

Audio/Communication Basic Service Data



PROSCAN



Latin America After Sales

Indianapolis IN 46290 U.S.A.

SERVICE DATA INDEX

	Page Number
Block Diagram	1-7
Exploded View	1-4
Printed Circuit Boards	1-5
Replacement Parts List	1-3
Safety Precautions	1-2
Schematics	
Interconnect Wiring Diagram	1-8
Main	1-9

CAUTION: Modification or repair of this unit by unauthorized persons is a direct violation of FCC Rules Part 68.216 and could result in risk of electric shock. You are urged to contact a qualified factory authorized service facility for repairs.

SAFETY NOTICE USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a (Δ) on schematics and on the parts list in this Service Data and its bulletins. Before servicing this instrument, it is important that the service technician read and follow the "Safety Precautions" in the Basic Service Data.

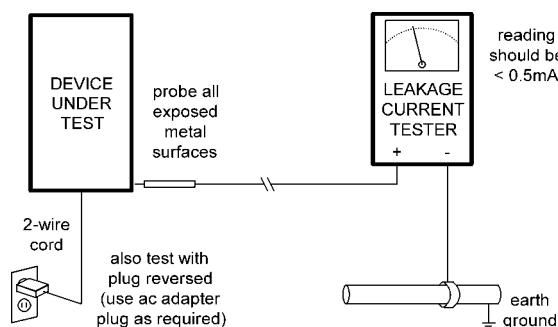
SAFETY PRECAUTIONS

1. Before returning the instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:

- a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this instrument to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reassembling the instrument, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.** Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage, and may expose themselves and others to possible injury.
- b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) improperly fitted and/or incorrectly secured cabinet covers.
- c. **Leakage Cold Check** - With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the *on* position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each push button/customer control, exposed metal screws, metallized overlays and to each cable connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the AC switch in the *off* position.

- d. **Leakage Current Hot Check**

On completely assembled instrument, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 *Leakage Current for Appliances and Underwriters Laboratories (UL) 1492 (Section 67)*. Measure for current from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal or conductive parts of the instrument (antenna connections, handle bracket, metal cabinet, screwheads, metallic overlays, push-buttons, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat the test.



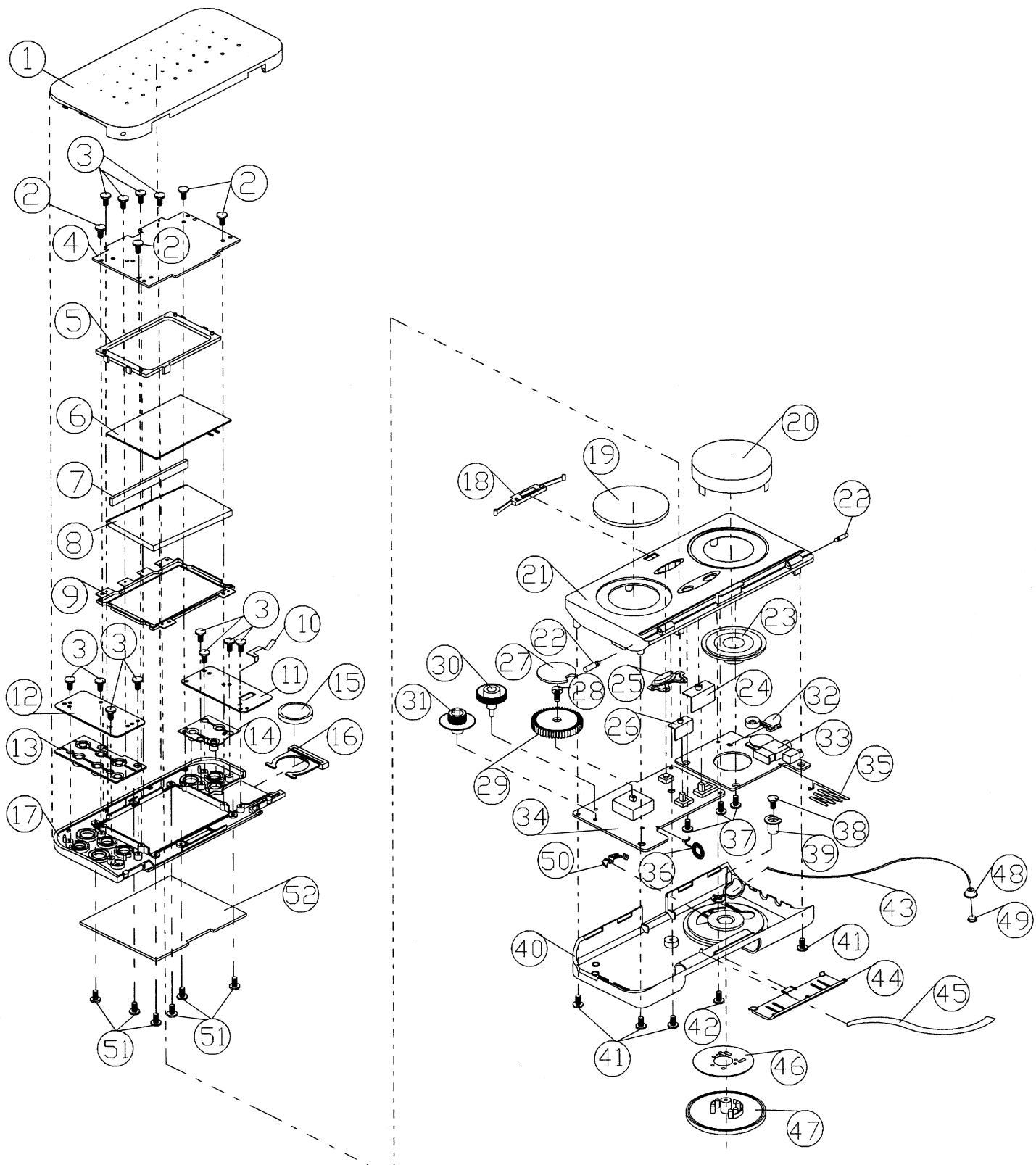
ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING TO ANTENNA OR ACCESSORIES.

