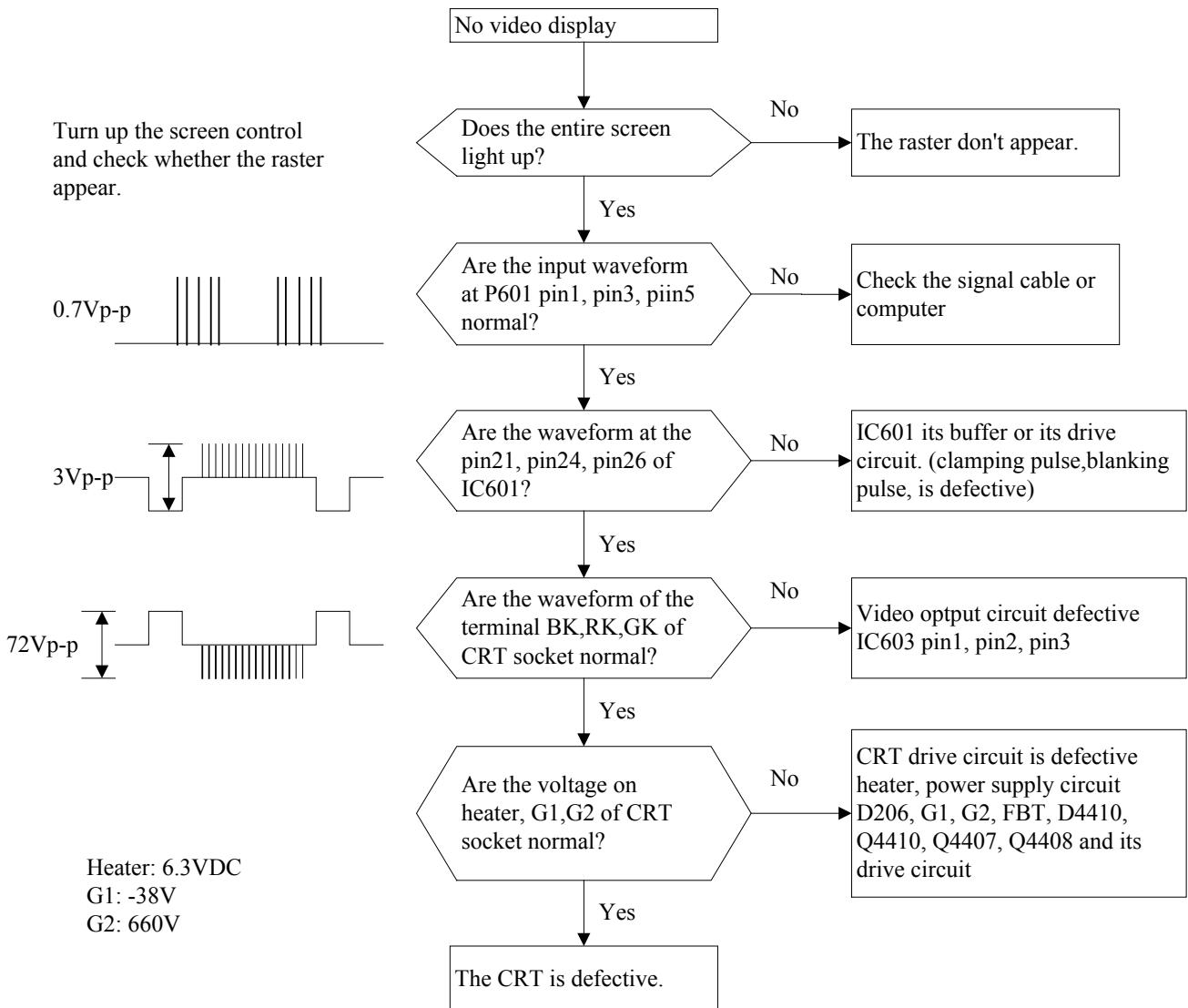
3. The raster don't appear .



4. Vertical deflection is defective .



5. Video is defective .



7. Recommended Spare Parts List

A91f+-1 RSPL Rev 1a (Initial)

Item	ViewSonic P/N	Part No	Description	Location	Universal #	Lead Time
1	E-FS-0410-0089	0805340702	FUSE TSC 4A 250V UL SEM PIG	F101	0215004.MRET5	2 weeks
2	E-Q-0402-0156	242017400006	FET 600V 6A 1.25ohm TO-220F	Q101	2SK2545	2 weeks
3	E-Q-0402-1432	242016350517	FET 250V 8.1A 0.45ohm TO-220F	Q202	IRFS634B	2 weeks
4	E-Q-0402-1455	211102500117	TR -50V -0.15A TO-92 200-240	Q205	KSA1015GRTA	2 weeks
5	E-Q-0402-1454	210231010011	TR 20V 1A TO-92MOD 120-240	Q206	2SD468CTZ	2 weeks
6	E-Q-0402-1452	210057920017	TR 750V 12A TO-3PF 10	Q401	FJAF6812TU	2 weeks
7	E-YK-0413-0060	0736000026	RESONATOR 12.00MHZ +/-0.1% 2P 10*10	Y301	ZTA12.00MX010	2 weeks
8	E-IC-0401-0985	2510005310	LM51 IC PWM 8PIN	IC101	UC3843BN	2 weeks
9	E-IC-0401-2762	2610561018	IC 8BIT MICROCONTROLLER SDIP-42P FLASH	IC301	NT68F65U	4 weeks
10	E-IC-0401-2275	2530095106	IC DEFLECTION PROCESSOR SDIP-32P	IC401	TDA9113	4 weeks
11	E-IC-0401-2730	2530026104	IC VERT DEFLECTION SIP-10P	IC501	KA2142	4 weeks
12	E-IC-0401-2947	2530209026	IC MASK OSD CONTROLLER SKINNY-28P	IC601	NT6813K/28-30001	4 weeks
13	E-IC-0401-2556	2500113511	IC MONO TRIPLE 7.5nS CRT DRIVER TO220-9P	IC602	LM2467TA	4 weeks
14	E-IC-0401-2392	2500165011	IC 80V TRIPLE BIAS CLAMP 8PIN	IC603	LM2480	4 weeks
15	E-C-0404-3642	1122354800	CAP CD 100V .01U M Z5U TP5	C605, C618	EA7103MG1H	3 weeks
16	M-MS-0808-9070	3500112300	END BLOCK-BOTTOM J986SBM00A			3 weeks
17	M-MS-0808-9069	3500112200	END BLOCK-TOP J986SBM00A			3 weeks
18	C-FP-0301-1025	3368310100	F/B ABS BLK+SILVER A91F+S9PFC1AT			3 weeks
19	C-BC-0302-0611	3368207401	R/C ASSY J986SBM01B S9RC1AT			3 weeks
20	P-BX-0601-0995	3512264100	CARTON 557*577*498 K986SBM01C A91f+-1M			3 weeks
21	A-CD-A91F+	3532084600	CD-ROM A91f+-1M K986SBM01C			3 weeks
22	M-MS-0808-9254	5011088201	MANUAL VIEWSONIC CRT ALL MODEL			3 weeks
23	M-MS-0808-9679	3500910303	PE BAG 585*605*810 T=0.07 H996BFM23A			3 weeks
24	B-MB-0201-2741	5600010607	M/V BD ASSY K986 SBM 01C			3 weeks

