



**synthesis
technology**

**MOTM-820 Voltage-Controlled Lag Processor
Assembly Instructions & Owner's Manual**

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MOTM-820 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 12 parts:

2ea 10mfd, 50V Electrolytic	C10, C11
1ea 22pf (marked 220) ceramic axial	C4
1ea 0.1mfd (marked 100N or 104) yellow box	C7
2ea 1000pf yellow box (marked 1N or 102)	C1, C12
6ea 0.1mfd (marked 104) ceramic axial	C2, C3, C5, C6, C8, C9

Resistor bag, containing the following 32 parts:

6ea 10K (brown, black, orange)	R3, R13, R14, R15, R27, R28
4ea 15K (brown, green, orange)	R17, R19, R20, R23
4ea 51K (green, brown, orange)	R2, R6, R26, R32
3ea 2K7 (red, violet, red)	R5, R29, R30
3ea 200K (red, black, yellow)	R7, R8, R9
2ea 1K (brown, black, red)	R16, R21
2ea 120K (brown, red, yellow)	R18, R22
2ea 100K 0.1% RN55E (marked 1003B)	R24, R25
1ea 470 ohm (yellow, violet, brown)	R1
1ea 100 ohm (brown, black, brown)	R4
1ea 7K5 (violet, green, red)	R10
1ea 475K 1% (yellow, violet, green, orange)	R11
1ea 1.0M 1% (brown, black, black, yellow)	R12
1ea 1K8 5% (brown, gray, red)	R31

IC bag, containing the following 10 parts:

3ea BC550C NPN transistor	Q1, Q3, Q4
2ea BC560C PNP transistor	Q2, Q5
1ea 1N4148 diodes	D1
2ea MXL1013 dual op amp	U1, U2
1ea TL084 quad op amp	U3
1ea DG213DJ CMOS quad switch	U4

Misc #1 bag, containing the following 6 parts:

2ea Axial ferrite beads (plain, gray things)	L1, L2
1ea MTA-156 power connector	JP1
1ea SPDT (ON-ON) toggle switch	SW1
1ea 5K Bourns trimpot 25-turn	TP1
1ea red LED, panel mount	D2

- Knobs**, 4ea, ALCO PKES90B1/4
- Jacks**, 8ea Switchcraft 112A
- Pots**, 4ea containing the following:
 - 4ea 100K cermet Spectrol 149 VR1 – VR4
- Front panel**
- Mounting bracket**
- Wire bag**, containing the following 11 wires:
 - 3ea RG-174 coax, 4 ½ inches
 - 1ea RG-174 coax, 7 inches
 - 1ea 2-wire set, 22ga. 6 inches (orange/white)
 - 5ea 2-wire set, 22ga. 3 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)
 - 2ea small heat-shrink tubing
 - 5ea small tie-wraps
- Organic Solder**
- No-clean Solder**
- PC Board**, MOTM-820