

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering X-ray radiation. In solid-state receivers and monitors, the CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. Keep high voltage at rated value, NO HIGHER. Excessive high voltage may cause X-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, many electrical and mechanical components have safety related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check inner board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by Howard W. Sams & Company as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to Howard W. Sams & Company by the manufacturers of the specific type of replacement part listed.

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

©1996 by Howard W. Sams & Company  
A Bell Atlantic Company  
2647 Waterfront Parkway East Drive, Suite 300  
Indianapolis, IN 46214-2012

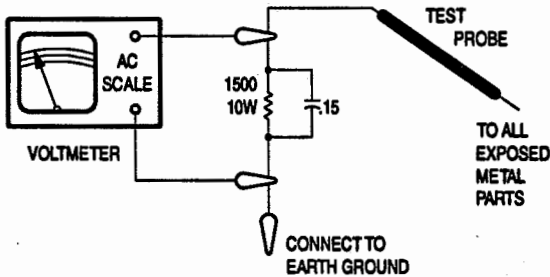
Printed in the United States of America 5 4 3 2 1

SAFETY CHECKS – FIRE AND SHOCK HAZARD  
Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



HIGH VOLTAGE SHUTDOWN TEST

Apply 120VAC. Connect a jumper wire to XRP1 and XRP2. The set should go into shutdown, losing picture and sound. If set does not go into shutdown the shutdown circuit requires repair. To resume normal operation, remove jumper wire.



96PF02964



0 81262 03618 1

PHOTOFACT® Technical Service Data

SET 3618

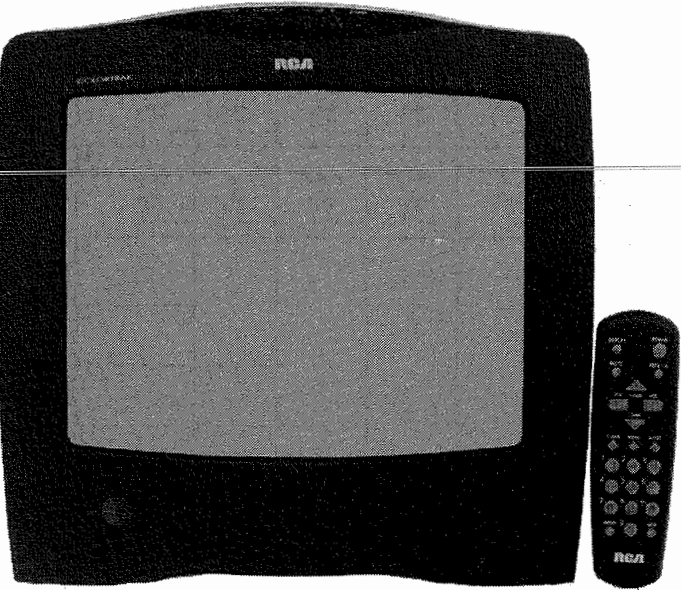
MODEL E13331BCF25 (CHASSIS TX826ZD)

RCA

INDEX

GridTrace Location  
CRT Board ..... 3  
Main Board ..... 4  
High Voltage Shutdown Test ..... 1  
IC Functions ..... 1  
Important Parts Information ..... 1  
Parts List ..... 1  
Placement Chart ..... 3  
Safety Precautions ..... 1  
Schematics  
Power Supply ..... 2  
Remote Transmitter ..... 2  
System Control ..... 2  
Television ..... 2  
Tuner ..... 3  
Schematic Notes ..... 2  
Test Equipment ..... 1  
Tuner Information ..... 1

RCA  
Model E13331BCF25 (Chassis TX826ZD)



Essential coverage  
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

Coverage includes these additional models and chassis:

MODEL	CHASSIS
E13331BKCF25/F25	TX826ZD
E13333WHF25	TX826ZD



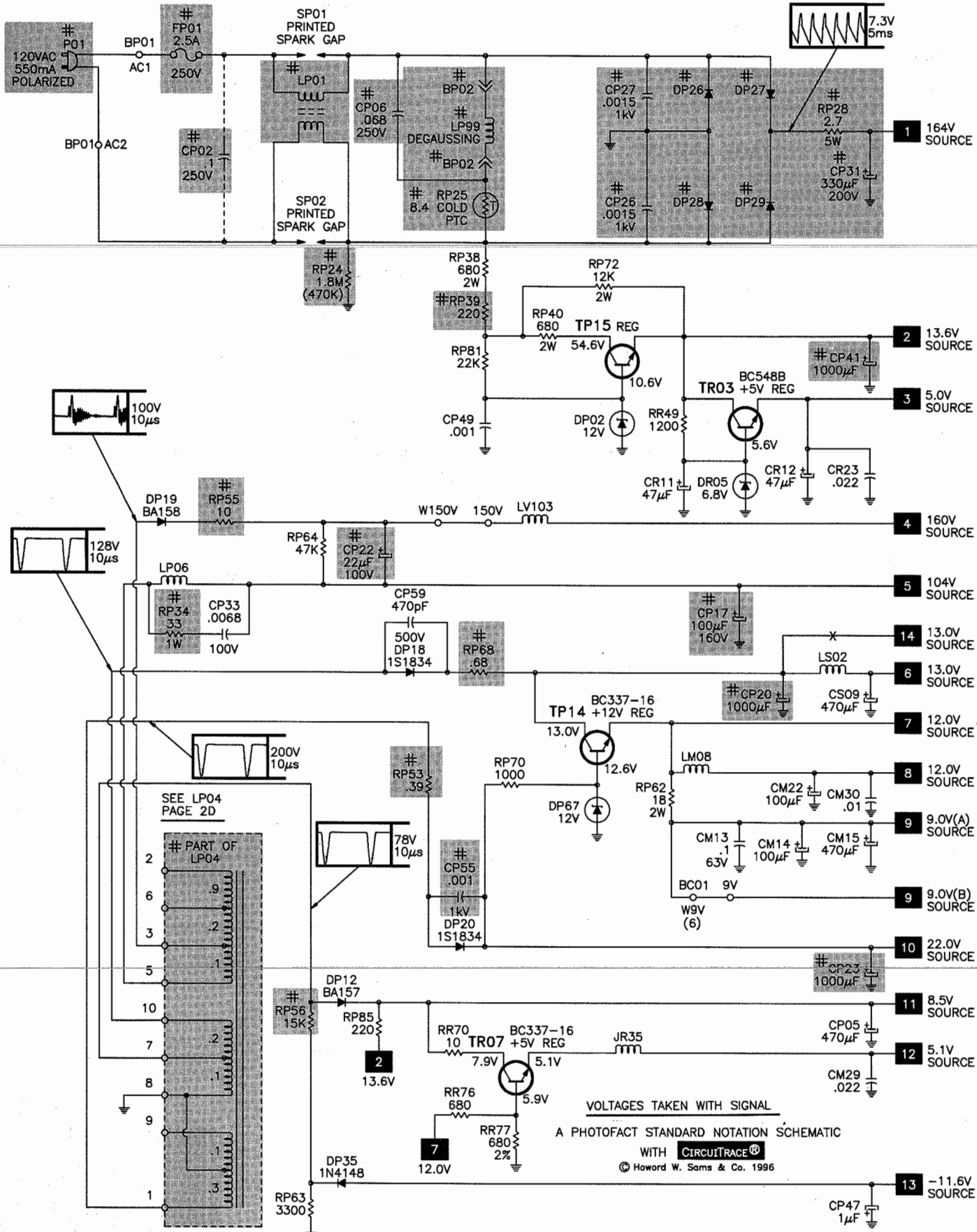
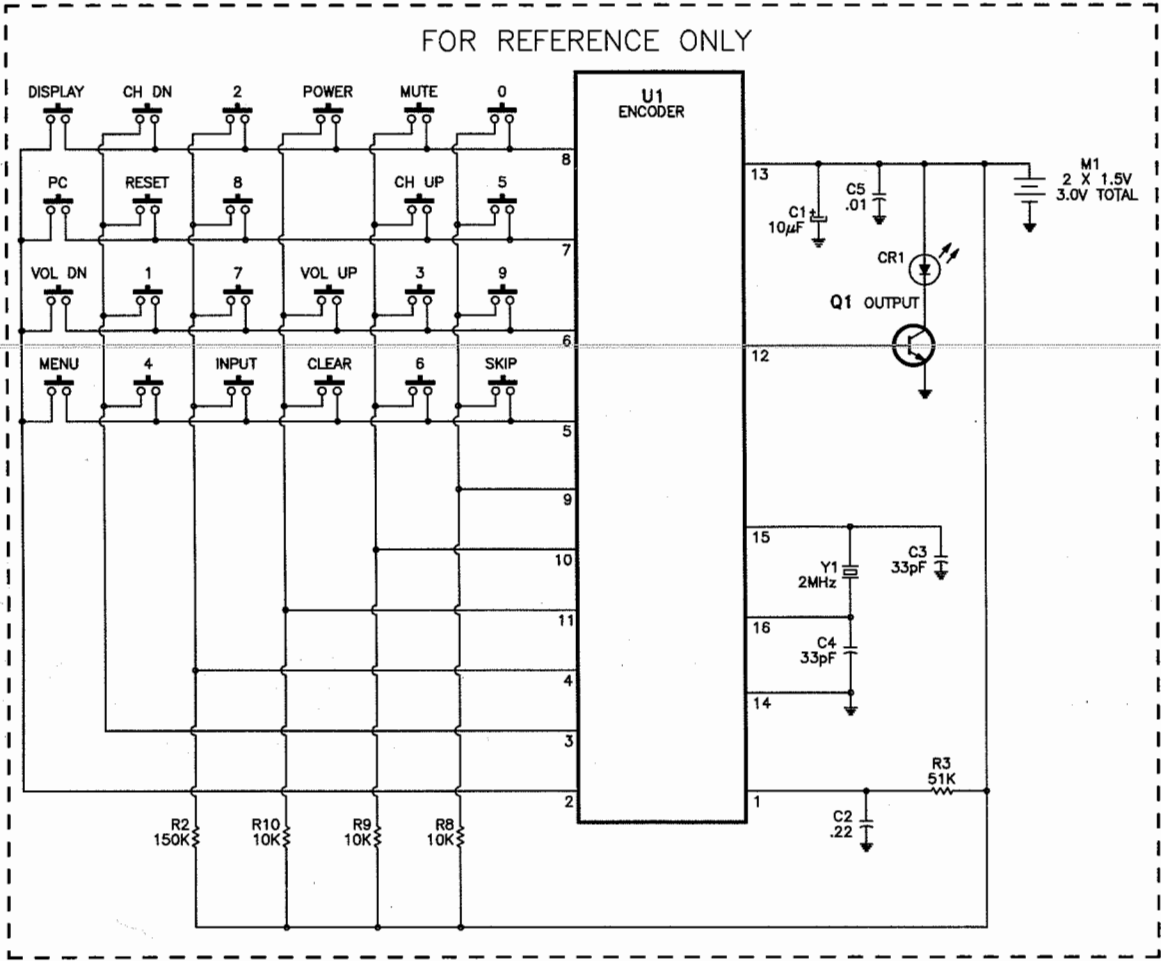
HOWARD W. SAMS & COMPANY

