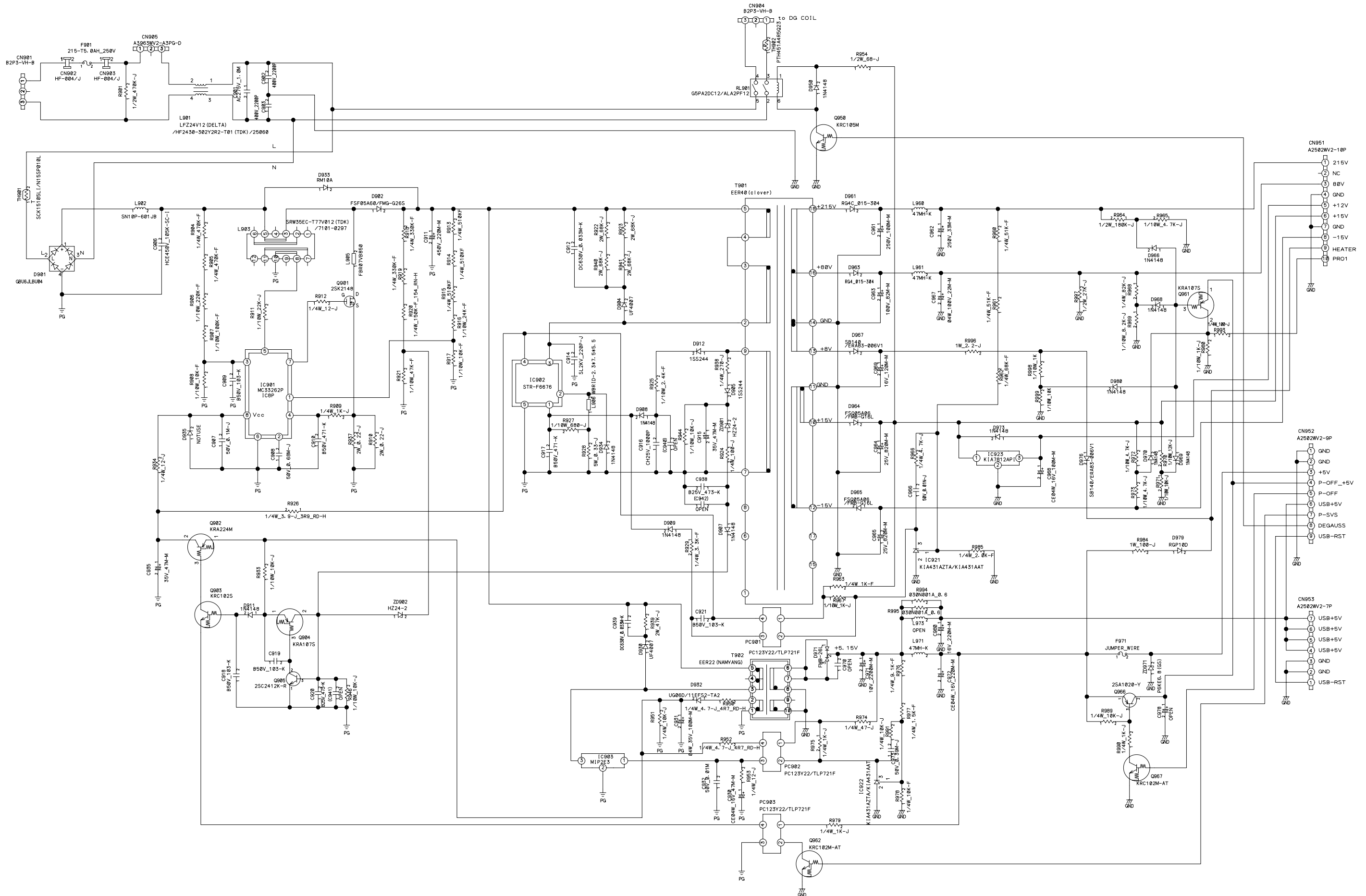


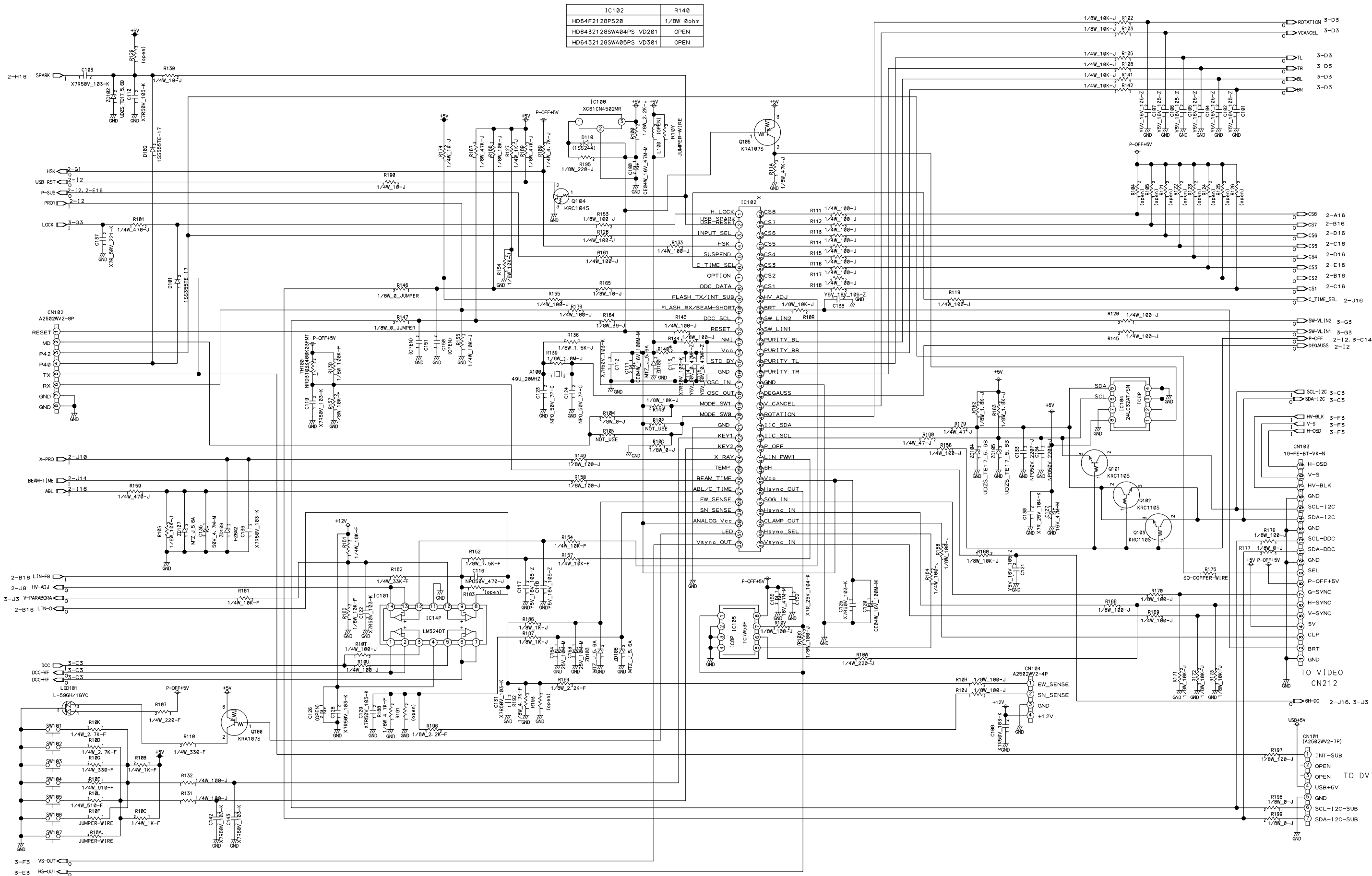
5. Schematic diagram

1. POWER
2. CONTROL (MAIN)
3. DEFL (MAIN)
4. DEFL-SUB & COIL-DRIVE (MAIN)
5. DEFL-SUB
6. VIDEO
7. CRT



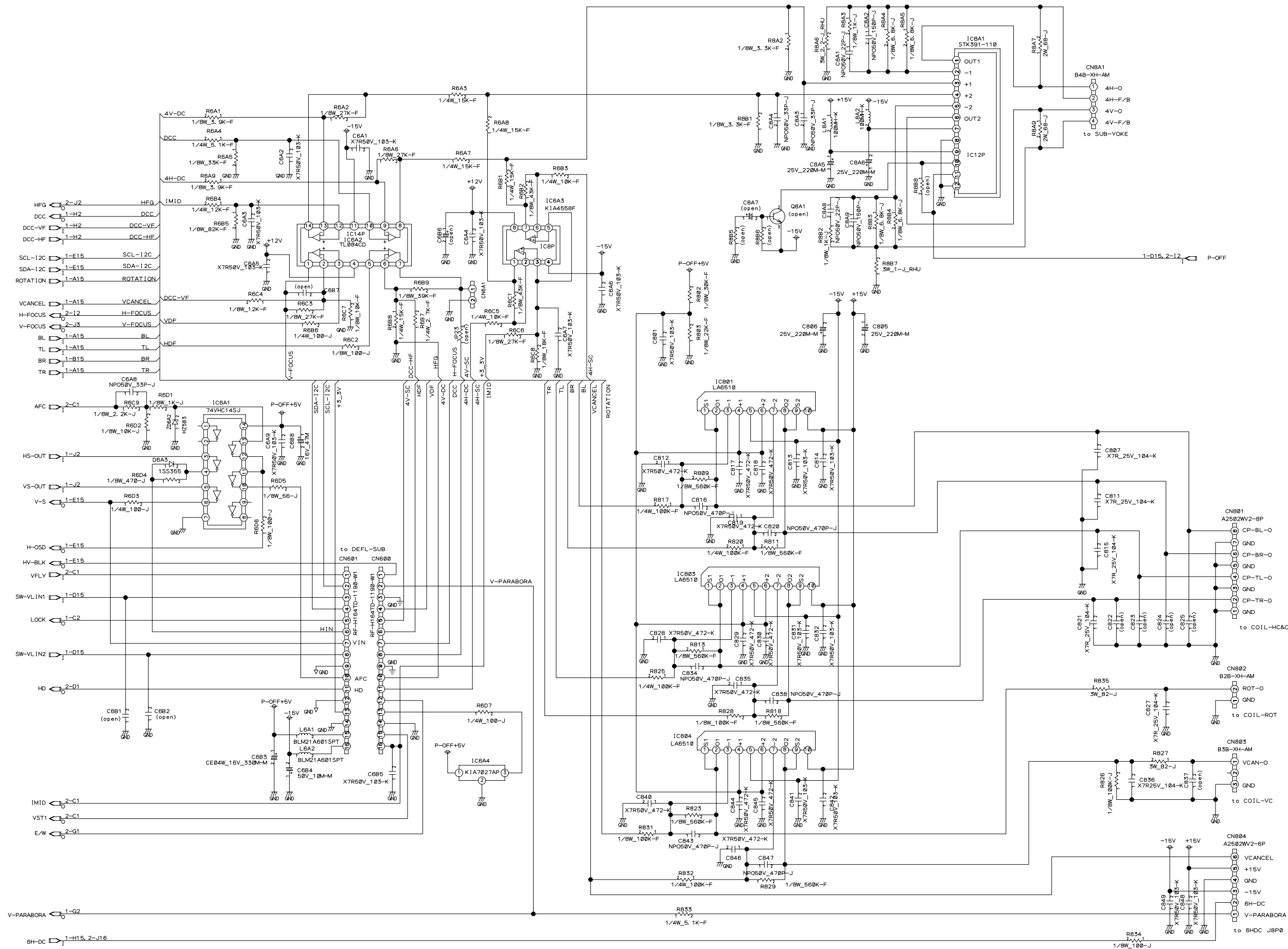
FE2111SB/RDF223H

SCHEMATIC DIAGRAM
POWER

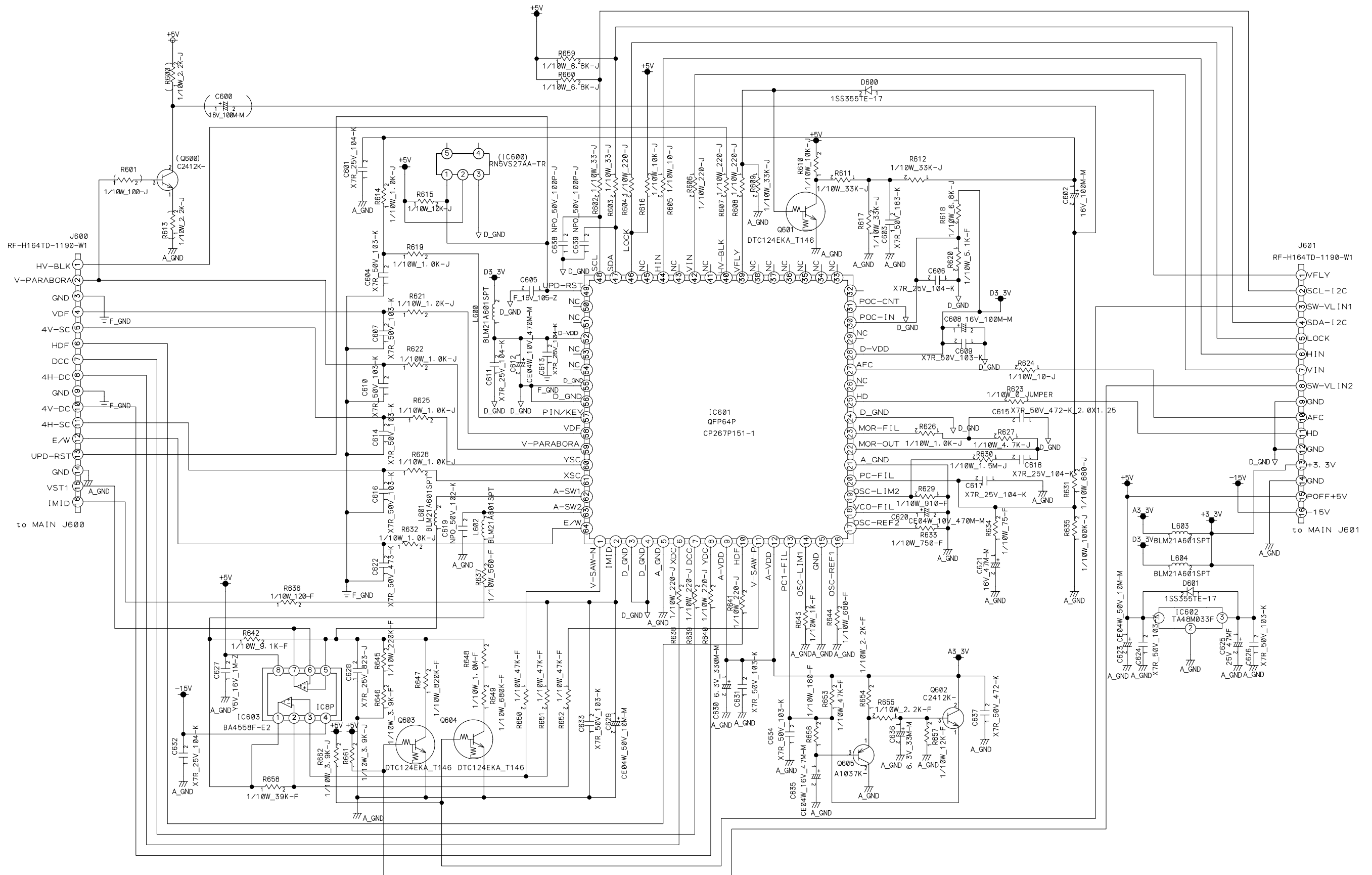


FE2111SB/RDF223H

SCHEMATIC DIAGRAM
MAIN (CONTROL)

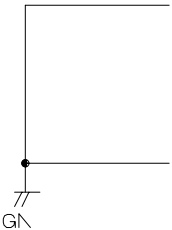


FE2111SB/RDF223H
SCHEMATIC DIAGRAM
MAIN (DEFL-SUB&COIL-DRIVE)



FE2111SB/RDF223H

SCHEMATIC DIAGRAM
DEFL-SUB



FE2111SB/RDF223H SCHEMATIC DIAGRAM CRT	

6. Removal Instruction Sheet of Bezel and Back cover

