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 ground 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 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.

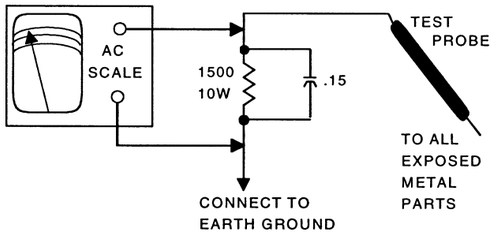
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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

Turn receiver on, adjust customer controls for normal operation. Temporarily apply an external bias of 14.0V to the emitter of QX3002. The receiver should lose raster. If the receiver does not lose raster the shutdown circuit should be repaired. Remove AC power, wait 30 seconds and test for normal operation.

5436 West 78th Street
Indianapolis, IN 46268-4149

Printed in the United States of America 5 4 3 2 1 03PF02083

UPC
HERE

4703

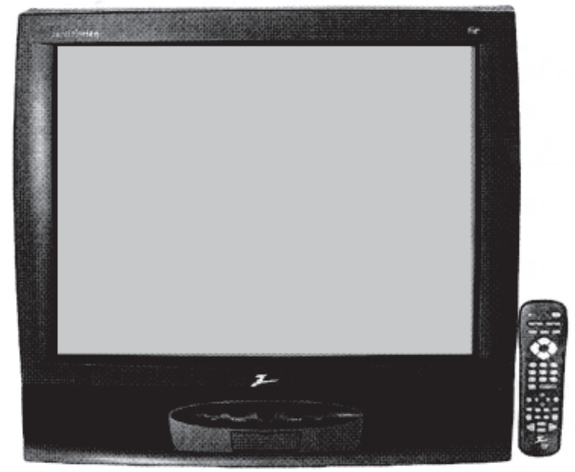
PHOTOFACT® *Technical Service Data*

INDEX

For Supplier Address, See PHOTOFACT Annual Index

ZENITH

Model B27B40Z



Representative Model

Essential coverage for servicing a television receiver...

- **Schematics**
- **Component locations**
- **Parts list**

SAMS Technical Publishing

MARCH 2003 SET 4703

4703

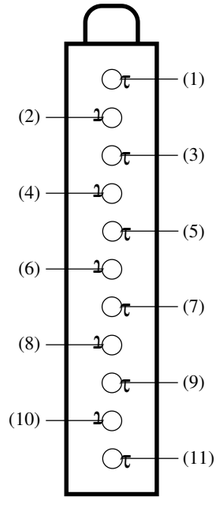
TUNER INFORMATION

MAIN TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	2.2V	2.0V	1.7V
(2) TU	1.2V	4.1V	6.0V
(3) EN/AS	1.2V	1.2V	1.2V
(4) CLK	4.8V	4.8V	4.8V
(5) DATA	4.8V	4.8V	4.8V
(6) 9V	0V	0V	0V
(7) 5V	5.0V	5.0V	5.0V
(8) LOCK	0V	0V	0V
(9) 33V	33.5V	33.5V	33.5V
(10) IF2	0V	0V	0V
(11) IF OUT	0V	0V	0V

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

MAIN TUNER TERMINAL GUIDE

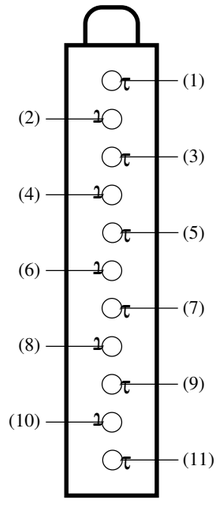


SUB TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	2.3V	2.1V	1.8V
(2) TU	1.2V	4.0V	6.0V
(3) EN/AS	1.2V	1.2V	1.2V
(4) CLK	4.8V	4.8V	4.8V
(5) DATA	4.8V	4.8V	4.8V
(6) 9V	0V	0V	0V
(7) 5V	5.0V	5.0V	5.0V
(8) LOCK	0V	0V	0V
(9) 33V	33.3V	33.3V	33.3V
(10) IF2	0V	0V	0V
(11) IF OUT	0V	0V	0V

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

SUB TUNER TERMINAL GUIDE



MISCELLANEOUS ADJUSTMENTS

This receiver employs digital customer controls which are accessed through the service menu. All adjustments were performed at reset unless otherwise indicated. Record all the data values for all functions in the service menu before making any changes.

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness and color to minimum. Connect a high voltage probe to CRT anode. High voltage should read from 27kV to 29kV.

SERVICE MENU

To access the service menu adjustments by using the remote transmitter keypad, press and hold the menu button until the menu display disappears from the screen. Key in 9, 8, 7, 6, and press the enter button.

To access the service menu adjustments by using the receiver keypad, press the menu button until the display disappears from the screen. Without releasing the menu button simultaneously press the adjust right and channel up buttons.

The receiver is now in service menu mode with function 03 H Pos 16 displayed. The first line on the service menu is a version number of the software used in the receiver. On the bottom is a date the module went through the factory. Use the select up and down buttons to select function. Use the adjust buttons to make changes to selected function. The function 00 F Mode (Factory Mode) is always set to 0. Only the first seven items in the service menu can be brought up. Use the select key to select the 00 F Mode function and change the adjustment to 1, now all the menu items will be accessible.

NOTE: Set value of function 00 F Mode (Factory Mode) to 0 before exiting the service menu mode. If not set to 0 the receiver will not shut off with the remote or power button on the receiver.

HORIZONTAL SIZE

Tune in a crosshatch pattern. Call up service menu, select function 11, set data value for slight overscan on both sides.

RF AGC

Tune in a picture. Adjust R1202 to a point where snow appears in picture, then to a point where snow disappears.

COLOR TEMPERATURE

Tune in a crosshatch pattern. Set brightness, picture, and color to minimum. Call up service menu, select functions 27, 28, and 29, set data values to 0. Adjust data values for functions 30, 31, and 32 of the two least predominate colors to obtain a white pattern. Tune in an active black and white channel and adjust functions 27, 28, and 29 for best white to black tracking at high and low brightness.

COLOR PURITY / CONVERGENCE

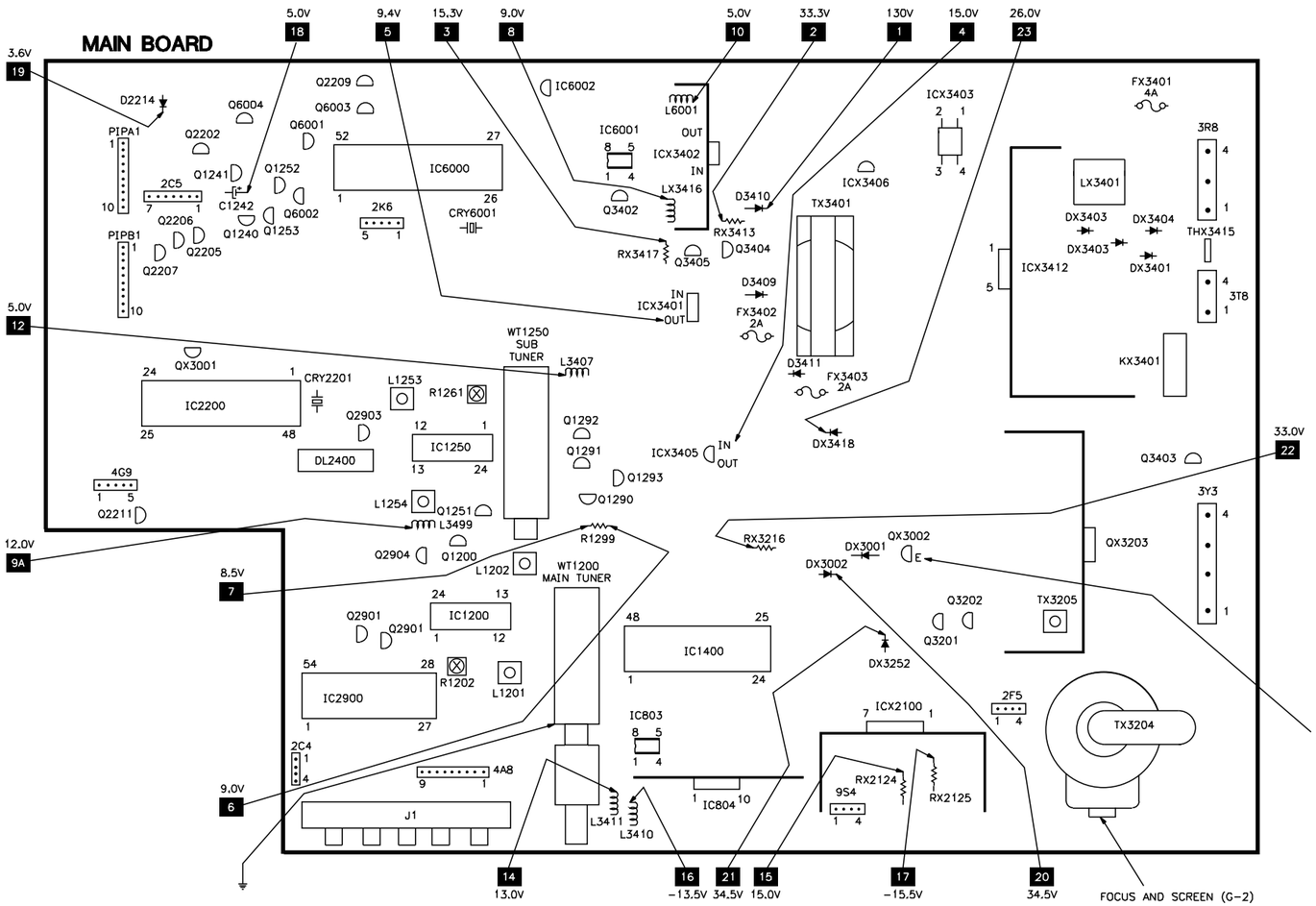
CRT and yoke are bonded. Color purity and convergence adjustments are not recommended.