A91f+-1 BOM

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	E-L-0407-1108	284003007	DEGAUSSING COIL 11.30 OHM K		CB-990407-1525	0
2	A-PC-0106-0150	3090107600	AC POWER CORD L=1800 BLACK UL/CSA			1
3	M-SCW-0824-0391	3100300800	SCREW M M3*0.5*8 PAN C S+P S20C ZN			1
4	M-SCW-0824-0006	3109020201	SCREW T p4*1.4*16 PAN C S18C ZN Y			2
5	M-SCW-0824-0394	3109022200	SCREW T p4*1.6*35 PAN C S18C ZN			2
6	M-SCW-0824-0395	3109030900	SCREW TAPPING 5*16*25 ROUND&W ZN			4
7	M-LB-0813-0785	3200158900	LABEL STICKER OD10 WHT HI-POT			1
8	M-LB-0813-0316	3200294600	LABEL BAR CODE 76*76 VSC			1
9	M-LB-0813-0357	3200361101	LABEL BAR CODE 46*20			1
10	#N/A	3201974401	LABEL ID 165*75 K986SBM01C A91F+M			1
11	M-LB-0813-0900	3202011000	LABEL SERIES PANEL 42*11 T0.05			1
12	#N/A	3202234000	LABEL INFORMATION CRT 310*21.7 A91			1
13	#N/A	3202234201	LABEL OD50.8 VIEWSONIC NO.1			1
14	M-LB-0813-0466	3209135100	NAME PLATE AL+PC VSC 3-BIRD LOGO 2			1
15	M-MS-0808-7507	3220136000	TAPE W=29 #1350F-1 3M	#1350F-1 W=29	0.03	
16	M-MS-0808-4975	3221101500	TAPE W=76 PP47 914M 4P	PP47 W=76 914M	1.72	
17	PL-CL-0710-0025	3230050300	F.B.T CLIP NY66 94V0 t=8.0	HV-1		1
18	PL-PD-0714-0021	3240920800	RUBBER PAD 20*6.5*5 BLACK			4
19	PL-TB-0717-0143	3368048900	S/B ASSY J986SBM06C S9SC1AT&S9BC1A			1
20	M-MS-0808-5999	3240490701	RUBBER PAD 14*4.2 GRAY STICK			4
21	M-MS-0808-7472	3240933300	RUBBER PAD 14*4.2 P COOL GRAY 10			0
22	PL-TB-0717-0137	3360320100	SWIVEL ABS 41 S9SC1AT			1
23	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180	D-180 41	0.21	
24	#N/A	4020371608	PLASTIC ABS 94HB 41 HF-380	HF-380 41	0	
25	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150	SD-0150 41	0	
26	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707	PA-707 41	0	
27	C-BT-0304-0018	3360427000	BASE ABS 41 S9BC1AT			1
28	#N/A	4020371607	PLASTIC ABS 94HB 41 D-180	D-180 41	0.427	
29	#N/A	4020371608	PLASTIC ABS 94HB 41 HF-380	HF-380 41	0	
30	#N/A	4020371609	PLASTIC ABS 94HB 41 SD-0150	SD-0150 41	0	
31	#N/A	4020371614	PLASTIC ABS 94HB 41 PA-707	PA-707 41	0	
32	C-BC-0302-0611	3368207401	R/C ASSY J986SBM01B S9RC1AT			1
33	#N/A	3360246601	R/C ABS 41 S9RC1AT			1
34	#N/A	4020371807	PLASTIC ABS 94V0 41 D-1000S	D-1000S 41	4	
35	#N/A	4020371809	PLASTIC ABS 94V0 41 VH-0815	VH-0815 41	0	
36	#N/A	4020371814	PLASTIC ABS 94V0 41 PA-765A	PA-765A 41	0	
37	C-FP-0301-1025	3368310100	F/B ASSY K986SBM01C S9PFC1AT			1
38	M-MS-0808-7805	3360506500	LED LENS PMMA NAT Y0-487 S7FB2AT			1
39	PL-NB-0707-0196	3360625100	POWER KNOB ABS 41 S7PFB1AT			1
40	#N/A	4020363807	PLASTIC ABS 94V0 EP32 D-1000S	D-1000S EP32	0	
41	#N/A	4020363808	PLASTIC ABS 94V0 EP32 AF-312	AF-312 EP32	0	
42	#N/A	4020363809	PLASTIC ABS 94V0 EP32 VH-0810	VH-0810 EP32	0	
43	#N/A	4020363814	PLASTIC ABS 94V0 EP32 PA-765A	PA-765A EP32	0.002	
44	#N/A	4020363817	PLASTIC ABS 94V0 EP32 SEA2X	SEA2X EP32	0	
45	PL-FK-0709-0120	3360728400	FUNCTION KEY ABS 41 S7PFB1AT			1
46	#N/A	4020363807	PLASTIC ABS 94V0 EP32 D-1000S	D-1000S EP32	0	
47	#N/A	4020363808	PLASTIC ABS 94V0 EP32 AF-312	AF-312 EP32	0	
48	#N/A	4020363809	PLASTIC ABS 94V0 EP32 VH-0810	VH-0810 EP32	0	
49	#N/A	4020363814	PLASTIC ABS 94V0 EP32 PA-765A	PA-765A EP32	0.014	
50	#N/A	4020363817	PLASTIC ABS 94V0 EP32 SEA2X	SEA2X EP32	0	
51	#N/A	3361091600	F/B ABS BLK+SILVER A91F+S9PFC1AT			1
52	#N/A	4020371807	PLASTIC ABS 94V0 41 D-1000S	D-1000S 41	1.1	
53	#N/A	4020371809	PLASTIC ABS 94V0 41 VH-0815	VH-0815 41	0	
54	#N/A	4020371814	PLASTIC ABS 94V0 41 PA-765A	PA-765A 41	0	
55	M-MS-0808-7806	3462003900	SPRING COMPRESSION SUS304 ID6.5 L1			1
56	M-MS-0808-5008	3421030303	CABLE TIE NYLON66 94V-2	YJ-98	4	
57	M-MS-0808-5420	3421032500	CABLE TIE NYLON 94V-2 L=295	YJ-295	4	
58	M-MS-0808-4206	3421047903	SPACER SUPPORT NYLON 94V-2 14*9*11			3
59	M-MS-0808-9069	3500112200	END BLOCK-TOP J986SBM00A			1
60	M-MS-0808-9070	3500112300	END BLOCK-BOTTOM J986SBM00A			1
61	M-MS-0808-8289	3500929900	PE BAG 1010*900*0.045T CLEAR			1
62	#N/A	3500941600	PE BAG 440*402*65 T.3			1
63	#N/A	3500943300	PE BAG 350*450 T.06			1
64	M-MS-0808-6078	3510389200	ANGLE PAPER 2170*55*55	DB-770 SBT	0.25	
65	#N/A	3510477100	CAP PAPER 1145*1175*120			0.063
66	P-BX-0601-0995	3512264100	CARTON 557*577*498 K986SBM01C A91f			1
67	#N/A	3520032301	PALLET WOOD 1166*1136*126			0.063
68	M-MS-0808-5135	3520082400	PE FILM t=0.02mm W=500			0.04
69	M-MS-0808-8396	3520094201	PE BAG 260*155*0.1T			1
70	#N/A	3524012201	PALLET FUMIGATE 565*1170*120			0
71	A-CD-A91F+	3532084600	CD-ROM A91f+ 1M K986SBM01C			1
72	#N/A	3649110200	CRT GROUNDING WIRE K986			1
73	#N/A	4090001000	SOLDER WIRE 50/50 1.6mm			4
74	M-MS-0808-9254	5011088201	MANUAL VIEWSONIC CRT ALL MODEL			1
75	B-MB-0201-2741	5600010607	M/V BD ASSY K986 SBM 01C			1
76	E-R-0405-3090	13101000	RES CF 1/4W 100 J	R467,R468,R619,R620,	RD1/4WJ 101 T52	5
77	E-R-0405-5190	13101800	RES CF 1/4W 100 J SMALL	R323,R324,R341,R448,	RD16ST52 100R J	5
78	E-R-0405-3195	13102000	RES CF 1/4W 1K J	R120,R128,R202,R479,	RD1/4W 1KOHM JT/B	6
79	E-R-0405-5693	13102800	RES CF 1/4W 1K J SMALL	R212,R220,R340,R495,	RD16ST52 1K J	0
80	E-R-0405-3175	13103000	RES CF 1/4W 10K J	R110,R429,R434,R453,	RD25ST52 10K J	8
81	E-R-0405-5694	13103800	RES CF 1/4W 10K J SMALL	R206,R208,R214,R223,	RD16ST52 10K J	1
82	E-R-0405-3185	13104000	RES CF 1/4W 100K J	R422	RD25ST52 100K J	1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
83	E-R-0405-5690	13104800	RES CF 1/4W 100K J SMALL	R121	RD16ST52 100K J	1
84	E-R-0405-3183	13105000	RES CF 1/4W 1M J	R493	BCW4J0105	1
85	E-R-0405-5695	13106800	RES CF 1/4W 10M J SMALL	R309	BCS4J0106A0	1
86	E-R-0405-5697	13113800	RES CF 1/4W 11K J SMALL	R129,R510	RD16ST52 11K J	2
87	E-R-0405-5809	13123800	RES CF 1/4W 12K J SMALL	R418	RD16ST52 12K J	1
88	E-R-0405-7100	13133800	RES CF 1/4W 13K J SMALL	R426	RD16ST52 13K J	0
89	E-R-0405-5702	13134800	RES CF 1/4W 130K J SMALL	R417	RD16ST52 130K J	1
90	E-R-0405-2330	13153000	RES CF 1/4W 15K J	R440,R444	RD1/4W 15KOHM JT/B	2
91	E-R-0405-5705	13153800	RES CF 1/4W 15K J SMALL	R426,R452	CFR-25SJ1 15K	2
92	E-R-0405-5884	13154000	RES CF 1/4W 150K J	R405	RD25ST52 150K J	1
93	E-R-0405-5706	13154800	RES CF 1/4W 150K J SMALL	R516	RD16ST52 150K J	1
94	E-R-0405-5707	13163800	RES CF 1/4W 16K J SMALL	R416	RD16ST52 16K J	1
95	E-R-0405-5885	13181800	RES CF 1/4W 180 J SMALL	ZD401	RD1/4S 181 JTJB	1
96	E-R-0405-2328	13183000	RES CF 1/4W 18K J	R123	RD25ST52 18K J	1
97	E-R-0405-5708	13183800	RES CF 1/4W 18K J SMALL	R106	RD16ST52 18K J	1
98	E-R-0405-5814	13203800	RES CF 1/4W 20K J SMALL	R463	RD1/4S 203 JTJB	1
99	E-R-0405-5887	13220000	RES CF 1/4W 22 J	R109	RD1/4W 220OHM JT/B	1
100	E-R-0405-5888	13221000	RES CF 1/4W 220 J	R438,R4404	RD25ST52 220R J	2
101	E-R-0405-5712	13221800	RES CF 1/4W 220 J SMALL	R442	RD1/4WST52 220 J	1
102	E-R-0405-3072	13222000	RES CF 1/4W 2.2K J	R211,R317,R318,R483	RD1/4W 2.2KOHM JT	4
103	E-R-0405-5713	13222800	RES CF 1/4W 2.2K J SMALL	R462,R484	RD16ST52 2.2K J	2
104	E-R-0405-5932	13224800	RES CF 1/4W 220K J SMALL	R492	RD16ST52 220K J	1
105	E-R-0405-5934	13228000	RES CF 1/4W 2.2 J	R631,R632	RD1/4W 2.20OHM JT/B	2
106	E-R-0405-5715	13228800	RES CF 1/4W 2.2 J SMALL	R409	RD1/4WSJ1 2R2 T52	1
107	E-R-0405-5717	13242800	RES CF 1/4W 2.4K J SMALL	R415	RD16ST52 2.4K J	1
108	E-R-0405-5718	13243800	RES CF 1/4W 24K J SMALL	R485	RD16ST52 24K J	1
109	E-R-0405-5720	13270800	RES CF 1/4W 27 J SMALL	R124	RD16ST52 27R J	1
110	E-R-0405-6077	13271800	RES CF 1/4W 270 J SMALL	R125	RD 1/4WS 270OHM JT/B	1
111	E-R-0405-5721	13272800	RES CF 1/4W 2.7K J SMALL	R122,R415	RD16ST52 2.7K J	1
112	E-R-0405-2379	13273000	RES CF 1/4W 27K J	R475	BCW4J0273A0	1
113	E-R-0405-5723	13301800	RES CF 1/4W 300 J SMALL	R499	RD16ST52 300R J	1
114	E-R-0405-5724	13302800	RES CF 1/4W 3K J SMALL	R472	RD16ST52 3K J	1
115	E-R-0405-5725	13303800	RES CF 1/4W 30 J SMALL	R301	CFR-25SJ1 30K	1
116	E-R-0405-5819	13330000	RES CF 1/4W 33 J	R604,R605,R606	RD1/4WJ 33R T52	3
117	E-R-0405-6509	13331000	RES CF 1/4W 330 J	R313,R314,R336	RD1/4W 330OHM JT/B	3
118	E-R-0405-5731	13331800	RES CF 1/4W 330 J SMALL	R321,R322	RD16ST52 330R J	2
119	E-R-0405-2532	13332000	RES CF 1/4W 3.3K J	R335	RD25ST52 3.3K J	1
120	E-R-0405-5732	13332800	RES CF 1/4W 3.3K J SMALL	R332,R333,R337	RD16ST52 3.3K J	3
121	E-R-0405-5733	13334800	RES CF 1/4W 330K J SMALL	R478	ERDS2T1J334V	1
122	E-R-0405-7101	13362000	RES CF 1/4W 3.6K J	R476	RD25ST52 3.6K J	1
123	E-R-0405-5738	13363800	RES CF 1/4W 36K J SMALL	R513	RD16ST52 36K J	1
124	E-R-0405-5826	13392800	RES CF 1/4W 3.9K J SMALL	R446	RD16ST52 3.9K	1
125	E-R-0405-5742	13394800	RES CF 1/4W 390K J SMALL	R612	RD16ST52 390K J	1
126	E-R-0405-7102	13431000	RES CF 1/4W 430 J	R315,R316	RD25ST52 430R J	2
127	E-R-0405-2462	13470000	RES CF 1/4W 47 J	R406	RD25ST52 47R J	1
128	E-R-0405-5748	13470800	RES CF 1/4W 47 J SMALL	R201,R207	RD 1/4S 470 JTJB	2
129	E-R-0405-5749	13471800	RES CF 1/4W 470 J SMALL	R210	RD 1/4WS 470OHM JT/B	1
130	E-R-0405-3210	13472000	RES CF 1/4W 4.7 K	R439	BCW4J0472A0	1
131	E-R-0405-5750	13472800	RES CF 1/4W 4.7K J SMALL	R127,R302,R303,R304,	RD16ST52 4.7K J	8
132	E-R-0405-3217	13473000	RES CF 1/4W 47K J	R441	RD25ST52 47K J	1
133	E-R-0405-5751	13473800	RES CF 1/4W 47K J SMALL	R424,R437,R513	RD16ST52 47K J	2
134	E-R-0405-5752	13474800	RES CF 1/4W 470K J SMALL	R622,R624,R626	RD1/4WS 470KOHM JT/B	3
135	E-R-0405-6829	13510000	RES CF 1/4W 51 J	R623,R625,R627	RD1/4 510 JTJB	3
136	E-R-0405-5828	13512800	RES CF 1/4W 5.1K J SMALL	R419	RD16ST52 5.1K J	1
137	E-R-0405-6078	13560000	RES CF 1/4W 56 J	R427	RD25ST52 56R J	1
138	E-R-0405-5755	13562800	RES CF 1/4W 5.6K J SMALL	R423,R4401,R447,R611	RD16ST52 5.6K J	4
139	E-R-0405-2485	13563000	RES CF 1/4W 56K J	R413,R414	RD25ST52 560K J	2
140	E-R-0405-5745	13563800	RES CF 1/4W 56K J SMALL	R461	RD16ST52 56K J	1
141	E-R-0405-3738	13622000	RES CF 1/4W 6.2K J	R131	RD1/4 622 JTJB	1
142	#N/A	13680000	RES CF 1/4W 68 J	R312	RD1/4WJ 68R T52	1
143	E-R-0405-5756	13682800	RES CF 1/4W 6.8K J SMALL	R486	RD16ST52 6.8K J	1
144	E-R-0405-5901	13683000	RES CF 1/4W 68K J	R494	RD25ST52 68K J	1
145	E-R-0405-5833	13752800	RES CF 1/4W 7.5K J SMALL	R130	RD16ST52 7.5K J	1
146	E-R-0405-7103	13820000	RES CF 1/4W 82 J	R310	RD1/4WJ 82R T52	1
147	E-R-0405-5759	13821800	RES CF 1/4W 820 J SMALL	R227	RD16ST52 820R J	1
148	E-R-0405-5835	13822800	RES CF 1/4W 8.2K J SMALL	R449	RD16ST52 8.2K J	1
149	E-R-0405-6670	13913000	RES CF 1/4W 91K J	R487	RD1/4W 91KOHM JT/B	1
150	E-R-0405-5764	23102000	RES CF 1/2W 1K J	R204,R218,R636	RD50ST52 1K J	3
151	E-R-0405-4359	23105000	RES CF 1/2W 1M J	R101	RD1/2W 1MOHM JT/B	1
152	E-R-0405-1923	23108000	RES CF 1/2W 1 J	R116	RD50ST52 1R J	1
153	E-R-0405-6767	23150000	RES CF 1/2W 15 J	R404	RD1/2WJ 15R T52	1
154	E-R-0405-3237	23184000	RES CF 1/2W 180K J	R464	RD50ST52 180K J	1
155	E-R-0405-5766	23188000	RES CF 1/2W 1.8 J	R505,R506	RD1/2WJ 1R8 T52	2
156	E-R-0405-6804	23208000	RES CF 1/2W 2 J	R505	RD50ST52 2R J	0
157	E-R-0405-5939	23224000	RES CF 1/2W 220K J	R460	RD50ST52 220K J	1
158	E-R-0405-3524	23228000	RES CF 1/2W 2.2 J	R115	RD50ST52 2R2 J	1
159	E-R-0405-6831	23273000	RES CF 1/2W 27K J	R224	RD50ST52 27K J	1
160	E-R-0405-5770	23303000	RES CF 1/2W 30K J	R629	RD50ST52 30K J	1
161	E-R-0405-6806	23330000	RES CF 1/2W 33 J	R108	RD1/2W 33OHM JT/B	1
162	E-R-0405-0046	23331000	RES CF 1/2W 330 J	R508	RD1/2W 330OHM JT/B	1
163	E-R-0405-5771	23332000	RES CF 1/2W 3.3K J	R407	RD50ST52 3.3K J	1
164	E-R-0405-5852	23390000	RES CF 1/2W 39 J	R222	RD50ST52 39R J	1
165	E-R-0405-7105	23564000	RES CF 1/2W 560K J	R104,R105	RD50ST52 560K J	2
166	E-R-0405-6832	23623000	RES CF 1/2W 62K J	R221	RD50ST52 62K J	1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
167	#N/A	111040800	RES MF 1/4W 820 F SMALL	R430,R433		2
168	E-R-0405-6304	111053800	RES MF 1/4W 5.6K F SMALL	R507		1
169	E-R-0405-2854	111059000	RES MF 1/4W 10K F	R428	SN1/4WT52F10K	1
170	E-R-0405-6082	111061800	RES MF 1/4W 12K F SMALL	R435,R515		2
171	#N/A	111071800	RES MF 1/4W 33K F SMALL	R454		1
172	#N/A	111080800	RES MF 1/4W 56K F SMALL	R454		0
173	#N/A	111135800	RES MF 1/4W 36K F SMALL	R431		1
174	E-R-0405-6833	111170800	RES MF 1/4W 3.83K F SMALL	R504	SN1/4WST52 3.83K F	1
175	#N/A	111221800	RES MF 1/4W 8.25K F SMALL	R432		1
176	E-R-0405-5090	111272800	RES MF 1/4W 51.1K F SMALL	R436		1
177	#N/A	111337800	RES MF 1/4W 9.09K F SMALL	R432		0
178	#N/A	111356800	RES MF 1/4W 24.3K F SMALL	R509		1
179	E-R-0405-7087	111383800	RES MF 1/4W 82.5 F SMALL	R601,R602,R603	MFR-25SFT 82R5	3
180	#N/A	111409800	RES MF 1/4W 6.49K F SMALL	R471		1
181	#N/A	111588800	RES MF 1/4W 2.2K F SMALL	R450	RN1/4WS 2.2K FT/B	1
182	E-R-0405-5726	133100000	RES MOF 1W 10 J	R420	RSN1WT63 J 10R	1
183	#N/A	133124000	RES MOF 1W 120K J	R103	RSU01J 1203 A520	1
184	E-R-0405-5728	133152000	RES MOF 1W 1.5K J	R219		1
185	E-R-0405-5729	133181000	RES MOF 1W 180 J	R215,R421	BO1WJ0181	1
186	E-R-0405-5950	133241000	RES MOF 1W 240 J	R421		1
187	E-R-0405-6836	133302000	RES MOF 1W 3K J	R4408,R489	RSN1WJ 3K T52	2
188	E-R-0405-4358	133339000	RES MOF 1W .33 J	R111,R112,R203		3
189	E-R-0405-5735	133471000	RES MOF 1W 470 J	R209		1
190	#N/A	143128000	RES MOF 2W 1.2 J	R213		1
191	E-R-0405-5838	143151000	RES MOF 2W 150 J	R408		1
192	#N/A	143153200	RES MOF 2W 15K J VDK	R102		1
193	#N/A	143181200	RES MOF 2W 180 J VDK	R425		1
194	#N/A	143391200	RES MOF 2W 390 J VDK	R117	MOR2WJ 390R F1	1
195	#N/A	143479200	RES MOF 2W .47 J VDK	R403	RSU02J0R47 FB	1
196	E-R-0405-0923	190200400	RES FUSIBLE MF 1/2W .22 J SMALL	R457	RFS12JR220A520NL	1
197	E-R-0405-6645	190204200	RES FUSIBLE MF 1/2W .1 J	R114	RF50ST52A0.1OHMJ	1
198	E-R-0405-5777	606113002	RES VR VERT 3/10W 200 M	VR401	VM6CKPH2-1S-B200	0
199	E-R-0405-5777	606113004	RES VR VERT 0.1W 200 T	VR401	VZ067TH1B201	1
200	E-R-0405-5777	606113013	RES VR VERT 0.3W 200 T	VR401	RVM-06VP01-1-201	0
201	E-R-0405-5778	606201002	RES VR HORI 3/10W 1K M	VR101,VR403	VM6CKPV-1S-B1K	0
202	E-R-0405-5386	606201004	RES VR HORI 0.1W 1K T	VR101,VR403	VZ067TL1B102	2
203	E-R-0405-5778	606201013	RES VR HORI 0.3W 1K T	VR101,VR403	RVM-06HP03-1-102	0
204	E-RL-0414-0074	720060701	RELAY 240VAC/12VDC 5A DPST TV4	RL101	OSA-SS-212DM5	1
205	#N/A	720061235	RELAY 250VAC/12VDC 5A DPST TV3	RL101	JZC-42F-12V-2HS	0
206	E-RL-0414-0111	720190216	RELAY 250VAC/12VDC 5A DPST TV-3	RL101	FTR-F4AK012T	0
207	E-RL-0414-0106	720840115	RELAY 125VAC/12VDC 10A SPDT	RL401	833H-1C-C	1
208	#N/A	720840135	RELAY 120VAC/12VDC 10A SPDT	RL401	JQC-3FF/012-1ZTS	0
209	E-YK-0413-0060	736000026	RESONATOR 12.00MHZ +/-0.1% 2P 10*1	Y301	ZTA12.00MX010	1
210	E-FS-0410-0089	805340701	FUSE TSC 4A 250V UL SEM PIG	F101	5HTP4(93mm)	0
211	E-FS-0410-0089	805340702	FUSE TSC 4A 250V UL SEM PIG	F101	0215004.MRET5	1
212	E-FS-0410-0098	805340704	FUSE TSC 4A 250V UL SEM PIG	F101	181-A+19265	0
213	M-MS-0808-7471	900030118	RES PTC R=8 OHM +/-20% 27A 2P	PTC101	DGC2R08M	1
214	#N/A	900030126	RES PTC R=8 OHM +/-20% 27A 2P	PTC101	MZ72-B80M1	0
215	E-R-0405-6955	911000211	RES NTC 10 L 3A	NTC101	N10SP010L	0
216	E-TH-0416-0111	911000216	RES NTC 10 L 3A	NTC101	SCK-103	1
217	E-C-0404-3961	1101045003	CAP Y CD 250VAC 1KP K B I	CY101,CY102	ECK-DRS102KBY	0
218	E-C-0404-3961	1101045007	CAP Y CD 250VAC 1KP K B I	CY101,CY102	DE7090B102KVA1-KC	0
219	E-C-0404-3961	1101045032	CAP Y CD 250VAC 1KP K B I	CY101,CY102	CS10-B2GA102KYGS	2
220	#N/A	1101046003	CAP Y CD 250VAC 2.2KP M E I	CY104	ECK-DRS222MEY	0
221	#N/A	1101046007	CAP Y CD 250VAC 2.2KP M F I	CY104	DE7100F222MVA1-KC	0
222	E-C-0404-2541	1101046027	CAP Y CD 250VAC 2.2KP M E I	CY104	DE2E3KH222MA3BL02	0
223	E-C-0404-2541	1101046032	CAP Y CD 250VAC 2.2KP M E I	CY104	CS11-E2GA222MYGS	1
224	#N/A	1101046232	CAP Y CD 250VAC 2.2KP M E I TP7.5	CY104	CS11-E2GA222MYP5	0
225	E-C-0404-4109	1101047003	CAP Y CD 250VAC 3.3KP M E I	CY106	ECK-DRS322MEY	0
226	#N/A	1101047007	CAP Y CD 250VAC 3.3KP M F I	CY106	DE7120F332MVA1-KC	0
227	E-C-0404-4109	1101047032	CAP Y CD 250VAC 3.3KP M E I	CY106	CS13-E2GA332MYGS	1
228	#N/A	1101047207	CAP Y CD 250VAC 3.3KP M F I TP	CY106	DE7120-487F332MVA1-K	0
229	#N/A	1101047232	CAP Y CD 250VAC 3.3KP M E I TP7.5	CY106	CS13-E2GA332MYP5	0
230	E-C-0404-4482	1111358800	CAP CD 50V .1U Z Y5V TP5	C213,C421,C422,C441,	FYU6104ZG1H	1
231	#N/A	1111358800S	CAP CD 50V .1U Z Y5V TP5	C213,C421,C422,C441	DCS104Z30Y5VF6FJ5A	0
232	E-C-0404-3640	11200188000	CAP CD 100V 33P J C0G TP5	C306,C307	CHA4330JG1H	2
233	E-C-0404-3640	1120018800S	CAP CD 100V 33P J C0G TP5	C306,C307	DCC330J22COGH6FJ5A	0
234	E-C-0404-3641	1120026800	CAP CD 100V 68P J C0G TP5	C309,C419	CHA5680JG1H	2
235	E-C-0404-3720	1120030800	CAP CD 100V 100P J C0G TP5	C448,C452	CHA6101JG1H	2
236	E-C-0404-3778	1120032800	CAP CD 100V 120P J C0G TP5	C435	CHA7121JG1H	1
237	E-C-0404-3642	1122354800	CAP CD 100V .01U M Z5U TP5	C104,C107,C405,C408,	EA7103MG1H	0
238	E-C-0404-3642	1122354800S	CAP CD 100V .01U M Z5U TP5	C104,C107,C405,C408,	DCT103M30Z5UH6FJ5A	0
239	#N/A	1122934800	CAP CD 100V 150P K Y5P TP5		BA4151KG1H	1
240	E-C-0404-3646	1122942800	CAP CD 100V 470P K Y5P TP5	C434,C509	BA5222KG1H	2
241	E-C-0404-3647	1122944800	CAP CD 100V 680P K Y5P TP5	C506	BA4471KG1H	1
242	#N/A	1122944800S	CAP CD 100V 680P K Y5P TP5	C506	DCT681K22Y5PH6FJ5A	0
243	E-C-0404-3648	1122945800	CAP CD 100V 1KP K Y5P TP5	C111,C642	BA4102KG1H	2
244	E-C-0404-3649	1122946800	CAP CD 100V 2.2KP K Y5P TP5	C109,C439	BA5222KG1H	2
245	E-C-0404-4712	1130022800	CAP CD 500V 47P J C0G TP5	C635	CHC6470JG1H	1
246	E-C-0404-3651	1132354800	CAP CD 500V .01U M Z5U TP5	C103,C122	EC0103MG1H	2
247	E-C-0404-3651	1132354800S	CAP CD 500V .01U M Z5U TP5	C103,C122	DCM103M34Z5UL6FJ5A	0
248	E-C-0404-3652	1132930800	CAP CD 500V 100P K Y5P TP5	C220,C450	BC4101KG1H	2
249	#N/A	1132930800S	CAP CD 500V 100P K Y5P TP5	C450	DCM101K22Y5PL6FJ5A	0
250	E-C-0404-3653	1132938800	CAP CD 500V 220P K Y5P TP5	C203	BC4221KG1H	1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
251	E-C-0404-3654	1132945800	CAP CD 500V 1KP K Y5P TP5	C445	BC5102KG1H	1
252	E-C-0404-4484	1140024800	CAP CD 1KV 56P J C0G TP5	C208,C218	CHM8560JG1H	2
253	E-C-0404-4673	1140030800	CAP CD 1KV 100P J C0G TP5	C118	CHM0101JG1	1
254	#N/A	1140746800	CAP CD 1KV 2.2KP K X7R TP5	C412	XMX0222KG1	1
255	E-C-0404-3655	1142930800	CAP CD 1KV 100P K Y5P TP5	C116		1
256	E-C-0404-3729	1142938800	CAP CD 1KV 220P K Y5P TP5	C214	BM5221KG1H	1
257	E-C-0404-3729	1142938800S	CAP CD 1KV 220P K Y5P TP5	C214	DCH221K22Y5PN6FJ5A	0
258	#N/A	1142942800	CAP CD 1KV 470P K Y5P TP5	C412	BM5471KG1H	0
259	E-C-0404-3656	1142945800	CAP CD 1KV 1KP K Y5P TP5	C612	BM6102KG1H	1
260	E-C-0404-3657	1152345000	CAP CD 2KV 1KP M Z5U	C633	EM28102M6H	1
261	E-C-0404-4691	1152346800	CAP CD 2KV 2.2KP M Z5U TP5	C634	EM28222MHA	1
262	E-C-0404-4692	1200063000	CAP MO DP 50V 820P J C0G TP R	C429	SR215A821JAAAP4-90	1
263	#N/A	142102211299	CAP AL 10V 220U M 6.3*12 TP5	C314	0110010227VM5	0
264	#N/A	142102211800	CAP AL 10V 220U M 6.3*11 TP5	C314	CVR1A221MT	1
265	#N/A	142121011200S	CAP AL 16V 100U M 6*12 TP5	C210,C215	0110016107VM5	0
266	E-C-0404-3676	142121011500	CAP AL 16V 100U M 5*11 TP5	C210,C215,C606,C608,	UVR1C101MT	6
267	E-C-0404-4804	142121021299	CAP AL 16V 1KU M 10*20 TP5	C206	0110016108VM5	0
268	#N/A	142121021500	CAP AL 16V 1KU M 10*16 TP5	C206	CVR1C102MT	1
269	#N/A	142122211500	CAP AL 16V 220U M 6.3*11 TP5	C636	CVR1C221MT	1
270	#N/A	142123311299	CAP AL 16V 330U M 8*12 TP5	C503	0110016337VM4	0
271	#N/A	142123311500	CAP AL 16V 330U M 8*11.5 TP5	C443,C503	CVR1C331MT	2
272	#N/A	142124701200	CAP AL 16V 47U M 5*11 TP5	C219,C410,C411	UVX1C470MT	3
273	#N/A	142124701299	CAP AL 16V 47U M 5*12 TP5	C410,C411	0110016476VM5	0
274	E-C-0404-3839	142141011200	CAP AL 25V 100U M 6.3*11 TP5	C105,C615	CVX1E101MT	2
275	E-C-0404-4936	142141011200S	CAP AL 25V 100U M 6*12 TP5	C444	0110025107VM4	0
276	#N/A	142141011500	CAP AL 25V 100U M 6.3*11 TP5	C105,C444	CVR1E101MT	1
277	#N/A	142143311200	CAP AL 25V 330U M 10*12.5 TP5	C504	CVX1E331MT	1
278	#N/A	142143311406	CAP AL 25V 330U M 10*12	C504	SK025M0330SL10*12	0
279	#N/A	142143311503	CAP AL 25V 330U M 10*12.5 TP5	C504	UVR1E331MPA1TD	0
280	E-C-0404-3844	142144701200	CAP AL 25V 47U M 5*11 TP5	C106,C211,C510,C632,	UVX1E470MT	5
281	E-C-0404-4945	142144701200S	CAP AL 25V 47U M 5*12 TP5	C106,C446	0110025476VM4	0
282	#N/A	142144701500	CAP AL 25V 47U M 5*11 TP5	C211,C446,C510	UVR1E470MT	1
283	#N/A	142144711299	CAP AL 25V 470U M 10*16 TP5	C205,C207	0110025477VM4	0
284	#N/A	142144711500	CAP AL 25V 470U M 10*12.5 TP5	C205,C207	CVR1E471MT	2
285	#N/A	142151011200S	CAP AL 35V 100U M 8*12 TP5	C501	0110035107VM5	0
286	#N/A	142151011500	CAP AL 35V 100U M 6.3*11 TP5	C501	CVR1V101MT	1
287	E-C-0404-4939	142161001200S	CAP AL 50V 10U M 5*12 TP5	C304,C409,C428,C431	0110050106VM5	0
288	#N/A	142161001500	CAP AL 50V 10U M 5*11 TP5	C304,C409,C428,C431	UVR1H100MT	4
289	E-C-0404-4940	142161081200S	CAP AL 50V 1U M 5*12 TP5	C449	0110050105VM5	0
290	E-C-0404-3848	142161081500	CAP AL 50V 1U M 5*11 TP5	C449	UVR1H1R0MT	1
291	E-C-0404-3852	142162201200	CAP AL 50V 22U M 5*11 TP5	C432	UVX1H220MT	0
292	E-C-0404-4041	142162201200S	CAP AL 50V 22U M 5*12 TP5	C114,C432	0110050226VM4	0
293	#N/A	142162201500	CAP AL 50V 22U M 5*11 TP5	C114,C432	UVR1H220MT	2
294	E-C-0404-4942	142162281200S	CAP AL 50V 2.2U M 5*12 TP5	C108,C113	0110050225VM5	0
295	#N/A	142162281500	CAP AL 50V 2.2U M 5*11 TP5	C108,C113,C643	UVR1H2R2MT	3
296	E-C-0404-4943	142164781200S	CAP AL 50V 4.7U M 5*12 TP5	C301,C303	0110050475VM5	0
297	#N/A	142164781500	CAP AL 50V 4.7U M 5*11 TP5	C301,C303	UVR1H4R7MT	2
298	E-C-0404-4930	142221081200	CAP AL 100V 1U M 5*11 TP5	C437	UVX2A1R0MT	0
299	E-C-0404-4930	142221081200S	CAP AL 100V 1U M 5*12 TP5	C437	0110100105VM5	0
300	#N/A	142221081500	CAP AL 100V 1U M 5*11 TP5	C437,C621,C622,C623	UVR2A1R0MT	4
301	#N/A	142222912000	CAP AL 100V .22U M 5*11 TP5	C628,C629,C630	UVX2AR22MT	3
302	E-C-0404-3675	142321001200	CAP AL 250V 10U M 10*20 TP5	C425	CVX2E100MT	1
303	#N/A	142321001299	CAP AL 250V 10U M 10*20 TP5	C425	0110250106VM5	0
304	E-C-0404-3850	144162281400	CAP AL 50V 2.2U M 5*11 TP5	C406	UVT1H2R2MT	1
305	#N/A	144162281400S	CAP AL 50V 2.2U M 5*11 TP5	C406	0081050225VM5	0
306	#N/A	1442047111300	CAP AL 63V 470U M 12.5*25	C202	CVT1J471MC3.5	1
307	#N/A	144241012108	CAP AL 160V 100U M 12.5*25	C201	160YXA100MCE12.5*25	1
308	#N/A	144242201405	CAP AL 160V 22U M 10*20 TP5	C613,C631	CVT2C220MT	2
309	#N/A	144304791400	CAP AL 200V .47U M 6.3*11 TP5	C447	CVT2DR47MT	1
310	#N/A	144304791400S	CAP AL 200V .47U M 6.3*12 TP5	C447	0081200474VM5	0
311	E-C-0404-4099	146402210404	CAP AL 400V 220U M 25*40	C101	HP32G221MCY	0
312	#N/A	146402210407	CAP AL 400V 220U M 25*40	C101	SMH400VSSN220M25D	0
313	#N/A	146402210428	CAP AL 400V 220U M 25*35	C101	400USR220MST25*35	1
314	#N/A	1604312000	CAP X MM PC 275VAC .1U M P15	CX101	KNB1560-0.1UFML25-P1	1
315	#N/A	1604314200	CAP X MP PC 275VAC .33U M P15	CX102	KNB1560-0.33UFKL25-P	1
316	E-C-0404-4687	1604314218	CAP X PP PC 275VAC .33U K P15	CX102	KNB1530-0.33UFML25-M	0
317	E-C-0404-4920	1604314224	CAP X MP PC 275VAC .33U K P15	CX102	MKP-334K0275AB1151	0
318	E-C-0404-3866	1651120C01	CAP MM DP 250V .1U J KI10	C507	MEF-104J0250DB2102	0
319	E-C-0404-3866	1651120C04	CAP MM DP 250V .1U J KI10	C507	CF93MM2E104J	0
320	E-C-0404-3866	1651120C26	CAP MM DP 250V .1U J KI10	C507	DMPE104J2EB	1
321	E-C-0404-3688	1691151503	CAP MM PC 63V .47U J TP5	C511	BF024D0474JDC	0
322	E-C-0404-3688	1691151510	CAP MM PC 63V .47U J TP5	C511	R82DC3470DQXXXJ	1
323	E-C-0404-3688	1691151521	CAP MM PC 63V .47U J TP5	C511	B32529-C474-J189	0
324	E-C-0404-4699	1691180C01	CAP MM DP 63V .2U J KI10	C420	MEF-225J0063DB4102	1
325	#N/A	1751091C06	CAP MP DP 250V .033U J KI10	C427	7U2E333J-CCC(PMS)	1
326	E-C-0404-2096	1751131C06	CAP MP DP 250V .22U J KI10	C415	7U2E224J-ACC(PMS)	0
327	#N/A	1751131C15	CAP MP DP 250V .22U J KI10	C415	DHSM(204)250VDC224J	0
328	E-C-0404-2096	1751131C26	CAP MP DP 250V .22U J KI10	C415	MPA224J2EB	1
329	#N/A	1751171F06	CAP MP DP 250V .1U J KI20	C204	7U2E105J-CCG(PMS)	1
330	E-C-0404-4464	1751561C06	CAP MP DP 250V .27U J KI10	C413,C414	7U2E274J-ACC(PMS)	0
331	E-C-0404-4464	1751561C15	CAP MP DP 250V .27U J KI10	C413,C414	DHSM(204)250VDC274J	0
332	E-C-0404-4464	1751561C26	CAP MP DP 250V .27U J KI10	C413,C414	MPA274J2EB	2
333	E-C-0404-4313	1751571C15	CAP MP DP 250V .82U J KI10	C417	DHSM(204)250VDC824J	0
334	#N/A	1751571C26	CAP MP DP 250V .82U J KI10	C417	MPA824J2EB	0