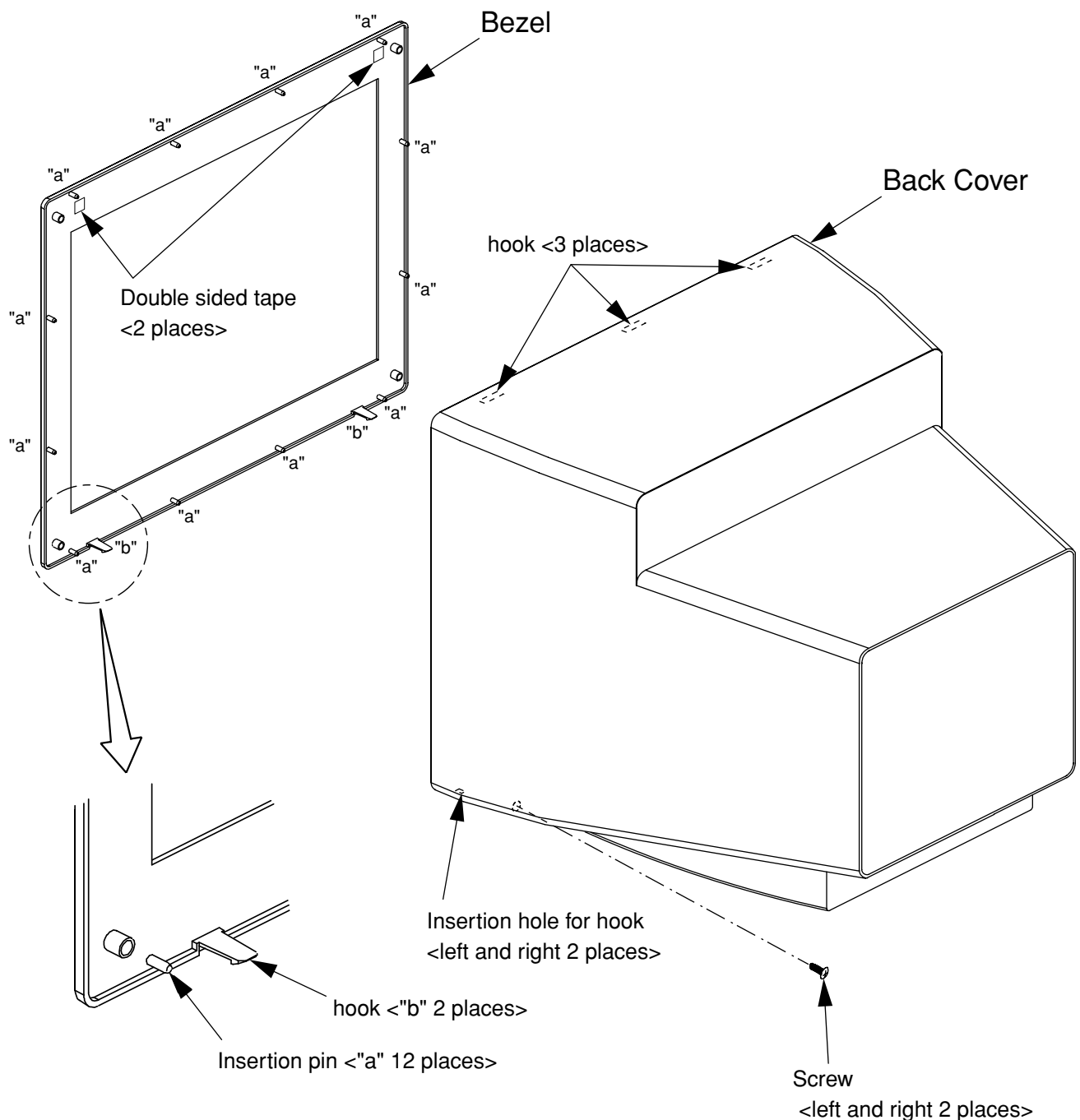
1. Introduction

Please prepare jig for removal.

- Please use as a jig what turned up about 20~30 mm of tapes for crack prevention and stuck them on the tip of a steel board with approx. a thickness of 0.5~0.8 mm a width of 15mm, and a length of 150 mm. (As the example, we used ruler made from steel as shown in photograph.)

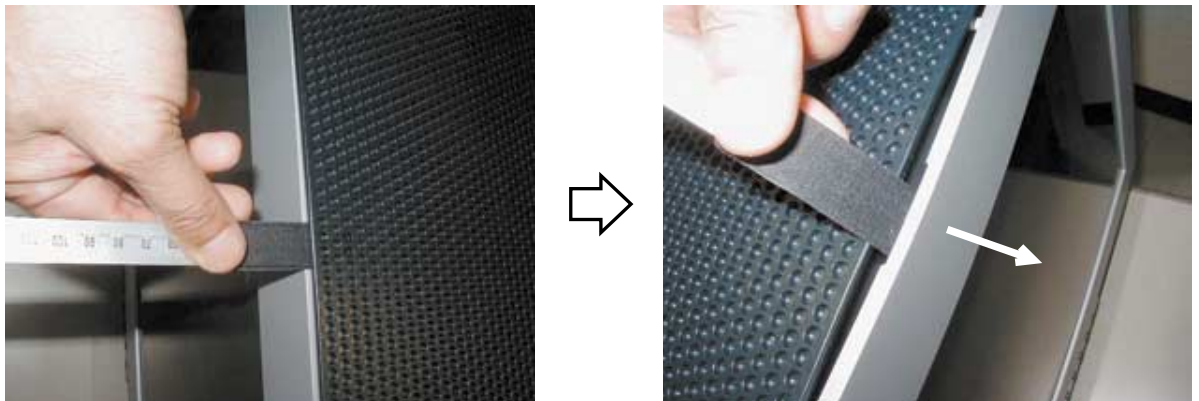


2. Structure Details of Bezel and Back Cover

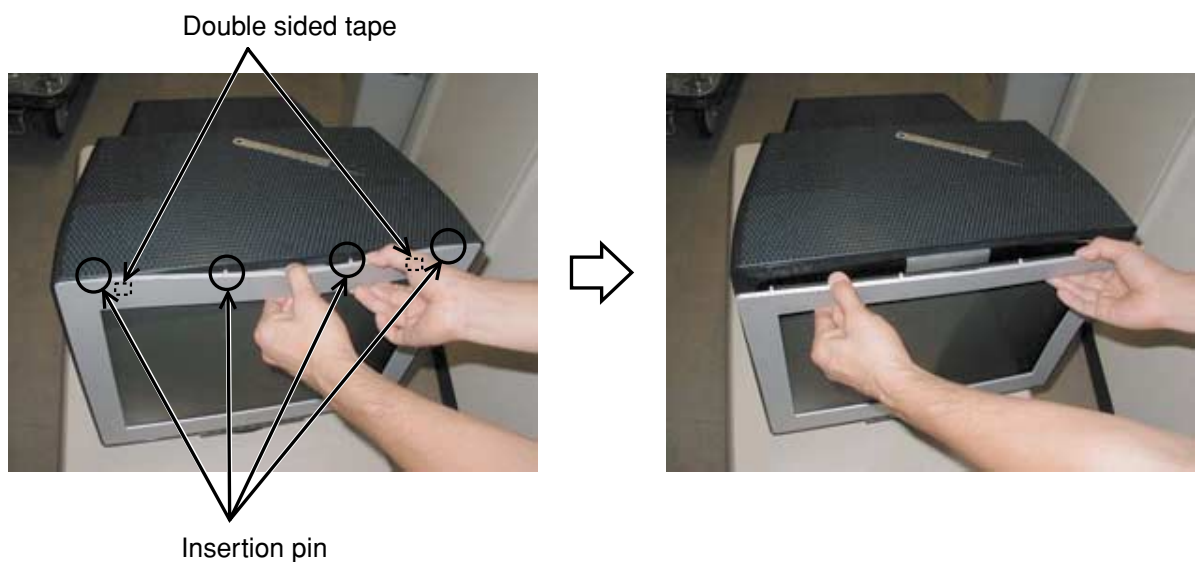


3. Removal Instruction for Bezel

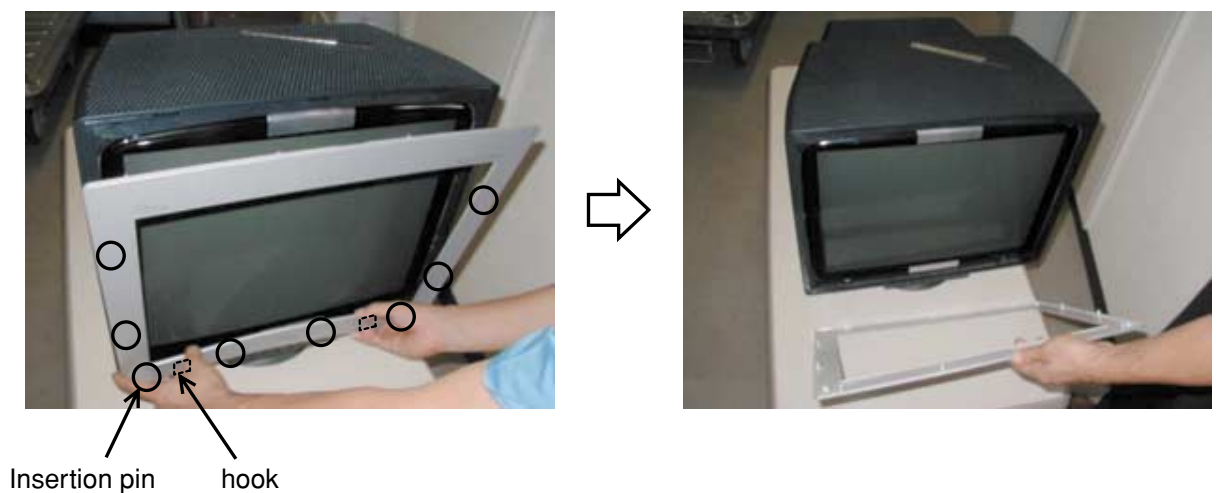
(1) A jig is inserted in the center of the Bezel upper part, and it pushes out.



