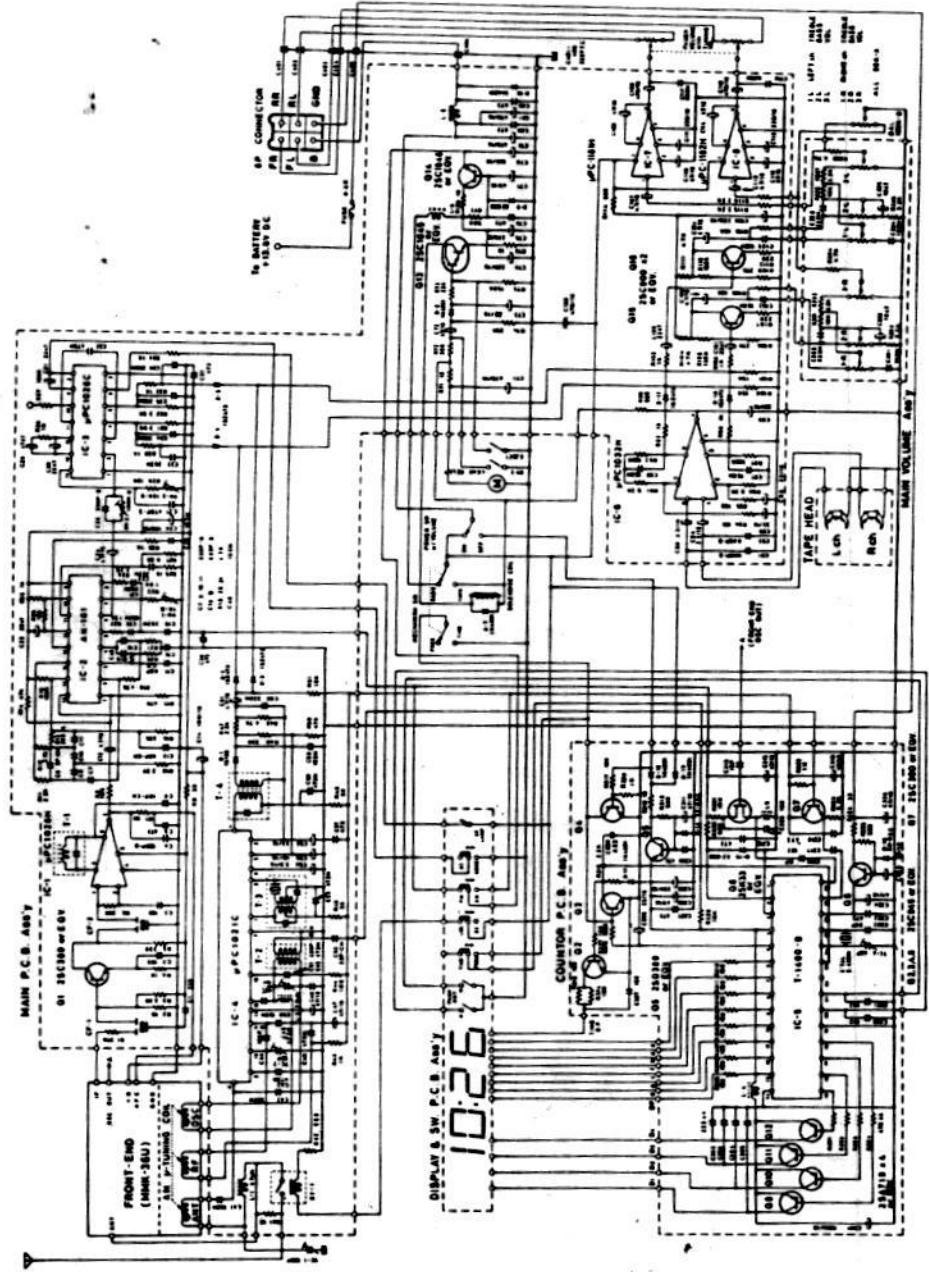


UPC 1021C

AM RADIO

SCHEMATIC DIAGRAM



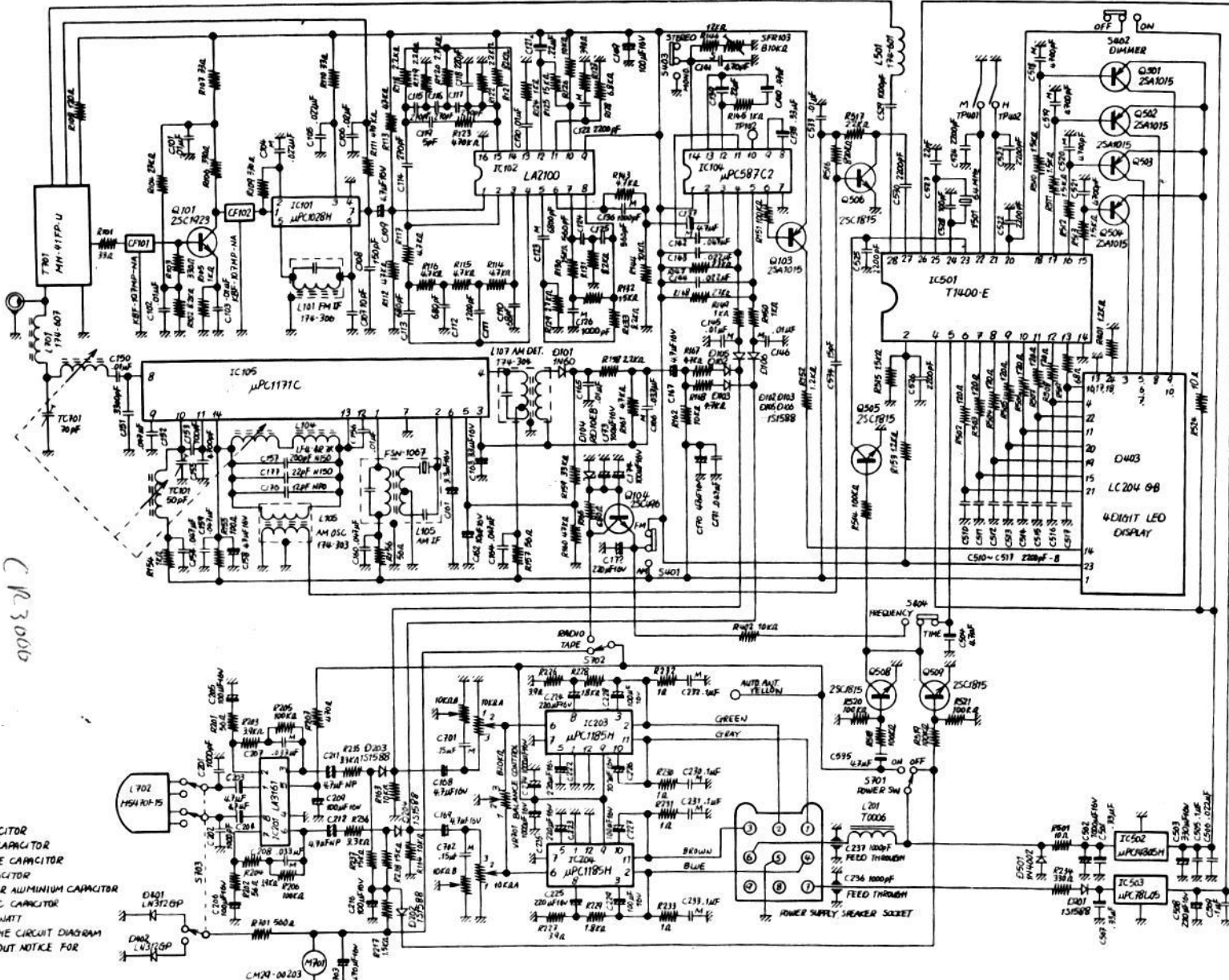
Printed in Japan

DF8320

without ARI

P.S. 8/1/21

uPC1028M
FM R/F IF I.C.
DETECTOR uC2100
A.M.=40db

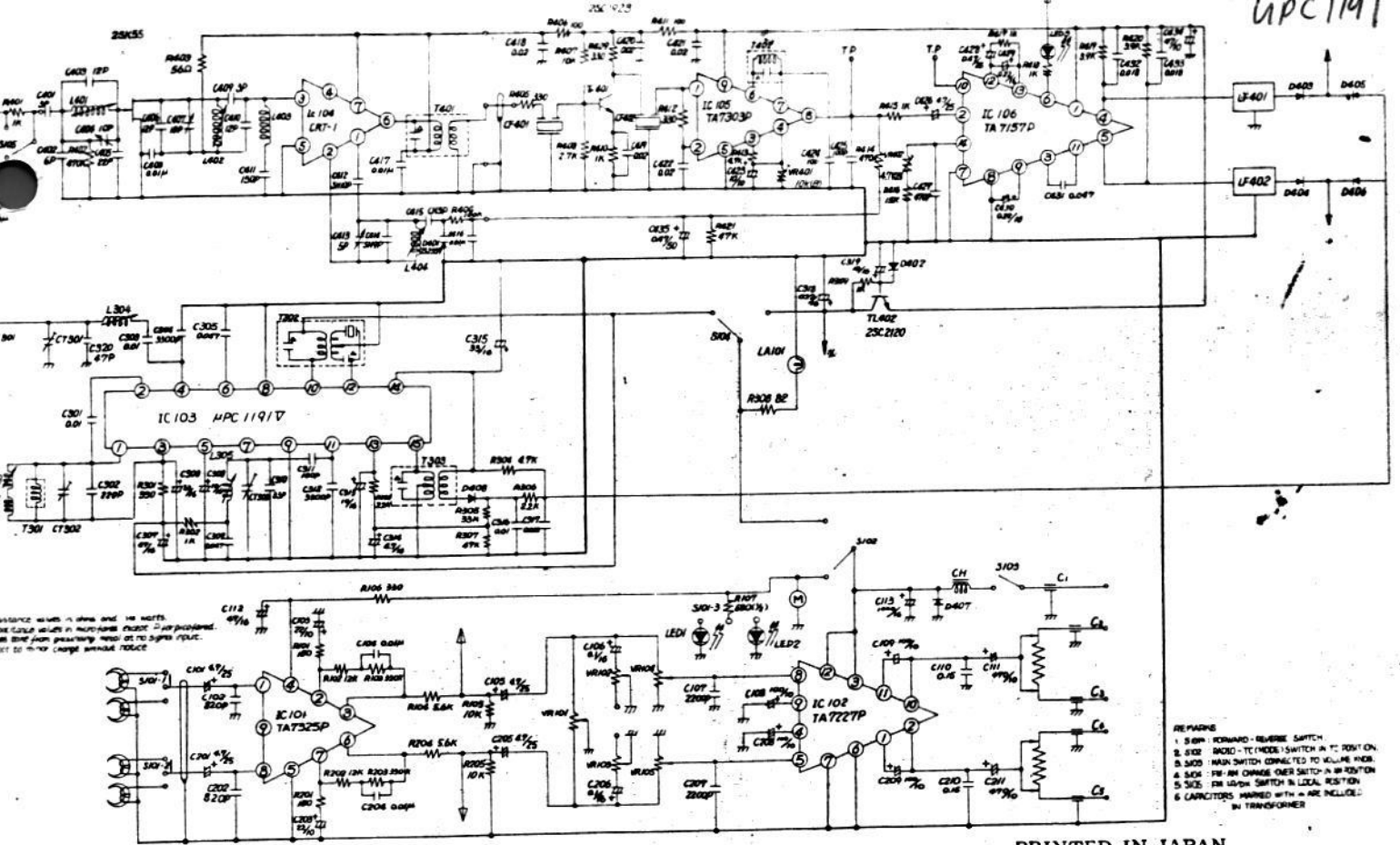


- NOTE
- INDICATIONS OF CAPACITOR
 - CERAMIC CAPACITOR
 - POLYSTYRENE CAPACITOR
 - MYLAR CAPACITOR
 - TANTALUM OR ALUMINIUM CAPACITOR
 - ELECTROLYTIC CAPACITOR
 - ALL RESISTOR ARE 1/8 WATT
 - SUBJECT TO CHANGE THE CIRCUIT DIAGRAM AND COMPONENTS WITHOUT NOTICE FOR IMPROVEMENTS

C.R.3000
D.F. 8320

C.R.3000

UPC1191



PRINTED IN JAPAN

- REMARKS
1. S10M FORWARD-REVERSE SWITCH
 2. S10D RADIO-TC (MODE) SWITCH IN TC POSITION
 3. S10D MAIN SWITCH CONNECTED TO INCLUDE MOTOR
 4. S10C FM AND CHANGE OVER SWITCH IN FM POSITION
 5. S10S FM MODE SWITCH IN LOCAL POSITION
 6. CAPACITORS MARKED WITH * ARE INCLUDED IN TRANSFORMER

CAUTION

- The player is intended for negative grounded 12V DC operation only.
- Before installation is attempted, it is recommended that assembly order in figure 1 is carefully noted.
- Please push the eject button at first, before you insert the tape, or there is the case that you can not insert a cassette tape.

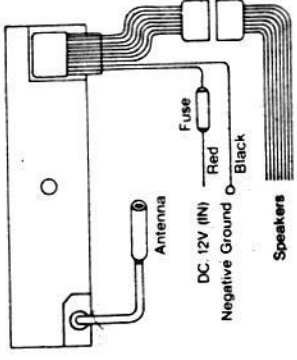


Fig. 3

Speakers	Color (+)	Color (-)
Left/Front	Blue	Brown
Left/Rear	White	Orange
Right/Front	Green	Yellow
Right/Rear	Gray	Purple

WIRE CONNECTION

- CONNECTIONS**
- **Speakers**
Connect the various leads illustrated figure 3 to their respective components, speakers, power source, etc.
 - **Antenna**
Connect the antenna jack to the antenna terminal built into your car.
 - **Ground**
Remember to connect the negative ground either to the dash. When it is made of metal, or to the car bodywork.

