Chapter 4

SCHEMATIC DIAGRAMS, OVERLAYS, AND PART LISTS

4.1 Introduction

This chapter provides schematic diagrams, overlays, and parts lists for the radio circuit board and interface connections.

4.1.1 Notes For All Schematics and Circuit Boards

* Component is frequency sensitive. Refer to the Electrical Parts List for value and usage.

1. Unless otherwise stated, resistances are in Ohms (k = 1000), and capacitances are in picofarads (pF) or microfarads (µF).

2. DC voltages are measured from point indicated to chassis ground using a Motorola DC multimeter or equivalent. Transmitter measurements should be made with a 1.2 µH choke in series with the voltage probe to prevent circuit loading.

3. Reference Designators are assigned in the following manner:

400/500 Series	=	Controller
600 Series	=	Keypad Board
3200 Series	=	IF Circuitry
3300 Series	=	Receiver
3500 Series	=	Transmitter
3700/3800 Series	=	Frequency Generation

4. Interconnect Tie Point Legend:

UNSWB+	=	Unswitch Battery Voltage (7.5V)
SWB+	=	Switch Battery Voltage (7.5V)
R5	=	Receiver Five Volts
CLK	=	Clock
Vdda	=	Regulated 3.3 Volts (for analog)
Vddd	=	Regulated 3.3 Volts (for digital)
CSX	=	Chip Select Line (not for LVZIF)
SYN	=	Synthesizer
DACRX	=	Digital to Analog Voltage (For Receiver Front End Filter)
VSF	=	Voltage Super Filtered (5 volts)
VR	=	Voltage Regulator

6-LAYER CIRCUIT BOARD DETAIL VIEWING
COPPER STEPS IN PROPER LAYER SEQUENCE

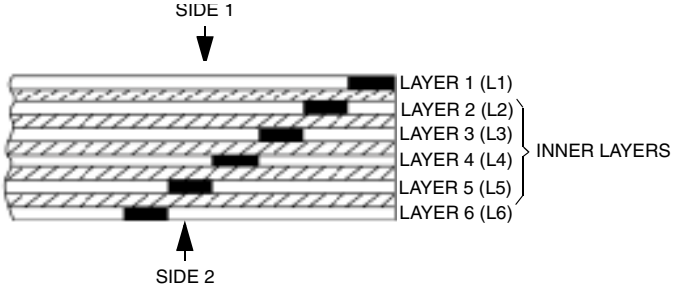


Figure 4-1: Circuit Board Layering Sequence

4.2 Keypad-Controller Interconnect Flex

4.2.1 Flex Schematic

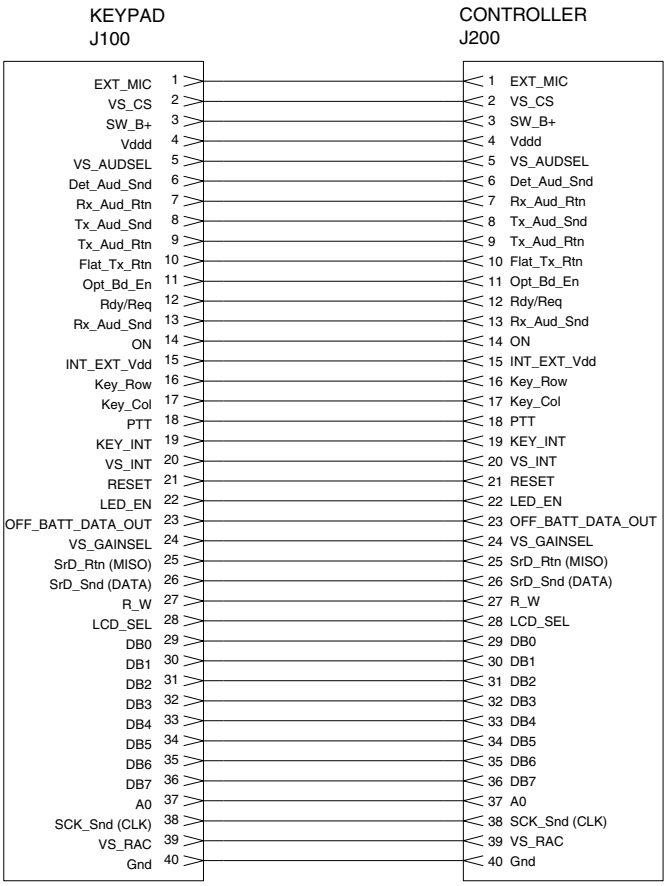


Figure 4-2: Keypad-Controller Interconnect Schematic Diagram

4.2.2 Parts List for Keypad-Controller Interconnect Flex

Reference Symbol	Motorola Part No.	Description
J100	0980521Z01	Connector, 40 pin
J200	0905505Y04	Speaker, 20 ohm

