MOBILE RADIO

# MAINTENANCE MANUAL
# 800 MHz, 30-WATT TRANSMITTER/RECEIVER FRAME ASSEMBLY
# 19D900742G2, G3

TABLE OF CONTENTS



## DESCRIPTION

The Transmitter/Receiver Frame Assembly contains the transmitter/receiver board, fixed tuned power amplifier section and power control circuit. Component parts for the exciter are located on the synthesizer/interconnect board and the transmitter/receiver board. The frequency synthesizer and frequency injection chain including a frequency tripler are located on the synthesizer/interconnect board. The transmitter/receiver board in mounted on the bottom side of the "H" frame chassis.

The exciter provides approximately 250 milliwatts of modulated RF power to the PA section which provides 30 watts power output. Figure 1 is a block diagram of the Century II radio showing both the transmitter and receiver.

## TRANSMITTER

### EXCITER

The synthesized frequency output and the injection output from the interconnect/frequency synthesizer board are applied to the balanced mixer through J101 and J102. The mixer output signal is the sum of these two input signals and will fall within the range of 408-410.5 MHz. The output of the balanced mixer is coupled through three tuned circuits (L101, L102, L103) to the base of amplifier Q101. Metering test point TP101 is used in tuning L101, L102 and L103. The typical DC reading is 5.6 volts.

## CIRCUIT ANALYSIS

Following amplifier Q101 is frequency doubler Q102. The output of Q102 (816-821 MHz) is filtered by L107, L108 and L109, and are tuned to the operating frequency. The filter output is applied to the base of amplifier Q103.

The collector output of Q103 is applied to a power splitter consisting of L111 and C116, and L112 and C121. The portion of the RF signal coupled through L111 and C116 is applied to the base of amplifier Q104. The output of Q104 is coupled to the receiver and used as the 1st oscillator injection frequency. The signal coupled through L112 and C121 is applied to the base of exciter amplifier Q105. The collector tank of Q105 is tuned by C125 and C127.

Following Q105 is amplifier Q106. The output of Q106 is tuned by C133 and C134.

Variable capacitors C125, C127, C133 and C134 are tuned for a maximum DC voltage reading at TP103. The typical DC reading at TP103 is 1.2 volts. Part of the RF signal at W102 is rectified by "sniffer" diode D101 to provide the voltage reading at TP103.

W102 is a 50 ohm stripline on the printed circuit board that connects to A201. Stripline W1 on A201 connects the exciter output to the driver amplifier.

### POWER AMPLIFIER

The power amplifier consists of driver amplifier module U201, P.A. transistor Q201 and matching circuits. The driver amplifier amplifies the 250 milliwatt exciter output to provide drive for Q201. L201, C207, C208, C209, and L203 match the 50 ohm output impedance of U201 to the input impedance of Q201. L202 provides an isolated DC return for the emitter. L203 and L204 are the inductance of the leads of Q201. The output of Q201 is transformed to 50 ohms by L204, C210, C211, L205, and C212. L206

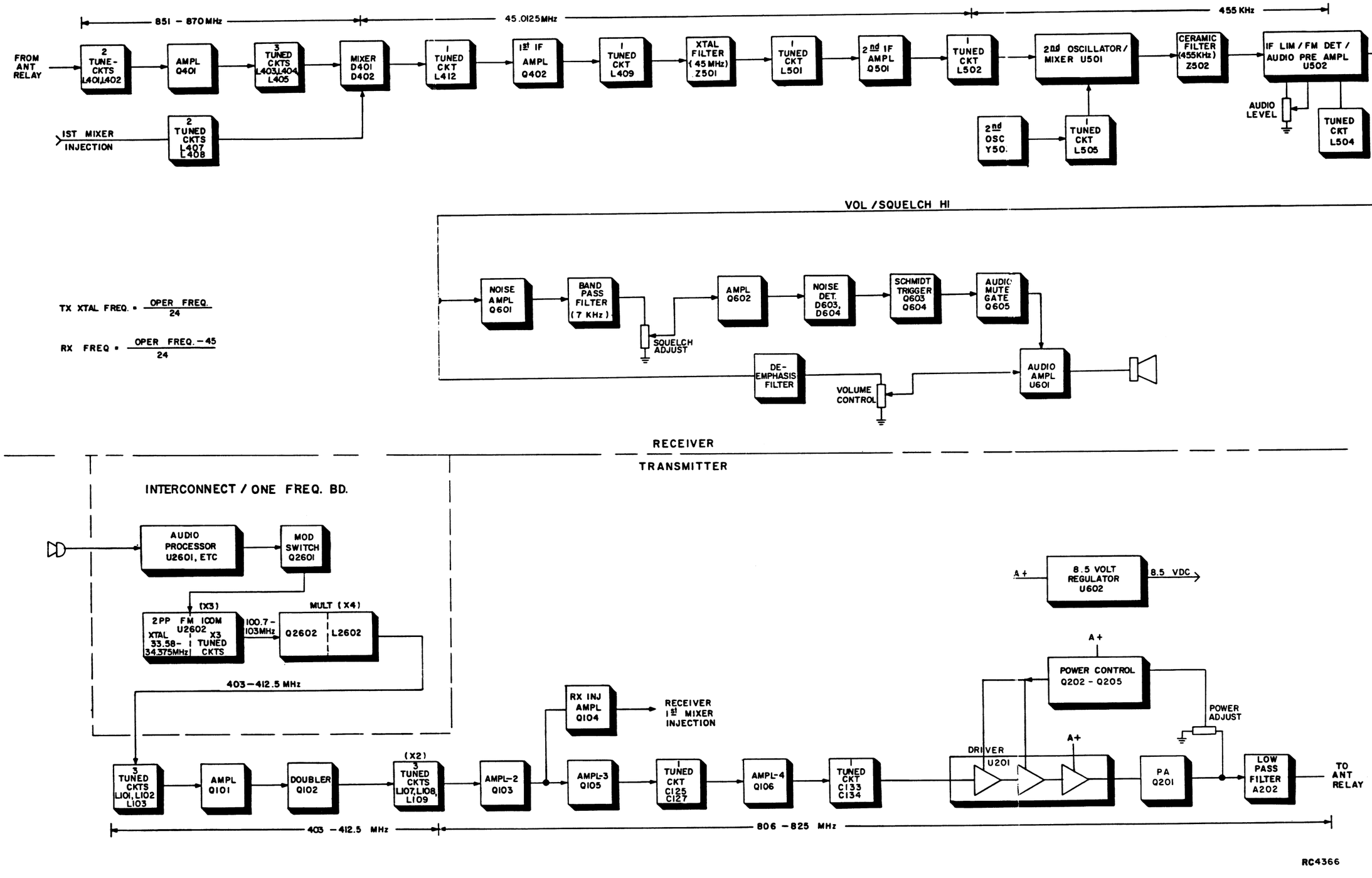



Figure 1 - Transmitter/Receiver Block Diagram

provides an isolated DC feed path to the collector and C213 blocks D.C. from the output circuit. Stripline W207 connects the output to low pass filter A202. The filter output is applied to antenna relay K601.

RF POWER CONTROL CIRCUITS

Power adjustments is accomplished by controlling the DC collector voltage to the first and second stages of U201 by pass transistor Q205. Q205 is controlled by a feedback loop consisting of W206, D201, Q202, Q203, and Q204. The power is set by R203.

Any change in output power is sensed by the power control circuit. For example; if the output power increases, more RF is rectified by D201, increasing the base voltage of Q202. This causes Q202 to conduct more, reducing its collector voltage (and base voltage to Q203).

Reducing the base voltage applied to Q203 causes it to conduct less, raising the base voltage of PNP transistor Q204. With Q204 conducting less, there is less base voltage applied to pass transistor Q205 resulting in less collector voltage being applied to the first and second stages in U201. This reduces the output power of the PA module in proportion to the increase in output power detected by the base of Q202.

To protect Q201 against badly mismatched loads, a reverse (reflected) power detector consisting of W205, D203 and control R212 detects reverse power. When sufficient powers is reflected to create enough voltage at R212, D204 conducts and reduces voltage from the pass transistor Q205 which reduces the drive to Q201, protecting it.

CAUTION

R212 is preset at the factory and normally does not require adjustment.

RECEIVER

Century II 800 MHz receivers are dual conversion, superheterodyne FM receivers designed for operation in the 861-865 MHz frequency range. A regulated 8.5 volts is used for all receiver stages except for the audio PA IC, which operates from the A+ supply.

The receiver uses intermediate frequencies of 45.0125 MHz and 455 kHz. Adjacent channel selectivity is obtained by using two bandpass filters: a 45.0125 MHz crystal filter and a 455 kHz ceramic filter.

