

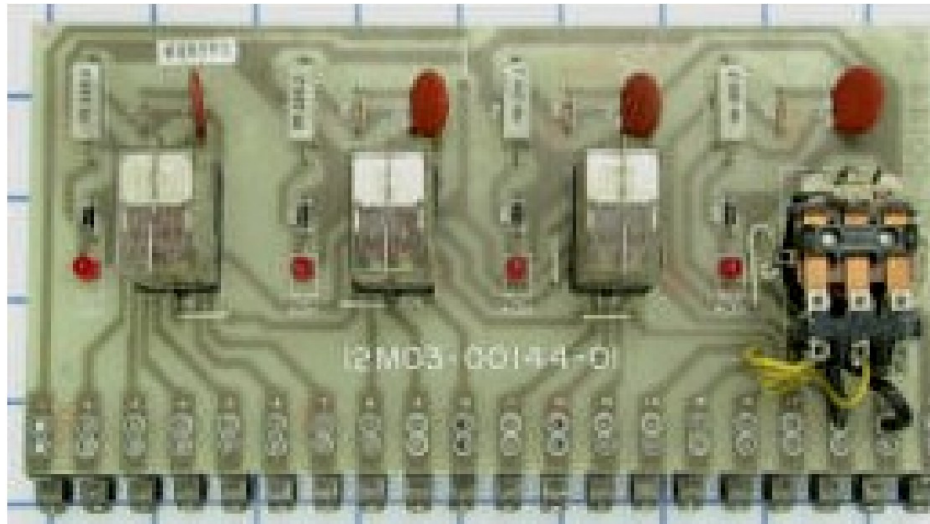


Trouble-shooting Manual

MODEL 256

DRIVE RELAY ASSEMBLY

PART NUMBER 12M03-00144-01



BENCH TEST

TEST MATERIAL REQUIRED:

- 1 - VOM (Simpson 260 or Equivalent)
- 1 - Single Phase 120V AC Source
- 1 - Jumpers

PROCEDURE:

1. With an ohmmeter verify the following conditions:

Open Circuit		Continuity
18-19	7-8	12-13
2-3	6-8	1-18
3-9	4-5	
9-10	11-12	
1-16	14-15	
6-7		

2. Jumper, 1 to 3, 16 to 17 and apply 120V AC to 18 and 20. No relays should energize and all LEDs should be off.
3. Jumper 2 to 3. All relays should energize and all LEDs should be on.
4. With an ohmmeter verify the following conditions:

Open Circuit	Continuity
12-13	4-5
	6-8
	11-12
	14-15

5. With a voltmeter verify 120V AC between the following terminals:
19 and 20; 10 and 20
6. Momentarily open jumper between 1 and 3, all relays should deenergize and all LEDs should go out.

REFLEX® MODEL 256 DRIVE RELAY ASSEMBLY

PART NUMBER 12M03-00144-01
SCHEMATIC DIAGRAM 12M03-00144-01

I. SPECIFICATIONS

SUPPLY:

- 120V AC \pm 10%
- 50/60 Hz, Single Phase

AMBIENT TEMPERATURE:

- 0° to 40°C (32° to 104°F)
- 50°C in cabinet

LOGIC INPUTS:

- 115V AC to terminals 2 (1CR), 9 (2CR), and 17 (3CR) with respect to terminal 20 (common).

OUTPUTS:

- 1CR — Relay contact closure. N.O. rated 2A at 115V AC and 3A at 26V AC. Red LED indicating relay energized.
- 2CR — N.O. in conjunction with 1CR Form C for Thread or Jog/Run or Manual/Automatic function. Red LED indicating relay energized.
- 3CR — Form C rated 2A at 115V AC and 3A at 26V AC. Red LED indicating relay energized.
- 4CR — N.O. rated 10A at 115V AC.

MOUNTING: Standard REFLEX® 20 terminal chassis (P/N 12M04-00012)

II. THEORY OF OPERATION

The REFLEX® Model 256 Drive Relay Assembly consists of four relay circuits to provide logic functions for an electric motor drive. These include Run, Jog or Thread and Emergency Stop. A low speed sensing contact can be connected for automatic controlled (two mode) stop if desired. Alternately, the Run-Thread functions can be used for Manual - Automatic operation.

Interlocking is provided for "dry" switching of the main power contactor. When energizing the control, the power contactor is closed, then the electronics are enabled. When deenergizing the control, the electronics are disabled, then the power contactor is opened.

The logic diagram is shown on drawing 12M03-00144-01.