4.2.3 Flex Layout RevA

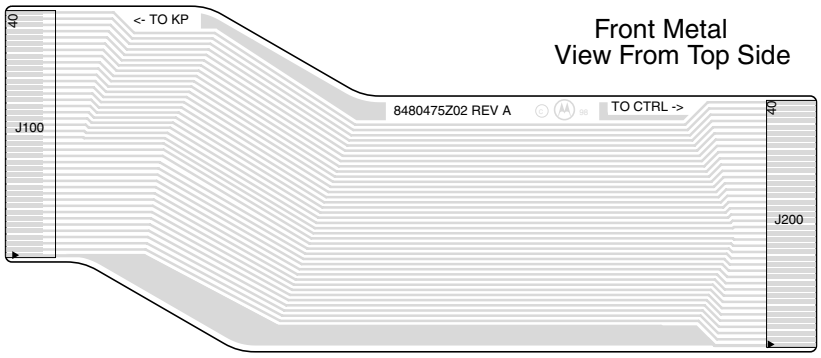


Figure 4-3: Keypad-Controller Interconnect Flex Rev A

4.2.4 Flex Layout RevB

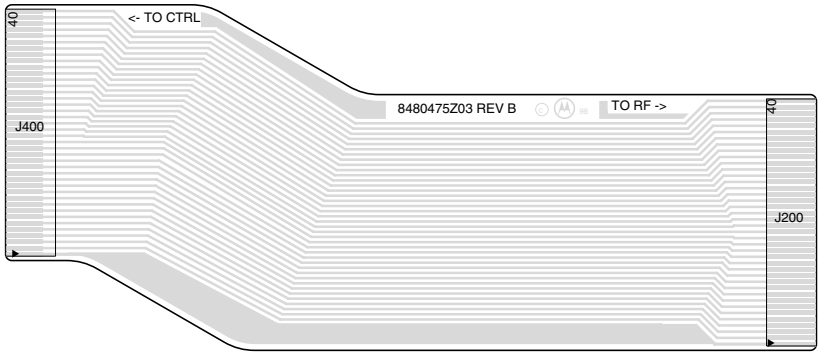