FEBRUARY 1996 SET 3618

For Supplier Address,  
See PHOTOFACT Annual Index

REMOTE TRANSMITTER SCHEMATIC

POWER SUPPLY SCHEMATIC



SCHEMATIC NOTES

# For SAFETY use only equivalent replacement part, see parts list.

\* Circuitry not used in some versions.

--- Circuitry used in some versions.

⬇ Ground

⬆ Chassis ground

⬇ Common tie point

△ Taken from common tie point

3 Schematic CIRCUITRACE®: Voltage source tie point.

A Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless noted otherwise.

Waveforms taken with triggered scope and colorbar signal.

Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.

Supply voltages maintained as seen at input.

Voltages measured with digital meter and a 1000µV RF signal, with colorbar pattern, applied to antenna terminal.

Controls adjusted for normal operation.

Capacitors are 50 volts or less, 5% or greater unless noted.

Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.

Resistors are 1/2W or less, 5% or greater unless noted.

Value in ( ) used in some versions.

Measurements with switching as shown, unless noted.

Rated voltage shown on zener diodes.

PARTS LIST continued

TUNER INFORMATION

IC FUNCTIONS

COILS & TRANSFORMERS

Item No.	Function/Rating	Mfr. Part No.
# DY1 (1)	Yoke -	198805
# DY1 (2)	Yoke -	204903
# DY1 (3)	Yoke Horiz 2.1mH Vert 23.7mH	-
JR35	100μH	220641
LM02	Sound Detector	198613
LM03	Video Detector	206385
LM04	.82μH	198615
LM07	Filter	210787
LM08	47μH	198617
# LP01	Line Filter	228335
LP02	6μH	198619
# LP03	Switch Mode	220642
# LP04 (4)	Horizontal Output	198622
# LP05	112μH	198623
	90μH	205416
LP06	50μH	198624
LP11, 12	Ferrite Bead	224167
LP13	6μH	198619
# LP99	Degaussing	198807
LR01	35μH	205430
LS02	47μH	198617
# LS03	Earphone	198801
LT01	Ferrite Bead	220643
LV01	1.5μH	198783
LV02	12μH	198782
LV103	150μH	210247

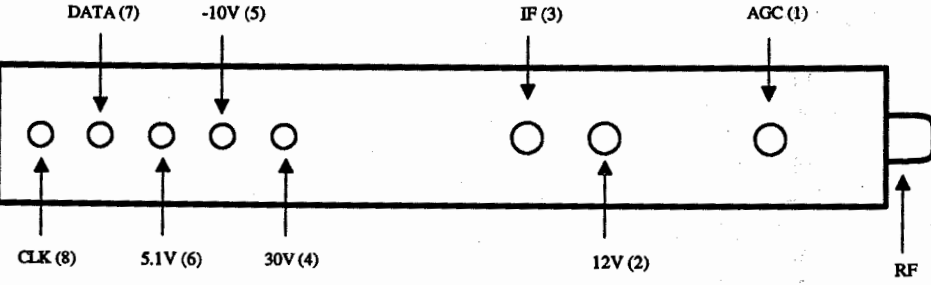
# For SAFETY use only equivalent replacement part.  
(1) Used with CRT A34JLN60X.  
(2) Used with CRT 370KSB22.  
(3) Used with CRT A34JLN90X.  
(4) Focus and screen controls are part of LP04.

TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
AGC	4.3V	4.2V	5.1V
12V	12.0V	12.0V	12.0V
IF	0V	0V	0V
30V	33.0V	33.0V	33.0V
-10V	-11.5V	-5.5V	-11.5V
5.1V	5.1V	5.1V	5.1V
DATA	5.2V	5.2V	5.2V
CLK	5.2V	5.2V	5.2V

NOTE: VHF Low Band voltages taken on channel 2.  
VHF High Band voltages taken on channel 7.  
UHF Band voltages taken on channel 14.