SERVICE MODE ADJUSTMENT CHART

FUNCTION 221-01389	DATA VALUE	ON-SET VALUE	VALUE RANGE	NOTES
00 F Mode	0	0	0 - 1	Factory Mode. Normal setting is 0, when set to 1, all other functions are accessible.
01 Pre Px	0	1	0 - 1	Stores customer video menu picture preference (P RESET). 0 is custom, 1 is preset stored.
02 V Pos	15	16	0 - 30	Vertical position of On Screen Displays (Menus & Captions).
03 H Pos	42	42	0 - 80	Horizontal position of On Screen Displays (Menus & Captions).
04 Level	1	1	0 - 2	-
05 Band	0	0	0 - 7	This setting depends upon input signal. 0 Broadcast Fixed, 1 CATV AFC, 3 ICC AFC, 4 Broad cast AFC, 5 CATV F ixed, 6 HRC Fixed, 7 ICC Fixed.
06 AC On	0	0	0 - 1	Enables AC Power On feature.
07 RF Brt	15	14	0 - 31	RF Brightness.
08 Ax Brt	15	14	0 - 31	Auxiliary Brightness.
09 Max Con	63	35	0 - 63	Maximum Contrast.
10 V Size	38	24	0 - 63	Vertical Size.
11 H Size	63	31	0 - 63	Horizontal Size.
12 V Phase	42	46	0 - 63	Vertical Phase.
13 H Phase	0	13	0 - 63	Horizontal Phase.
14 H Osc	7	9	0 - 31	Horizontal Osc.
15 S Corr	7	7	0 - 31	S Correction.
16 V Linea	7	7	0 - 15	Vertical Linearity.
17 Pin Amp	63	23	0 - 63	Pin Amp.
18 C Pin	63	30	0 - 63	Corner Pin.
19 Trapez	15	7	0 - 15	Trapezium.
20 EHT Com	7	15	0 - 15	EHT Comp.
21 AFC Bow	7	7	0 - 15	AFC Bow.
22 AFC Ang	7	7	0 - 15	AFC Angle.
23 Up V Lin	6	6	0 - 15	Upper Vertical Linearity.
24 Lo V Lin	0	0	0 - 15	Lower Vertical Linearity.
25 AFC G	1	0	0 - 3	AFC Gain.
26 EWDC	1	0	0 - 1	EWDC.
27 R Cut	0	8	0 - 15	Red Cutoff.
28 G Cut	0	1	0 - 15	Green Cutoff.
29 B Cut	0	0	0 - 15	Blue Cutoff.
30 R Gain	31	48	0 - 63	Red Gain.
31 G Gain	31	35	0 - 63	Green Gain.
32 B Gain	31	30	0 - 63	Blue Gain.
33 Dynam C	0	0	0 - 1	Dynamic C Video.
34 Gamma	0	0	0 - 3	Gamma Register.
35 DCTran	1	1	0 - 1	DCTran Video.
36 C Bpf	1	0	0 - 1	C Bpf Video.
37 C Trap	1	1	0 - 1	C Trap Off Video.
38 FSC Sw	0	0	0 - 1	FSC Sw Video.
39 ABL Mode	1	1	0 - 1	ABL Mode Video.
40 ABLVTH	1	1	0 - 1	ABLVTH Video.
41 6 Keys	1	1	0 - 1	Set to 0 for the 10 key keyboard, set to 1 for the 6 key keyboard.
42 A Att	9	7	0 - 15	Audio Input Attenuator.
43 A VCO	31	31	0 - 63	Audio Voltage Controlled Oscillator.
44 A Filter	31	27	0 - 63	Audio Filter.
45 ASpectral	31	12	0 - 63	High Frequency Separation.
46 W Band	31	31	0 - 63	Low Frequency Separation.

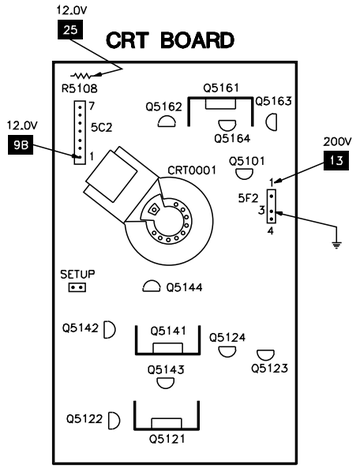
FUNCTION 221-01389	DATA VALUE	ON-SET VALUE	VALUE RANGE	NOTES
47 PIP X1	17	20	0 - 254	Horizontal position on left side.
48 PIP Y1	25	23	0 - 254	Vertical position on left side.
49 PIP X2	113	117	0 - 254	Horizontal position on right side.
50 PIP Y2	143	151	0 - 254	Vertical position on right side.
51 PIP Adj	2	3	0 - 15	Picture In Picture Adjustment.
52 PIP Y DL	4	1	0 - 15	Picture In Picture Y Delay.
53 PIP Y Off	31	31	0 - 31	Picture In Picture Y Offset.
54 PIP ACC	20	20	0 - 63	Picture In Picture ACC Level.
55 P BGST	10	10	0 - 63	Picture In Picture BG Stat Level.
56 PIP HX	22	25	0 - 63	Picture In Picture HX.
57 PIP VXS	37	38	0 - 63	Picture In Picture VXS.
58 PIP R Con	50	14	0 - 63	Picture In Picture Red Contrast.
59 PIP G Con	50	15	0 - 63	Picture In Picture Green Contrast.
60 PIP B Con	50	17	0 - 63	Picture In Picture Blue Contrast.
61 PIP Comp	2	2	0 - 3	Picture In Picture Comp.
62 YUV Brt	10	0	0 - 31	YUV Sub-Brightness.
63 Min Con	10	25	0 - 31	Minimum Contrast Value.
64 F Jacks	1	1	0 - 1	Front Jacks.
65 PIP Brt	200	201	0 - 254	Picture In Picture Brightness.
66 Xtal	0	0	0 - 1	Select Crystal or RC circuit Oscillator for OSD.
67 Min Brt	25	25	0 - 63	Custom Minimum Brightness.
68 Max Brt	35	35	0 - 63	Custom Maximum Brightness.
69 GM PIP X	15	15	0 - 50	PIP X position for gemstar.
70 GM PIP Y	17	17	0 - 30	PIP Y position for gemstar.
71 GM Pos X	36	36	0 - 60	OSD X position for gemstar.
72 GM Pos Y	13	13	0 - 36	OSD Y position for gemstar.
73 GM Siz X	110	110	0 - 152	OSD X Size for gemstar.
74 GM Siz Y	100	100	0 - 233	OSD Y Size for gemstar.
75 Mut Brt	20	20	0 - 63	Level Brightness when mute.
76 Mut Con	20	20	0 - 63	Level Contrast when mute.
77 GMVSize	30	30	0 - 63	GMVSize.

PLACEMENT CHART

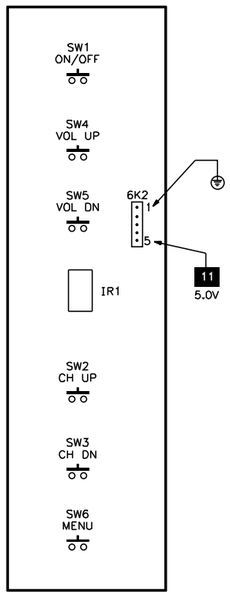


△ TAKEN FROM COMMON TIE POINT ⏚

CRT BOARD



KEYBOARD



COMMON TIE POINT ⏚

ZENITH

MODEL B27B40Z

TELEVISION SCHEMATIC

A

B

IF2 TO WT1200 MAIN TUNER PIN 10 — NC

RF IN — SPLITTER — RF TO WT1200 MAIN TUNER; RF TO WT1250 SUB TUNER

TUNERS NOT INCLUDED IN THIS COVERAGE

L2901 C2935 100µF C2936M .01

5 9.4V

SEE IC6000 PIN 3 PAGE 3C — R1206 10K — D6002 — 10 5.0V

C1210M .001 — R1208M 13K — R1207M 33K — 6 9.0V

9V TO WT1200 MAIN TUNER PIN 6 — NC

ADDITIONAL SCHEMATIC NOTES, SEE PAGE 3A

5V TO WT1200 MAIN TUNER PIN 7 — 12 5.0V

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

© 2003 SAMS Technical Publishing

C1209 1µF

L1201 — C1207M 30pF — CR1200 4.5MHz — L1204 — C1216M .01 — R1217M 560 — C1219M .01 — C1220M .1 — R1223M 5600 — R1224M 2000

NC

R1288M 470 — C1290 10µF — R1222M 10K — Q1290 2N3904 AUDIO AMP — 2.1V — 5.3V — 1.4V — R1293M 3300 — R1291M 10K — R1292M 470 — 7 8.5V

SEE IC1400 PIN 19 PAGE 2G

SEE Q1291 COLLECTOR PAGE 3F

R1290M 1000 — 7 8.5V

Q1293 2N3904 SWITCH — R1298M 6800 .03V — 2.1V — SEE Q1292 COLLECTOR PAGE 3F

TAKEN WITH BAR SWEEP GENERATOR — 1.8V 10µs — 2.0V 10µs

IC1200 TA1268N MAIN IF

14	11	12	2	3	20	1
2.8V AFT	3.1V SIF	3.1V SIF	5.7V LOOPFIL	7.4V IF AGC2	4.1V EQ FILTER	4.2V DET OUT

IF OUT TO WT1200 MAIN TUNER PIN 11 — C1202M 30pF — L1200 — R1201M 560 — U1200 SAW FILTER

1	2	3	4	5	6
					IF IN2 4.4V

C1201M .001 — C1205M .001

5	8	10	4	23	13	24	17	22	19	18	9	15	7	16	21
IF IN1 4.4V	3.6V	RF AGC OUT 3.8V	RF AGC ADJ 3.8V	SIF AGC 5.6V	IF AGC1 7.4V	SIF IN2 2.1V	OUT1 3.4V	SIF OUT 6.8V	EQ IN 3.4V	APC FILTER 5.0V	VCC	VCO1 8.0V	GND	VCO2 8.0V	VIDEO OUT 2 4.1V

C1215M .01 — C1208 .068 — C1214M 27pF — C1211M 27pF — L1202

R1210M 2200 — U1202 4.5MHz FILTER — R1226M 1000 — R1225M 10K — C1213 .47µF — R1212M 47 — R1211M 100 — C1212M .01

R1209M 220 — L1203 — U1201 4.5MHz TRAP

C1200M .01 — R1202 AGC DELAY 10K — R1203M 2200 — C1206M .01

AGC TO WT1200 MAIN TUNER PIN 1 — R1204 10K — C1236 4.7µF — R1205M 13K — RF AGC RANGE 3.7V TO 7.9V

IF AGC RANGE 7.4V TO 8.8V

33V TO WT1200 MAIN TUNER PIN 9 — 22 33.0V

SYNC

R1216M 4700 — Q1200 2N3906 AMP — 3.6V — 2.9V — SEE IC2900 PIN 50 PAGE 3A — R1213M 10K (15K) — R1214 2200 — 6 9.0V

SEE Q2901 EMITTER PAGE 3B — R2283 47 — C2250 10µF — C2249M 470pF — L2203 — R2284M 75 (47) — C2248M .1 — L2204 — C2247M 27pF

SEE Q2902 EMITTER PAGE 3B

48	15	17
0V	5.8V VMOUT	.71V SCP

PART OF CXA2061S IC2200 VIDEO PROCESSOR

HP/XRAY

20	18	11	19	33	5	14	13	4	5	7	3	6	1	2
AFCFIL 2.6V	PROT 3.5V	EW 3.8V	HOUT 3.7V	VCC1 8.8V	VTIM 4.8V	VDN 3.4V	VDP 3.5V	2.0V	2.0V	−12.5V	15.9V			.09V