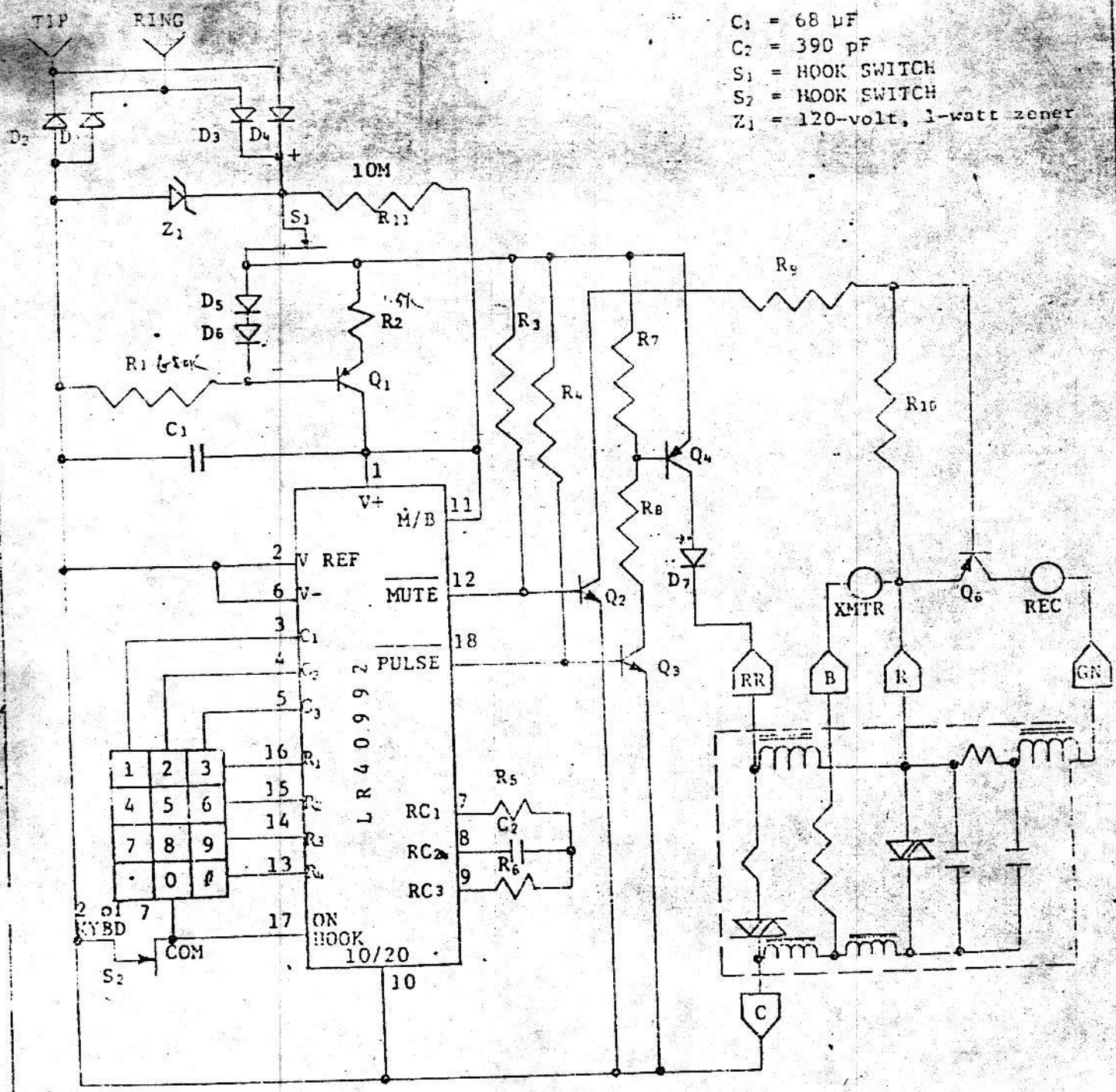
SPECIFICATIONS

- **Tape player**
Playback System 4-track, 2 channel stereo
Tape Speed 1-7/8 in/sec (4.75cm/sec)
3%/-1%
- **Wow & Flutter**
FF/REW Time Less than 0.2%(WRMS)
Less than 80sec (C-60)
- **FM Receiver**
Tuning Range 87.5-108MHz
IF Frequency 10.7 MHz
Sensitivity 6 μV
IF Rejection 50dB
Image Rejection 50dB
Stereo separation 35dB
- **AM Receiver**
Tuning Range 530-1610 KHz
IF Frequency 455KHz
Sensitivity 40 μV
IF Rejection 40dB
Image Rejection 50dB
- **General & Audio Amp**
Power Supply 11-16V DC
negative grounding only.
Output Power 4W/channel RMS.
Frequency Response 63-10,000Hz.
Load Impedance 4-8 ohms.
Circuitry 6 lcs, 1 FET.
2 Transistors.
Dimensions Depth 130 × Width 178 × Height 42 (mm)

PRECAUTIONS

- Always pull the tape from the player when not in use.
- Do not operate with short-circuited terminals or with speakers with an impedance of less than 4 ohms.