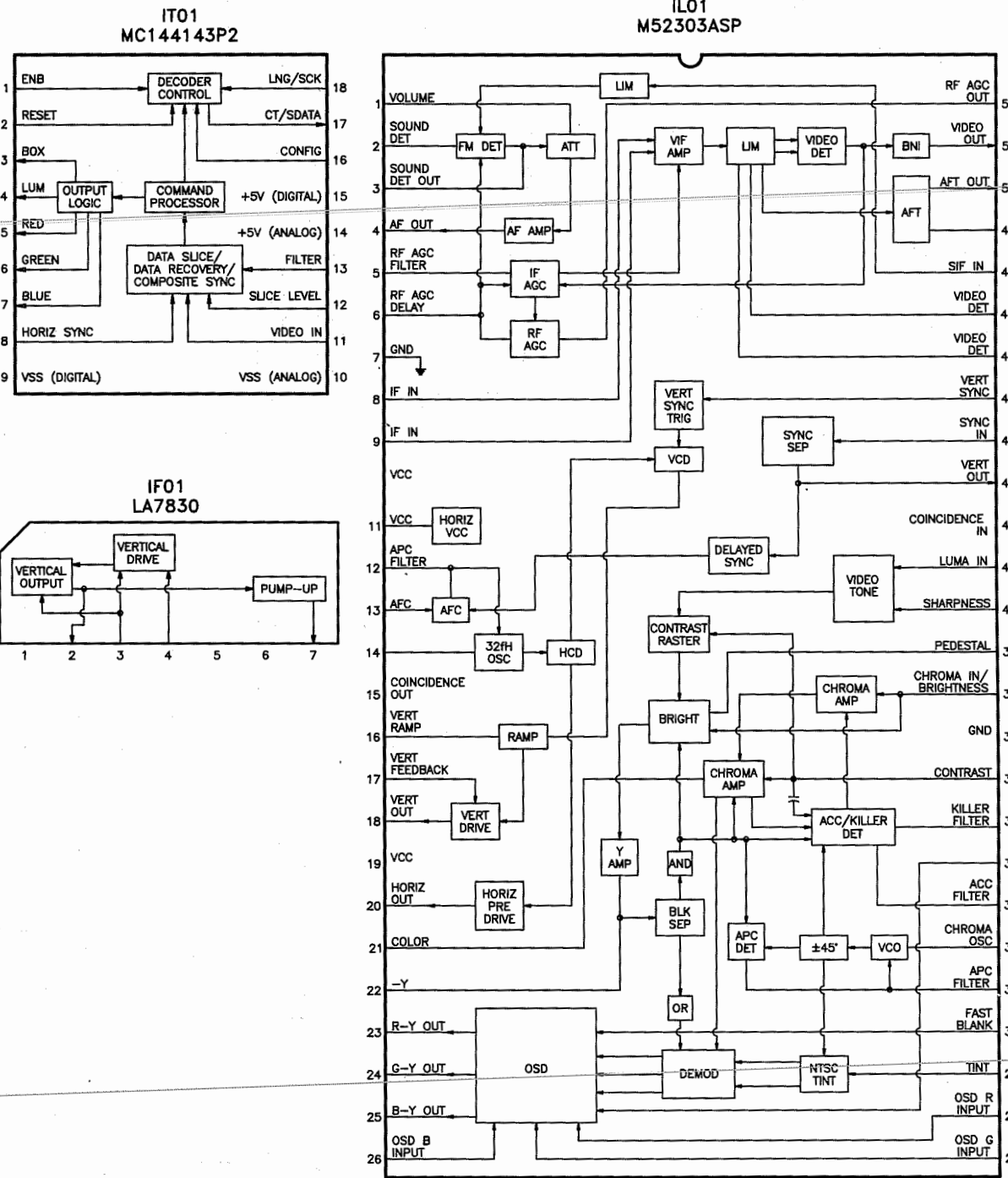
TUNER TERMINAL GUIDE



TEST EQUIPMENT

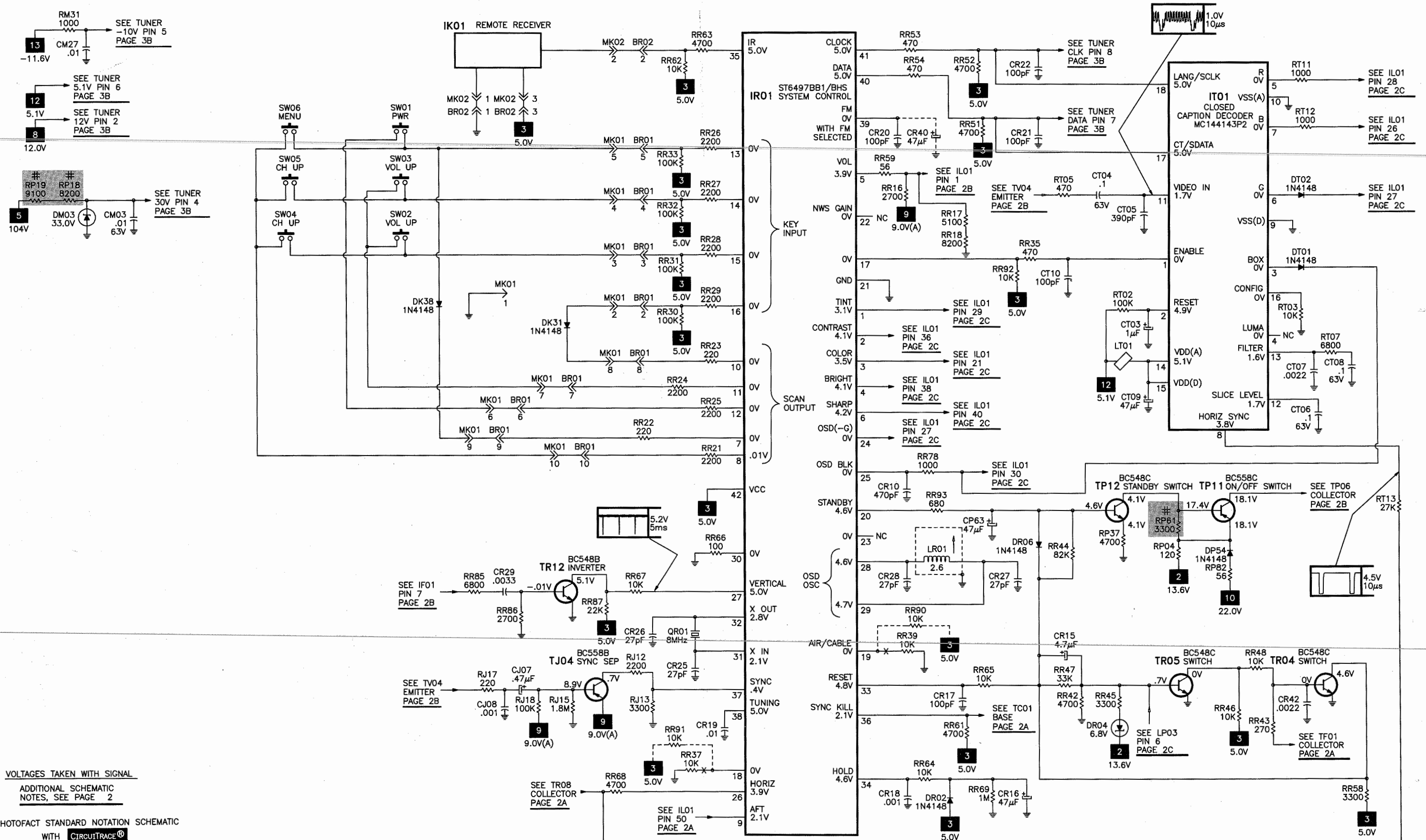
Test equipment listed by participating manufacturer illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.

Equipment	Sencore No.	Equipment	Sencore No.
Oscilloscope	SC3100	Isolation Transformer	PR57
Generators		Capacitance Analyzer	LC101, LC102
RGB	CM2000	CRT Analyzer	CR70
Multiburst Signal	VG91	AC Leakage Tester	PR57
Color Bar	VG91	Inductance Analyzer	LC101, LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	SC3100	TV Stereo Power Monitor	SR68, PA81
Frequency Meter	SC3100	Field Strength Meter	SL750
Hi-Voltage Probe	HP200	Transistor Tester	TF46
Accessory Probes	TP212	Video Analyzer	VG91, TVA92



RCA  
MODEL E1331BCF25 (CHASSIS TX826ZD)

# SYSTEM CONTROL SCHEMATIC





PARTS LIST

**Important Parts Information**

- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

**Obtaining Parts**

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

800-428-7267

Or consult the Sams *Annual Index* for the address of the original equipment manufacturer.

**Participating Vendors**


Information on test equipment and replacement parts is listed in these pages for the following participating vendors. Consult the Sams *Annual Index* for their current address.

- Custom Components Corporation (Chek-A-Color)
- NTE Electronics, Inc. (NTE)
- Philips ECG Company (ECG)
- PTS Electronics Corporation (PTS)
- Sencore, Inc.
- Thomson Consumer Electronics, Inc. (SK, TCE)

SEMICONDUCTORS					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
DC01	1N4148	198589	NTE519	ECG519	SK3100
DF04	-	198597	NTE116	ECG116	SK3313
DK31	1N4148	198589	NTE519	ECG519	SK3100
DK38	1N4148	198589	NTE519	ECG519	SK3100
DM03	-	198600	-	-	-
DP02	-	220637	-	-	-
DP04, 05	1N4148	198589	NTE519	ECG519	SK3100
# DP06	-	223083	-	-	-
DP10	-	225441	-	-	-
DP11	1S1834	210226	NTE552	ECG552	SK9000
DP12	BA157	198590	NTE558	ECG558	SK3998
# DP13	-	198596	-	-	-
DP14	1S1834	210226	NTE552	ECG552	SK9000
DP15, 16	1N4001	198597	NTE116	ECG116	SK3313
DP18	1S1834	210226	NTE552	ECG552	SK9000
	BA158	198598	NTE558	ECG558	SK3998
DP19	BA158	198598	NTE558	ECG558	SK3998
DP20	1S1834	210226	NTE552	ECG552	SK9000
DP21	1N4001	198597	NTE116	ECG116	SK3313
# DP26 Thru					
# DP29	-	209919	NTE125	ECG125	SK3032A
DP35, 37	1N4148	198589	NTE519	ECG519	SK3100
DP46, 54	1N4148	198589	NTE519	ECG519	SK3100
DP67	-	220637	-	-	-
DP75	BA157	198590	NTE558	ECG558	SK3998
DP76, 77, 78	1N4148	198589	NTE519	ECG519	SK3100
DR02	1N4148	198589	NTE519	ECG519	SK3100
DR04, 05	-	220638	-	-	-
DR06, 07	1N4148	198589	NTE519	ECG519	SK3100
DT01, 02	1N4148	198589	NTE519	ECG519	SK3100
DV52	-	220638	-	-	-
# DX01	1N4148	198589	NTE519	ECG519	SK3100
# DX02	-	159429	NTE5019T1	ECG5019T1	SK9970
# DX03	1N4148	198589	NTE519	ECG519	SK3100
IF01	LA7830	188086	NTE1773	ECG1773	SK9752
IL01	M52303ASP	210543	-	-	-
IR01	ST6497BB1/BHS	227722	-	-	-
IT01	MC144143P2	220114	-	-	-
TC01	BC548B	198743	NTE123AP*	ECG123AP*	SK3854*
TF01	BC548C	198746	NTE199*	ECG199*	SK3245*
TJ04	BC558B	198745	NTE159*	ECG159*	SK3466*
TM02	-	206017	-	-	-
TP01	BC548C	198746	NTE199*	ECG199*	SK3245*
TP02	BC558C	198747	NTE159*	ECG159*	SK3466*
# TP03	BC548C	198746	NTE199*	ECG199*	SK3245*
TP04	BC558C	198747	NTE159*	ECG159*	SK3466*
TP05, 06	BC548C	198746	NTE199*	ECG199*	SK3245*
TP09	BC337-16	216099	NTE123AP*	ECG123AP*	SK3854*
TP10	S2000AF	227518	-	ECG2354%	-
	S2000A3	198794	-	ECG2354%	-
# For SAFETY use only equivalent replacement part.					
* Lead configuration may vary from original.					
% Use Insulating hardware supplied with replacement.					

