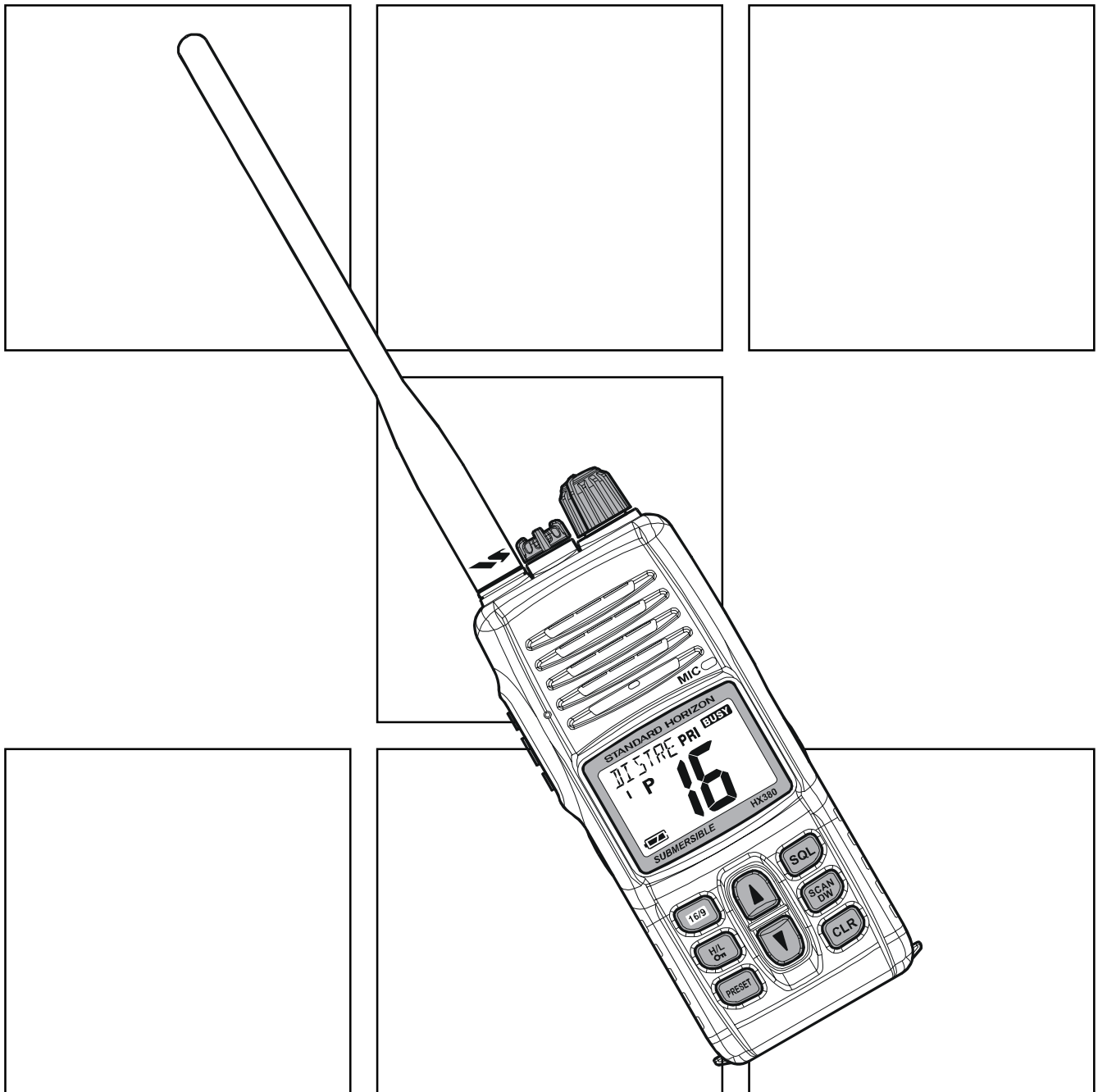


HX380

SERVICE MANUAL



Specifications

General

Frequency Ranges:	156.025 MHz - 162.000 MHz (Marine Band) 134.000 MHz - 174.000 MHz (LMR Band)
Channel Spacing:	25 kHz / 12.5 kHz
Frequency Stability:	±2.5 ppm (−30 °C to +60 °C)
Emission Type:	16K0G3E (Marine Band) 16K0F3E (LMR Band: Wide) 11K0F3E (LMR Band: Narrow)
Antenna Impedance:	50 Ω
Supply Voltage:	7.4V DC, Negative Ground (Battery Terminal)
Current Consumption:	320 mA (Receive, Typical at AF MAX.) 50 mA (Standby) 1.6 A / 0.8 A (TX: 5 W / 1W)
Operating Temperature:	−30 °C to +60 °C
Case Size (W x H x D):	57 x 133 x 33 mm (w/o knob & antenna)
Weight (Approx.):	320 g (w/FNB-V105LI, Belt Clip, & Antenna)

Transmitter

RF Power Output:	5 W / 1 W (@7.4 V)
Modulation Type:	Variable Reactance
Maximum Deviation:	±5.0 kHz (Wide) / ±2.5 kHz (Narrow)
Spurious Emission:	−36 dBm (<1 GHz), −30 dBm (>1 GHz)
Microphone Impedance:	2 kΩ

Receiver

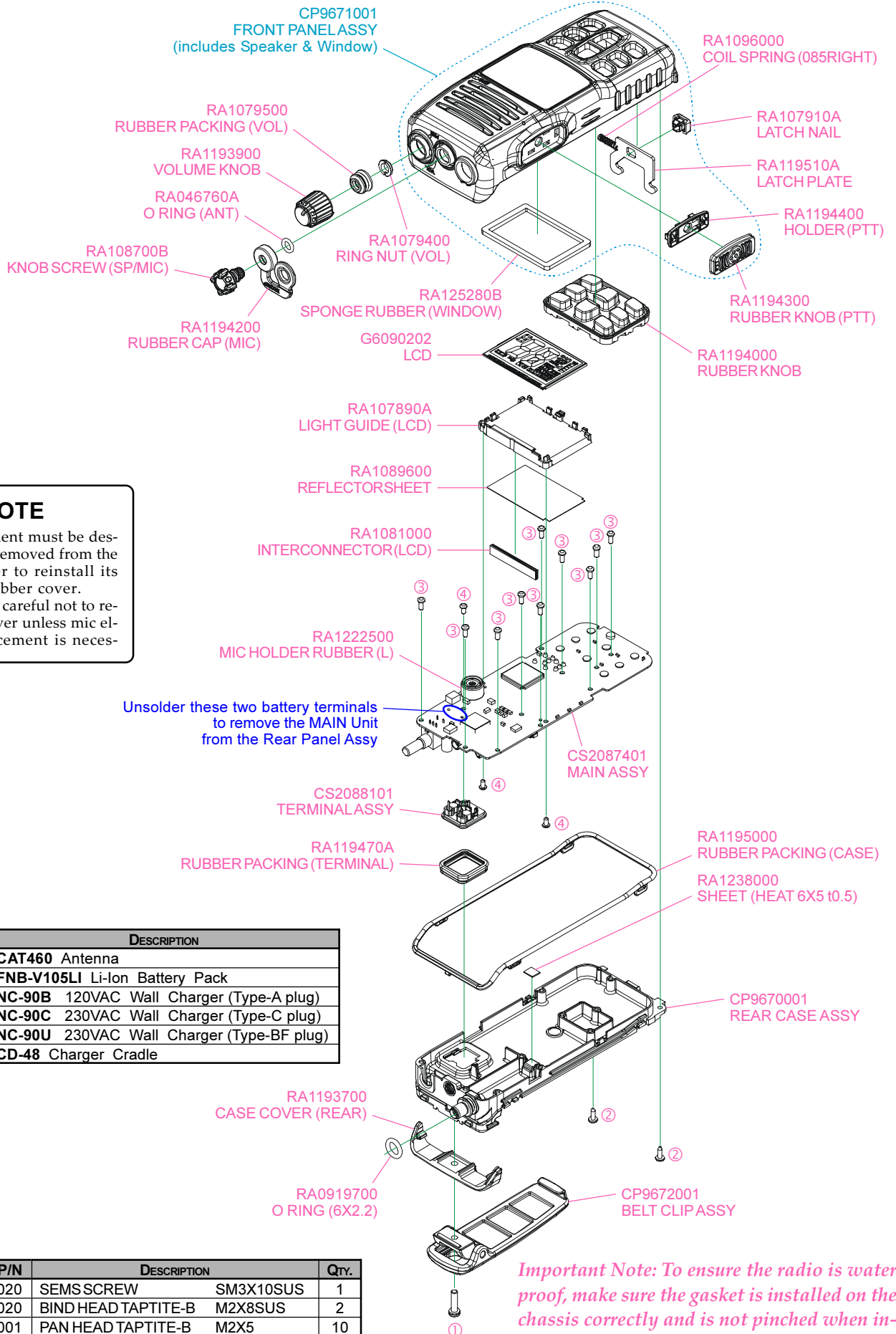
Circuit Type:	Double-Conversion Superheterodyne
Intermediate Frequencies:	1st: 67.65 MHz, 2nd: 450 kHz
Adjacent Channel Selectivity:	70 dB typical (Wide), 60 dB typical (Narrow)
Intermodulation:	68 dB typical
Sensitivity (LMR Band):	−6 dBμV (0.25 μV) for 12 dB SINAD
Selectivity (Wide):	12 kHz / 25 kHz (−6 dB / −60 dB)
Selectivity (Narrow):	6 kHz / 18 kHz (−6 dB / −60 dB)
AF Output (Internal SP):	700 mW @16 W for 10 % THD (@7.4 V)
AF Output (External SP):	350 mW @8 W for 10 % THD (@7.4 V)

*Performance specifications are nominal, unless otherwise indicated, and are subject to change without notice.
Measured in accordance with TIA/EIA-603.*

Important Note

The **HX380** was assembled using Pb (lead) free solder, based on the RoHS specification. Only lead-free solder (Alloy Composition: Sn-3.0Ag-0.5Cu) should be used for repairs performed on this apparatus. The solder stated above utilizes the alloy composition required for compliance with the lead-free specification, and any solder with the above alloy composition may be used.

Exploded View & Miscellaneous Parts



NOTE
 The mic element must be desoldered and removed from the PCB in order to reinstall its protective rubber cover. Therefore, be careful not to remove this cover unless mic element replacement is necessary.

Unsolder these two battery terminals to remove the MAIN Unit from the Rear Panel Assy

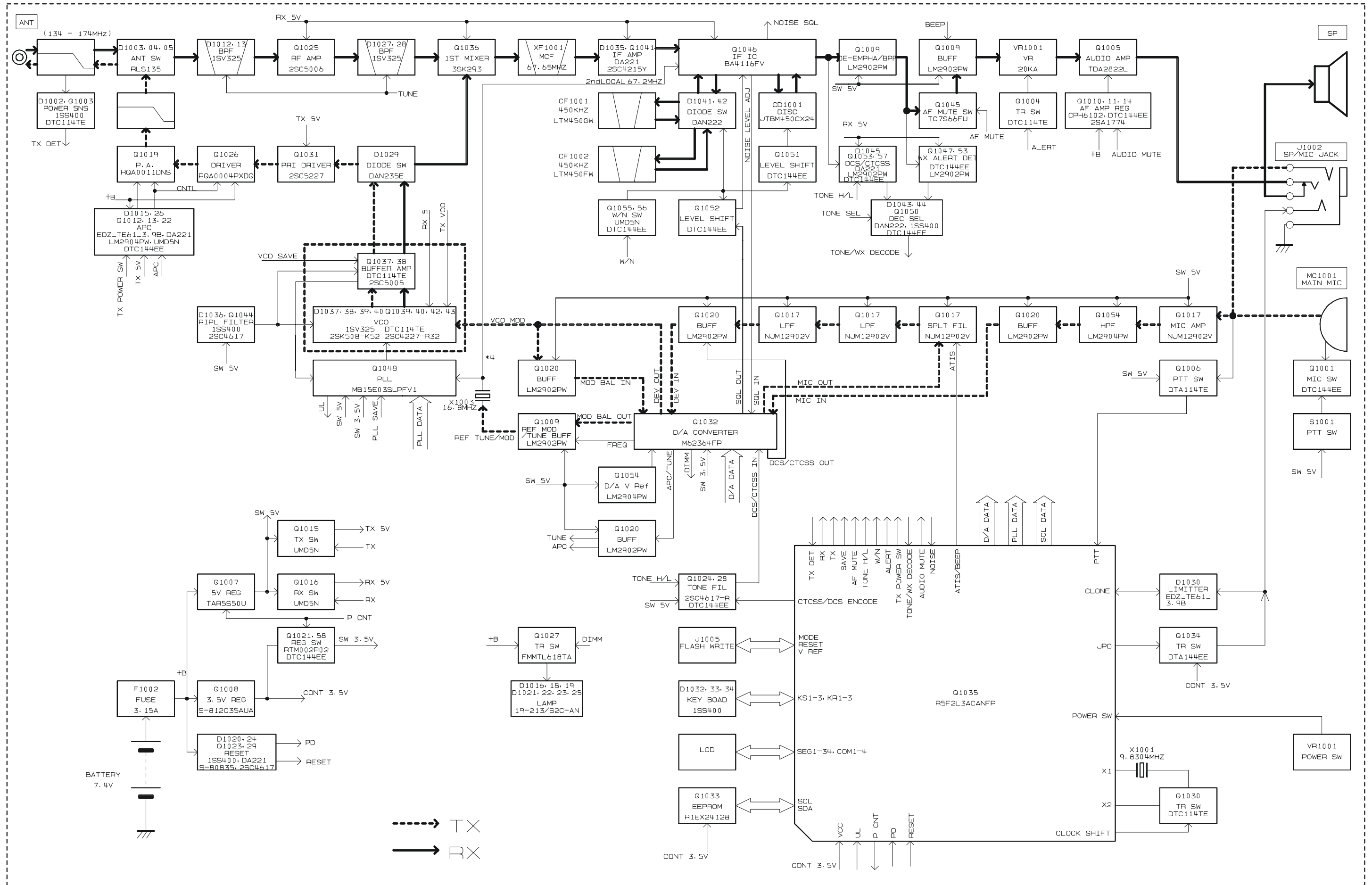
VXSTD P/N	DESCRIPTION
Q3000176	CAT460 Antenna
AAG43X001	FNB-V105LI Li-Ion Battery Pack
Q9500142	NC-90B 120VAC Wall Charger (Type-A plug)
Q9500143	NC-90C 230VAC Wall Charger (Type-C plug)
Q9500144	NC-90U 230VAC Wall Charger (Type-BF plug)
AAH01X001	CD-48 Charger Cradle

REF.	VXSTD P/N	DESCRIPTION	Qty.
①	U02310020	SEMSCREW SM3X10SUS	1
②	U24108020	BIND HEAD TAPTITE-B M2X8SUS	2
③	U44105001	PAN HEAD TAPTITE-B M2X5	10
④	U9900068	PAN HEAD TAPTITE-B M2X4NI#3	3

Important Note: To ensure the radio is water proof, make sure the gasket is installed on the chassis correctly and is not pinched when inserted into the front case.

Note

Block Diagram



Note

1. Circuit Configuration by Frequency

The receiver is a double-conversion superheterodyne with a first intermediate frequency (IF) of 67.65 MHz and a second IF of 450 kHz. Incoming signal from the antenna is mixed with the local signal from the VCO/PLL to produce the first IF of 67.65 MHz.

This is then mixed with the 67.2MHz second local oscillator output to produce the 450 kHz second IF. This is detected to give the demodulated signal.

The transmit signal frequency is generated by the PLL VCO, and modulated by the signal from the microphone. It is then amplified and sent to the antenna.

2. Receiver System

2-1. FRONT-END RF AMPLIFIER

Incoming RF signal from the antenna is delivered to the Main Unit and passes through Low-pass filter, antenna switching diode **D1004 (RLS135)**, high-pass filter and removed undesired frequencies by varactor diode (tuned band-pass filter) **D1012** and **D1013** (both **1SV325**).

The radio signal is supplied to the RF amplifier **Q1025 (2SC5006)** amplified, applied to a tuned band pass filter. The signal is then applied to the first mixer.

2-2. FIRST MIXER

The 1st mixer consists of the **Q1036 (3SK293)**. Buffered output from the RX VCO **Q1040 (2SK508)** is amplified by **Q1038 (2SC5005)** to provide a pure first local signal between 223.675 and 229.650 MHz (Marine Band) or 201.650 and 241.650 MHz (LMR Band) for injection to the first mixer.