2. e. **Interconnected Equipment AC Leakage Test**

Avoid shock hazards. The instrument, accessory, or cable(s) to which this instrument is connected should have the applicable sections of the leakage resistance cold check and the leakage current hot check performed. Do not connect this instrument to an antenna, cable or accessory that exhibits excessive leakage currents.

2. Read and comply with all caution and safety-related notes on or inside the instrument cabinet, and on the chassis.
3. **Design Alteration Warning** - Do not alter or add to the mechanical or electrical design of this instrument. Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio output connections, cables and accessories, etc., might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and will make you, the servicer responsible for personal injury or property damage resulting therefrom.
4. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: (a) near sharp edges, (b) near thermally hot parts - be sure that leads and components do not touch thermally hot parts, and (c) the AC supply. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between components and the printed-circuit board. Check AC power cord for damage.
5. Components, parts and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
6. **PRODUCT SAFETY NOTICE** - Many electrical and mechanical parts have special safety-related characteristics, some of which are often not evident from visual inspection, nor can the protection they give be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified in this service data by a (Δ) on schematics and in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in this service data parts list might create shock, fire and/or other hazards. Product Safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current service literature.

RP1224A EXPLODED VIEW



REPLACEMENT PARTS

BEFORE REPLACING PARTS, READ THE FOLLOWING:

Approved Substitute Stock Numbers - Before ordering stock numbers in the part list, look for an approved substitute stock number in the current Price Schedule. This will minimize your service time and avoid ordering parts you already have in stock.

PRODUCT SAFETY NOTE: Components marked with a critical safety symbol have special characteristics important to safety. Before replacing any of these components, carefully read the PRODUCT SAFETY NOTICE in the basic service data. Do not degrade the safety of the set through improper servicing. Although assemblies as a whole may not be marked with a critical safety symbol, replacement of assemblies with other assemblies not approved may result in a safety hazard.

 **Critical Safety Symbol**

 **Not Eligible For Warranty**

Warranty Status of Assemblies and Parts - All assemblies and components shown in this part list are eligible for warranty exchange or replacement except those with a dot shown to the left of the Description. Assemblies and components with a dot to the left of the Description are NOT eligible for warranty exchange or replacement.

Warranty replacement of cabinet parts requires the approval of a Thomson Consumer Electronics Field Service Manager.