ICX2100 LA7645N VERT OUT

R2102M 6200 — R2101M 8200 — C2106M .0022 — R2103M 6200

SEE IC6000 PIN 13 PAGE 3C — D2102 — CX2102 220µF — D2101 — 17 −15.5V — 15 15.0V

RX2105 3.3 — CX2105 .1 — RX2106 680 — RX2107 680 — C2107 .1 — R2104M 8200 — RX2110 3.3 — RX2111 3.3

R2203M 4700 — C2216M .01 — C2217 1µF — QX3001 2N3904 SHUTDOWN — RX3001M 10K — CX3001M .01 — DX3001

QX3002 2N3906 SHUTDOWN — RX3002M 33K — RX3005 5620 1% — RX3003 3570 .1% — RX3004 10K — RX3007 8200 — 20 34.5V

ZDX3004 12.0V

C2241M 1 — R2222M 4700 — R2224M 8200 — ZD2205 5.6V — SEE Q6001 BASE PAGE 3C

PART OF PIP MODULE (REPLACE AS UNIT) — PIPB1 2 — FLYBACK

A1

R2214M 1000 — NC

C2226M .01 — C2227 100µF — R2225M 470 — L2201 — 8 9.0V — R2226M 2200 — 8 9.0V

PART OF PIP MODULE (REPLACE AS UNIT) — PIPB1 3 — VRAMP

R6008M 47K — C6026M .001 — Q6004 2N3904 AMP — .68V — .08V — Q6002 2N3904 AMP — .08V — 4.9V — R6007M 3000 — R6005M 3900 — 10 5.0V — 10 5.0V — SEE IC6000 PIN 2 PAGE 3C

C3219 .47µF — R3218 1000 — R3201M 4700 — Q3201 2N3904 AMP — −.63V — 9.7V — C3201M 47pF — C3202 470pF — R3203 470 — R3202M 150 — 4 15.0V

Q3202 HORIZ AMP — .34V — 13.3V — C3204 .0022 500V

TX3205 — 2.8 — .1

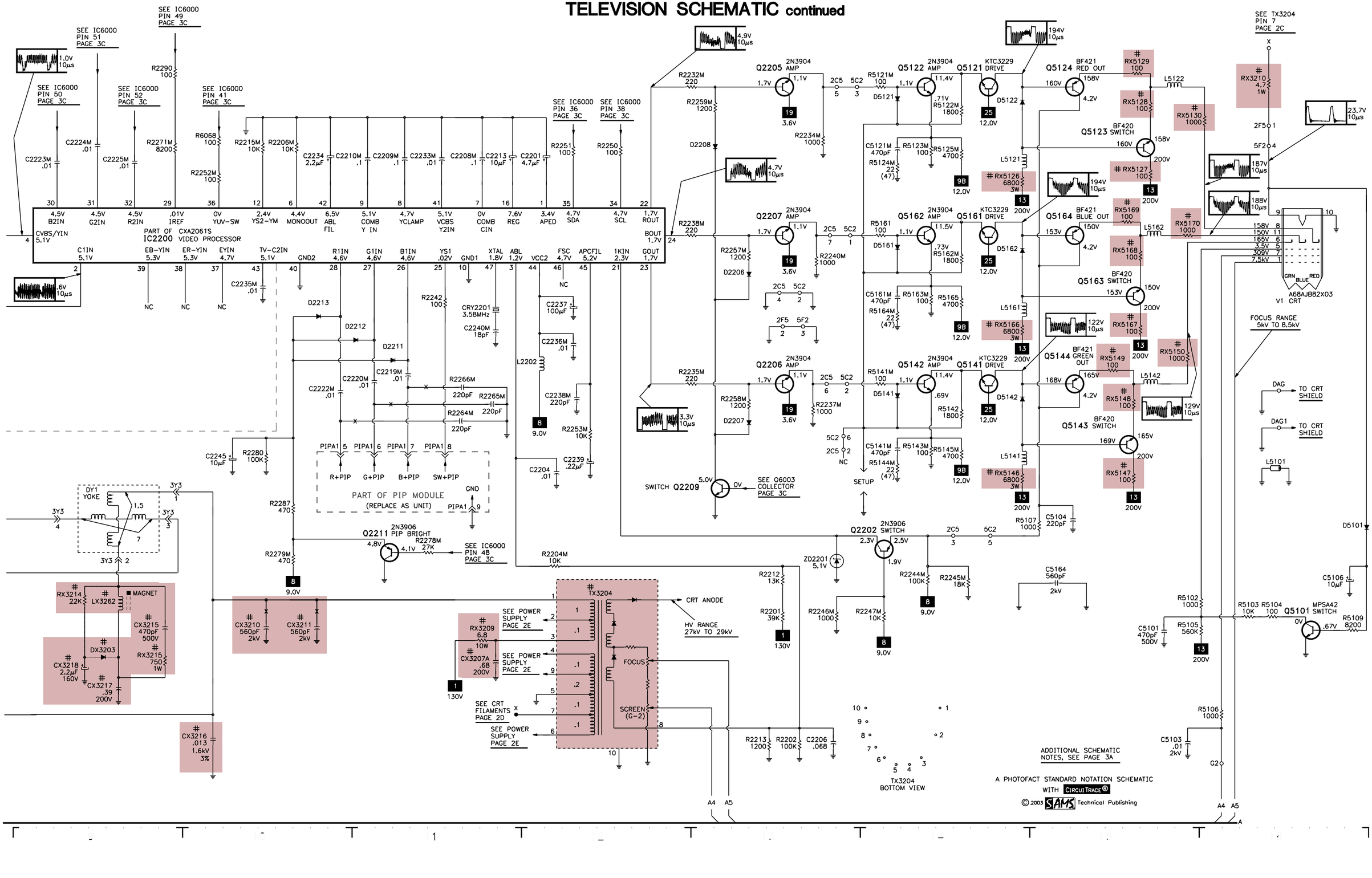
C3203 .022 — R3204 560 — R3205 560 — CX3205 100µF — RX3207 15 — 4 15.0V

C3206 .001 1kV

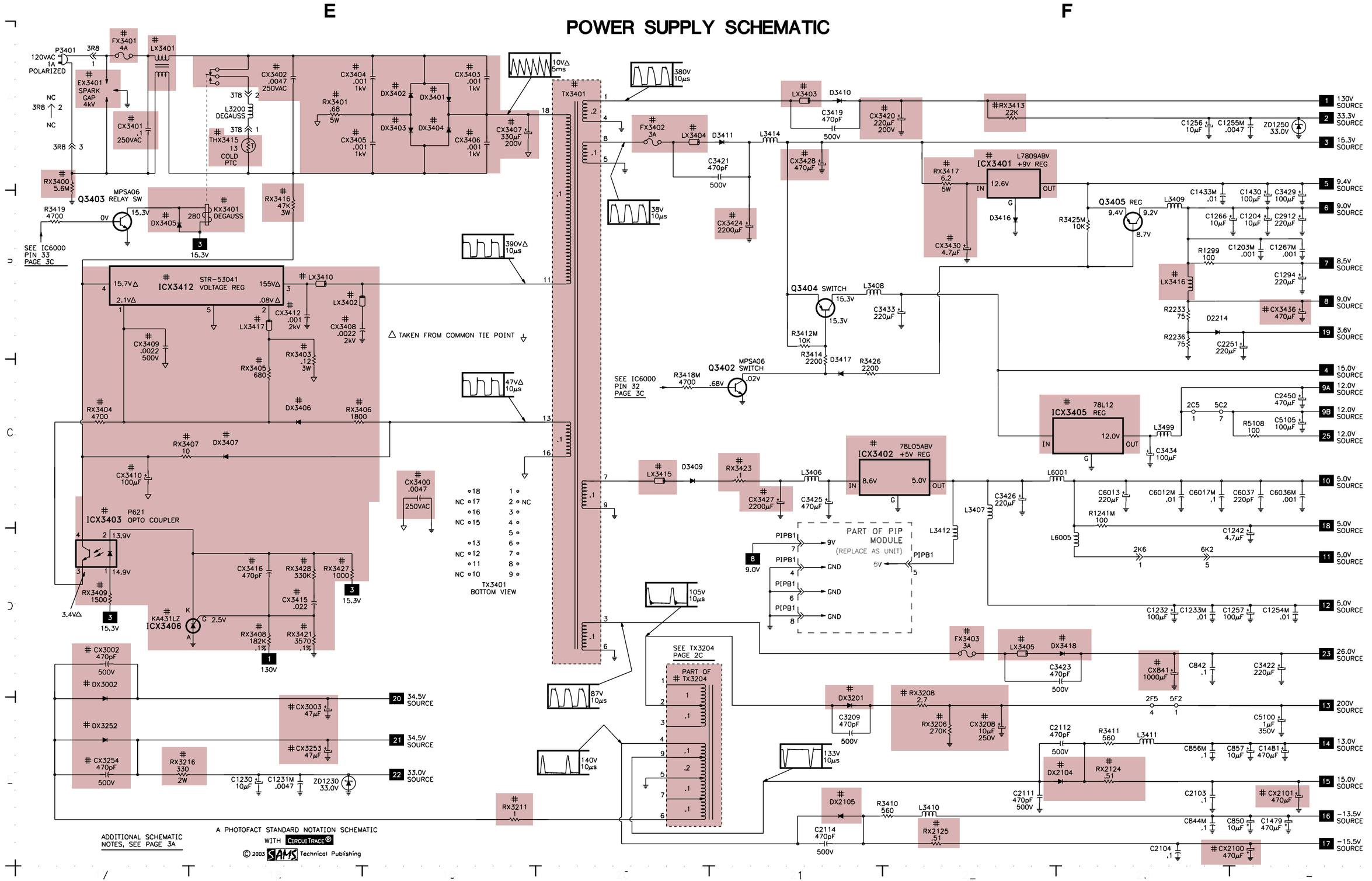
QX3203 2SD2499 HORIZ OUT — −.05V — 123V — 0V — LX3202 — DX3202 — DX3204 — CX3257 .047 — CX3212 .001 2kV — RX3212 2000 — A1

7.4V 10µs — 1.5V 5ms — 1.5V 5ms — 36V 5ms — 37V 5ms — 62V 5ms — 4.4V 10µs — 1.7V 10µs — 59V 10µs — 25.3V 10µs