All receiver circuitry is mounted on the transmitter/receiver (Tx/Rx) board. The receiver consists of:

- Receiver Front End and 1st Mixer
- 45.0125 MHz 1st IF circuitry
- 2nd Oscillator
- 455 kHz 2nd IF circuitry with FM Detector
- Audio PA Circuit
- Squelch Circuit

RECEIVER FRONT END

RF from the antenna is coupled through two helical resonators (L401 and L402) to the base of RF amplifier Q401. Q401 is a class A, common emitter amplifier that provides a gain of approximately 8 to 10 dB. Thhe amplified output is coupled through three additional helicals to the 1st mixer. The five helicals provide the front end selectivity.

1ST MIXER

The 1st mixer is a dual balanced diode mixer that converts a signal in the 861-865 MHz range to the 45.0125 MHz 1st IF frequency.

RF from the front end helicals is coupled through C404 to mixer diodes D401 and D402. The low side injection input from the exciter is coupled through two helicals (L407 and L408) to the mixer diodes. The injection input port is isolated from the RF input and IF output by a balancing transformer consisting of L413 tapped to ground.

The 1st mixer output is coupled through a tuned circuit (L412 and C405) that matches the mixer output to gate 1 of 1st IF amplifier Q402.

TP401 is used in tuning the discrete IF stages and the injection filter, L408 and L409.

1ST IF AMPLIFIER AND FILTER

IF Amplifier Q402 is a dual gate FET that provides good intermodulation and desensitization characteristics. The amplifier also acts as a buffer between

the variable balanced mixer output impedance and the crystal filter.

The IF output signal at the drain of Q402 is coupled through a tuned circuit (L409 and C408) that sets the impedance to crystal filter Z501.

Z501 is a 45.0125 MHz, four-pole crystal filter that provides a minimum of 30 dB adjacent channel rejection. The filter output is applied through a tuned circuit (L501, C501 and C526) that matches the output impedance of Z501 to the second IF amplifier.

## 2ND IF AMPL

2nd IF Amplifier Q501 is a dual-gate FET. The filter output is applied to Gate 1 of the amplifier, and the output is taken from the drain. The biasing on Gate 2 and the drain load determines the gain of the stage. The amplifier provides approximately 20 dB of IF gain. The output of Q501 is coupled through L502 which matches the amplifier output to the input of IC U501.

## 2ND OSC/MIXER AND IF AMPL

The 2nd oscillator, mixer and 3rd IF amplifier consists of U501 and associated circuitry. The oscillator operates at 45.4675 MHz. The oscillator crystal is Y501. The 45.0125 MHz input frequency is mixed with the oscillator frequency to provide the 2nd IF frequency of 455 kHz. Diodes D501 and D502 limit the mixer output. L503 is tuned for the 2nd IF output of 455 kHz.

## FILTER, LIMITER AND DETECTOR

The output of U501 is coupled through ceramic filter Z502 which provides the 455 kHz selectivity, and applied to U502. Test Point TP501 is used in aligning the receiver, and can be used to check the output of U501. The typical DC reading at TP501 is 2.7 volts.

U502 and associated circuitry consists of a 455 kHz limiter, a quadrature-type FM detector and an audio pre-amplifier. L504 is the quadrature detector coil. Audio Level Potentiometer R521 is used to set the audio output level to the audio amplifier.

## AUDIO CIRCUITS

Audio from the audio pre-amplifier U502 is applied to the voice/tone reject filter in the logic board through J903-3 and J2502-3 on the synthesizer/interconnect board. The voice/tone reject filter removes the busy tone and applies the received audio to the alert tone switch. The alert tone switch under control of the microprocessor selects either alert tones or voice frequencies to apply to the audio mute switch. The audio mute switch, under control of the microprocessor completes the audio path to the de-emphasis network.

On GE-MARC V CORONA, CENTURA TC and CENTURA trunked mobile radios, the audio passes through the de-emphasis network (R901 on the interconnect board, R629, C607 and C608) to volume control R630.

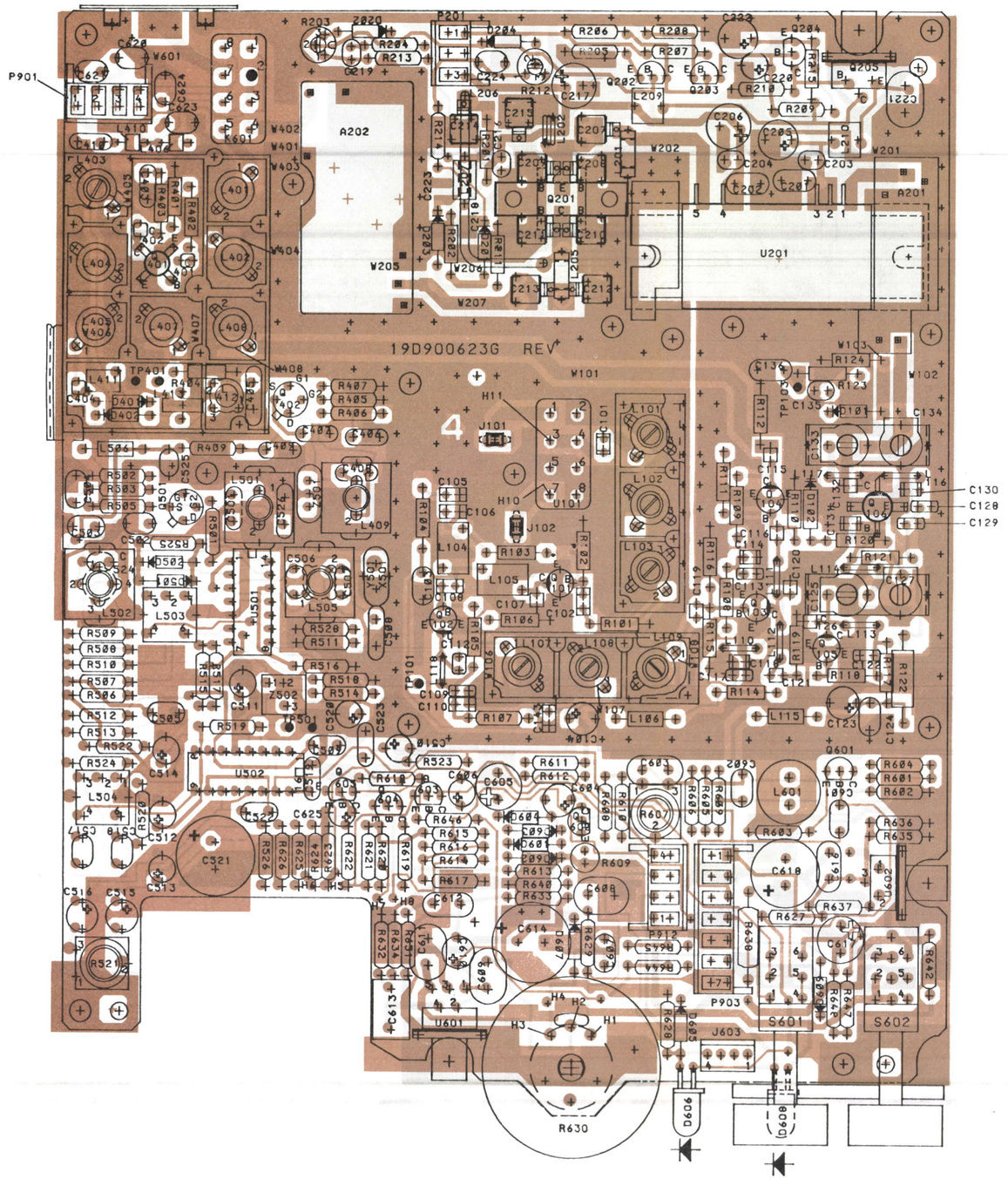
On GE-MARC V Classic radios the audio from the audio/mute select switch is applied to the electronic audio attenuator. The electronic audio attentuator under control of the microprocessor controls the audio level applied to the audio amplifier and replaces the volume control potentiometer found in the GE-MARC V CORONA, CENTURA TC, and CENTURA radios. Audio from the electronic attenuator is applied to the audio amplifier through the de-emphasis network.

The audio amplifier IC (U601) drives the speaker (or handset) at the desired audio level. The feedback loop containing R633, R634, and C610 determines the amplifiers closed loop gain. R631 and C612 provide the high audio frequency roll-off above 6 kHz.

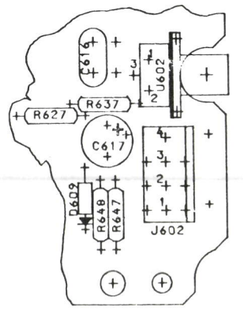
Rx Mute Gate (Q605), under control of the Rx MUTE signal, controls the audio amplifier. When Rx MUTE is high, Q605 is turned off. This turns on U601, allowing audio to be heard over the speaker.

GENERAL ELECTRIC COMPANY • MOBILE COMMUNICATIONS DIVISION
WORLD HEADQUARTERS • LYNCHBURG, VIRGINIA 24502 U.S.A.