(2) The insertion pin of the four upper parts and two double-sided tapes are removed pulling the upper part of Bezel slowly.

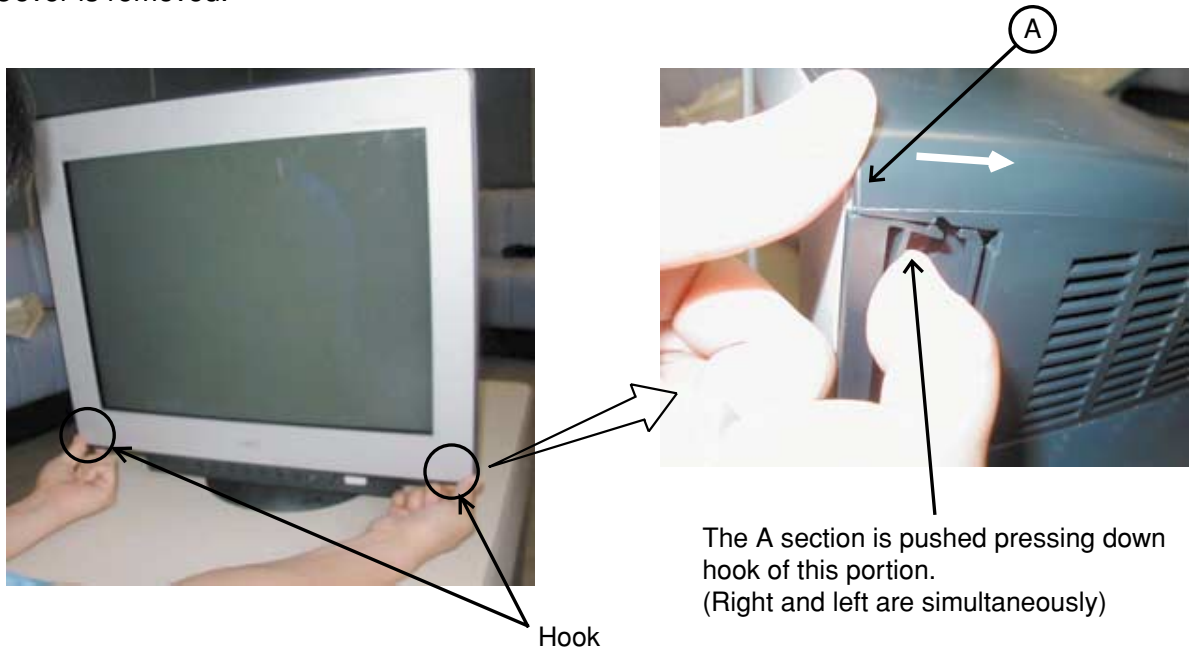


(3) Two insertion pin right and left each of a side part, and lower four insertion pins and two hooks are also pulled slowly, and removed Bezel.

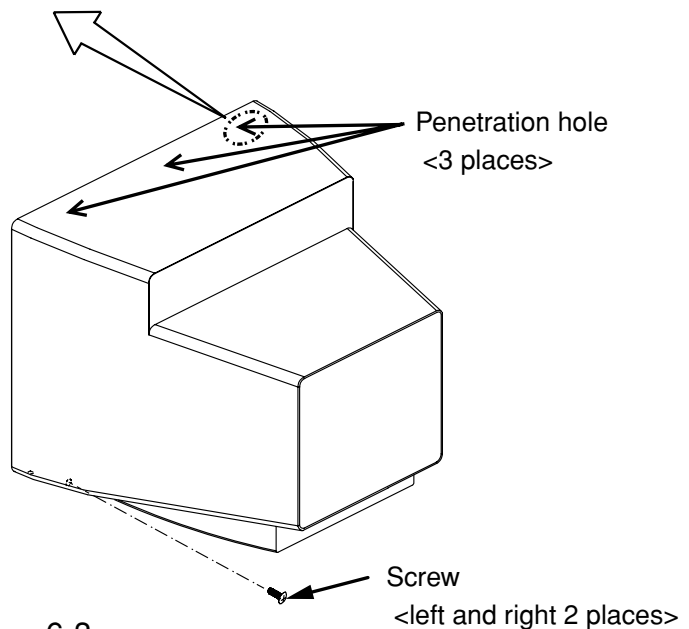
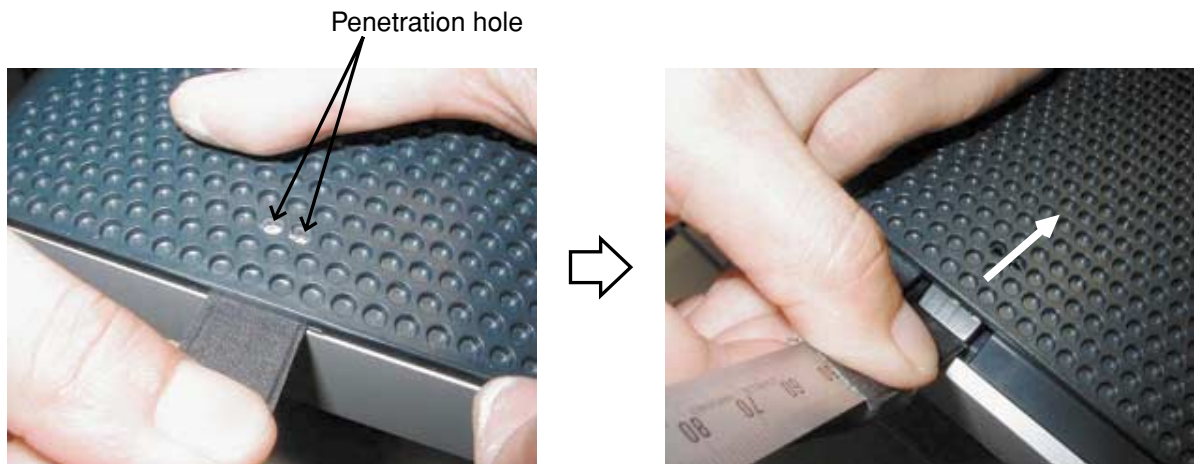


4. Removal Instruction for Back Cover

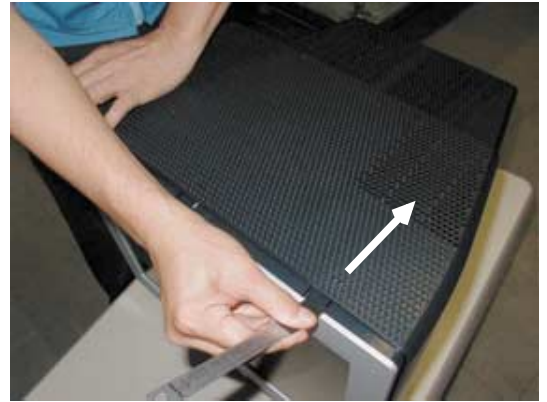
- (1) The screws of the two places of the lower parts of the Back Cover are removed.
- (2) Two hooks of the front lower part of Back Cover is pressed down, and the lower part of Back Cover is removed.

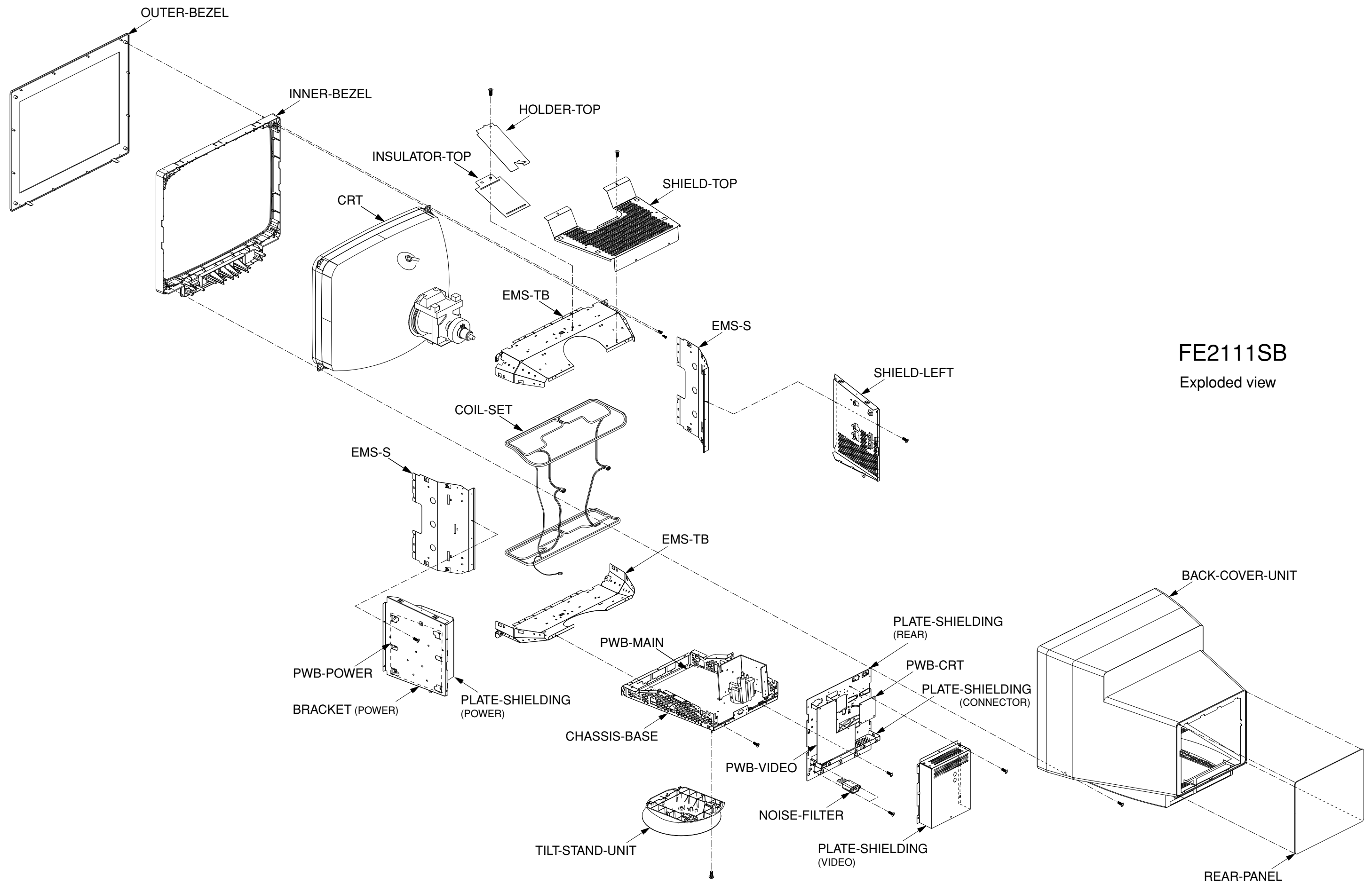


- (3) Hooks are removed by considering the penetration hole (three places) of the front upper part of Back Cover as a mark, inserting a jig from the direction of an end. and pushing in a jig downward.