- Do not operate the player when the temperature inside the car is extremely high.
- Do not expose tapes to direct sunlight or dusty conditions.
Never touch the tape surfaces with the fingers.
- Store tapes away from electromagnetic sources.
- Clean the capstan and the play back head once a month with a soft cloth or alcohol-soaked cotton swab.
- If the tape fails to operate, check the fuse.
The fuse is rated at 3 amperes.

6. System Configuration



- C₁ = 68 μF
- C₂ = 390 pF
- S₁ = HOOK SWITCH
- S₂ = HOOK SWITCH
- Z₁ = 120-volt, 1-watt zener

- R₁ = 560 KΩ
- R₂ = 1.4 KΩ
- R₃ = 470 KΩ
- R₄ = 330 KΩ
- R₅ = 2 MΩ
- R₆ = 220 KΩ
- R₇ = 100 KΩ
- R₈ = 3 KΩ
- R₉ = 3 KΩ

- R₁₀ = 100 KΩ
- R₁₁ = 10 MΩ
- Q₁ = 2N5401
- Q₂ = 2N5550
- Q₃ = 2N5550
- Q₄ = 2N5401
- Q₅ = 2N5401

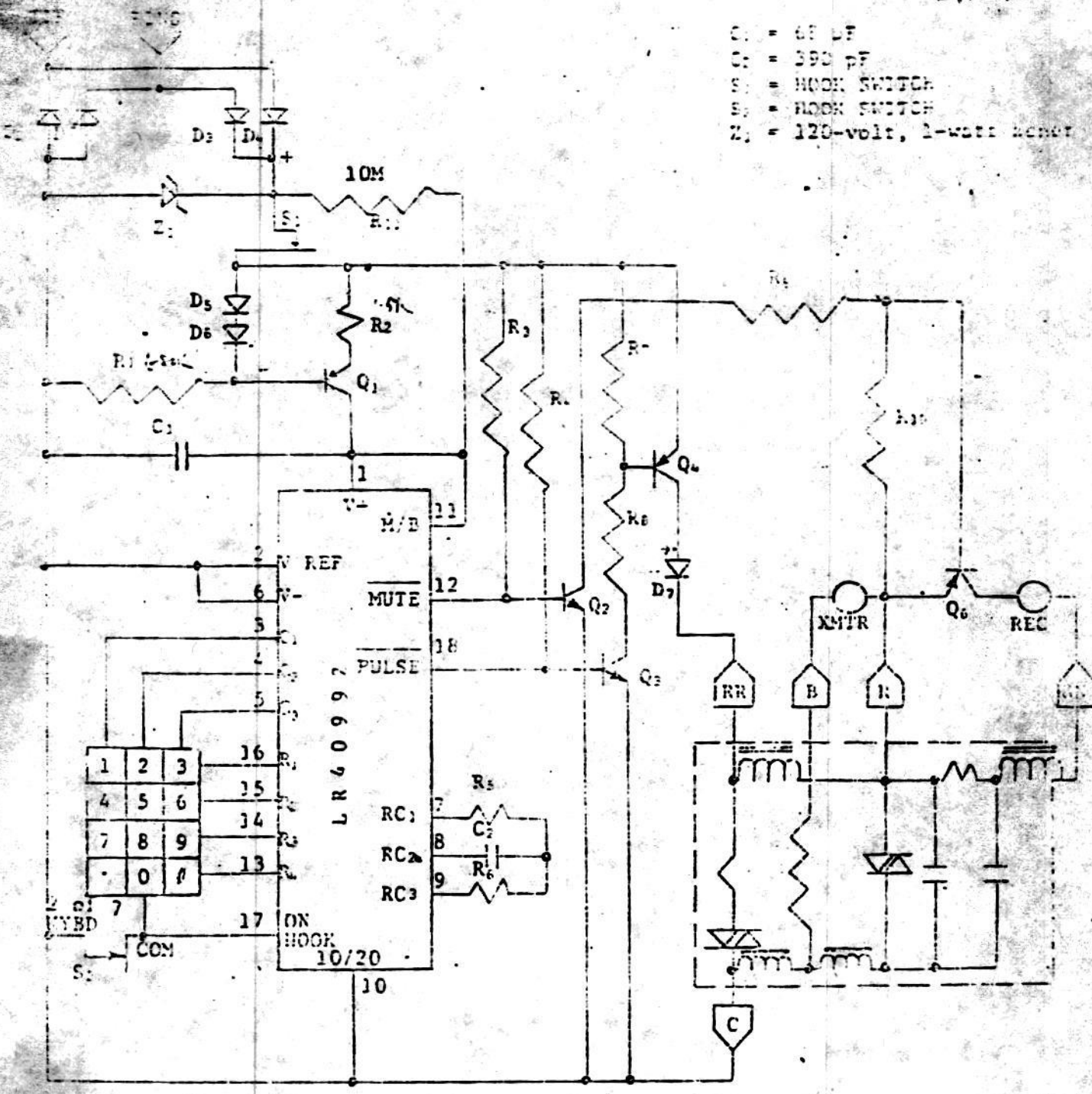
- D₁ = 1N4004
- D₂ = 1N4004
- D₃ = 1N4004
- D₄ = 1N4004
- D₅ = 1N914
- D₆ = 1N914
- D₇ = 1N4004