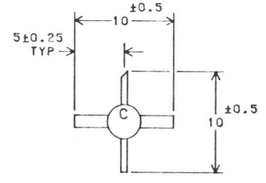
GENERAL ELECTRIC*
U.S.A.




(19D900624, Rev. 7)
(19A702341, Sh. 1, Rev. 4)
(19A702341, Sh. 2, Rev. 4)

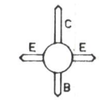



GROUP 3 ONLY
DETAIL B



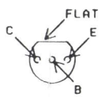

LEAD TRIMMING
FOR Q106

LEAD IDENTIFICATION
FOR Q101-Q105 & Q401



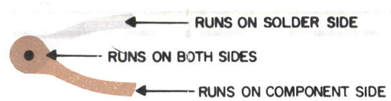

TOP VIEW

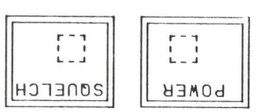
LEAD IDENTIFICATION FOR
Q601,Q602,Q603,Q604 & Q605
Q202,Q203,Q204




IN-LINE
TOP VIEW

NOTE:
CASE SHAPE IS DETERMINING
FACTOR FOR LEAD IDENTIFICATION.



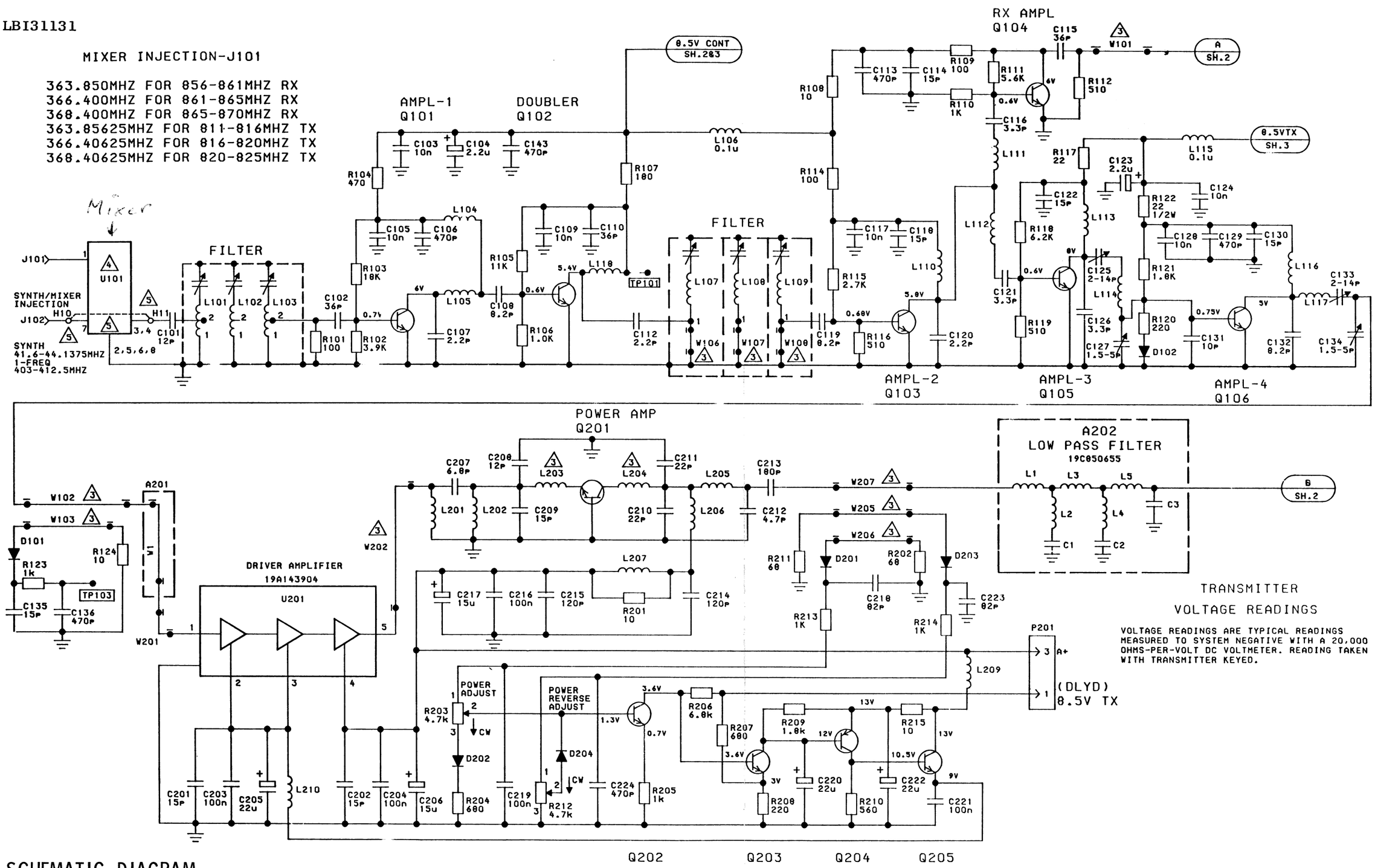

# OUTLINE DIAGRAM

TRANSMITTER/RECEIVER BOARD

Issue 3

MIXER INJECTION-J101

363.850MHZ FOR 856-861MHZ RX
366.400MHZ FOR 861-865MHZ RX
368.400MHZ FOR 865-870MHZ RX
363.85625MHZ FOR 811-816MHZ TX
366.40625MHZ FOR 816-820MHZ TX
368.40625MHZ FOR 820-825MHZ TX




TRANSMITTER VOLTAGE READINGS

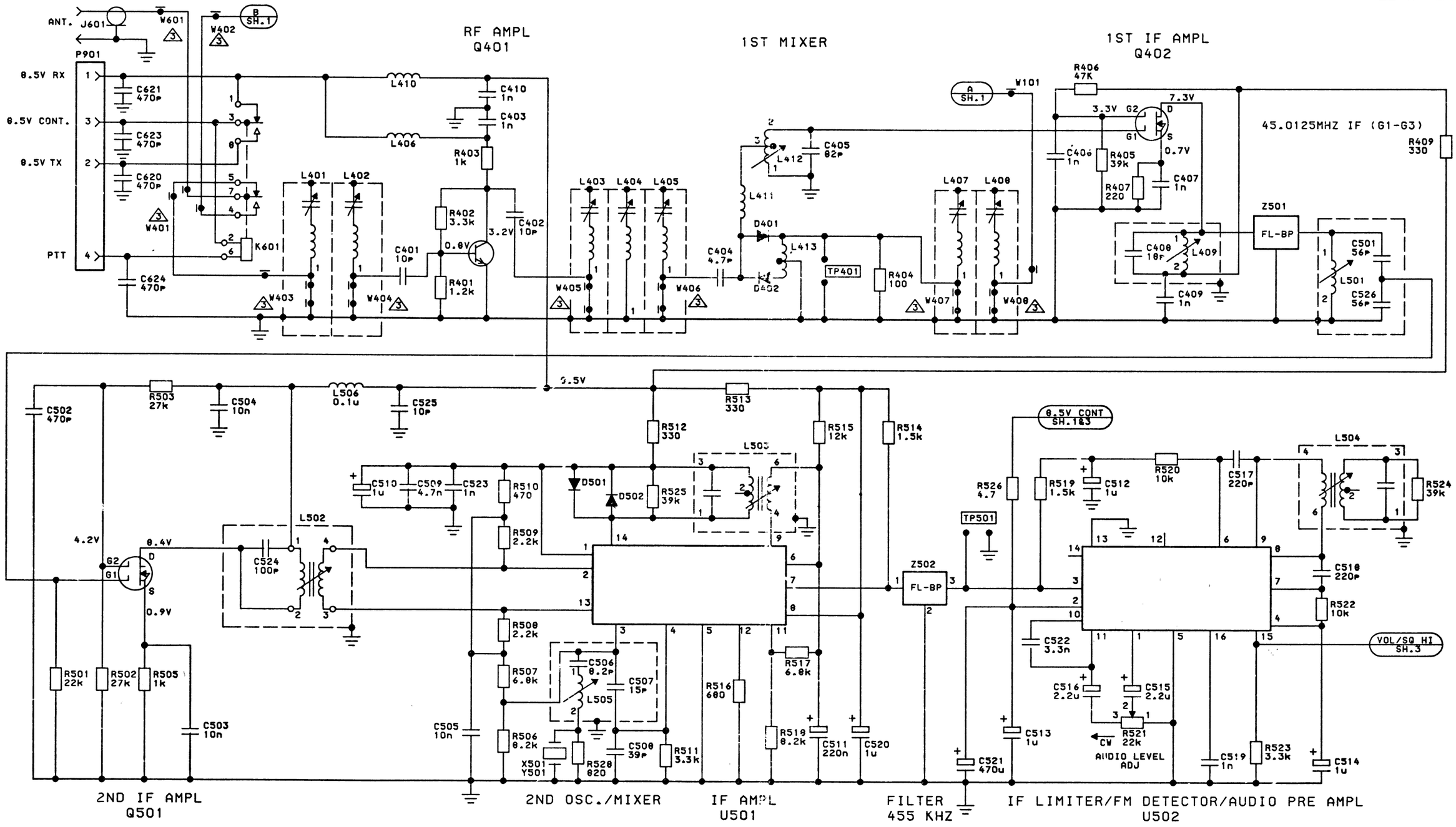
VOLTAGE READINGS ARE TYPICAL READINGS MEASURED TO SYSTEM NEGATIVE WITH A 20,000 OHMS-PER-VOLT DC VOLTMETER. READING TAKEN WITH TRANSMITTER KEYED.