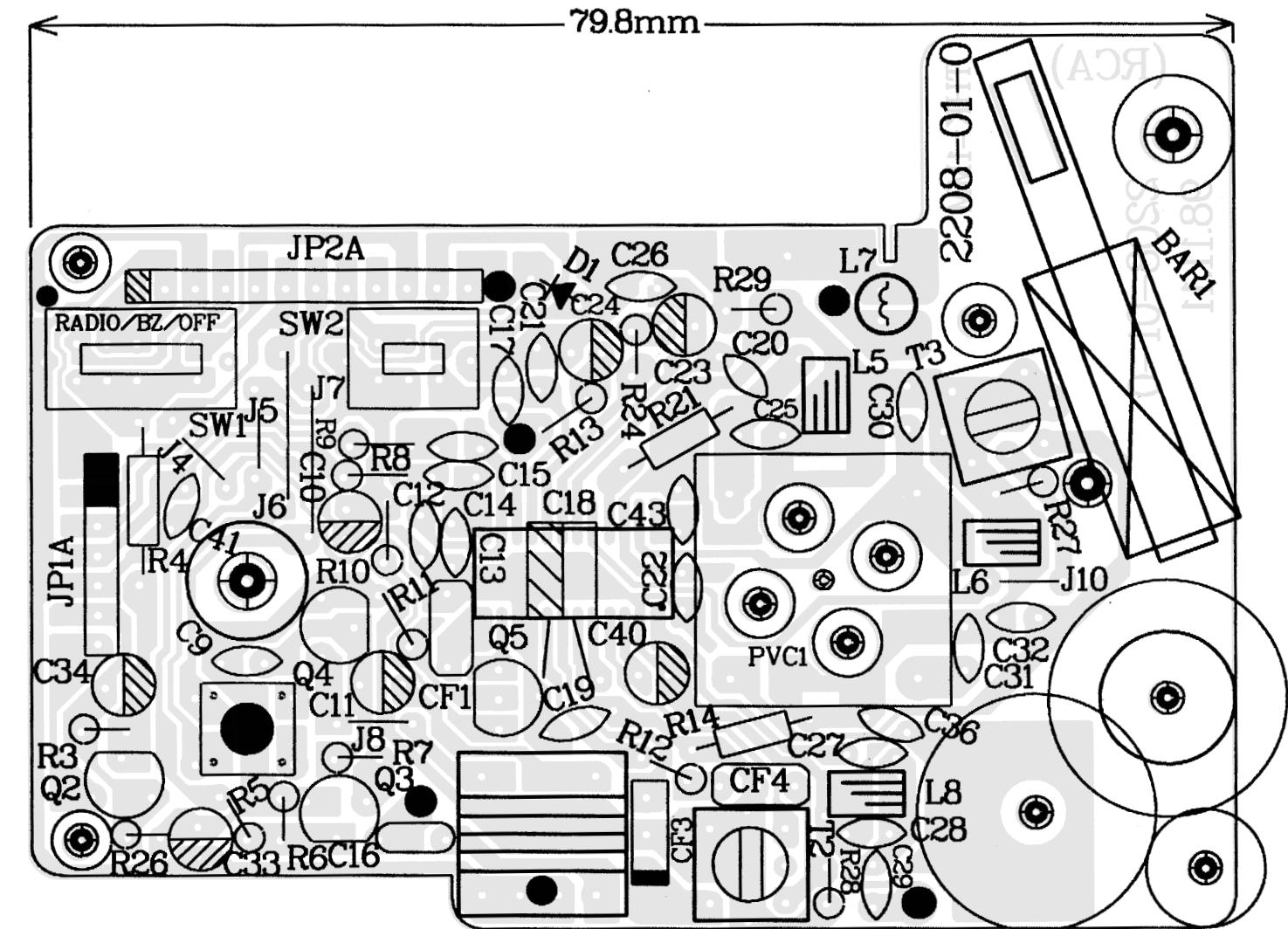
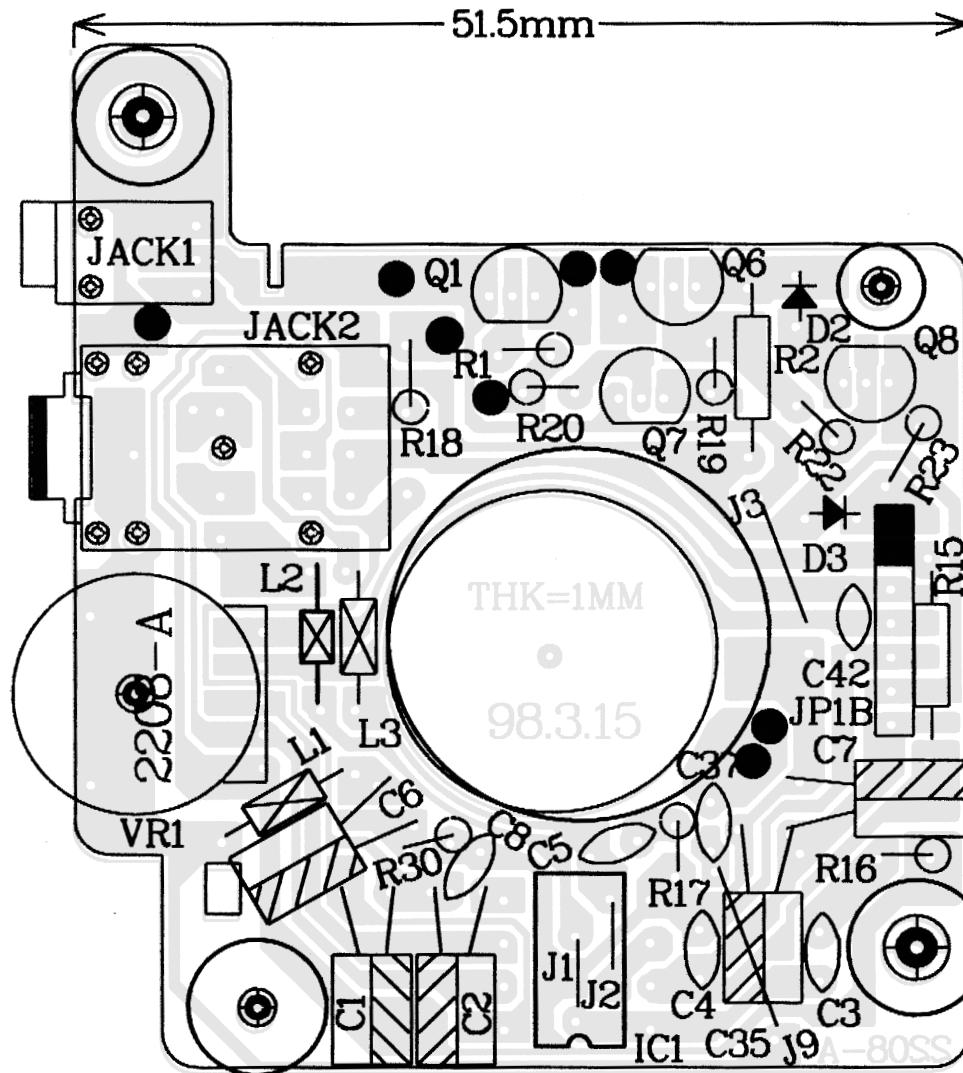
Warranty Status and Specifications of assemblies and components are subject to change without notice. Consult the TCE Parts Pricing Microfiche for the latest warranty status information.

