

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

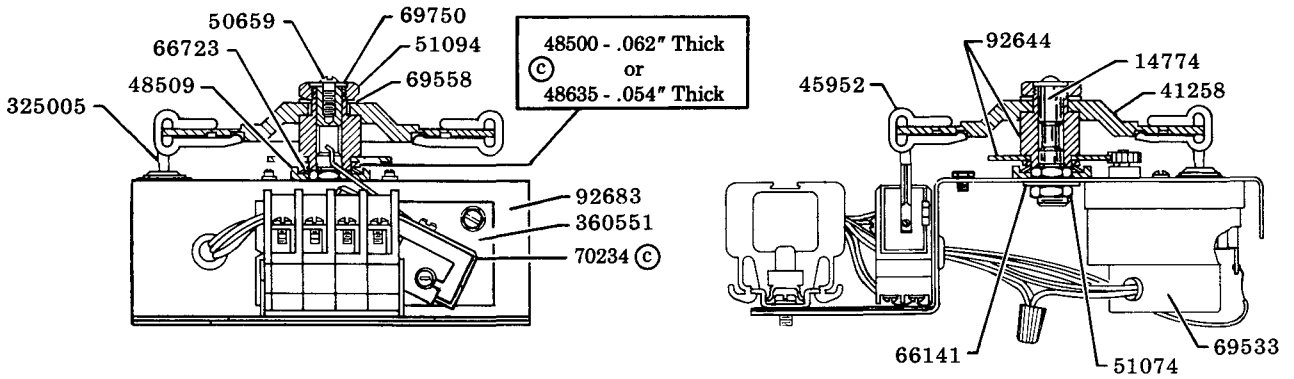
Timer adjusts from 2½ minutes to 4 hours at 115 volt, 60 hertz (3 minutes to 4¾ hours at 95 volt, 50 hertz).

ELECTRICAL SPECIFICATIONS

The 102952 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 70 volt-amps. (Does not include externally connected signal devices).

NOTE: All three indicator lights use No 755 (Chicago Miniature or G.E.) miniature lamps.

84132 CLOCKWORKS



SET THE TIME CONTROLLER FOR 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 to start pump. The rotating program disc releases the contact when the clip moves off the switch arm.

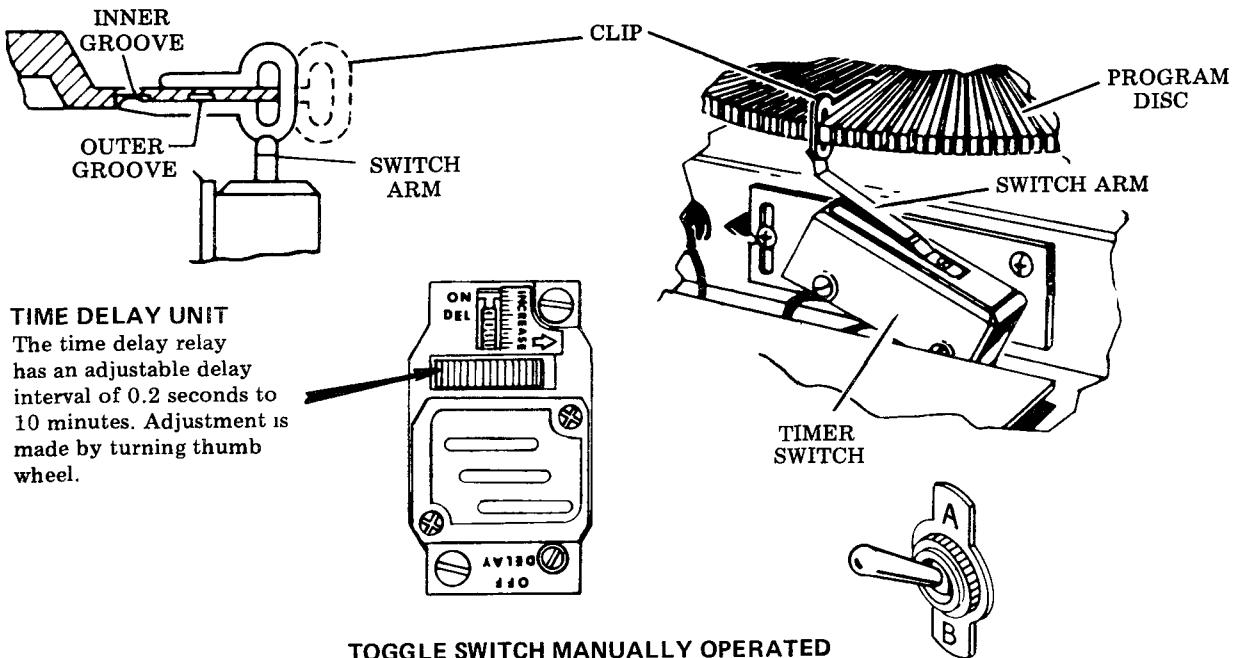
TIME INCREMENTS FOR EQUALLY SPACED CLIPS

