



**synthesis
technology**

**MOTM-101 Noise Generator/S&H
Assembly Instructions**

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MOTM-101 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 27 parts:

3ea 10mfd, 50V Electrolytic	C1, C11, C12
2ea 3M3mfd, bi-bolar Electrolytic	C2, C5
1ea 33M, 35V Electrolytic	C18
1ea 10M non-polar (B.P.) Electrolytic	C25
3ea 1000pf (1N) yellow box polycarbonate	C7, C20, C24
3ea 0.01mfd (10N) yellow box polycarbonate	C6, C21, C23
2ea 0.47mfd (470N) yellow box polycarbonate	C13, C14
1ea 0.1mfd (100N) yellow box polycarbonate	C8
10ea 0.1mfd ceramic axial	C3, C4, C9, C10, C15, C17, C19 C22, C26, C27
1ea 0.047mfd polypropylene	C16

Resistor bag, containing the following 33 parts:

8ea 100K 5% (brown, black, yellow)	R1, R2, R4, R11, R19, R21, R24, R30
6ea 10K 5% (brown, black, orange)	R3, R5, R6, R14, R20, R25
6ea 1K 5% (brown, black, red)	R9, R10, R13, R23, R29, R31
3ea 1K5 5% (brown, green, red)	R27, R28, R32
2ea 3K 5% (orange, black, red)	R17, R26
1ea 4K7 5% (yellow, violet, red)	R7
1ea 270K 5% (red, violet, yellow)	R8
1ea 150K 5% (brown, green, yellow)	R12
1ea 220K 5% (red, red, yellow)	R15
1ea 47K 5% (yellow, violet, orange)	R16
1ea 560K 5% (green, blue, yellow)	R18
1ea 2K2 5% (red, red, red)	R22
1ea 100 ohm (brown, black, brown)	R33

IC bag, containing the following 12 parts:

4ea TL072 op amp	U2, U3, U7, U8
2ea CMOS timer (7555/LMC555)	U4, U5
1ea TLE2072 op amp	U1
1ea LF398 sample & hold	U6
2ea 1N5240B 10V Zener diode	D1, D2
1ea 1N4148 signal diode	D4
1ea red panel mounted LED	D3

MOTM-101 PARTS LIST (cont)

- Misc #1 bag, containing the following 6 parts:**
 - 2ea Axial ferrite beads (plain, gray things)L1, L2
 - 2ea SPDT toggle switch M2012 SW1, SW2
 - 1ea 100K cermet trim pot TP1
 - 1ea MTA-156 power connector JP1

- Knobs, 4ea, ALCO PKES90B1/4**
- Jacks, 7ea Switchcraft 112D**
- Pots, containing the following:**
 - 3ea 100K linear, Spectrol 149-71104 VR1 – VR3
 - 1ea 100K log, Spectrol 148-9609-104 VR4

- Front panel**

- Mounting bracket**

- Wire bag, containing the following 11 wires:**
 - 4ea RG-174 coax, 4 1/2 inches
 - 1ea RG-174 coax, 7 inches
 - 1ea 2 conductor with ground wire, 4 inches
 - 2ea 3 conductor, twisted (white/gray/orange)
 - 1ea 3 conductor, twisted (red/white/black)
 - 1ea orange/white twisted pair
 - 1ea PWR-20 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 ¼ inch aluminum spacers
 - 6ea #6 KEPS nuts (2 for attaching bracket to front panel, 4 for pc board)
 - 2ea small heatshrink tubing
 - 8ea small tie-wraps

- Organic Solder**
- No-clean Solder**
- PC Board, MOTM-101**