

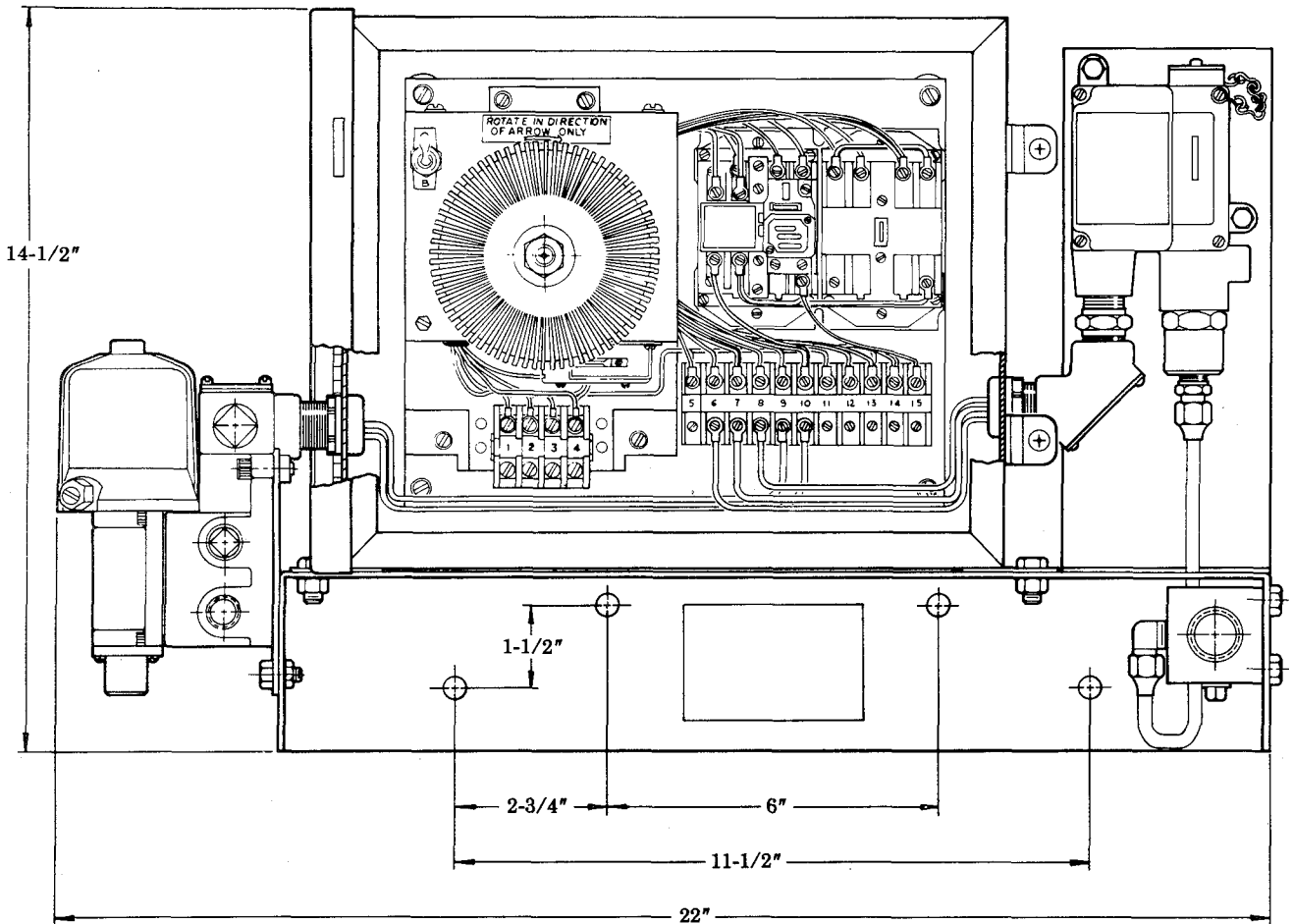
# J.I.C. MASTER CONTROL PANEL

N.M.T.B.A. AND J.I.C. ST'D. EGP-1-1967



## Model 84128

## Series "C"



### DESCRIPTION

The 84128 is used on systems where airmotor-driven pumps are used. In this case, the air supply to pump airmotor is controlled through the air solenoid valve on the control panel. Venting is accomplished through air-operated valve at pump outlet.

### ELECTRICAL SPECIFICATIONS

The 84128 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. Total power required is 85 watts maximum. When panel is in alarm configuration, total power required is 40 watts plus power required to operate external alarm signal.