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

*48 extra No. 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 thumb wheel.

TOGGLE SWITCH MANUALLY OPERATED

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.

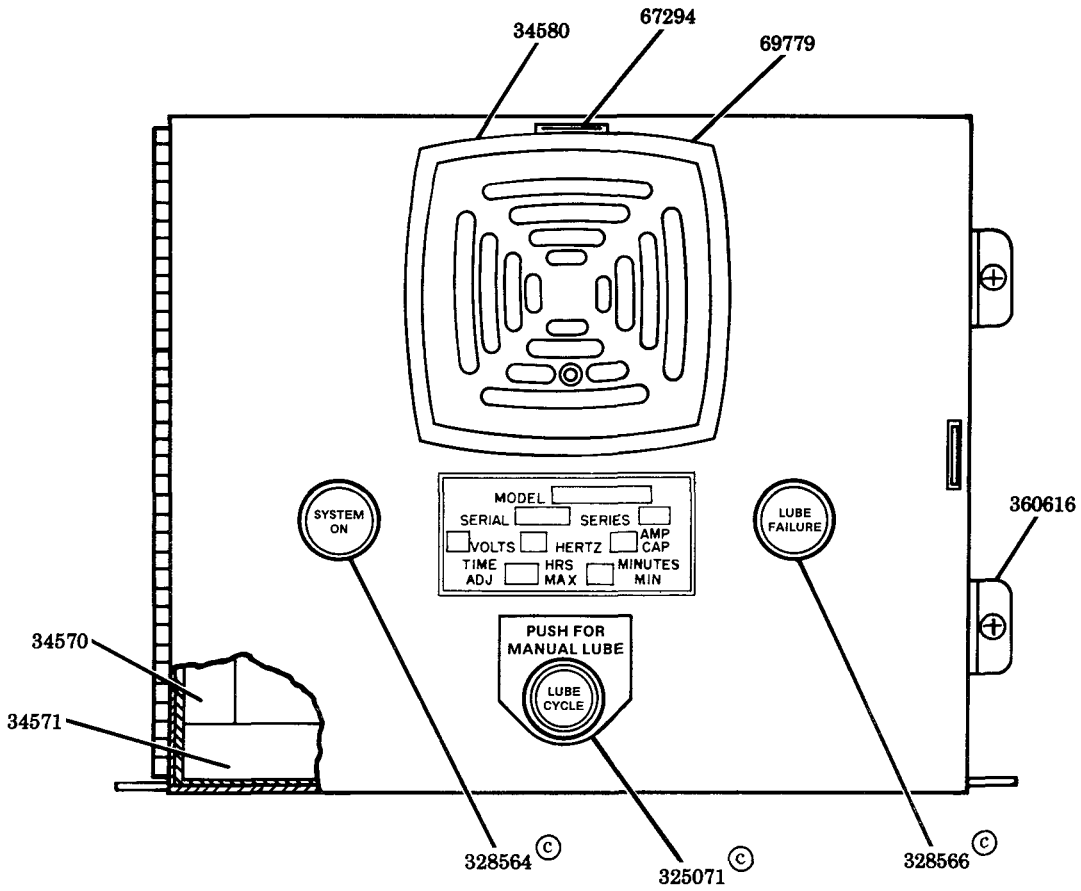
LUBRICATION CYCLE CONTROLLED BY THE TIMER