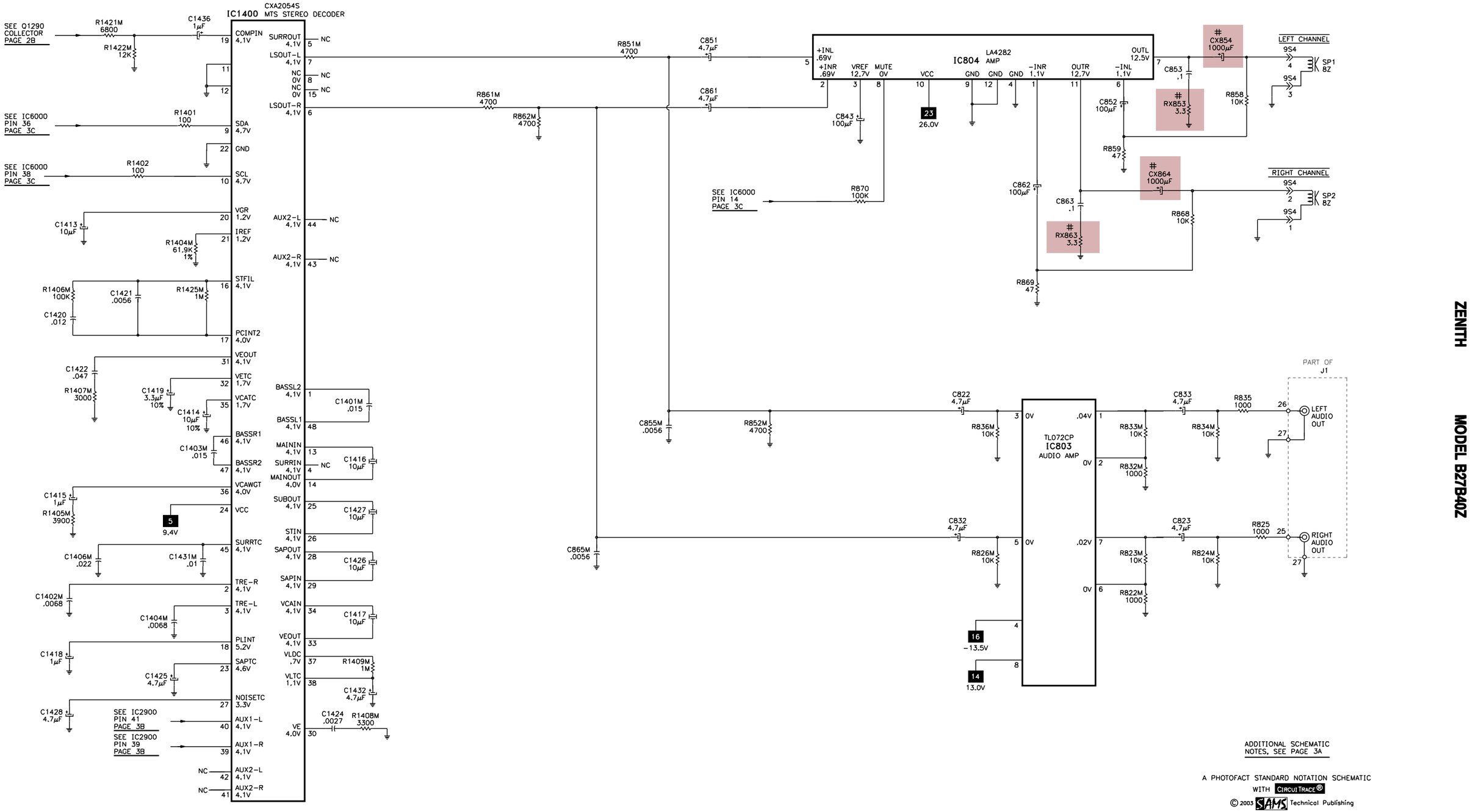
TELEVISION SCHEMATIC continued



POWER SUPPLY SCHEMATIC



AUDIO SCHEMATIC



ADDITIONAL SCHEMATIC NOTES, SEE PAGE 3A

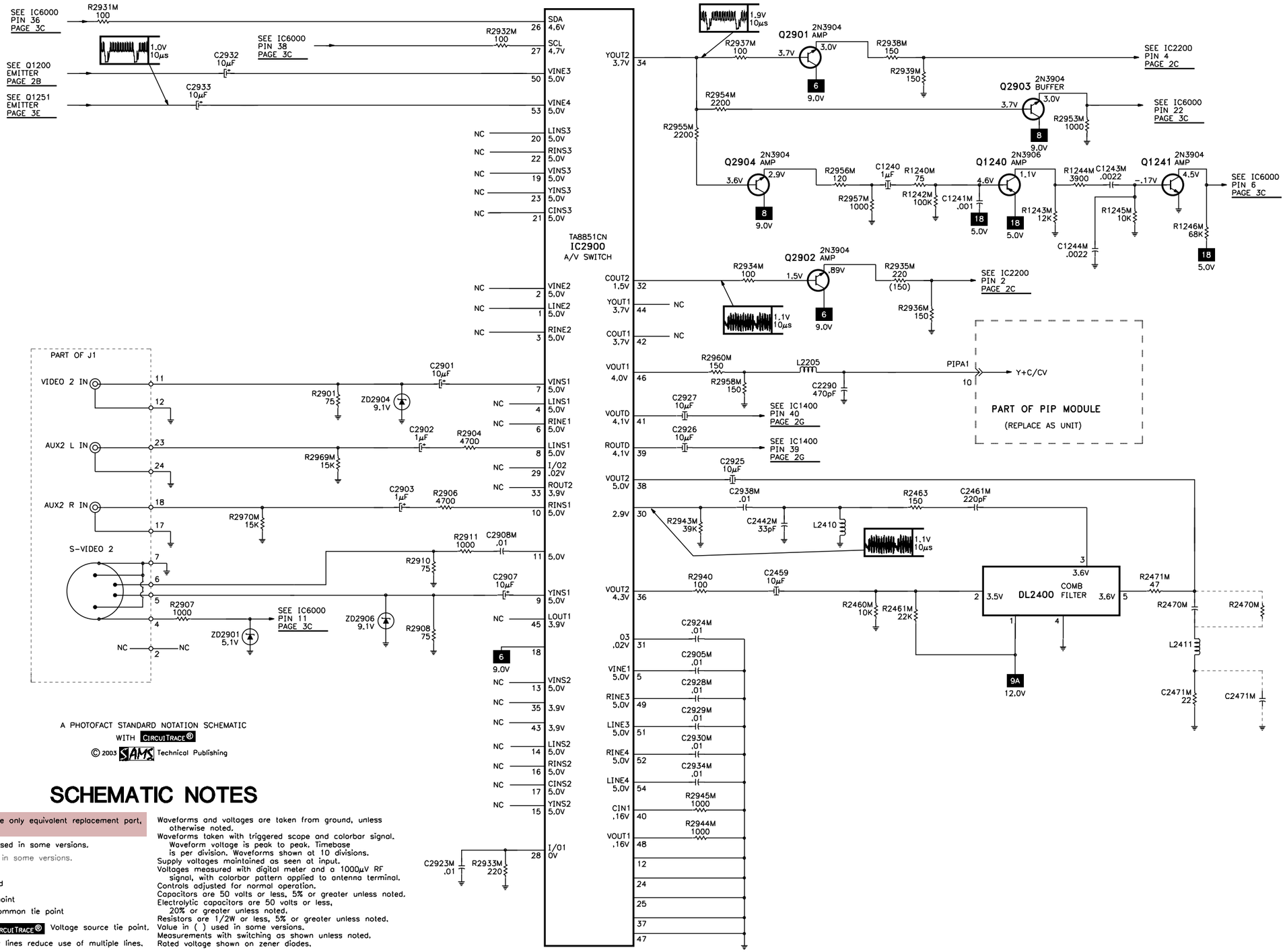
A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

ZENITH

MODEL B27B40Z

A B

A/V SCHEMATIC

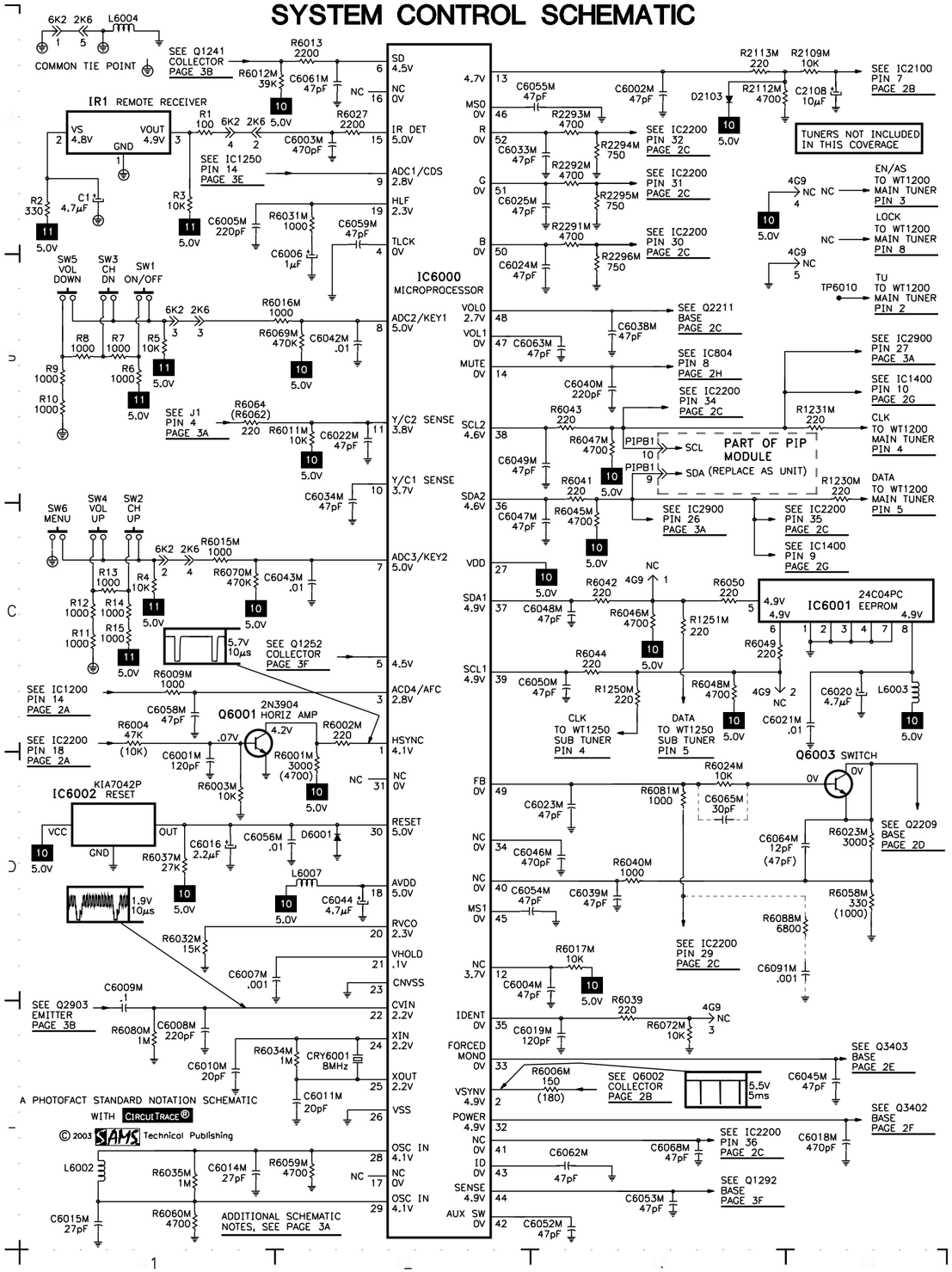


SCHEMATIC NOTES

- # 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 otherwise noted.
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.