SEMICONDUCTORS continued					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
TP11	BC558C	198747	NTE159*	ECG159*	SK3466*
TP12	BC548C	198746	NTE199*	ECG199*	SK3245*
TP13	BD434	220673	NTE153	ECG153	SK3274
TP14	BC337-16	216099	NTE123AP*	ECG123AP*	SK3854*
TP15	-	198752	-	-	-
TR03	BC548B	198743	NTE123AP*	ECG123AP*	SK3854*
TR04, 05	BC548C	198746	NTE199*	ECG199*	SK3245*
TR07	BC337-16	216099	NTE123AP*	ECG123AP*	SK3854*
TR08, 10, 12	BC548B	198743	NTE123AP*	ECG123AP*	SK3854*
TS02	BC548A	220674	NTE199*	ECG199*	SK3245*
TS03	BC337-16	216099	NTE123AP*	ECG123AP*	SK3854*
TS04	BC327-25	220675	NTE298	ECG298	SK3450
TS05	BC548A	220674	NTE199*	ECG199*	SK3245*
TV04, 05, 50	BC558B	198745	NTE159*	ECG159*	SK3466*
TV101, 02, 03	BF392	198763	NTE287	ECG287	SK3433
* Lead configuration may vary from original.					
% Use Insulating hardware supplied with replacement.					

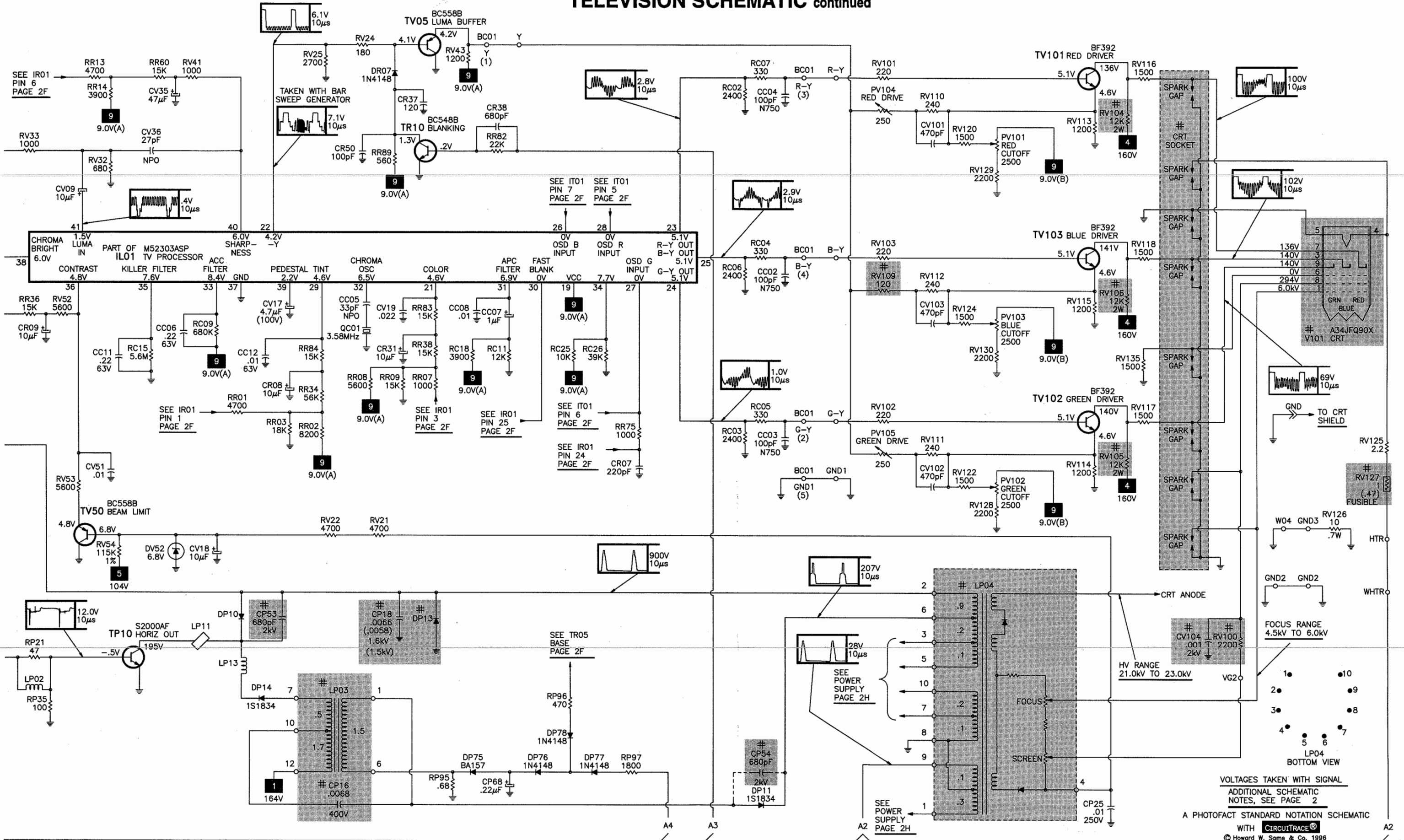
CABINET PARTS	
Item	Mfr. Part No.
MODEL E13331BCF25/BKC25/BKF25	
Buttons	229024
# Cabinet Front	MK1835
# Cabinet Rear	BK1836
IR Window	228274
MODEL E13333WHF25	
Buttons	229021
# Cabinet Front	MK1831
# Cabinet Rear	BK1832
IR Window	228274
# For SAFETY use only equivalent replacement part.	



Created with pride by the employees of Howard W. Sams & Company.

J. Barker, N. Beck, B. Bryant,  
B. Buchanan, T. Clensy,  
D. Cobb, G. Farrell, B. Fink,  
M. Herkless, J. Kocha,  
F. Malek, B. Medaris,  
R. Raus, B. Skinner

TELEVISION SCHEMATIC continued



VOLTAGES TAKEN WITH SIGNAL  
ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCUITACE®  
© Howard W. Sams & Co. 1996

## PARTS LIST continued

## CONTROLS &amp; RESISTORS

Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
PF01	500 Vertical Size	198627	
PM01	10K AGC	198628	
# PP01	1000 B+	198629	
PP02	150 Centering	225631	
PV101	2500 Red Cutoff	216051	
PV102	2500 Green Cutoff	216051	
PV103	2500 Blue Cutoff	216051	
PV104	250 Red Drive	216052	
PV105	250 Green Drive	216052	
# RF01	2.7 5% 1/2W	198648	HW2D7
RF05	68.1K 1% .16W	198790	-
# RF15	22K 5% .16W	198714	-
# RP06	220 5% 1/4W	209917	QW122
# RP07	6810 1% .16W	220649	-
# RP08	110K 1% .4W	220650	-
RP12	82.5K 1% .16W	220651	-
# RP18	8200 5% 1/4W	175366	QW282
# RP19	9100 5% 1/4W	829291	QW291
# RP23	5.6 5% 2W	220652	2W5D6
# RP24	1.8M 10% 1/2W	220333	HW518
	470K 10% 1/2W	-	HW447
# RP25	8.4 Cold PTC	198688	-
# RP28	2.7 10% 5W Wirewound	220653	5W2D7
# RP32	1000 10% 1/2W	206386	HW210
# RP34	33 5% 1W	198695	1W033
# RP39	220 5% .43W	220656	-
# RP53	.39 5% 1/4W	198701	-
# RP55	10 5% .35W	210185	-
# RP56	15K 5% 1/4W	198703	QW315
# RP59	100 5% .16W	198660	-
# RP61	3300 5% .16W	198638	-
# RP68	.68 5% .4W	216049	-
RR77	680 2% .16W	220665	-
# RS07	270 5% 1/4W	220648	QW127
RV54	115K 1% 1/4W	210194	-
# RV100	2200 5% 1/2W	176632	HW222
# RV104, 05, 06	12K 5% 2W	183193	2W312
# RV109	120 5% 1/4W	210196	QW112
# RV127	1 5% 1/4W Fusible	-	-
	.47 5% 1/4W Fusible	220672	-
RX02	10K 1% 1/4W	198739	-
# RX03	9090 1% 1/2W	198740	-
# RX04	2200 5% .16W	198698	-
# RX05	100 5% .16W	198660	-
# RY01	680 5% .43W	175364	-