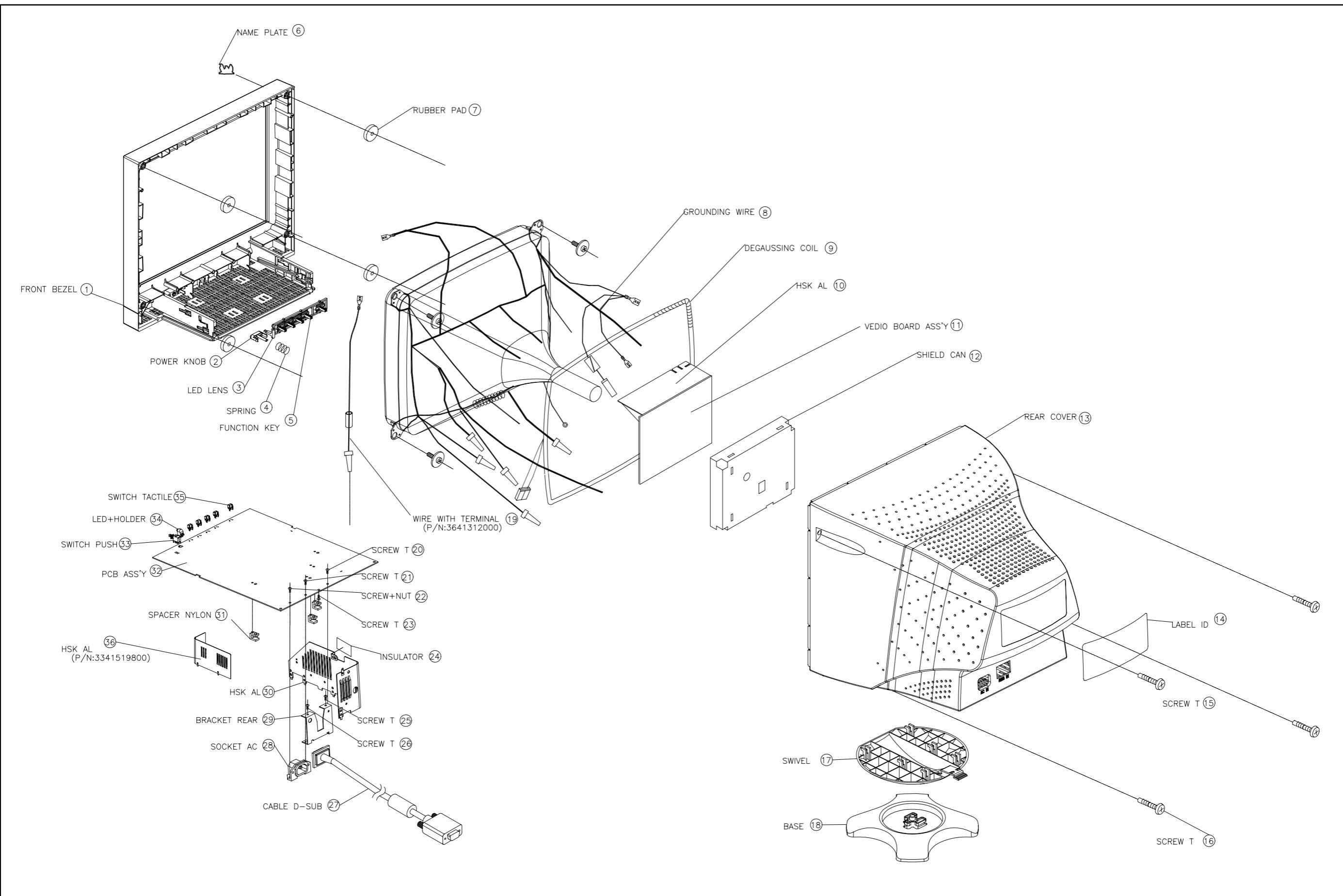
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
335	E-C-0404-2986	1751571D06	CAP MP DP 250V .82U J KI15	C417	7U2E824J-ACE(PMS)	1
336	#N/A	17D102AD06	CAP MP DP 1.5KVH 4.7KP J KI15	C401,C416	4U6T472J-ACE(PHS)	2
337	E-C-0404-3769	1950102101	CAP MY DP I 50V 4.7KP J TP5	C436	PEI-472J0050DT2058	1
338	E-C-0404-3769	1950102104	CAP MY DP I 50V 4.7KP J TP5	C436	C2YEC1H472J	0
339	E-C-0404-3769	1950102126	CAP MY DP I 50V 4.7KP J TP5	C436	PEI472J1HT	0
340	E-C-0404-3872	1950103101	CAP MY DP I 50V 5.6KP J TP5	C438	PEI-562J0050DT2058	0
341	E-C-0404-3872	1950103104	CAP MY DP I 50V 5.6KP J TP5	C438	C2YEC1H562J	0
342	E-C-0404-3690	1950104101	CAP MY DP I 50V 6.8KP J TP5	C112,C514	PEI-682J0050DT2058	1
343	E-C-0404-3690	1950104104	CAP MY DP I 50V 6.8KP J TP5	C112,C514	C2YEC1H682J	0
344	E-C-0404-3690	1950104126	CAP MY DP I 50V 6.8KP J TP5	C112,C514	PEI682J1HT	1
345	E-C-0404-3691	1950106101	CAP MY DP I 50V .0IU J TP5	C430,C438	PEI-103J0050DT2058	1
346	E-C-0404-3691	1950106104	CAP MY DP I 50V .0IU J TP5	C430,C438	C2YEC1H103J	1
347	E-C-0404-3691	1950106126	CAP MY DP I 50V .0IU J TP5	C430,C438	PEI103J1HT	1
348	E-C-0404-3694	1950108101	CAP MY DP I 50V .022U J TP5	C110	PEI-223J0050DT2058	0
349	E-C-0404-3694	1950108104	CAP MY DP I 50V .022U J TP5	C110	C2YEC1H223J	0
350	#N/A	1950108126	CAP MY DP I 50V .022U J TP5	C110	PEI223J1HT	1
351	#N/A	1950110101	CAP MY DP I 50V .047U J TP5	C423	PEI-473J0050DT2058	0
352	#N/A	1950110104	CAP MY DP I 50V .047U J TP5	C423	C2YEC1H473J	0
353	E-C-0404-4700	1950110126	CAP MY DP I 50V .047U J TP5	C423	PEI473J1HT	1
354	E-C-0404-3695	1950113101	CAP MY DP I 50V .22U J TP5	C402	PEI-224J0050DT2058	0
355	E-C-0404-3695	1950113104	CAP MY DP I 50V .22U J TP5	C402	C2YEC1H224J	0
356	E-C-0404-3695	1950113126	CAP MY DP I 50V .22U J TP5	C402	PEI224J1HT	1
357	E-C-0404-4682	1950115001	CAP MY DP I 50V .47U J	C502	PEI-474J0050DB2054	1
358	E-C-0404-3697	1950122101	CAP MY DP I 50V .15U J TP5	C508	PEI-154J0050DT2058	0
359	E-C-0404-3697	1950122104	CAP MY DP I 50V .15U J TP5	C508	C2YEC1H154J	0
360	E-C-0404-3697	1950122126	CAP MY DP I 50V .15U J TP5	C508	PEI154J1HT	1
361	#N/A	1960212101	CAP MY DP I 100V .1U K TP5	C404	PEI-104K0100DT2058	0
362	#N/A	1960212104	CAP MY DP I 100V .1U K TP5	C404	CQT92M2A104K	0
363	E-C-0404-4701	1960212126	CAP MY DP I 100V .1U K TP5	C404	PEI104K2AT	1
364	E-D-0403-1395	200131610020	DIO BRD 4A 600V 3S(KBJ)	CR101	D3SB60	1
365	E-D-0403-0913	201300570523	DIO FRD 1A 200V DO-204AL(DO-41) 50	D207	UF4003 PKG23	1
366	#N/A	201300590315	DIO FRD 1A 400V DO-41 150nS	D620	RGP10GAMP	0
367	E-D-0403-0611	201300590323	DIO FRD 1A 400V DO-41 150nS	D620	RGP10G PKG23	1
368	E-D-0403-2057	201300610323	DIO FRD 1A 600V DO-204AL(DO-41) 25	D409,D414,D415	RGP10J PKG23	3
369	#N/A	201300610334	DIO FRD 1A 600V DO-41 250nS	D414,D415	PG106R T/B	0
370	E-D-0403-0919	201300610423	DIO FRD 1A 600V DO-41 75nS	D420	UF4005 PKG23	0
371	E-D-0403-2061	201300610434	DIO FRD 1A 600V DO-41 50nS	D420	UF106G T/B	1
372	E-D-0403-0912	201300620023	DIO FRD 1A 800V DO-41 75nS	D108	UF4006 PKG23	0
373	E-D-0403-2797	201300620034	DIO FRD 1A 800V DO-41 100nS	D108	UF108G T/B	1
374	E-D-0403-2067	201300630123	DIO FRD 1A 1000V DO-41 75nS	D202	UF4007 PKG23	1
375	E-D-0403-2029	201311070023	DIO FRD 2A 200V DO-204AC(DO-15) 50	D205,D206	EGP20D PKG4	2
376	E-D-0403-1744	201311080023	DIO FRD 2A 300V DO-204AC(DO-15) 50	D204	EGP20F	1
377	E-D-0403-2025	201330630007	DIO FRD 1A 1000V SOD57 75nS	D202	BYV26E,133	0
378	E-D-0403-0832	202300290105	DIO SBD 1A 20V CASE59-04(DO-41)	D113,D211,D404	1N5817RL	2
379	E-D-0403-0832	202300290123	DIO SBD 1A 20V DO-204AL	D113,D211,D404	1N5817 PKG23	1
380	E-D-0403-1536	203322540311	DIO ZEN 0.5W 4.9-5.1V DO-35	ZD601	HZ5C1 TA	1
381	E-D-0403-2058	203322540711	DIO ZEN 0.5W 5.1-5.3V DO-35	ZD202	HZ5C3 TA	1
382	E-D-0403-2099	203322550511	DIO ZEN 0.5W 6.0-6.3V DO-35	ZD301,ZD302,ZD304,ZD	HZ6C2 TA	4
384	E-D-0403-1644	203322570511	DIO ZEN 0.5W 8.5-8.9V DO-35	ZD402	HZ9B2 TA	1
385	E-D-0403-1527	203322570614	DIO ZEN 0.5W 8.6-8.99V DO-35	ZD402	RD9,1EB2-T4	0
386	E-D-0403-1643	203322580211	DIO ZEN 0.5W 8.9-9.3V DO-35	ZD303	HZ9C1 TA	1
387	E-D-0403-1936	203322610611	DIO ZEN 0.5W 11.9-12.4V DO-35	ZD201	HZ12A2 TA	1
388	E-D-0403-1534	203322670311	DIO ZEN 0.5W 17.5-18.3V DO-35	ZD101,ZD204	HZ18-2 TA	2
389	E-D-0403-2799	203322690211	DIO ZEN 0.5W 19.5-20.4V DO-35	ZD102	HZ20-2 TA	1
390	E-D-0403-1980	203322730311	DIO ZEN 0.5W 23.6-24.7V DO-35	ZD405	HZ24-2 TA	1
391	E-D-0403-0531	204320750007	DIO SW 0.2A 75V DO-35	D109,D110,D114,D115,	1N4148,133	0
392	E-D-0403-1982	204320750011	DIO SW 0.15A 75V DO-35	D109,D110,D114,D115,	1N4148 TA	0
393	E-D-0403-0531	204320750017	DIO SW 0.2A 75V DO-35	D109,D110,D114,D115,	1N4148TA	0
394	E-D-0403-1937	204322000207	DIO SW 0.25A 200V SOD-27(DO-35)	D111,D112,D411,D412,	BAV21,133	6
395	E-D-0403-0571	204322500011	DIO SW 0.2A 250V DO-35	D610,D611,D612	ISS83 TA	3
396	E-D-0403-1977	205012420137	DIO SI 5A 1500V/600V LF664(TO-220F)	D401	FMQ-2FUR	1
397	E-D-0403-1984	205300550005	DIO SI 1A 100V DO-41	D501	IN4002RL	0
398	E-D-0403-1984	205300550023	DIO SI 1A 100V DO-204AL(DO-41)	D501	IN4002 PKG23	1
399	#N/A	205310550015	DIO SI 1A 100V DO-15	D501	IN4002AMP	0
400	E-D-0403-1690	205350610337	DIO SI 1A 600V RG4	D203	RG 4A	1
401	E-Q-0402-1451	210013030006	TR 60V 3A 2-10R1A 100-320	Q409	2SD2012	1
402	E-Q-0402-1452	210057920017	TR 750V 12A TO-3PF 10	Q401	FJAF6812TU	1
403	E-Q-0402-1203	210101500111	TR 30V 0.1A TO-92 160-320	Q212	2SC458CTZ	1
404	E-Q-0402-0906	210102500011	TR 50V 0.5A TO-92 100-200	Q211	2SC1213ACTZ	1
405	E-Q-0402-1483	210102500217	TR 50V 0.15A TO-92 200-400	Q104,Q201,Q204,Q207,	KSC1815GRTA	2
406	E-Q-0402-1475	210102500306	TR 50V 0.15A TO-92 120-240	Q104,Q201,Q204,Q207,	2SC1815-Y(TPE2)	0
407	#N/A	210102500327S	TR 50V 0.15A TO-92 120-240	Q104,Q201,Q204,Q207,	2SC1815-Y	0
408	E-Q-0402-1476	210105700005	TR 250V 0.5A TO-92 50	Q501	BF422ZL1	0
409	E-Q-0402-1207	210105700006	TR 250V 0.05A TO-92 50	Q501	BF422(TPE2)	1
410	E-Q-0402-1477	210106300005	TR 350V 0.5A TO-92 30	Q102	2N6517RLRP	0
411	E-Q-0402-1453	210106300017	TR 350V 0.5A TO-92 30-200	Q102	2N6517TA	1
412	E-Q-0402-1454	210231010011	TR 20V 1A TO-92MOD 120-240	Q206	2SD468CTZ	1
413	E-Q-0402-1089	210232520206	TR 50V 2A 2-5J1A(TO-92MOD) 120-240	Q210	2SC2655-Y(TPE6)	1
414	E-Q-0402-1206	210233510011	TR 80V 1A TO-92MOD 100-200	Q402	2SD667CTZ	1
415	#N/A	210234010011	TR 100V 1A TO-92MOD 60-200	Q402	2SD667ATZ	0
416	E-Q-0402-1479	211101500106	TR -30V -0.5A TO-92 120-240	Q213	2SA562TM-Y(TPE2)	1
417	E-D-0403-2031	211101500127S	TR -30V -0.5A TO-92 120-240	Q213	2SA562-Y	0
418	E-Q-0402-1455	211102500117	TR -50V -0.15A TO-92 200-240	Q205,Q411,Q412,Q418,	KSA1015GRTA	5
419	E-Q-0402-1481	211102500206	TR -50V -0.15A 2-5F1B 120-240	Q205,Q411,Q412,Q418,	2SA1015-Y(TPE2)	0

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
420	E-Q-0402-1208	211105700006	TR -250V -0.05A 2-5F1B 50	Q419,Q420	BF423(TPE2)	2
421	E-Q-0402-0888	211106000106	TR -300V -0.05A TO-92 40	Q404	BF421(TPE2)	1
422	E-Q-0402-1588	211162030006	TR -40V -3A 2-8H1A 120-240	Q203,Q208	2SA1359-Y	2
423	E-D-0403-1199	2300062706	LED 5mm ORG/GRN 3PIN	LED301A	EL339-1EGW	1
424	#N/A	2300062778	LED ORG/GRN 5mm 3PIN C.C.	LED301A	GP31052MK-ZO	0
425	E-Q-0402-1212	242016100008	FET 200V 5A 0.4ohm TO-220F	Q414,Q416	IRF630MFP	0
426	E-Q-0402-1589	242016100517	FET 200V 9A 0.4ohm TO-220F	Q414,Q416	IRFS630B	2
427	E-Q-0402-1432	242016350517	FET 250V 8.1A 0.45ohm TO-220F	Q202	IRFS634B	1
428	E-Q-0402-0156	242017400006	FET 600V 6A 1.25ohm TO-220F	Q101	2SK2545	1
429	E-Q-0402-1496	242017400008	FET 600V 6A 1.2ohm TO-220FP	Q101	STP6NC60FP	0
430	E-IC-0401-2556	2500113511	IC MONO TRIPLE 7.5nS CRT DRIVER TO	IC602	LM2467TA	1
431	E-IC-0401-2392	2500165011	IC 80V TRIPLE BIAS CLAMP 8PIN	IC603	LM2480	1
432	E-IC-0401-0985	2510005310	IC PWM 8PIN	IC101	UC3843BN	1
433	E-IC-0401-2730	2530026104	IC VERT DEFLECTION SIP-10P	IC501	KA2142	1
434	E-IC-0401-2275	2530095106	IC DEFLECTION PROCESSOR SDIP-32P	IC401	TDA9113	1
435	E-IC-0401-2947	2530209026	IC MASK OSD CONTROLLER SKINNY-28P	IC601	NT6813K/28-30001	1
436	E-IC-0401-2852	2610185342	IC EEPROM 8K 8PIN	IC302	M24C08BN6	1
437	E-IC-0401-2762	2610561018	IC 8BIT MICROCONTROLLER SDIP-42P F	IC301	NT68F65U	1
438	E-T-0408-0323	2800421400	XFMER EE19 19mH K	T402	19A-9008	1
439	#N/A	2831028200	BOBBIN+WIRE ASSY FOR 19A-9008			1
440	M-MS-0808-5087	3167921200	BOBBIN & LUG*5 ASSY			1
441	M-MS-0808-7460	3220311724	TAPE W=10.5 CT-280 YAHUA		CT-280 W=10.5	0.36
442	#N/A	4010400200	WIRE CU .2 2UEW NAT			2.8
443	#N/A	4010560200	WIRE CU .4 2UEW NAT			0.85
444	M-WR-0828-0399	4010570000	WIRE CU .4 2UEWN NAT MW-28			0
445	M-WR-0828-0404	4011170000	WIRE CU .2 2UEWN NAT MW-28		0.2 2UEWN NAT MW-28	0
446	M-MS-0808-5167	4090001200	SOLDER BAR 50/50			0
447	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
448	#N/A	3220310624	TAPE W=5 CT-280 YAHUA		CT-280 W=5	0.17
449	M-MS-0808-5144	4020114600	VARNISH V-1630FS VIKING CLEAR		V-1630FS	0
450	M-MS-0808-5145	4020116500	EPOXY G757			0.005
451	M-MS-0808-5146	4020117500	EPOXY 2089-1 A		2089-1 A	9.7
452	M-MS-0808-5147	4020117600	EPOXY 2089-1 B		2089-1 B	0.097
453	M-MS-0808-5152	4020205500	THINNER OF V-1380			0.1
454	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	0.001
455	M-MS-0808-5165	4020500500	INK BLACK			0.001
456	M-MS-0808-5166	4020604000	VARNISH V-1380FC VIKING		V-1380FC	0.1
457	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
458	E-L-0407-1125	4120503600	CORE FERI EE19 2F8 U2200		EE19 2F8	0
459	E-L-0407-1127	4120504700	CORE FERI EE19 TP3 UI=2500		EE19 TP3	1
460	E-L-0407-1128	4120505000	CORE FERI EE19 PM7 UI=2400		EE1916 PM7	0
461	#N/A	4120506000	CORE FERI EE19A PG232 U2300		FH-PG232-EE19A	0
462	#N/A	2800426000	XFMER SMT 1.15mH MIN	T403	SMT-19EV-395T	1
463	#N/A	3198060200	BOBBIN & LUG*5 ASSY L1=4.5+/-0.5			1
464	M-MS-0808-5250	3220130400	TAPE W=9 #1350F-1 3M		#1350F-1 W=9	0
465	M-MS-0808-7466	3220311424	TAPE W=9 CT-280 YAHUA		CT-280 W=9	0.23
466	#N/A	4010400200	WIRE CU .2 2UEW NAT			4.2
467	M-WR-0828-0404	4011170000	WIRE CU .2 2UEWN NAT MW-28		0.2 2UEWN NAT MW-28	0
468	M-MS-0808-5144	4020114600	VARNISH V-1630FS VIKING CLEAR		V-1630FS	0.1
469	M-MS-0808-5145	4020116500	EPOXY G757			0.1
470	M-MS-0808-5146	4020117500	EPOXY 2089-1 A		2089-1 A	0.1
471	M-MS-0808-5147	4020117600	EPOXY 2089-1 B		2089-1 B	0.001
472	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	0.1
473	M-MS-0808-5154	4020208300	THINNER OF ROSIN 800 ADDITIV		800 ADDITIVE	0.1
474	M-MS-0808-5165	4020500500	INK BLACK			0.001
475	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
476	#N/A	4120501200	CORE FERI EE19.3 B50		EE19.3 B50	0
477	E-L-0407-1126	4120503700	CORE FERI EE19 NC-2H		NC-2H FEE-19/16/5	0
478	E-L-0407-1127	4120504700	CORE FERI EE19 TP3 UI=2500		EE19 TP3	1
479	#N/A	4120505200	CORE FERI EE19 MZ4 UI=2400		EE19 MZ4	0
480	#N/A	2801431200	XFMER SMT 250uH K	T101	SMT-35RV-384T	1
481	#N/A	3166006000	BOBBIN & LUG*12 L1=4.0+/-0.5			1
482	M-MS-0808-5250	3220130400	TAPE W=9 #1350F-1 3M		#1350F-1 W=9	0
483	#N/A	3220145010	TAPE W=26.5 #1350F-1 3M		#1350F-1 W=26.5	0
484	M-MS-0808-7466	3220311424	TAPE W=9 CT-280 YAHUA		CT-280 W=9	0.4
485	#N/A	3220316924	TAPE W=26.5 CT-280 YAHUA		CT-280 W=26.5	1.28
486	#N/A	3221220400	TAPE W=3 2L #44 3M		#44 W=3 2L	0
487	#N/A	3221220900	TAPE W=6 2L #44 3M		#44 W=6 2L	0
488	#N/A	3221230400	TAPE W=3 2L #40 TENRICH		#40 W=3 2L	0.75
489	#N/A	3221230600	TAPE W=6 2L #40 TENRICH		#40 W=6 2L	0.75
490	#N/A	4010460000	WIRE CU 0.25 2UEW NAT			1.7
491	M-WR-0828-0426	4010580000	WIRE CU 0.45 2UEW NAT		0.45# 2UEW NAT	3
492	M-WR-0828-0416	4010590000	WIRE CU 0.45 2UEWN NAT MW-28			0
493	M-WR-0828-0428	4011160100	WIRE CU .25 2UEWN NAT MW-28			0
494	#N/A	4011550000	WIRE CU 0.35 2UEWN NATURE		0.35# 2UEWN NAT	0
495	#N/A	4011550400	WIRE CU 0.35 2UEW NAT MW-75			2.811
496	M-MS-0808-5144	4020114600	VARNISH V-1630FS VIKING CLEAR		V-1630FS	0.1
497	M-MS-0808-5145	4020116500	EPOXY G757			0.2
498	M-MS-0808-5146	4020117500	EPOXY 2089-1 A		2089-1 A	0.1
499	M-MS-0808-5147	4020117600	EPOXY 2089-1 B		2089-1 B	0.001
500	M-MS-0808-5352	4020200300	SOLVENT XYLENE			0.2
501	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	0.1
502	M-MS-0808-5154	4020208300	THINNER OF ROSIN 800 ADDITIV		800 ADDITIVE	0.1
503	M-MS-0808-5165	4020500500	INK BLACK			0.05