C
SYSTEM CONTROL SCHEMATIC



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.

- NTE Electronics, Inc. (NTE)
- Sencore, Inc.

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	PR570
Generators		Capacitance Analyzer	LC102
RGB	CM2125	CRT Analyzer	CR7000
Multiburst Signal	VG91	AC Leakage Tester	PR570
Color Bar	VG91	Inductance Analyzer	LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	SC3100	Field Strength Meter	SL753
Frequency Meter	SC3100	Transistor Tester	TF46
Hi-Voltage Probe	HP200	Horizontal Analyzer	HA-2500
Accessory Probes	TP212	Video Analyzer	VG91, TVA92

PIP IF SCHEMATIC

TUNERS NOT INCLUDED IN THIS COVERAGE

IF OUT TO WT1250 SUB TUNER PIN 11
C1263M 30pF
L1252
R1262M 560
U1251 SAW FILTER
C1264M .001
IF IN1 4.4V 5
IF IN2 4.4V 6

AGC TO WT1250 SUB TUNER PIN 1
R1263M 10K
RF AGC RANGE 4.3V TO 7.9V
C1250 4.7µF
R1264M 12K
C1268M .01
RF AGC OUT 4.3V 10

33V TO WT1250 SUB TUNER PIN 9
2 33.3V
C1276M .01
1ST SIF AGC .02V 23
C1265M .001
SIF IN1 0V 8

9V TO WT1250 SUB TUNER PIN 6
C1258 100µF
C1253M .01
L1250
6 9.0V
C1260M .1
R1258M 2000
IF AGC2 6.6V 3
C1261M .01
R1259M 5600

EN/AS TO WT1250 SUB TUNER PIN 3
NC
R1272M 100
R1271M 47
C1274 .47µF*
APC FILTER 5.0V 18
C1273M .01

C1270 .068
IF AGC RANGE 6.5V TO 8.8V
IF AGC1 6.6V 13

LOCK TO WT1250 SUB TUNER PIN 8
NC

IF2 TO WT1250 SUB TUNER PIN 10
NC
C1259M .01
L1251
CR1250 4.5MHz
R1257M 560
FM DET 5.6V 2

TU TO WT1250 SUB TUNER PIN 2
TP1206
GND 7

LA7578N
IC1250
PIP IF

5V TO WT1250 SUB TUNER PIN 7
12 5.0V
U1253 4.5MHz FILTER
SIF IN2 2.1V 24
R1270M 150
L1255
U1252 4.5MHz FILTER
EQ IN 3.4V 19
L1253
C1269M 30pF
3.1V 12
3.1V 11

TAKEN WITH BAR SWEEP GENERATOR
2.1V 10µs
1.7V 10µs

VIDEO OUT2 4.1V 21
R1273M 4700
C1277M 12pF
R1276M 12K
Q1251 2N3906 IF AMP
2.3V
3.0V
R1278M 2200
6 9.0V
C1278 1µF
SEE IC2900 PIN 53 PAGE 3A

R1279M 330
Q1253 2N3906 AMP
4.4V
1.8V
4.9V
R1282M 12K
R1283M 3900
C1281M .0022
C1282M .0022
R1285M 10K
Q1252 2N3904 AMP
-.2V
4.3V
R1284M 68K
C1280 4.7µF
R6052M 39K
10 5.0V
R6051 2200
C6060M 47pF
SEE IC6000 PIN 5 PAGE 3C

C1279M .001
R1281M 100K
R1280M 100
10 5.0V

DET OUT 4.5V 1
R1289M 470
C1292 10µF
R1256M 10K
R1296M 4700
R1295M 10K
7 8.5V
Q1291 2N3904 AMP
1.1V
3.8V
.49V
R1294M 470
SEE Q1290 COLLECTOR PAGE 2B

Q1292 2N3904 MUTE
SEE IC6000 PIN 44 PAGE 3C
R1297M 15K
.1V
SEE Q1293 BASE PAGE 2B

AFT OUT 2.8V 14
C1271M .001
R1266M 13K
R1267M 33K
6 9.0V
C1285 1µF
R1268 10K
R6010 1000
D6003
10 5.0V
C6041M 47pF
SEE IC6000 PIN 9 PAGE 3C

