

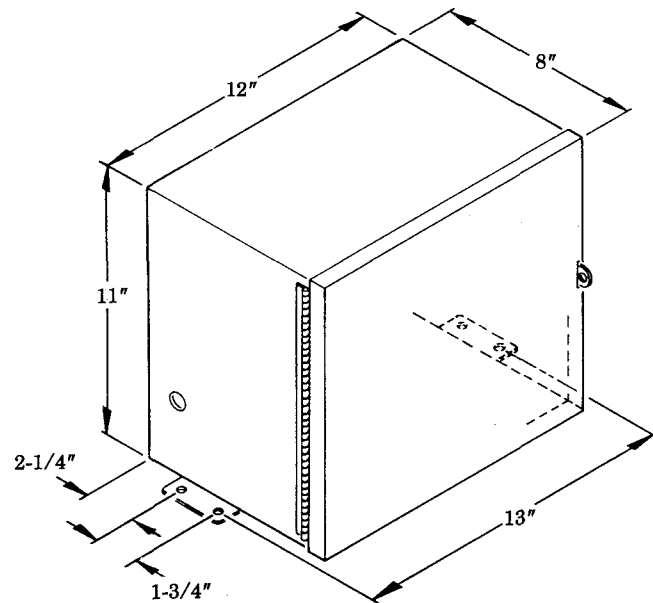
Whenever possible the master control panel should be interlocked with the starter controls of the machine being lubricated to be sure the machine will be lubricated when it is operated.

Timer adjusts from 2-1/2 minutes to 4 hours at 115 volts, 60 hertz (3 minutes to 4-3/4 hours at 95 volts, 50 hertz).

It is necessary that a monitor box, horn, light or a warning device be wired into the master control circuit to obtain maximum protection in the form of a signal when the Centro-Matic system is not properly operating.

**ELECTRICAL SPECIFICATIONS**

The 84129 is designed for use on 115 volts, 60 hertz, single phase but will operate on 95 volts (+20%-10%), 50 hertz at reduced speed of timing motor. Switching capacity 30 amps make, 3 amps break, 5 amps continuous. Maximum power required is 12 volt-amps. (Does not include externally connected signal devices).



## SETTING CYCLE FREQUENCY

The electric clockworks runs constantly when current is on. The equally spaced clips, pushed into the inner groove of the program disc, control the frequency of lube cycles. As the program disc rotates, the clips contact and depress the arm of the timer switch. The closed switch completes the circuit to energize the solenoid air valve or motor starter to start pump. The rotating program disc releases the contact when the clip moves off the switch arm. The rotating program disc releases the contact when the clip moves off the switch arm.

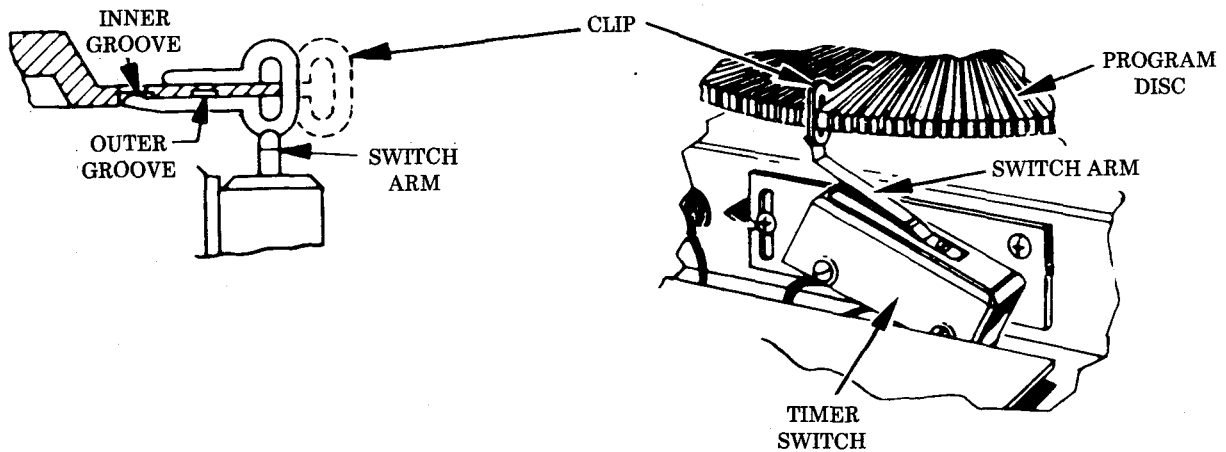
TIME INCREMENTS FOR EQUALLY SPACED CLIPS

		NUMBER OF CLIPS	1	2	3	4	6	8	12	16	24	32	48	96*
115 VOLTS 60 HERTZ	MINUTES		240	120	80	60	40	30	20	15	10	7.5	5	2.5
95 VOLTS 50 HERTZ	MINUTES		288	144	96	72	48	36	24	18	12	9	6	3

\*48 extra 45952 Clips must be ordered separately.

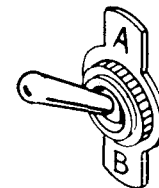
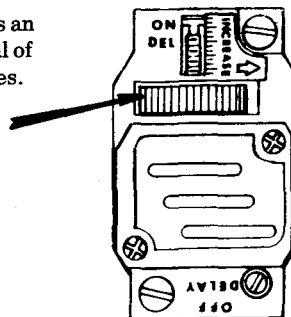
## INSTRUCTIONS

Select desired time from above chart. Move only number of clips indicated to inner groove.