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504	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
505	#N/A	4131101500	CORE FERI EER35L TP4		EER35L TP4	0
506	#N/A	4131105800	CORE FERI EER3542 JPP4 UI=2300		EER35/42 JPP4	1
507	#N/A	2816334410	CHOKE CD 100uH K	L201	E-10209A	1
508	#N/A	2816365410	CHOKE CD 4.7uH L	L404	E-10210A	1
509	#N/A	2816381810	CHOKE CD 40uH L	L403	E-6539	1
510	E-L-0407-0710	2816800210	CHOKE CD 3.9mH K	L402	E-4840A	1
511	E-L-0407-1576	2816800282	CHOKE CD 3.9mH K	L402	LG392	0
512	E-L-0407-0113	2816903700	CHOKE CD 120uH K	L405	CD-16-087T	1
513	#N/A	3520462700	PML FOR DR18*22			1
514	#N/A	3500226300	EPE PAD 265*230*8			0.003
515	M-MS-0808-7442	3500536300	EPE PAD 265*230*13			0.013
516	P-BX-0601-0594	3510050400	CARTON D-2 495*295*267			0.002
517	M-MS-0808-5289	3510120800	TRAY CS-2 A			0.013
518	M-MS-0808-7046	3510134300	PAPER PAD 485*270*8			0.002
519	M-MS-0808-5128	3510139800	PAPER PAD 260*225*5			0.013
520	M-MS-0808-5129	3510141800	PAPER 280*240*8			0.004
521	#N/A	3512002000	PARTITION 265*230*22.5 10*8=80			0.013
522	M-MS-0808-5136	3520203400	PE SHEET 610*230*0.15			0.013
523	#N/A	4010190003	WIRE 0.1*40 USTC		0.1*40 USTC	6.4
524	#N/A	4010190007	WIRE 0.1*40 USTC		0.1*40 USTC	0
525	#N/A	4010190009	WIRE 0.1*40 USTC		0.1*40 USTC	0
526	M-MS-0808-5352	4020200300	SOLVENT XYLENE			0.058
527	M-MS-0808-5150	4020201200	THINNER OF FLUX A83 ADDITIVE		#425	0.293
528	M-MS-0808-5151	4020204800	FLUX A83 ALPHA		A83	0.008
529	M-MS-0808-5357	4020600700	VARNISH BC346			0.153
530	M-MS-0808-5167	4090001200	SOLDER BAR 50/50			0.131
531	#N/A	4162551600	CORE DR2W16*18 LY5B B:10 F:13		DR2W16*18 B:10 F:13	1
532	E-L-0407-1119	2816903701	CHOKE CD 120uH K	L405	D12069	0
533	E-L-0407-1601	2816903782	CHOKE CD 120uH K	L405	LG121	0
534	E-L-0407-0972	2817206700	LINE FILTER 7.8mH MIN	FL101	LFZ24V08	1
535	#N/A	2836022000	3132010300+4157030100 ASSY			0
536	M-MS-0808-5085	3132010300	BOBBIN PBT 94V-0			2
537	E-L-0407-1132	4157030100	CORE FERI SP24*24 MA070 U7000		MA070 ET-24A	1
538	#N/A	2836022100	3132010300+4157030200 ASSY			0
539	M-MS-0808-5085	3132010300	BOBBIN PBT 94V-0			2
540	#N/A	4157030200	CORE FERI SP24*24 A07 U7000		A07 ET-24	1
541	#N/A	2836022300	3132010300+4157030500 ASSY			0
542	M-MS-0808-5085	3132010300	BOBBIN PBT 94V-0			2
543	E-L-0407-1134	4157030500	CORE FERI SP2424 NC-7 Ui=7000		SP2424 NC-7	1
544	#N/A	2836036000	3132010300+4157031400 ASS'Y			0
545	M-MS-0808-5085	3132010300	BOBBIN PBT 94V-0			2
546	E-L-0407-1444	4157031400	CORE FERI SP24 TL7 UI=7000		ET24 TL7	1
547	#N/A	2836046100	3132010300+4157031500 ASS'Y			1
548	M-MS-0808-5085	3132010300	BOBBIN PBT 94V-0			2
549	E-L-0407-1445	4157031500	CORE FERI SP24 JFH2		SP24 JFH2	1
550	M-MS-0808-7009	3171046500	BASE & LUG*4 L1=3.5+/-0.3			1
551	M-WR-0828-0400	4010600100	WIRE CU 0.5 2UEW NAT			9.67
552	M-MS-0808-5145	4020116500	EPOXY G757			0.1
553	M-MS-0808-5148	4020121100	EPOXY ADHESIVE HOT-MELT A-208		A-208	0.03
554	M-MS-0808-5151	4020204800	FLUX A83 ALPHA		A83	0
555	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	0.001
556	M-MS-0808-5165	4020500500	INK BLACK			0.001
557	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
558	M-MS-0808-5169	4090003700	SOLDER BAR 50/50		SB50AO	0
559	E-L-0407-0973	2817211000	LF 3.0mH MIN	FL102	LFO20V10	1
560	#N/A	2831030300	BOBBIN+WIRE ASSY FOR 2817211000			1
561	#N/A	2836020700	3132010200+4158000200 ASSY			1
562	M-MS-0808-5084	3132010200	BOBBIN & BASE PBT 94V-0			2
563	#N/A	4158000200	CORE FERI SQ20 A07 U7000		UT-20	1
564	#N/A	2836022500	3132010200+4158000100 ASSY			0
565	M-MS-0808-5084	3132010200	BOBBIN & BASE PBT 94V-0			2
566	E-L-0407-1136	4158000100	CORE FERI SQ 20 u=7000 MA070		UT-20A	1
567	#N/A	2836022600	3132010200+4158000400 ASSY			0
568	M-MS-0808-5084	3132010200	BOBBIN & BASE PBT 94V-0			2
569	E-L-0407-1137	4158000400	CORE FERI SQ20 NC-7 UI=7000		FOC2046X-NC-7X	1
570	#N/A	2836045500	3132010200+4158001300 ASS'Y			0
571	M-MS-0808-5084	3132010200	BOBBIN & BASE PBT 94V-0			2
572	E-L-0407-1341	4158001300	CORE FERI SQ20 TL7 UI=7000		FT20 TL7	1
573	M-MS-0808-6558	3171052200	BASE LUG*4 L1=3.5+/-0.3			1
574	#N/A	4010560200	WIRE CU 0.4 2UEW NAT			3.9
575	M-MS-0808-5148	4020121100	EPOXY ADHESIVE HOT-MELT A-208		A-208	0.001
576	M-MS-0808-5145	4020116500	EPOXY G757			0.1
577	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	0.001
578	M-MS-0808-5165	4020500500	INK BLACK			0.001
579	M-MS-0808-5168	4090001800	SOLDER BAR 60/40		SB60	0.1
580	#N/A	2850011110	FBT 19" 86KHZ 1.33mH	T401	CF2174DE2705	1
581	E-L-0407-0494	2921020100	CORE BEAD 3.5*6*1.0 T/R	JW101,L103,L104,L105	C8B RH3.5*6*1.0 T/R	2
582	E-L-0407-1572	2921020182	CORE BEAD 3.5*1.2*6 T/R	JW101,L103,L104,L105	LB3.5*6	0
583	E-L-0407-1427	2921050700	CORE BEAD 2.5*3*1.0 W5 T/R	L202,L602,L603,L604,	W5 RH2.5*3*1.0 T/R	7
584	E-L-0407-1602	2921050782	CORE BEAD 2.5*3*1.0 W5 T/R	L202	LB2.5*3	0
585	E-L-0407-1015	2922040006	COIL PEAKING 2.2uH K TP AXIAL 0307	L611,L617,L618	CP-0307AT-2R2K	3
586	E-L-0407-1243	2922130206	COIL PEAKING 22uH K TP AXIAL 0307	L601,L610	CP-0307AT-220K	2
587	E-L-0407-1189	2922350504	COIL PEAKING .47uH K TP AXIAL 0307	L607,L608,L609	AL0307ST-R47K-S-B	0

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588	E-L-0407-1190	2922350506	COIL PEAKING .47uH K TP AXIAL 0307	L607,L608,L609	CP-0370AT-R47K	3
589	#N/A	2970044301	PWB S0 FR-1(XPC) 250MM*330MM			1
590	M-SW-0815-0151	3000091800	SWITCH TACTILE DC 12V 50mA	SW305		0
591	M-SW-0815-0176	3000091816	SWITCH TACTILE DC 12V 50mA	SW305	SKHHLM1510	5
592	M-SW-0815-0202	3000091820	SWITCH TACTILE DC 15V 50mA	SW305	TSVB-2-D	0
593	M-SW-0815-0156	3000140416	SWITCH PUSH SPST DC30V 0.3A		SPPJ22NE01-TA	0
594	M-SW-0815-0193	3000140420	SWITCH PUSH SPST DC30V 0.3A		PS2	0
595	M-SW-0815-0164	3000140426	SWITCH PUSH SPST DC30V 0.3A			1
596	M-MS-0808-6069	3020005436	SOCKET CRT NORMAL DOUBLE FOCUS	X601	SFCCB09120-TA	1
597	M-MS-0808-6872	3020005439	SOCKET CRT NORMAL DOUBLE FOCUS	X601	GZS10-302A	0
598	M-MS-0808-6790	3020603638	SOCKET AC PWB MOUNT INPUT 10A 250V		SA-4S-020	1
599	M-MS-0808-7802	3070023934	HEADER NY66 94V0 7P P2.5	P301	A2501WV2-7P	1
600	M-MS-0808-7506	3071315634	HEADER NY66 94V0 6PIN	P601		1
601	M-MS-0808-5076	3071315734	HEADER NY66 94V0 7P P2.5 W/BOSS	P301	A2501WV2-7P-BS	0
602	M-MS-0808-5378	3071406334	HEADER NY66 94V0 3P P2.5	P201	A2502WV2-3P	1
603	A-VC-0101-0349	3080424800	CABLE D-SUB/HOUSING L1830 BLK OD6			1
604	M-SCW-0824-0391	3100300800	SCREW M M3*0.5*8 PAN C S+P S20C ZN			1
605	M-SCW-0824-0004	3100301000	SCREW M M3*0.5*10 PAN C S+P S20C Z			6
606	M-SCW-0824-0433	3100301200	SCREW M M3*0.5*12 PAN C S+P S20C Z			1
607	M-SCW-0824-0461	3106150400	SCREW T M3.5*1*8 PAN C S18C ZN YEL			2
608	M-SCW-0824-0411	3109010300	SCREW T M3*0.5*10 BIND C S18C ZN Y			1
609	M-SCW-0824-0784	3109010700	SCREW T M3*0.5*7 PAN C S+P S20C ZN			1
610	M-SCW-0824-0413	3109011400	SCREW T M3*0.5*6 BIND C S18C ZN YE			2
611	M-SCW-0824-0620	3109020500	SCREW T p4*1.6*10 PAN C S18C ZN Y			1
612	M-SCW-0824-0393	3109020700	SCREW T M4*0.7*8 PAN C S S18C ZN			1
613	M-MS-0808-7326	3110110400	NUT M3*0.5 S1010C			2
614	#N/A	3227000100	TUBE HS POLYOLEFIN 7*.25 BLACK		VERAFIT 7*.25 BLK	0.015
615	M-MS-0808-5739	3227001900	TUBE HS POLYOLEFIN 5*.25 BLACK		VERSAFIT 5*.25 BLK	0.02
616	M-MS-0808-7803	3240291900	INSULATOR SIRUB 12*26 T.275			1
617	#N/A	3341061200	HSK AL T1.4 23.5*55.4	HS201		1
618	M-MS-0808-7311	3341159002	HSK AL T=2.5 85*47 I	HS101		1
619	#N/A	3342603800	HSK PLATE AL1100F PICKLING T2 187*			1
620	#N/A	3342700305	HSK AL T=1 84.5*35 I	HS601		1
621	M-MS-0808-8237	3350141100	RIVET BRASS TIN PLATED 1.8*3.7*3			2
622	M-MS-0808-5111	3350141900	RIVET BRASS TIN PLATED 1.5*3.2*3			9
623	M-MS-0808-5112	3350143000	RIVET BRASS TIN PLATED 1.2*3*3			9
624	M-MS-0808-5119	3350252200	PIN ROUND BRONZE 2.36*13.8 TIN PLA			0
625	M-MS-0808-4828	3360053201	LED HOLDER NY66 NAT			1
626	M-WR-0828-0344	3411000200	JUMP WIRE COPPER 0.6*5.0*4.0	JW403		7
627	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
628	M-WR-0828-0224	3411000300	JUMP WIRE COPPER 0.6*7.5*4.0	J105,J420,JW601,R205		8
629	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
630	M-WR-0828-0249	3411000400	JUMP WIRE COPPER 0.6*10.0*4.0	J210,J406,J411,J436,		5
631	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
632	#N/A	3411000500	JUMP WIRE COPPER 0.6*12.5*4.0	J404,J407,J610,R401,		8
633	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
634	M-WR-0828-0388	3411000600	JUMP WIRE COPPER 0.6*15.0*4.0	J333		1
635	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
636	M-WR-0828-0389	3411000700	JUMP WIRE COPPER 0.6*17.5*4.0	J410,J423		9
637	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
638	M-WR-0828-0390	3411000800	JUMP WIRE COPPER 0.6*20.0*4.0	J430,J440,R107		6
639	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
640	#N/A	3411004203	JUMP WIRE COPPER 0.6*6.0*4.0	J605		1
641	M-WR-0828-0402	4010670000	WIRE CU 0.6 TNC			0.131
642	PL-CL-0710-0026	3420003302	CLIP FIXING SECC 30*10 T=1			1
643	M-MS-0808-5123	3429009300	CLIP TIN SPTH 32*7 T=0.3			1
644	M-MS-0808-7487	3429019600	CLIP TIN SPTH 30*7 T=0.3			1
645	M-MS-0808-7513	3460103202	BRACKET REAR SECC 67*55 T=1			1
646	M-MS-0808-9038	3461230101	SHIELD CAN VIDEO SPTE 95*95 T.3			1
647	#N/A	3641058200	WIRE WITH TERMINAL 1007 #18 GEN L3			1
648	M-WR-0828-0748	3641312100	WIRE WITH TERMINAL 1007 #18 BLK L1			1
649	M-WR-0828-5990	3642422902	WIRE WITH TERMINAL 1015 #18 Y/G L9			1
650	#N/A	3679018700	WIRE WITH HOUSING 1007 #24 7+5P			1
651	M-MS-0808-5153	4020208200	FLUX ROSIN 800 NO CLEAN		800 NO CLEAN	9.5
652	M-MS-0808-5154	4020208300	THINNER OF ROSIN 800 ADDITIV		800 ADDITIVE	1.36
653	#N/A	4090001000	SOLDER WIRE 50/50 1.6mm			3
654	#N/A	4090002100	SOLDER WIRE 63/37 1.0mm			2.5
655	M-MS-0808-5358	4090002400	SOLDER BAR 63/37			5.4

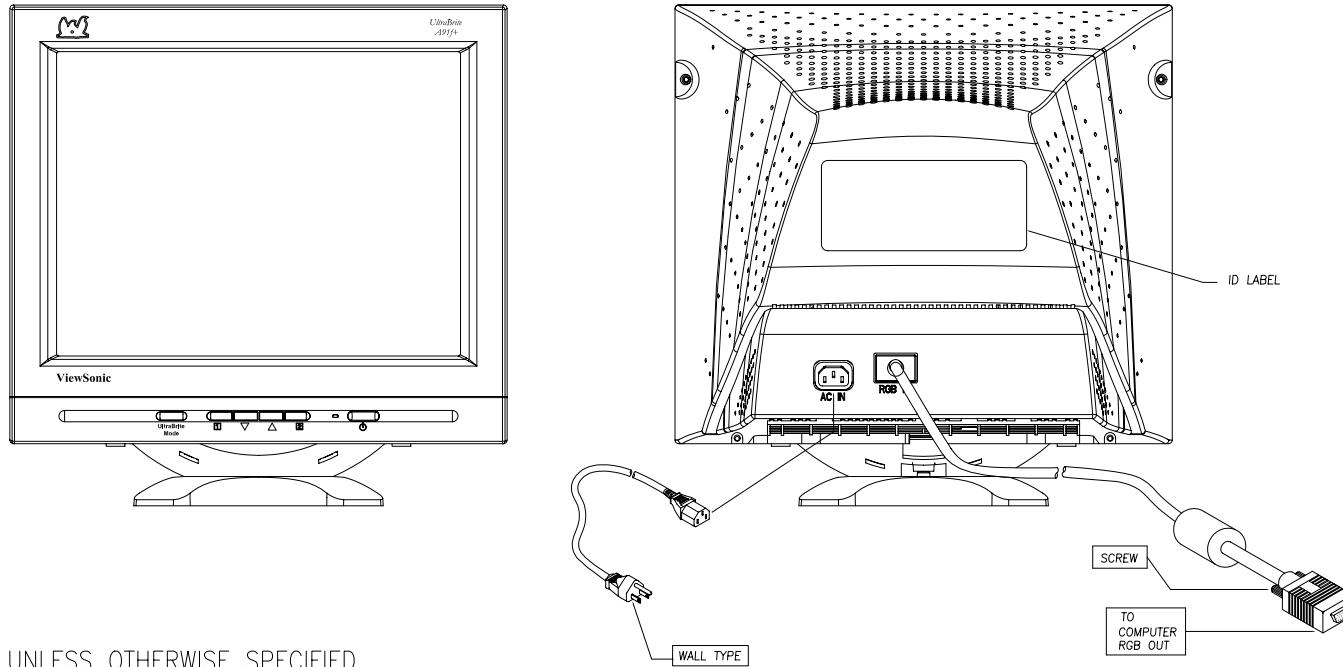
8. Exploded Diagram And Spare Parts List