SIF OUT .02V 22 NC
EQ FILTER 4.1V 20 NC
RF AGC ADJ 3.8V 4
C1262M .01
R1261 AGC DELAY 10K
R1260M 2200

VCO2 8.0V 16
C1272M 27pF
L1254
VCO1 8.0V 15
VIDEO OUT1 3.4V 17
R1269M 2200
VCC 9
6 9.0V

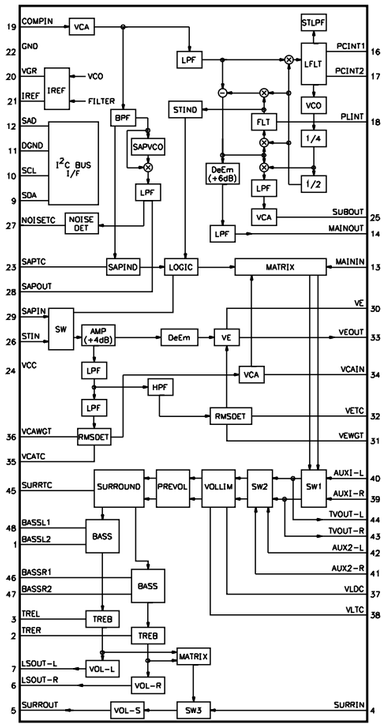
ADDITIONAL SCHEMATIC NOTES, SEE PAGE 3A

SCHEMATIC COMPONENT LOCATION GUIDE

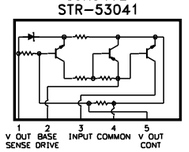
C1	A41	C1267M	B24	C2219M	C11	C3426	C22	C6059M	B42	D2212	C11	L1200	B1	Q1293	B6	R852M	C29	R1283M	A50	R2257M	B13	R3412M	C21	R6049	C43	RX5148	C15
C822	C30	C1268M	B46	C2220M	C11	C3429	B24	C6060M	A51	D2213	C10	L1201	A3	Q2202	D14	R858	A31	R1284M	B51	R2258M	C13	R3414	C21	R6050	C43	RX5149	C15
C823	D31	C1269M	E47	C2222M	C10	C3433	B22	C6061M	A42	D2214	B23	L1202	C5	Q2205	A13	R859	B31	R1285M	A50	R2259M	A13	R3418M	C20	R6051	A51	RX5150	C15
C832	D30	C1270	C46	C2223M	B9	C3434	C23	C6062M	E43	D3409	C20	L1203	C4	Q2206	C13	R861M	B27	R1288M	A5	R2264M	C11	R3419	B17	R6052M	A51	RX5166	C14
C833	C31	C1271M	C48	C2224M	A9	C5100	E24	C6063M	B43	D3410	A21	L1204	A3	Q2207	B13	R862M	B27	R1289M	B48	R2265M	C11	R3425M	B23	R6058M	D44	RX5167	C15
C842	D23	C1272M	D48	C2225M	B9	C5101	D15	C6064M	D44	D3411	A20	L1250	C46	Q2209	D13	R868	B31	R1290M	B7	R2266M	C11	R3426	C21	R6059M	E42	RX5168	B15
C843	B29	C1273M	C46	C2226M	D3	C5103	E15	C6065M	D43	D3416	B22	L1251	D46	Q2211	D11	R869	B30	R1291M	A6	R2271M	A9	R5102	D16	R6060M	E41	RX5169	B15
C844M	E23	C1274	C47	C2227	D3	C5104	D15	C6068M	E43	D3417	C21	L1252	A46	Q2901	A37	R870	B29	R1292M	A7	R2278M	D11	R5103	D16	R6064	B41	RX5170	B15
C850	E24	C1276M	B47	C2233M	B11	C5105	C24	C6091M	D44	D5101	D16	L1253	E46	Q2902	B37	R1201M	B1	R1293M	A6	R2279M	D10	R5104	D16	R6068	A10	SP1	A32
C851	A28	C1277M	B48	C2234	B10	C5106	D16	CR1200	A3	D5121	A14	L1254	D48	Q2903	A38	R1202	C3	R1294M	B50	R2280	C10	R5105	D16	R6069M	B42	SP2	B32
C852	A31	C1278	A49	C2235M	B10	C5121M	A14	CR1250	D47	D5122	A14	L1255	E46	Q2904	B37	R1203M	C3	R1295M	B49	R2283	B8	R5106	E16	R6070M	C41	SW1	B41
C853	A31	C1279M	B49	C2236M	C12	C5141M	C14	CRY2201	B11	D5141	C14	L2201	E4	Q3201	E4	R1204	C1	R1296M	B49	R2284M	B8	R5107	D15	R6072M	E43	SW2	C41
C855M	C28	C1280	B51	C2237	B12	C5161M	B14	CRY6001	E42	D5142	C14	L2202	C12	Q3202	E5	R1205M	C1	R1297M	C49	R2287	D10	R5108	C24	R6080M	E41	SW3	B41
C856M	E23	C1281M	A50	C2238M	C12	C5164	D15	CX841	D23	D5161	B14	L2203	B8	Q3402	C21	R1206	A2	R1298M	B5	R2290	A9	R5109	D16	R6081M	D43	SW4	C41
C857	E24	C1282M	A50	C2239	C12	C6001M	D41	CX854	A31	D5162	B14	L2204	C8	Q3403	B17	R1207M	A2	R1299	B23	R2291M	B43	R5121M	A14	R6088M	D44	SW5	B41
C861	B28	C1285	C48	C2240M	C11	C6002M	A43	CX864	B31	D6001	D42	L2205	C37	Q3404	B21	R1208M	A2	R1401	B26	R2292M	A43	R5122M	A14	RX853	A31	THX3415	A18
C862	B30	C1290	A5	C2241M	D2	C6003M	A42	CX2100	E24	D6002	A1	L2410	C37	Q3405	B23	R1209M	C4	R1402	B25	R2293M	A43	R5123M	B14	RX863	B30	TP6010	B44
C863	B30	C1292	B48	C2245	C10	C6004M	D43	CX2101	E24	D6003	C49	L2411	D39	Q5101	D16	R1210M	B4	R1404M	B26	R2294M	A43	R5124M	B14	RX2105	D8	TX3204	D12
C865M	D28	C1294	B24	C2247M	C8	C6005M	A41	CX2102	D7	DL2400	D38	L2901	A2	Q5121	A14	R1211M	C5	R1405M	D25	R2295M	A43	R5125M	B14	RX2106	D8	TX3204	D20
C1200M	C3	C1401M	C27	C2248M	B8	C6006	B42	CX2105	D8	DX2104	E22	L3200	A18	Q5122	A14	R1212M	C5	R1406M	C25	R2296M	B43	R5141M	C14	RX2107	D8	TX3205	E6
C1201M	B2	C1402M	D25	C2249M	B8	C6007M	D41	CX3001M	D1	DX2105	E21	L3406	C21	Q5123	B15	R1213M	B6	R1407M	C25	R2460M	D37	R5142	C14	RX2110	D8	TX3401	A20
C1202M	B1	C1403M	C26	C2250	B8	C6008M	E41	CX3002	D17	DX3001	D1	L3407	C22	Q5124	A15	R1214	B6	R1408M	E27	R2461M	D37	R5143M	C14	RX2111	D8	U1200	B2
C1203M	B24	C1404M	D26	C2251	C24	C6009M	E41	CX3003	E18	DX3002	E17	L3408	B21	Q5141	C14	R1216M	B6	R1409M	E27	R2463	C37	R5144M	C14	RX2124	E23	U1201	C4
C1204	B24	C1406M	D25	C2290	C37	C6010M	E41	CX3205	E6	DX3201	E21	L3409	B23	Q5142	C14	R1217M	A4	R1421M	A25	R2470M	D39	R5145M	C14	RX2125	E22	U1202	C4
C1205M	B2	C1413	B25	C2442M	C37	C6011M	E42	CX3207A	E11	DX3202	E7	L3410	E22	Q5143	C15	R1222M	A5	R1422M	A25	R2470M	D39	R5161	B14	RX3001M	D1	U1251	A46
C1206M	C3	C1414	C26	C2450	C24	C6012M	C23	CX3208	E22	DX3203	E9	L3411	E23	Q5144	C15	R1223M	A4	R1425M	C26	R2471M	D39	R5162M	B14	RX3002M	D1	U1252	E46
C1207M	B3	C1415	D25	C2459	D37	C6013	C23	CX3210	D10	DX3204	E8	L3412	D22	Q5161	B14	R1224M	A4	R2101M	D5	R2901	C35	R5163M	B14	RX3003	E1	U1253	D46
C1208	B3	C1416	C27	C2461M	C38	C6014M	E41	CX3211	D10	DX3252	E17	L3414	A21	Q5162	B14	R1225M	C4	R2102M	D5	R2904	C35	R5164M	B14	RX3004	E2	V1	B16
C1209	B2	C1417	D27	C2471M	D39	C6015M	E41	CX3212	E8	DX3401	A19	L3499	C23	Q5163	B15	R1226M	C4	R2103M	D5	R2906	C35	R5165	B14	RX3005	E1	ZD1230	E18
C1210M	A2	C1418	D25	C2471M	D39	C6016	D41	CX3215	D9	DX3402	A19	L5101	C16	Q5164	B15	R1230M	C44	R2104M	D8	R2907	D34	R6001M	D42	RX3007	E1	ZD1250	A24
C1211M	B5	C1419	C25	C2901	C35	C6017M	C23	CX3216	E10	DX3403	A19	L5121	B14	Q6001	D41	R1231M	B44	R2109M	A44	R2908	D35	R6002M	D42	RX3206	E22	ZD2201	D13
C1212M	C5	C1420	C25	C2902	C35	C6018M	E44	CX3217	E9	DX3404	A19	L5122	A15	Q6002	D6	R1240M	B37	R2112M	A43	R2910	D35	R6003M	D41	RX3207	E6	ZD2205	E2
C1213	B5	C1421	C25	C2903	C35	C6019M	E43	CX3218	E9	DX3405	B17	L5141	C14	Q6003	D44	R1241M	D23	R2113M	A43	R2911	D35	R6004	D41	RX3208	E22	ZD2901	D34
C1214M	B6	C1422	C25	C2905M	D36	C6020	C44	CX3253	E18	DX3406	C18	L5142	C15	Q6004	D5	R1242M	B38	R2201	D13	R2931M	A33	R6005M	E6	RX3209	D11	ZD2904	C35
C1215M	B3	C1424	E26	C2907	D35	C6021M	C44	CX3254	E17	DX3407	C18	L5161	B14	QX3001	D2	R1243M	B38	R2202	E13	R2932M	A35	R6006M	E43	RX3210	A16	ZD2906	D35
C1216M	B3	C1425	E26	C2908M	D35	C6022M	B42	CX3257	E7	DX3418	D22	L5162	B15	QX3002	E1	R1244M	B38	R2203M	D1	R2933M	E35	R6007M	E5	RX3211	E19	ZDX3004	E1
C1219M	A4	C1426	D27	C2912	B24	C6023M	D43	CX3400	C19	DY1	D9	L6001	C22	QX3203	E7	R1245M	B39	R2204M	D12	R2934M	B37	R6008M	D5	RX3212	E8		
C1220M	A4	C1427	D27	C2923M	E35	C6024M	B43	CX3401	A17	EX3401	A17	L6002	E41	R1	A41	R1246M	B39	R2206M	A10	R2935M	B37	R6009M	C41	RX3214	D9		
C1230	E18	C1428	E25	C2924M	D36	C6025M	A43	CX3402	A18	FX3401	A17	L6003	C44	R2	A41	R1250M	C43	R2212	D13	R2936M	B38	R6010	C49	RX3215	E9		
C1231M	E18	C1430	B24	C2925	C37	C6026M	E5	CX3403	A19	FX3402	A20	L6004	A41	R3	A41	R1251M	C43	R2213	E13	R2937M	A37	R6011M	B42	RX3216	E17		
C1232	D23	C1431M	D26	C2926	C36	C6033M	A43	CX3404	A19	FX3403	D22	L6005	D23	R4	C41	R1256M	B48	R2214M	D2	R2938M	A37	R6012M	A42	RX3400	B17		
C1233M	D23	C1432	E27	C2927	C36	C6034M	C42	CX3405	A19	IC803	C30	L6007	D42	R5	B41	R1257M	D46	R2215M	A10	R2939M	A38	R6013	A42	RX3401	A18		
C1236	C1	C1433M	B23	C2928M	D36	C6036M	C24	CX3406	A19	IC804	A30	LX3202	E7	R6	B41	R1258M	B46	R2222M	D2	R2940	D36	R6015M	C41	RX3403	C18		
C1240	B37	C1436	A26	C2929M	D36	C6037	C24	CX3407	A19	IC1200	B3	LX3262	D9	R7	B41	R1259M	C46	R2224M	E2	R2943M	C36	R6016M	B41	RX3404	C17		
C1241M	B38	C1479	E24	C2930M	E36	C6038M	B43	CX3408	B18	IC1250	B47	LX3401	A17	R8	B41	R1260M	D48	R2225M	E3	R2944M	E36	R6017M	D43	RX3405	C18		
C1242	D24	C1481	E24	C2932	A34	C6039M	D43	CX3409	C17	IC1400	A26	LX3402	B18	R9	B41	R1261	D48	R2226M	E3	R2945M	E36	R6023M	D44	RX3406	C18		
C1243M	B38	C2103	E23	C2933	A34	C6040M	B43	CX3410	C17	IC2200	B9	LX3403	A21	R10	B41	R1262M	A46	R2232M	A12	R2953M	A38	R6024M	D43	RX3407	C17		
C1244M	B38	C2104	E23	C2934M	E36	C6041M	C49	CX3412	B18	IC2200	D1	LX3404	A20	R11	C41	R1263M	B46	R2233	B23	R2954M	A36	R6027	A42	RX3408	D18		
C1250	B45	C2106M	D6	C2935	A2	C6042M	B42	CX3415	D18	IC2900	B36	LX3405	D22	R12	C41	R1264M	B46	R2234M	A13	R2955M	A36	R6031M	A42	RX3409	D17		
C1253M	C46	C2107	D8	C2936M	A2	C6043M	C42	CX3416	D18	IC6000	B42	LX3410	B18	R13	C41	R1266M	C48	R2235M	C12	R2956M	B37	R6032M	D41	RX3413	A22		
C1254M	D24	C2108	A44	C2938M	C37	C6044	D42	CX3420	A22	IC6001	C44	LX3415	C20	R14	C41	R1267M	C48	R2236	B23	R2957M	B37	R6034M	E42	RX3416	B18		
C1255M	A24	C2111	E22	C3201M	E4	C6045M	E44	CX3424	B21	IC6002	D41	LX3416	B23	R15	C41	R1268	C49	R2237M	C13	R2958M	C37	R6035M	E41	RX3417	B22		
C1256	A23	C2112	E22	C3202	E4	C6046M	D43	CX3427	C21	ICX2100	D7	LX3417	B18	R822M	D31	R1269M	E48	R2238M	B12	R2960M	C36	R6037M	D41	RX3421	D18		
C1257	D24	C2114	E21	C3203	E6	C6047M	C43	CX3428	A21	ICX3401	A22	P3401	A17	R823M	D31	R1270M	E46	R2240M	B13	R2969M	C35	R6039	E43	RX3423	C21		
C1258	C45	C2201	B12	C3204	E5	C6048M	C43	CX3430	B22	ICX3402	C22	Q1200	B6	R824M	D31	R1271M	C46	R2242	B11	R2970M	C34	R6040M	D43	RX3427	D18		
C1259M	D46	C2204	C12	C3206	E7	C6049M	B43	CX3436	B24	ICX3403	D17	Q1240	B38	R825	D31	R1272M	C46	R2244M	D14	R3201M	E4	R6041	C43	RX3428	D18		
C1260M	B46	C2206	E13	C3209	E21	C6050M	C43	D2101	D7	ICX3405	C23	Q1241	B39	R826M	D30	R1273M	A48	R2245M	D14	R3202M	E5	R6042	C43	RX5126	B14		
C1261M	C46	C2208M	B11	C3219	E4	C6052M	E43	D2102	D6	ICX3406	D17	Q1251	A48	R832M	C31	R1276M	B48	R2246M	D13	R3203	E4	R6043	B43	RX5127	B15		
C1262M	D48	C2209M	B11	C3419	A21	C6053M	E43	D2103	A43	ICX3412	B18	Q1252	A50	R833M	C31	R1278M	A49	R2247M	D14	R3204	E6	R6044	C43	RX5128	A15		
C1263M	A45	C2210M	B11	C3421	B20	C6054M	D42	D2206	B13	IR1	A41	Q1253	A49	R834M	C31	R1279M	A49	R2250	B12	R3205	E6	R6045M	C43	RX5129	A15		
C1264M	A46	C2213	B11	C3422	D24	C6055M	A42	D2207	C13	J1	C32	Q1290	A7	R835	C31	R1280M	B49	R2251	B12	R3218	E3	R6046M	C43	RX5130	A16		
C1265M	B47	C2216M	D1	C3423	D22	C6056M	D42	D2208	B13	J1	C33	Q1291	B49	R836M	C30	R1281M	B49	R2252M	B10	R3410	E21	R6047M	B43	RX5146	C14		
C1266	B23	C2217	D1	C3425	C21	C6058M	C41	D2211	C11	KX3401	B18	Q1292	C49	R851M	A28	R1282M	A50	R2253M	C12	R3411	E23	R6048M	C43	RX5147	C15		