# SCHEMATIC DIAGRAM

806-825 MHz TRANSMITTER
19D900742G2 & G3



(19D900750, Sh. 1, Rev. 6)

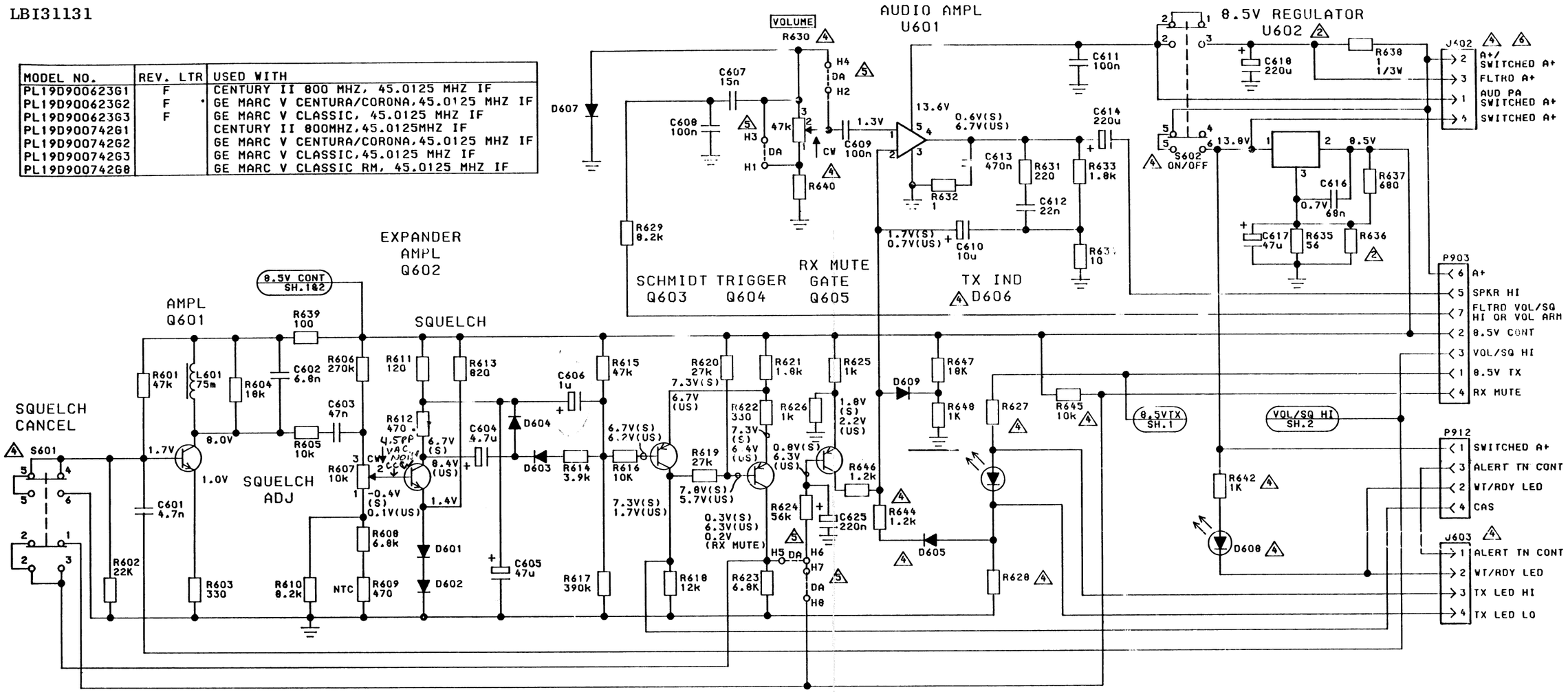



(19D900750, Sh. 2, Rev. 0)

# SCHEMATIC DIAGRAM

851-870 MHz RECEIVER
19D900742G2 & G3

| MODEL NO. | REV. LTR | USED WITH |
|---|---|---|
| PL19D90062361 | F | CENTURY II 800 MHZ, 45.0125 MHZ IF |
| PL19D90062362 | F | GE MARC V CENTURA/CORONA,45.0125 MHZ IF |
| PL19D90062363 | F | GE MARC V CLASSIC, 45.0125 MHZ IF |
| PL19D90074261 | | CENTURY II 800MHZ,45.0125MHZ IF |
| PL19D90074262 | | GE MARC V CENTURA/CORONA,45.0125 MHZ IF |
| PL19D90074263 | | GE MARC V CLASSIC,45.0125 MHZ IF |
| PL19D90074268 | | GE MARC V CLASSIC RM, 45.0125 MHZ IF |




NOTES:

2. VALUE OF R636 DEPENDS ON COLOR CODE ON U602.

| U602 COLOR CODE | R636 VALUE Ω |
|---|---|
| BROWN | OMIT R636 |
| RED | 270 |
| ORANGE | 100 |
| YELLOW | 47 |
| GREEN | 22 |
| BLUE | 6.8 |

3. PART OF PRINTED CIRCUIT BOARD.

4. COMPONENT VALUES

| G1 800MHZ 1 FREQ | G2 GE MARC V CENTURA/CORONA | G3 GE MARC V CLASSIC |
|---|---|---|
| D605 | OMIT | OMIT |
| D606 | D606 | OMIT |
| OMIT | D608 | OMIT |
| OMIT | J101 | J101 |
| OMIT | OMIT | J602 |
| OMIT | OMIT | J603 |
| R627A 220 | R627A 220 | R627B 150 |
| R628A 150 | R628A 150 | R628B 180 |
| R630 | R630 | OMIT |
| R640A 10 | R640B 2.2K | R640C 47K |
| OMIT | R642 | OMIT |
| S601 | OMIT | OMIT |
| S602 | S602 | OMIT |
| OMIT | U101 | U101 |
| R644 | OMIT | OMIT |
| OMIT | R645 | R645 |

5. DA JUMPER PRESENT H5 TO H6 IN G1 ONLY.
DA JUMPER PRESENT H7 TO H8 IN G2,G3,ONLY.
DA JUMPER PRESENT H10 TO H11 IN G1 ONLY.
DA JUMPER PRESENT H1 TO H3,H2 TO H4 IN G3 ONLY.

6. FOR TRUNK MOUNT RADIO,J602 IS SWITCHED A+ INPUT FROM CONTROL UNIT.

ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED.
RESISTOR VALUES IN Ω UNLESS FOLLOWED BY MULTIPLIER k OR M.
CAPACITOR VALUES IN F UNLESS FOLLOWED BY MULTIPLIER u,n OR p.
INDUCTANCE VALUES IN H UNLESS FOLLOWED BY MULTIPLIER m OR u.

## RECEIVER VOLTAGE READINGS

VOLTAGE READINGS ARE TYPICAL READINGS MEASURED TO SYSTEM NEGATIVE WITH A 20,000 OHMS-PER VOLT DC VOLTMETER UNDER THE FOLLOWING CONDITIONS:

1. NO SIGNAL INPUT
2. VOLUME CONTROL (R630) SET TO MINIMUM
3. SQUELCH CANCEL (S601) SWITCHED OFF
4. UNSQUELCHED (US)-SQUELCH ADJUST (R607) SET TO MINIMUM (CW)
5. SQUELCHED (S)-SQUELCH ADJUST (R607) SET TO MAXIMUM (CCW)

# SCHEMATIC DIAGRAM

RECEIVER AUDIO
19D900742G2 & G3



(19D900750, Sh. 3, Rev. 7)