A91f+-1 Exploded Parts List

Item	ViewSonic P/N	Reference P/N	Description
1	C-FP-0301-1026	3361091600	F/B ABS BLK+SILVER A91F+S9PFC1AT
2	PL-NB-0707-0196	3360625100	POWER KNOB ABS 41 S7PFB1AT
3	M-MS-0808-4828	3360053201	LED HOLDER NY66 NAT
4	M-MS-0808-7806	3462003900	SPRING COMPRESSION SUS304 ID6.5 L12
5	PL-FK-0709-0120	3360728400	FUNCTION KEY ABS 41 S7PFB1AT
6	M-LB-0813-0466	3209135100	NAME PLATE AL+PC VSC 3-BIRD LOGO 24.7*17
7	PL-PD-0714-0021	3240920800	RUBBER PAD 20*6.5*5 BLACK
8	M-MS-0808-9039	3649109100	CRT GROUNDING WIRE J986SAM/SBM
9	E-L-0407-1593	2840003006	DEGAUSSING COIL 11.30OHM K
10	M-MS-0808-9038	3461230101	SHIELD CAN VIDEO SPTE 95*95 T.3
11	C-BC-0302-0612	3360246601	R/C ABS 41 S9RC1AT
12	M-LB-0813-1023	3201974401	LABEL ID 165*75 K986SBM01C A91F+M
13	M-SCW-0824-0394	3109022200	SCREW T ? p4*1.6*35 PAN C S18C ZN
14	M-SCW-0824-0006	3109020201	SCREW T ? p4*1.4*16 PAN C S18C ZN YEL
15	PL-TB-0717-0137	3360320100	SWIVEL ABS 41 S9SC1AT
16	C-BT-0304-0018	3360427000	BASE ABS 41 S9BC1AT
17	M-SW-0815-0176	3000091816	SWITCH TACTILE DC 12V 50mA
18	E-D-0403-1199	2300062706	LED 5mm ORG/GRN 3PIN
19	M-MS-0808-4828	3360053201	LED HOLDER NY66 NAT
20	M-SW-0815-0164	3000140426	SWITCH PUSH SPST DC30V 0.3A
21	B-SB-0221-0651	2970044300	PWB S0 FR-1(XPC) 250*330
22	M-MS-0808-4206	3421047903	SPACER SUPPORT NYLON 94V-2 14*9*11.8
23	M-MS-0808-9678	3342602401	HSK PLATE AL1100F PICKLING T1 187*60*90
24	M-MS-0808-7513	3460103202	BRACKET REAR SECC 67*55 T=1
25	M-MS-0808-6790	3020603638	SOCKET AC PWB MOUNT INPUT 10A 250V
26	A-VC-0101-0349	3080424800	CABLE D-SUB/HOUSING L1830 BLK OD6 J986SB
27	M-SCW-0824-0393	3109020700	SCREW T M4*0.7*8 PAN C S S18C ZN
28	M-SCW-0824-0413	3109011400	SCREW T M3*0.5*6 BIND C S18C ZN YEL
29	M-SCW-0824-0004	3100301000	SCREW M M3*0.5*10 PAN C S+P S20C ZN
30	M-MS-0808-7326	3110110400	NUT M3*0.5 S1010C
31	M-SCW-0824-0617	3109017300	SCREW T M3*0.5*8 PAN C S S18C ZN
32	M-MS-0808-7803	3240291900	INSULATOR SIRUB 12*26 T.275
33	M-SCW-0824-0413	3109011400	SCREW T M3*0.5*6 BIND C S18C ZN YEL
34	M-SCW-0824-0393	3109020700	SCREW T M4*0.7*8 PAN C S S18C ZN

ENGINEERING NOTICES

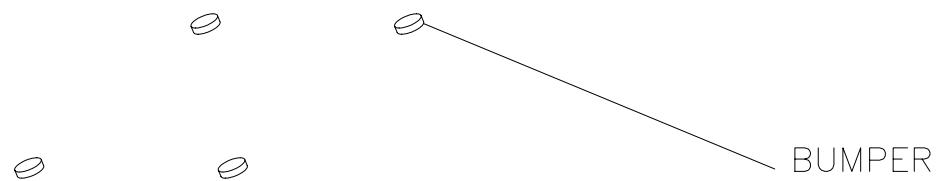
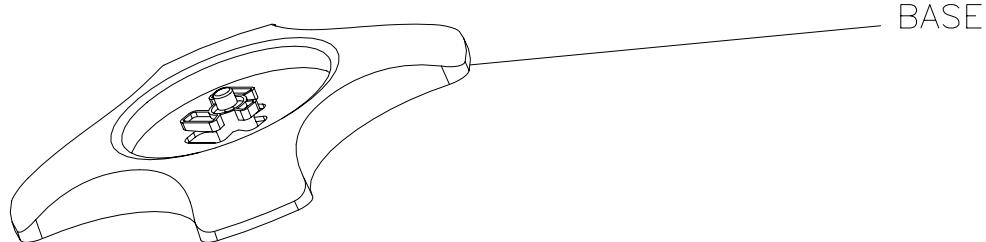
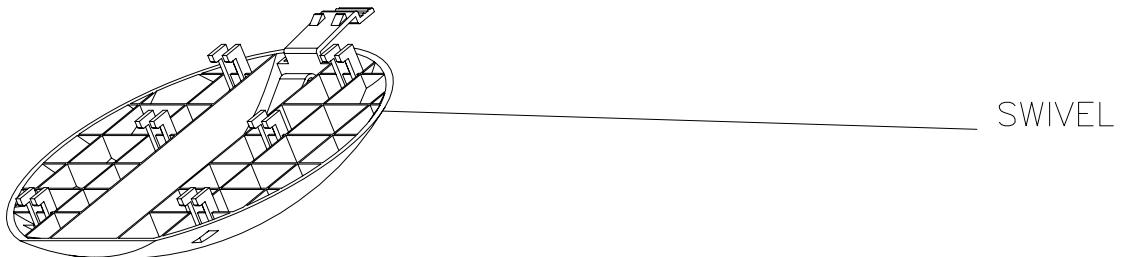


NOTE : UNLESS OTHERWISE SPECIFIED

- 1.ENSURE THE REAR COVER IS FULLY INSERTED .
AND THEN FASTEN 4PCS SCREWS (P/N:31090202XX*2, 31090222XX*2)
- 2.REMEMBER TO ADHERE ID LABEL ON THE BACK SIDE OF REAR COVER .
- 3.MAKE SURE THE MOTION BETWEEN TILT AND SWIVEL IS SMOOTH ,
WITHOUT SQUEAKS AND GAPS , APPLY LUBRICANT ONTO FRICTION
SURFACE OF SWIVEL DEVICES IS ACCEPTABLE .
- 4.PACKING MATERIAL HAVE TO MEET ENG , DEPT , SPEC .
- 5.INSPECTION REFER TO SPCE. 10000-0151.

	DIMENSIONAL TOLERANCES				Drawn:	Designed:	Checked:	Approved:	DESCRIPTION:		
	()	(\vee)	()	()					THIRD ANGLE PROJECTION	DRAWING NO.:	REV.
	<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5					336M2265		00
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4							
	>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1							
	ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35								
	HOLDS : ±0.05	ANGLES:±0.5°	250~300 : ±0.4								
			300~350 : ±0.45								
			350~400 : ±0.5								
SCALE	1:1	UNIT	MM	USED ON	K986	SBM (VSC 19")					

ENGINEERING NOTICES
SWIVEL BASE ASS'Y



DIMENSIONAL TOLERANCES

()	(✓)	()	()
<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5
>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4
>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1
ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35	
HOLES: ±0.05	ANGLES: ±0.5°	250~300 : ±0.4	
		300~350 : ±0.45	
		350~400 : ±0.5	

SCALE $\frac{1}{16}$ UNIT MM USED ON K986 SBM (VSC 19")

Drawn:



DESCRIPTION:

ENGINEERING NOTECECS

Designed:

Checked:



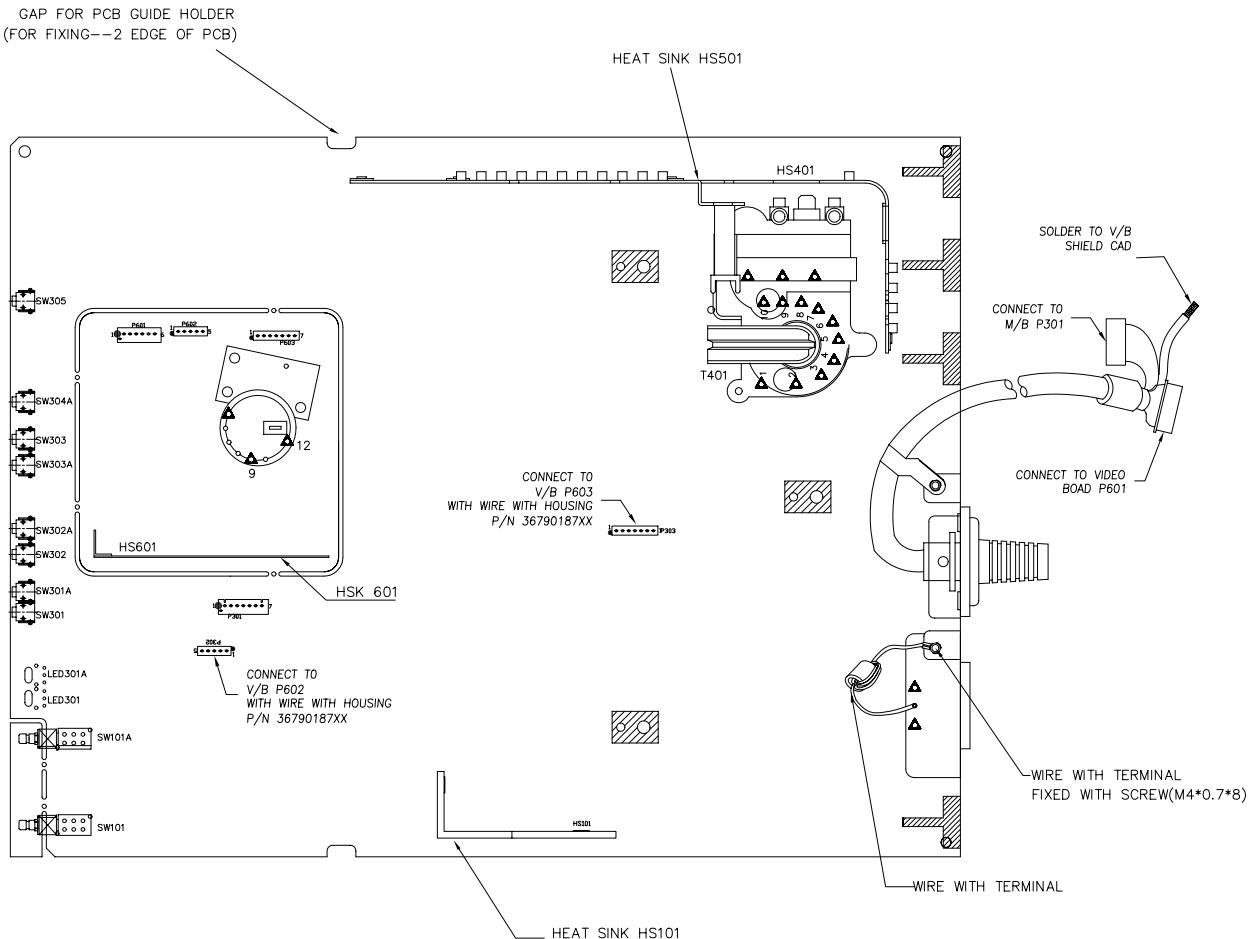
DRAWING NO.: 336M2265

REV. 00

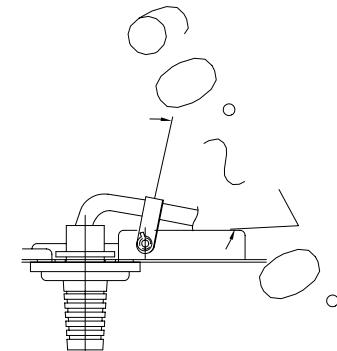
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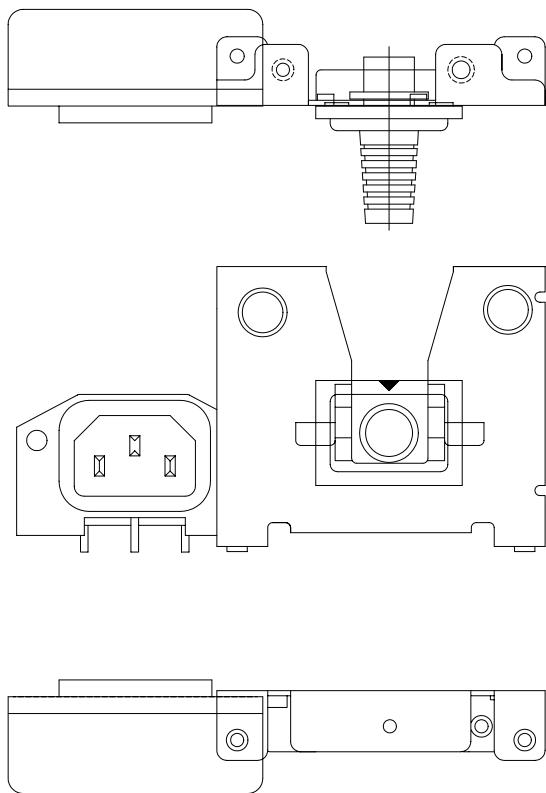
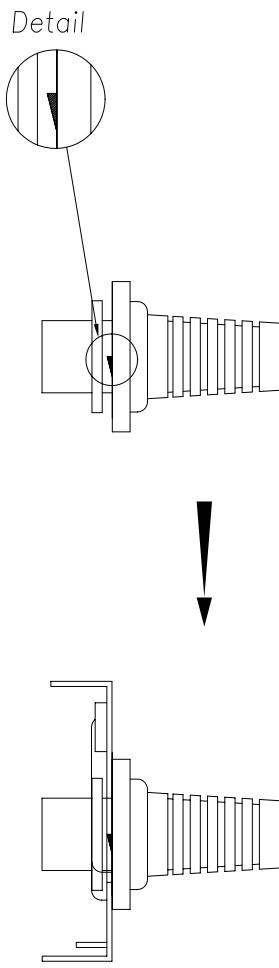
SIZE SHEET 4 TO 16



NOTE:UNLESS OTHERWISE SPECIFIED
 1.LOCATION OF WIRE WITH HOUSING 12 PINS
 (MAIN BOARD TO VIDEO BOARD)
 (a): 12PINS HOUSING INSERT TO 12PIN WP602
 HOLE ON MAIN BOARD.
 (b): 12PINS HOING INSERT TO 12PINS P602
 HOLE ON VIDEO BOARD.
 2.LED MUST TO ARRANGE LED HOUSING, (ATTENTION AN ASPECT) THEN INSERT TO MAIN BOARD'S LED301A
 LOCATION.



	DIMENSIONAL TOLERANCES				Drawn: <small>ZINNUT/DEPARTMENT QUALITY</small>	Designed: <small>ZINNUT/DEPARTMENT QUALITY</small>	Checked: <small>ZINNUT/DEPARTMENT RESPONSIBILITY</small>	DESCRIPTION: ENGINEERING NOTICES		
	()	()	()	()				DRAWING NO.: 336M2265	REV. 00	
SCALE	UNIT	MM	USED ON	J770 S-SERIES (VSC 17")	Approved: _____	SIZE	SHEET 5	T0 16		
DIMENSIONAL TOLERANCES <30 : ±0.25 DECIMALS >30~100 : ±0.35 X : ±0.3 >100~300 : ±0.5 XX : ±0.2 ABOVE 300 : ±0.6 XXX : ±0.1 HOLES: ±0.05 ANGLES: ±0.5°				UP~100 : ±0.2 100~150 : ±0.25 150~200 : ±0.3 200~250 : ±0.35 250~300 : ±0.4 300~350 : ±0.45 350~400 : ±0.5	UP~600 : ±1.5 600~900 : ±2.4 900~OVER : ±3.1	THIRD ANGLE PROJECTION				



USE SCREW TO FIX SIGNAL CABLE WITH REAR BKT

NOTE : UNLESS OTHERWISE SPECIFIED

1. SIGNAL CABLE FIX TO METAL CHASSIS THAT THE HOOK DIRECT IS UPON THE BRACKET.
AND THE HOOK MUST LOCK TO METAL CHASSIS HOLE.

2. FIX SIGNAL CABLE(P/N:3080XXXXXX) BY SCREW (M3X0.5X6(P/N:3109011400)
& WIRE WITH TERMINAL(P/N:3642422902) BY SCREW (M4X0.7X8(P/N:3109020700) METAL BRACKET ON THE HOLE.

	DIMENSIONAL TOLERANCES				Drawn:	Designed:	Checked:	Approved:	DESCRIPTION:		
	()	(✓)	()	()					THIRD ANGLE PROJECTION		
	<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5					DRAWING NO.:	336M2265	REV.
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4					SHEET	6	00
	>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1					SIZE	16	
	ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35								
	HOLDS: ±0.05	ANGLES:±0.5°	250~300 : ±0.4								
			300~350 : ±0.45								
			350~400 : ±0.5								
SCALE	1:1	UNIT	MM	USED ON	J770 S-SERIES (VSC 17")						

NOTE : UNLESS OTHERWISE SPECIFIED

A.FRONT BEZEL (F/B) & CRT ASS'Y

- 1.POWER SWITCH BUTTON NEED ASSEMBLE WITH COMPRESSION SPRING INSERT TO FRONT BEZEL
- 2.LED LENS INSERT TO FRONT BEZEL LED LENS HOLE USE HEATSTAKE TO FIXED LENS
- 3.FUNCTION KEYTOP INSERT TO FRONT BEZEL FUNCTION HOLE AND USE HEATSTAKE TO FIXED IT
- 4.WHEN CRT GROUNDING WIRE NOOSE TO CRT MOUNTING LUG, THE EXTENSION SPRING NEED STAND FACING WITH THE H.V CAP .
- 5.WHEN DEGAUSSING COIL NOOSE TO CRT TUBE THE HOUSING'S POSITION NEED SAME THE CONNECTOR ON MAIN BOARD.
6. PUT RUBBER PAD 4 PCS TO THE FRONT BEZEL'S BOSS(EACH CORNER 1PCS) BEFORE PUT THE CRT TO FRONT BEZEL.
7. USE 4 PCS SCREW WITH LOCK WASHER FROM CRT MOUNTING LUG FIXED CRT TO FRONT BEZEL.

9.THE 7 PINS WIRE WITH HOUSING FM:V/B P603 TO:M/B WP603
10.THE 5 PINS WIRE WITH HOUSING FM:V/B P602 TO:M/B WP602
AND SEPARATE PART OF P602 INSERT TO M/B GND3

11.THE R.G.B 6PINS CONNECTOR OF SIGNAL CABLE INSERT TO VIDEO BD. P601.
12.THE FIRST THE GROUNDING WIRE OF SIGNAL CABLE NEED HOOK
ON SHIELD CAN AND WELDING ON IT.

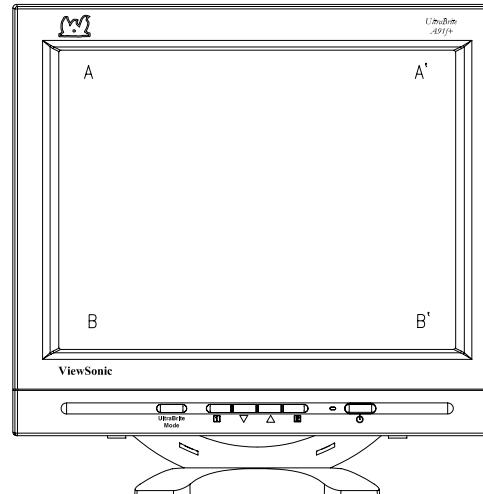
13.OTHER 6PINS CONNECTOR OF SIGNAL CABLE INSERT TO MAIN BD. P301.
14.ADD ADHESIVE GLUE (TSE 3843-W OR EQUIVALENT) BETWEEN CRT

BASE AND CRT SOCKET TO AVOID LOOSEN.(1/4 CRT AREA)
15.THRU SIGNAL CABLE OVER THE HOLE (MARK AS "RGB IN")
OF THE REAR COVER.