LR40992

TELEPHONE
DIALER

System Configuration

- C₁ = 68 μF
- C₂ = 390 pF
- S₁ = HOOK SWITCH
- S₂ = HOOK SWITCH
- Z₁ = 120-volt, 1-watt ZENER



- R₁ = 560 KΩ
- R₂ = 1.4 KΩ
- R₃ = 470 KΩ
- R₄ = 330 KΩ
- R₅ = 2 MΩ
- R₆ = 220 KΩ
- R₇ = 100 KΩ
- R₈ = 3 KΩ
- R₉ = 3 KΩ

- R₁₀ = 100 KΩ
- R₁₁ = 10 MΩ
- Q₁ = 2N5401
- Q₂ = 2N5550
- Q₃ = 2N5550
- Q₄ = 2N5401
- Q₅ = 2N5401

- D₁ = 1N4004
- D₂ = 1N4004
- D₃ = 1N4004
- D₄ = 1N4004
- D₅ = 1N914
- D₆ = 1N914
- D₇ = 1N4004

MRT-80

FROM
ALL
BRANCH

3718-2

**TP50981/TP50981A, TP50982/TP50982A, TP50985/TP50985A
Push Button Pulse Dialer Circuits**

General Description

This family of monolithic CMOS circuits provides all logic necessary to convert keyboard inputs into a series of pulses simulating rotary telephone dialing. An on-chip memory capable of storing up to 17 digits allows keyboard entries to be made at rates comparable to those of tone-dialing telephones and provides one-key redial of the last number dialed. The keyboard inputs interface directly to a standard 2-of-7 keypad with positive-common or an inexpensive form A-type keyboard. Two outputs, one for pulsing the telephone line and one to mute the receiver, are provided along with pin selectable Break/Make ratios and an on-chip voltage regulator. The low voltage and low current requirements of these devices allow direct telephone line powered operation.

Features

- TP50981/TP50981A, TP50985/TP50985A for pulsing loop in shunt with speech network
- TP50982/TP50982A for pulsing loop in series with speech network
- 1.7V, 150 μ A operation TP50981A, TP50982A and TP50985A
- Single-contact or positive-common key inputs
- Break/Make ratio pin selectable
- On-chip voltage regulator
- On-chip oscillator using 480 kHz ceramic resonator
- Scratchpad (new number storage without dialing) on TP50985/TP50985A
- 10/20 pps option on TP50985/TP50985A

TP50981/TP50981A, TP50982/TP50982A, TP50985/TP50985A
Push Button Pulse Dialer Circuits