Figure 4-4: Keypad-Controller Interconnect Flex Rev B

4.3 Universal Connector Flex

4.3.1 Flex for GP344

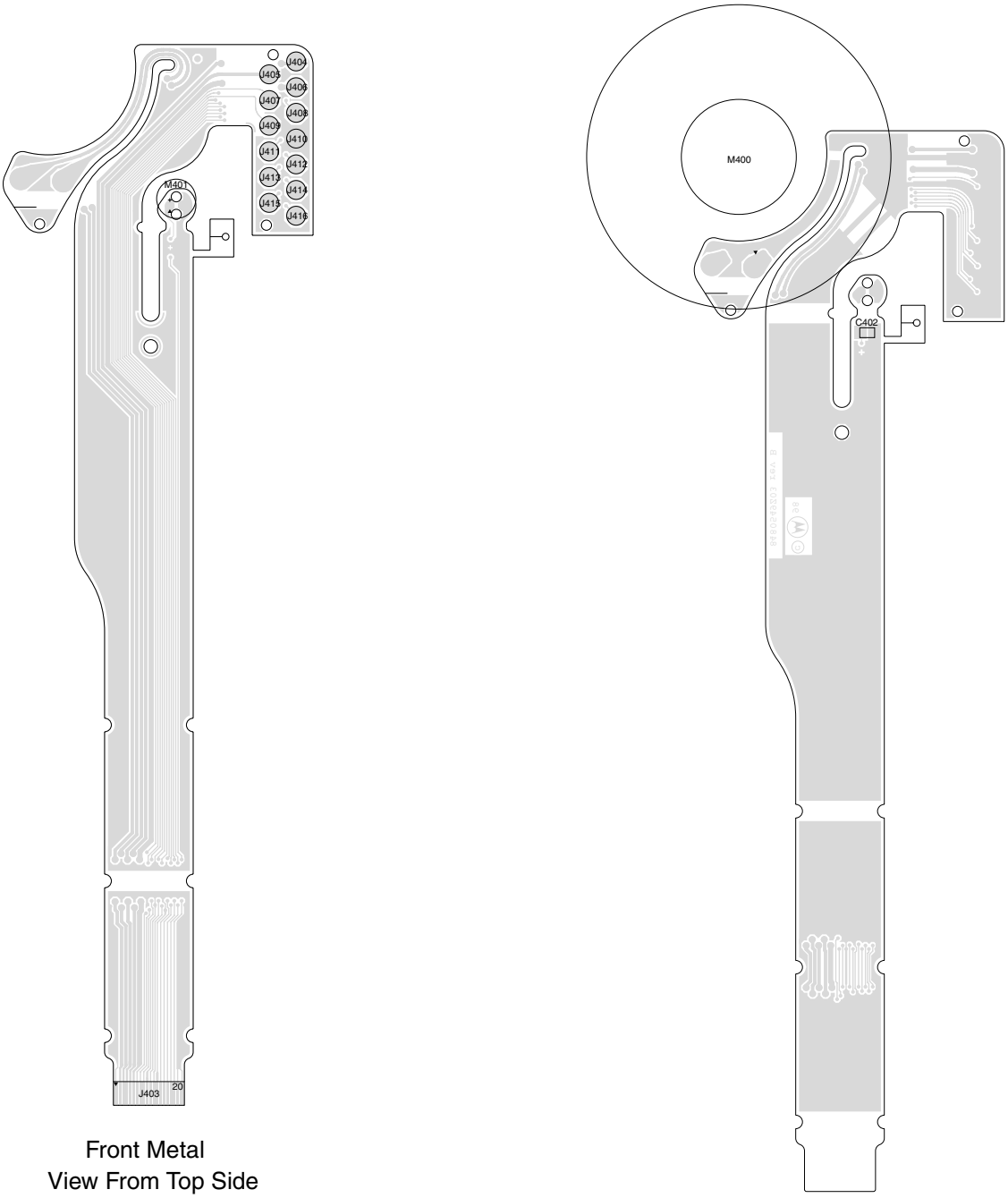
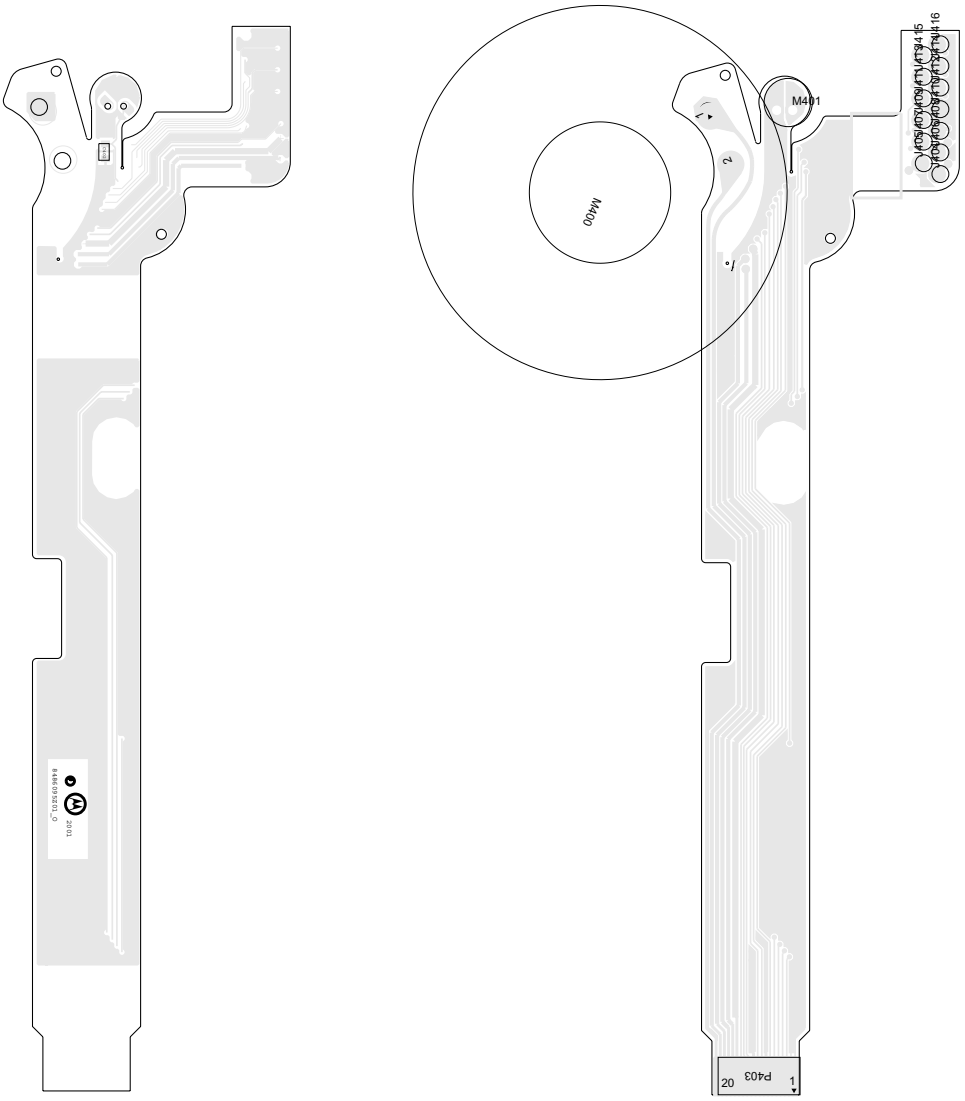