16.THE GAPS BETWEEN THE CRT GLASS AND THE BEZEL PLASTIC
SHELL NOT BE GREATER THAN THE FOLLOWING SHOWN :

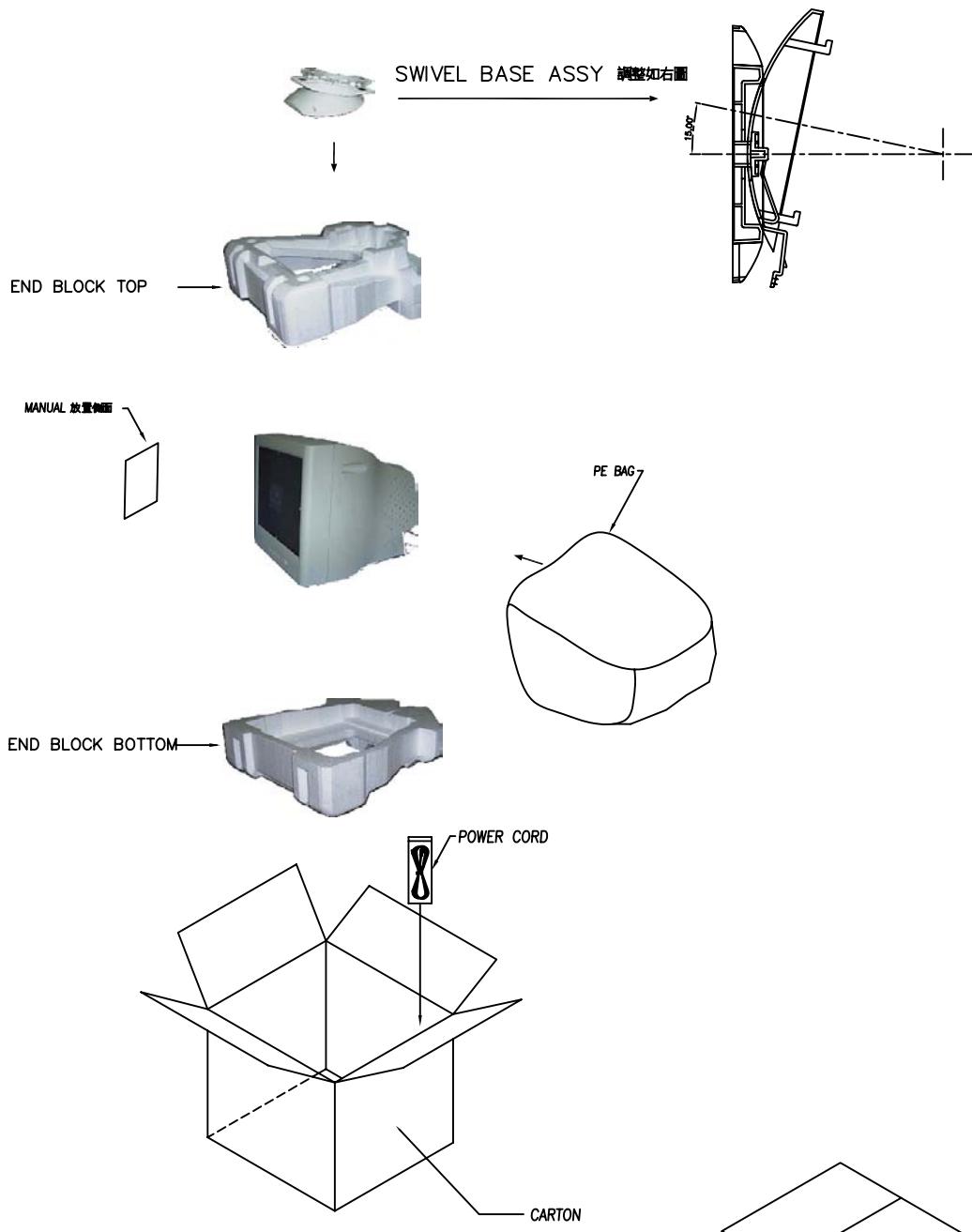
B.FRONT BEZEL ASS'Y & CRT ASS'Y OF MOUNTING

- 1.WHEN PCB ASS'Y (MAIN BOARD) INSERT TO THE FRONT BEZEL'S PCB GUIDE, PLEASE MAKE SURE THE PCB NOTCH IS LOCKED AT THE GUIDE'S HOOK.
- 2.DEGAUSSING CONNECTOR 2PINS HOUSING INSERT TO MAIN BD. P101 .
- 3.YOKE'S H.SYNC & V.SYNC 4PINS HOUSING INSERT TO MAIN BD. P401 .
- 4.VIDEO BOARD ASS'Y INSERT TO THE SOCKET OF CRT BASE .
- 5.FBT'S LF (FOCUS) INSERT TO CRT SOCKET SPARK GAP.
- 6.FBT'S LS (SCREEN) INSERT TO VIDEO BD. G2 HOLE.
- 7.THE THREE HOUSING OF CRT GROUNDING TO LEAVE EACH OTHER INSERT TO ROUND PIN (GND2) OF VIDEO BOARD. AND INSERT TO ROUND PIN (GND1,GND4)OF MAIN BOARD.
- 8.WHEN INSTALL THE SHIELD CAN ,THERE ARE THREE FOOT OF CORNER AND FOOT OF MIDDLE HOLE HAVE TO WELDING.



CORNER A,A' : 0.5mm (MAX)
EDGE A,A' : 0.5mm (MAX)
CORNER B,B' : 0.5mm (MAX)
EDGE AB,A'B',BB' : 0.5mm (MAX)

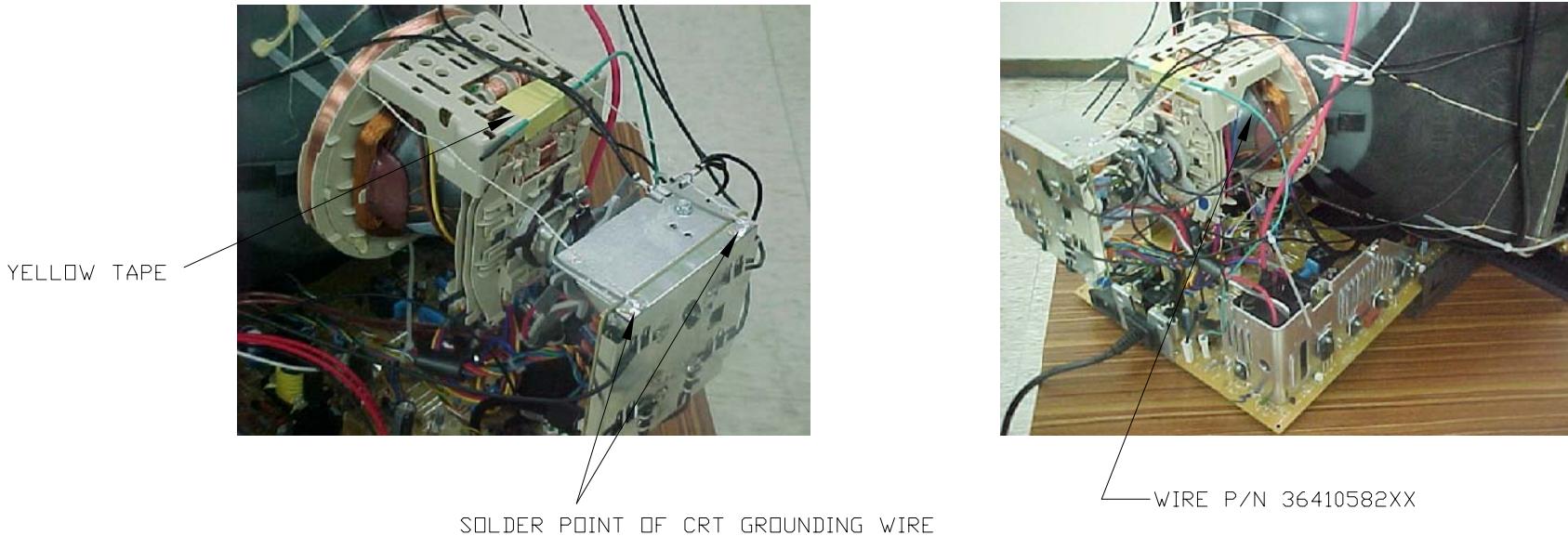
	DIMENSIONAL TOLERANCES				Drawn: <small>DRAWING/APPENDIX SHEET</small>	Designed: <small>DRAWING/APPENDIX SHEET</small>	DESCRIPTION:	
	()	()	()	()			THIRD ANGLE PROJECTION	
	<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5				
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4				
	>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1				
	ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35					
	HOLeS: ±0.05	ANGLES:±0.5°	250~300 : ±0.4					
			300~350 : ±0.45					
			350~400 : ±0.5					
SCALE	1/4	UNIT	MM	USED ON	K986 SBM (VSC 19")	Checked: <small>DRAWING/APPENDIX SHEET</small>	A4	DRAWING NO.: 336M2265
						Approved: <small>DRAWING/APPENDIX SHEET</small>	SIZE	REV. 00
							SHEET 7	T0 16



NOTES: UNLESS OTHERWISE SPECIFIED
 1.END BLOCK BOTTOM PUT INTO CARTON
 2.SIGNAL CABLE PUT IN BACK MONITOR
 3.PE BAG COVER MONITOR FROM FRONT TO REAR
 4.PUT IN END BLOCK BOTTOM
 5.PUT THE MANUAL AND POWER CORD IN SIDE OF MONITOR
 6.CLOSE THE END BLOCK TOP
 7.ADJUST SWIVEL-BASE LIKE DRAWING AND THEN PUT ON END BLOCK TOP
 8.SEAL CARTON BY CLEAR TAPE

				Drawn: <i>[Signature]</i>
				Designed: <i>[Signature]</i>
				Checked: <i>[Signature]</i>
				Approved: <i>[Signature]</i>
DIMENSIONAL TOLERANCES	HOLES : ± 0.05	ANGLES : $\pm 0.5^\circ$	THIRD ANGLE PROJECTION	DESCRIPTION: ENGINEERING NOTICES
() () ()	()			PART NO.: 336M2265
() () ()	()		A4	REV. 00
SCALE <i>[Signature]</i>	UNIT MM	USED ON K986 SBM (VSC 19")	SHEET 8 TO 16	

MPRII SOLUTION



NOTE: UNLESS OTHERWISE SPECIFIED

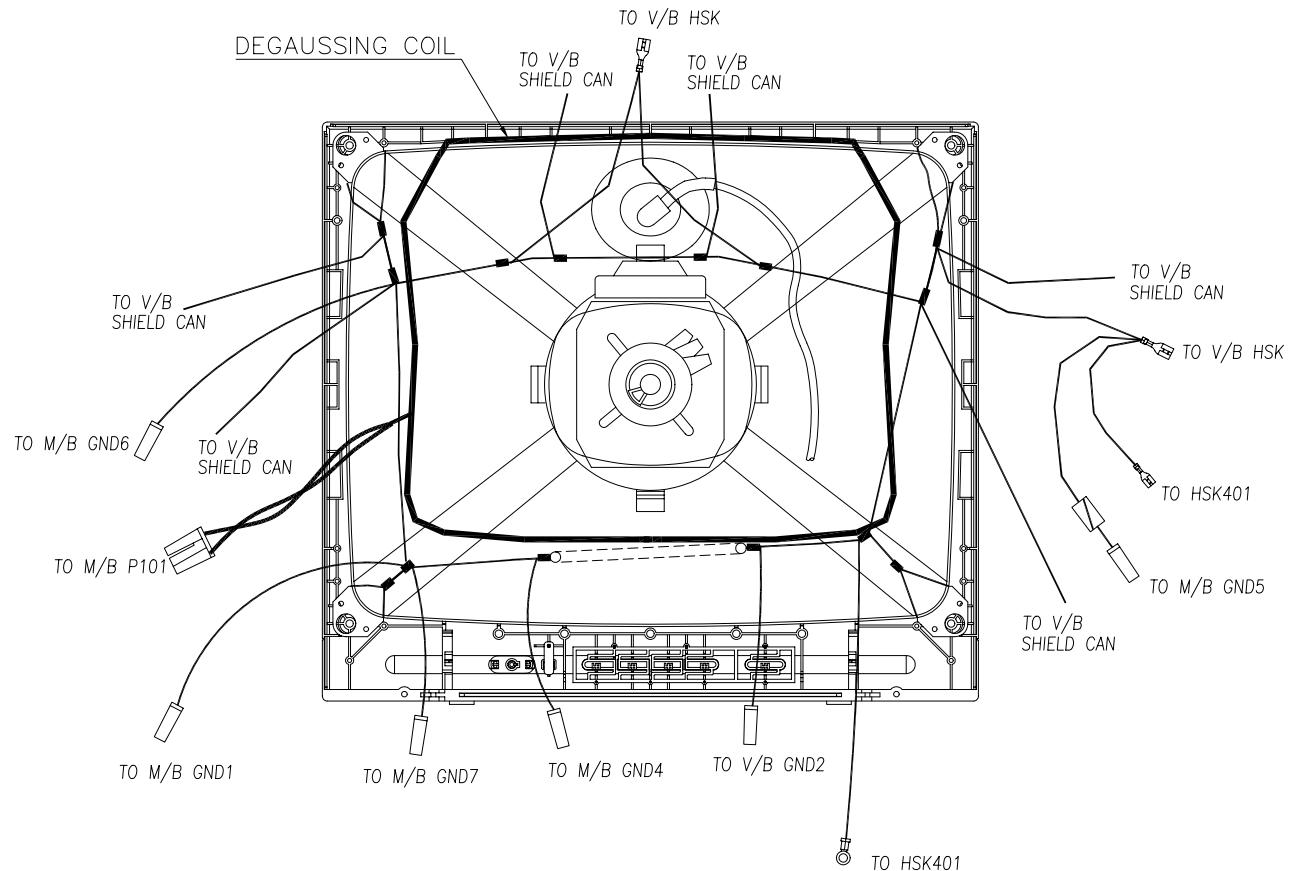
- 1.CONNECTOR WIRE (P/N:36410557XX) MUST BE INSERT TO PUS(M/B).
- 2.H.V. CAP DIRECTOR 3 O'CLOCK ABOUT 60°DEGREE.
- 3.DY WIRE MADE A CYCLE AND PUT IT UNDER DY CONTROL BOX.

WIRE WITH TERMINAL ASS' Y
VS CRT SOURCE: (1) SAMSUNG
(2) LG

	DIMENSIONAL TOLERANCES				Drawn:		DESCRIPTION:	
	()	()	()	()			THIRD ANGLE PROJECTION	ENGINEERING NOTICES
	<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5				
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4				
	>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1				
	ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35					
	HOLEs: ±0.05	ANGLES: ±0.5°	250~300 : ±0.4					
			300~350 : ±0.45					
			350~400 : ±0.5					
SCALE	1/4	UNIT	MM	USED ON	K986 SBM (VSC 19")	Checked:	A4	DRAWING NO.: 336M2265 REV. 00
						Approved:	SIZE	SHEET 10 TO 16

CRT GROUNDING WIRE CONNECTOR TO M/B & V/B
EMI SOLUTION

CRT SOURCE: (1) SAMSUNG
(2) LG

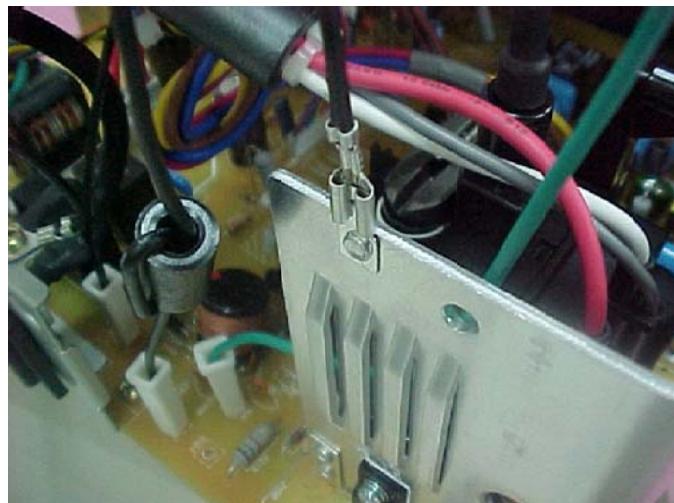
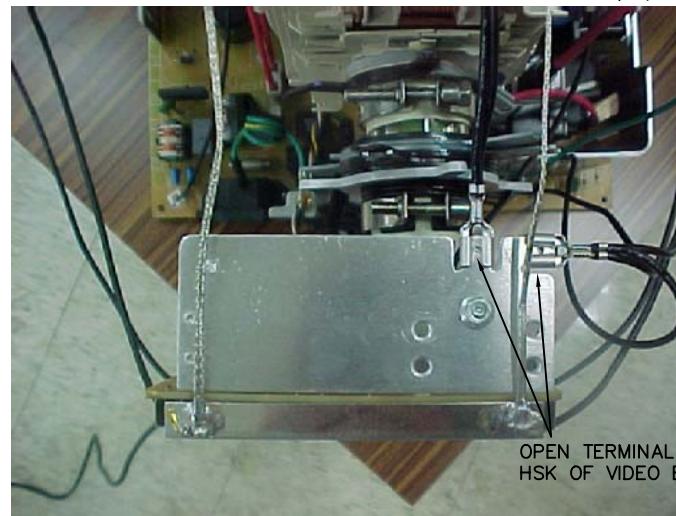
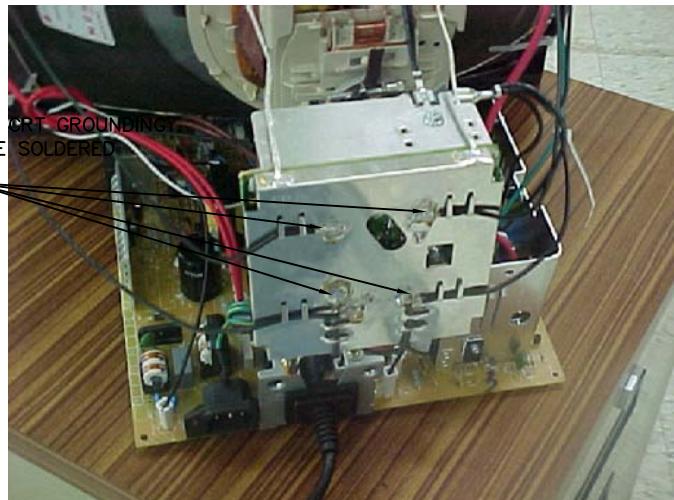


				DIMENSIONAL TOLERANCES				Drawn:		DESCRIPTION:	
				() () ()				Designed:		ENGINEERING NOTICES	
				DECIMALS UP~100 : ±0.2 UP~600 : ±1.5				Checked:		DRAWING NO.: 336M2265	
				<30 : ±0.25 X : ±0.3 100~150 : ±0.25 600~900 : ±2.4				Approved:		REV. 00	
				>30~100 : ±0.35 XX : ±0.2 150~200 : ±0.3 900~OVER : ±3.1				A4		SIZE SHEET 11 TO 16	
				100~300 : ±0.5 XXX : ±0.1 200~250 : ±0.35 300~350 : ±0.4							
				ABOVE 300 : ±0.6 ANGLES: ±0.5° 250~300 : ±0.4 350~400 : ±0.5							
HOLES: ±0.05											
SCALE	1/4	UNIT	MM	USED ON	K986	SBM	(VSC 19")				

CRT GROUNDING WIRE CONNECTOR TO M/B & V/B
EMI SOLUTION

CRT SOURCE: (1) SAMSUNG
(2) LG

THE TERMINAL OF CRT GROUNDING WIRE (BARE) WERE SOLDERED FOR 4 POINTS.

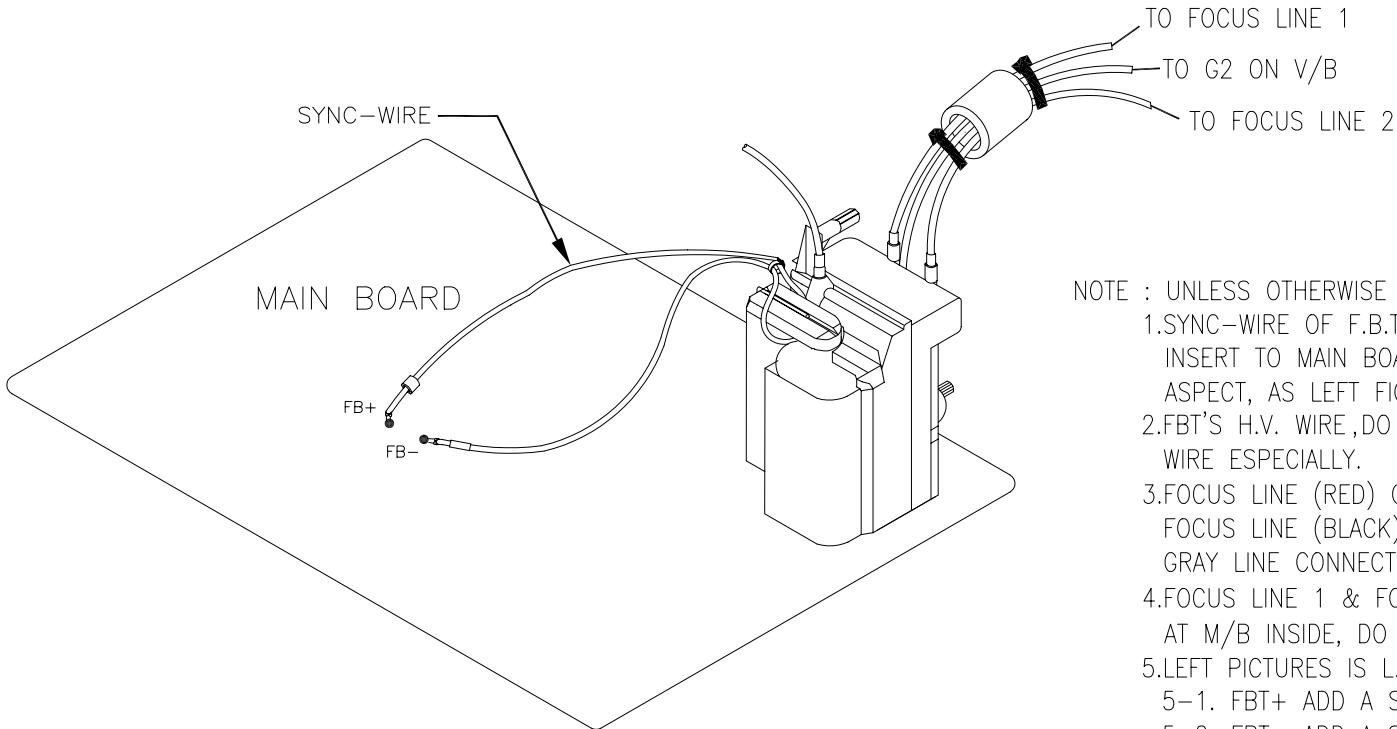


	DIMENSIONAL TOLERANCES				Drawn: Designed: Checked: Approved:	THIRD ANGLE PROJECTION	DESCRIPTION: ENGINEERING NOTICES		
	<30 : ±0.25	DECIMALS	UP-100 : ±0.2	UP-600 : ±1.5			DRAWING NO.: 336M2265	REV. 00	
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4			SIZE	SHEET	11A TO 16
	>100~300 : ±0.5	LX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1					
	ABOVE 300 : ±0.6	LX : ±0.1	200~250 : ±0.35						
	HOLDS: ±0.05	ANGLES: ±0.5°	250~300 : ±0.4						
			300~350 : ±0.45						
			350~400 : ±0.5						
	SCALE	1/4	UNIT	MM	USED ON	K986 SBM (VSC 19")			

EMI SOLUTION

CRT SOURCE :

- (1) SAMSUNG
- (2) L.G.