The IF signal then passes through monolithic crystal filter **XF1001** (± 7.5 kHz BW) to strip away all but the desired signal.

2-3. IF AMPLIFIER

The first IF signal is amplified by **Q1041 (2SC4215Y)**. The amplified first IF signal is applied to FM IF subsystem IC **Q1046 (BA4116FV)** which contains the second mixer, second local oscillator, limiter amplifier, noise amplifier, and RSSI amplifier.

The signal from reference oscillator X1003 is applied to FM IF subsystem IC **Q1046 (BA4116FV)** which increase the frequency by 4 times, mixes with the First IF signal to become the Second IF 450kHz.

The second IF then passes through the ceramic filter **CF1001 (LTM450GW** for Wide band) or **CF1002 (LTM450FW** for Narrow band) to strip away unwanted mixer products, and is applied to the limiter amplifier in

Q1046 (BA4116FV), which removes amplitude variations in the 450 kHz IF, before detection of the speech by the ceramic discriminator **CD1001 (JTBM450CX24)**.

2-4. AUDIO AMPLIFIER

Detected signal from **Q1046 (BA4116FV)** is applied to De-Emphasis circuit **Q1009-3/-4 (LM2902PW)**. The signal which appeared from **Q1009 (LM2902PW)** is fed through the AF mute switch **Q1045 (TC7S66FU)** and the buffer amplifier **Q1009-1 (LM2902PW)** to the AF volume (**VR1001**). The audio signal is applied to audio amplifier **Q1005 (TDA2822L)**. The output signal from **Q1005 (TDA2822L)** is in audio speaker.

2-5. SQUELCH CIRCUIT

The squelch circuit is composed of a noise amplifier, band-pass filter, and noise detector within **Q1046 (BA4116FV)** and level shifter **Q1032 (M62364FP-CH2)**. When a carrier isn't received, the noise at the output of the detector stage in **Q1046 (BA4116FV)** is amplified by the level shifter **Q1032 (M62364FP-CH2)**. The amplified noise is applied to the band-pass filter section in **Q1046 (BA4116FV)**, then detected to DC voltage by the detector stage in **Q1046 (BA4116FV)**. The DC voltage is inputted to 98-pin (NOISE port) of the CPU **Q1035 (R5F2L3ACANFP)**.

When a carrier is received, the DC voltage at the 98-pin of the CPU **Q1035 (R5F2L3ACANFP)** becomes "low" level, because the noise is compressed.

When the detected voltage at the 98-pin of the CPU **Q1035 (R5F2L3ACANFP)** is "high" level, the 17-pin (AF MUTE) of the CPU **Q1035 (R5F2L3ACANFP)** becomes "low" level. As a result, turns the AF mute switch **Q1045 (TC7S66FU)** to "OFF" to disable the audio output.

3. Transmitter System

3-1. MIC AMPLIFIER

The AF signal from internal microphone MC1001 or external microphone connected to J1002 (**MIC/SP** jack) is amplified with microphone amplifier **Q1017-3 (NJM12902V)**.

This signal is applied to the high pass filter **Q1054-1 (LM2904PW)** and buffer amplifier **Q1020-4 (LM2902PW)**. Afterwards, the AF signal is adjusted by the D/A converter **Q1032 (M62364FP-CH1)**. The adjusted AF signal is applied to the splatter filter **Q1017-4 (NJM12902V)**, Low-pass filter **Q1017-1/-2 (NJM12902V)**, and buffer amplifier **Q1020-2 (LM2902PW)**, the mic audio is applied to the D/A converter **Q1032 (M62364FP-CH4)** which adjusts the audio for Max deviation for normal or narrow band operation. The mic audio is then applied to varactor diode **D1031 (HVC383B)** that modulates the VCO transmit signal.

Circuit Description

3-2. DRIVE AND FINAL AMPLIFIER

The modulated signal from the TX VCO **Q1042 (2SC4227)** is buffered by **Q1038 (2SC5005)**. Then the signal is buffered by **Q1031 (2SC5227)** for the final amplifier driver **Q1026 (RQA0004PXDQS)**. The low-level transmit signal is then applied to **Q1019 (RQA0011DNS)** for final amplification up to 5watts output power.

The transmit signal then passes through the antenna switch **D1003 (RLS135)**, low pass filtered to suppress away harmonic spurious radiation before delivery to the antenna.

3-3. AUTOMATIC TRANSMIT POWER CONTROL

The current detector **Q1012-2 (LM2904RW)** detects the current of **Q1026 (RQA0004PXDQS)** and **Q1019 (RQA0011DNS)**, and converts the current difference to the voltage difference.

The output from the current detector **Q1012-2 (LM2904RW)** is compared with the reference voltage and amplified by the power control amplifier **Q1012-1 (LM2904RW)**.

The output from **Q1012-1 (LM2904RW)** controls the gate bias of the final amplifier **Q1019 (RQA0011DNS)** and the driver **Q1026 (RQA0004PXDQS)**.

The reference voltage changes into two values (Transmit Power "High" and "Low") controlled by **Q1032 (M62364FP-CH8)**.

4. PLL Frequency Synthesizer

The frequency synthesizer consists of PLL IC, VCO, TCXO (X1003), and buffer amplifier.

The output frequency from TCXO is 16.8 MHz and the tolerance is ± 2.5 ppm (in the temperature range -30 to $+60$ degrees).

4-1. VCO

While the radio is receiving, the RX VCO **Q1040 (2SK508)** generates a programmed frequency between 223.675 and 229.650 MHz (Marine Band) or 201.650 and 241.650 MHz (LMR Band) as 1st local signal.

While the radio is transmitting, the TX VCO **Q1042 (2SC4227)** generates a frequency between 156.025 and 162.000 MHz (Marine band) or 134.000 and 174.000 MHz (LMR Band).

During receive, the signal from VCO is amplified by buffer amplifier **Q1038 (2SC5005)**. The output signal **Q1038 (2SC5005)** applied to (a) pin-8 of the PLL IC **Q1048 (MB15E03SL)** to keep the radio on frequency (b) the 1st mixer **Q1036 (3SK293)** as the 1st local signal through **D1029 (DAN235E)**.

During transmission, the TX signal from the VCO is applied to buffer amplifier **Q1031 (2SC5227)** through **D1029 (DAN235E)**.

4-2. PLL

The PLL IC **Q1048 (MB15E03SL)** consists of reference divider, main divider, phase detector, charge pumps and pulse swallow operation. The reference frequency from TCXO is inputted to 1-pin of PLL IC **Q1048 (MB15E03SL)** and is divided by reference divider.

The other hand, inputted feed back signal to pin 8 of PLL IC **Q1048 (MB15E03SL)** from VCO is divided with the dividing ratio which becomes same frequency as the output of reference divider. These two signals are compared by phase detector, the phase difference pulse is generated.

The phase difference pulse and the pulse from through the charge pumps and LPF is converted into DC voltage to control the VCO.

The oscillation frequency of VCO is locked by the control of this DC voltage.

The PLL serial data from CPU **Q1035 (R5F2L3ACANFP)** is sent with three lines of CLK (81-pin), DATA (82-pin) and P STB (83-pin).

The lock condition of PLL is output from the UL (2-pin) terminal and UL becomes "H" at the time of the lock condition and becomes "L" at the time of the unlocked condition. The CPU **Q1035 (R5F2L3ACANFP)** always watches for an unlocked condition. If an unlock condition is seen by the CPU **Q1035 (R5F2L3ACANFP)** it prevents the radio from transmitting and receiving.

The **HX380** has been carefully aligned at the factory for the specified performance across the marine and LMR bands.

Realignment should therefore not be necessary except in the event of a component failure.

All component replacement and service should be performed only by an authorized STANDARD HORIZON representative, or the warranty policy may be voided.

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts are replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend that servicing be performed only by authorized STANDARD HORIZON service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized STANDARD HORIZON service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components. Those who do undertake any of the following alignments are cautioned to proceed at their own risk.

Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, STANDARD HORIZON must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners. Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary. The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all of the equipment listed, the interactions of some adjustments may require that more complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

Required Test Equipment

- RF Signal Generator with calibrated output level at 200 MHz
- Frequency Counter: >0.1 ppm accuracy at 200 MHz
- AF Signal Generator
- Deviation Meter (linear detector)
- VHF Sampling Coupler
- Inline Wattmeter with 5% accuracy at 200 MHz
- 50-ohm Non-reactive Dummy Load: 10W at 200 MHz
- 7.4 VDC, 2A Regulated DC Power Supply

Alignment Preparation & Precautions

A dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna. After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 20 °C and 30 °C. When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization with the environment before alignment. If possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

Note: Signal levels in dB referred to in this procedure are based on 0 dB μ = 0.5 μ V(closed circuit).

Notice: Do not change the adjustment item except those written in the following adjustment procedures.

Alignment

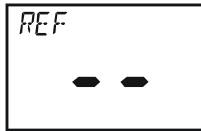
Entering the Alignment mode

Press and hold in the [H/L], [▲] and [CLR] keys while turn the transceiver on to enter the alignment mode.

PLL Section

PLL Reference Frequency Adjustment

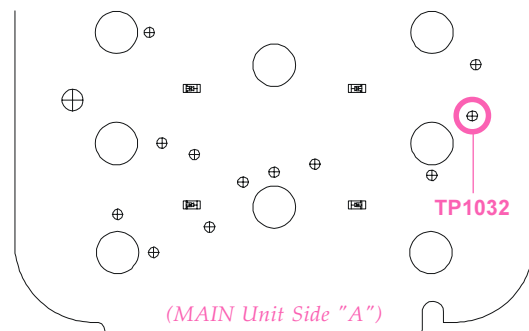
- ❑ Connect the wattmeter, dummy load, and frequency counter to the antenna jack.
- ❑ Press the [▲] or [▼] key to select the display to "REF".
- ❑ Press the [SQL] key, then press the [H/L] key to enable adjustment of the PLL Reference Frequency.
- ❑ Press the PTT key to transmit the transceiver, if necessary, press the [▲] or [▼] key to adjust the frequency so the counter frequency is 156.800 MHz (± 100 Hz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting.
- ❑ Press the [CLR] key to exit from this alignment item.



Receiver Section

Squelch Gain Adjustment

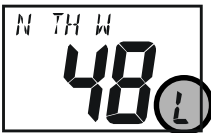
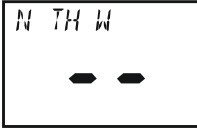
- ❑ Referring to the "Receiver Section Alignment Setup" on the next page, connect the RF Signal Generator to the antenna jack, and connect the DC voltmeter to TP1032.
- ❑ Press the [▲] or [▼] key to select the display to "GAIN".
- ❑ Press the [SQL] key to enable adjustment of the Squelch Gain level.
- ❑ Press the [▲] or [▼] key to select a small character of lower right corner of the display to "C".
- ❑ Set the RF Signal Generator output level 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz) at 156.800 MHz.
- ❑ Press the [H/L] key, then press the [▲] or [▼] key so that the DC voltmeter reading is 0.3 V (± 0.05 V).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the band center.
- ❑ Press the [▲] key to change the "C" character to "H" at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 174.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz).
- ❑ Press the [H/L] key, then press the [▲] or [▼] key so that the DC voltmeter reading is 0.3 V (± 0.05 V).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the high band edge.
- ❑ Press the [▼] key twice to change the "H" character to "L" at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 134.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz).
- ❑ Press the [H/L] key, then press the [▲] or [▼] key so that the DC voltmeter reading is 0.3 V (± 0.05 V).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the low band edge.
- ❑ Press the [CLR] key to exit from this alignment item.



TEST POINT (TP1032)

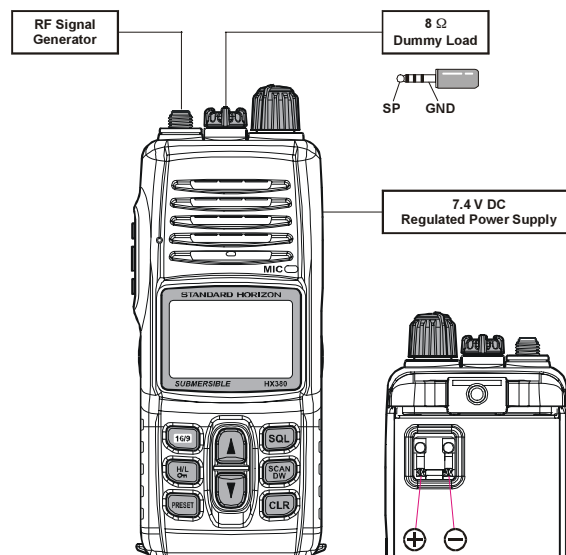
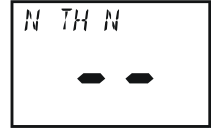
Squelch Threshold Adjustment (Wide Bandwidth)

- ❑ Press the [▲] or [▼] key to select the display to “N TH W”.
- ❑ Press the [SQL] key to enable adjustment of the Squelch Threshold level.
- ❑ Press the [▲] or [▼] key to select a small character of lower right corner of the display to “C”.
- ❑ Set the RF Signal Generator output level $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 3.0\text{ kHz}$ deviation @ 1 kHz) at 156.800 MHz .
- ❑ Press the [H/L] key to read the Squelch Threshold level, then press and hold the [H/L] key for 2 seconds to save the Squelch Threshold level at the band center.
- ❑ Press the [▲] key to change the “C” character to “H” at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 174.000 MHz . The output level keeps $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 3.0\text{ kHz}$ deviation @ 1 kHz).
- ❑ Press the [H/L] key to read the Squelch Threshold level, then press and hold the [H/L] key for 2 seconds to save the Squelch Threshold level at the high band edge.
- ❑ Press the [▼] key twice to change the “H” character to “L” at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 134.000 MHz . The output level keeps $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 3.0\text{ kHz}$ deviation @ 1 kHz).
- ❑ Press the [H/L] key to read the Squelch Threshold level, then press and hold the [H/L] key for 2 seconds to save the Squelch Threshold level at the low band edge.
- ❑ Press the [CLR] key to exit from this alignment item.



Squelch Threshold Adjustment (Narrow Bandwidth)

- ❑ Press the [▲] or [▼] key to select the display to “N TH N”.
- ❑ Press the [SQL] key to enable adjustment of the Squelch Threshold level.
- ❑ Press the [▲] or [▼] key to select a small character of lower right corner of the display to “C”.
- ❑ Set the RF Signal Generator output level $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 1.5\text{ kHz}$ deviation @ 1 kHz) at 156.800 MHz .
- ❑ Press the [H/L] key to read the Squelch Threshold level, then press and hold the [H/L] key for 2 seconds to save the Squelch Threshold level at the band center.
- ❑ Press the [▲] key to change the “C” character to “H” at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 174.000 MHz . The output level keeps $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 1.5\text{ kHz}$ deviation @ 1 kHz).
- ❑ Press the [H/L] key to read the Squelch Threshold level, then press and hold the [H/L] key for 2 seconds to save the Squelch Threshold level at the high band edge.
- ❑ Press the [▼] key twice to change the “H” character to “L” at the lower right corner of the display.
- ❑ Change the RF Signal Generator to 134.000 MHz . The output level keeps $-8\text{ dB}\mu\text{V}$ (with a standard FM modulation: $\pm 1.5\text{ kHz}$ deviation @ 1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to read the Squelch Threshold level at the low band edge.
- ❑ Press the [CLR] key to exit from this alignment item.