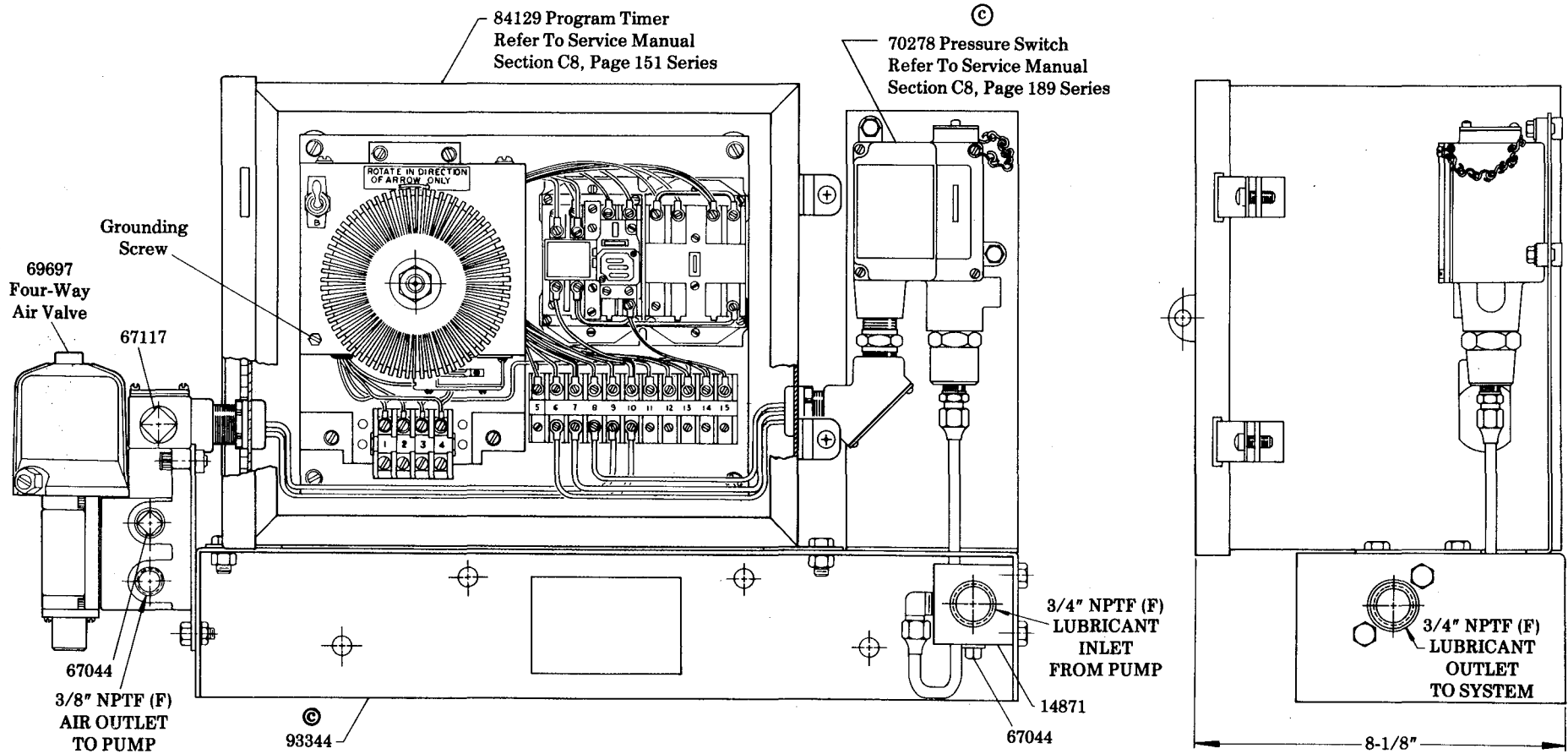
**LINCOLN ST. LOUIS**  
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SECTION - **C8**  
PAGE - **170A**

# MODEL 84128 MASTER CONTROL PANEL



## OPERATION

### MODE "A"

When the selector toggle switch is in position "A", a lubrication cycle will begin when power is turned on to the program timer if the timer switch arm isn't being depressed by a clip in the program disc.

At the beginning of a normal lubrication cycle, the solenoid air valve is energized, the vent valve closes and the time delay relay in the program timer begins timing out.

The pump dispenses lubricant into the supply line increasing lubricant pressure until the injectors cycle, then further increases pressure until the control pressure switch is actuated.

The pressure switch energizes the control relay which stops the pump, opens the vent valve and de-energizes the time delay relay causing it to reset to zero for the next lubrication cycle. The control relay is held energized through one of its contacts and the timer switch so the relay coil will not de-energize when the pressure switch opens as the lubricant pressure vents.

The control relay is de-energized when the timer switch arm is depressed by a clip in the program disc, which is constantly rotated by the timer motor as long as power is on to the program timer.

Subsequent lubrication cycles begin when the timer switch arm is released by the clip in the program disc. The cycle frequency is determined by the number of clips in the inner groove of the program disc.

**NOTE:** A pre-lube cycle cannot be initiated when power is first turned on if a clip on the disc is positioned to hold down timer switch arm. In this case, the first cycle will be initiated when clip moves off actuating arm. Maximum time that clip can hold down arm is 80 seconds (a factory setting).