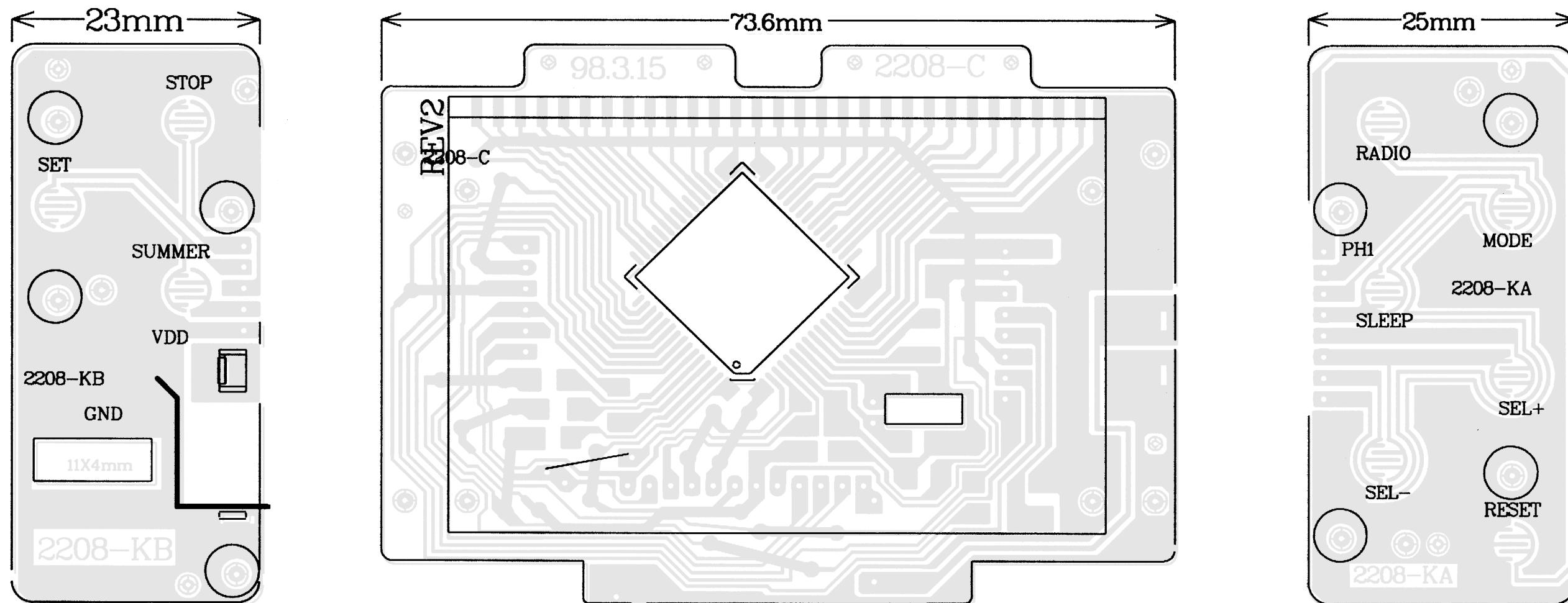
@NOTE: When ordering components that are listed more than once in this part list, always adhere to the serial number application guidelines given in the description column. If a serial number application guideline is not given, always select the component with a value, rating, other specification or identification marking(s) that match those of the corresponding component in the instrument you are servicing.