### TIME DELAY UNIT

The time delay relay has an adjustable delay interval of 0.2 seconds to 10 minutes. Adjustment is made by turning thumbwheel.



## MANUAL LUBRICATION CYCLE

### PRE-LUBE CYCLE

When power is turned on with toggle switch in "A" position and timer switch in the normal position (switch arm not depressed) a circuit through a closed contact of the toggle switch and magnetic relay starts the pump.

### LUBRICATION CYCLE CONTROLLED BY THE TIMER

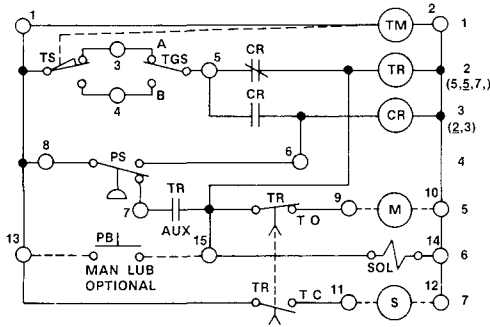
Toggle switch in "B" position. Circuits to magnetic relay are only made when timer switch is active (switch arm depressed).

### TO OPERATE THE SYSTEM AT ANY TIME BETWEEN THE CLOCKED LUBRICATION CYCLES

Push manual lube pushbutton on enclosure cover or move toggle switch from "A" to "B", then back to "A" or from "B" to "A", then back to "B".

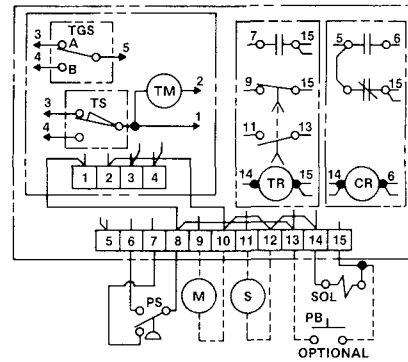


## ELEMENTARY DIAGRAM



NOTE: Numbered open circles on diagrams identify corresponding numbered terminals on timer.

## POSITION DIAGRAM



## SEQUENCE OF OPERATION

- (1) Timer Motor (TM), line 1, is energized when power is on. Time Relay (TR) is energized through Timer Switch (TS), Toggle Switch (TGS) and Control Relay (CR) contacts, line 2. When used, Solenoid Vent Valve (SOL) is also energized. Motor Starter (M) is energized through closed (timing to open) TR contacts, line 5. TM starts moving clip on program disc toward operating arm of TS, TR begins timing out, SOL closes (when used) and pump starts delivering lubricant through injectors to bearings.
- (2) After all bearings have been supplied lubricant, pressure raises actuating Pressure Switch (PS) to energize CR coil, line 3. CR contacts, line 2, open de-energizing TR, M and SOL (when used). TR resets and pressure vents. CR contacts, line 3, close to hold CR coil energized through TS and TGS so that CR does not drop out when PS contacts return to normal after system vents. TM actuates TS, line 2, de-energizing CR coil.
- (3) Next lube cycle begins when TS, actuated by TM, recloses its contacts, line 2, to energize TR, etc. Sequence follows as steps 1 and 2.  
NOTE: Sequence of operation is the same for TGS in either "A" or "B" position. However, TGS in position "A" will insure TS in position to initiate lube cycle when power is turned on.
- (4) If for any reason PS contacts, line 4, do not close within time setting of TR, TR will time out opening T.O. contacts of TR, line 5, to stop pump and closing T.C. contacts of TR, line 7, to energize signal circuit. With PS closed TR coil is energized through instantaneous contacts of TR (aux.), line 5. TR will remain timed out until line switch is opened to turn off power.
- (5) Closing optional manual lube Pushbutton (PB), line 6, energizes TR, etc. TR instantaneous contacts (aux.), line 5, closes to maintain a holding circuit through PS contacts, line 4, TR and M are de-energized when PS contacts are opened by system pressure.

CODE	PART	DESCRIPTION
TM	PART OF	TIMER MOTOR
TS	84132	TIMER SWITCH
TGS	TIMER	TOGGLE SWITCH
TR	69693	TIME RELAY
CR	69361	RELAY
PS	70278 ©	PRESSURE SWITCH
M	*	MOTOR STARTER
	69697 †	OR SOLENOID VALVE
PB	*	PUSH BUTTON MOMENTARY CONTACT
SOL	69696 ††	SOL. VENT VALVE
S	*	ALARM SIGNAL

\* Supplied by customer

† Used on Model 84128

†† Used on Model 84127

## SERVICE PARTS

PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION
14774	1	Axle	69558	1	Washer
41258	1	Index wheel	69693	1	Time delay relay
*45952	48	Clip	69750	1	Brass washer
48500	1	Washer	*70234	1	Micro switch
48509	1	Cup washer	*84132	1	Clockworks
50659	1	Screw	*92644	1	Bearing & gear
51074	1	Nut	92666	1	Mounting panel
51094	1	Nut	92683	1	Mounting bracket
66141	1	Lockwasher	84131	1	Enclosure
66723	1	Spring washer	*325005	1	Toggle switch
69359-1	1	Relay mounting strip	360551	1	Switch bracket
*69361	2	Relay	360584	1	Support bracket
*69533	1	Timing motor			

\*Recommended service parts inventory.

© Indicates Change

## RETAIN THIS INFORMATION FOR FUTURE REFERENCE

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.  
LINCOLN ST. LOUIS provides a Distributor Network that stocks equipment and replacement parts.  
A list of Authorized Service Departments will be furnished upon request.