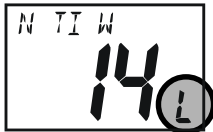
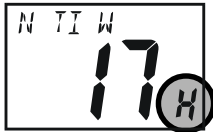
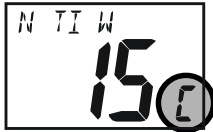
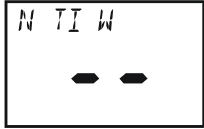


RECEIVER SECTION ALIGNMENT SETUP

Alignment

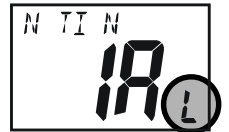
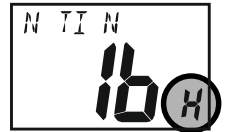
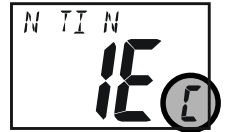
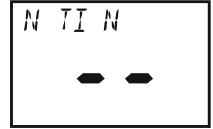
Squelch Tight Adjustment (Wide Bandwidth)

- Press the [▲] or [▼] key to select the display to "N T I W".
- Press the [SQL] key to enable adjustment of the Squelch Tight level.
- Press the [▲] or [▼] key to select a small character of lower right corner of the display to "C".
- Set the RF Signal Generator output level 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz) at 156.800 MHz
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the band center.
- Press the [▲] key to change the "C" character to "H" at the lower right corner of the display.
- Change the RF Signal Generator to 174.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz).
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the high band edge.
- Press the [▼] key twice to change the "H" character to "L" at the lower right corner of the display.
- Change the RF Signal Generator to 134.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 3.0 kHz deviation @ 1 kHz).
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the low band edge.
- Press the [CLR] key to exit from this alignment item.



Squelch Tight Adjustment (Narrow Bandwidth)

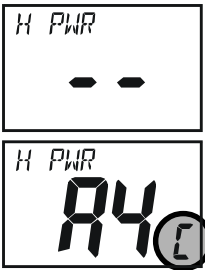
- Press the [▲] or [▼] key to select the display to "N T I N".
- Press the [SQL] key to enable adjustment of the Squelch Tight level.
- Press the [▲] or [▼] key to select a small character of lower right corner of the display to "C".
- Set the RF Signal Generator output level 0 dB μ V (with a standard FM modulation: ± 1.5 kHz deviation @ 1 kHz) at 156.800 MHz
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the band center.
- Press the [▲] key to change the "C" character to "H" at the lower right corner of the display.
- Change the RF Signal Generator to 174.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 1.5 kHz deviation @ 1 kHz).
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the high band edge.
- Press the [▼] key twice to change the "H" character to "L" at the lower right corner of the display.
- Change the RF Signal Generator to 134.000 MHz. The output level keeps 0 dB μ V (with a standard FM modulation: ± 1.5 kHz deviation @ 1 kHz).
- Press the [H/L] key to read the Squelch Tight level, then press and hold the [H/L] key for 2 seconds to save the Squelch Tight level at the low band edge.
- Press the [CLR] key to exit from this alignment item.



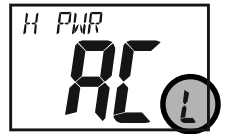
Transmitter Section

TX Power Adjustment (Hi Power)

- ❑ Connect the wattmeter and dummy load to the antenna jack.
- ❑ Press the [▲] or [▼] key to select the display to "H PWR".
- ❑ Press the [SQL] key, then press the [▲] or [▼] key to select a small character of lower right corner of the display to "C".
- ❑ Press the [H/L] key to enable adjustment of the TX Output Power at the band center.
- ❑ Press the PTT key to enable the transmitter (make sure the DC input voltage to the battery terminals is at 7.4VDC), press the [▲] or [▼] key to adjust the output power to 5.0 W (± 0.1 W).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the band center.
- ❑ Press the [▲] key to change the "C" character to "H" at the lower right corner of the display.
- ❑ Press the [H/L] key to enable adjustment of the TX Output Power at the high band edge.
- ❑ Press the PTT key to enable the transmitter, press the [▲] or [▼] key to adjust the output power to 5.0 W (± 0.1 W).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the high band edge.

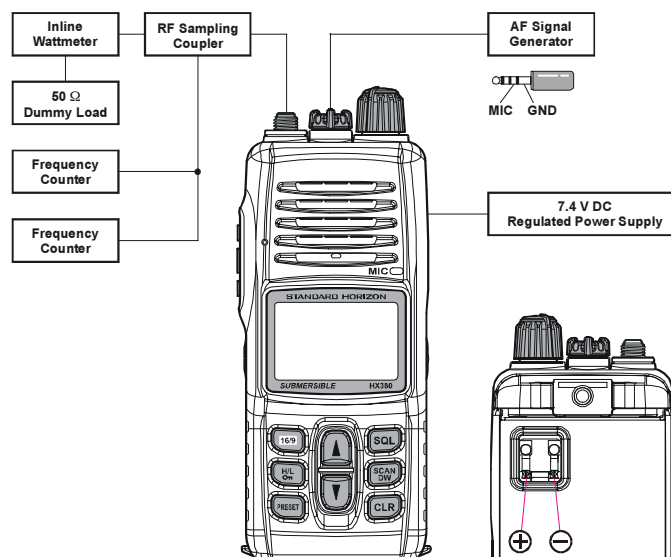
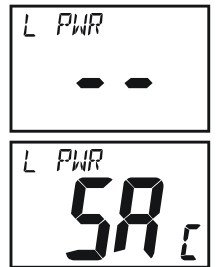


- ❑ Press the [▼] key twice to change the "H" character to "L" at the lower right corner of the display.
- ❑ Press the [H/L] key to enable adjustment of the TX Output Power at the low band edge.
- ❑ Press the PTT key to enable the transmitter, press the [▲] or [▼] key to adjust the output power to 5.0 W (± 0.1 W).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the low band edge.
- ❑ Press the [CLR] key to exit from this alignment item.



TX Power Adjustment (Low Power)

- ❑ Connect the wattmeter and dummy load to the antenna jack.
- ❑ Press the [▲] or [▼] key to select the display to "L PWR".
- ❑ Press the [SQL] key, then press the [H/L] key to enable adjustment of the TX Output Power.
- ❑ Press the PTT key to enable the transmitter, press the [▲] or [▼] key to adjust the output power to 1.0 W (± 0.1 W).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting.
- ❑ Press the [CLR] key to exit from this alignment item.

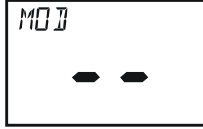


TRANSMITTER SECTION ALIGNMENT SETUP

Alignment

TX Deviation Adjustment (Max Deviation)

- ❑ Connect the wattmeter and dummy load to the antenna jack, then connect the deviation meter to the antenna jack through the VHF sampling coupler.
- ❑ Connect the AF Generator to the **MIC/SP** jack, then adjust the AF Generator output to 100 mV at 1 kHz.
- ❑ Press the [▲] or [▼] key to select the display to “MOD”.
- ❑ Press the [SQL] key, then press the [▲] or [▼] key to select a small character of lower right corner of the display to “C”.
- ❑ Press the [H/L] key to enable adjustment of the TX TX Deviation at the band center.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the band center.
- ❑ Press the [▲] key to change the “C” character to “H” at the lower right corner of the display.
- ❑ Press the [H/L] key to enable adjustment of the TX TX Deviation at the high band edge.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the high band edge.
- ❑ Press the [▼] key twice to change the “H” character to “L” at the lower right corner of the display.
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the low band edge.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the low band edge.
- ❑ Press the [CLR] key to exit from this alignment item.



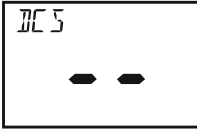
TX Deviation Adjustment (Modulation Balance)

- ❑ Connect the wattmeter and dummy load to the antenna jack, then connect the deviation meter to the antenna jack through the VHF sampling coupler.
- ❑ Connect the AF Generator to the **MIC/SP** jack, then adjust the AF Generator output to 300 mV at 350 Hz.
- ❑ Press the [▲] or [▼] key to select the display to “MODBAL”.
- ❑ Press the [SQL] key, then press the [▲] or [▼] key to set a small character of lower right corner of the display to “L”.
- ❑ Press the [H/L] key to enable adjustment of the TX TX Deviation Modulation Balance at the low band edge.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the low band edge.
- ❑ Change the AF Generator to 300 Hz. The output level keeps 300 mV.
- ❑ Press the [▲] key twice to change the “L” character to “H” at the lower right corner of the display.
- ❑ Press the [H/L] key to enable adjustment of the TX TX Deviation Modulation Balance at the high band edge.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the high band edge.
- ❑ Press the [▼] key to change the “H” character to “C” at the lower right corner of the display.
- ❑ Press the [H/L] key to enable adjustment of the TX TX Deviation Modulation Balance at the band center.
- ❑ Press the **PTT** key to enable the transmitter, press the [▲] or [▼] key to adjust the deviation to 4.2 kHz (+0 kHz/-0.1 kHz).
- ❑ Press and hold the [H/L] key for 2 seconds to save the new setting at the band center.
- ❑ Press the [CLR] key to exit from this alignment item.



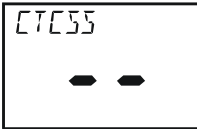
TX Deviation Adjustment (DCS)

- Connect the wattmeter and dummy load to the antenna jack, then connect the deviation meter to the antenna jack through the VHF sampling coupler.
- Press the [▲] or [▼] key to select the display to “DCS”.
- Press the [SQL] key, then press the [H/L] key to enable adjustment of the TX Deviation (DCS).
- Press the **PTT** key to enable the transmitter and to output a DCS tone, press the [▲] or [▼] key to adjust the deviation to 0.6 kHz (± 0.1 kHz).
- Press and hold the [H/L] key for 2 seconds to save the new setting.
- Press the [CLR] key to exit from this alignment item.



TX Deviation Adjustment (CTCSS)

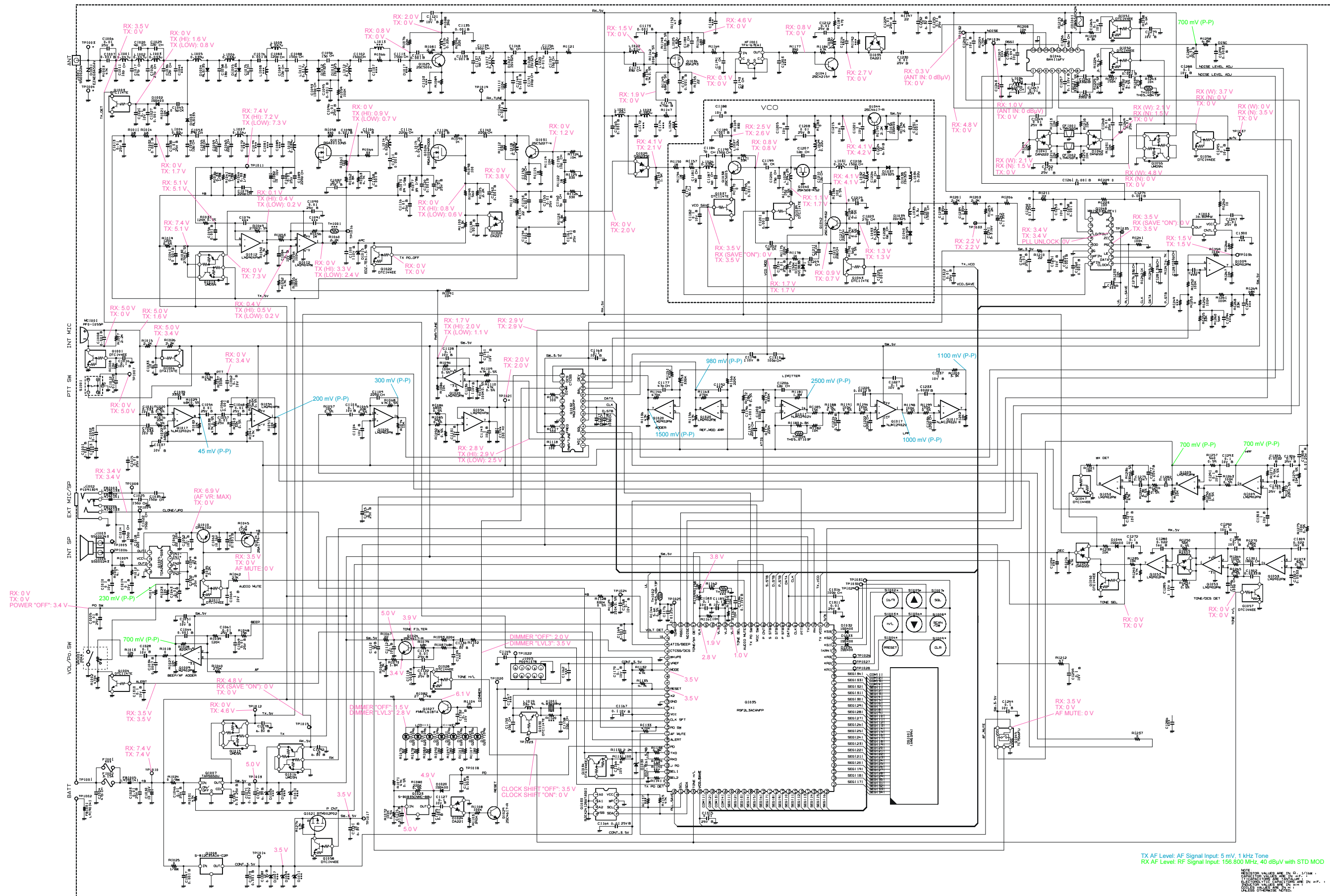
- Connect the wattmeter and dummy load to the antenna jack, then connect the deviation meter to the antenna jack through the VHF sampling coupler.
- Press the [▲] or [▼] key to select the display to “CTCSS”.
- Press the [SQL] key, then press the [H/L] key to enable adjustment of the TX Deviation (CTCSS).
- Press the **PTT** key to enable the transmitter and to output a CTCSS tone, press the [▲] or [▼] key to adjust the deviation to 0.7 kHz (± 0.1 kHz).
- Press and hold the [H/L] key for 2 seconds to save the new setting.
- Press the [CLR] key to exit from this alignment item.



Exit from the Alignment mode

To exit from the Alignment mode, turn the transceiver off.

Note



TX AF Level: AF Signal Input: 5 mV, 1 kHz Tone
RX AF Level: RF Signal Input: 156.800 MHz, 40 dBµV with STD MOD

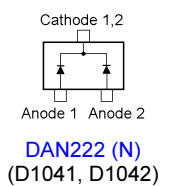
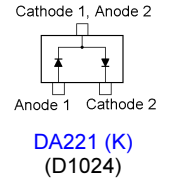
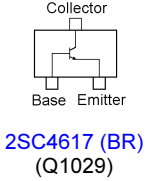
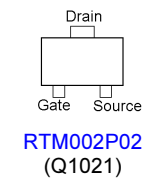
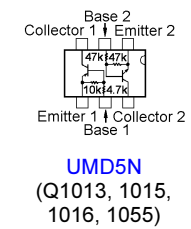
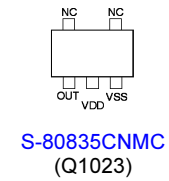
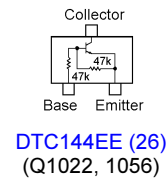
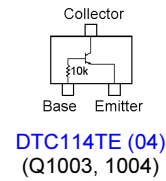
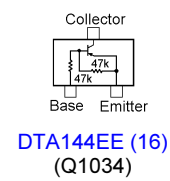
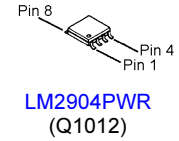
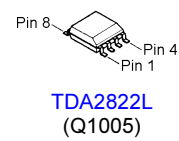
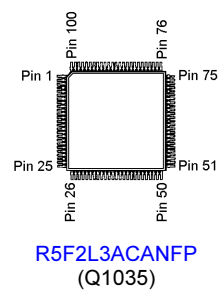
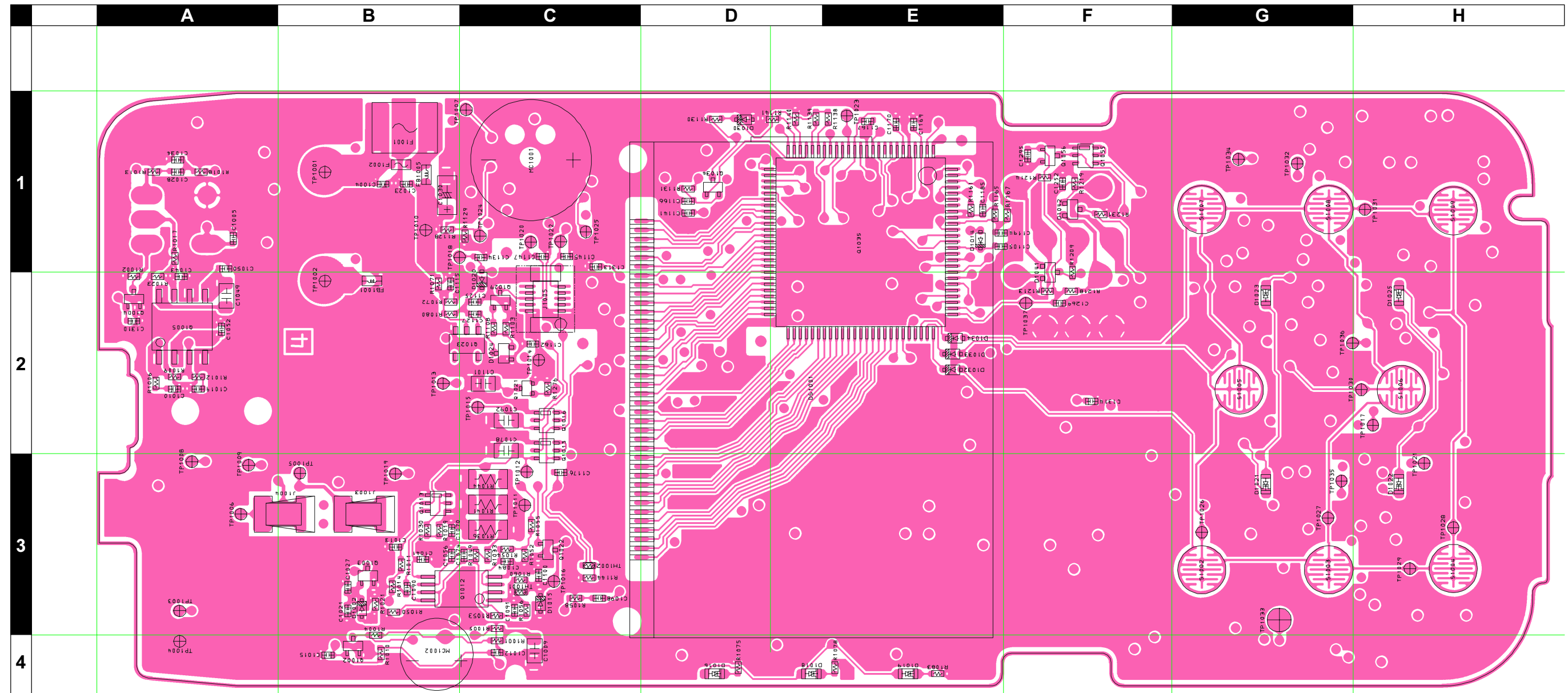
NOTE: ALL VOLTAGE VALUES ARE IN V_{CC} UNLESS OTHERWISE NOTED.