Block Diagram

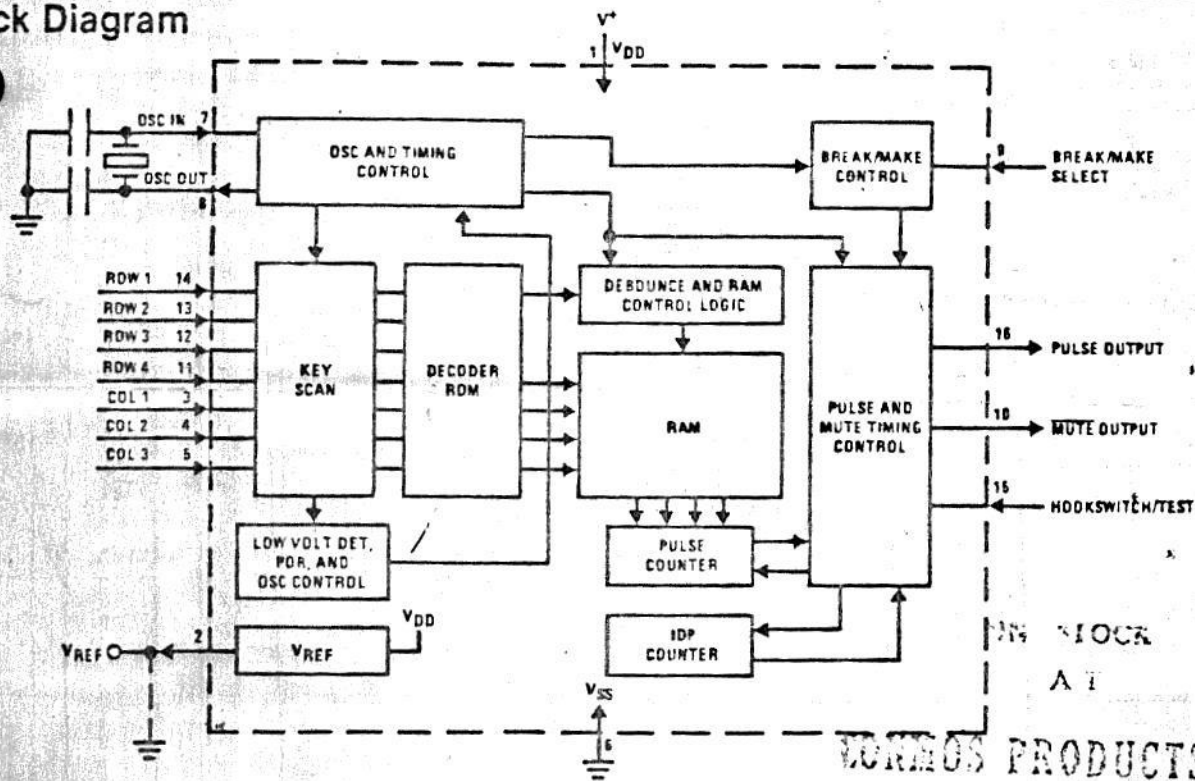
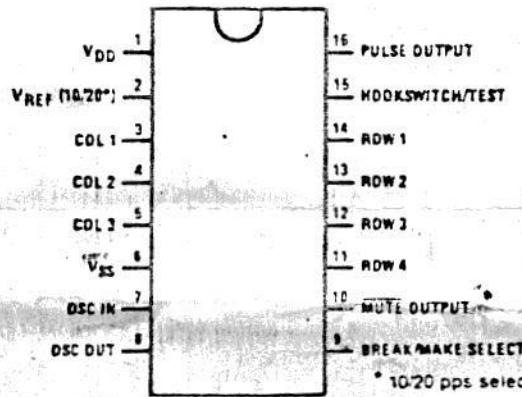


FIGURE 1

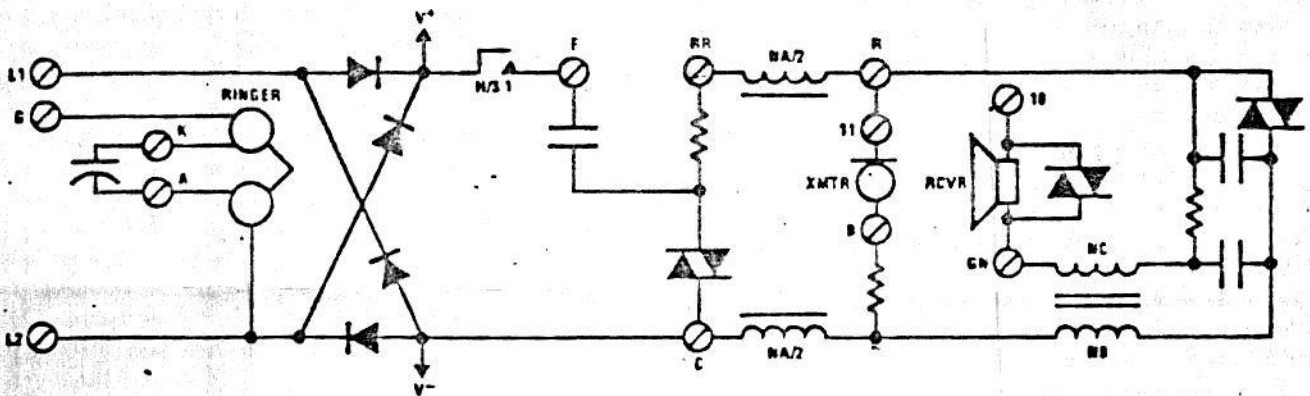
MONTECH PRODUCTS LTD

TEI 7560103

Connection Diagram (Dual-In-Line Package, Top View)