# PARTS LIST

800 MHz, 30 WATT
TRANSMIT/RECEIVE FRAME
19D900742G2 CORONA & CENTURA
19D900742G3 CLASSIC
ISSUE 3

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| A1 | | TRANSMIT/RECEIVE BOARD<br>19D900623G2 CORONA & CENTURA - REV F<br>19D900623G3 CLASSIC - REV F |
| A202 | 19C850655G1 | Low Pass Filter. |
| | | - - - - - - - - - - CAPACITORS - - - - - - - - - - |
| C101 | 19A700219P30 | Ceramic: 12 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C102 | 19A700219P48 | Ceramic: 36 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C103 | 19A700234P7 | Polyester: 0.01 uF ±10%, 50 VDCW. |
| C104 | 19A701534P5 | Tantalum: 2.2 uF, ±20%, 35 VDCW. |
| C105 | 19A116192P1 | Ceramic: 0.01 uF ±20%, 50 VDCW; sim to Erie 8121 SPECIAL. |
| C106 | 19A116192P2 | Ceramic: 470 pF ±20%, 50 VDCW; sim to Erie 811-A050-W5R-471M. |
| C107 | 19A700219P10 | Ceramic: 2.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C108 | 19A700219P24 | Ceramic: 8.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C109 | 19A116192P1 | Ceramic: 0.01 uF ±20%, 50 VDCW; sim to Erie 8121 SPECIAL. |
| C110 | 19A700219P48 | Ceramic: 36 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C112 | 19A700219P10 | Ceramic: 2.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C113 | 19A116192P2 | Ceramic: 470 pF ±20%, 50 VDCW; sim to Erie 811-A050-W5R-471M. |
| C114 | 19A700219P33 | Ceramic: 15 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C115 | 19A700219P48 | Ceramic: 36 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C116 | 19A700219P14 | Ceramic: 3.3 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C117 | 19A116192P1 | Ceramic: 0.01 uF ±20%, 50 VDCW; sim to Erie 8121 SPECIAL. |
| C118 | 19A700219P33 | Ceramic: 15 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C119 | 19A700219P24 | Ceramic: 8.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C120 | 19A700219P10 | Ce.amic: 2.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C121 | 19A700219P14 | Ceramic: 3.3 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C122 | 19A700219P33 | Ceramic: 15 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C123 | 19A701534P5 | Tantalum: 2.2 uF, ±20%, 35 VDCW. |
| C124 | 19A700234P7 | Polyester: 0.01 uF ±10%, 50 VDCW. |
| C125 | 19A700008P2 | Variable: 2.28 to 14.13 pF; sim to EF Johnson 187-0109-005. |
| C126 | 19A700219P14 | Ceramic: 3.3 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C127 | 19A700008P3 | Variable: 1.56 to 4.86 pF; sim to EF Johnson 187-0103-005. |
| C128 | 19A116192P1 | Ceramic: 0.01 uF ±20%, 50 VDCW; sim to Erie 8121 SPECIAL. |
| C129 | 19A116192P2 | Ceramic: 470 pF ±20%, 50 VDCW; sim to Erie 811-A050-W5R-471M. |
| C130 | 19A700219P33 | Ceramic: 15 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C131 | 19A700219P26 | Ceramic: 10 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C132 | 19A700219P24 | Ceramic: 8.2 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C133 | 19A700008P2 | Variable: 2.28 to 14.13 pF; sim to EF Johnson 187-0109-005. |
| C134 | 19A700008P3 | Variable: 1.56 to 4.86 pF; sim to EF Johnson 187-0103-005. |
| C135 | 19A700219P33 | Ceramic: 15 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C136 | 19A701602P14 | Ceramic: 470 pF ±10%, 1000 VDCW. |
| C143 | 19A116192P2 | Ceramic: 470 pF ±20%, 50 VDCW; sim to Erie 811-A050-W5R-471M. |