MAIN Unit

Note

MAIN Unit

Parts Layout (Side A)



MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR	
PCB with Components						CS2087401					
Printed Circuit Board						AM039N000	FR0209200		1-		
C 1001	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g4	
C 1002	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g4	
C 1004	CHIPCAP.	47pF	50V	CH	GRM1552C1H470JZ01D	K22178228		1-	A	B1	
C 1005	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	A1	
C 1006	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	h3	
C 1007	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	h3	
C 1008	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f1	
C 1010	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	A2	
C 1011	CHIPCAP.	10pF	50V	CH	GRM1552C1H100BZ01D	K22178297		1-	B	h3	
C 1012	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	C4	
C 1013	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	B3	
C 1014	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	g3	
C 1015	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	B4	
C 1016	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f1	
C 1017	CHIPCAP.	27pF	50V	CH	GRM1552C1H270JZ01D	K22178222		1-	B	h3	
C 1018	AL.ELECTRO.CAP.	220uF	10V		UUR1A221MCL6GS	K48100013		1-	B	h2	
C 1019	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	A2	
C 1020	CHIPCAP.	4pF	50V	CH	GRM1552C1H4R0BZ01D	K22178291		1-	B	g3	
C 1021	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	B3	
C 1022	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	h3	
C 1023	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	B1	
C 1024	CHIPCAP.	0.033uF	10V	B	GRM155B11A333KA01D	K22108803		1-	B	f1	
C 1025	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	g2	
C 1026	CHIPCAP.	27pF	50V	CH	GRM1552C1H270JZ01D	K22178222		1-	B	h3	
C 1027	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	B3	
C 1028	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	A1	
C 1029	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	g3	
C 1030	CHIP TA.CAP.	10uF	16V		TEESVA1C106M8R	K78120077		1-	A	B1	
C 1031	CHIPCAP.	0.033uF	10V	B	GRM155B11A333KA01D	K22108803		1-	B	f1	
C 1032	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g3	
C 1033	CHIPCAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	f1	
C 1034	CHIPCAP.	0.0047uF	50V	B	GRM155B11H472KA01D	K22178838		1-	A	A1	
C 1035	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	h3	
C 1036	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	g4	
C 1037	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	f1	
C 1038	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	g3	
C 1039	CHIPCAP.	330pF	50V	B	GRM155B11H331KA01D	K22178803		1-	B	f1	
C 1041	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	B3	
C 1042	CHIP TA.CAP.	22uF	16V		TEESVB21C226M8R	K78120028		1-	B	h2	
C 1043	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	A2	
C 1044	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	a2	
C 1045	CHIPCAP.	1pF	50V	CH	GRM1554C1H1R0BZ01D	K22178287		1-	B	g3	
C 1046	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	g2	
C 1047	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g2	
C 1048	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	g3	
C 1049	CHIPCAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	A	A2	
C 1050	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	A1	
C 1051	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a2	
C 1052	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	A2	
C 1053	CHIPCAP.	39pF	50V	CH	GRM1552C1H390JZ01D	K22178226		1-	B	g3	
C 1054	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a3	
C 1055	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	f3	
C 1056	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	B3	
C 1057	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a3	
C 1058	CHIPCAP.	18pF	50V	CH	GRM1552C1H180JZ01D	K22178218		1-	B	g3	
C 1059	CHIPCAP.	22pF	50V	CH	GRM1552C1H220JZ01D	K22178220		1-	B	g3	
C 1060	CHIP TA.CAP.	10uF	16V		TEESVA1C106M8R	K78120077		1-	B	h1	
C 1061	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a2	
C 1062	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f1	
C 1063	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	h2	
C 1064	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	h1	
C 1065	CHIPCAP.	22pF	50V	CH	GRM1552C1H220JZ01D	K22178220		1-	B	f3	
C 1066	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	a3	
C 1067	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	f2	
C 1068	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a3	
C 1069	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a2	
C 1070	CHIPCAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	A	B3	
C 1071	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	f2	
C 1073	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f2	
C 1075	CHIPCAP.	4pF	50V	CH	GRM1552C1H4R0BZ01D	K22178291		1-	B	g3	
C 1076	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g3	

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
C 1077	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	f2
C 1078	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	A	C2
C 1080	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	f2
C 1082	CHIP TA. CAP.	10uF	16V		TEESVA1C106M8R	K78120077		1-	B	f3
C 1083	CHIP CAP.	120pF	50V	CH	GRM1552C1H121JA01D	K22178238		1-	B	g3
C 1084	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	C3
C 1086	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	f3
C 1087	CHIP CAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	g3
C 1088	CHIP CAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	g2
C 1089	CHIP CAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	f3
C 1090	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	B3
C 1092	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	A	C2
C 1093	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	g3
C 1094	CHIP CAP.	15pF	50V	CH	GRM1552C1H150JZ01D	K22178216		1-	B	g2
C 1095	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	g3
C 1096	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	g3
C 1097	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e3
C 1098	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	C3
C 1100	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	A	C3
C 1101	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	A	C2
C 1102	CHIP CAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	g2
C 1103	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f1
C 1104	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	e1
C 1105	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	E1
C 1106	CHIP CAP.	470pF	50V	B	GRM155B11H471KA01D	K22178805		1-	B	e3
C 1108	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f3
C 1109	CHIP CAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	f1
C 1110	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	e2
C 1111	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1112	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	e2
C 1113	CHIP CAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	f2
C 1114	CHIP CAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	e3
C 1115	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	B2
C 1116	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e3
C 1117	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f3
C 1118	CHIP CAP.	0.0033uF	50V	B	GRM155B11H332KA01D	K22178815		1-	B	e2
C 1119	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e2
C 1120	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e4
C 1121	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f2
C 1122	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e2
C 1124	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e4
C 1125	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	C2
C 1126	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1127	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	C2
C 1128	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	e1
C 1130	CHIP CAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	e2
C 1131	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	a2
C 1132	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	d4
C 1133	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f2
C 1134	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	C1
C 1135	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f2
C 1136	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	e1
C 1137	CHIP CAP.	6pF	50V	CH	GRM1552C1H6R0BZ01D	K22178293		1-	B	f3
C 1138	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1139	CHIP CAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	f2
C 1140	CHIP CAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	e3
C 1141	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	D1
C 1142	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1143	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	a2
C 1144	CHIP TA. CAP.	100uF	4V		TEESVA0G107M8R	K78060051		1-	B	a2
C 1146	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1148	CHIP CAP.	7pF	50V	CH	GRM1552C1H7R0BZ01D	K22178294		1-	B	e2
C 1149	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1150	CHIP CAP.	10pF	50V	CH	GRM1552C1H100BZ01D	K22178297		1-	B	d1
C 1151	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	f3
C 1152	CHIP CAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	d3
C 1153	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	d3
C 1154	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	d3
C 1155	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d3
C 1156	CHIP CAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	e2
C 1157	CHIP CAP.	10pF	50V	CH	GRM1552C1H100BZ01D	K22178297		1-	B	e3
C 1158	CHIP CAP.	10pF	50V	CH	GRM1552C1H100BZ01D	K22178297		1-	B	d1
C 1159	CHIP CAP.	10pF	50V	CH	GRM1552C1H100BZ01D	K22178297		1-	B	d3

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
C 1160	CHIPCAP.	7pF	50V	CH	GRM1552C1H7R0BZ01D	K22178294		1-	B	d3
C 1161	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d3
C 1163	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	f2
C 1164	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d1
C 1165	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	d3
C 1166	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	D1
C 1167	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	E1
C 1168	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	d1
C 1169	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	A	E1
C 1170	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	E1
C 1171	CHIPCAP.	33pF	50V	CH	GRM1552C1H330JZ01D	K22178224		1-	B	e3
C 1173	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e2
C 1175	CHIPCAP.	470pF	50V	B	GRM155B11H471KA01D	K22178805		1-	B	e3
C 1176	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	C3
C 1177	CHIPCAP.	47pF	50V	CH	GRM1552C1H470JZ01D	K22178228		1-	B	e1
C 1178	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	e3
C 1179	CHIPCAP.	3pF	50V	CJ	GRP1553C1H3R0CZ01E	K22178205		1-	B	c3
C 1180	CHIPCAP.	7pF	50V	CH	GRM1552C1H7R0BZ01D	K22178294		1-	B	e2
C 1181	CHIPCAP.	6pF	50V	CH	GRM1552C1H6R0BZ01D	K22178293		1-	B	c3
C 1182	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c3
C 1183	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	d1
C 1184	CHIPCAP.	7pF	50V	CH	GRM1552C1H7R0BZ01D	K22178294		1-	B	c3
C 1185	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	E1
C 1187	CHIPCAP.	6pF	50V	CH	GRM1552C1H6R0BZ01D	K22178293		1-	B	c3
C 1188	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	c3
C 1189	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c3
C 1190	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	c3
C 1191	CHIPCAP.	1pF	50V	CK	GRM1554C1H1R0BZ01D	K22178287		1-	B	d2
C 1193	CHIPCAP.	8pF	50V	CH	GRM1552C1H8R0DZ01D	K22178210		1-	B	d2
C 1194	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	E1
C 1195	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c2
C 1196	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	f2
C 1197	CHIPCAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	f2
C 1198	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	f1
C 1199	CHIPCAP.	1pF	50V	CK	GRM1554C1H1R0BZ01D	K22178287		1-	B	c3
C 1200	CHIPCAP.	330pF	50V	B	GRM155B11H331KA01D	K22178803		1-	B	f1
C 1201	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c3
C 1202	CHIPCAP.	1pF	50V	CK	GRM1554C1H1R0BZ01D	K22178287		1-	B	c3
C 1204	CHIPCAP.	15pF	50V	CH	GRM1552C1H150JZ01D	K22178216		1-	B	c3
C 1205	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	c3
C 1206	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	f1
C 1207	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	c3
C 1208	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	c3
C 1209	CHIPCAP.	4pF	50V	CH	GRM1552C1H4R0CZ01D	K22178206		1-	B	c2
C 1210	CHIPCAP.	12pF	50V	CH	GRM1552C1H120JZ01D	K22178214		1-	B	c3
C 1211	CHIPCAP.	2pF	50V	CK	GRM1554C1H2R0CZ01D	K22178204		1-	B	c2
C 1212	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d2
C 1213	CHIPCAP.	22pF	50V	CH	GRM1552C1H220JZ01D	K22178220		1-	B	c3
C 1214	CHIPCAP.	0.0022uF	50V	B	GRM155B11H222KA01D	K22178813		1-	B	g1
C 1215	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	c2
C 1217	CHIPCAP.	22pF	50V	CH	GRM1552C1H220JZ01D	K22178220		1-	B	c2
C 1218	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	c3
C 1219	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c2
C 1220	CHIPCAP.	0.0012uF	50V	B	GRM155B11H122KA01	K22178810		1-	B	f1
C 1221	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	c4
C 1222	CHIPCAP.	220pF	50V	CH	GRM1552C1H221JA01D	K22179713		1-	B	g1
C 1223	CHIPCAP.	27pF	50V	CH	GRM1552C1H270JZ01D	K22178222		1-	B	c2
C 1224	CHIPCAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	b4
C 1225	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c3
C 1226	CHIPCAP.	7pF	50V	CH	GRM1552C1H7R0DZ01D	K22178209		1-	B	c3
C 1227	CHIPCAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	g1
C 1228	CHIPCAP.	6pF	50V	CH	GRM1552C1H6R0BZ01D	K22178293		1-	B	c2
C 1229	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d3
C 1230	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d2
C 1231	CHIPCAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c4
C 1232	CHIPCAP.	10uF	6.3V	B	JMK212BJ106KG-T	K22080802		1-	B	b1
C 1233	CHIPCAP.	0.0022uF	50V	B	GRM155B11H222KA01D	K22178813		1-	B	g1
C 1234	CHIPCAP.	150pF	50V	CH	GRM1552C1H151JA01D	K22178240		1-	B	b3
C 1235	CHIPCAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	b1
C 1236	CHIPCAP.	120pF	50V	CH	GRM1552C1H121JA01D	K22178238		1-	B	g1
C 1237	CHIPCAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	g1
C 1238	CHIP TA.CAP.	0.1uF	35V		TEESVA1V104M8R	K78160025		1-	B	b3
C 1239	CHIP TA.CAP.	0.1uF	35V		TEESVA1V104M8R	K78160025		1-	B	b3