# For SAFETY use only equivalent replacement part.

## CAPACITORS &amp; ELECTROLYTICS

Item No.	Rating	Mfr. Part No.
CC02, 03, 04	100pF 5% 50V N750	198579
CC05	33pF 5% 50V NPO	210153
# CF01	470μF 20% 25V	220623
CM16	8.2pF 10% 50V NPO	202047
CM18	68pF 5% 50V N750	198554
CM19	47pF 5% 50V N750	198555
# CP02 (1)	.1 20% 250V	220625
# CP06	.068 20% 250V	220627
# CP16	.0068 10% 400V	225439
# CP17	100μF 20% 160V	194728
# CP18 (2)	.0066 1.6kV	198562
# CP18 (3)	.0058 1.5kV	220796
# CP20	1000μF 20% 16V	185862
# CP22	22μF 20% 100V	210156
# CP23	1000μF 20% 25V	190721
# CP26, 27	.0015 10% 1kV	198565
# CP31	330μF 20% 200V	182286
# CP40	.36 5% 250V	198567
# CP41	1000μF 20% 25V	190721
# CP53	680pF 2kV	225440
# CP54 (1)	680pF 2kV	225440
# CP55	.001 1kV	198570
CS02	390pF 5% 50V N750	220630
# CS06	.1 10% 63V	220631
# CV104	.001 10% 2kV	198806
CV36	27pF 5% 50V NPO	220634
# CX02	.1 10% 63V	198551

# For SAFETY use only equivalent replacement part.

(1) Used in some versions.

(2) Used with CRT 370KSB22.

(3) Used with CRT A34JLN60X.

## MISCELLANEOUS

Item No.	Description	Mfr. Part No.	Notes
# ES01	Jack	198802	Earphone
# FP01	Fuse	198605	2.5Amp, 250V, Slow Blow
IK01	Receiver	225032	Remote
# P01	Line Cord	198540	AC, Polarized
# P01 (4)	Line Cord	229022	AC, Polarized
QC01	Filter	198630	3.58MHz
QL01	Crystal	198633	500kHz
QM01	Filter	210250	SAW
QM02	Filter	210239	4.5MHz
QR01	Crystal	210549	8MHz
QV01	Filter	205431	4.5MHz
SP1	Speaker	198787	3" X 1 1/2", 16 Ohm, 2W
SW01	Switch	220107	Power
SW02	Switch	220107	Volume Up
SW03	Switch	220107	Volume Down
SW04	Switch	220107	Channel Up
SW05	Switch	220107	Channel Down
SW06	Switch	220107	Menu
# V101	CRT	A34JFQ90X	-
	CRT	A34JLN60X	-
	CRT	370KSB22	-
VV01	Delay Line	198753	-
#	Adapter	196983	Antenna 75 To 300 Ohms
	Magnet (2)	196283	Beam Bending
	Magnet (3)	179805	Beam Bending
	PC Board (1)	223147	CRT
	PC Board (1)	216189	Earphone
#	Socket	224146	CRT
	Transmitter	226551	Remote
	Transmitter (4)	228007	Remote
	Tuner (1)	223080	UHF/VHF (MTP-M-4006)
	Wedges (2)	149903	Yoke Positioning (3 Used)
	Wedges (3)	161019	Yoke Positioning (3 Used)

# For SAFETY use only equivalent replacement part.

(1) Contact PTS Electronics Corporation for replacement; order by manufacturer's part number.

(2) Used with CRT 370KSB22.

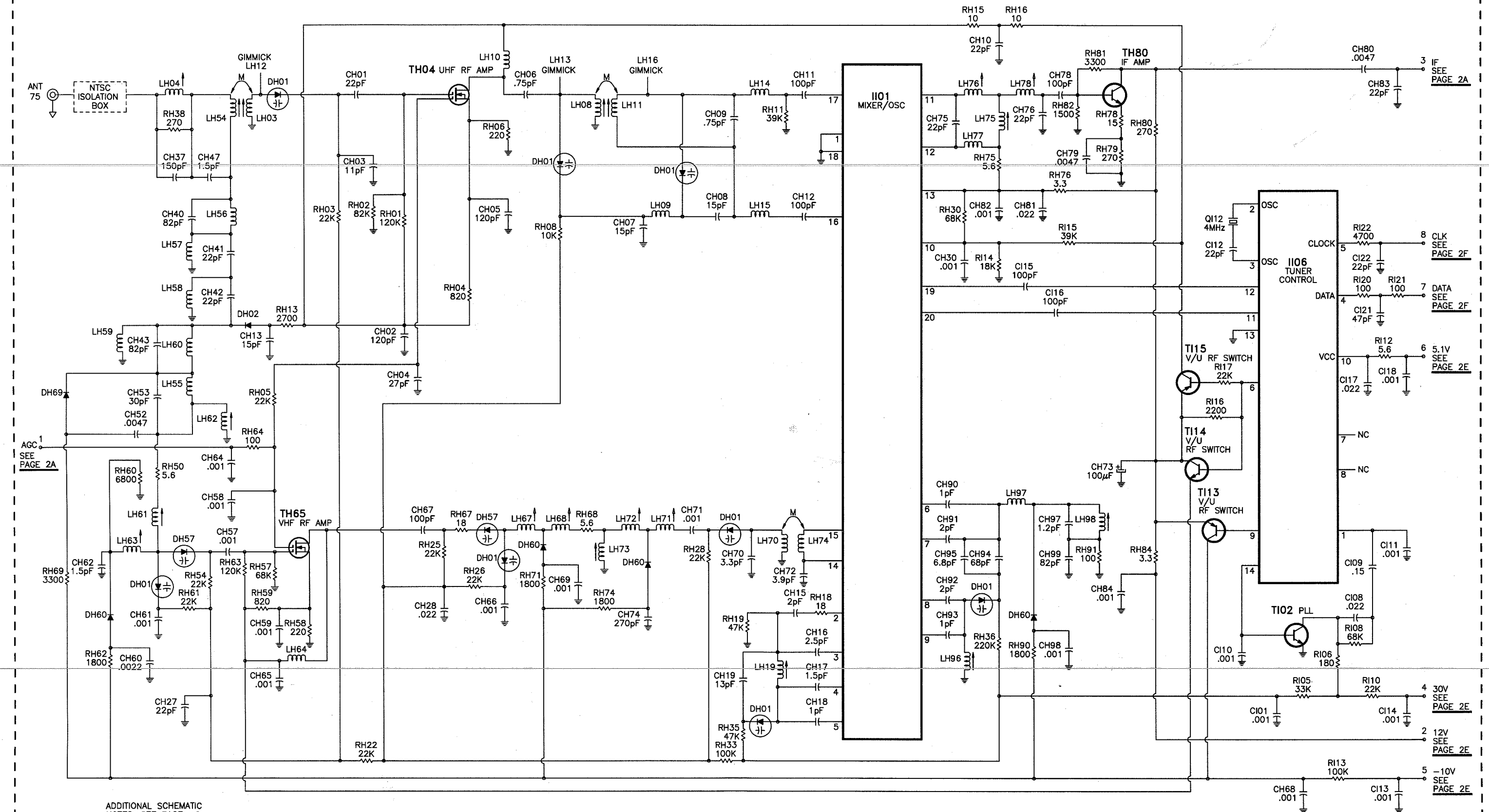
(3) Used with CRT A34JLN60X.

(4) Used in model E13333WHF25 only.