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| C201 and C202 | 19A701624P12 | Ceramic, disc: 15 pF ±5%, 500 VDCW, temp coef 0 PPM. |
| C203 and C204 | 19A143565P8 | Ceramic: 0.1 uF ±10%, 50 VDCW. |
| C205 | 19A701534P8 | Tantalum: 0.47 uF ±20%, 35 VDCW. |
| C206 | 19A701225P1 | Electrolytic: 15 uF -10+75%, 63 VDCW; sim to Sprague 501D156-G025B8C. |
| C206 | | |
| C207 | 19A700006P3 | Mica: 5.6 pF ±10%, 250 VDCW; sim to Underwood 3H5S002G. |
| C212 | 19A700006P1 | Mica: 4.7 pF ±10%, 250 VDCW; sim to Underwood 3H5S002G. |
| C213 | 19A700006P41 | Mica: 180 pF ±5%, 250 VDCW; sim to Underwood 3H5S002G. |
| C214 and C215 | 19A700006P36 | Mica: 120 pF ±5%, 250 VDCW; sim to Underwood 3H5S002G. |
| C216 | 19A143565P8 | Ceramic: 0.1 uF ±10%, 50 VDCW. |
| C217 | 19A701225P1 | Electrolytic: 15 uF -10 +75%, 63 VDCW; sim to Sprague 501D156-G025B3C. |
| C218 | 19A134418P35 | Ceramic: 82 pF ±5%, 50 VDCW, temp coef 0 ±30 PPM. |
| C219 | 19A143565P8 | Ceramic: 0.1 uF ±10%, 50 VDCW. |
| C220 | 19A701534P8 | Tantalum: 0.47 uF ±20%, 35 VDCW. |
| C221 | 19A700234P13 | Polyester: 0.1 uF ±10%, 50 VDCW. |
| C222 | 19A701534P4 | Tantalum: 1 uF ±20%, 35 VDCW. |
| C223 | 19A134418P35 | Ceramic: 82 pF ±5%, 50 VDCW, temp coef 0 ±30 PPM. |
| C224 | 19A700233P5 | Ceramic: 470 pF ±20%, 50 VDCW. |
| C401 and C402 | 19A700219P26 | Ceramic: 10 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C403 | 19A700233P7 | Ceramic: 1000 pF ±20%, 50 VDCW. |
| C404 | 19A700219P18 | Ceramic: 4.7 pF ±5%, 100 VDCW, temp coef 0 PPM. |
| C405 | 19A700235P24 | Ceramic: 82 pF ±5%, 50 VDCW. |
| C406 and C407 | 19A700233P7 | Ceramic: 1000 pF ±20%, 50 VDCW. |
| C408 | 19A700235P16 | Ceramic: 18 pF ±5%, 50 VDCW. |
| C409 and C410 | 19A700233P7 | Ceramic: 1000 pF ±20%, 50 VDCW. |
| C501 | 19A700235P22 | Ceramic: 56 pF ±5%, 50 VDCW. |
| C502 | 19A700233P5 | Ceramic: 470 pF ±20%, 50 VDCW. |
| C503 thru C505 | 19A700234P7 | Polyester: 0.01 uF ±10%, 50 VDCW. |
| C506 | 19A700235P12 | Ceramic: 8.2 pF ±0.25 pF, 50 VDCW. |
| C507 | 19A700235P15 | Ceramic: 15 pF ±5%, 50 VDCW. |
| C508 | 19A700235P20 | Ceramic: 39 pF ±5%, 50 VDCW. |
| C509 | 19A700234P5 | Polyester: 4700 pF ±10%, 50 VDCW. |
| C510 | 19A701534P4 | Tantalum: 1 uF ±20%, 35 VDCW. |
| C511 | 19A701534P2 | Tantalum: 0.22 uF ±20%, 35 VDCW. |
| C512 thru C514 | 19A701534P4 | Tantalum: 1 uF ±20%, 35 VDCW. |
| C515 and C516 | 19A701534P5 | Tantalum: 2.2 uF, ±20%, 35 VDCW. |
| C517 and C518 | 19A700233P3 | Ceramic: 220 pF ±10%, 50 VDCW. |
| C519 | 19A700233P7 | Ceramic: 1000 pF ±20%, 50 VDCW. |
| C520 | 19A701534P4 | Tantalum: 1 uF ±20%, 35 VDCW. |
| C521 | 19A134730P3 | Electrolytic: 470 uF +100 -10%, 16 VDCW. |
| C522 | 19A700234P4 | Polyester: 3300 pF ±10%, 50 VDCW. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| C523 | 19A700233P7 | Ceramic: 1000 pF ±20%, 50 VDCW. |
| C524 | 19A700002P25 | Ceramic disc: 100 pF ±5%, 50 VDCW; temp coef -150 +60 PPM. |
| C525 | 19A700235P13 | Ceramic: 10 pF ±5%, 50 VDCW. |
| C526 | 19A700235P22 | Ceramic: 56 pF ±5%, 50 VDCW. |
| C601 | 19A700234P5 | Polyester: 4700 pF ±10%, 50 VDCW. |
| C602 | 19A700234P6 | Polyester: 6800 pF ±10%, 50 VDCW. |
| C603 | 19A700234P11 | Polyester: 0.047 uF ±10%, 50 VDCW. |
| C604 | 19A701534P6 | Tantalum: 4.7 uF ±20%, 35 VDCW. |
| C605 | 19A134730P1 | Electrolytic: 47 uF +100 -10%, 16 VDCW. |
| C606 | 19A701534P4 | Tantalum: 1 uF ±20%, 35 VDCW. |
| C607 | 19A700234P8 | Polyester: .015 uF ±10%, 50 VDCW; sim to NISSEI AMXV or AMZV. |
| C608 and C609 | 19A700234P13 | Polyester: 0.1 uF ±10%, 50 VDCW. |
| C610 | 19A701534P7 | Tantalum: 10 uF ±20%, 16 VDCW. |
| C611 | 19A700234P13 | Polyester: 0.1 uF ±10%, 50 VDCW. |
| C612 | 19A700234P9 | Polyester: 0.22 uF ±10%, 50 VDCW. |
| C613 | 19A700004P6 | Metallized Polyester: 0.47 ±10%, 63 VDCW. |
| C614 | 19A134730P2 | Electrolytic: 220 uF +100 -10%, 25 VDCW. |
| C616 | 19A700234P12 | Polyester: 0.068 uF ±10%, 50 VDCW. |
| C617 | 19A134730P1 | Electrolytic: 47 uF +100 -10%, 16 VDCW. |
| C618 | 19A134730P2 | Electrolytic: 220 uF +100 -10%, 25 VDCW. |
| C620 and C621 | 19A700233P5 | Ceramic: 470 pF ±20%, 50 VDCW. |
| C623 and C624 | 19A700233P5 | Ceramic: 470 pF ±20%, 50 VDCW. |
| C625 | 19A701534P2 | Tantalum: 0.22 uF ±20%, 35 VDCW. |
| | | - - - - - - - - - - DIODES - - - - - - - - - - |
| D101 | 19A700047P1 | Silicon, 100 mW continous dissipation. |
| D102 | 19A115100P1 | Silicon; sim to Type 1N458A. |
| D201 | 19A700047P2 | Silicon. |
| D202 | 19A702015P1 | Silicon; sim to 1N458A. |
| D203 | 19A700047P3 | Silicon: 100 mW; sim to 1N6263. |
| D204 | 19A702015P1 | Silicon; sim to 1N458A. |
| D401 | 19A116052P4 | Silicon, hot carrier: Fwd. drop .350 volts max. |
| D501 and D502 | 19A700028P1 | Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148. |
| D601 thru D604 | 19A700028P1 | Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148. |
| D606 | 19A134738P1 | Diode, optoelectronic: red; sim to Siemans LD41/11. |
| D607 | 19A700028P1 | Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148. |
| D608 | 19A134354P3 | Optoelectronic: green; sim to Hew. Packard 5082-4955. |
| D609 | 19A700028P1 | Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148. |
| | | - - - - - - - - - - JACKS - - - - - - - - - - |
| J101 | 19A701883P4 | Contact, electrical; sim to AMP 86444-1. |
| J102 | 19A701883P4 | Contact, electrical; sim to AMP 86444-1. |
| J602 | 19A116659P103 | Connector, printed wiring: 4 contacts rated at 5 amps; sim to Molex 09-60-1041. |
| J603 | 19A700072P30 | Printed wire: 4 contacts rated at 2.5 amps; sim to Molex 22-27-2041. |
| | | - - - - - - - - - - RELAYS - - - - - - - - - - |
| K601 | 19A700061P1 | Hermetic sealed: 180 to 341 ohms coil res, 8-16.3 VDC; sim to GE 3SAV176A2, CPClare HFW-1201558, or Potter-Brumfield HCW6160. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| | | - - - - - - - - - - INDUCTORS - - - - - - - - - - |
| L101 thru L103 | 19J706154P10 | RF Coil: sim to Paul Smith SK802-1. |
| L104 | 19J706085P4 | Coil, RF: 0.065 uH ind., ±5%; sim to Paul Smith LM-2. |
| L105 | 19J706085P8 | Coil, RF: 0.110 uH ind., ±5%; sim to Paul Smith LM-2. |
| L106 | 19A700024P1 | Coil, RF: 100 nH ±10%, 0.08 ohms DC res max, 100 v. |
| L107 thru L109 | 19B233593P4 | Coil, RF: sim to Paul Smith SK-832-1. |
| L110 | 19A701524P1 | Coil. |
| L111 | 19A701524P5 | Coil. |
| L112 | 19A701524P2 | Coil. |
| L113 | 19A701524P3 | Coil. |
| L114 | 19A701524P1 | Coil. |
| L115 | 19A700024P1 | Coil, RF: 100 nH ±10%, 0.08 ohms DC res max, 100 v. |
| L116 | 19A701524P4 | Coil. |
| L117 | 19A701524P1 | Coil. |
| L118 | 19A702028P2 | Coil. |
| L201 | 19A701006P6 | Strap. |
| L202 | 19A138196P4 | Coil. |
| L203 and L204 | | Part of printed board. |
| L205 | 19A701006P4 | Strap. |
| L206 | 19A702463P1 | Coil. |
| L207 | 19A701091G1 | Coil. |
| L209 and L210 | 19A138298P1 | Coil. |
| L401 and L402 | 19B233593P2 | Coil, RF: sim to Paul Smith SK-832-1. |
| L403 | 19B233593P1 | Coil, RF: sim to Paul Smith SK-832-1. |
| L404 | 19B233593P2 | Coil, RF: sim to Paul Smith SK-832-1. |
| L405 | 19B233593P1 | Coil, RF: sim to Paul Smith SK-832-1. |
| L406 | 19A138400G1 | Coil. |
| L407 and L408 | 19B233593P3 | Coil, RF: sim to Paul Smith SK-832-1. |
| L409 | 19A134729P4 | Coil, RF: sim to Paul Smith SK-832-1. |
| L410 | 19A138400G1 | Coil. |
| L411 | 19A136535P1 | Coil. |
| L412 | 19J706083P23 | Coil, RF: variable. |
| L413 | 19A701768G1 | Coil. |
| L501 | 19A134729P4 | Coil, RF: sim to Paul Smith SK-832-1. |
| L502 | 19B800691P1 | Coil, RF: single pole, wire size No. 24 AWG. |
| L503 and L504 | 19A134747P1 | Transformer, IF: 455 KHz. |
| L505 | 19J706029P4 | RF Coil, variable; sim to Paul Smith EF 223. |
| L506 | 19A700024P1 | Coil, RF: 100 nH ±10%, 0.08 ohms DC res max, 100 v. |
| L601 | 19A702322P1 | Reactor, audio freq: 75 MHz ±10%; sim to Fentinduktivetaten DR 270/5-CL. |
| | | - - - - - - - - - - PLUGS - - - - - - - - - - |
| P201 | 19A116659P1 | Connector, printed wiring: 3 contacts rated at 5 amps; sim to Molex 09-52-3032. |
| P901 | 19A116659P15 | Connector, printed wiring: 4 contacts rated at 5 amps; sim to Molex 09-52-3042. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| P903 | 19A116659P83 | Connector, printed wiring: 7 contacts rated at 5 amps; sim to Molex 09-52-3072 SPECIAL. |
| P912 | 19A116659P15 | Connector, printed wiring: 4 contacts rated at 5 amps; sim to Molex 09-52-3042. |
| | | - - - - - - - - - TRANSISTORS - - - - - - - - - |
| Q101 thru Q105 | 19A702062P1 | Silicon, NPN. |
| Q106 | 19A134697P1 | Silicon, NPN. |
| Q202 and Q203 | 19A700023P1 | Silicon, NPN; sim to Type 2N3904. |
| Q204 | 19A700022P1 | Silicon, PNP; sim to Type 2N3906. |
| Q205 | 19A700054P1 | Silicon, NPN, 60 w; sim to BD-201. |
| Q401 | 19A702062P1 | Silicon, NPN. |
| Q402 | 19A116818P1 | N Channel, field effect. |
| Q501 | 19A116818P1 | N Channel, field effect. |
| Q601 and Q602 | 19A116774P1 | Silicon, NPN; sim to Type 2N5210. |
| Q603 thru Q605 | 19A134749P1 | Silicon, PNP; sim to Type 2N5087. |
| | | - - - - - - - - - - RESISTORS - - - - - - - - - - |
| R101 | 19A700106P39 | Composition: 100 ohms ±5%, 1/4 w. |
| R102 | 19A700106P77 | Composition: 3.9K ohms ±5%, 1/4 w. |
| R103 | 19A700106P93 | Composition: 18K ohms ±5%, 1/4 w. |
| R104 | 19A700106P55 | Composition: 470 ohms ±5%, 1/4 w. |
| R105 | 3R152P113J | Composition: 11K ohms ±5%, 1/4 w. |
| R106 | 19A700106P63 | Composition: 1K ohms ±5%, 1/4 w. |
| R107 | 19A700106P45 | Composition: 180 ohms ±5%, 1/4 w. |
| R108 | 19A700106P15 | Composition: 10 ohms ±5%, 1/4 w. |
| R109 | 19A700106P39 | Composition: 100 ohms ±5%, 1/4 w. |
| R110 | 19A700106P63 | Composition: 1K ohms ±5%, 1/4 w. |
| R111 | 19A700106P81 | Composition: 5.6K ohms ±5%, 1/4 w. |
| R112 | 3R152P511J | Composition: 510 ohms ±5%, 1/4 w. |
| R114 | 19A700106P39 | Composition: 100 ohms ±5%, 1/4 w. |
| R115 | 19A700106P73 | Composition: 2.7K ohms ±5%, 1/4 w. |
| R116 | 3R152P511J | Composition: 510 ohms ±5%, 1/4 w. |
| R117 | 19A700106P23 | Composition: 22 ohms ±5%, 1/4 w. |
| R118 | 3R152P622J | Composition: 6200 ohms ±5%, 1/4 w. |
| R119 | 3R152P511J | Composition: 510 ohms ±5%, 1/4 w. |
| R120 | 19A700106P47 | Composition: 220 ohms ±5%, 1/4 w. |
| R121 | 19A700106P69 | Composition: 1.8K ohms ±5%, 1/4 w. |
| R122 | 19A700113P23 | Composition: 22 ohms ±5%, 1/2 w. |
| R123 | 19A700106P63 | Composition: 1K ohms ±5%, 1/4 w. |
| R124 | 19A700106P15 | Composition: 10 ohms ±5%, 1/4 w. |
| R201 | 19A700106P15 | Composition: 10 ohms ±5%, 1/4 w. |
| R202 | 19A700106P35 | Composition: 68 ohms ±5%, 1/4 w. |
| R203 | 19A700016P3 | Variable, cermet: 4.7K ohms ±10%, 1/2 w. |
| R204 | 19A700019P35 | Deposited carbon: 680 ohms ±5%, 1/4 w. |
| R205 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| R206 | 19A700019P47 | Deposited carbon: 6.8K ohms ±5%, 1/4 w. |
| R207 | 19A700019P35 | Deposited carbon: 680 ohms ±5%, 1/4 w. |
| R208 | 19A700019P29 | Deposited carbon: 220 ohms ±5%, 1/4 w. |
| R209 | 19A700019P40 | Deposited carbon: 1.8K ohms ±5%, 1/4 w. |
| R210 | 19A700019P34 | Deposited carbon: 560 ohms ±5%, 1/4 w. |
| R211 | 19A700106P35 | Composition: 68 ohms ±5%, 1/4 w. |
| R212 | 19A700016P3 | Variable, cermet: 4.7K ohms ±10%, 1/2 w. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| R213 and R214 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| R215 | 19A700106P15 | Composition: 10 ohms ±5%, 1/4 w. |
| R401 | 19A700106P65 | Composition: 1.2K ohms ±5%, 1/4 w. |
| R402 | 19A700106P75 | Composition: 3.3K ohms ±5%, 1/4 w. |
| R403 | 19A700106P63 | Composition: 1K ohms ±5%, 1/4 w. |
| R404 | 19A700106P39 | Composition: 100 ohms ±5%, 1/4 w. |
| R405 | 19A700019P56 | Deposited carbon: 39K ohms ±5%, 1/4 w. |
| R406 | 19A700019P57 | Deposited carbon: 47K ohms ±5%, 1/4 w. |
| R407 | 19A700019P29 | Deposited carbon: 220 ohms ±5%, 1/4 w. |
| R409 | 19A700019P31 | Deposited carbon: 330 ohms ±5%, 1/4 w. |
| R501 | 19A700019P53 | Deposited carbon: 22K ohms ±5%, 1/4 w. |
| R502 and R503 | 19A700019P54 | Deposited carbon: 27K ohms ±5%, 1/4 w. |
| R505 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| R506 | 19A700019P48 | Deposited carbon: 8.2K ohms ±5%, 1/4 w. |
| R507 | 19A700019P47 | Deposited carbon: 6.8K ohms ±5%, 1/4 w. |
| R508 and R509 | 19A700019P41 | Deposited carbon: 2.2K ohms ±5%, 1/4 w. |
| R510 | 19A700019P33 | Deposited carbon: 470 ohms ±5%, 1/4 w. |
| R511 | 19A700019P43 | Deposited carbon: 3.3K ohms ±5%, 1/4 w. |
| R512 and R513 | 19A700019P31 | Deposited carbon: 330 ohms ±5%, 1/4 w. |
| R514 | 19A700019P39 | Deposited carbon: 1.5K ohms ±5%, 1/4 w. |
| R515 | 19A700019P50 | Deposited carbon: 12K ohms ±5%, 1/4 w. |
| R516 | 19A700019P35 | Deposited carbon: 680 ohms ±5%, 1/4 w. |
| R517 | 19A700019P47 | Deposited carbon: 6.8K ohms ±5%, 1/4 w. |
| R518 | 19A700019P48 | Deposited carbon: 8.2K ohms ±5%, 1/4 w. |
| R519 | 19A700019P39 | Deposited carbon: 1.5K ohms ±5%, 1/4 w. |
| R520 | 19A700019P49 | Deposited carbon: 10K ohms ±5%, 1/4 w. |
| R521 | 19B800784P209 | Variable: 25K ohms ±20%, 1/2 w; sim to Murata Type RVG0911V328. |
| R522 | 19A700019P49 | Deposited carbon: 10K ohms ±5%, 1/4 w. |
| R523 | 19A700019P43 | Deposited carbon: 3.3K ohms ±5%, 1/4 w. |
| R524 and R525 | 19A700019P56 | Deposited carbon: 39K ohms ±5%, 1/4 w. |
| R526 | 19A700019P9 | Deposited carbon: 4.7 ohms ±5%, 1/4 w. |
| R528 | 19A700019P36 | Deposited carbon: 820 ohms ±5%, 1/4 w. |
| R601 | 19A700019P57 | Deposited carbon: 47K ohms ±5%, 1/4 w. |
| R602 | 19A700019P53 | Deposited carbon: 22K ohms ±5%, 1/4 w. |
| R603 | 19A700019P31 | Deposited carbon: 330 ohms ±5%, 1/4 w. |
| R604 | 19A700019P52 | Deposited carbon: 18K ohms ±5%, 1/4 w. |
| R605 | 19A700019P49 | Deposited carbon: 10K ohms ±5%, 1/4 w. |
| R606 | 19A700019P66 | Deposited carbon: 0.27M ohms ±5%, 1/4 w. |
| R607 | 19B800784P208 | Variable: 10K ohms ±20%, 1/2 w; sim to Murata Type RVG0911V328. |
| R608 | 19A700019P47 | Deposited carbon: 6.8K ohms ±5%, 1/4 w. |
| R609 | 19A70182892 | Thermistor: 470 pF ±20%; sim to Philips 2322-642-61471. |
| R610 | 19A700019P48 | Deposited carbon: 8.2K ohms ±5%, 1/4 w. |
| R611 | 19A700019P26 | Deposited carbon: 120 ohms ±5%, 1/4 w. |
| R612 | 19A700019P33 | Deposited carbon: 470 ohms ±5%, 1/4 w. |
| R613 | 19A700019P36 | Deposited carbon: 820 ohms ±5%, 1/4 w. |
| R614 | 19A700019P44 | Deposited carbon: 3.9K ohms ±5%, 1/4 w. |
| R615 | 19A700019P57 | Deposited carbon: 47K ohms ±5%, 1/4 w. |
| R616 | 19A700019P49 | Deposited carbon: 10K ohms ±5%, 1/4 w. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| R617 | 19A700019P68 | Deposited carbon: 0.39M ohms ±5%, 1/4 w. |
| R618 | 19A700019P50 | Deposited carbon: 12K ohms ±5%, 1/4 w. |
| R619 and R620 | 19A700019P54 | Deposited carbon: 27K ohms ±5%, 1/4 w. |
| R621 | 19A700019P40 | Deposited carbon: 1.8K ohms ±5%, 1/4 w. |
| R622 | 19A700019P31 | Deposited carbon: 330 ohms ±5%, 1/4 w. |
| R623 | 19A700019P47 | Deposited carbon: 6.8K ohms ±5%, 1/4 w. |
| R624 | 19A700019P58 | Deposited carbon: 56K ohms ±5%, 1/4 w. |
| R625 and R626 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| R627A | 19A700019P29 | Deposited carbon: 220 ohms ±5%, 1/4 w. |
| R627B and R628A | 19A700019P27 | Deposited carbon: 150 ohms ±5%, 1/4 w. |
| R628B | 19A700019P28 | Deposited carbon: 180 ohms ±5%, 1/4 w. |
| R629 | 19A700019P48 | Deposited carbon: 8.2K ohms ±5%, 1/4 w. |
| R630 | 19A134753P1 | Variable, carbon film: 47K ohms ±20%, 0.1 w. |
| R631 | 19A700019P29 | Deposited carbon: 220 ohms ±5%, 1/4 w. |
| R632 | 19A700019P1 | Deposited carbon: 1 ohms ±5%, 1/4 w. |
| R633 | 19A700019P40 | Deposited carbon: 1.8K ohms ±5%, 1/4 w. |
| R634 | 19A700019P13 | Deposited carbon: 10 ohms ±5%, 1/4 w. |
| R635 | 19A700019P22 | Deposited carbon: 56 ohms ±5%, 1/4 w. |
| R636A | 19A700019P30 | Deposited carbon: 270 ohms ±5%, 1/4 w. |
| R636B | 19A700019P25 | Deposited carbon: 100 ohms ±5%, 1/4 w. |
| R636C | 19A700019P21 | Deposited carbon: 47 ohms ±5%, 1/4 w. |
| R636D | 19A700019P17 | Deposited carbon: 22 ohms ±5%, 1/4 w. |
| R636E | 19A700019P11 | Deposited carbon: 6.8 ohms ±5%, 1/4 w. |
| R637 | 19A700019P35 | Deposited carbon: 680 ohms ±5%, 1/4 w. |
| R638 | 19A700018P1 | Deposited carbon: 1 ohm ±5%, 1/3 w. |
| R639 | 19A700019P25 | Deposited carbon: 100 ohms ±5%, 1/4 w. |
| R640A | 19A700019P13 | Deposited carbon: 10 ohms ±5%, 1/4 w. |
| R640B | 19A700019P41 | Deposited carbon: 2.2K ohms ±5%, 1/4 w. |
| R640C | 19A700019P57 | Deposited carbon: 47K ohms ±5%, 1/4 w. |
| R642 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| R645 | 19A700019P49 | Deposited carbon: 10K ohms ±5%, 1/4 w. |
| R646 | 19A700019P38 | Deposited carbon: 1.2K ohms ±5%, 1/4 w. |
| R647 | 19A700019P52 | Deposited carbon: 18K ohms ±5%, 1/4 w. |
| R648 | 19A700019P37 | Deposited carbon: 1K ohms ±5%, 1/4 w. |
| | | - - - - - - - - - SWITCHES - - - - - - - - - |
| S602 | 19B800563P1 | Push: DPDT, 1 station, alternate action; sim to IEEE/SCHADOW 51281 (P2UEE). |
| | | - - - - - - - - - TEST POINTS - - - - - - - - - |
| TP101 TP103 | 19A700152P1 | Contact. (Quantity 1 each). |
| TP401 TP501 | 19A700152P1 | Contact. (Quantity 2 each). |
| | | - - - - - - - - INTEGRATED CIRCUITS - - - - - - - |
| U101 | 19B209680P1 | Mixer, balanced. |
| U501 | 19A134759P1 | Linear, Dual Differential Amplifier, 14 Pin Dip. |
| U502 | 19A134766P1 | Linear, Outline For 16-Pin Dip case. |
| U601 | 19A134769P2 | Linear: sim to TDA 2002. |
| U602 | 19A138414G1 | Regulator: 8.5 V. |
| | | - - - - - - - - - - - CABLES - - - - - - - - - - - |
| W101 thru W103 | | Part of printed board. |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| W106 thru W108 | | Part of printed board. |
| W201 and W202 | | Part of printed board. |
| W205 thru W207 | | Part of printed board. |
| W401 thru W406 | | Part of printed board. |
| W601 | | Part of printed board. |
| | | - - - - - - - - - - - SOCKETS - - - - - - - - - - - |
| X501 | 19A702742P1 | Crystal socket. (Quantity 2). |
| | | - - - - - - - - - - CRYSTALS - - - - - - - - - - |
| Y501 | 19B233066G9 | 2nd Oscillator: 45.4675 MHz. |
| | | - - - - - - - - - - - NETWORKS - - - - - - - - - - |
| Z501 | 19B209613P3 | Filter, bandpass: 45.0125 ref. freq, 13 KHz bandwidth. |
| Z502 | 19A702171P1 | Bandpass filter: 455 ±1.5 kHz; sim to Murata CFU455D2. |
| A201 | 19C850856P1 | Printed Wire Board. |
| | | - - - - - - - - - - CAPACITORS - - - - - - - - - - |
| C208 | 19A700006P8 | Mica: 12 pF ±5%, 100 VDCW; sim to Underwood 3HS0020. |
| C209 | 19A700006P11 | Mica: 15 pF ±5%, 100 VDCW; sim to Underwood 3HS0020. |
| C210 and C211 | 19A700006P17 | Mica: 22 pF ±5%, 100 VDCW; sim to Underwood 3HS0020. |
| | | - - - - - - - - - - TRANSISTORS - - - - - - - - - - |
| Q201 | 19A702458P1 | Silicon, NPN. |
| | | - - - - - - - - INTEGRATED CIRCUITS - - - - - - - - |
| U201 | 19A143904P2 | RF Amplifier. 800 MHz CHASSIS 19C850620G1, G2 |
| | | - - - - - - - - - - - FILTERS - - - - - - - - - - - |
| FL907 | 19A703219G1 | Capacitor: 2 ceramic feed thrus; 100 pF ±20%, 250 VDCW. |
| | | - - - - - - - - - MISCELLANEOUS - - - - - - - - - |
| | 19C850620G2 | Chassis. (Used in 19D900742G3). |
| | 19C850620G1 | Chassis. (Used in 19D900742G2). |
| | 19A702381P508 | Screw, thd. forming: No. 3.5-0.6 x 8. (Secures A1 to frame - Quantity 9). |
| | 19A702381P525 | Screw, thd. forming: No. M3.5-0.6 x 25. (Secures A1 to frame - Quantity 1). |
| | 19A700033P3 | Lockwasher, external tooth: M2.5. (Secures Q201). |
| | 19A700032P6 | Lockwasher, internal tooth: No. 3.5MM. (Secures U201). |
| | 19A702686P1 | Tab. (Solders to A1). |
| | 19B800376P1 | Shield. (Located at C125, C127, C133, C134). |
| | 19B232901P1 | Support. (Used with Q205, U601, U602). |
| | 19A700115P3 | Insulator, plate. (Used with Q205 & U602). |
| | 19A700068P1 | Insulator, bushing. (Used with Q205 & U602). |
| | 19A702364P208 | Machine screw, metric: 2.5-.45 x 10MM. (Secures Q205, D601, D602). |

