

GEMINI ROBOT KITS

Barometer Assembly Instructions

Parts List

DESCRIPTION	QTY	PART#
<u>Resistors</u>		
1K ohm (BRN-BLK-RED-GOLD)	2	CCF251K
4.7K ohm (YEL-VIOLET-RED-GOLD)	1	CCF254.7K
10K ohm (BRN-BLK-ORANGE-GOLD)	2	CCF2510K
100K ohm (BRN-BLK-YEL-GOLD)	1	CCF25100K
220K ohm (RED-RED-YEL-GOLD)	1	CCF25220K
1M ohm (BRN-BLK-GREEN-GOLD)	1	CCF251M
100K multi turn pot. 104	2	RJ26FW104
<u>Diodes</u>		
1N4736	1	1N4736
1N5231	1	1N5231
<u>Capacitors</u>		
10 microfarad 16v Electrolytic	3	CRE10MF16v
100 microfarad 16v Electrolytic	1	CRE100MF16v
<u>Headers</u>		
3 pin single male		
<u>Sockets</u>		
3 pin socket	1	ICN-083-33-T
14 pin socket	1	ICN-143-53-T
<u>ICs</u>		
ICL7660	1	ICL7660CPA
LX503A (metal can)	1	LX0503A
LM 324	1	LM324
Barometer board	1	Barometer

Assembling the Barometer Board

1. Insert and solder the sockets into their proper locations. Note U2 does not use a socket.

- () U1 - 8 pin socket
- () U3 - 14 pin socket

2. Insert and solder the resistors into their proper locations.

- () R1 - 1M ohm (BRN-BLK-GRN-GOLD)
- () R2 - 10K ohm (BRN-BLK-ORG-GOLD)
- () R3 - 1K ohm (BRN-BLK-RED-GOLD)
- () R6 - 220K ohm (RED-RED-YEL-GOLD)
- () R7 - 10K ohm (BRN-BLK-ORG-GOLD)
- () R8 - 100K ohm (BRN-BLK-YEL-GOLD)
- () R9 - 1K ohm (BRN-BLK-RED-GOLD)
- () R10 - 4.7K ohm (YEL-VIOLET-RED-GOLD)

3. Insert and solder the diodes into their proper locations.

- () CR1 - 1N4736
- () CR2 - 1N5231

4. Insert and solder the potentiometer into its proper location.

- () R4 - 100K potentiometer (104)
- () R5 - 100K potentiometer (104)

5. Insert and solder the capacitors into their proper location.

- () C1 - 10 microfarad 16v Electrolytic
- () C2 - 10 microfarad 16v Electrolytic
- () C3 - 10 microfarad 16v Electrolytic
- () C4 - 100 microfarad 16v Electrolytic

6. Insert and solder the header into its proper location.

- () J1 - 3 pin single male

7. At this point we recommend that you clean the board. You can either use alcohol and a scrub brush or purchase Flux Remover at your nearest electronics supply store.

8. Insert and solder U2 into the board at its proper location. Note that pin 1 is marked with the tab and the rest of the pins are in order going counter clockwise)

() U2 - LX503A (metal can)

9. Spot clean the back of the circuit board where you just soldered.
10. Insert the ICs into their proper sockets. Make sure all the legs on the ICs go into the holes on the sockets properly and they do not bend underneath the chip. We recommend you ground yourself while doing this.

The board is now complete.