## TUNER SCHEMATIC

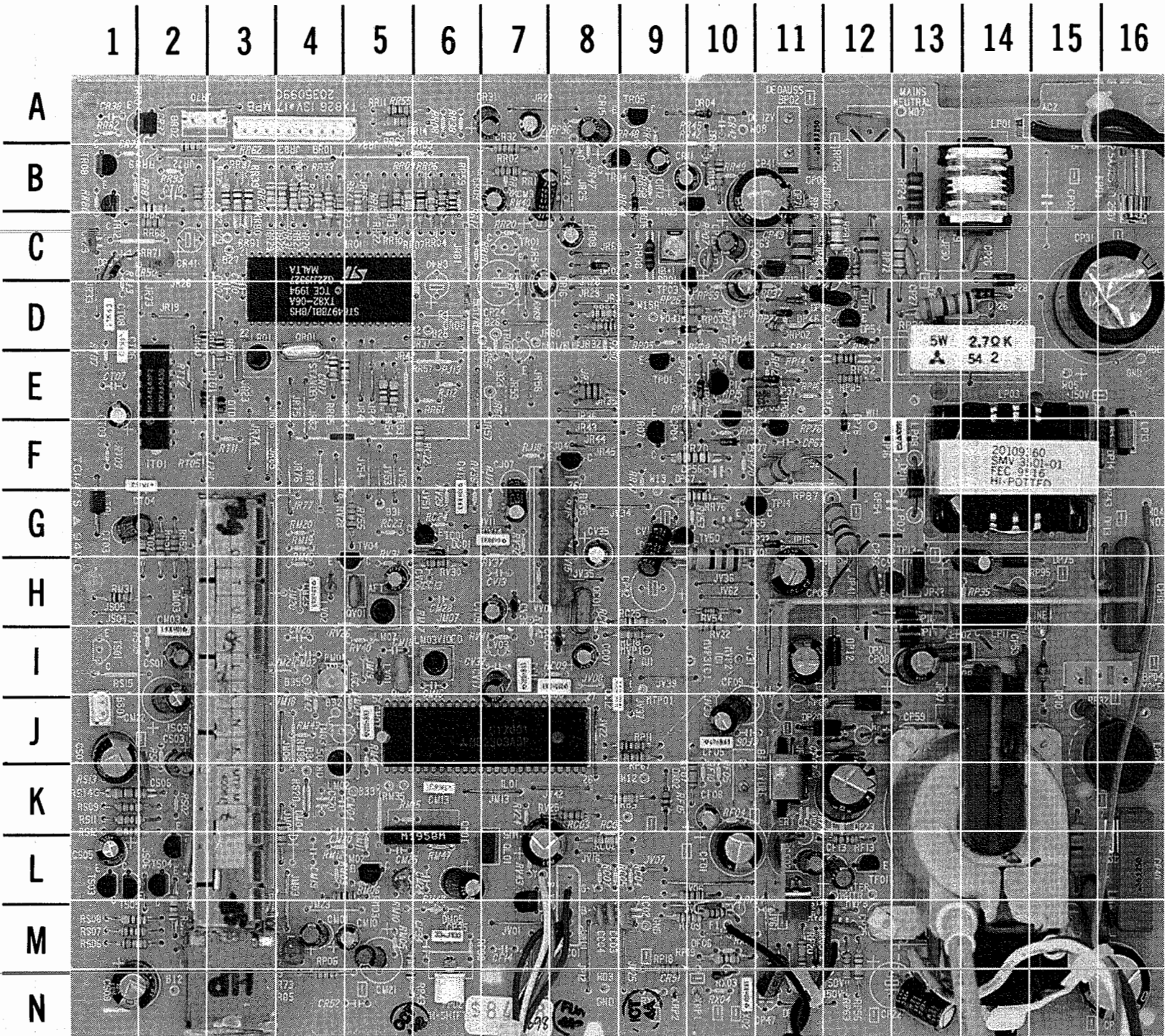


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2

### A PHOTOFAC T STANDARD NOTATION SCHEMATIC

© Howard W. Sams & Co. 1996

MAIN BOARD - TOP VIEW



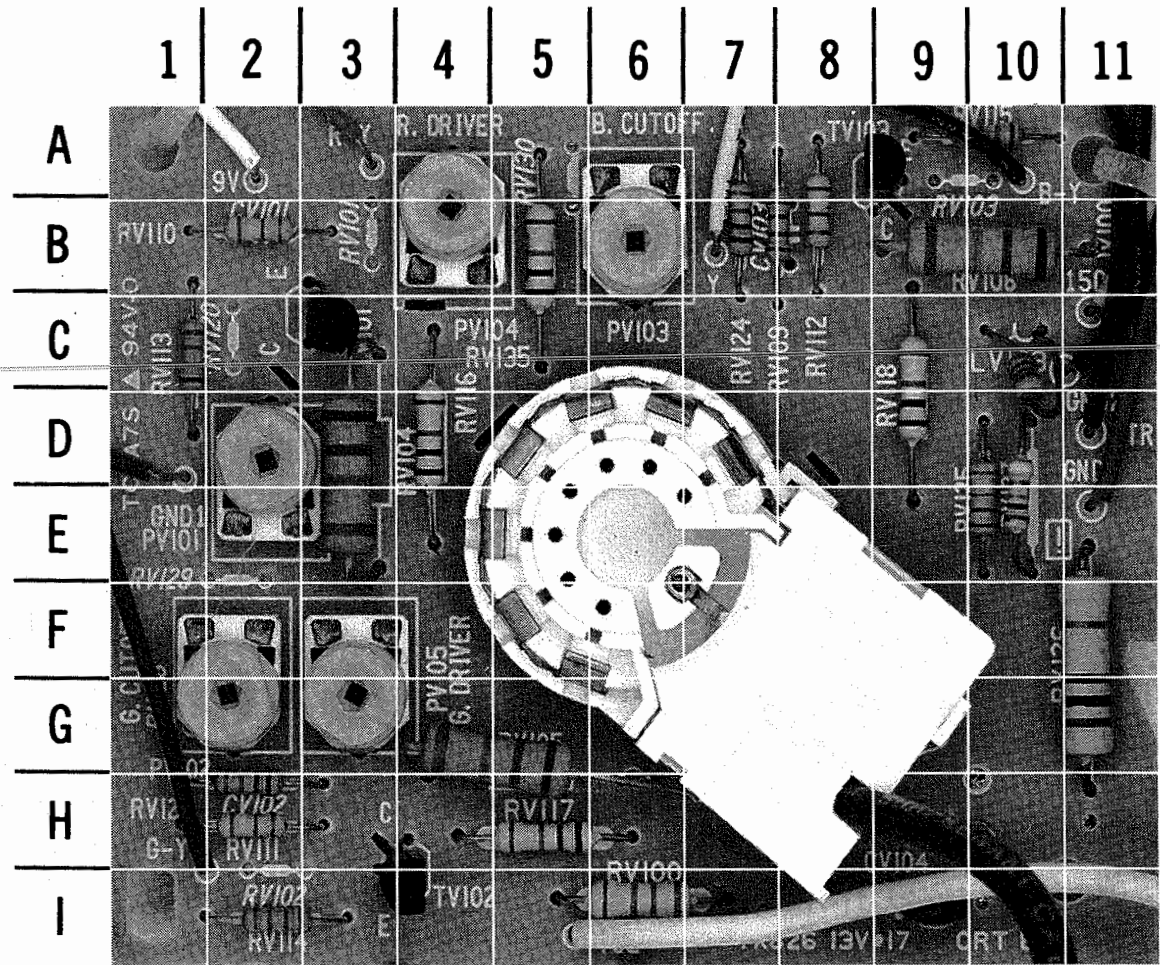
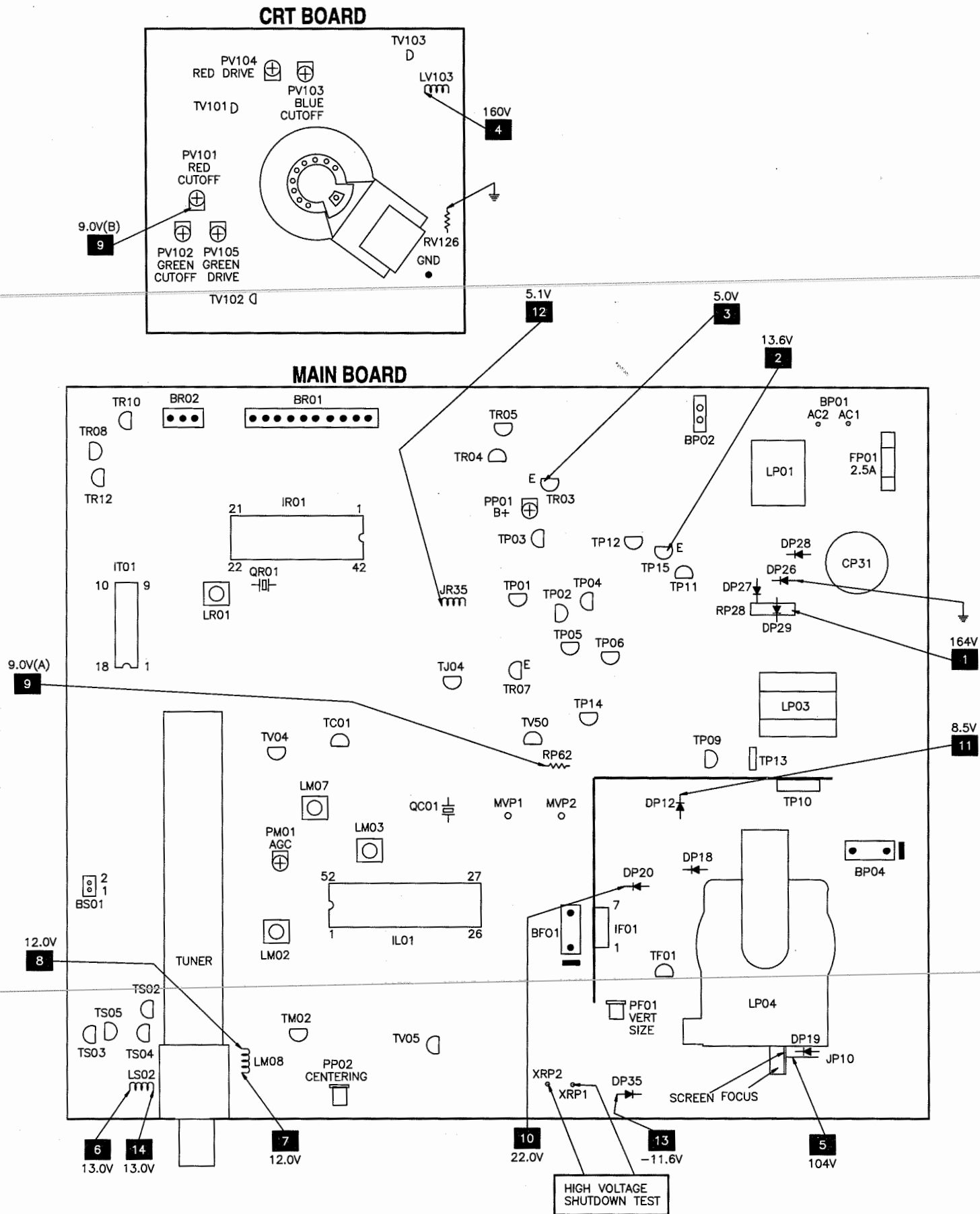
A HOWARD W. SAMS GRIDTRACE™ PHOTO