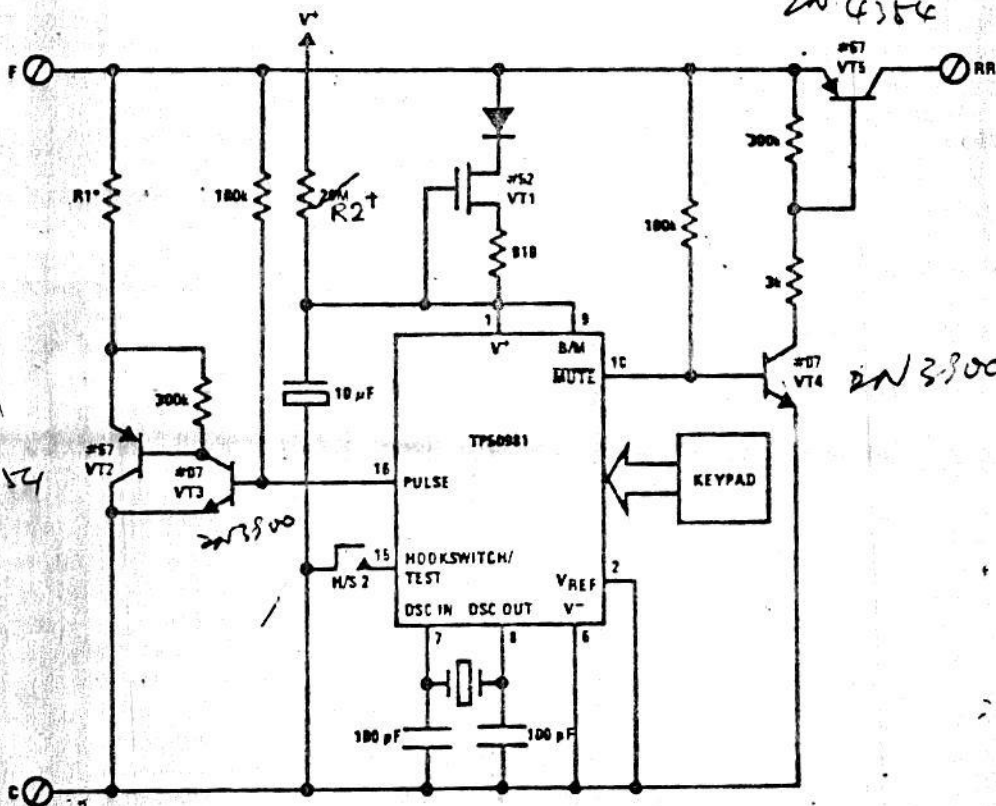


Applications Information (Continued)



2N5550 / 2N5550

2N4354



2N4354

*R1 typically 1500.
 # Indicates National Semiconductor Discrete process number.

TR2 = 20M for TP50981/5, R2 = 50M for TP50451A/5A

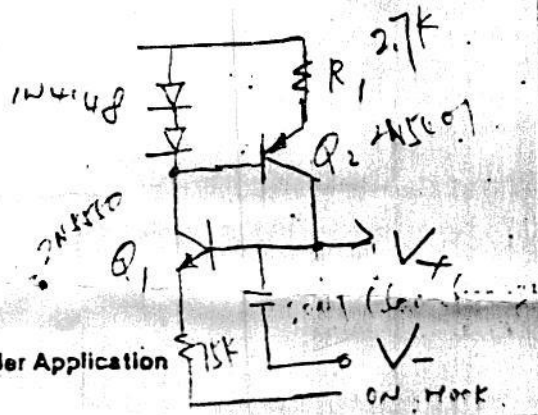
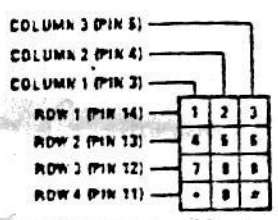
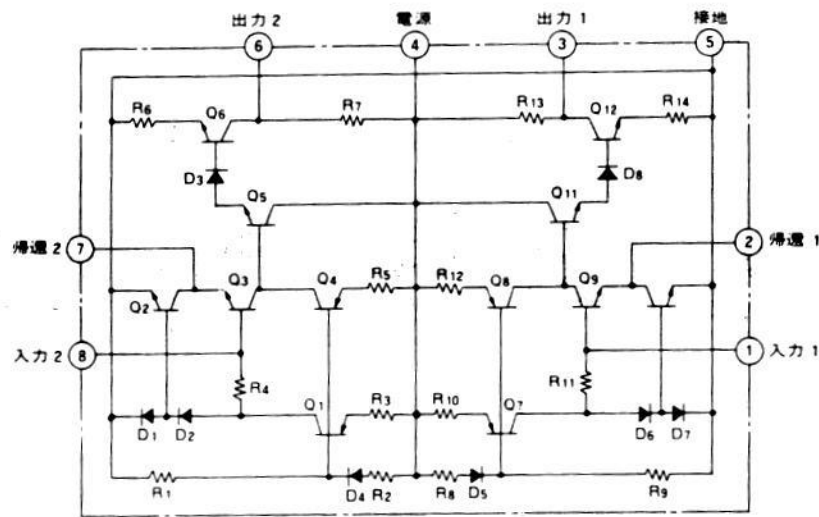


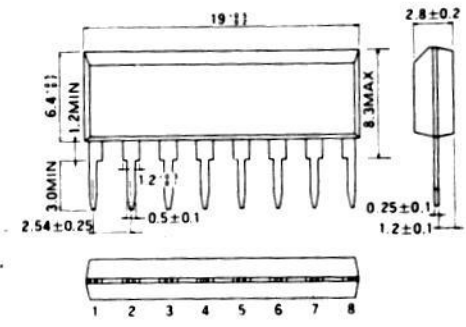
FIGURE 3. TP50981, TP50985 Shunt Dialer Application