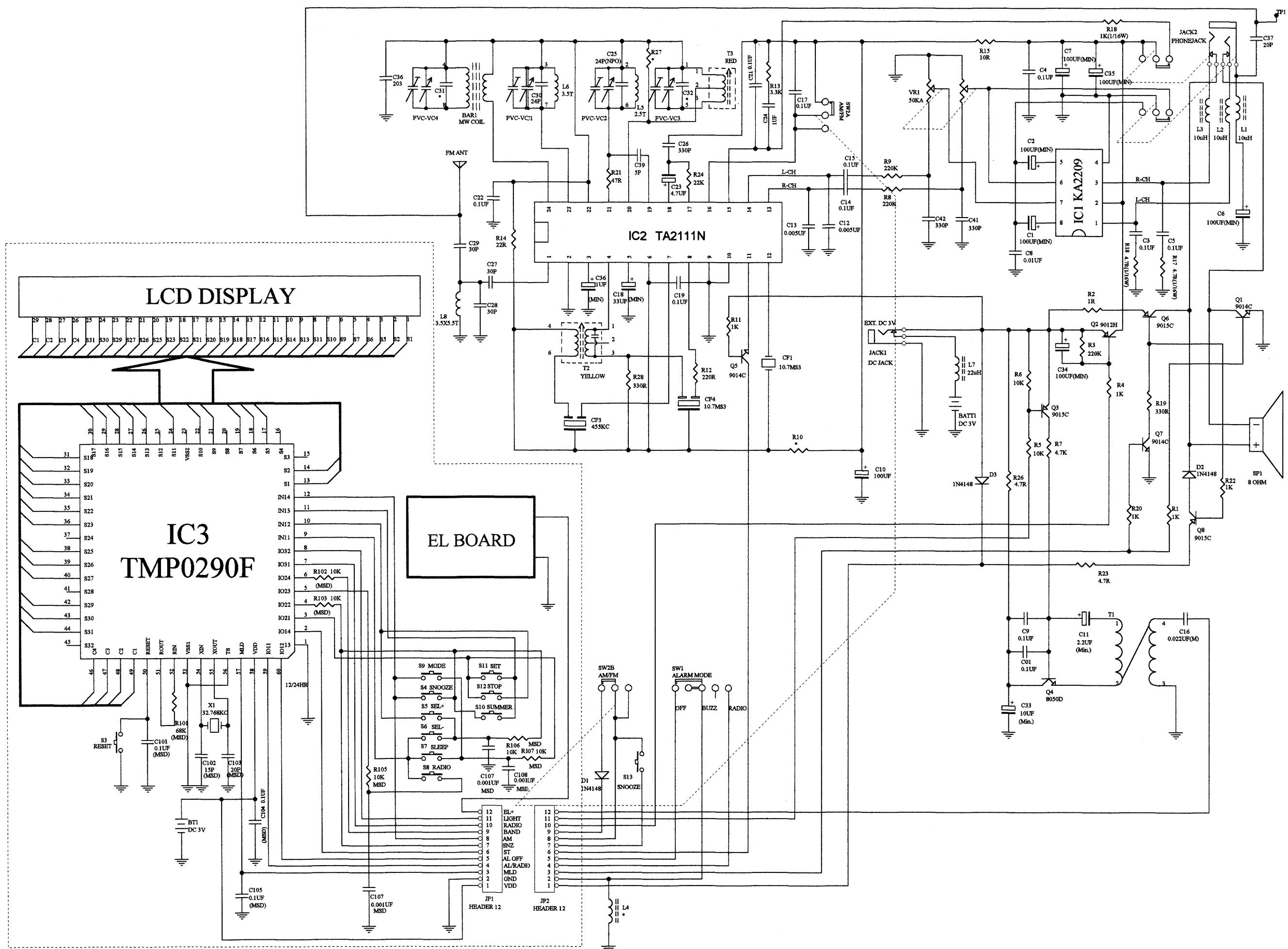
Symbol	Stock	Drawing	Description
RP-1224			
CABINET ASY			
1	98A33848	401-22080003-0	CABINET TOP BOTTOM
8	63A33857	137-30081123-9	DISPLAY LCD
17	98A33849	401-22080001-0	CABINET TOP FRONT
19	6A33855	408-30220821-2	LENS DIAL
21	98A33849	401-22080001-0	CABINET TOP FRONT
22	2A33860	204-20232305-1	SHAFT DOOR
23	95A33856	163-40000895-9	SPEAKER 8 OHM .5W
24	43A33853	401-22080013-0	KNOB FUNCTION
25	43A33854	401-22080014-0	BUTTON SNOOZE/LIGHT
26	43A33852	401-22080011-0	KNOB BAND
31	43A33851	401-22080010-0	KNOB TUNING
35	2A33859	202-22080003-4	CONTACT SPRING BATTERY -
36	2A33858	202-22080001-4	CONTACT SPRING BATTERY +
40	98A33848	401-22080003-0	CABINET TOP BOTTOM
44	9A33850	401-22080005-0	DOOR BATTERY
47	2A33977	401-22980006-1	ANTENNA DRUM

