

DESCRIPTION OF THE BLOCK AND CIRCUIT DIAGRAMS FOR
MODEL OF TM-1226-USA – 13 JAN. 2001 (REV.0)

1. RX UNIT (“1226M” FOR MOTHER UNIT):

- **RX MATCH & PRE-AMP** are achieved by using the matching coils of L1 & T1, which are used to match the front end to antenna for better reception. Q1 combines with T2 to perform the PRE-AMP for amplifying the weak signal.
- **IF CIRCUIT** is constructed by using the Motorola IF IC of MC3361 and its associated components. In this circuit, the switch of SW1 is used to select the CH.A and CH.B in connection with two crystals of X1 (49.375MHz) & X2 (49.435MHz). The 455KHz (F1) filter performs filtering on the unwanted signal. T3 is located and connected to the IF IC for adjusting the demodulated signal from the IC output. This will provide audio output at pin-9 of IF IC for supplying audio signal to R-C filtering circuit.
- **BATT. CUT-OFF DETECTION** is achieved by using the Q11, R35, R36, D5 and D6 to perform the cut off operation when the adaptor is plugged in.
- **REGULATOR** includes the transistor of Q12 and ZD1 and its associated components .
- **POWER SWITCH** is achieved by using the VOL on-off control as it is connected to the junction of battery “-“ and DC jack.
- **AUDIO POWER AMP.** is the circuit to control the audio amplifier section, which includes U2 and its associated circuit.
- **SOUn and LIGHT SWITCH** of SW3 has three positions and it is used to control the “LIGHT/SOUND- MUTE – SOUND only” three setting for meeting user requirement.
- **BAR-GRAPH** circuit is achieved by using transistors of Q4-10, LEDs of LED2-8 and several components. The input to this circuit is from the pin-9 of U1 (MC3361) via Q2 and Q3. Seven LEDs are connected as audio signal leveling indication.
- **BUFFER AMP** circuit is achieved by using Q2 & Q3 and several components. This circuit performs the PRE-AMP for amplifying the audio signal to Bar-Graph circuit.

ENGINEERING DEPT	
☐	Sample only
☒	Reference only
☐	preliminary release
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