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

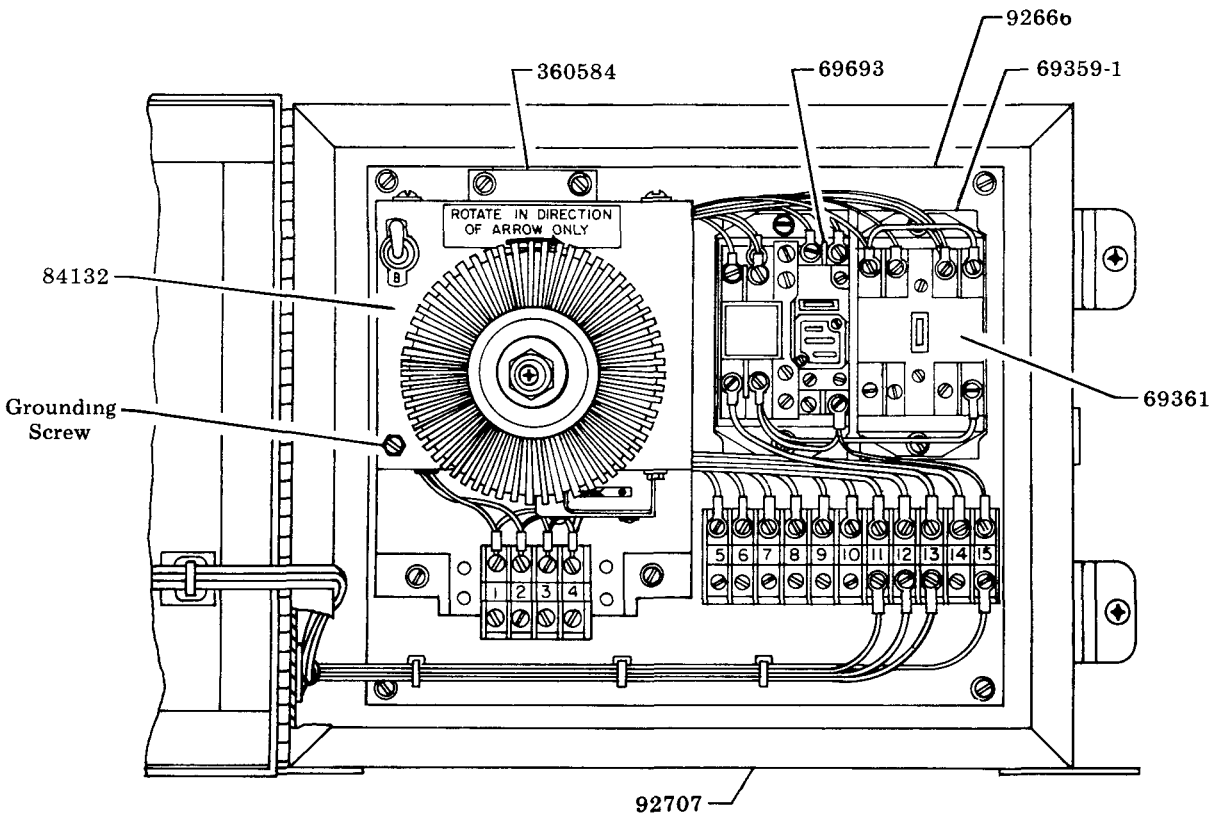
TO OPERATE THE SYSTEM AT ANY TIME BETWEEN THE CLOCKED LUBRICATION CYCLES

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".