| SYMBOL | GE PART NO. | DESCRIPTION |
|---|---|---|
| | 19A700034P3 | Hexnut: M2.5-.45. (Secures Q205, U601, U602). |
| | 19A701312P4 | Flatwasher: M2.5. (Secures Q205 & U602). |
| | 19A700032P3 | Lockwasher, tooth, steel, metric: 2.5. (Secures Q205, U601, U602). |
| | 19C328587P1 | Pushbutton. (Used with S601 & S602). |
| | 19A134451P1 | Tuning slug. (Used with L101-L103, L107-L109). |
| | 19A701886P1 | Spring. (Used with L101-L103, L107-L109, L401-L407). |
| | 19A701544P1 | Can. (Used with L503 & L505). |
| | 19A700069P1 | Can. (Used with L409 & L501). |
| | 19D429826P1 | Knob. (R630). |
| | 19A134753P5 | Machine screw. (Used with R630). |
| | 19J706076P1 | Washer, tension. (Used with R630). |
| | 19A134753P2 | Washer. (Used with R630). |
| | NP280878P1 | Nameplate. (POWER). |
| | 19A702364P106 | Machine screw, POZIDRIV®: 2-0.4 x 6. (Secures printed board to casting). |
| | 19B233285P1 | Spring, ground clip. (Located on side of printed board at C404). |
| | 19C850619G1 | Casting. (Used with L101-L103 & L107-L109). |

## PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter," which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

REV. A - Transmit/Receive Board 19D900623G2, 3

To eliminate possibility of soldor bridges and shorts, Delete T101 and C111. Added L118.

T101 was: 19A701767G1 Transformer.

C111 was: 19A700219P10 Ceramic: 2.2 pF ±5%, 100 VDCW, temp. coef 0 PPM.

C112 was: 19A700219P48 Ceramic: 36 pF ±5%, 100 VDCW, temp. coef 0 PPM.

REV. B - To improve PA operation at low temperatures. Changed C205, C205 was: 19A701223P1, Electrolytic: 15 µf +75, -, 63 VDCW; sim to Sprague 501D156-G025B1C.

REV. C - To improve low end audio response (300 Hertz). Changed C607 from 10 Nanofarads to 15 Nanofarads. Old Part Number for C607 was: C607, 19A700234P7 Polyester: 0.01 µF ±10%, 50 VDCW.

REV. D - To improve operation of Receive Audio Circuit. Changed R647. Old Part Number was: C647, 19A700019P54 - Deposited Carbon: 27K ohms ±5%, 1/4 w.

REV. E - To improve operation of power control circuit. Changed C220. The old Part Number was: C220, 19A701534P4 - Tantalum: 1 µF ±20%, 35 VDCW.

REV. F - To improve decoupling of Power Control Circuit from vehicle battery and improve reliability of Q204. Changed C222 and added R215 in the 13 volt line between C222(+) and Q203-C. Break the printed wire run between the above and soldor in R215, Old Part Number is: C222, 19A701534P4 - Tantalum: 1 µF ±20%, 35 VDCW.