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
C 1240	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b2
C 1241	CHIP TA. CAP.	3.3uF	16V		TEESVA1C335M8R	K78120021		1-	B	b4
C 1242	CHIP TA. CAP.	0.1uF	35V		TEESVA1V104M8R	K78160025		1-	B	b4
C 1244	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b2
C 1245	CHIP CAP.	0.047uF	10V	B	GRM155B11A473KA01D	K22108801		1-	B	b2
C 1246	CHIP CAP.	39pF	50V	CH	GRM1552C1H390JZ01D	K22178226		1-	B	c2
C 1247	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	c2
C 1248	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	b4
C 1249	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	c2
C 1250	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	b4
C 1251	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	b3
C 1252	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	F1
C 1253	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	b3
C 1255	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	b3
C 1256	CHIP CAP.	68pF	50V	CH	GRM1552C1H680JZ01D	K22178232		1-	B	b1
C 1257	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c2
C 1258	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	b3
C 1259	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a3
C 1260	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	b3
C 1261	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	b2
C 1262	CHIP CAP.	330pF	50V	B	GRM155B11H331KA01D	K22178803		1-	B	c1
C 1263	CHIP CAP.	330pF	50V	B	GRM155B11H331KA01D	K22178803		1-	B	b1
C 1265	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b1
C 1268	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	c2
C 1269	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	F2
C 1270	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	a1
C 1271	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	c1
C 1272	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b1
C 1274	CHIP CAP.	0.001uF	50V	B	GRM155B11H102KA01D	K22178809		1-	B	b2
C 1275	CHIP CAP.	0.0047uF	50V	B	GRM155B11H472KA01D	K22178838		1-	B	a1
C 1276	CHIP CAP.	33pF	50V	CH	GRM1552C1H330JZ01D	K22178224		1-	B	b3
C 1277	CHIP CAP.	0.0047uF	50V	B	GRM155B11H472KA01D	K22178838		1-	B	b1
C 1279	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b1
C 1280	CHIP CAP.	0.022uF	16V	B	GRM155B11C223KA01D	K22128806		1-	B	a1
C 1281	CHIP CAP.	33pF	50V	CH	GRM1552C1H330JZ01D	K22178224		1-	B	b3
C 1282	CHIP CAP.	0.0047uF	50V	B	GRM155B11H472KA01D	K22178838		1-	B	b2
C 1285	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	a1
C 1287	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	b3
C 1288	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	c1
C 1289	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	b1
C 1290	CHIP CAP.	0.0033uF	50V	B	GRM155B11H332KA01D	K22178815		1-	B	b1
C 1291	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b2
C 1292	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a1
C 1293	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	b2
C 1295	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	F1
C 1296	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	a1
C 1297	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	b2
C 1298	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	B	a1
C 1301	CHIP CAP.	180pF	50V	CH	GRM1552C1H181JA01D	K22179711		1-	B	a1
C 1302	CHIP CAP.	0.0033uF	50V	B	GRM155B11H332KA01D	K22178815		1-	B	a1
C 1303	CHIP CAP.	1uF	10V	B	GRM155B31A105KE15D	K22108809		1-	B	a1
C 1304	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a2
C 1305	CHIP CAP.	0.0022uF	50V	B	GRM155B11H222KA01D	K22178813		1-	B	a2
C 1306	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a2
C 1307	CHIP CAP.	0.0033uF	50V	B	GRM155B11H332KA01D	K22178815		1-	B	b1
C 1308	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	a2
C 1309	CHIP CAP.	0.022uF	16V	B	GRM155B11C223KA01D	K22128806		1-	B	a1
C 1310	CHIP CAP.	0.1uF	10V	B	GRM155B11A104KA01D	K22108802		1-	A	A2
C 1311	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	d2
C 1312	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	c2
C 1313	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	A	C1
C 1314	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	A	F2
C 1315	CHIP CAP.	0.01uF	25V	B	GRM155B11E103KA01D	K22148834		1-	B	e2
C 1316	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	d2
C 1317	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	e1
C 1318	CHIP CAP.	100pF	50V	CH	GRM1552C1H101JD01D	K22178236		1-	B	e1
CD1001	CERAMIC DISC				JTBM450CX24	H7901530		1-	B	b1
CF1001	CERAMIC FILTER				LTM450GW	H3900573		1-	B	c2
CF1002	CERAMIC FILTER				LTM450FW	H3900572		1-	B	c1
D 1001	SURGE ABSORBER				EZAEG3A50AV	Q9000867		1-	B	h3
D 1002	DIODE				1SS400 TE61	G2070634		1-	A	B3
D 1003	DIODE				RLS135 TE-11	G2070128		1-	B	g3
D 1004	DIODE				RLS135 TE-11	G2070128		1-	B	g3

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
D 1005	DIODE				RLS135 TE-11	G2070128		1-	B	g3
D 1012	DIODE				1SV325(TPH3.F)	G2070848		1-	B	g2
D 1013	DIODE				1SV325(TPH3.F)	G2070848		1-	B	g2
D 1015	DIODE				EDZ TE-61 3.9B	G2071004		1-	A	C3
D 1016	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	D4
D 1018	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	D4
D 1019	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	E4
D 1020	DIODE				1SS400 TE61	G2070634		1-	A	C2
D 1021	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	G3
D 1022	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	H3
D 1023	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	G2
D 1024	DIODE				DA221 TL	G2070178		1-	A	C2
D 1025	LED				19-213/S2C-AN1P2B/3T	G2071096		1-	A	H2
D 1026	DIODE				DA221 TL	G2070178		1-	B	e3
D 1027	DIODE				1SV325(TPH3.F)	G2070848		1-	B	e2
D 1028	DIODE				1SV325(TPH3.F)	G2070848		1-	B	e2
D 1029	DIODE				DAN235E TL	G2070612		1-	B	d3
D 1030	DIODE				EDZ TE-61 3.9B	G2071004		1-	A	D1
D 1031	DIODE				HVC383B TRF-E	G2070922		1-	B	c2
D 1032	DIODE				1SS400 TE61	G2070634		1-	A	E2
D 1033	DIODE				1SS400 TE61	G2070634		1-	A	E2
D 1034	DIODE				1SS400 TE61	G2070634		1-	A	E2
D 1035	DIODE				DA221 TL	G2070178		1-	B	d3
D 1036	DIODE				1SS400 TE61	G2070634		1-	B	b4
D 1037	DIODE				1SV325(TPH3.F)	G2070848		1-	B	b3
D 1038	DIODE				1SV325(TPH3.F)	G2070848		1-	B	b3
D 1039	DIODE				1SV325(TPH3.F)	G2070848		1-	B	b2
D 1040	DIODE				1SV325(TPH3.F)	G2070848		1-	B	b2
D 1041	DIODE				DAN222 TL	G2070174		1-	A	F2
D 1042	DIODE				DAN222 TL	G2070174		1-	A	F1
D 1043	DIODE				DAN222 TL	G2070174		1-	B	b1
D 1044	DIODE				1SS400 TE61	G2070634		1-	B	b1
D 1045	DIODE				DA221 TL	G2070178		1-	B	a1
DS1001	LCD				(AM039N)	G6090202		1-	A	D2
F 1002	CHIPFUSE	3.15A			FHC16 322ADTP	Q0000118		1-	A	B1
FB1001	FERRITEBEADS				BLM18PG330SN1D	L9190141		1-	A	B2
FB1002	FERRITEBEADS				BLM18PG330SN1D	L9190141		1-	B	g2
FB1003	FERRITEBEADS				BLM15BD102SN1D	L9190133		1-	B	h3
FB1004	FERRITEBEADS				BLM15BD102SN1D	L9190133		1-	B	h3
FB1005	FERRITEBEADS				BLM18PG330SN1D	L9190141		1-	A	B1
J 1001	SHIELDFINGER				3525 3100103	S5000226		1-	B	h3
J 1002	CONNECTOR				MJC-046-C1-3.5-T	P1091309		1-	B	h2
J 1003	CONTACT				OG-503040	S5000243		1-	A	B3
J 1004	CONTACT				OG-503040	S5000243		1-	A	B3
J 1005	CONNECTOR				AXK6F10345YP	P0091378		1-	A	C2
L 1001	COIL	0.047uH			AS030821-47NK	L0022588		1-	B	h3
L 1002	COIL	0.047uH			AS030821-47NK	L0022588		1-	B	h3
L 1003	COIL	0.033uH			AS030621-33NK	L0022586		1-	B	g3
L 1004	M.RFC	0.82uH			LK2125 R82K-T	L1690318		1-	B	g3
L 1005	COIL	0.039uH			AS030721-39NK	L0022587		1-	B	g3
L 1006	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	B	g3
L 1007	COIL	0.014uH			AS050425-14NJ	L0022827		1-	B	f3
L 1009	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		1-	B	g3
L 1010	COIL	0.039uH			AS030721-39NK	L0022587		1-	B	f3
L 1011	COIL	0.017uH			AS030616-17NK	L0022678		1-	B	g2
L 1012	COIL	0.017uH			AS030616-17NK	L0022678		1-	B	g2
L 1014	M.RFC	0.022uH		2%	C1608CB-22NG-RF	L1691036		1-	B	e3
L 1015	M.RFC	0.047uH		2%	C1608CB-47NG-RF	L1691040		1-	B	e3
L 1016	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	f2
L 1017	COIL	0.017uH			AS030616-17NK	L0022678		1-	B	f2
L 1018	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	d3
L 1019	CHIPCOIL	33uH		5%	NLV-25T-330J-PF	L1691442		1-	B	d1
L 1020	COIL	0.017uH			AS030616-17NK	L0022678		1-	B	e2
L 1021	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	d3
L 1022	M.RFC	0.01uH			HK1608 10NJ-T	L1690516		1-	B	e3
L 1023	M.RFC	0.082uH			HK1608 82NJ-T	L1690527		1-	B	d3
L 1025	M.RFC	0.82uH			LK1608 R82K-T	L1690417		1-	B	e2
L 1026	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	c3
L 1027	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	c3
L 1028	M.RFC	0.39uH		2%	C1608CB-R39G-RF	L1691107		1-	B	c3
L 1029	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	c3
L 1030	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	d2
L 1031	COIL	0.047uH			AS030821-47NK	L0022588		1-	B	c3

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
L 1032	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	b3
L 1033	COIL	0.033uH			AS030621-33NK	L0022586		1-	B	c2
L 1034	M.RFC	0.22uH			HK1608 R22J-T	L1690940		1-	B	b3
L 1035	M.RFC	3.3uH			LK1608 3R3K-T	L1690686		1-	B	b3
L 1036	M.RFC	0.15uH			HK1608 R15J-T	L1690938		1-	B	c2
MC1001	MIC.ELEMENT				PF0-1055P	M3290045		1-	A	C1
Q 1001	TRANSISTOR				DTC144EE TL	G3070075		1-	B	f1
Q 1003	TRANSISTOR				DTC114TE TL	G3070225		1-	A	B3
Q 1004	TRANSISTOR				DTC114TE TL	G3070225		1-	A	A2
Q 1005	IC				TDA2822L-S08-R	G1094497		1-	A	A2
Q 1006	TRANSISTOR				DTA114TE TL	G3070264		1-	B	f1
Q 1007	IC				TAR5S50U(TE85L.F)	G1094097		1-	B	g2
Q 1008	IC				S-812C35AUA-C2P-T2G	G1093672		1-	B	f2
Q 1009	IC				LM2902PWR	G1094009		1-	B	a2
Q 1010	TRANSISTOR				CPH6102-TL	G3070223		1-	B	h2
Q 1011	TRANSISTOR				DTC144EE TL	G3070075		1-	B	h1
Q 1012	IC				LM2904PWR	G1094010		1-	A	B3
Q 1013	TRANSISTOR				UMD5NTR	G3070343		1-	A	B3
Q 1014	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	h1
Q 1015	TRANSISTOR				UMD5NTR	G3070343		1-	A	C2
Q 1016	TRANSISTOR				UMD5NTR	G3070343		1-	A	C2
Q 1017	IC				NJM12902V-TE1	G1093592		1-	B	f1
Q 1019	FET				RQA0011DNS	G3070392		1-	B	f3
Q 1020	IC				LM2902PWR	G1094009		1-	B	e1
Q 1021	FET				RTM002P02(TAPE)	G3070347		1-	A	C2
Q 1022	TRANSISTOR				DTC144EE TL	G3070075		1-	A	C3
Q 1023	IC				S-80835CNMC-B8U-T2-G	G1093606		1-	A	C2
Q 1024	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	e2
Q 1025	TRANSISTOR				2SC5006-T1	G3350068		1-	B	f3
Q 1026	FET				RQA0004PXDQS	G3070391		1-	B	e3
Q 1027	TRANSISTOR				FMMTL618TA	G3070334		1-	B	d4
Q 1028	TRANSISTOR				DTC144EE TL	G3070075		1-	B	e2
Q 1029	TRANSISTOR				2SC4617 TL R	G3346178R		1-	A	C2
Q 1030	TRANSISTOR				DTC114TE TL	G3070225		1-	B	d1
Q 1031	TRANSISTOR				2SC5227-4-TB	G3352278D		1-	B	d3
Q 1032	IC				M62364FP 600D	G1093033		1-	B	e2
Q 1033	IC				R1EX24128ATAS0I	G1094774		1-	B	d2
Q 1034	TRANSISTOR				DTA144EE TL	G3070074		1-	A	D1
Q 1035	IC				R5F2L3ACANFP	-----		1-	A	E1
Q 1036	FET				3SK293(TE85L.F)	G4802938		1-	B	e3
Q 1037	TRANSISTOR				DTC114TE TL	G3070225		1-	B	c2
Q 1038	TRANSISTOR				2SC5005-T1	G3350058		1-	B	c3
Q 1039	TRANSISTOR				DTC114TE TL	G3070225		1-	B	c3
Q 1040	FET				2SK508-T1B-A K52	G3805088B		1-	B	c3
Q 1041	TRANSISTOR				2SC4215Y(TE85R.F)	G3342157Y		1-	B	d2
Q 1042	TRANSISTOR				2SC4227-T1 R32	G3342278B		1-	B	c2
Q 1043	TRANSISTOR				DTC114TE TL	G3070225		1-	B	c3
Q 1044	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	c4
Q 1045	IC				TC7S66FU(TE85R.F)	G1092116		1-	B	b3
Q 1046	IC				BA4116FV-E2	G1092616		1-	B	b2
Q 1047	TRANSISTOR				DTC144EE TL	G3070075		1-	B	b1
Q 1048	IC				MB15E03SLPFV1-G-EF-6E1	G1094623		1-	B	b3
Q 1050	TRANSISTOR				DTC144EE TL	G3070075		1-	B	a1
Q 1051	TRANSISTOR				DTC144EE TL	G3070075		1-	B	b1
Q 1052	TRANSISTOR				DTC144EE TL	G3070075		1-	B	c1
Q 1053	IC				LM2902PWR	G1094009		1-	B	a1
Q 1054	IC				LM2904PWR	G1094010		1-	B	a3
Q 1055	TRANSISTOR				UMD5NTR	G3070343		1-	A	F1
Q 1056	TRANSISTOR				DTC144EE TL	G3070075		1-	A	F1
Q 1057	TRANSISTOR				DTC144EE TL	G3070075		1-	B	a1
Q 1058	TRANSISTOR				DTC144EE TL	G3070075		1-	B	f2
R 1002	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	A2
R 1003	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	h3
R 1006	CHIPRES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		1-	A	A2
R 1007	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	f1
R 1008	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	f1
R 1009	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	A2
R 1011	CHIPRES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	B3
R 1012	CHIPRES.	4.7	1/16W	5%	RMC1/16S 4R7JTH	J24189066		1-	A	A2
R 1013	CHIPRES.	12k	1/16W	5%	RMC1/16S 123JTH	J24189038		1-	A	A1
R 1014	CHIPRES.	68	1/16W	5%	RMC1/16S 680JTH	J24189011		1-	A	B3
R 1015	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	f1
R 1016	CHIPRES.	22k	1/16W	0.5%	MCR01MZPD2202	J24189378		1-	B	f1