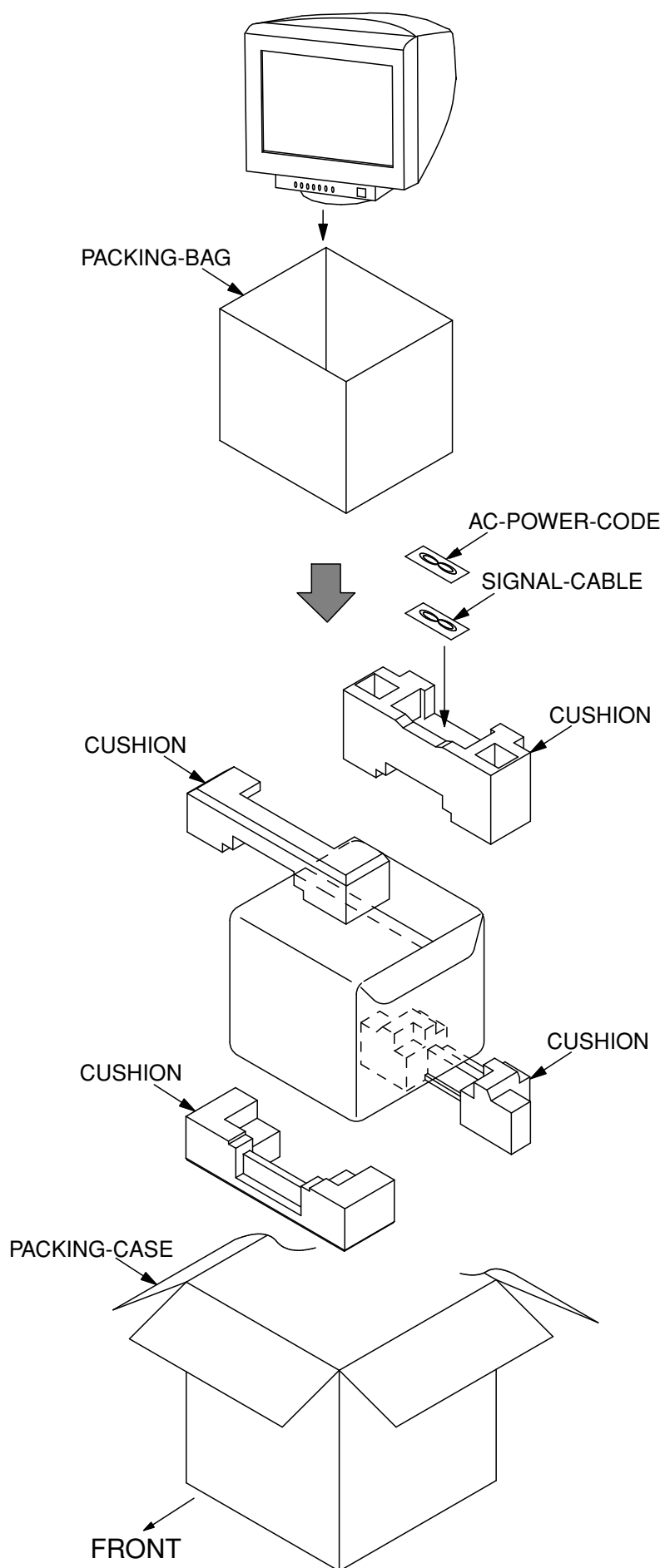


- (4) If one hook part place of an end is removed, the others are depressed with a jig to remove hooks simultaneously and also Back Cover is pulled back to remove.



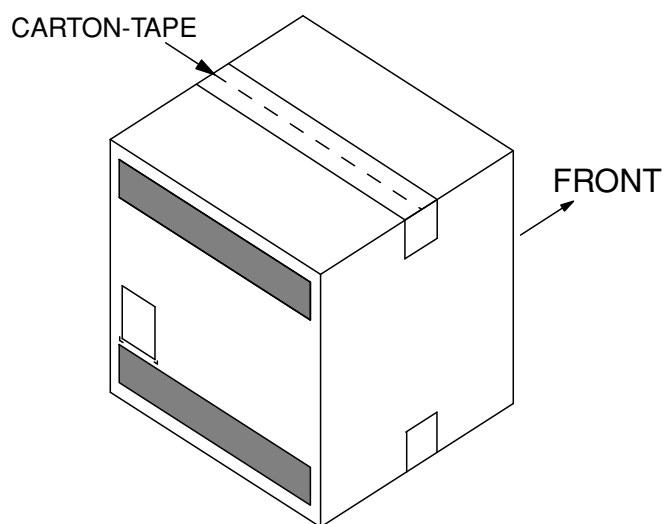
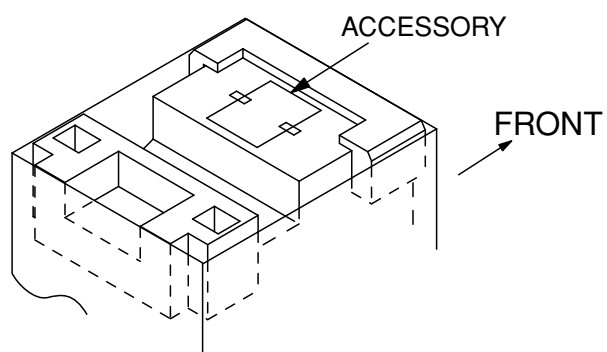


FE2111SB
Exploded view



FE2111SB

Packing view



SERIAL NUMBER INFORMATION

Refer to the serial number information shown below.

Ex.) Rating label

Model name: FE2111SB/FE2111SB-BK
Model NO.: C22BW701

Serial No.	Manufactured

→ 2 0 1 0 0 0 0 1

Manufactured Year: 0 to 9
(Last digit)

Manufactured Month: 01 to 12

Control Code: 0 to 9 or A to Z
(It is possible to use fixed no. for same destination
if model name is same.)

Running No.: 00001 to 99999

TECHNICAL SPECIFICATION

FOR

55cm/51cmV (22"/20"V) HIGH RESOLUTION
DIGITAL CONTROL AUTO-TRACKING
COLOR DISPLAY MONITOR

MODEL NAME : MultiSync FE2111SB
MultiSync FE2111SB-BK

MODEL NUMBER: C22BW701

DATE: June 26, 2002

NEC-MITSUBISHI ELECTRIC VISUAL SYSTEMS CORPORATION

REVISE	

TABLE OF CONTENTS

1. Foreword
 - 1.1 General Description (Quick Reference)
 - 1.2 Regulations
2. CRT Specifications
3. Electric Specifications
 - 3.1 Deflections
 - 3.2 Signal Input
 - 3.3 Video performance
 - 3.4 Power Supply
 - 3.5 Power Saving
 - 3.6 Degaussing
4. Functions
 - 4.1 Front Controls
 - 4.2 OSD (On Screen Display) Functions
 - 4.3 Back Panel
 - 4.4 Connector Pin Assignment
 - 4.5 DDC (Display Data Channel) Functions
 - 4.6 Preset Timing
5. Display Quality
 - 5.1 Test Conditions
 - 5.2 Display size
 - 5.3 Luminance
 - 5.4 Color
 - 5.5 Distortion
 - 5.6 Linearity
 - 5.7 Misconvergence
 - 5.8 Focus
 - 5.9 Raster Regulation
6. Mechanical Specifications
 - 6.1 Cabinet, Tilt / Swivel Base
 - 6.2 Rating Label
 - 6.3 Carton Box
 - 6.4 Weight
 - 6.5 Accessories

7. Environmental Conditions

7.1 Temperature, Relative Humidity

7.2 Vibration Test (with carton box)

7.3 Drop Test (with carton box)

Appendix 1 Preset Timing Chart

Appendix 2 EDID data for VESA DDC

Fig.1	Outline
Fig.2	Bezel Logo
Fig.3-1	Rating Label (US/EU)
Fig.3-2	Rating Label (China)
Fig.4	Carton Box
Fig.5-1	Printing Specification of Carton Box(US:White)
Fig.5-2	Printing Specification of Carton Box(US:Black)
Fig.5-3	Printing Specification of Carton Box(EU:White)
Fig.5-4	Printing Specification of Carton Box(China)
Fig.6	Packing Style
Fig.7-1	AC Power Cord (for North America)
Fig.7-2	AC Power Cord (for EU)
Fig.7-3	AC Power Cord (for China)
Fig.8	Signal Cable (SC - B110)

***Design and specifications are subject to change without any notice**

1. Foreword

1.1 General Description(Quick Reference)

NO	TYPE		NMVISUAL STANDARD	REMARKS
1	CRT	Size	55cm / 51cmV (22" / 20"V)	Diamondtron U2
		Grill Spacing(PhosphorSpacing)	0.24mm (0.25mm)	Aperture Grille
		Phosphor Type	B22 (EBU)	
		Face-plate	G-WARAS	
		Electron Gun Type	U-NX-DBF	
		Face-plate Transmission	38.4 %(Including face-plate coating)	
2	SCANNING	Horizontal Freq.	30k - 115kHz	
		Vertical Freq.	50 - 160Hz	
3	SIGNAL INPUT	Video Sync.	Analog	0.7Vp-p
			Composite Sync.	TTL Nega
			Separate Sync.	TTL Posi / Nega
		Termination (Impedance)	Video 75 ohm to Ground Sync. 2.2k ohm to Ground	
4	VIDEO	Maximum supported pixel clock	300MHz	
5	SCREEN CHARACTERISTICS	Display Resolution	1920x1440@76Hz(Maximum Resolution) 1600x1200@85Hz(Recommended Resolution)	Addressable
		Display size	Horizontal 396mm	
			Vertical 297mm	
		Misconvergence	Center: 0.25 mm, Corner: 0.35 mm	
		Brightness (Full White)	100cd/m2 at 9300K (Back Raster Luminance: Approx. 0.3cd/m2)	
		SB Mode (Super Bright Mode)	Super Bright Mode1: Picture Super Bright Mode 2 : Movie	(With Gamma) (With Gamma And Sharpness)
6	CONTROL (User Controls)	Front	OSD	Power Button, EXIT Button, Control Select Buttons, Control Buttons (Function Adjust), Select Button (Sub: SB Mode), Reset Button
				Brightness, Contrast, Degauss, Constant Brightness, Auto adjust, Left/Right, Down/Up, Narrow/Wide, Short/Tall, Color Control, In/Out, Left/Right, Tilt, Align, Rotate, Corner Correction (Top, Top-Balance, Bottom, Bottom -Balance), Moire Canceller, Convergence (Horizontal, Vertical), Linearity (Vertical, Vertical-Balance), Global sync (Top Left, Top Right, Bottom Left, Bottom Right), Language, Osm Position, Osm Turn Off, Osm lock Out, IPM, Edge Lock, Hot key, Factory preset, Display Mode, Monitor Info, Refresh Notifier
7	CONNECTOR	Power Input	3P IEC Plug	Auto-select
		Signal Input	Dsub-15P	
8	POWER SUPPLY	Operating range	AC100 - 120V / 220 - 240V, 50 / 60 Hz	
		Power consumption (typical.)	125W 1.25A@100-120VAC 0.6A@220-240VAC Power Save: <=2W	
9	ENVIRONMENTAL CONDITION	Operating temperature	5 - 35degrees C	
		Relative humidity	10 - 90% (without condensation)	
10	WEIGHT		Approx. 29.6kg (65.3lbs)	
11	CABINET	With Tilt / Swivel stand	NM Visual standard	
12	REGULATION	Safety	UL / C-UL, TÜV-GS, CCC (For only china model), GOST-R	
		EMC	FCC-B, DOC-B, EN55022-B, EN55024, EN61000-3-2, EN61000-3-3, VCCI-B, CCC (For only China model), GOST-R	
		X – Ray	DHHS, RöV, HWC	
		VLF / ELF	MPR-II, MPR-III, TCO'91	
		Power Management	Energy Star, GEEA LABEL	
		Ergonomics	TÜV-GS, TÜV-Ergo	
		Miscellaneous	TCO'99, TCO'95, CE Marking, JPHG	
13	OTHERS	Plug & Play	DDC2B	
		Digital Dynamic Convergence		
		Communication	Asset Management	
		Others	DDC/CI	

1.2 Regulations

MODEL NAME	REGULATIONS						
	SAFETY	EMC	X-RAY	ELF/VLF	Power Management	Ergonomics	Miscellaneous
FE2111SB / FE2111SB-BK (C22BW701)	UL C-UL TÜV-GS CCC GOST-R	FCC-B DOC-B EN55022-B EN55024 EN61000-3-2 EN61000-3-3 VCCI-B JPHG CCC GOST-R	DHHS HWC RöV	MPR-II MPR-III TCO'91	Energy Star GEEA LABEL	TÜV-GS TÜV-Ergo	TCO'99 (FE2111SB) TCO'95 (FE2111SB-BK) CE Marking JPHG