IC FUNCTIONS

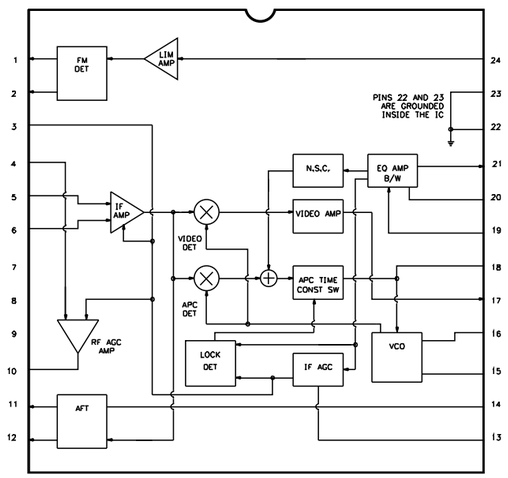
IC1400
CXA2054S



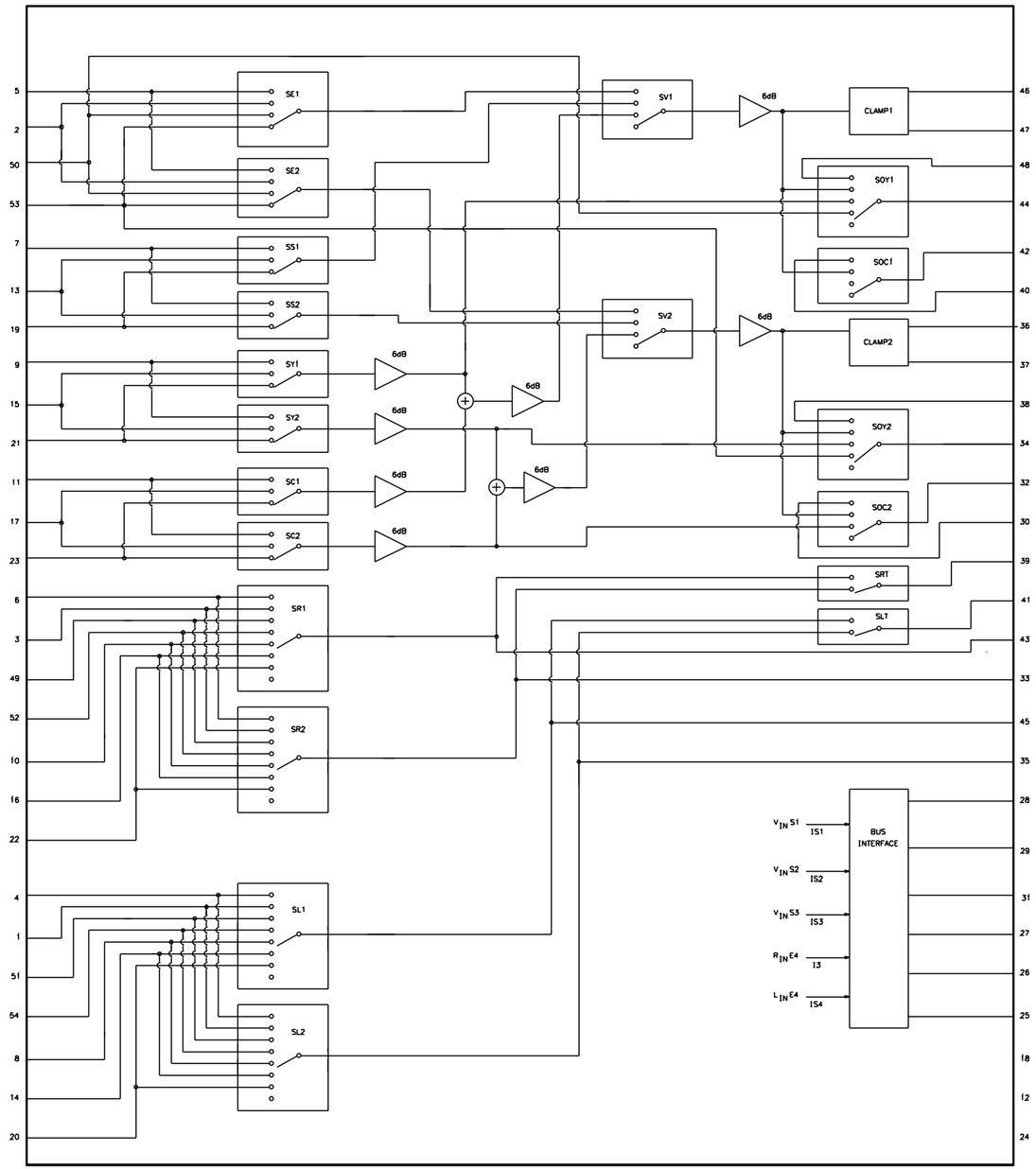
ICX3412
STR-53041



IC1250
LA7578N



IC2900
TA8851CN



PARTS LIST

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D2101	1N4004	103-00347-03A	NTE116
D2102, 03	1N4148	103-00461A	NTE519
D2206, 07, 08	1N4148	103-00461A	NTE519
D2211 Thru			
D2214	1N4148	103-00461A	NTE519
D3409	PR3004G	103-00339-04A	NTE576
D3410, 11	MUR460	103-00589	NTE577
D3416	-	103-00347-03A	-
D3417	1N4148	103-00461A	NTE519
D5101	-	103-00344-06A	-
D5121	1N4148	103-00461A	NTE519
D5122	-	103-00415-02A	-
D5141	1N4148	103-00461A	NTE519
D5142	-	103-00415-02A	-
D5161	1N4148	103-00461A	NTE519
D5162	-	103-00415-02A	-
D6001, 02, 03	1N4148	103-00461A	NTE519
# **DX2104, 05**	PR3004G	103-00339-04A	NTE576
# **DX3001**	1N4148	103-00461A	NTE519
# **DX3002**	-	103-00344-06A	-
# **DX3201**	-	103-00344-06A	-
# **DX3202**	-	103-00305-01A	-
# **DX3203**	-	103-00347-03A	-
# **DX3204**	1N4148	103-00461A	NTE519
# **DX3252**	-	103-00344-06A	-
# **DX3401** Thru			
# **DX3404**	-	103-00588A	-
# **DX3405**	-	103-00347-03A	-
# **DX3406**	1N4148	103-00461A	NTE519
# **DX3407**	-	103-00344-06A	-
# **DX3418**	MUR460	103-00560-07	NTE577
IC803	TL072CP	221-00170	NTE858M
IC804	LA4282	F-53765	-
IC1200	TA1268N	221-00792	-
IC1250	LA7578N	221-00792-01	NTE7129
IC1400	CXA2054S	221-01127	-
IC2200	CXA2061S	221-01394	-
IC2900	TA8851CN	221-01053	-
IC6000	-	221-01428	-
IC6001	24C04PC	221-00745-05	-
IC6002	KIA7042P	221-01177A	-
# **ICX2100**	LA7645N	F-53864	-
# **ICX3401**	L7809ABV	F-52599	NTE1910
# **ICX3402**	78L05ABV	F-53046	NTE977
# **ICX3403**	P621	162-00028-01	NTE3098
# **ICX3405**	78L12	221-00167-05A	NTE950
# **ICX3406**	KA431LZ	221-00265-03A	-
# **ICX3412**	STR-53041	F-53857	NTE1840
Q1200, 40	2N3906	121-01311A	NTE159
Q1241	2N3904	121-01310A	NTE123AP
Q1251	2N3906	121-01311A	NTE159
Q1252	2N3904	121-01310A	NTE123AP
Q1253	2N3906	121-01311A	NTE159
Q1290 Thru			
Q1293	2N3904	121-01310A	NTE123AP
Q2202	2N3906	121-01311A	NTE159
Q2205, 06, 07	2N3904	121-01310A	NTE123AP
Q2209	-	121-01390	NTE123AP
Q2211	2N3906	121-01311A	NTE159
Q2901 Thru			
Q2904	2N3904	121-01310A	NTE123AP
Q3201	2N3904	121-01310A	NTE123AP
Q3202	-	121-01264-01A	NTE287
Q3402, 03	MPSA06	121-01340A	NTE287
Q3404, 05	-	121-01102A	NTE25
Q5101	MPSA42	121-01355A	NTE287
Q5121	KTC3229	F-45300	NTE376%
Q5122	2N3904	121-01310A	NTE123AP
Q5123	BF420	121-01374A	NTE399
Q5124	BF421	121-01375A	NTE288
Q5141	KTC3229	F-45300	NTE376%
Q5142	2N3904	121-01310A	NTE123AP
Q5143	BF420	121-01374A	NTE399
Q5144	BF421	121-01375A	NTE288
Q5161	KTC3229	F-45300	NTE376%
Q5162	2N3904	121-01310A	NTE123AP
Q5163	BF420	121-01374A	NTE399
Q5164	BF421	121-01375A	NTE288
Q6001, 02	2N3904	121-01310A	NTE123AP
Q6003	-	121-01390	NTE123AP
Q6004	2N3904	121-01310A	NTE123AP
# **QX3001**	2N3904	121-01310A	NTE123AP
# **QX3002**	2N3906	121-01311A	NTE159
# **QX3203**	2SD2499	F-53367	-
ZD1230, 50	-	103-00279-36A	NTE5085A
ZD2201	-	103-00279-10A	NTE5010A
ZD2205	-	103-00279-11A	-
ZD2901	-	103-00279-10A	NTE5010A
ZD2904, 06	-	103-00279-18A	-
# **ZDX3004**	-	103-00472A	NTE142A

