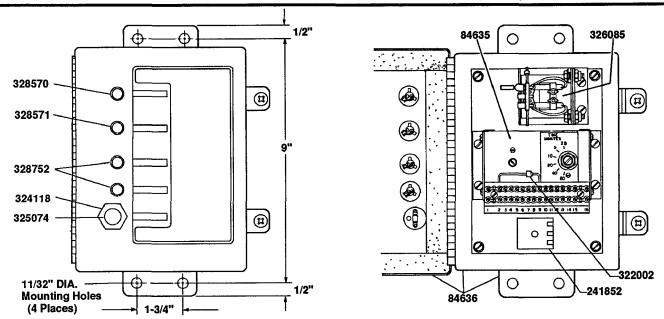


## MODEL 84965 SOLID-STATE TIMER (24 VOLT DC)

FOR CENTRO-MATIC OR MODULAR LUBE APPLICATION. DESIGNED ESPECIALLY FOR USE WITH 84960, 84961, 84962 HYDRAULIC PUMPS.



PART	QTY	DESCRIPTION	PART	QTY	DESCRIPTION
84635	1	Timer assembly	325074	1	Reset switch
84636	1	Enclosure assembly	326085	1	Time delay relay
241852	1 1	Flasher	328570	1	Green lamp
322002	1	Diode	328571	1	Amber lamp
324118	1	Sealing boot	328572	1	Red lamp

#### OVERALL DIMENSIONS

Width (including door latch) - 6-7/16" Depth (including lights & door lock) - 5-1/2"

## CENTRO-MATIC SYSTEM (REFER TO DIAGRAM ON BACK PAGE)

## **TERMINAL CONNECTIONS**

POWER SOURCE - 24 VDC supply, terminal 1 (Bat. +) & terminal 2 (Bat. -).

LOW LEVEL SWITCH - (Optional) - Terminals 3 & 10.

REMOTE MANUAL LUBE SWITCH - (Optional) - N.O. contacts to terminals 3 & 7.

PRESSURE SWITCH - Common to terminal 5, N.O. to terminal 4. Jumper wire MUST be connected between terminals 4 & 6.

SOLENOID VALVES - Pump solenoid connected to terminals 14 & 15. Vent valve solenoid connected to terminals 14 & 16. Note: Jumper wire MUST be connected between terminals 8 & 9.

ALARM CONTACTS - (S.P.D.T. non-committed contacts). Common to terminal 11, N.O. to terminal 12 & N.C. to terminal 13. Contacts rated 10 amps resistive at 24 VDC.

LIGHTS - L.E.D.

Green light indicates power on. Amber light indicates pump on. Red light indicates alarm. Red light indicates low level.

RESET SWITCH - Depressing reset switch removes power from timer, causing it to reset.

## **OPERATION**

When the ignition switch is closed, the 84635 Timer begins timing and the green light turns on indicating power "ON". The timer has a selector switch that provides for "OFF" time cycle adjustments of 2.5, 5, 10, 20, 40 & 80 minutes between lube cycles.

When the selected time is reached, an internal timer relay turns on energizing the pump solenoids, time delay relay (TDR) and amber lamp.

After the desired system pressure is reached: the pressure switch closes resetting the timer; the TDR, pump solenoids, and amber light are deenergized. When the system vents, the pressure switch opens and the timer begins timing again.

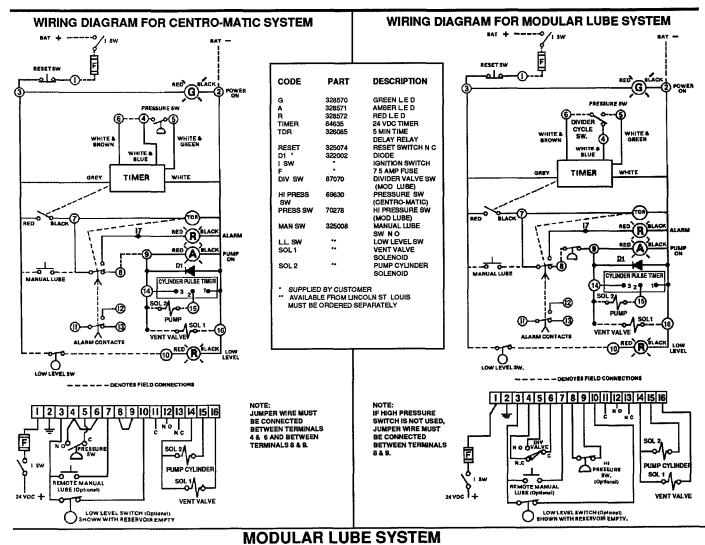
Should system pressure not be reached within the maximum fixed pumping time of 5 minutes: the TDR will time out, the pump solenoids will be deenergized, the amber L.E.D. turns off, the red light (alarm) turns "ON" and the alarm contacts transfer. The unit will remain in alarm until power is removed from controller either by opening the ignition switch or depressing the reset switch on the door.

Depressing and holding the optional manual lube button will energize the pump solenoids, provided system is not into alarm.

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## MODULAR LUBE SYSTEM OPERATION

## **TERMINAL CONNECTIONS**

POWER SOURCE - 24 VDC supply, terminal 1 (Bat. +) & terminal 2 (Bat.-).

LOW LEVEL SWITCH - (Optional) - Terminals 3 & 10.

REMOTE MANUAL LUBE SWITCH - (Optional) - N.O. contacts to terminals 3 & 7.

DIVIDER VALVE SWITCH - Common to terminal 6, N.C. to terminal 4, N.O. to terminal 5.

HI PRESSURE SWITCH - Common to terminal 8, N.C. to terminal 9. If Hi Pressure Switch is not used, a jumper wire MUST be connected between terminals 8 & 9.

ALARM CONTACTS - (S.P.D.T. non-committed contacts). Common to terminal 11, N.O. to terminal 12 & N.C. to terminal 13. Contacts rated 10 amps resistive at 24 VDC.

SOLENOID VALVES - Pump solenoid connected to terminals 14 & 15. Vent valve solenoid connected to terminals 14 & 16.

## LIGHTS - L.E.D.

Green light indicates power on. Amber light indicates pump on. Red light indicates alarm. Red light indicates low level.

RESET SWITCH - Depressing reset switch removes power from timer, causing it to reset.

# When the ignition switch is closed, the 84635 Timer begins timing and the green light turns on indicating power "ON". The timer has a selector switch that provides for "OFF" time cycle adjustments of 2.5, 5, 10, 20, 40 & 80 minutes between lube cycles.

When the selected time is reached, an internal timer relay turns on energizing the pump solenoids, time delay relay (TDR) and amber lamp.

When the cycle switch has actuated (closes then opens): the timer is reset causing the TDR, pump solenoids, and amber light to deenergize. The timer then begins timing for the next lube cycle.

If the cycle switch does not actuate within the maximum fixed pumping time of 5 minutes: the TDR will time out, the pump solenoids will be deenergized, the amber L.E.D. turns off, the red light (alarm) turns "ON" and the alarm contacts transfer. The unit will remain in alarm until power is removed from controller either by opening the ignition switch or depressing the reset switch on the door.

Depressing and holding the optional manual lube button will energize the pump solenoids, provided system is not into alarm.

In the event that the Hi Pressure Switch opens, the pump solenoids and amber light will be deenergized. If the cycle switch is not actuated the system will go into alarm.

## RETAIN THIS INFORMATION FOR FUTURE USE

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.