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
R 1017	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	A1
R 1018	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	A1
R 1019	CHIPRES.	120k	1/16W	0.5%	MCR01MZPD1203	J24189387		1-	A	B3
R 1020	CHIPRES.	22k	1/16W	0.5%	MCR01MZPD2202	J24189378		1-	B	f1
R 1021	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	B3
R 1022	CHIPRES.	68k	1/16W	0.5%	MCR01MZPD6802	J24189384		1-	B	f1
R 1023	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	A2
R 1024	CHIPRES.	0	1/8W	5%	RMC1/8T 000J	J24215000		1-	B	g2
R 1025	CHIPRES.	0	1/8W	5%	RMC1/8T 000J	J24215000		1-	B	g2
R 1026	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	f1
R 1027	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a2
R 1028	CHIPRES.	820k	1/16W	5%	RMC1/16S 824JTH	J24189060		1-	B	a2
R 1029	CHIPRES.	68k	1/16W	0.5%	MCR01MZPD6802	J24189384		1-	B	f1
R 1030	CHIPRES.	270k	1/16W	0.5%	MCR01MZPD2703	J24189329		1-	A	B3
R 1031	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	g2
R 1032	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	f1
R 1033	CHIPRES.	120k	1/16W	0.5%	MCR01MZPD1203	J24189387		1-	A	C3
R 1034	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	f1
R 1035	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	h2
R 1036	CHIPRES.	0.33	1/8W	10%	RMC1/8R33KTP	J24219001		1-	A	C3
R 1037	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	f1
R 1038	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	a3
R 1039	CHIPRES.	120k	1/16W	5%	RMC1/16S 124JTH	J24189050		1-	B	a2
R 1040	CHIPRES.	270k	1/16W	5%	RMC1/16S 274JTH	J24189054		1-	B	a2
R 1041	CHIPRES.	0.33	1/8W	10%	RMC1/8R33KTP	J24219001		1-	A	C3
R 1042	CHIPRES.	27k	1/16W	5%	RMC1/16S 273JTH	J24189042		1-	B	h1
R 1043	CHIPRES.	33k	1/16W	0.5%	MCR01MZPD3302	J24189380		1-	B	a3
R 1044	CHIPRES.	0.33	1/8W	10%	RMC1/8R33KTP	J24219001		1-	A	C3
R 1045	CHIPRES.	2.2	1/2W	5%	RMC1/22R2JCTP	J24275229		1-	B	h1
R 1046	CHIPRES.	560k	1/16W	0.5%	MCR01MZPD5603	J24189335		1-	B	a3
R 1047	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a3
R 1048	CHIPRES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	a2
R 1049	CHIPRES.	270k	1/16W	0.5%	MCR01MZPD2703	J24189329		1-	A	C3
R 1050	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	B3
R 1051	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a3
R 1052	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	C3
R 1053	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	C3
R 1054	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	C3
R 1055	CHIPRES.	180k	1/16W	5%	RMC1/16S 184JTH	J24189052		1-	A	C3
R 1056	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	A	C3
R 1057	CHIPRES.	10k	1/16W	0.5%	MCR01MZPD1002	J24189374		1-	B	e1
R 1058	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	A	C3
R 1059	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	g3
R 1060	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	C3
R 1061	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	f3
R 1062	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	e3
R 1063	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	f3
R 1064	CHIPRES.	33	1/16W	5%	RMC1/16 330JATP	J24185330		1-	B	f3
R 1065	CHIPRES.	22k	1/16W	0.5%	MCR01MZPD2202	J24189378		1-	B	f1
R 1066	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	f2
R 1067	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	e2
R 1068	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	f1
R 1069	CHIPRES.	2.7k	1/16W	5%	RMC1/16S 272JTH	J24189030		1-	B	e2
R 1070	CHIPRES.	1.8k	1/16W	5%	RMC1/16S 182JTH	J24189028		1-	B	e2
R 1071	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	A	B2
R 1072	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	A	B2
R 1073	CHIPRES.	39	1/8W	5%	RMC1/8T 390J	J24215390		1-	B	e4
R 1074	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	f1
R 1075	CHIPRES.	82	1/16W	5%	RMC1/16S 820JTH	J24189012		1-	A	D4
R 1076	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	f2
R 1077	CHIPRES.	39	1/8W	5%	RMC1/8T 390J	J24215390		1-	B	e3
R 1078	CHIPRES.	82	1/16W	5%	RMC1/16S 820JTH	J24189012		1-	A	E4
R 1079	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	e2
R 1080	CHIPRES.	220k	1/16W	0.5%	MCR01MZPD2203	J24189389		1-	A	B2
R 1081	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	f3
R 1082	CHIPRES.	27	1/4W	5%	RMC1/4 270JATP	J24245270		1-	B	e4
R 1083	CHIPRES.	82	1/16W	5%	RMC1/16S 820JTH	J24189012		1-	A	E4
R 1084	CHIPRES.	680k	1/16W	0.5%	MCR01MZPD6803	J24189390		1-	A	a2
R 1085	CHIPRES.	56k	1/16W	0.5%	MCR01MZPD5602	J24189383		1-	B	a2
R 1086	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	e1
R 1087	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	e2
R 1088	CHIPRES.	390	1/16W	5%	RMC1/16S 391JTH	J24189020		1-	B	f2
R 1089	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	f3

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
R 1090	CHIPRES.	180	1/16W	5%	RMC1/16S 181JTH	J24189016		1-	B	b2
R 1091	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	e1
R 1092	CHIPRES.	33k	1/16W	0.5%	MCR01MZPD3302	J24189380		1-	B	a2
R 1093	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	e2
R 1094	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	e1
R 1095	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	e3
R 1096	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	B	f2
R 1097	CHIPRES.	180	1/16W	5%	RMC1/16S 181JTH	J24189016		1-	B	a3
R 1098	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	e3
R 1099	CHIPRES.	560	1/16W	5%	RMC1/16S 561JTH	J24189022		1-	B	e3
R 1100	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	e3
R 1101	CHIPRES.	180	1/16W	5%	RMC1/16S 181JTH	J24189016		1-	B	b2
R 1102	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	e2
R 1103	CHIPRES.	390k	1/16W	5%	RMC1/16S 394JTH	J24189056		1-	A	C2
R 1104	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	d4
R 1105	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	e3
R 1106	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	e1
R 1107	CHIPRES.	180	1/16W	5%	RMC1/16S 181JTH	J24189016		1-	B	a2
R 1108	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	C2
R 1109	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	e1
R 1110	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	e1
R 1111	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	e3
R 1112	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	d3
R 1113	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	d3
R 1114	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	d3
R 1115	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	d3
R 1116	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	f2
R 1117	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	f2
R 1118	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	f2
R 1119	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d3
R 1121	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	e3
R 1122	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	d3
R 1123	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	d3
R 1124	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d3
R 1125	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	d3
R 1126	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	d3
R 1128	CHIPRES.	330k	1/16W	0.5%	MCR01MZPD3303	J24189330		1-	A	B1
R 1129	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	A	C1
R 1130	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	D1
R 1131	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	D1
R 1132	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	d1
R 1133	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	d1
R 1134	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	e3
R 1135	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	d1
R 1136	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	e1
R 1138	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	A	E1
R 1139	CHIPRES.	680	1/16W	5%	RMC1/16S 681JTH	J24189023		1-	A	D1
R 1141	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	D1
R 1142	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	e3
R 1143	CHIPRES.	1.5k	1/16W	5%	RMC1/16S 152JTH	J24189027		1-	B	d3
R 1144	CHIPRES.	5.6k	1/16W	0.5%	MCR01MZPD5601	J24189371		1-	A	C3
R 1145	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	e1
R 1146	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	e1
R 1147	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	e3
R 1148	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	e3
R 1149	CHIPRES.	68k	1/16W	0.5%	MCR01MZPD6802	J24189384		1-	B	e2
R 1150	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	c3
R 1151	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	e2
R 1152	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	e2
R 1153	CHIPRES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	e1
R 1154	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	c3
R 1155	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	e3
R 1156	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	e1
R 1157	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	c3
R 1158	CHIPRES.	12k	1/16W	5%	RMC1/16S 123JTH	J24189038		1-	B	d1
R 1159	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	d1
R 1160	CHIPRES.	680	1/16W	5%	RMC1/16S 681JTH	J24189023		1-	B	e2
R 1161	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	E1
R 1163	CHIPRES.	270k	1/16W	5%	RMC1/16S 274JTH	J24189054		1-	B	f1
R 1164	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	e3
R 1165	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	E1
R 1166	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	f1
R 1167	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F1

MAIN Unit

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
R 1169	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	B	c3
R 1170	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	c2
R 1171	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	c3
R 1172	CHIPRES.	18k	1/16W	0.5%	MCR01MZPD1802	J24189377		1-	B	f2
R 1173	CHIPRES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	B	f1
R 1174	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	f1
R 1175	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	c2
R 1176	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	B	c2
R 1177	CHIPRES.	390	1/16W	5%	RMC1/16S 391JTH	J24189020		1-	B	d2
R 1178	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	c2
R 1179	CHIPRES.	150	1/16W	0.5%	MCR01MZPD1500	J24189352		1-	B	c3
R 1180	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	f1
R 1181	CHIPRES.	1.8M	1/16W	5%	RMC1/16S 185JTH	J24189064		1-	B	f1
R 1182	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	f1
R 1183	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	c3
R 1184	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	d2
R 1185	CHIPRES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	f1
R 1186	CHIPRES.	100	1/16W	0.5%	MCR01MZPD1000	J24189350		1-	B	c2
R 1187	CHIPRES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	d3
R 1188	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	f1
R 1189	CHIPRES.	6.8k	1/16W	0.5%	MCR01MZPD6801	J24189372		1-	B	c2
R 1190	CHIPRES.	560	1/16W	0.5%	MCR01MZPD5600	J24189359		1-	B	c3
R 1191	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	f1
R 1193	CHIPRES.	3.3k	1/16W	0.5%	MCR01MZPD3301	J24189368		1-	B	c2
R 1194	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	g1
R 1195	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c4
R 1196	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	c4
R 1197	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	b1
R 1198	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	g1
R 1199	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	g1
R 1200	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	g1
R 1201	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b3
R 1202	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	g1
R 1203	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	b3
R 1204	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	b2
R 1205	CHIPRES.	1.2k	1/16W	5%	RMC1/16S 122JTH	J24189026		1-	B	b3
R 1206	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b3
R 1208	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b2
R 1209	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F2
R 1210	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	b4
R 1211	CHIPRES.	22	1/16W	5%	RMC1/16S 220JTH	J24189005		1-	B	b3
R 1212	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	a3
R 1213	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F2
R 1214	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F1
R 1215	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	b1
R 1216	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	b1
R 1217	CHIPRES.	330k	1/16W	0.5%	MCR01MZPD3303	J24189330		1-	B	c1
R 1218	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F2
R 1219	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F1
R 1220	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	b1
R 1221	CHIPRES.	18k	1/16W	5%	RMC1/16S 183JTH	J24189040		1-	B	b1
R 1223	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	b3
R 1224	CHIPRES.	2.7k	1/16W	0.5%	MCR01MZPD2701	J24189367		1-	B	c1
R 1225	CHIPRES.	3.3k	1/16W	0.5%	MCR01MZPD3301	J24189368		1-	B	b1
R 1227	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	B	c1
R 1229	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b2
R 1230	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b1
R 1231	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	F1
R 1232	CHIPRES.	4.7k	1/16W	0.5%	MCR01MZPD4701	J24189370		1-	B	c1
R 1233	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b3
R 1234	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 1235	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	a1
R 1236	CHIPRES.	330k	1/16W	0.5%	MCR01MZPD3303	J24189330		1-	B	b1
R 1237	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	a3
R 1238	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	b1
R 1239	CHIPRES.	270	1/16W	5%	RMC1/16S 271JTH	J24189018		1-	B	c1
R 1240	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	a1
R 1241	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b3
R 1242	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b3
R 1243	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	c1
R 1244	CHIPRES.	3.3k	1/16W	0.5%	MCR01MZPD3301	J24189368		1-	B	a1
R 1245	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	b3
R 1246	CHIPRES.	33k	1/16W	0.5%	MCR01MZPD3302	J24189380		1-	B	a1

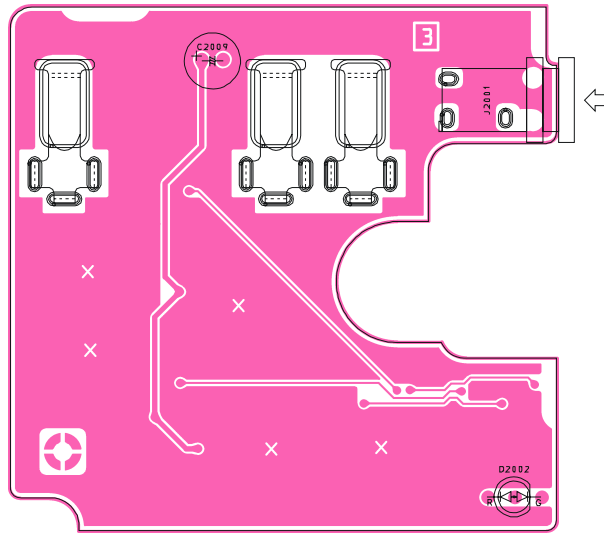
MAIN Unit

Parts List

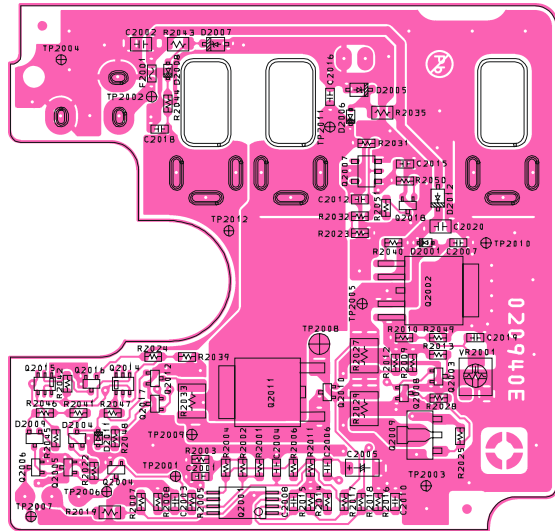
REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
R 1247	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	b3
R 1248	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b2
R 1250	CHIPRES.	56k	1/16W	0.5%	MCR01MZPD5602	J24189383		1-	B	a1
R 1251	CHIPRES.	47k	1/16W	0.5%	MCR01MZPD4702	J24189382		1-	B	a1
R 1252	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1253	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	b2
R 1254	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1255	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	b2
R 1256	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	b2
R 1257	CHIPRES.	560	1/16W	0.5%	MCR01MZPD5600	J24189359		1-	B	b2
R 1258	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	b1
R 1259	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	b2
R 1260	CHIPRES.	56k	1/16W	5%	RMC1/16S 563JTH	J24189046		1-	B	b2
R 1261	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	a2
R 1262	CHIPRES.	10	1/16W	5%	RMC1/16S 100JTH	J24189001		1-	B	b2
R 1263	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	b2
R 1264	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	a1
R 1265	CHIPRES.	82k	1/16W	0.5%	MCR01MZPD8202	J24189385		1-	B	a1
R 1266	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	b2
R 1267	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	b2
R 1268	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	a2
R 1269	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	a2
R 1270	CHIPRES.	180k	1/16W	0.5%	MCR01MZPD1803	J24189388		1-	B	a1
R 1271	CHIPRES.	470k	1/16W	0.5%	MCR01MZPD4703	J24189332		1-	B	a2
R 1272	CHIPRES.	22k	1/16W	0.5%	MCR01MZPD2202	J24189378		1-	B	a2
R 1273	CHIPRES.	82k	1/16W	0.5%	MCR01MZPD8202	J24189385		1-	B	b1
R 1274	CHIPRES.	10k	1/16W	0.5%	MCR01MZPD1002	J24189374		1-	B	a1
R 1275	CHIPRES.	100k	1/16W	0.5%	MCR01MZPD1003	J24189386		1-	B	b1
R 1276	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	C2
S 1001	TACT SWITCH				PT-036-B2S-T	N5090158		1-	B	f4
TH1002	THERMISTOR				TH05 4B473FR	G9090150		1-	A	C3
TH1004	THERMISTOR				TH05 3T103FR	G9090146		1-	B	f1
TH1005	THERMISTOR				TH05 4B473FR	G9090150		1-	B	c1
VR1001	POT.				TP76N00N RY-8935	J60800307		1-	B	h1
X 1001	XTAL SMD-49TA	9.8304MHz			9.8304MHZ	H0103393		1-	B	d1
X 1003	TCXO	16.8MHz			TTS14VSB-A3 16.80MHZ	H9501100		1-	B	b2
XF1001	XTAL FILTER				TF4-67EA1 67.65MHZ	H1102399		1-	B	d2
	INTERCONNECTOR				(LCD)	RA1081000		1-		
	LIGHTGUIDE				(LCD)	RA1078900		1		
	LIGHTGUIDE				(LCD)	RA107890A		2-		
	REFLECTORSHEET				(L)	RA1089600		1-		
	MICHOLDER RUBBER				(L)	RA1222500		1-		

CD-48 Charger Cradle

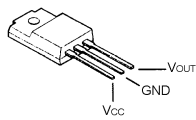
Parts Layout



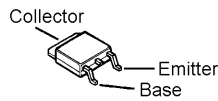
(Side A)



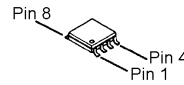
(Side B)



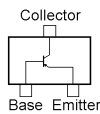
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(Q3002)



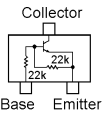
2SB1201S
(Q3007)



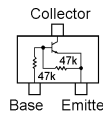
NJM12903R
(Q3001)



2SA1774 (FR)
(Q3006)



DTC124EU (25)
(Q3008)



DTC144EE (26)
(Q3003, 3004, 3005)