UL	UL1950 3rd Edition
C-UL	CAN/CSA-C22.2 NO.950: 1995
TÜV-GS	EN60950: 1992 & AD1/AD2/AD3/AD4/AD11 & EK1-ITB 2000
FCC	47 CFR Part15 Subpart B, Class B
DOC	Interference-Causing Equipment Standard ICES-003 Issue 3, Class B
DHHS	21CFR Chapter I Subchapter J
HWC	Radiation Emitting Devices Regulations Chapter 1370
RöV	RöV Vom 8.1. 1987
MPR-II	MPR 1990:8
MPR-III	prEN 50279
TCO'99	TCO'99 Certification
	Requirements for environmental labeling of personal computers
TCO'95	TCO'95 Certification
	Requirements for environmental labeling of personal computers
CE-Marking	EN60950: 1992 & AD1/AD2/AD3/AD4/AD11
	EN55022: 1998 Class B
	EN55024: 1998
	EN61000-3-2: 1995 & AD1/AD2
	EN61000-3-3: 1995
Energy Star	International Energy Star office Equipment Program
VCCI	Guide to membership of Voluntary Control Council for Interference
	By data Processing Equipment and Electronic Office Machines, Class B.
JPHG (Japan Power Harmonics Guidelines)	Guidelines for the suppression of Harmonics in Appliances and General - Use Equipment
GEEA LABEL	Award Criteria for the Energy Label: 2002
TÜV-Ergo	prEN 50279
	ISO 9241-3:1992
	ISO 9241-7:1998
	ISO 9241-8:1997
CCC (For only China model)	China Compulsory Certification
	GB4943-1995
	GB9254-1998
GOST-R	Russian Safety Certification

2. CRT Specifications

CRT model no.	M51LVT42X
Type	Diamondtron U2 (Aperture Grille)
Size	55cm / 51cm Diagonal View able Image (22" /20" Diagonal View able Image)
Grille Spacing	0.24mm
Phosphor Spacing	0.25mm
Deflection Angle	90 degree
Phosphor Type	B22 (Medium short persistence)
Electron Gun Type	U-NX- DBF
Face-plate Transmission	Approx. 38.4% (Include Face-plate coating)
Face-plate	G-WARAS Coating (Anti-reflection, Anti-glare and Anti-static)
Screen Phosphor Area	406.1 x 304.6 mm
Face-plate Curvature	H: R= 50000 mm, V: R= 80000 mm
Phosphor Color Coordinate	R: X=0.627,Y=0.341 G: X=0.292,Y=0.605 B: X=0.149,Y=0.072 (Typical)

3. Electric Specifications

3.1 Deflections

Horizontal	Scanning Frequency	30 - 115kHz
	Back Porch	$\geq 1.1 \mu\text{sec}$
	Blanking	$\geq 2.0 \mu\text{sec}$
	H-sync Width	$\geq 0.6 \mu\text{sec}$
Vertical	Scanning frequency	50 - 160Hz
	V-sync + V-back Porch	$\geq 400 \mu\text{sec}$
	V-sync Width	3H $\leq$ Vs $\leq$ 10H---over 50kHz (fh) 2H $\leq$ Vs $\leq$ 10H---up to 50kHz (fh)
	V-Total Line	$\geq 256\text{H} + \text{V-sync Width}$

(*) Full screen adjustment may not be available for the timing which
 Tdh / Th < 72% - Over 100kHz (fh)
 Tdh / Th < 74% - Up to 100kHz (fh)
 Tdh: Horizontal Display Time
 Th: Horizontal Scanning Time

3.2 Signal Input

Video Input Signal	R.G.B analog
Sync. Input Signal	External composite sync. , Negative TTL External HD/VD separate sync. TTL (N or P)
Video Input Impedance	75ohm to ground
Sync. Input Impedance	2.2kohm to ground
Signal Level	Video signal: 0.7V p-p + 10% / - 5% Separate H/V-sync. : TTL level ($>2.5\text{Vp-p}$)

3.3 Video Performance

Maximum supported pixel clock	300MHz
Pulse Rise and Fall time	5.5nsec(typical.) 10 to 90% at 35Vp-p

*The rise and fall time of the input video signal is 2.0nsec or less.

*The pulse rise or fall time is determined using the formula

$$T_a = \sqrt{T_m^2 - (T_s^2 + T_p^2 + T_{sc}^2)}$$

Where: Ta = Amplifier rise / fall time
 Tm = Measured rise / fall time
 Ts = Input signal rise / fall time
 Tp = Probe effect on rise / fall time = $2.2 \times R_I \times C_p$
 RI = Amplifier output resistance (ohm)
 Cp = Total probe capacitance (F)
 Tsc = Scope rise / fall time = $0.35 / \text{Scope bandwidth (MHz)}$

3.4 Power Supply

Input Voltage	100 - 120 / 220 - 240 VAC +/- 10%
Frequency	50/60Hz +/- 3Hz
Power Consumption (typical.)	125W 1.25A@100-120VAC 0.6A@220-240VAC
AC leakage current	<= 3.5mA
Inrush current	<=70A 0-peak at 240VAC on cold starting

3.5 Power Saving

	H-sync	V-sync	Video	Power Consumption	Recovery Time	LED Indicator
Power Saving OFF	On	On	Active	125W		Green
Power Saving ON	Off	On	Blank	<= 2W	Approx.5 sec	Orange
	On	Off	Blank			
	Off	Off	Blank			

3.6 Degaussing

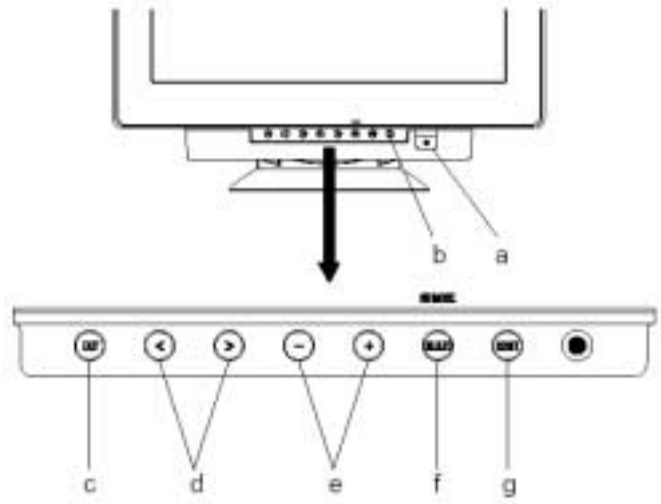
Auto Degaussing	The monitor have an automatic degaussing function which activates when the unit is turned on.
Manual Degaussing	This activates degaussing at the user's discretion after the unit is Operating

*The Monitor requires minimum 15 minutes after last degauss operation for full degauss capability

4.Functions

4.1 Front Controls

- a: POWER SWITCH
- b: POWER-ON INDICATOR
- c: EXIT BUTTON
- d: CONTROL (ITEM) SELECT BUTTONS
- e: CONTROL (FUNCTION ADJUST) BUTTONS
- f: SELECT (SB MODE) BUTTON
- g: RESET BUTTON

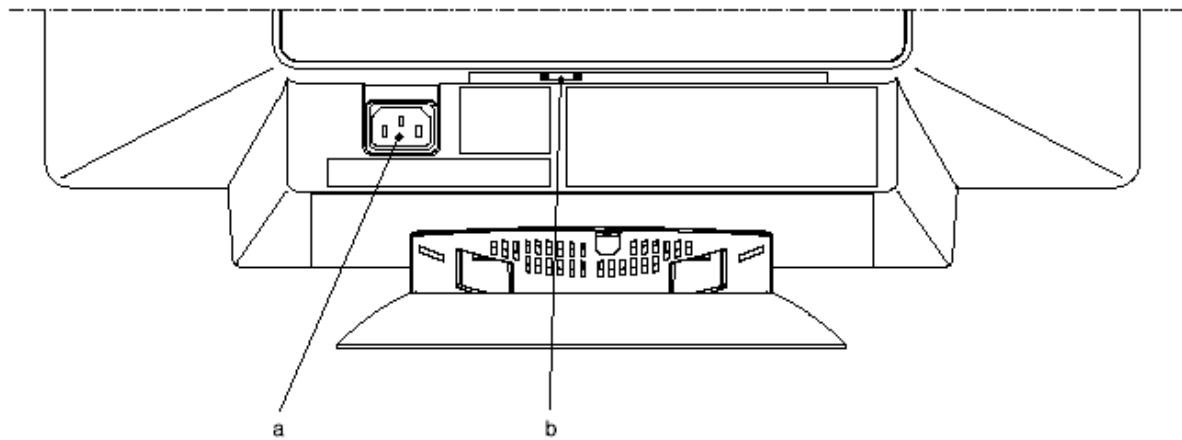


4.2 OSD (On Screen Display) Function

OSD1 Group			Default	Linearity	Ver.	BAR	Adjusted
BRIGHTNESS		BAR	30.10%		VERTICAL	BAR	Adjusted
CONTRAST		BAR	100.00%		BALANCE		
DEGAUSS		SELECT	-	GLOBAL SYNC	TOP LEFT	BAR	Adjusted
CONSTANT BRIGHTNESS		SELECT	-		TOP RIGHT	BAR	Adjusted
OSD2 Group			Default		BOTTOM LEFT	BAR	Adjusted
AUTO ADJUST		SELECT	-		BOTTOM RIGHT	BAR	Adjusted
LEFT / RIGHT		BAR	Adjusted	OSD6 Group			Default
DOWN / UP		BAR	Adjusted	LANGUAGE		ENG/DEU	ENG
NARROW / WIDE		BAR	Adjusted			FRA/ESP	
SHORT / TALL		BAR	Adjusted			ITA/JPN	
OSD3 Group			Default	OSM POSITION		CENTER	CENTER
COLOR CONTROL		1:9300K	1:9300K			TOP LEFT	
		2:8200K				TOP RIGHT	
		3:7500K				BOTTOM LEFT	
		sRGB				BOTTOM RIGHT	
		5:5000K					
COLOR TEMPERATURE		5000K - 9300K	9300K	OSM TURN OFF		5-120 SECONDS	45 SECONDS
R/G/B GAIN CONTROL		BAR	Adjusted				
OSD4 Group			Default	OSM LOCK OUT		-	-
IN / OUT		BAR	Adjusted	IPM OFF MODE		1:ENABLE	1:ENABLE
LEFT / RIGHT		BAR	Adjusted			2:DISABLE	
ALIGN		BAR	Adjusted	EDGE LOCK		1:FRONT	2:BACK
TILT		BAR	Adjusted			2:BACK	
ROTATE		BAR	Adjusted	HOT KEY		1:ON	2:OFF
Corner Correction	TOP	BAR	Adjusted			2:OFF	
	TOP-BALANCE	BAR	Adjusted	FACTORY PRESET		PRESS +	-
	BOTTOM	BAR	Adjusted	OSD7 Group			Default
	BTM-BALANCE	BAR	Adjusted	DISPLAY MODE		Preset Information	
	Horizontal Frequency						
Vertical Frequency							
OSD5 Group			Default	INFORMATION		POLARITY	
MOIRE CANCELER		BAR	0.00%			Model	
Convergence	Hor.	BAR	Adjusted			Serial Number	
	Ver.	BAR	Adjusted	REFRESH NOTIFIER	ON/OFF	OFF	

4.3 Back Panel

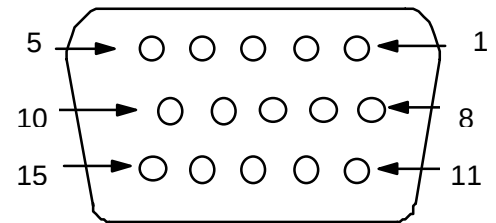
- a : AC POWER CONNECTOR (3P IEC Plug)
b : SIGNAL INPUT CONNECTOR (Dsub-15P)



4.4 Connector Pin Assignment

1) Signal Input Connector (Dsub-15P)

Pin	Signal
1	Red-video
2	Green-video
3	Blue-video
4	Gnd
5	DDC Gnd
6	Red Gnd
7	Green Gnd
8	Blue Gnd
9	+5VDC(from Computer)
10	Sync Gnd
11	Gnd
12	Serial data
13	H-sync or Composite sync
14	V-sync (V-clock)
15	Serial clock



Rear Panel

4.5 DDC (Display Data Channel) Functions

VESA DDC2B.

See Appendix2 for EDID data.

VESA DDC/CI

4.6 Preset Timing

Factory-preset: 9 see Appendix 1 for detail timing parameters.

User-preset: 16

Preset Timing Discrimination

Horizontal Frequency	$\geq 1\text{kHz}$
Vertical Frequency	$\geq 1\text{Hz}$
Sync Signal Polarity	H or V-sync signal polarity is different.