Figure 4-5: Universal Flex Connector

4.3.2 Flex for GP388



Front Metal
View From Top Side

Back Metal
View From Top Side

Figure 4-6: Universal Flex Connector

4.3.3 Schematic for Universal Connector Flex for GP344

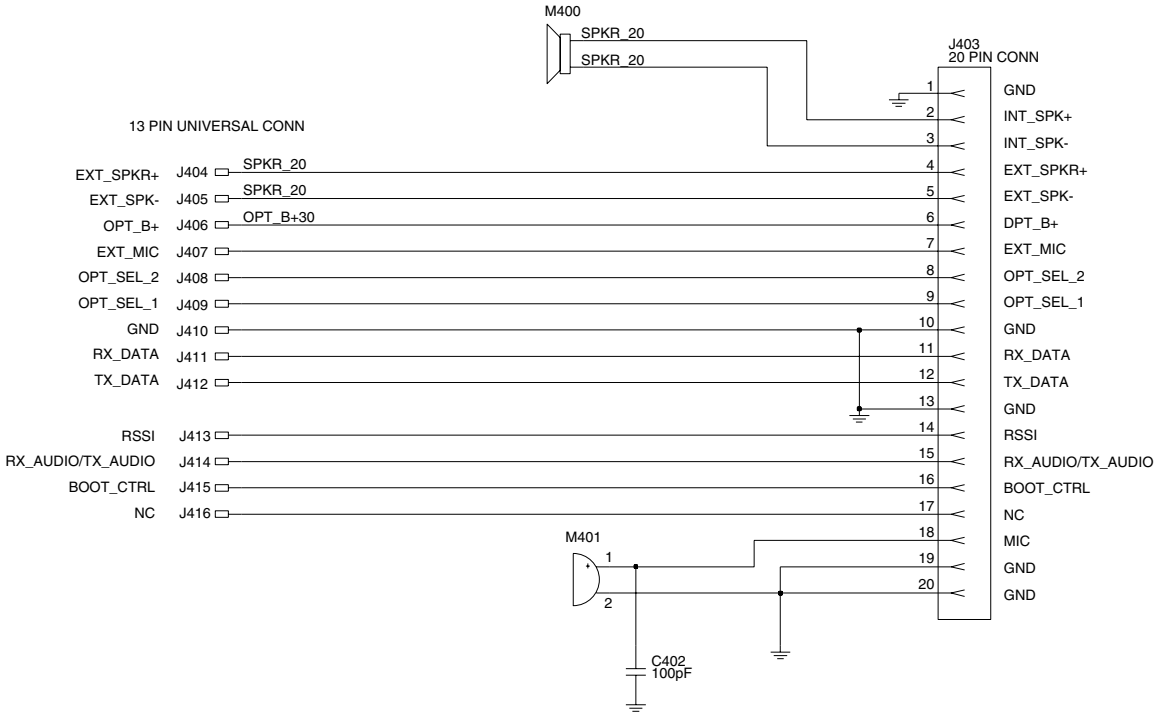


Figure 4-7: Universal connector Schematic Diagram

Parts List for Universal Connector Flex (GP344)