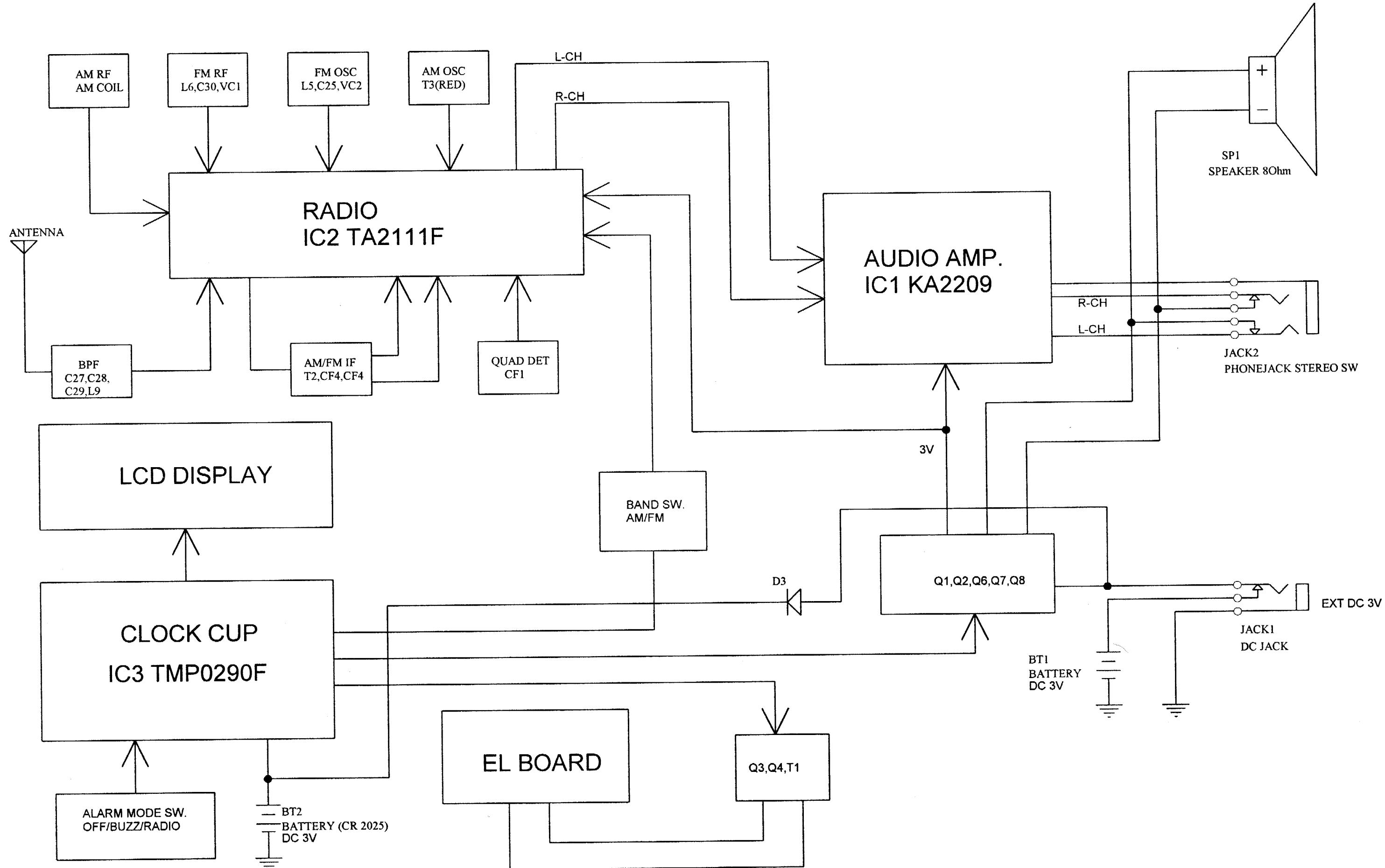
ELECTROCAL COMPONENTS			
D1	16A30936	102-81441480-8	DIODE 1N4148
D2	16A30936	102-81441480-8	DIODE 1N4148
D3	16A30936	102-81441480-8	DIODE 1N4148
D4	16A25172	102-95510430-3	DIODE FV1043
IC1	33A33863	104-93602906-0	IC TMP0290F
IC2	33A33862	104-18122160-0	IC TA8122AF
IC3	33A33861	104-11220900-0	IC KA2209
JACK1	8A33871	138-40071800-9	JACK DC
JACK2	8A33872	138-59735301-6	JACK PHONE
Q1	15A33865	103-90143000-0	TRANSISTOR S9014C