COMPONENT LIST — ASSEMBLY #12M03-00144-01

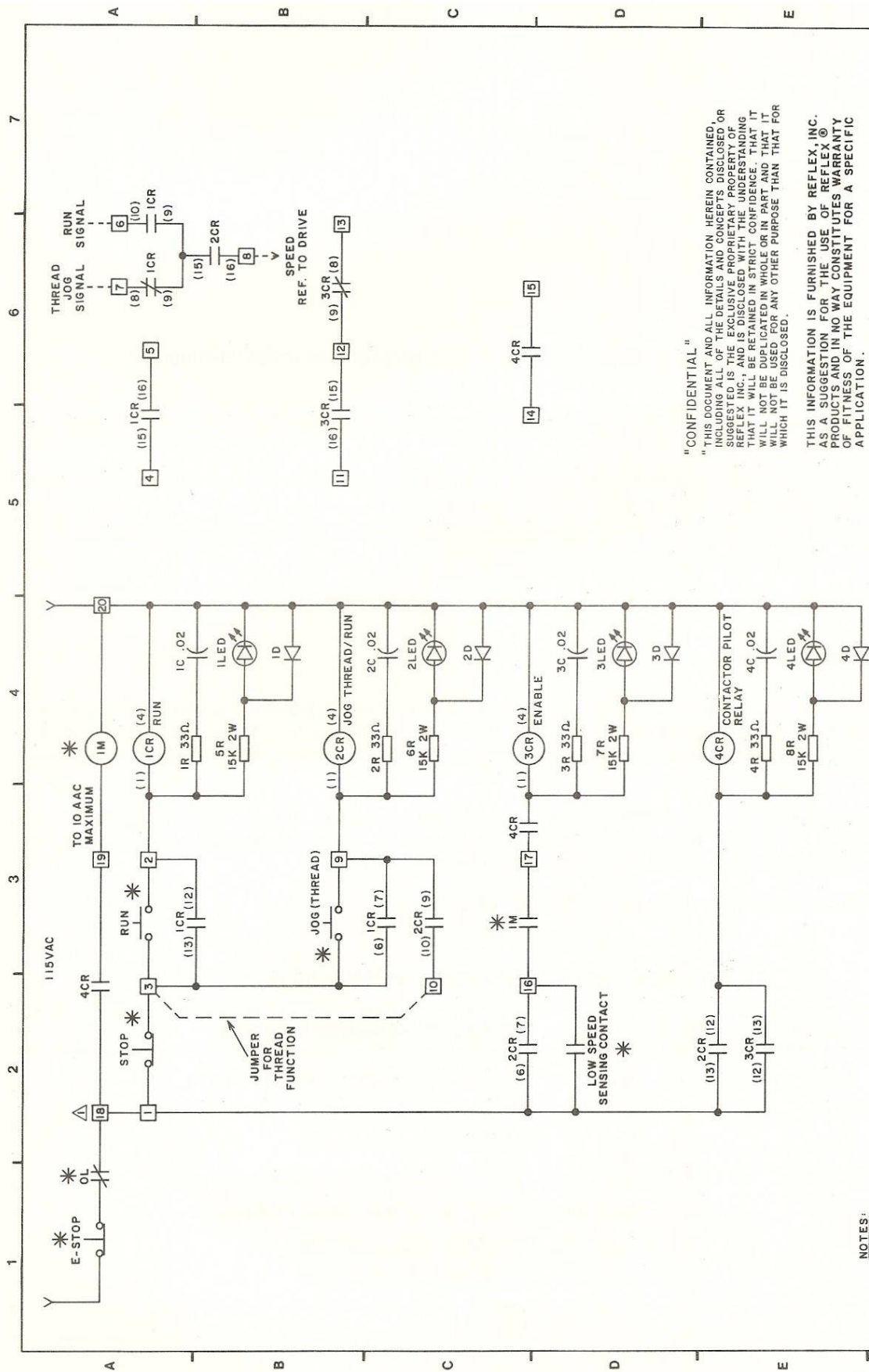
Symbol	Part #	Description (Acceptable Substitute) *
1-3CR	06P01-00010	Relay, 4PDT, 2A (P&B - R10E1P4-120V)
4CR	06P01-00009	Relay, 3PDT, 10A (P&B - KR14AG120)
1-4D	05P01-00001	Diode, 1A, 400PIV (IN4004)
1-4LED	07P04-00003	LED, RED (Litronix - RL-4403)
1-4C	03P06-20399-00	Capacitor, 0.02MF, 1000V, Disk ceramic
1-4R	01P01-33000-02	Resistor, 33 Ohm, 1/4W, 5%
5-8R	01P01-15303-03	Resistor, 15K, 2 Watt, 10%

* OR EQUAL



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NOTES:

- * - INDICATES EXTERNAL COMPONENT
- △ - EXTERNAL CONNECTIONS SUPPLYING POWER TO IM MUST BE CONNECTED TO TERMINAL 18 NOT TERMINAL 1

REV.	DESCRIPTION	DATE	INT.	REV.	DESCRIPTION	DATE	INT.

DRAWN BY MY	CHECKED BY WJL	SCALE	SHEET NO. OF	DATE 3-19-85	PROJECT PRODUCT	APP'D BY REFLEX, INC.
REVISIONS NO. DESCRIPTION 1 INITIALS						
GEMINI CONTROLS CEDARBURG, WI				DRIVE RELAY LOGIC CIRCUIT EX-256 <small>REF (FULL PAGES)</small>		
SCHEMATIC DIAGRAM						12MO3-00144-01