*The monitor is able to discriminate input signals
by at least one of above parameters

5. Display Quality

5.1 Test Conditions

AC Voltage	120VAC 60Hz or 230VAC 50Hz
Video Signal	1600 x 1200 (106kHz, 85Hz) 0.7Vp-p
Warm Up	More than 30 min. with full white picture
Temperature	20 - 25 degree C
Relative Humidity	40 - 80%
Magnetic Field	BH=0, BV=0.040mT
Contrast & Brightness	Contrast maximum and Brightness center position (Back Raster Luminance: Approx. 0.3cd/m2)
Color Temperature	Color-1: 9300K + 8 M.P.C.D.
Display Size	396 x 297mm
Ambient light	200 +/- 50 lx
Luminance Meter	Minolta CA100 or Equivalent

*Unless specified, the monitor is set at the factory default setting.

5.2 Display size

All preset timing	Width: 396mm, Height: 297mm
-------------------	-----------------------------

5.3 Luminance

Luminance at CRT center	Full White: $\geq 100\text{cd/m}^2$ (at Color No.1) (Brightness center position)
	Window: 80x80mm (at Color No.1) (Brightness: Factory default setting)
	SUPER BRIGHT MODE OFF: 100cd/m^2 (Typical)
	SUPER BRIGHT MODE-1 ON: 150cd/m^2 (Typical) SUPER BRIGHT MODE-2 ON: 170cd/m^2 (Typical)
Luminance Variation	Delta Luminance / Center Luminance: $\leq 20\%$
Back Raster Luminance	Approx. 0.3 cd/m^2 (Brightness center position)
	Approx. 0 cd/m^2 (Factory default setting) Raster must not visible at minimum Brightness control

5.4 Color

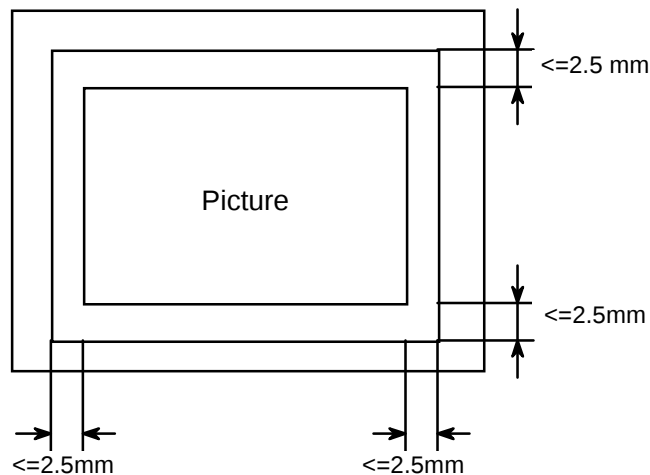
Color Temperature	Color-1: 9300K + 8 M.P.C.D. X=0.283 +/-0.015 Y=0.297 +/-0.015
	Color-2: 8200K (X=0.290, Y=0.313)
	Color-3: 7500K (X=0.300, Y=0.315)
	sRGB: 6500K (Luminance: $80 + 20/-10\text{ cd/m}^2$) (X=0.313, Y=0.329)
	Color-5: 5000K + 8 M.P.C.D. X=0.345 +/- 0.015 Y=0.359 +/- 0.015
White Uniformity	≤ 0.015 : in either the X or Y shift between the center and peripheral area
Color Tracking	Contrast Control: +/-0.020 from 25cd/m^2 to Maximum at center Brightness position

5.5 Distortion

Distortion Except rotation and centering	H: <= 2.5mm, V: <= 2.5mm
---	--------------------------

*With Green-Crosshatch applied.

*The overall distortion is defined as the total of all image distortion excluding rotation and display centering.



5.6 Linearity

Linearity	H: <=15%(30-40k), <=12%(40-60k), <=10%(60-115k) adjacent: <= 7%
	V: <=10% adjacent: <= 7%

*At preset timings

*With Green-Crosshatch (17 lines horizontally by 13 lines vertically) applied.

*The formula used to calculate linearity is

$$\frac{X_{\max} - X_{\min}}{(X_{\max} + X_{\min})/2} \times 100\%$$

$$\frac{Y_{\max} - Y_{\min}}{(Y_{\max} + Y_{\min})/2} \times 100\%$$

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16
Y1																
Y2																
Y3																
Y4																
Y5																
Y6																
Y7																
Y8																
Y9																
Y10																
Y11																
Y12																

$$X1=X2=X3= \dots =X16$$

$$Y1=Y2=Y3= \dots =Y12$$

5.7 Misconvergence

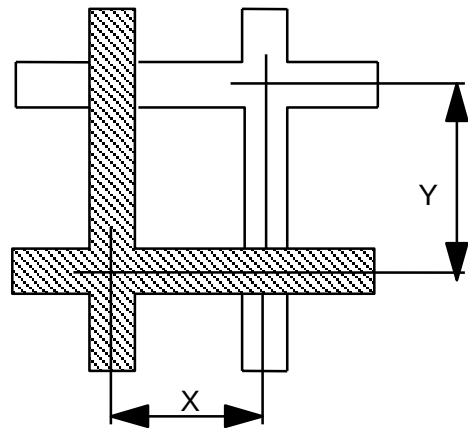
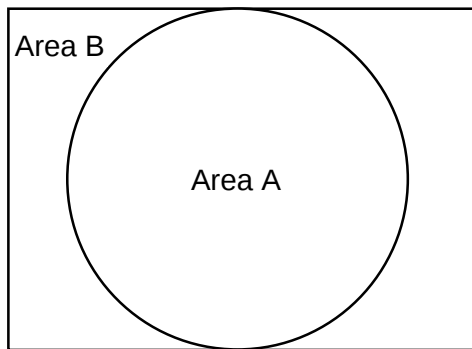
Misconvergence	Area A: ≤ 0.25 mm within the 297mm diameter circle
	Area B: ≤ 0.35 mm within 396mm x 297mm

*With White-Crosshatch applied.

*Zone A is a circular area with 297mm diameter at the center.

*Zone B is a rectangular area (396mm x 297mm) outside of the zone A.

*Use worst-case horizontal/vertical misconvergence between any two primary colors.



5.8 Focus

$\leq 1600 \times 1200$ 85Hz	Displaying 7 x 9 pixel "e" with white single pixel Strokes, the entire screen shall be readable with clearly discernible characters at normal viewing distance.
$> 1600 \times 1200$ 85Hz	Displaying 7 x 9 pixel "H" with white single pixel Strokes, the entire screen shall be readable with clearly discernible characters at normal viewing distance.

5.9 Raster Regulation

Rater Size Regulation	$\leq 0.5\%$ of the horizontal or vertical picture size
-----------------------	---

*The picture size change is less than adjusted value in either the horizontal or vertical direction over 30% to 100% luminance range and 90 - 132VAC or 198 - 264VAC Input respectively.

6. Mechanical Specifications

6.1 Cabinet, Tilt / Swivel Base

Molded material	Cabinet: PC+ABS (Flame Class 5V) Tilt /Swivel Base: ABS (Flame Class HB)
Cabinet color	See Fig.1
Bezel Logo	See Fig.2
Tilt & Swivel	Right & Left: -90degree to +90degree Up & Down: 10degree to -5 degree
Dimension	495mm(W) x 484.5mm(H) x 471mm(D) 19.5"(W) x 19.1"(H) x 18.5"(D) (Include Tilt /Swivel Base, see Fig.1)

6.2 Rating Label

North America	See Fig.3-1
Europe	See Fig.3-1
China	See Fig.3-2

6.3 Carton Box

Paper Material	Kraft liner and trifaced corrugated board (Double wall)	
Carton Box Print	North America (White)	See Fig.5-1
	North America (Black)	See Fig.5-2
	Europe (White)	See Fig.5-3
	China	See Fig.5-4
Dimension	See Fig.4	
Packing Contents	See Fig.6	

6.4 Weight

Net	Approx. 29.6 kg (65.3 lbs)
Gross	Approx. 35.0 kg (77.2 lbs)

6.5 Accessories

AC Power Cord	North America	See Fig.7-1
	Europe	See Fig.7-2
	China	See Fig.7-3
Signal Cable		SC-B110: see Fig.8
User's Guide	North America	3 Languages (English, German, French)
	Europe	11 Languages (English, Czech, German, Greek, Spain, French, Italian, Dutch, Polish, Russia, Turkish) Attached CD-ROM
	China	Chinese

7. Environmental Conditions

7.1 Temperature, Relative Humidity

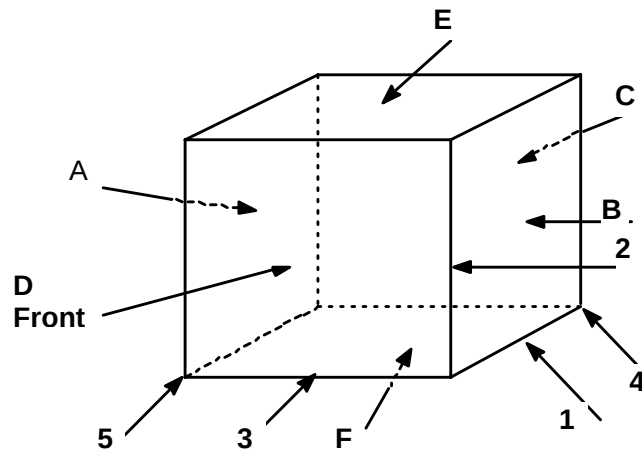
	Operating	Storage and shipment
Temperature	5 – 35 degree C	-20 - 60 degree C
Relative Humidity	10 - 90% Without condensation	10 - 90% Without condensation

7.2 Vibration Test (with carton box)

1) Random Vibration

Test Axis	3 axis
Search Frequency	5 - 200Hz
Acceleration	0 - 14.406m/s ² rms
Dwelling Time	30 minutes x 3 axis
Mounting	Fixed firmly on the vibration table

7.3 Drop Test (with carton box)

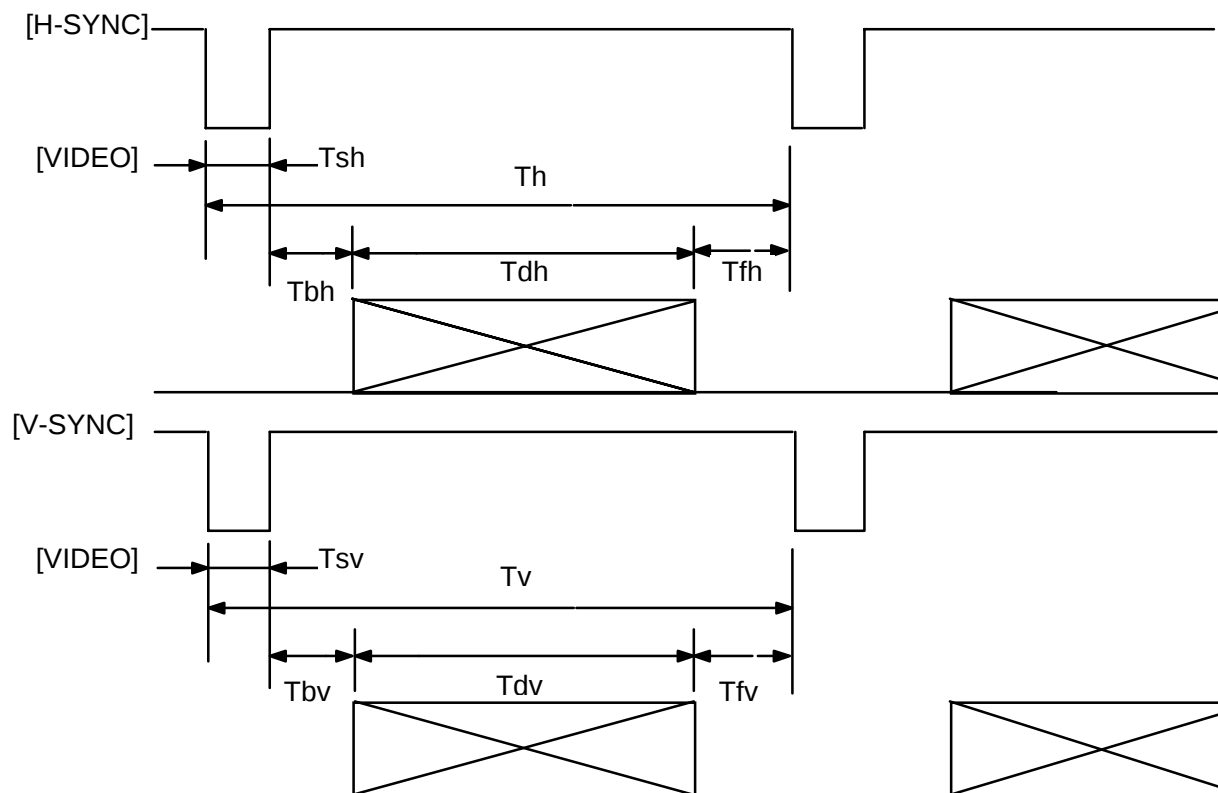


The inside unit shall be withstand without any damage by following procedure.
Drop to the hard wooden board from the position of the following heights.