LA5522
1.42

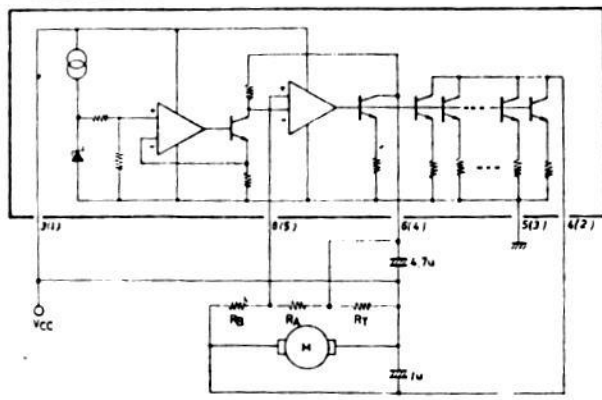
M51521L CIRCUIT DIAGRAM



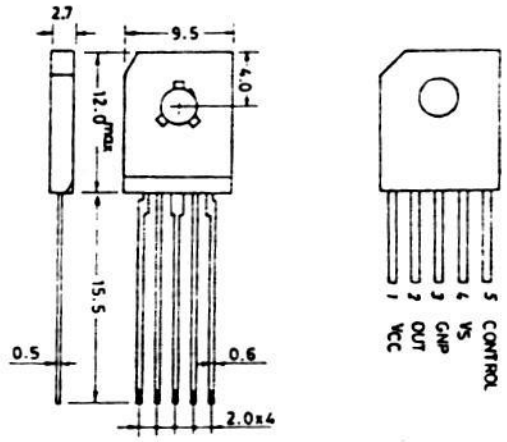
PACKAGE DIMENSION



LA5522 CIRCUIT DIAGRAM

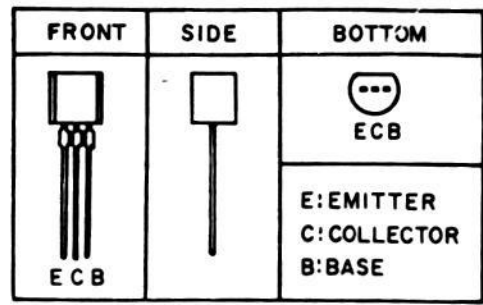


PACKAGE DIMENSION

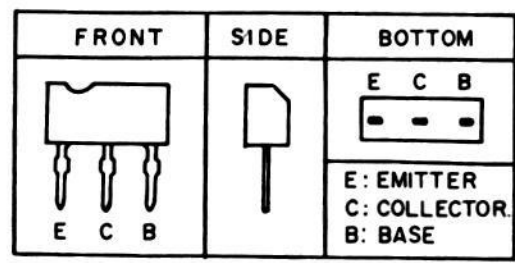


TRANSISTOR LEAD IDENTIFICATION

2SC2120



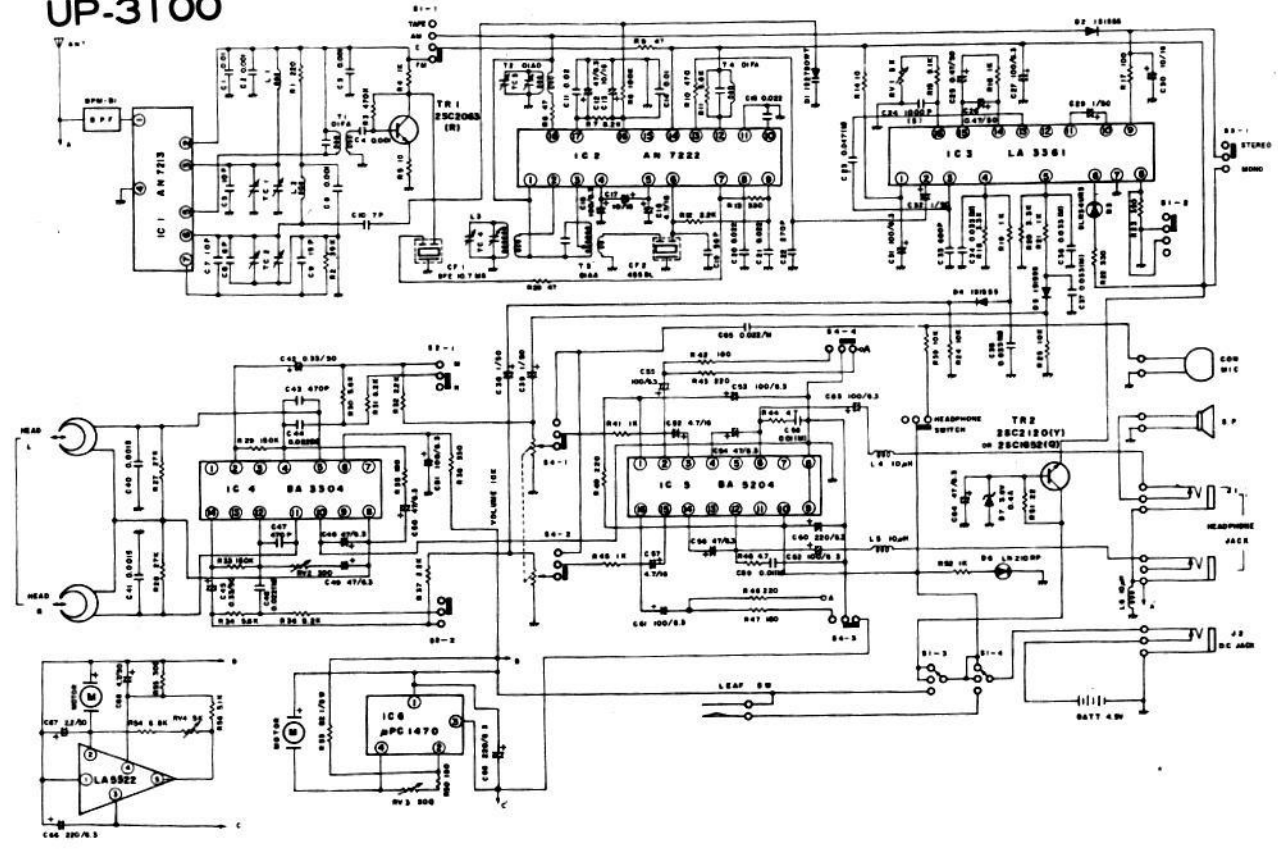
2SC2063 2SC1652



LASS22
M930R

6. SCHEMATIC DIAGRAM

UP-3100



UP-3100A