Item No.	Function/Rating	Mfr. Part No.	Notes
C1240, 78	1µF 20% 50V NP	022-08492-01A	-
C1414	10µF 10% 50V	022-07669-15A	-
C1416, 17	10µF 20% 25V NP	022-08188-05A	-
C1419	3.3µF 10% 50V	022-07669-14A	-
C1426, 27	10µF 20% 25V NP	022-08188-05A	-
C2459	10µF 20% 25V NP	022-08188-05A	-
C2925, 26, 27	10µF 20% 25V NP	022-08188-05A	-
C3206	.001 10% 1kV	022-07811A	-
C5103	.01 +80% -20% 2kV	022-07523-01B	-
C5164	560pF 10% 2kV	022-08386-05	-
CR1200, 50	Crystal	224-00202A	4.5MHz
CRT1	Socket	078-03394-09	CRT
CRY2201	Crystal	224-00027A	3.58MHz
CRY6001	Crystal	224-00074-02A	8MHz
# **CX841**	1000µF 20% 35V	022-08311-16	-
# **CX854, 64**	1000µF 20% 16V	022-08309-16	-
# **CX2100, 01**	470µF 20% 25V	022-08310-15	-
# **CX2102**	220µF 20% 35V	022-08311-13	-
# **CX2105**	.1 10% 50V	022-08049-24A	-
# **CX3001M**	.01 10% 25V	022-08368-20A	-
# **CX3002**	470pF 10% 500V	022-07786-10C	-
# **CX3003**	47µF 20% 50V	022-08312-11A	-
# **CX3205**	100µF 20% 50V	022-08312-12A	-
# **CX3207A**	.68 10% 200V	022-08159	-
# **CX3208**	10µF 20% 250V	022-08317-08	-
# **CX3210, 11**	560pF 10% 2kV	022-08386-05	-
# **CX3212**	.001 10% 2kV	022-08386-08	-
# **CX3215**	470pF 10% 500V	022-07786-10C	-
# **CX3216**	.013 3% 1.6kV	022-08229-27	-
# **CX3217**	.39 5% 200V	022-08231-11	-
# **CX3218**	2.2µF 20% 160V	022-08315-05A	-
# **CX3253**	47µF 20% 25V	022-08312-11A	-
# **CX3254**	470pF 10% 500V	022-07786-10C	-
# **CX3257**	.047 5% 50V	022-08227-07A	-
# **CX3400**	.0047 20% 250VAC	022-07431-06B	-
# **CX3401**	.1 20% 250VAC	022-07867-10	-
# **CX3402**	.0047 20% 250VAC	022-07431-06B	-
# **CX3403** Thru			
# **CX3406**	.001 10% 1kV	022-07811A	-
# **CX3407**	330µF 20% 200V	022-08444-09	-
# **CX3408**	.0022 10% 2kV	022-08386-12	-
# **CX3409**	.0022 10% 500V	022-07786-17C	-
# **CX3410**	100µF 20% 25V	022-08310-12A	-
# **CX3412**	.001 10% 2kV	022-08386-08	-
# **CX3415**	.022 5% 50V	022-08227-04A	-
# **CX3416**	470pF 20% 50V	022-08257-08A	-
# **CX3420**	220µF 20% 200V	022-08444-07	-
# **CX3424, 27**	2200µF 20% 25V	022-08310-17	-
# **CX3428**	470µF 20% 25V	022-08310-15	-
# **CX3430**	4.7µF 20% 50V	022-08312-07A	-
# **CX3436**	470µF 20% 25V	022-08310-15	-
DL2400	Filter	223-00045	Comb
DY1 (1)	Yoke	-	Horiz 1.3mH, Vert 16.6mH

PARTS LIST continued

	Item No.	Function/Rating	Mfr. Part No.	Notes
#	**EX3401**	Spark Gap	038-00102	4kV
#	**FX3401**	Fuse	136-00114-23C	4Amp, 250V, Normal Lag
#	**FX3402, 03**	Fuse	136-00148-23C	3Amp, 250V, Normal Lag
	IR1	Receiver	-	Remote
	J1	Jack	A-19192	Assembly
#	**KX3401**	Relay	195-00161	Degaussing
	L1200	.27µH	020-04277-03A	-
	L1201	SIF	020-04493A	-
	L1202	VCO	020-04493A	-
	L1203	12µH	020-04277-23A	-
	L1204	15µH	020-04129-22	-
	L1250	-	-	-
	L1251	15µH	020-04129-22	-
	L1252	.27µH	020-04277-03A	-
	L1253	AFC	020-04493A	-
	L1254	VCO	020-04493A	-
	L1255	12µH	020-04277-23A	-
	L2201	18µH	020-03907-15A	-
	L2202	6.8µH	020-04277-20A	-
	L2203, 04	4.7µH	020-04129-16	-
	L2205	2.2µH	020-04277-14A	-
	L2410	6.8µH	020-04277-20A	-
	L2411	10µH	020-04277-22A	-
	L2901	100µH	020-03907-24A	-
	L3200	Degaussing	020-04330-43	-
	L3406, 07	33µH	020-04462-18A	-
	L3408	56µH	020-03907-21A	-
	L3409	10µH	020-03907-12A	-
	L3410, 11	100µH	020-03907-24A	-
	L3412	56µH	020-03907-21A	-
	L3414	33µH	020-04462-18A	-
	L3499	-	-	-
	L5101	Ferrite Bead	F-47318	-
	L5121, 22	22µH	020-04277-26A	-
	L5141, 42	22µH	020-04277-26A	-
	L5161, 62	22µH	020-04277-26A	-
	L6001	4.7µH	020-04129-16	-
	L6002	1.8µH	020-04277-70A	-
	L6003, 04, 05	1µH	020-04129-08	-
	L6007	4.7µH	020-04129-16	-
#	**LX3202**	Ferrite Bead	F-43283	-
#	**LX3262**	Horizontal Linearity	020-04073-03	-
#	**LX3401**	Line Filter	095-04593	-
#	**LX3402** Thru			
#	**LX3405**	Ferrite Bead	F-43283	-
#	**LX3410**	Ferrite Bead	F-43283	-
#	**LX3415**	Ferrite Bead	149-00549	-
#	**LX3416**	56µH	020-03907-21A	-
#	**LX3417**	Ferrite Bead	149-00549	-
	P3401	Line Cord	A-18681-01	AC, Polarized
	R1202, 61	10K AGC Delay	063-11007-34	-
	R1404M	61.9K 1% 1/10W	063-11244-76A	-
#	**RX853, 63**	3.3 5% 1/4W	063-10559-12	-
#	**RX2105**	3.3 5% 1/4W	063-10235-12	-
#	**RX2106, 07**	680 5% 1/2W	063-10243-68	-
#	**RX2110, 11**	3.3 5% 1/2W	063-11110-12	-
#	**RX2124, 25**	.51 5% 1/2W	063-11214-16	-
#	**RX3001M**	10K 5% 1/10W	063-11059-73A	-
#	**RX3002M**	33K 5% 1/10W	063-11059-85A	-
#	**RX3003**	3570 .1% 1/4W	063-11283-45	-
#	**RX3004**	10K 5% 1/4W	063-10235-96	-
#	**RX3005**	5620 1% 1/4W	063-10936-86	-
#	**RX3007**	8200 5% 1/4W	063-10235-94	-
#	**RX3206**	270K 5% 1/2W	063-10244-30	-
#	**RX3207**	15 5% 1/2W	063-11087-28	-
#	**RX3208**	2.7 5% 1/2W	063-10565-10	-
#	**RX3209**	6.8 10% 10W	063-10460-44A	-
#	**RX3210**	4.7 5% 1W	063-10832-16B	-
#	**RX3211**	1 5% 1/2W	063-10565	-
#	**RX3212**	2000 5% 1/4W	063-10235-79	-
#	**RX3214**	22K 5% 1/2W	063-10244-04	-
#	**RX3215**	750 5% 1W	063-10832-69B	-
#	**RX3216**	330 5% 2W	063-11160-60B	-

	Item No.	Function/Rating	Mfr. Part No.	Notes
#	**RX3400**	5.6M 20% 1/2W	063-11264-01	-
#	**RX3401**	.68 10% 5W	063-10444-20A	-
#	**RX3403**	.12 10% 3W	063-11235-01	-
#	**RX3404**	4700 5% 1/4W	063-10235-88	-
#	**RX3405**	680 5% 1/4W	063-10235-68	-
#	**RX3406**	1800 5% 1/4W	063-10235-78	-
#	**RX3407**	10 5% 1/4W	063-10559-24	-
#	**RX3408**	182K .1% 1/4W	063-11285-09	-
#	**RX3409**	1500 5% 1/4W	063-10235-76	-
#	**RX3413**	22K 5% 1/2W	063-10244-04	-
#	**RX3416**	47K 5% 3W	063-11165-12B	-
#	**RX3417**	6.2 5% 5W	063-10442-43B	-
#	**RX3421**	3570 .1% 1/4W	063-11283-45	-
#	**RX3423**	.1 5% 1/2W	063-11214	-
#	**RX3427**	1000 5% 1/4W	063-10235-72	-
#	**RX3428**	330K 5% 1/4W	063-10236-32	-
#	**RX5126**	6800 5% 3W	063-10840-92B	-
#	**RX5127, 28, 29**	100 5% 1/4W	63-10235-48	-
#	**RX5130**	1000 5% 1/2W	063-10243-72	-
#	**RX5146**	6800 5% 3W	063-10840-92B	-
#	**RX5147, 48, 49**	100 5% 1/4W	63-10235-48	-
#	**RX5150**	1000 5% 1/2W	063-10243-72	-
#	**RX5166**	6800 5% 3W	063-10840-92B	-
#	**RX5167, 68, 69**	100 5% 1/4W	063-10235-48	-
#	**RX5170**	1000 5% 1/2W	063-10243-72	-
	SP1, 2	Speaker	049-01368-03	6cm X 13cm, 8 Ohms, 5W
	SW1	Switch	-	On/Off
	SW2	Switch	-	Channel Up
	SW3	Switch	-	Channel Down
	SW4	Switch	-	Volume Up
	SW5	Switch	-	Volume Down
	SW6	Switch	-	Menu
#	**THX3415**	13 Cold PTC	063-10710A	-
#	**TX3204** (2)	Horizontal Output	095-04606-04	-
#	**TX3205**	Horizontal Driver	095-04477-01	-
#	**TX3401**	SMT	095-04576	-
	U1200	Filter	224-00148	SAW
	U1201	Trap	224-00023A	4.5MHz
	U1202	Filter	224-00139-01A	4.5MHz
	U1251	Filter	224-00160	SAW
	U1252	Filter	224-00023A	4.5MHz
	U1253	Filter	224-00139-01A	4.5MHz
	V1	-	A-19112	A68AJB82X03
	W0018	56µH	020-03907-21A	-
	W0088	33µH	020-4462-18a	-
	WT1200	Tuner	175-02770	Main
	WT1250	Tuner	175-02770	Sub
		Module	009-02110	PIP
		PC Board	F-53039	Keyboard
		Splitter	-	Antenna
		Transmitter	124-00233-03	Remote, MBR3458Z

 # For SAFETY use only equivalent replacement part.
% Use insulating hardware supplied with replacement.
(1) Bonded part of CRT.
(2) Screen (G-2) and focus controls are part of TX3204.