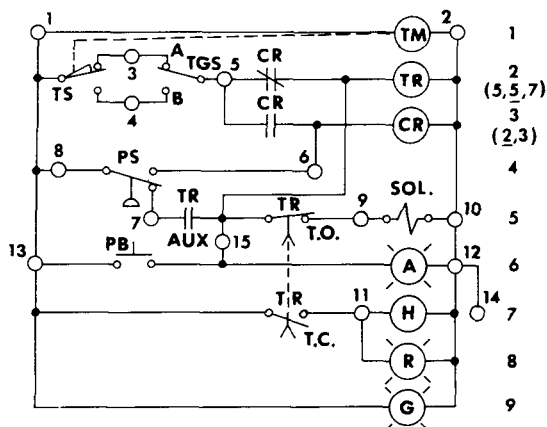
MODEL 102952 TIME CONTROLLER



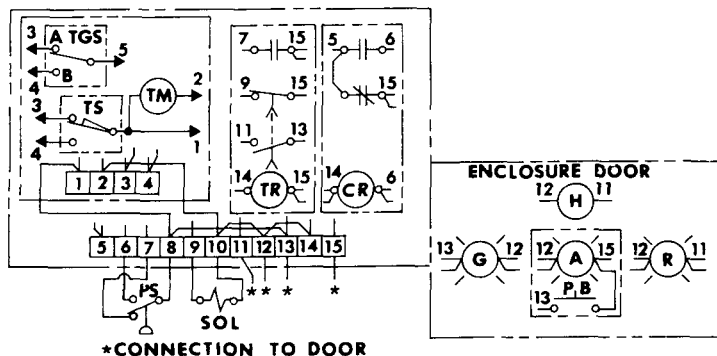
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ELEMENTARY DIAGRAM



POSITION DIAGRAM



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

SEQUENCE OF OPERATION

- (1) Timer motor (TM) line 1 & green lamp line 9, are energized when power is on. Time relay coil (TR) is energized through timer switch (TS), toggle switch (TGS) and control relay (CR) N.C. contacts line 2 "SOL" line 5 and amber lamp line 6 is also energized through "TR" T.O. contacts line 5 "TM" starts moving clip on program disc towards operating arm of "TS", "TR" begins timing out. "SOL" port opens allowing air to pump, pump starts delivering lubricant through injector to bearings
- (2) After all bearings have been supplied lubricant, pressure raises actuating "PS" to energize "CR" coil, line 3. "CR" N C contacts line 2, open de-energizing "TR" coil, amber lamp and "SOL." "TR" resets, pump stops 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 TS contacts line 2, to energize "TR", etc Sequence follows same as Steps 1 and 2.
NOTE: "Sequence of Operation" is the same for toggle switch in either "A" or "B" position, however, "TGS" in "A" position will insure "TS" in position to initiate lube cycle when power is turned on.
- (4) Closing manual lube pushbutton line 6 (lighted pushbutton, amber lamp) energized "TR" coil, line 2. "TR" aux contacts line 5 closes energizing "SOL" and amber lamp Through the "PS" N.C. contacts line 4 Pump starts and services bearings through injectors, see Step 2.
- (5) If for any reason "PS" contacts line 4, do not open 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 red lamp and horn (amber lamp remains lit), 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.

CODE	PART NO	DESCRIPTION
TM	PART OF	TIMER MOTOR
TS	84132	TIMER SWITCH
TGS	TIMER	TOGGLE SWITCH
TR	69693	TIME RELAY
CR	69361	RELAY
PS	69694	PRESSURE SWITCH
SOL	69697	SOLENOID VALVE
PB		LIGHTED PUSH BUTTON
A	325071	
H	69779	HORN
R	328566	RED LAMP
G	328564	GREEN LAMP

SERVICE PARTS

PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION	PART	QUAN.	DESCRIPTION
14774	1	Axle	66141	1	Lockwasher	*92644	1	Bearing & gear
34570	2	Gasket	66723	1	Spring washer	92666	1	Mounting panel
34571	2	Gasket	67294	1	3/4" Pipe plug	92683	1	Mounting bracket
34580	1	Gasket	69359-1	1	Relay mtg. strip	92707	1	Enclosure
41258	1	Index wheel	*69361	2	Relay	*325005	1	Toggle switch
*45952	48	Clip	*69533	1	Timing motor	325071	1	"Amber" pushbutton light
48500	As req'd.	Washer	69558	1	Washer	328564	1	"Green" light
48509	1	Cup washer	69693	1	Time delay relay	328566	1	"Red" light
48635	As req'd.	Washer	69750	1	Brass washer	360551	1	Switch bracket
50659	1	Screw	69779	1	Horn	360584	1	Support bracket
51074	1	Nut	*70234	1	Micro switch	360616	2	Latch
51094	1	Nut	*84132	1	Clockworks			

*Recommended service parts inventory

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.