MAIN BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

BF01	K-10	CR31	A-7	IF01	K-11	RP40	C-11	RV22	I-10
BP02	A-11	CR32	A-7	IL01	J-5	RP43	M-5	RV25	K-8
BP04	I-15	CS01	I-2	IR01	C-5	RP53	J-12	RV28	G-5
BR01	A-3	CS02	L-2	IT01	F-2	RP55	N-14	RV30	H-6
BR02	A-2	CS03	J-2	JR35	E-8	RP56	N-12	RV52	D-8
BS01	J-1	CS05	L-1	JV17	L-10	RP62	H-10	RV54	H-10
CC05	I-8	CS06	K-2	LM02	J-4	RP63	N-12	RX03	N-10
CC06	I-8	CS07	J-1	LM03	I-6	RP67	J-9	TC01	G-6
CC07	I-8	CS09	N-1	LM04	L-5	RP68	J-11	TF01	L-12
CC11	I-7	CT03	G-2	LM07	H-5	RP72	C-13	TJ04	F-8
CC12	I-8	CT04	F-2	LM08	M-4	RP81	C-12	TM02	L-5
CF01	L-10	CT06	D-1	LP01	B-14	RP82	E-12	TP01	E-9
CF02	L-11	CT08	D-1	LP02	I-13	RP85	E-12	TP02	E-10
CF05	J-10	CT09	E-1	LP03	F-14	RP87	F-11	TP03	C-10
CF08	K-10	CV06	H-5	LP04	K-14	RP95	H-14	TP04	E-10
CF09	J-10	CV09	H-7	LP05	J-16	RR01	B-6	TP05	E-10
CF13	L-12	CV12	G-6	LP06	M-15	RR02	B-7	TP06	F-11
CJ07	G-7	CV14	G-7	LP11	H-14	RR04	B-6	TP09	H-13
CM01	M-4	CV17	I-7	LP12	E-10	RR07	B-6	TP10	H-14
CM03	J-2	CV18	G-9	LP13	F-16	RR10	B-5	TP11	D-12
CM07	J-5	CV35	G-8	LR01	E-3	RR11	A-11	TP12	C-11
CM10	M-5	CV36	H-7	LS02	M-2	RR13	B-5	TP13	H-13
CM13	K-6	CX02	N-10	LT01	G-1	RR14	A-5	TP14	G-11
CM14	L-6	DC01	G-6	LV01	L-5	RR16	B-7	TP15	C-12
CM15	L-7	DF04	K-11	LV02	H-4	RR21	B-5	TR03	B-10
CM21	M-5	DM03	H-2	MVP(D)	I-10	RR22	B-5	TR04	B-9
CM22	J-2	DP02	C-12	MVP(U)	I-9	RR23	B-4	TR05	A-9
CM23	H-4	DP04	D-10	PF01	M-11	RR24	B-4	TR07	F-9
CM34	B-7	DP05	E-10	PM01	I-4	RR25	B-4	TR08	B-1
CP01	D-10	DP06	D-11	PP01	C-9	RR26	B-4	TR10	A-2
CP03	E-11	DP10	I-15	PP02	N-6	RR27	B-4	TR12	B-1
CP04	F-10	DP11	F-13	QC01	H-8	RR28	B-4	TS02	L-2
CP05	H-11	DP12	I-12	QL01	L-7	RR29	B-3	TS03	L-1
CP06	A-11	DP13	H-16	QM01	L-6	RR35	B-3	TS04	L-2
CP08	I-13	DP14	F-16	QM02	I-5	RR37	B-3	TS05	L-1
CP13	C-10	DP15	H-13	QR01	D-4	RR39	B-3	TV04	H-5
CP16	F-13	DP16	H-13	QV01	H-5	RR43	B-10	TV05	M-7
CP17	N-16	DP18	J-12	RC02	L-8	RR51	G-2	TV50	G-9
CP18	H-16	DP19	N-15	RC18	I-9	RR52	G-2	VV01	H-8
CP20	I-11	DP20	J-12	RC22	F-6	RR53	E-5	XRP1	N-10
CP22	N-13	DP21	I-13	RC25	H-9	RR54	E-5	XRP2	N-9
CP23	K-12	DP26	D-14	RF01	L-11	RR59	B-6		
CP25	M-12	DP27	D-13	RF07	K-10	RR63	B-2		
CP26	C-14	DP28	C-14	RF09	M-10	RR64	E-5		
CP27	C-13	DP29	D-14	RF12	M-10	RR65	E-4		
CP31	D-16	DP35	N-11	RF13	L-12	RR67	B-2		
CP33	L-16	DP37	E-11	RF20	M-11	RR68	C-2		
CP35	M-6	DP46	D-11	RM03	L-5	RR70	F-10		
CP40	L-16	DP54	D-12	RM31	H-1	RR73	N-3		
CP41	B-11	DP67	F-10	RM99	L-4	RR75	D-3		
CP47	N-11	DP75	H-14	RP02	D-11	RR76	G-10		
CP48	E-11	DP76	F-12	RP03	D-10	RR78	D-2		
CP53	I-14	DP77	F-10	RP04	C-12	RR83	K-9		
CP55	J-12	DP78	C-11	RP06	N-4	RR84	D-8		
CP59	J-12	DR02	C-8	RP08	C-9	RR85	N-3		
CP63	C-10	DR04	A-10	RP11	J-9	RR89	B-2		
CP65	G-10	DR05	B-10	RP18	M-9	RS06	M-1		
CP66	H-12	DR06	B-9	RP19	M-10	RS07	M-1		
CP68	H-14	DR07	C-1	RP23	G-12	RS08	M-1		
CR08	C-8	DT01	E-2	RP24	B-13	RS09	K-1		
CR09	B-7	DT02	E-3	RP25	A-12	RS10	M-2		
CR11	B-9	DV52	H-9	RP28	D-14	RS11	K-1		
CR12	B-9	DX01	G-11	RP32	J-15	RS12	K-1		
CR15	A-8	DX02	K-9	RP34	L-15	RS14	K-1		
CR16	D-7	DX03	M-11	RP38	D-13	RT02	G-2		
CR29	C-1	FP01	B-16	RP39	C-12	RV21	M-12		