After finish the drop test of edges (3 position) and also corners (2 position),
tester has to change to new cushion. However for the carton box,
tester must not change to the new box and use the damaged box continuously.

	Position	Height
Edge	1,2,3	46.0cm(18inch)
Corner	4,5	46.0cm(18inch)
Other Surfaces	A, B, C, D	46.0cm(18inch)
Top Surface	E	46.0cm(18inch)
Bottom Surface	F	46.0cm(18inch)

Appendix 1 Preset Timing Chart



NO	Clock (MHz)	T_h (μ SEC)	T_{sh} (μ SEC)	T_{fh} (μ SEC)	T_{bh} (μ SEC)	T_{dh} (μ SEC)	T_v (mSEC)	T_{sv} (mSEC)	T_{fv} (mSEC)	T_{bv} (mSEC)	T_{dv} (mSEC)	Hs	Vs	Fh (KHz)	Fv (Hz)	REMARKS
1	25.175	31.778 (800)	3.813 (96)	0.636 (16)	1.907 (48)	25.422 (640)	16.683 (525)	0.064 (2)	0.318 (10)	1.048 (33)	15.253 (480)	-	-	31.469	59.940	VESA 640*480 / 60Hz
2	49.500	21.333 (1056)	1.616 (80)	0.323 (16)	3.232 (160)	16.162 (800)	13.333 (625)	0.064 (3)	0.021 (1)	0.448 (21)	12.800 (600)	+	+	46.875	75.000	VESA 800*600 / 75Hz
3	78.750	16.660 (1312)	1.219 (96)	0.203 (16)	2.235 (176)	13.003 (1024)	13.328 (800)	0.050 (3)	0.017 (1)	0.466 (28)	12.795 (768)	+	+	60.023	75.029	VESA 1024*768 / 75Hz
4	94.500	14.561 (1376)	1.016 (96)	0.508 (48)	2.201 (208)	10.836 (1024)	11.765 (808)	0.044 (3)	0.015 (1)	0.524 (36)	11.183 (768)	+	+	68.677	84.997	VESA 1024*768 / 85Hz
5	135.000	12.504 (1688)	1.067 (144)	0.119 (16)	1.837 (248)	9.481 (1280)	13.329 (1066)	0.038 (3)	0.013 (1)	0.475 (38)	12.804 (1024)	+	+	79.976	75.025	VESA 1280*1024 / 75Hz
6	157.500	10.971 (1728)	1.016 (160)	0.406 (64)	1.422 (224)	8.127 (1280)	11.761 (1072)	0.033 (3)	0.011 (1)	0.483 (44)	11.235 (1024)	+	+	91.146	85.027	VESA 1280*1024 / 85Hz
7	202.500	10.667 (2160)	0.948 (192)	0.316 (64)	1.501 (304)	7.901 (1600)	13.333 (1250)	0.032 (3)	0.011 (1)	0.491 (46)	12.800 (1200)	+	+	93.750	75.000	VESA 1600*1200 / 75Hz
8	229.500	9.412 (2160)	0.837 (192)	0.279 (64)	1.325 (304)	6.972 (1600)	11.765 (1250)	0.028 (3)	0.009 (1)	0.433 (46)	11.294 (1200)	+	+	106.250	85.000	VESA 1600*1200 / 85Hz
9	297.000	8.889 (1640)	0.754 (224)	0.485 (144)	1.185 (352)	6.465 (1920)	13.333 (1500)	0.027 (3)	0.009 (1)	0.498 (56)	12.800 (1440)	-	+	112.500	75.000	VESA 1920*1440 / 75Hz

Appendix 2 EDID data for VESA DDC

EDID DATA DUMP HEX
00 FF FF FF FF FF FF 00
38 A3 DA 61 SN SN SN SN
WW YY 01 03 0C 28 1E 78
EB 9C 68 A0 57 4A 9B 26
12 48 4C FF EF 80 31 59
45 59 61 59 71 4F 81 99
A9 4F C1 4F D1 4F A6 59
40 30 62 B0 32 40 40 C0
13 00 8C 29 11 00 00 1E
00 00 00 FD 00 32 A0 1E
73 21 00 0A 20 20 20 20
20 20 00 00 00 FC 00 4E
45 43 20 46 45 32 31 31
31 53 42 0A 00 00 00 FF
00 S2 S2 S2 S2 S2 S2 S2
S2 S2 S2 S2 S2 S2 00 CS

SN: Serial number
WW: Week of Manufacture
YY: Year of Manufacture
S2: ASCII Serial Number
CS: Check Sum

-- EDID DATA DUMP TEXT --
Manufacturer Code: NEC
Product Code (HEX): 61DA
Product Code (DEC): 25050
(Microsoft INF ID: NEC61DA)
Serial Number (HEX): SN
Week of Manuf: WW
Year of Manuf: YY

EDID Version: 1
EDID Revision: 3
Extension Flag: 0

Video:
Input Signal: ANALOG
Setup: NO
Sync on Green: NO
Composite Sync: YES
Separate Sync: YES
V Sync Serration: NO
V Signal Level:
0.700V/0.300V (1V p-p)

Max Image Size H: 40 cm
Max Image Size V: 30 cm
DPMS Stand By: YES
DPMS Suspend: YES
DPMS Active Off: YES
GTF Support: YES
Standard Default Color Space: NO
Preferred Timing Mode: YES
Display Type: RGB Color

Color:
Gamma: 2.20
Red x: 0.627
Red y: 0.341
Green x: 0.292
Green y: 0.605
Blue x: 0.149
Blue y: 0.072
White x: 0.283
White y: 0.297

Established Timings:
720x400 @ 70 Hz
720x400 @ 88 Hz
640x480 @ 60 Hz
640x480 @ 67 Hz
640x480 @ 72 Hz
640x480 @ 75 Hz
800x600 @ 56 Hz
800x600 @ 60 Hz
800x600 @ 72 Hz
800x600 @ 75 Hz
832x624 @ 75 Hz
1024x768 @ 60 Hz
1024x768 @ 70 Hz
1024x768 @ 75 Hz
1152x870 @ 75 Hz
1280x1024 @ 75 Hz

Standard Timing #1:
Horizontal Active Pixels: 640
Aspect Ratio: 4:3
(480 active lines)
Refresh Rate: 85 Hz

Standard Timing #2:
Horizontal Active Pixels: 800
Aspect Ratio: 4:3
(600 active lines)
Refresh Rate: 85 Hz

Standard Timing #3:
Horizontal Active Pixels: 1024
Aspect Ratio: 4:3
(768 active lines)
Refresh Rate: 85 Hz

Standard Timing #4:
Horizontal Active Pixels: 1152
Aspect Ratio: 4:3
(864 active lines)
Refresh Rate: 75 Hz

Standard Timing #5:
Horizontal Active Pixels: 1280
Aspect Ratio: 5:4
(1024 active lines)
Refresh Rate: 85 Hz

Standard Timing #6:
Horizontal Active Pixels: 1600
Aspect Ratio: 4:3
(1200 active lines)
Refresh Rate: 75 Hz

Standard Timing #7:
Horizontal Active Pixels: 1792
Aspect Ratio: 4:3
(1344 active lines)
Refresh Rate: 75 Hz

Standard Timing #8:
Horizontal Active Pixels: 1920
Aspect Ratio: 4:3
(1440 active lines)
Refresh Rate: 75 Hz

Detailed Timing (block #1):
---Preferred Timing Mode---
Pixel Clock: 229.50 MHz
Horizontal Active: 1600 pixels
Horizontal Blanking: 560 pixels
Vertical Active: 1200 lines
Vertical Blanking: 50 lines
(Horizontal Frequency: 106.25 kHz)
(Vertical Frequency: 85.0 Hz)
Horizontal Sync Offset: 64 pixels
Horizontal Sync Width: 192 pixels
Vertical Sync Offset: 1 lines
Vertical Sync Width: 3 lines
Horizontal Border: 0 pixels
Vertical Border: 0 lines
Horizontal Image Size: 396 mm
Vertical Image Size: 297 mm
Interlaced: NO
Image: Normal Display
Sync: Digital Separate
Bit 1: ON
Bit 2: ON

Monitor Range Limits (block #2):
Minimum Vertical Rate: 50 Hz
Maximum Vertical Rate: 160 Hz
Minimum Horizontal Rate: 30 kHz
Maximum Horizontal Rate: 115 kHz
Maximum Pixel Clock: 330 MHz
GTF Data: 00 0a 20 20 20 20 20

Monitor Name (block #3):
NEC FE2111SB

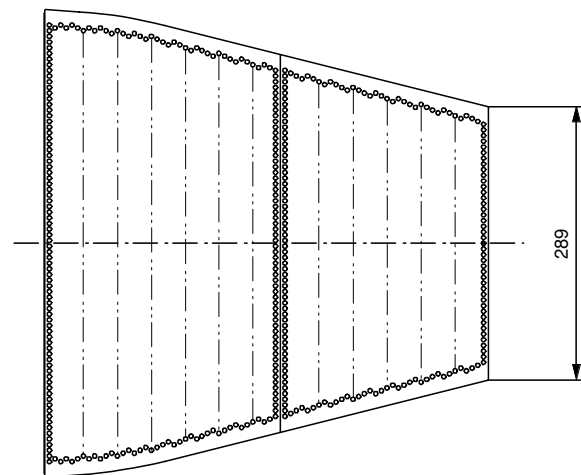
Monitor Serial Number (block #4): S2

SN: Serial number
WW: Week of Manufacture
YY: Year of Manufacture
S2: ASCII Serial Number

EDID EDITOR V1.45 (010514) Copyright
(C) Mitsubishi Electric 1995-2000

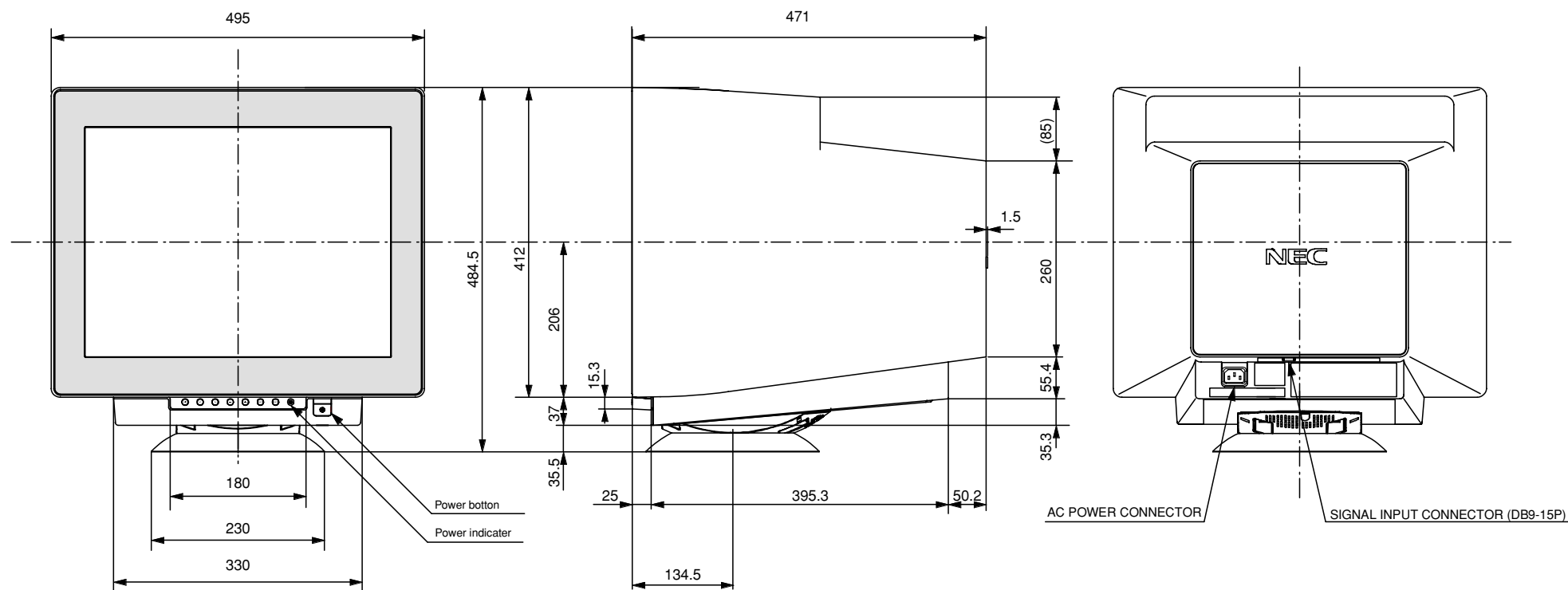
CABINET COLOR

	COLOR Ver.	MODEL NAME	Front	Other
North America (NMD-A)	White Ver.	C22BW701-AN	Aluminum Silver	Light Gray
	Black Ver.	C22BW701-ANBK	Dark Roof Gray	Dark Roof Gray
EUROPE (NMD-E)	White Ver.	C22BW701-BN	Aluminum Silver	Light Gray
CHINA (AP)	White Ver.	C22BW701-CN	Aluminum Silver	Light Gray