### LUBRICATION FAILURE ALARM

If the time delay relay should time out before pressure switch has actuated, the failure alarm circuits will be activated. Pump stops, energizing the alarm signal terminals. With the alarm signals energized, no more lube cycles can be initiated by the cycle timer and alarm signal will remain energized until power supply to master program timer is disconnected.

### MODE "B"

When the selector toggle switch is in position "B", no-pre-lube cycle is initiated when power is turned on to the program timer. A lubrication cycle begins when the timer switch arm is depressed by a clip in the inner groove of the program disc.

At the beginning of a normal lubrication cycle, the solenoid air valve is energized, the vent valve closes and the time delay relay in the program timer begins timing out. An auxiliary contact of time delay relay holds the pump on so the lubrication cycle will not be interrupted if the timer switch arm is released during pumping time.

The pump dispenses lubricant into the supply line increasing lubricant pressure until the injectors cycle, then further increases pressure until the control pressure switch is actuated.

The pressure switch energizes the control relay which stops the pump, opens the vent valve and de-energizes the time delay relay causing it to reset to zero for the next lubrication cycle. The control relay is held energized through one of its contacts and the timer switch so the relay coil will not de-energize when the pressure switch opens as the lubricant pressure vents.

The control relay is de-energized when the timer switch arm is released by the clip in the program disc, which is constantly rotated by the timer motor as long as power is on to the program timer.

Subsequent lubrication cycles begin when the timer switch arm is depressed by a clip in the program disc. The cycle frequency is determined by the number of clips in the inner groove of the program disc.

### MONITOR SIGNALS

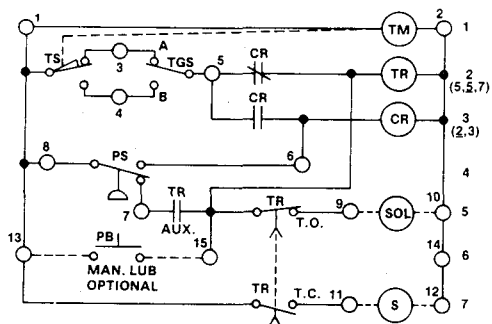
A monitor, either a horn or a light, should be used as a signal for calling attention to the system when it has failed to complete a pumping period within the time for which "alarm timer" is set.

### SERVICE PARTS

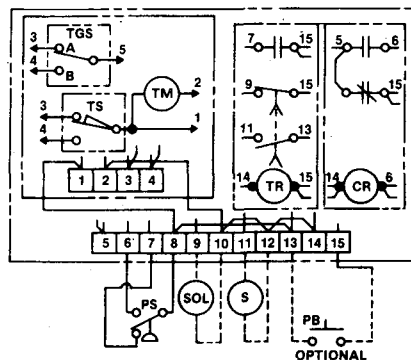
PART	QUAN.	DESCRIPTION
14871	1	Junction block
67044	2	Pipe plug
67117	1	Pipe plug
*69697	1	Four-way air valve
© *70278	1	Pressure switch
84129	1	Program timer
© 93344	1	Mtg. bracket

\*Recommended service parts inventory

## 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, 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. Solenoid Air Valve (SOL) 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, vent valve closes 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 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 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 5, 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 manual lube Pushbutton (PB), line 6, energizes TR, etc. TR instantaneous contacts (aux), line 6, closes to maintain a holding circuit through PS contacts, line 4. TR and SOL 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
SOL	69697	SOLENOID AIR VALVE
PS	70278 ©	PRESSURE SWITCH
PB	*	PUSHBUTTON MOMENTARY CONTACT
S	*	ALARM SIGNAL

\*Supplied by customer

## MODEL 70278 PRESSURE SWITCH ©

### IMPORTANT

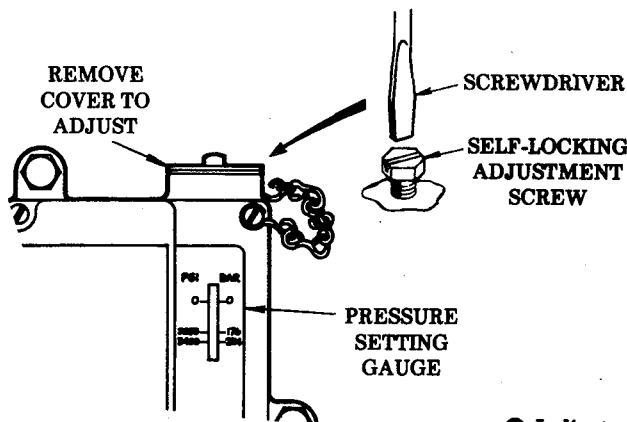
The 70278 Pressure Switch is factory set at 2500 psi for normal high pressure grease systems.

For low pressure oil systems, pressure switch MUST be reset for 850 psi.

To lower the actuation pressure turn the self-locking adjustment screw clockwise. To raise the actuation pressure turn the adjustment screw counter-clockwise.

#### NOTE:

Pressure switch is provided with a scale indicating pressure in "Bars" as well as lbs. per sq. in. "Bar" is the metric unit of measure for pressure.



© 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.