CD-48 Charger Cradle

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
	Printed Circuit Board				AM039N000	FR0209400				1-
C 2001	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2002	CHIPCAP.	0.1uF	25V	B	GRM21BB11E104KA01L	K22140811				1-
C 2003	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2004	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2005	CHIP TA.CAP.	10uF	16V		TEESVA1C106M8R	K78120077				1-
C 2006	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2007	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2008	CHIPCAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821				1-
C 2009	AL.ELECTRO.CAP.	47uF	16V		UVR1C470MDD	K40129107				1-
C 2010	CHIPCAP.	0.001uF	50V	B	GRM188B11H102KA01D	K22174821				1-
C 2012	CHIPCAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823				1-
C 2015	CHIPCAP.	0.01uF	50V	B	GRM188B11H103KA01D	K22174823				1-
C 2016	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2018	CHIPCAP.	0.1uF	16V	B	GRM188B11C104KA01D	K22124805				1-
C 2020	CHIPCAP.	0.1uF	25V	B	GRM21BB11E104KA01L	K22140811				1-
D 2001	DIODE				1SS400 TE61	G2070634				1-
D 2002	LED				FDL-322HRG-ZW1-CA	G2090810				1-
D 2004	DIODE				DAN222 TL	G2070174				1-
D 2005	DIODE				UDZS TE-17 6.8B	G2070888				1-
D 2006	DIODE				1SS400 TE61	G2070634				1-
D 2007	DIODE				UDZS TE-17 3.9B	G2070906				1-
D 2008	DIODE				1SS400 TE61	G2070634				1-
D 2009	DIODE				DAN222 TL	G2070174				1-
D 2011	DIODE				1SS400 TE61	G2070634				1-
D 2012	DIODE				RB551V-30 TE-17	G2070892				1-
F 2001	CHIPFUSE	2A			FCC16 202ADTP	Q0000147				1-
J 2001	CONNECTOR				LGP6501-0100C	P0091422				1-
Q 2001	IC				LM2904PWR	G1094010				1-
Q 2002	IC				BA00CC0WFP-E2	G1094424				1-
Q 2003	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2004	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2005	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2006	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2007	IC				S-80835CNMC-B8U-T2-G	G1093606				1-
Q 2008	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2009	TRANSISTOR				2SB1132 T100 Q	G3211327Q				1-
Q 2010	TRANSISTOR				2SA1774 TL R	G3117748R				1-
Q 2011	TRANSISTOR				2SB1201S-TL	G3070195				1-
Q 2012	TRANSISTOR				2SC4617 TL R	G3346178R				1-
Q 2014	TRANSISTOR				UMD2NTR	G3070076				1-
Q 2015	TRANSISTOR				UMD2NTR	G3070076				1-
Q 2016	TRANSISTOR				DTC144EE TL	G3070075				1-
Q 2017	TRANSISTOR				DTA143EE TL	G3070252				1-
Q 2018	TRANSISTOR				DTC144EE TL	G3070075				1-
R 2002	CHIPRES.	180k	1/16W	1%	RMC1/16 184FTP	J24183184				1-
R 2003	CHIPRES.	10k	1/16W	1%	RMC1/16 103FTP	J24183103				1-
R 2004	CHIPRES.	180k	1/16W	1%	RMC1/16 184FTP	J24183184				1-
R 2005	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2006	CHIPRES.	100k	1/16W	1%	RMC1/16 104FTP	J24183104				1-
R 2007	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2008	CHIPRES.	4.7k	1/16W	1%	RMC1/16 472FTP	J24183472				1-
R 2009	CHIPRES.	22k	1/16W	1%	RMC1/16 223FTP	J24183223				1-
R 2010	CHIPRES.	2.2k	1/16W	1%	RMC1/16 222FTP	J24183222				1-
R 2011	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2012	CHIPRES.	33k	1/16W	1%	RMC1/16 333FTP	J24183333				1-
R 2013	CHIPRES.	4.7k	1/16W	1%	RMC1/16 472FTP	J24183472				1-
R 2014	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473				1-
R 2015	CHIPRES.	220k	1/16W	1%	RMC1/16 224FTP	J24183224				1-
R 2016	CHIPRES.	220k	1/16W	1%	RMC1/16 224FTP	J24183224				1-
R 2017	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2018	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2019	CHIPRES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222				1-
R 2022	CHIPRES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223				1-
R 2023	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000				1-
R 2024	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473				1-
R 2025	CHIPRES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103				1-
R 2027	CHIPRES.	3.3	1/4W	5%	RMC1/4 3R3JATP	J24245339				1-
R 2028	CHIPRES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103				1-
R 2029	CHIPRES.	8.2	1/4W	5%	RMC1/4 8R2JATP	J24245829				1-
R 2031	CHIPRES.	56k	1/16W	1%	RMC1/16 563FTP	J24183563				1-
R 2032	CHIPRES.	47k	1/16W	1%	RMC1/16 473FTP	J24183473				1-
R 2033	CHIPRES.	1k	1/4W	5%	RMC1/4 102JATP	J24245102				1-

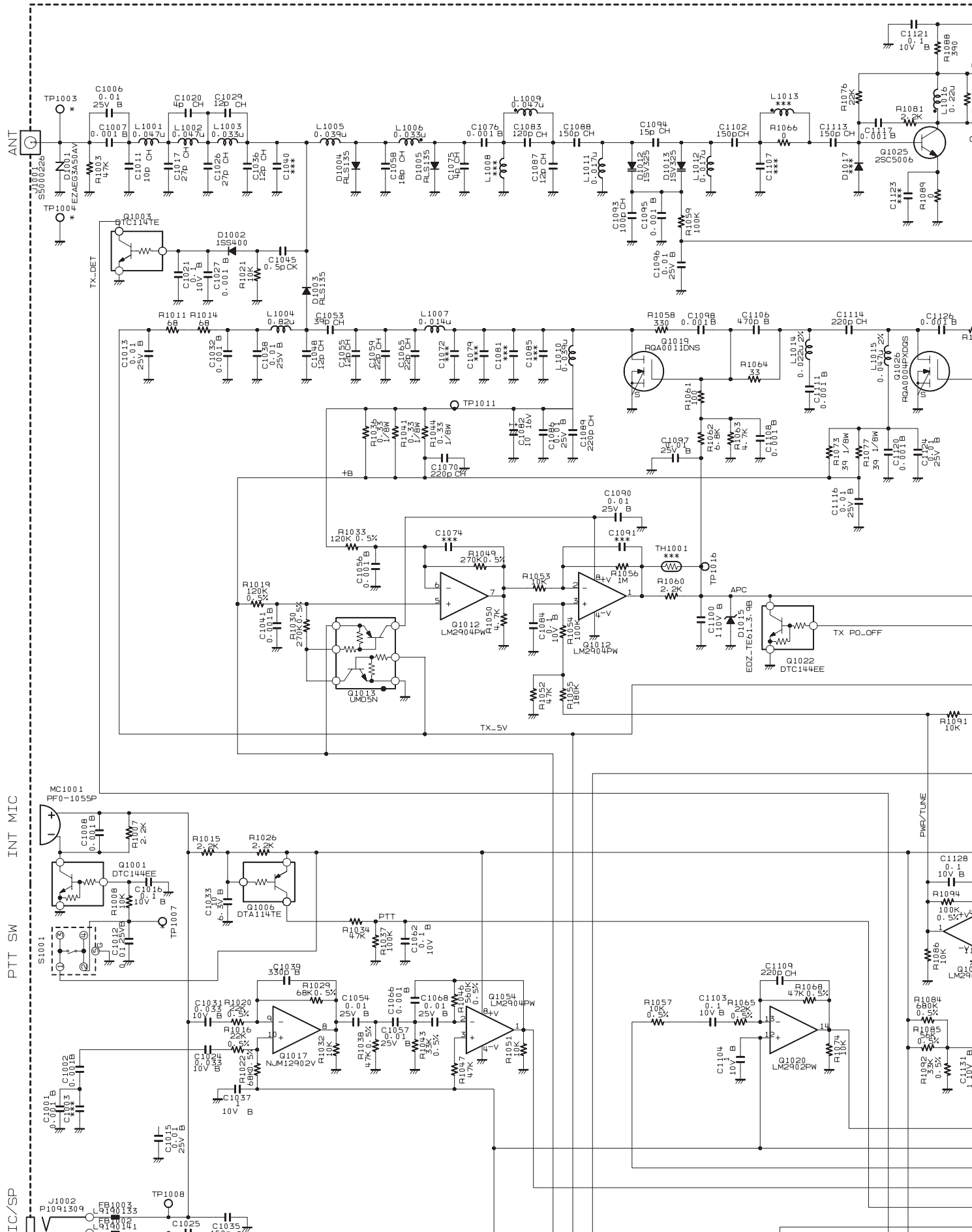
CD-48 Charger Cradle

Parts List

REF	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT	SIDE	LAYADR
R 2035	CHIPRES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222		1-		
R 2039	CHIPRES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-		
R 2040	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-		
R 2041	CHIPRES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-		
R 2042	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-		
R 2043	CHIPRES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222		1-		
R 2044	CHIPRES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-		
R 2045	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-		
R 2046	CHIPRES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-		
R 2047	CHIPRES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-		
R 2048	CHIPRES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-		
R 2049	CHIPRES.	150	1/16W	1%	RMC1/16 151FTP	J24183151		1-		
R 2050	CHIPRES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-		
R 2051	CHIPRES.	560k	1/16W	1%	RMC1/16 564FTP	J24183564		1		
R 2051	CHIPRES.	560k	1/16W	5%	RMC1/16 564JATP	J24185564		2-		
VR2001	POT.	1k			EVN-5ESX50B13	J51811102		1-		
	TERMINAL				(CHRG)	RA0769800		1-		

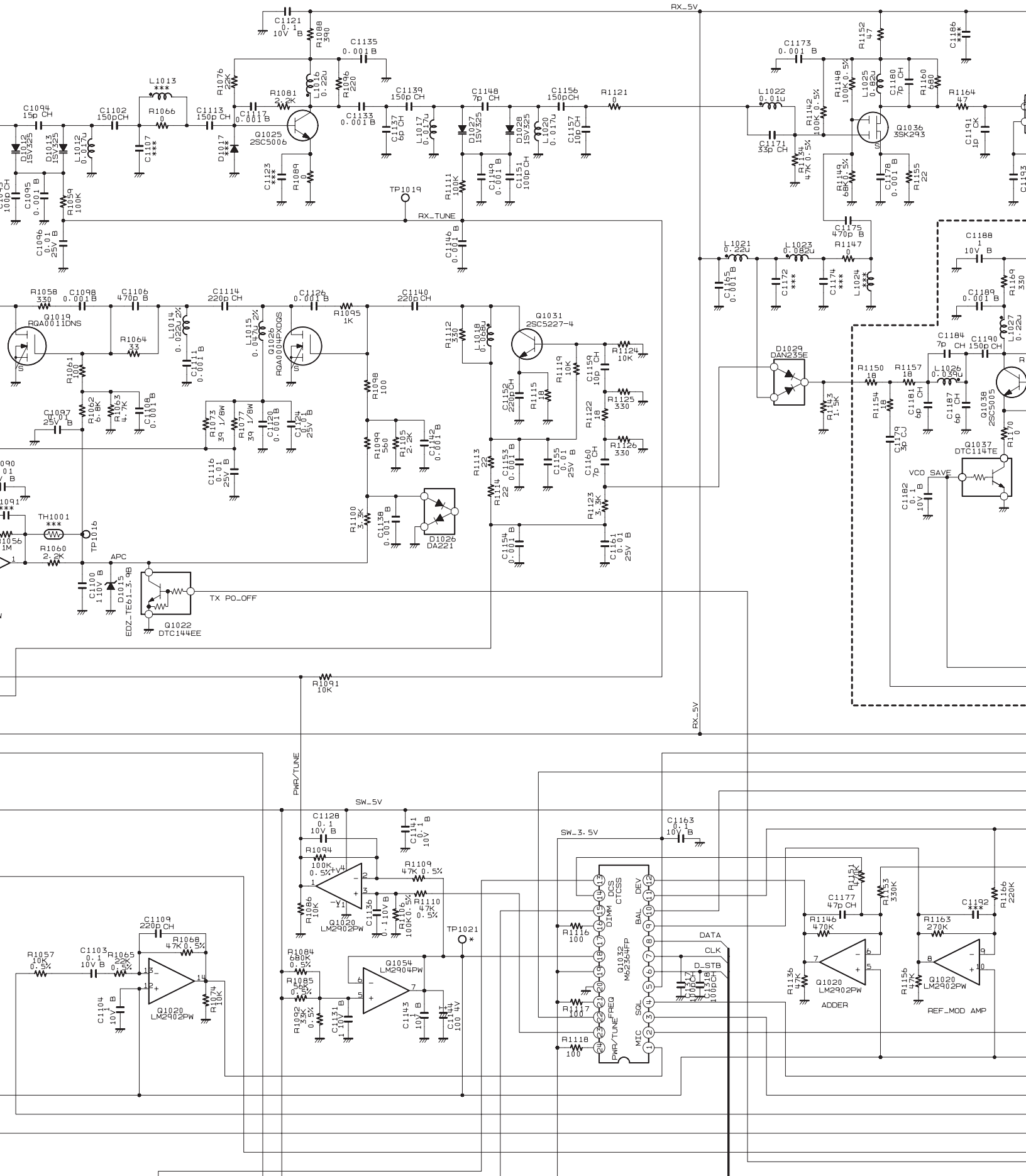
HX380 Main Unit Circuit Diagram

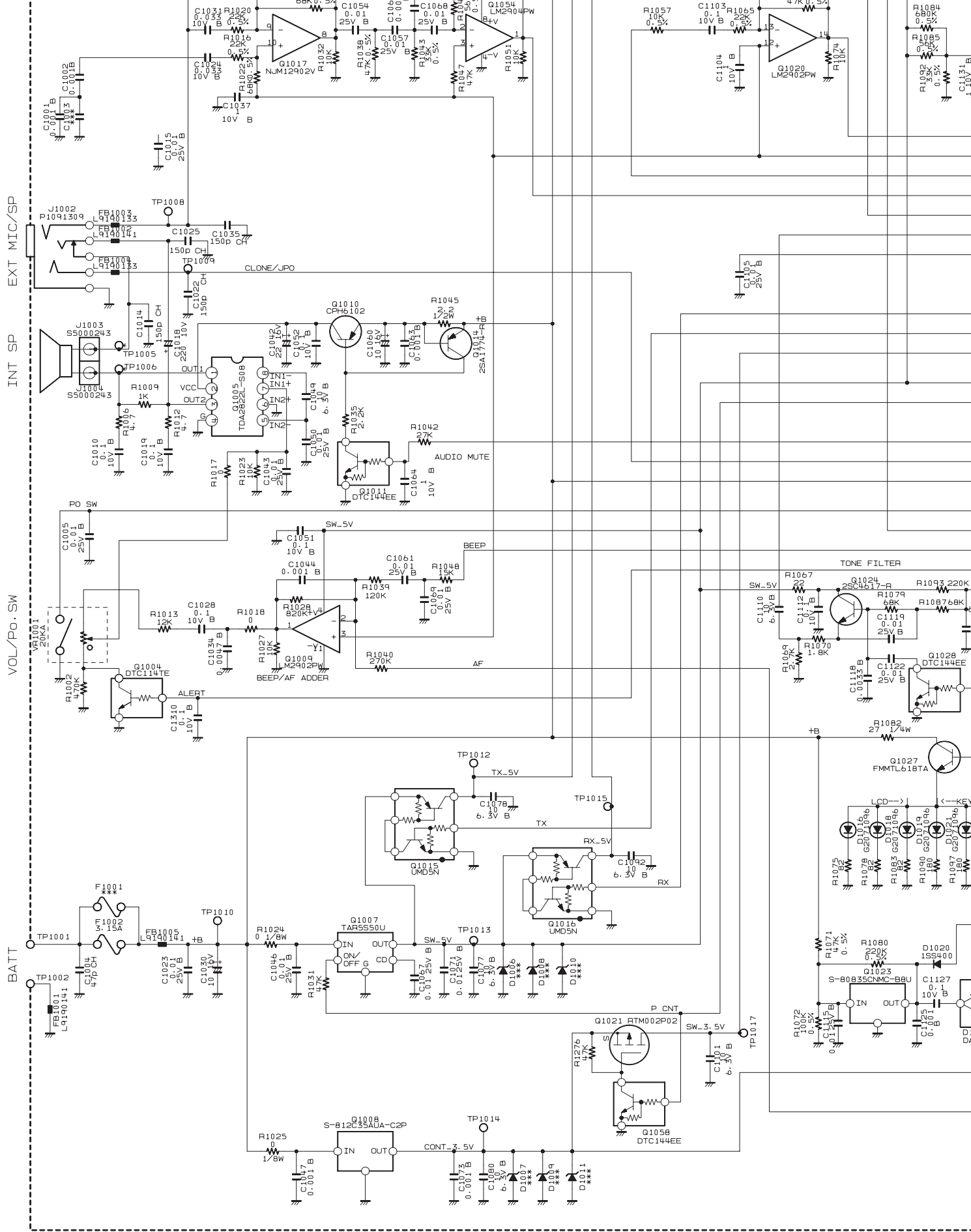
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5	6	7	8