Reference Symbol	Motorola Part No.	Description
C402	2113740A55	Cap, 100pF
M400	5005679X01	Speaker, 24 ohm
M401	5013920A04	Mic, Mini electrec

4.3.4 Schematic for Universal Connector Flex for GP388

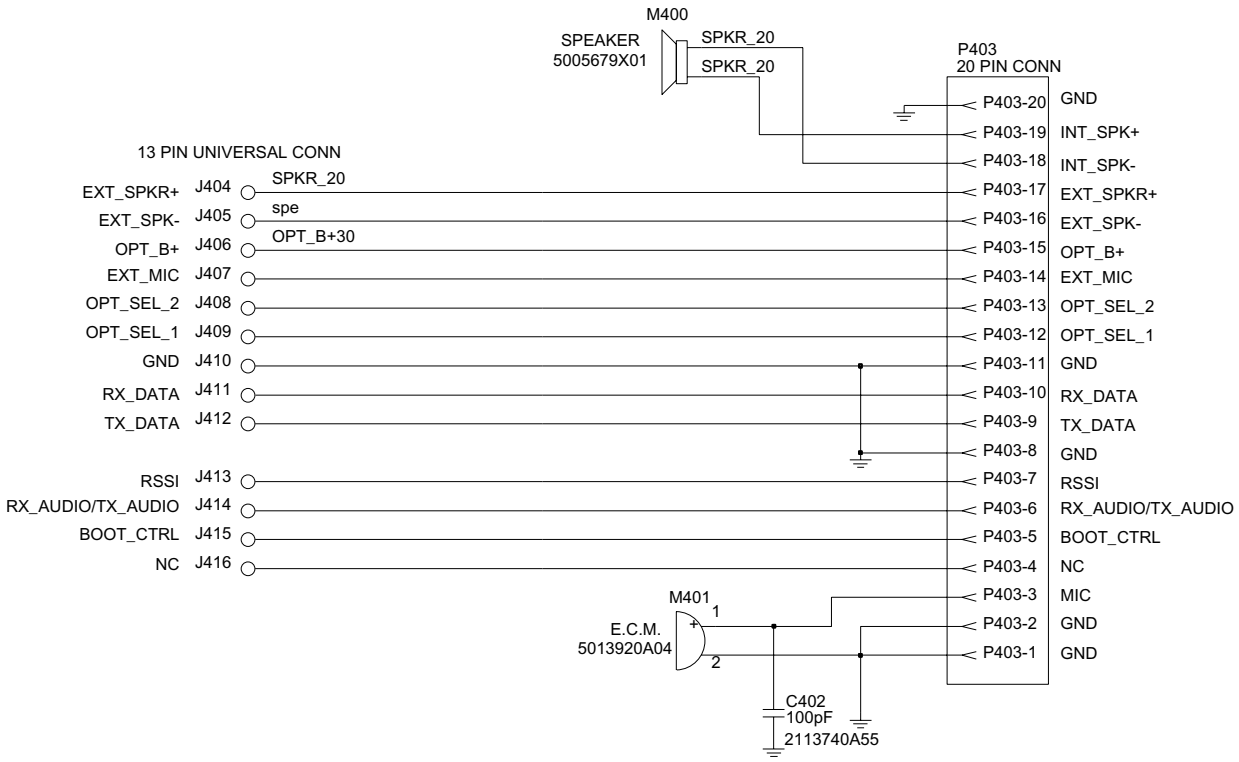


Figure 4-8: Universal connector Schematic Diagram

Parts List for Universal Connector Flex (GP388)

Reference Symbol	Motorola Part No.	Description
C402	2113740A55	Cap, 100pF
M400	5086094Z01	Speaker, 20 ohm
M401	5013920A04	Mic, Mini electrec