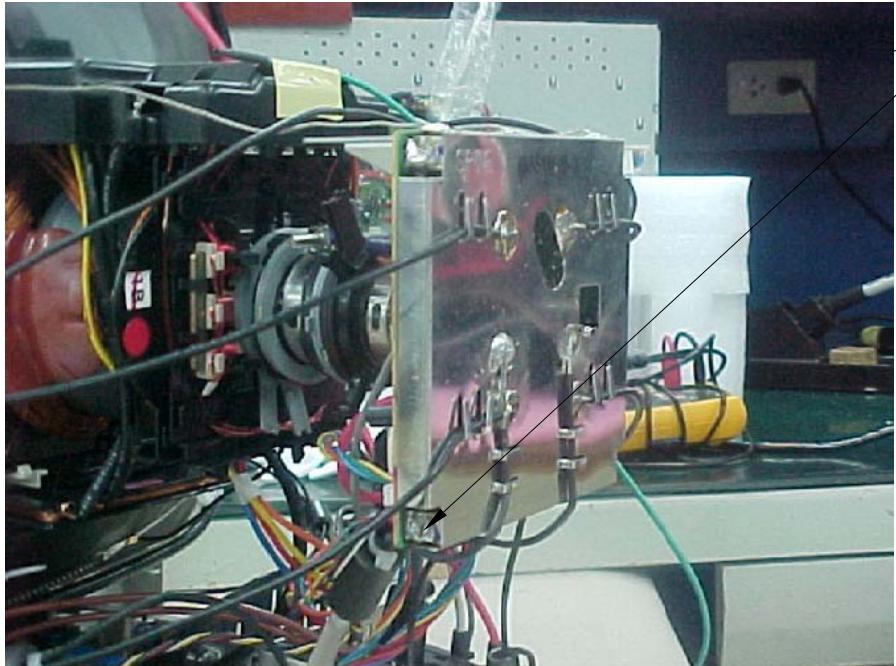
NOTE : UNLESS OTHERWISE SPECIFIED

- 1.SYNC-WIRE OF F.B.T.
INSERT TO MAIN BOARD'S FB+& FB- HOLE, ATTENTION AN ASPECT, AS LEFT FIGURE.
- 2.FBT'S H.V. WIRE, DO NOT TOUCH ANY MATERIALS AND DRESS WIRE ESPECIALLY.
- 3.FOCUS LINE (RED) CONNECTOR TO 2(V/B) ;
FOCUS LINE (BLACK) CONNECTOR TO 1(V/B).
GRAY LINE CONNECTOR TO G2 (V/B)
- 4.FOCUS LINE 1 & FOCUS LINE 2, WIRE DRESSING
AT M/B INSIDE, DO NOT OVER HEAT SINK (HS401)
- 5.LEFT PICTURES IS L.C.E F.B.T :
5-1. FBT+ ADD A SHEATH GOING TO DIFFERENTIATION.
5-2. FBT- ADD A SHEATH GOING TO DIFFERENTIATION.

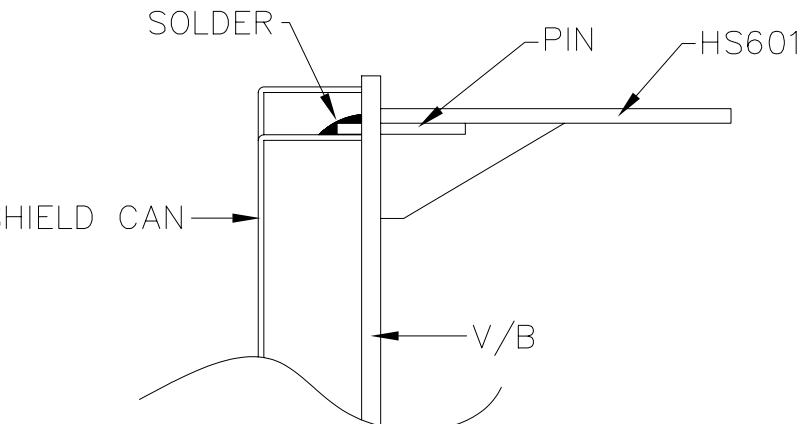
	DIMENSIONAL TOLERANCES				Drawn:	Designed:	DESCRIPTION:	
	()	()	()	()			THIRD ANGLE PROJECTION	
	<30	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5				
	>30~100	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4				
	>100~300	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1				
	ABOVE 300	XXX : ±0.1	200~250 : ±0.35					
	HOLES: ±0.05	ANGLES: ±0.5°	250~300 : ±0.4					
			300~350 : ±0.45					
			350~400 : ±0.5					
SCALE	1:1	UNIT	MM	USED ON	K986	SBM (VSC 19")	DRAWING NO.:	336M2265
							REV.	00
					Approved:	A4	SHEET	12 TO 16

EMI SOLUTION

CRT SOURCE : (1) SAMSUNG
 (2) LG

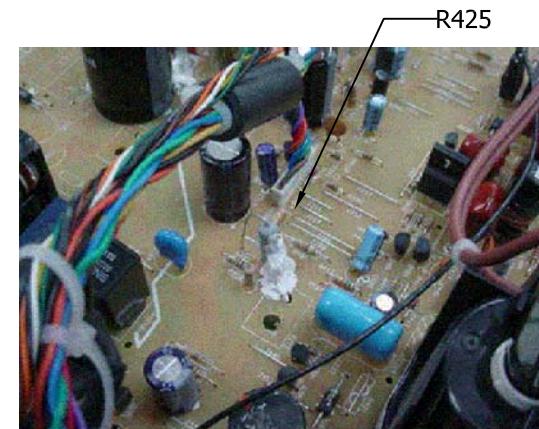
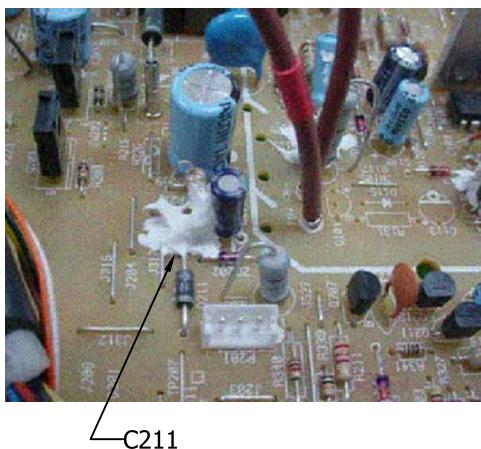
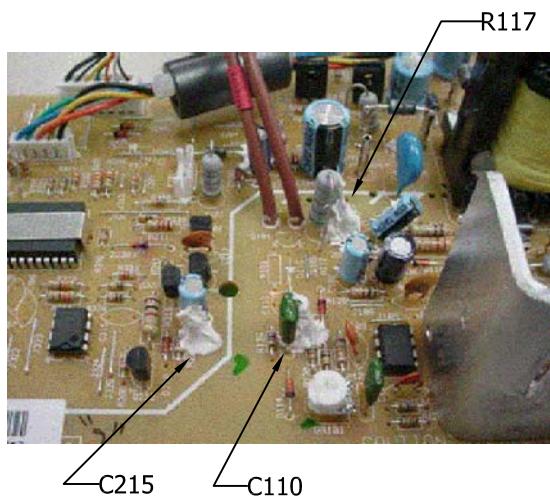
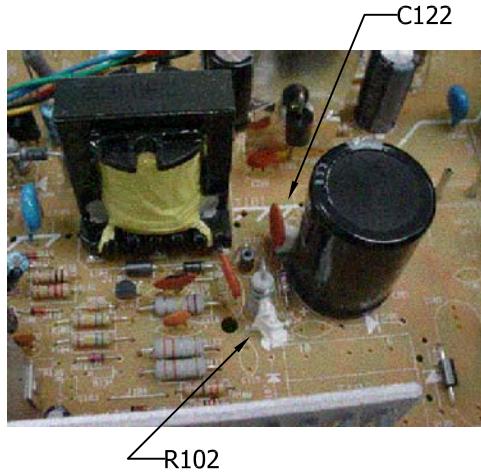
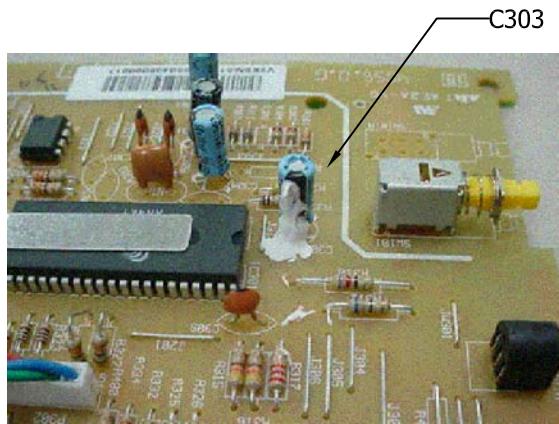


FIX SHIELD CAN PIN AT CORNER
 TOGETHER WITH SOLDER



LEFT SIDE

	DIMENSIONAL TOLERANCES										Drawn:	THIRD ANGLE PROJECTION	DESCRIPTION:			
	()	()	()	()	()	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5	Designed:	ENGINEERING NOTICES						
	<30 : ±0.25	>30~100 : ±0.35	>100~300 : ±0.5	ABOVE 300 : ±0.6	HOLEs: ±0.05	X : ±0.3	100~150 : ±0.25	150~200 : ±0.3	200~250 : ±0.35	250~300 : ±0.4	300~350 : ±0.45	350~400 : ±0.5	Checked:	A4	DRAWING NO.:	336M2265
						ANGLES: ±0.5°							Approved:	SIZE	REV.	00
	SCALE	UNIT	MM	USED ON	K986	SBM (VSC 19")							SHEET	13	T0	16

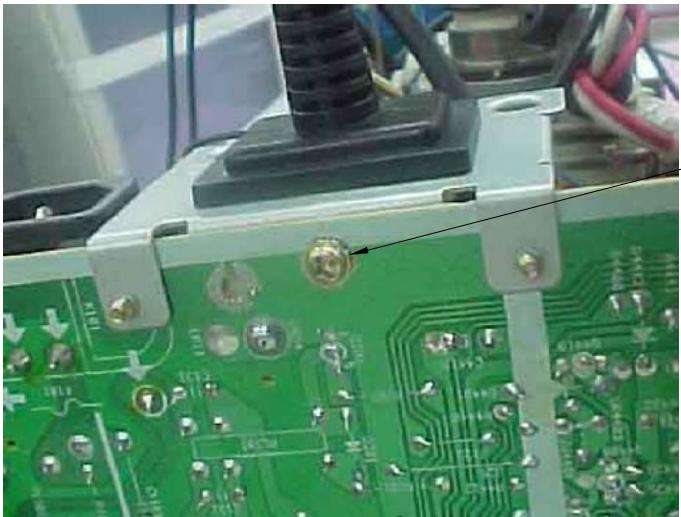


SAFETY SOLUTION

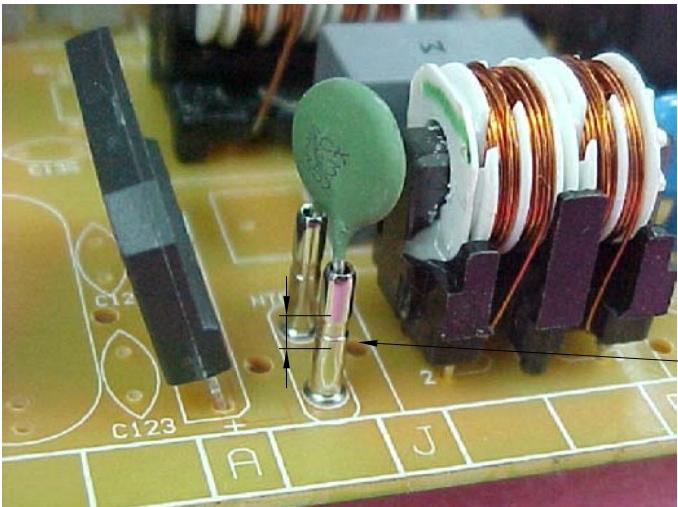
(ADD GLUE)

		DIMENSIONAL TOLERANCES						Drawn:	 THIRD ANGLE PROJECTION	DESCRIPTION:				
		()	()	()	()			Designed:		ENGINEERING NOTICES				
<30	: ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5										
>30~100	: ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4										
>100~300	: ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1										
ABOVE 300	: ±0.6	XXX : ±0.1	200~250 : ±0.35											
HOLeS: ±0.05		ANGLES: ±0.5°	250~300 : ±0.4	300~350 : ±0.45										
			350~400 : ±0.5											
SCALE		UNIT	MM	USED ON	K986	SBM (VSC 19")		Checked:	A4	DRAWING NO.:	336M2265	REV.		
								Approved:	SIZE	SHEET	14	T0	16	00

SAFETY SOLUTION



SCREW WASHER
Ø3.0*0.5*8

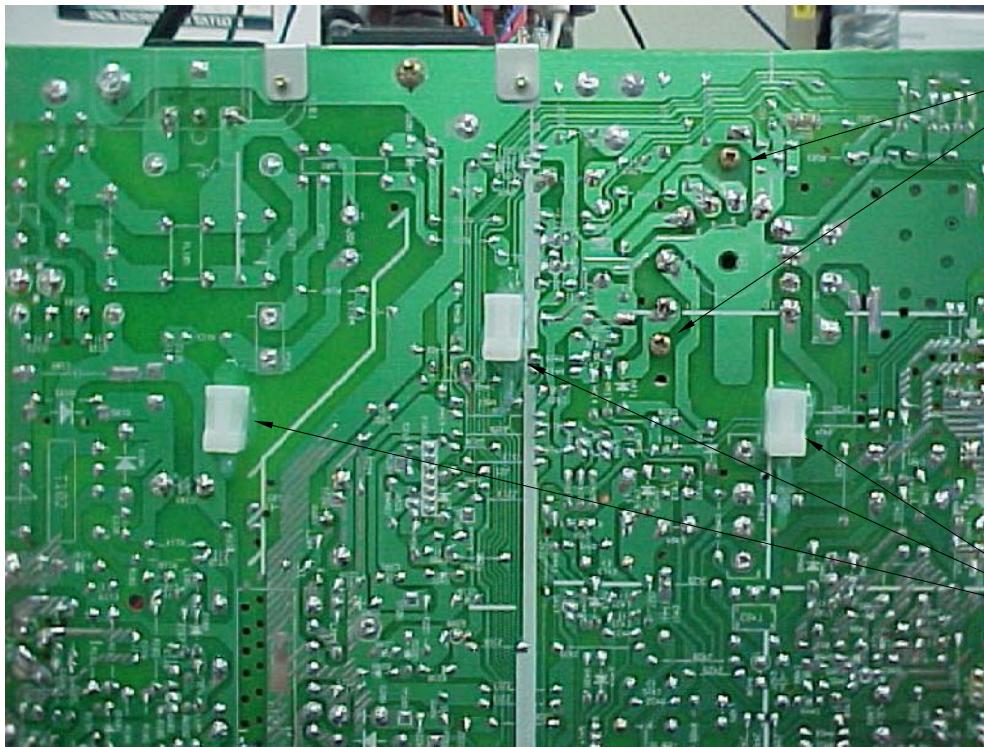


INSERT PIN AT NTC101 LEG

E.E SOLUTION

(REDUCE TEMPERATURE)

	DIMENSIONAL TOLERANCES										Drawn:	DESCRIPTION: ENGINEERING NOTICES		
	<30 : ±0.25		DECIMALS		UP~100 : ±0.2		UP~600 : ±1.5		THIRD ANGLE PROJECTION					
	>30~100 : ±0.35		X : ±0.3		100~150 : ±0.25		600~900 : ±2.4		900~OVER : ±3.1					
	>100~300 : ±0.5		XX : ±0.2		150~200 : ±0.3		200~250 : ±0.35		250~300 : ±0.4					
	ABOVE 300 : ±0.6		XXX : ±0.1		300~350 : ±0.45		350~400 : ±0.5							
	HOLES: ±0.05		ANGLES: ±0.5°											
	SCALE	1/4	UNIT	MM	USED ON	K986	SBM (VSC 19")						DRAWING NO.:	336M2265
													REV.	
													00	
													SHEET	14A TO 16

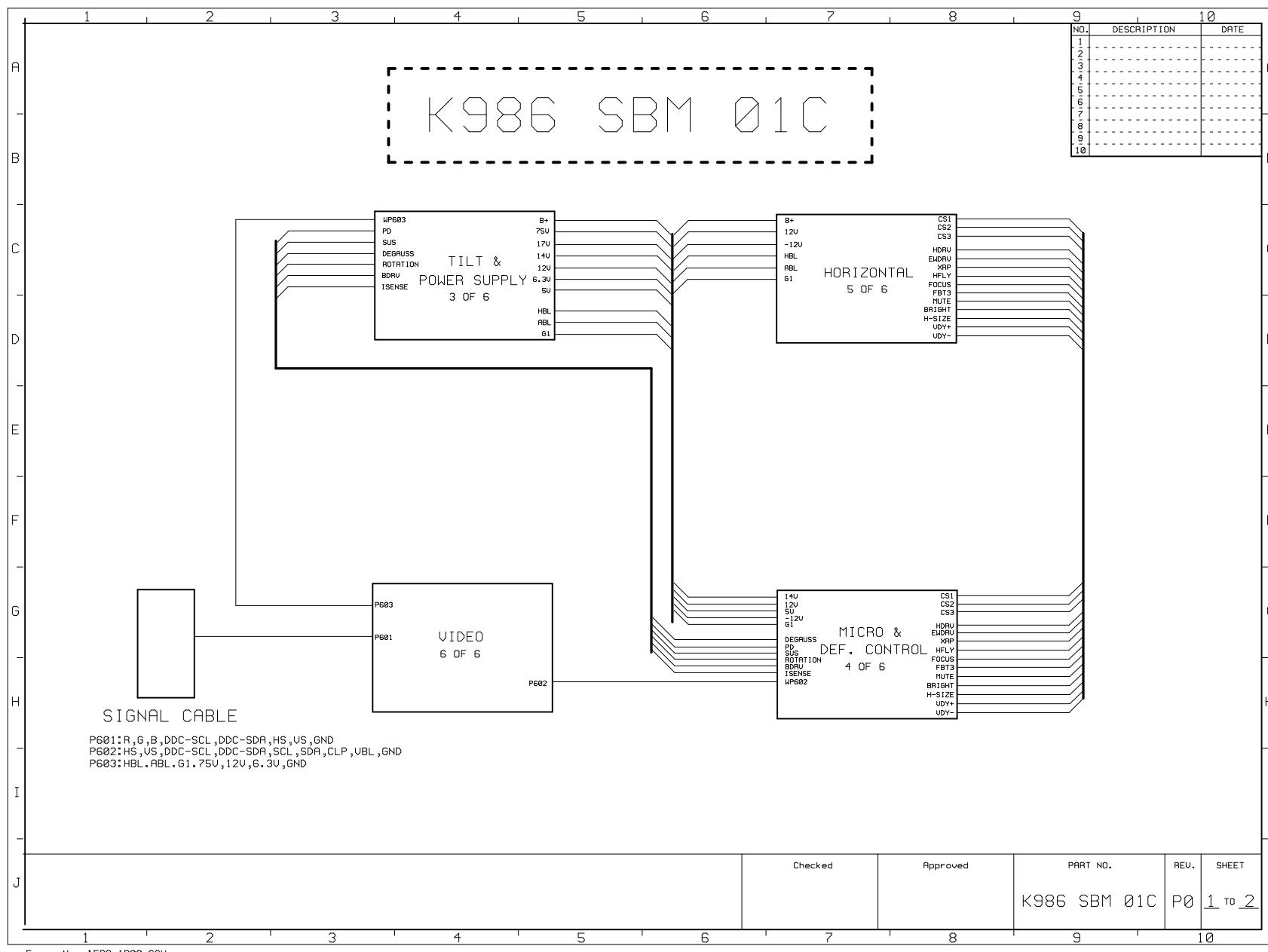


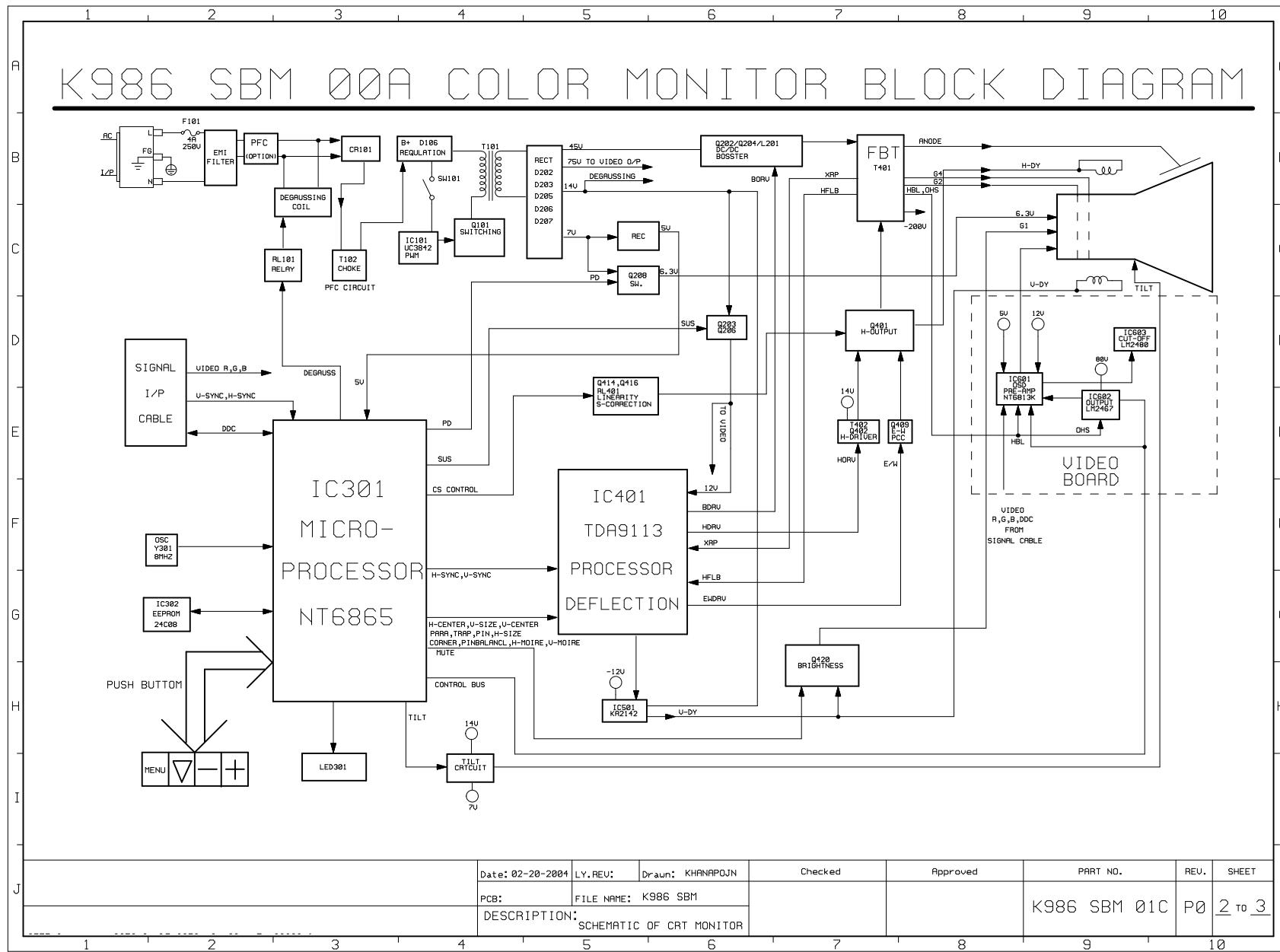
SCREW TAPPING $\phi 3*8$ (*2)
<P/N: 3106150400>