TILT / SWIVEL BASE
Swivel Angle : +90° ~ -90°
Tilt Angle : +10° ~ -5°

WEIGHT
APPROX 29.6kg



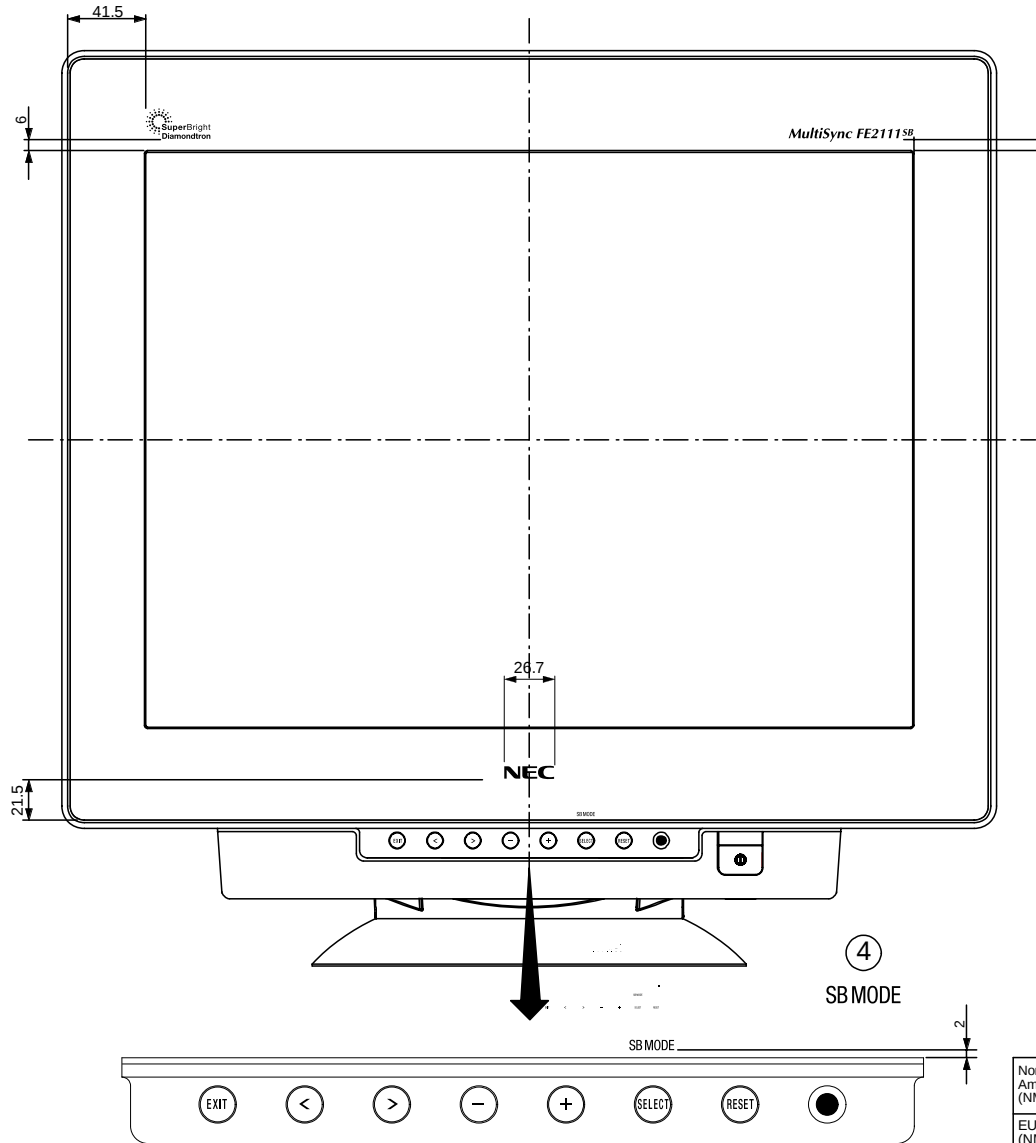
VSP-C0483

②



①

NEC



③

MultiSync FE2111SB

	Cabinet Color			①②③④ Silk Print color
	COLOR Ver.	Front	Other	
North America (NMD-A)	White	Aluminum Silver	Light Gray	Real Gray Silver
	Black	Dark Roof Gray	Dark Roof Gray	Real Gray Silver
EUROPE (NMD-E)	White	Aluminum Silver	Light Gray	Real Gray Silver
Australia (AP)	White	Aluminum Silver	Light Gray	Real Gray Silver

Fig. 2 BEZEL LOGO

VSP-C0483

White Ver.・・・C22BW701-AN & C22BW701-BN
(North America) (Europe)

LABEL SIZE ・・・ (W) 139.5mm X (H) 44.5mm

COLOR OF BACKGROUND ・・・ Gray

COLOR OF LETTERING ・・・ Black

NEC MultiSync FE2111SB Color Display Monitor 100-120V ~ / 220-240V ~ 50 / 60Hz 1.25A / 0.60A		   	
Die erzeugten Röntgenstrahlen werden durch die eigensichere Kathodenstrahlröhre ausreichend abgeschirmt.		    	
This product complies with DHHS Rules 21 CFR Subchapter J applicable at date of manufacture.		  	
Complies with Canadian ICES-003 Class B Conforme à la NMB-003 Classe B		ME06	
Serial No.	Manufactured	Model No. C22BW701 CHASSIS FAMILY : D2 MADE IN NAGASAKI, JAPAN NEC-MITSUBISHI ELECTRIC VISUAL SYSTEMS CORPORATION 4-13-23 SHIBAURA MINATO-KU, TOKYO, 108-0023, JAPAN	

Black Ver.・・・C22BW701-ANBK
(North America)

NEC MultiSync FE2111SB-BK Color Display Monitor 100-120V ~ / 220-240V ~ 50 / 60Hz 1.25A / 0.60A		   	
Die erzeugten Röntgenstrahlen werden durch die eigensichere Kathodenstrahlröhre ausreichend abgeschirmt.		    	
This product complies with DHHS Rules 21 CFR Subchapter J applicable at date of manufacture.		  	
Complies with Canadian ICES-003 Class B Conforme à la NMB-003 Classe B		ME06	
Serial No.	Manufactured	Model No. C22BW701 CHASSIS FAMILY : D2 MADE IN NAGASAKI, JAPAN NEC-MITSUBISHI ELECTRIC VISUAL SYSTEMS CORPORATION 4-13-23 SHIBAURA MINATO-KU, TOKYO, 108-0023, JAPAN	

Fig.3 - 1 RATING LABEL (North America / Europe)

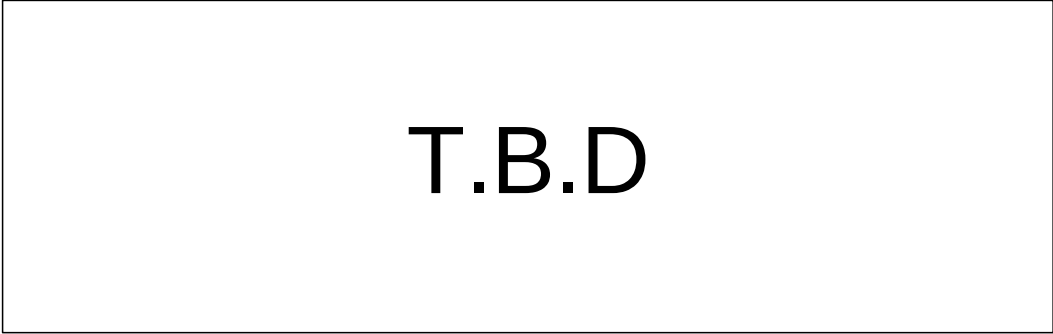
VSP-C0483

LABEL SIZE •••• (W) 139.5mm X (H) 44.5mm

COLOR OF BACKGROUND •••• Gray

COLOR OF LETTERING ••••• Black

White Ver. •••• C22BW701-CM



T.B.D

Fig.3 - 2 RATING LABEL (China)

VSP-C0483

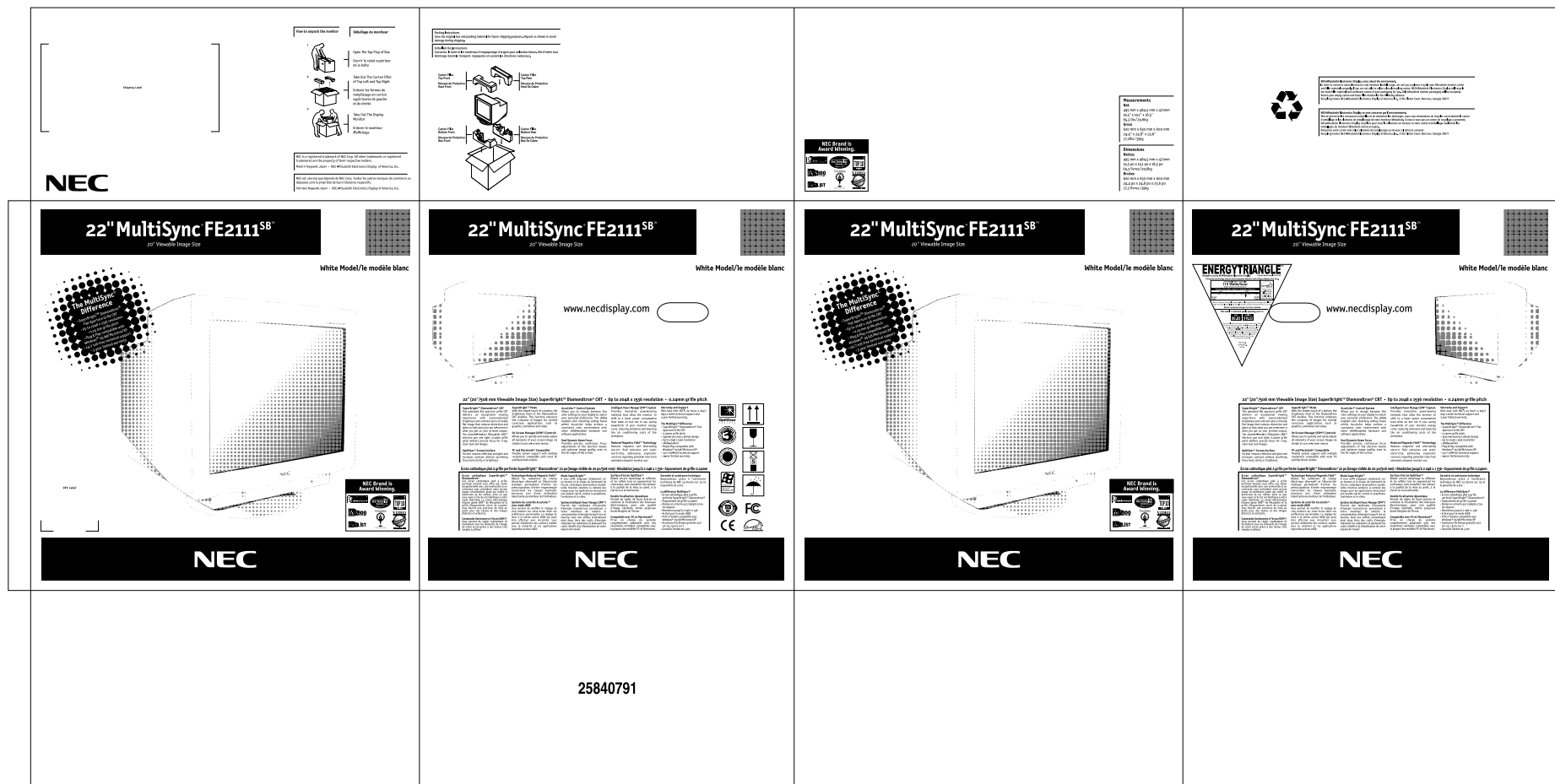


Fig.5-1 PRINTING SPECIFICATION OF CARTON BOX
(North America:White Ver.)

VSP-C0483