HX380 Main Unit Circuit Diagram

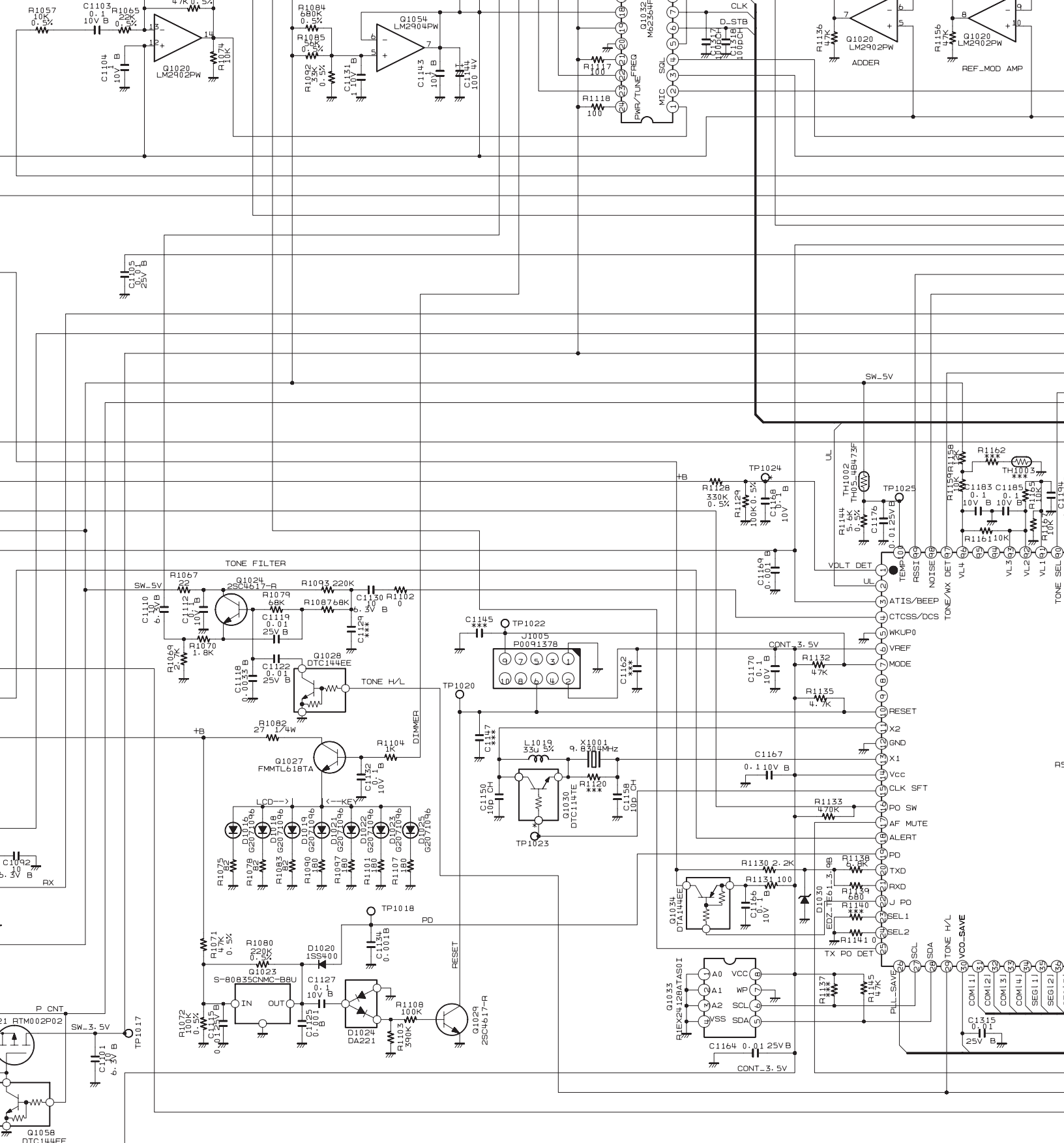
1	2	3	4
5	6	7	8





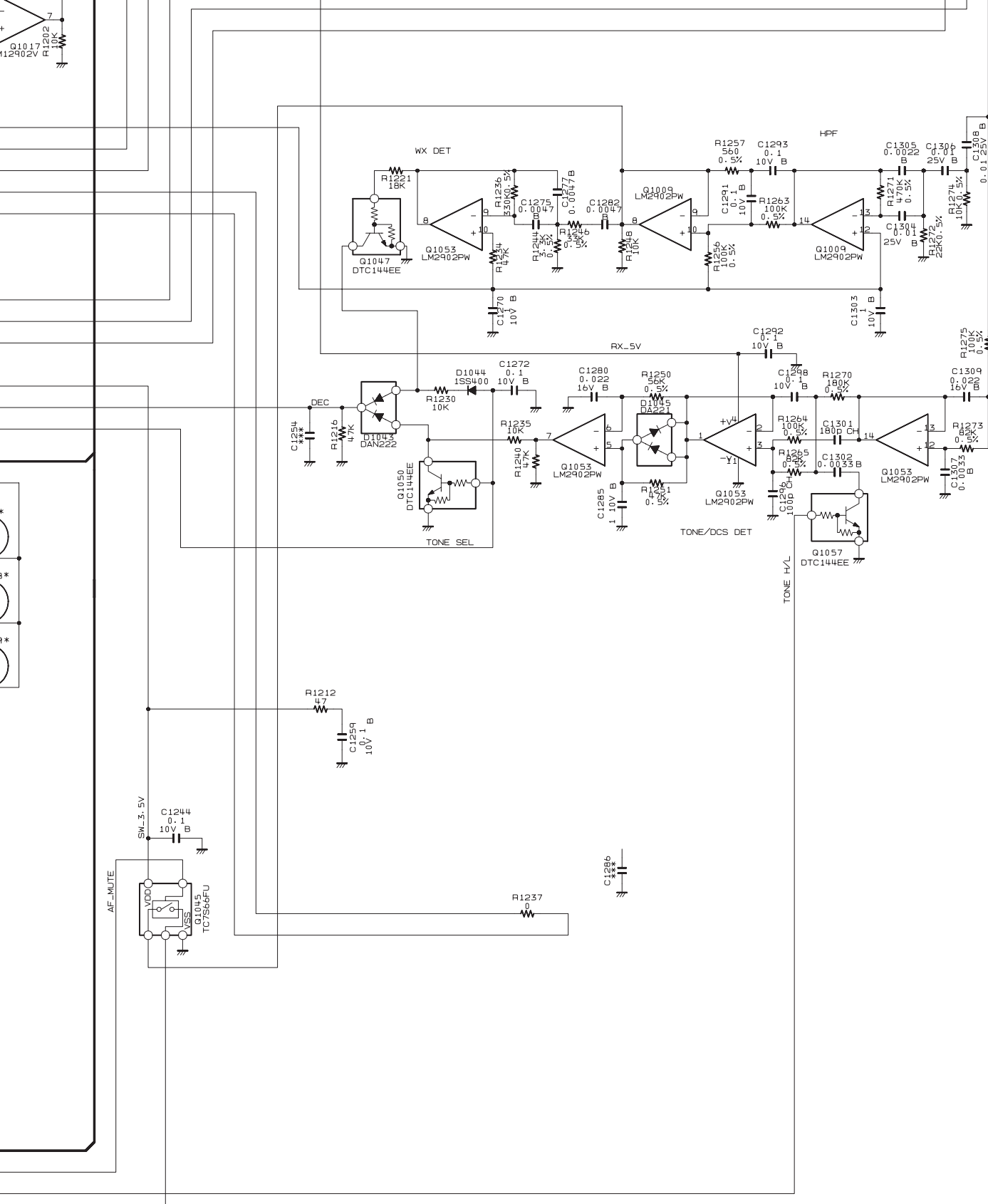
**HX380 Main Unit
Circuit Diagram**

1	2	3	4
5	6	7	8



HX380 Main Unit
Circuit Diagram

1	2	3	4
5	6	7	8

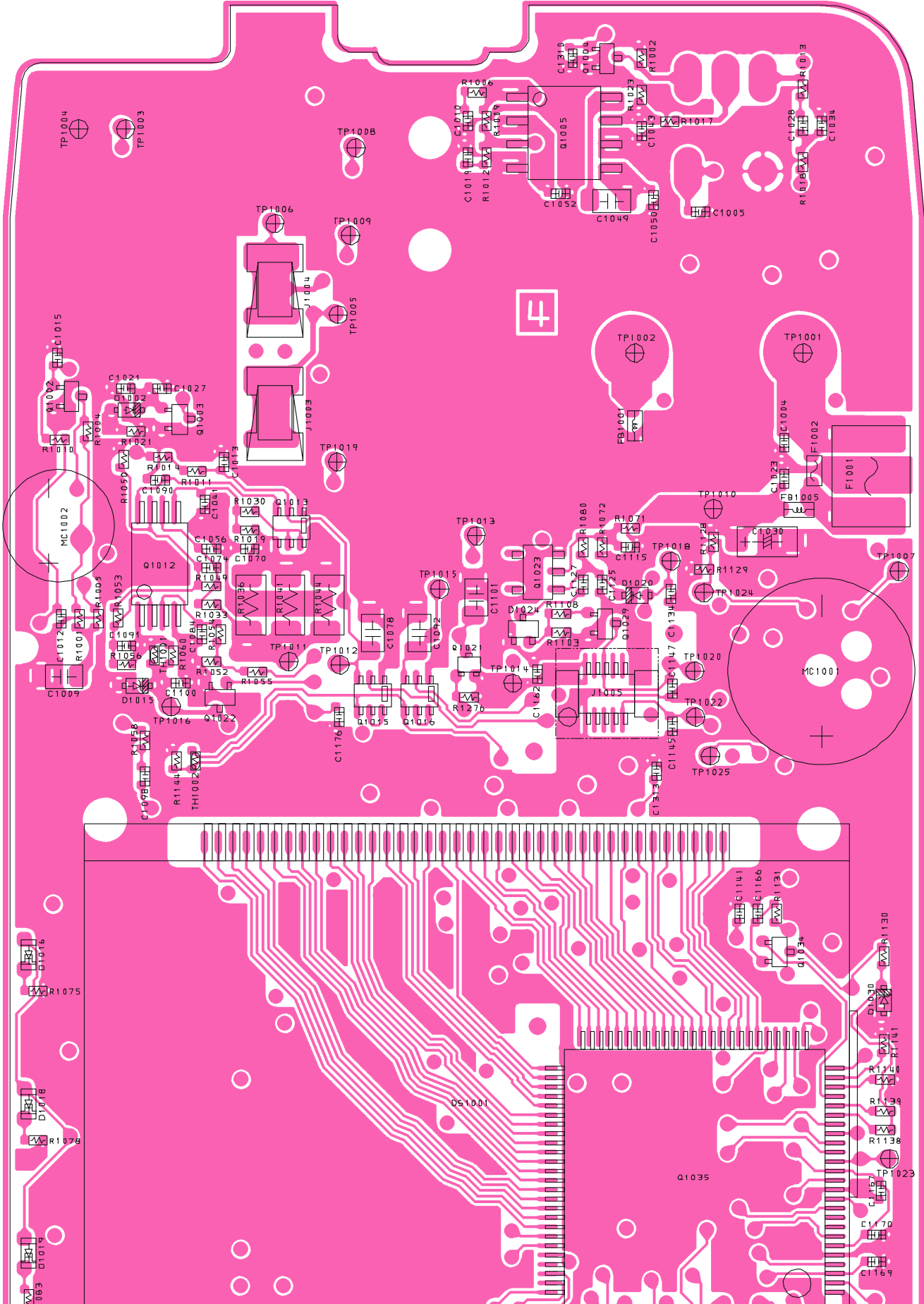


NOTE:
 RESISTOR VALUES ARE IN Ω, 1/16W ;
 CAPACITOR VALUES ARE IN μF. ;
 (T)CAPACITORS ARE TANTALUM ;
 ELECTROLYTIC CAPACITORS ARE IN μF. ;
 INDUCTOR VALUES ARE IN μH ;
 COILES VALUES ARE IN H ;
 UNLESS OTHERWISE NOTED.

**HX380 Main Unit
 Circuit Diagram**

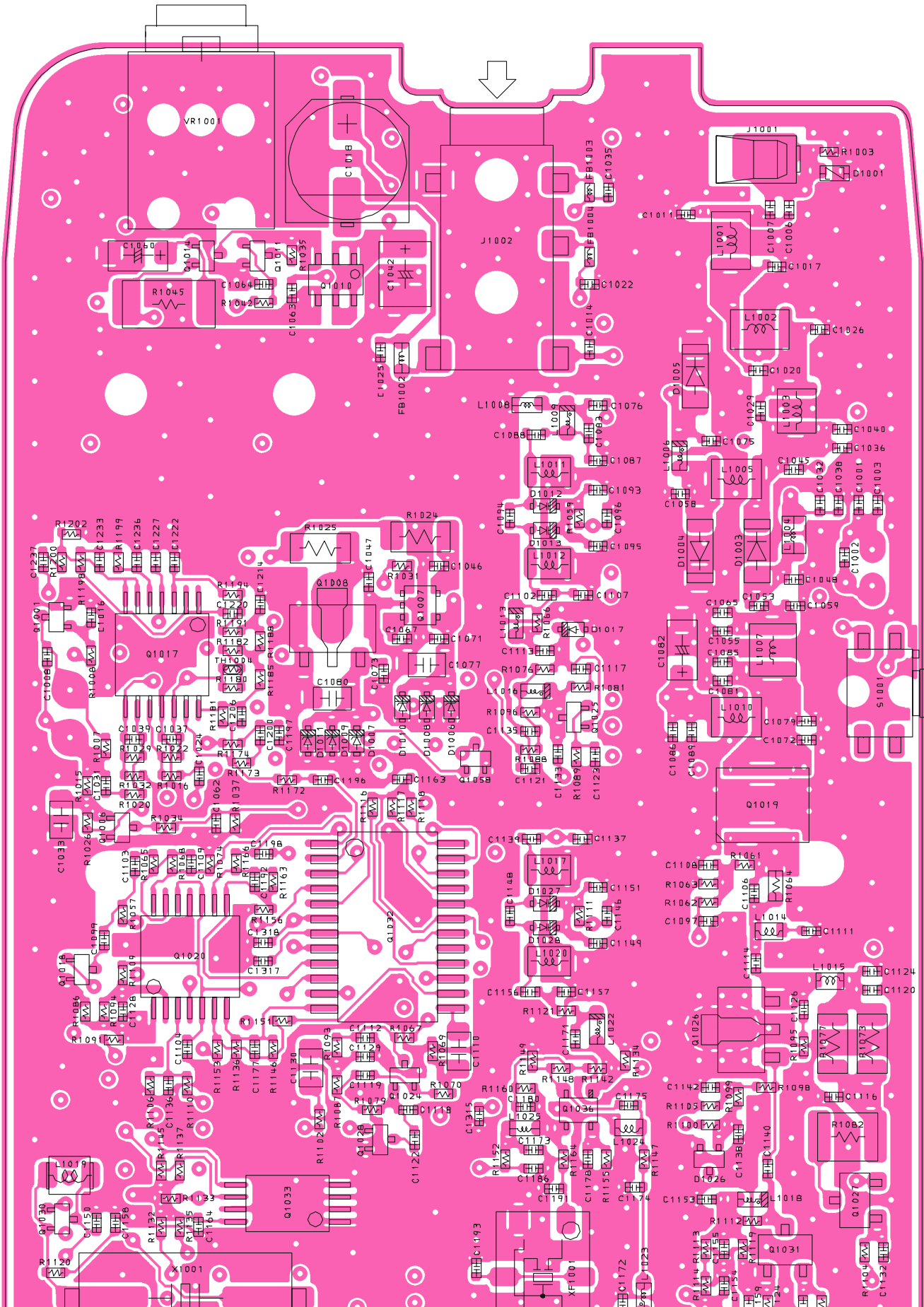
1	2	3	4
5	6	7	8

HX380 Main Unit (Side "A") Parts Layout



HX380 Main Unit (Side "B") Parts Layout

1
2





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