Symbol	Stock	Drawing	Description
MISCELLANEOUS			
Q			
Q2	15A33864	103-90128000-0	TRANSISTOR C9012H
Q3	15A33866	103-90153000-0	TRANSISTOR S9015C
Q4	15A33867	103-80504000-0	TRANSISTOR 8050D
Q5	15A33865	103-90143000-0	TRANSISTOR S9014C
Q6	15A33866	103-90153000-0	TRANSISTOR S9015C
Q7	15A33865	103-90143000-0	TRANSISTOR S9014C
Q8	15A33866	103-90153000-0	TRANSISTOR S9015C
SW1	39A33875	132-99234017-1	SWITCH SLIDE
SW2	39A33874	132-99224027-1	SWITCH SLIDE
T1	61A33870	164-55107690-0	TRANSFORMER
T2	61A33869	107-39602031-2	TRANSFORMER IFT YELLOW
T3	61A33868	107-49601872-2	TRANSFORMER IFT RED
VR1	42A33873	133-11241503-3	RESISTOR VAR VOLUME
X1	75A33876	139-13297680-4	CRYSTAL 32.768KHZ
B			
BAT	41A27288	162-38202500-0	BATTERY LITHIUM CR 2025
LAB	4A33976	POPRP1224	LABEL, POP
USE	UCRP1224	UCRP1224	USE & CARE GUIDE









RP1224A INTERCONNECT WIRING DIAGRAM

