



**synthesis
technology**

**MOTM-700 Dual Voltage-Controlled Router
Assembly Instructions & Owner's Manual**

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MOTM-700 PARTS LIST

Please carefully check that all parts are in your kit. If you have a suspected shortage, please call or email. If you get free extra stuff, keep it for next time.

Capacitor bag, containing the following 24 parts:

5ea 10mfd, 25V or 50V Electrolytic	C1, C19, C22, C23, C24
6ea 100pf (marked 101) ceramic axial	C7, C8, C11, C12, C13, C14
13ea 0.1mfd (marked 104) ceramic axial	C2 – C6, C9, C10, C15 – C18, C20, C21

Resistor bag, containing the following 26 parts:

6ea 510 ohm (green, brown, brown)	R19 – R24
4ea 68K 5% (blue, gray, orange)	R10, R11, R15, R16
4ea 4K7 5% (yellow, violet, red)	R1, R3, R4, R6
2ea 330 ohm 5% (orange, orange, brown)	R2, R5
2ea 390 ohm 5% (orange, white, brown)	R17, R18
2ea 1K 5% (brown, black, red)	R8, R13
2ea 4M7 5% (yellow, violet, green)	R7, R12
2ea 100K 5% (brown, black, yellow)	R9, R14
2ea 47K 5% (yellow, violet, orange)	R25, R26

IC bag, containing the following 12 parts:

4ea 2N3904 NPN TO-92 transistor	Q1, Q2, Q3, Q4
2ea LM311 comparator	U1, U2
1ea 74HC86 quad CMOS exclusive-OR gate	U3
1ea DG213DJ quad CMOS switch	U4
1ea LM78L05 +5V regulator, TO-92	U5
1ea LM78L12 +12V regulator, TO-92	U6
1ea SSM2404P quad audio switch	U7
1ea LM79L12 -12V regulator, TO-92	U8

Misc #1 bag, containing the following 9 parts:

2ea Axial ferrite beads (plain, gray things)	L1, L2
1ea MTA-156 power connector	JP1
2ea SPDT (ON-ON) toggle switch	S1, S2
2ea Red LED, panel mount	D1, D2
2ea Green LED, panel mount	D3, D4

MOTM-700 PARTS LIST (cont)

- Knobs**, 2ea, ALCO PKES90B1/4
- Jacks**, 8ea Switchcraft 112A
- Pots**, containing the following:
 - 2ea 100K cermet Spectrol 149 VR1, VR2
- Front panel**
- Mounting bracket**
- Wire bag**, containing the following 15 wires:
 - 6ea RG-174 coax, 4 1/2 inches
 - 1ea 3-wire set 22ga, 4 1/2 inches (white/orange/gray)
 - 1ea 3-wire set 22ga, 7 inches (red, white, black)
 - 2ea 2-wire set, 22ga, 7 inches (white/orange)
 - 4ea 2-wire set, 22ga, 3 1/2 inches (red/black)
 - 1ea Power Cable, 20"
- Hardware bag**, containing:
 - 4ea #8-32 x 3/8 black screws (for mounting module to rack)
 - 4ea #6-32 x 1/2 zinc screws (for attaching pc board to bracket)
 - 4ea 1/4 inch aluminum spacers
 - 6ea #6 KEPS nuts (2 for attaching bracket to front panel, 4 for pc board)
 - 8ea small tie-wraps
 - 8ea small heat-shrink tubing
- Organic Solder**
- No-clean Solder**
- PC Board**, MOTM-700