



# Mercoïd® Series M-51, M-53 Air Type Temperature Controls Installation Instructions

**CAUTIONS:** Do not twist the bi-metal as it may permanently distort. Check nameplate on control case and make certain that the load to be handled is within designated rating. Do Not oil any parts. At no time should the control be subjected to temperatures higher than maximum shown on the nameplate or graduated scale. Mount in a vibration free area.

**LOCATION:** After proper location has been determined, cut a 2-3/8" or 2-1/2" dia. hole. Place the flange against the hole and in the correct position mark and punch the holes for the sheet metal screws provided. Do not tighten flange until instrument is level.

**LEVELING:** Mount control so the cover screws "A" are horizontal. Separate the High and Low adjustable pointers "C" and "D". See illustration No. 1. If switch remains either to left or right after tilting with finger, the instrument is ready to be secured to flange.

**SETTING:** Hold the ratchet wheel with one hand, while pressing and moving either the "High" or "Low" pointers. By doing this, the catch between the teeth of the ratched wheel disengage. See Illustration No. 2. When releasing the pressure be certain that the catch is engaged.

### SEMI-AUTOMATIC with MANUAL RESET

**SEMI-AUTOMATIC:** These controls operate in one direction only and must be reset to restore to normal position. See Table for semi-automatic operation.

### **SUMMER SWITCH — TYPE 53 ONLY:**

Normally prevents operation of the fan unless the furnace is heated. To operate the fan for ventilating purposes, turn the knob on the back of the case. The control will automatically release and return to normal operation when the furnace is heated.

**WIRING:** Follow local codes. Use a short strip of BX to relieve control of conduit expansion and contraction. Do not tamper with switch wires. Position of these wires is essential to proper switch operation. Tampering with these wires will void warranty.

- OPERATING RANGES — DIFFERENTIALS •  
—— See Reverse Side ——

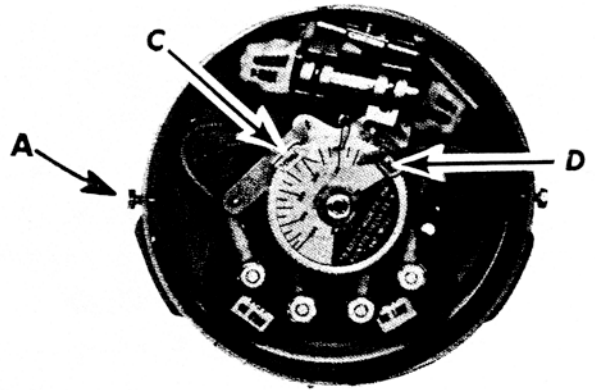
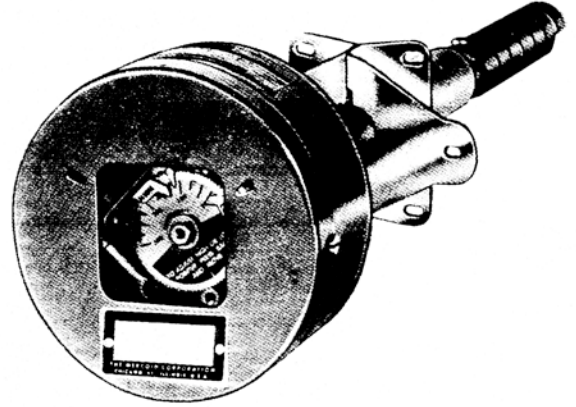


Illustration No. 1

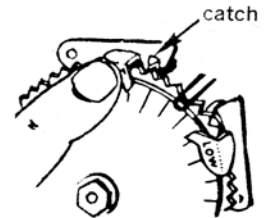
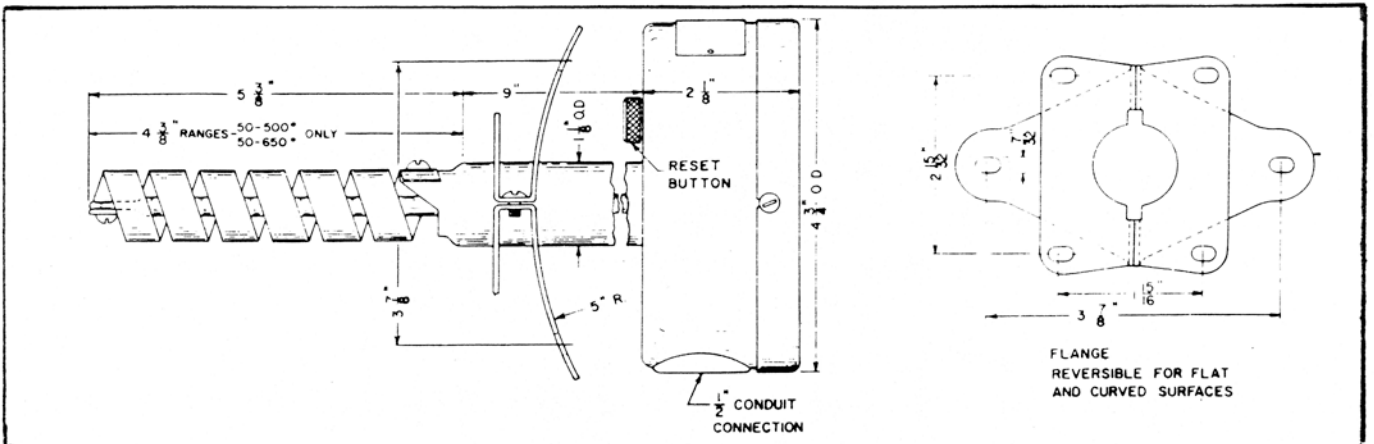


Illustration No. 2



OPERATING RANGES/DIFFERENTIALS,

SERIES M-51 & M-53

SPST—Fully Automatic

Type	Range No.	Switch Action on Temp. Rise	Adj. Range °F	Min. Diff. °F	Dimensions (In.)	
					A	B
M-51	74	OPENS	50-500	20	4-3/8	9
M-51	71	OPENS	25-125	12	5-3/8	9
MX-51	75	OPENS	50-650	20	4-3/8	9
M-53	74	CLOSES	50-500	20	4-3/8	9
MX-53	75	CLOSES	50-650	20	4-3/8	9

SPST—Semi-Automatic With Manual Reset

Type	Range No.	Adj. Range °F	Min. Diff. °F	Circuit Sequence		Dimensions (In.)	
				Auto.	Man.	A	B
M-51R	71	25-125	12	OPEN on rise	CLOSE	5-3/8	9
M-51R	74	50-500	20	OPEN on rise	CLOSE	4-3/8	9
MX-51R	75	50-650	20	OPEN on rise	CLOSE	4-3/8	9
M-51RL	74	50-500	20	CLOSE on drop	OPEN	4-3/8	9
MX-51RL	75	50-650	20	CLOSE on drop	OPEN	4-3/8	9
M-53R	74	50-500	20	CLOSE on rise	OPEN	4-3/8	9
MX-53R	75	50-650	20	CLOSE on rise	OPEN	4-3/8	9
M-53RL	74	50-500	20	OPEN on drop	CLOSE	4-3/8	9
MX-53RL	75	50-650	20	OPEN on drop	CLOSE	4-3/8	9

ELECTRICAL RATING (ALL TYPES)

AC or DC, 10A @ 120V, 5A @ 240. Motor rating 120/240V AC, Single-phase, 3/4 HP; 120/240V DC, 1/3 HP.



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