## PLACEMENT CHART

## CRT BOARD



A HOWARD W. SAMS GRIDTRACE™ PHOTO

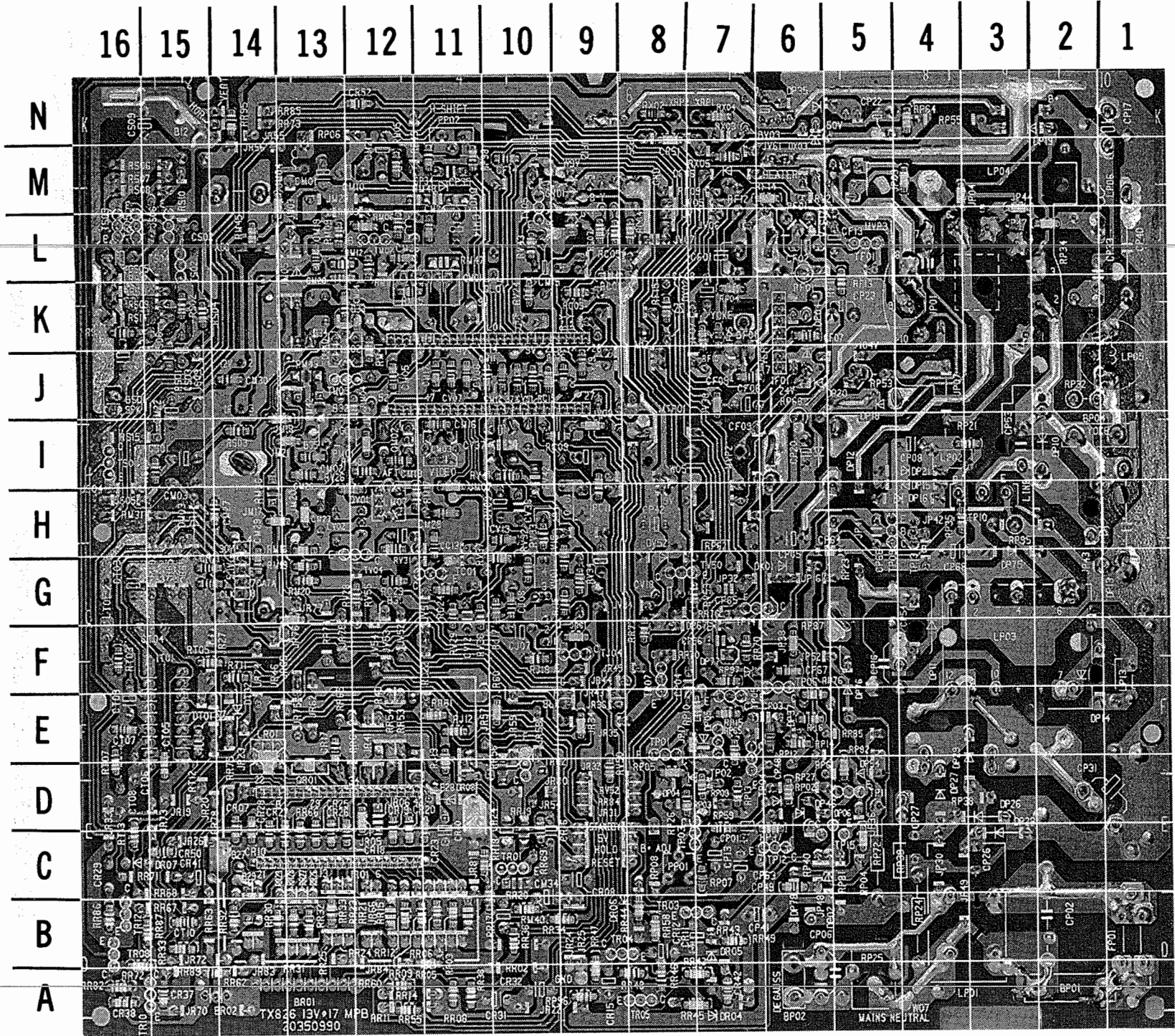
## CRT BOARD, GRIDTRACE LOCATION GUIDE

CV101*	B-2	RV100	I-6	RV112	B-8	RV125	E-10
CV102*	H-2	RV101*	B-3	RV113	C-1	RV126	F-11
CV103*	B-7	RV102*	I-2	RV114	I-2	RV127	E-10
CV104	I-9	RV103*	A-9	RV115	A-10	RV128*	G-1
LV103	C-10	RV104	D-3	RV116	D-4	RV129*	E-2
PV101	D-2	RV105	G-5	RV117	H-5	RV130*	A-5
PV102	G-2	RV106	B-10	RV118	C-9	RV135	B-5
PV103	B-6	RV109	B-8	RV120*	C-2	TV101	C-3
PV104	B-4	RV110	B-2	RV122	H-2	TV102	I-4
PV105	G-3	RV111	H-2	RV124	B-7	TV103	A-9

\* Located on bottom of board



MAIN BOARD - BOTTOM VIEW



A HOWARD W. SAMS GRIDTRACE™ PHOTO

MAIN BOARD - BOTTOM VIEW,  
GRIDTRACE LOCATION GUIDE

CC02	M-9	RC24	G-11	RR42	A-8
CC03	M-8	RC26	J-10	RR44	B-8
CC04	M-8	RF04	K-7	RR45	A-8
CC08	J-9	RF05	K-7	RR46	A-8
CC13	H-11	RF10	K-7	RR47	A-9
CF06	J-7	RF11	K-5	RR48	A-7
CF07	K-6	RF15	K-8	RR49	B-7
CF14	M-10	RJ12	E-11	RR55	A-12
CJ08	G-10	RJ13	E-11	RR58	B-8
CM02	I-13	RJ15	G-9	RR60	A-12
CM04	K-13	RJ17	G-10	RR61	E-11
CM05	J-12	RJ18	F-10	RR62	A-15
CM11	J-10	RM04	J-12	RR66	C-13
CM12	J-10	RM05	M-12	RR69	C-10
CM16	I-11	RM06	L-12	RR72	B-16
CM17	J-11	RM09	L-13	RR77	F-8
CM18	I-12	RM10	L-12	RR82	A-16
CM19	L-13	RM11	L-12	RR86	B-16
CM20	L-13	RM12	L-13	RR87	B-16
CM24	L-11	RM15	K-12	RR92	B-14
CM25	L-12	RM16	H-13	RR93	B-15
CM26	I-13	RM17	H-12	RR95	N-14
CM27	H-14	RM19	G-13	RS02	K-15
CM28	H-11	RM20	G-13	RS03	I-14
CM29	G-14	RM40	B-10	RS04	K-15
CM30	J-14	RM41	J-12	RS05	I-15
CP34	M-11	RM45	L-14	RS13	K-16
CP49	C-6	RP05	D-8	RT03	F-16
CP67	F-6	RP07	C-7	RT05	F-15
CR07	D-14	RP09	D-7	RT07	D-16
CR10	D-14	RP10	E-7	RT11	F-14
CR17	E-13	RP12	E-6	RT12	E-15
CR18	C-13	RP13	D-7	RT13	C-16
CR19	C-12	RP14	E-6	RV24	K-10
CR20	D-12	RP15	E-7	RV26	H-12
CR21	G-15	RP16	E-6	RV29	G-11
CR22	G-22	RP21	I-3	RV31	H-12
CR23	D-11	RP26	D-8	RV32	G-10
CR25	C-13	RP27	D-6	RV33	H-10
CR26	C-13	RP35	H-4	RV34	G-9
CR27	C-14	RP37	C-6	RV36	G-11
CR28	C-14	RP59	C-7	RV37	G-10
CR37	A-15	RP61	D-5	RV40	I-12
CR38	A-16	RP64	N-4	RV41	I-10
CR42	A-7	RP65	E-7	RV43	L-10
CR50	C-15	RP70	F-7	RV50	D-9
CR52	N-12	RP76	E-6	RV53	G-7
CT05	D-15	RP96	A-9	RV55	G-12
CT07	E-16	RP97	F-7	RX02	N-8
CT10	B-15	RP98	M-11	RX04	N-7
CV07	J-11	RR03	B-11	RX05	M-7
CV08	J-11	RR05	B-11		
CV13	H-10	RR06	B-11		
CV15	G-9	RR08	A-11		
CV19	J-9	RR09	B-12		
CV51	J-10	RR12	B-12		
RC03	K-9	RR17	C-11		
RC04	L-8	RR18	C-11		
RC05	L-9	RR30	B-14		
RC06	L-9	RR31	B-13		
RC07	L-9	RR32	B-13		
RC09	I-9	RR33	B-13		
RC11	H-9	RR34	B-9		
RC15	J-10	RR36	B-10		
RC23	G-12	RR38	A-11		

RCA

MODEL E13331BCF25 (CHASSIS TX826ZD)