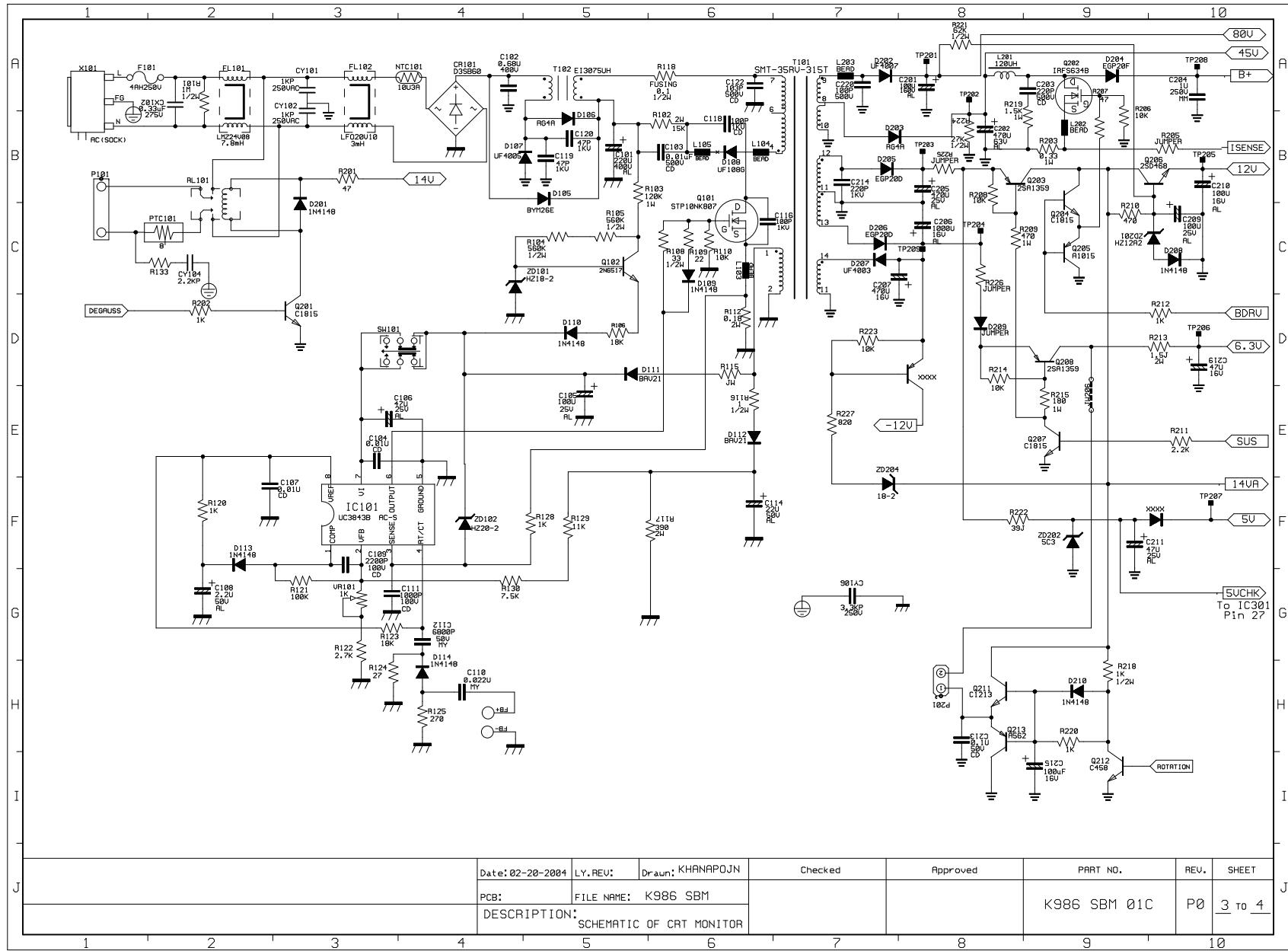
SPACER SUPPORT
<P/N: 34210479XX>

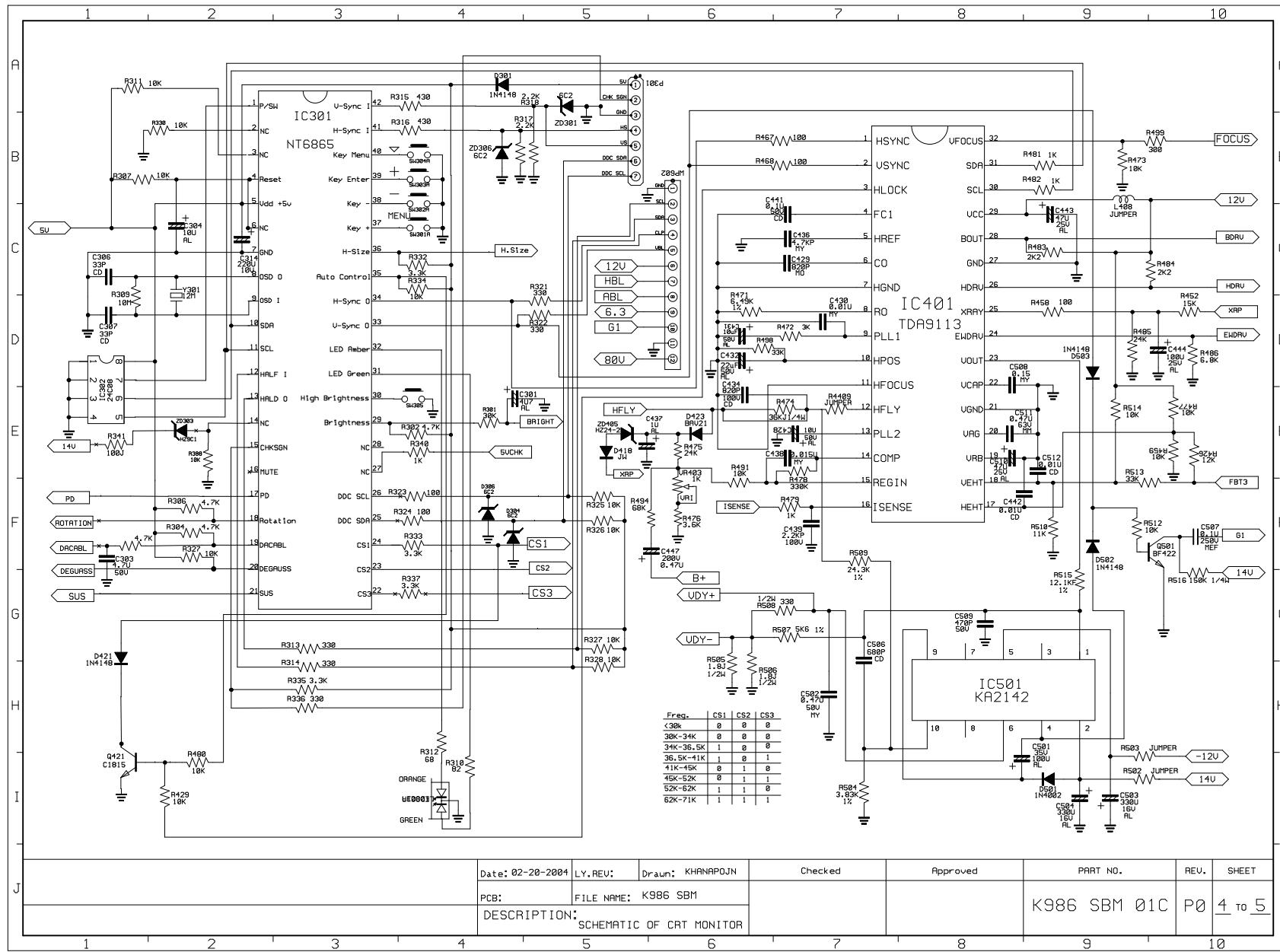
NOTE: UNLESS OTHERWISE SPECIFIED
IN ORDER TO AVOID PCB CRACK AFTER DROP TEST
SO WE HAD TO USE SCREW(P/N: 3106150400)*2 PCS &
+ SPACER SUPPORT TO FIXED PCB+FBT

	DIMENSIONAL TOLERANCES					Drawn: Designed:	THIRD ANGLE PROJECTION	DESCRIPTION:		
	()	()	()	()	()			ENGINEERING NOTICES		
	<30 : ±0.25	DECIMALS	UP~100 : ±0.2	UP~600 : ±1.5						
	>30~100 : ±0.35	X : ±0.3	100~150 : ±0.25	600~900 : ±2.4						
	>100~300 : ±0.5	XX : ±0.2	150~200 : ±0.3	900~OVER : ±3.1						
	ABOVE 300 : ±0.6	XXX : ±0.1	200~250 : ±0.35							
	HOLDS: ±0.05	ANGLES: ±0.5°	250~300 : ±0.4							
			300~350 : ±0.45							
			350~400 : ±0.5							
SCALE	inch	UNIT	MM	USED ON	J986 SBM	Checked:	A4	DRAWING NO.:	336M2265	REV.
						Approved:	SIZE	SHEET	15	00
								T0	16	

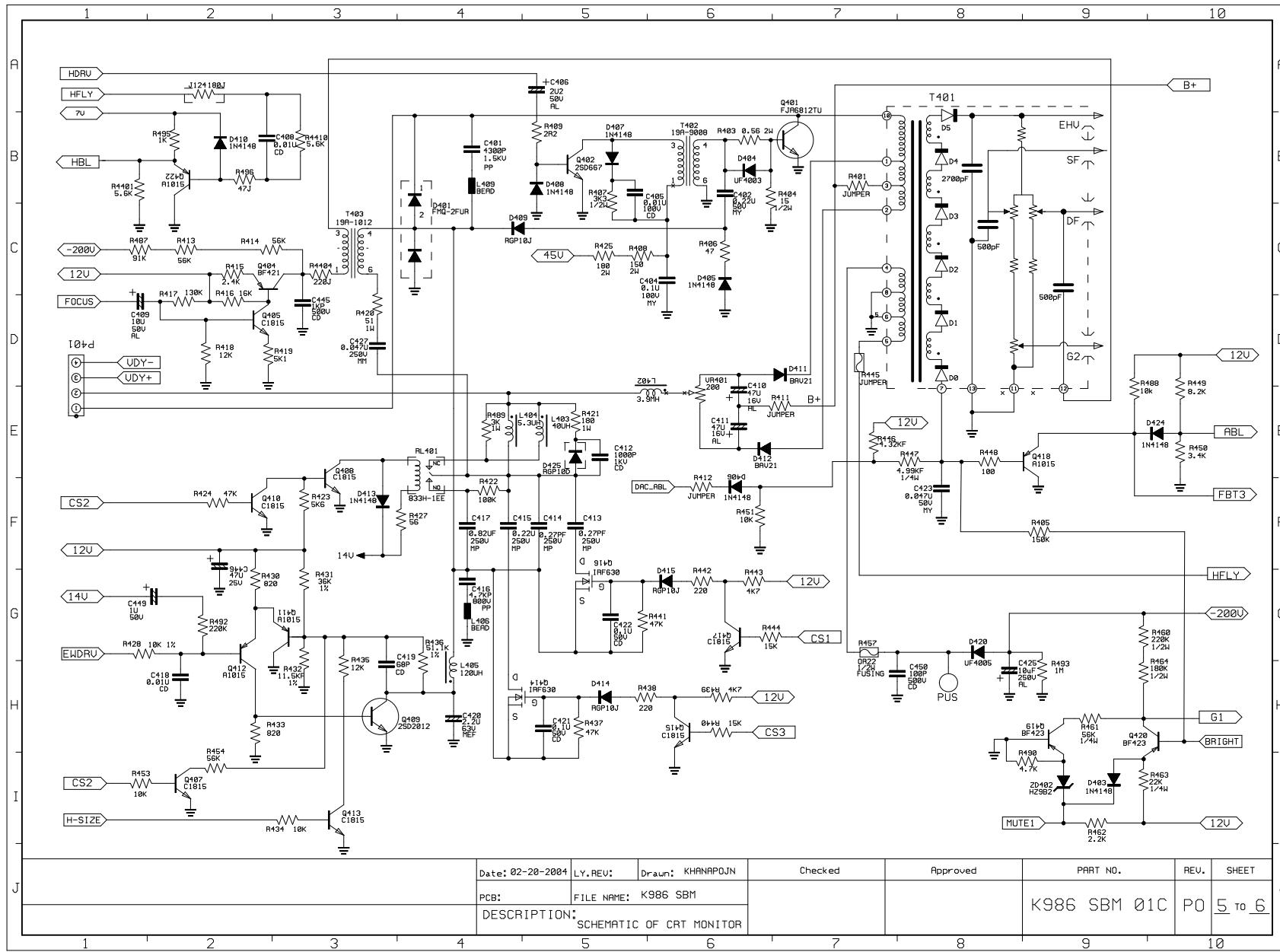




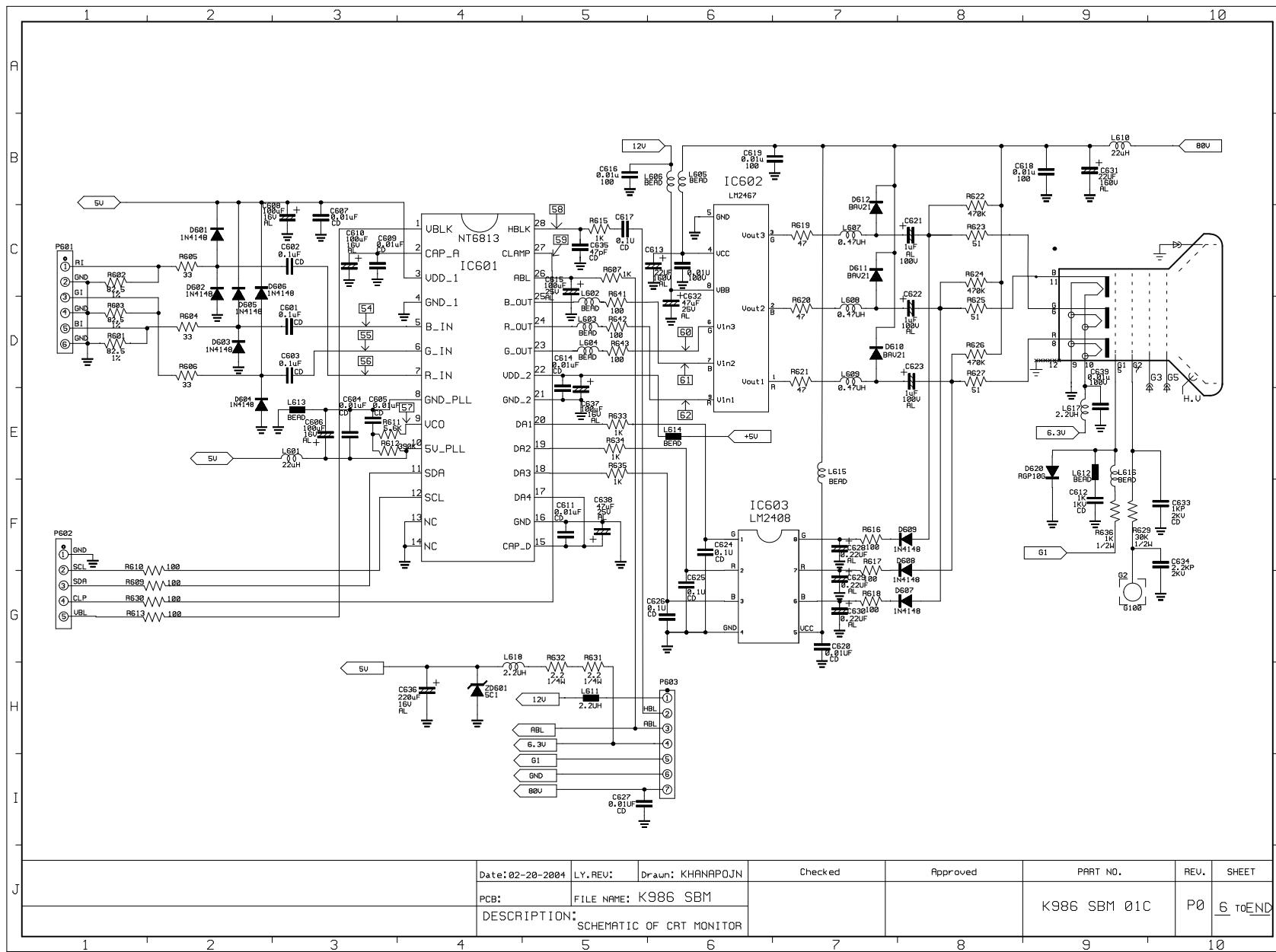




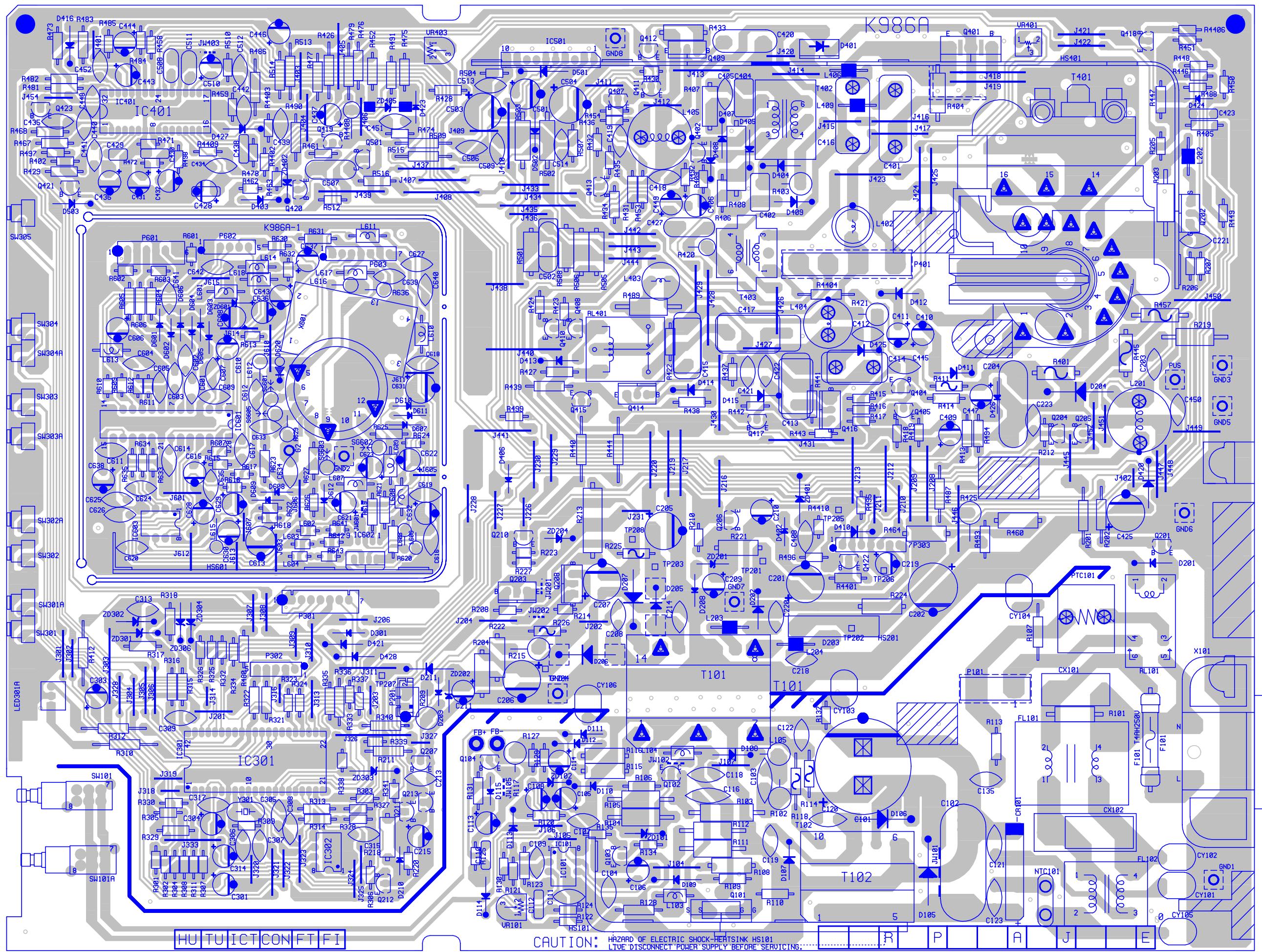
Frame Name:FR9-1R00.SCH



Frame Name:FR9-1R00.SCH



Frame Name:FR9-1R00.SCH



****Reader's Response****

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A.What do you think about the content after reading **A91f+-1** Service Manual?

<i>Unit</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
1. Precautions And Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjusting Procedure				
6. Trouble Shooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Spare Parts List				
9. Block Diagram, Schematic Diagrams				
10. PCB Layout Diagrams				

B.Are you satisfied with the **A91f+-1** service manual?

<i>Item</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C.Do you have any other opinion or suggestion about this service manual?

Reader's basic data:

Name:		Title:	
Company:			
Add.:			
Tel:		Fax:	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)