

Informational documents and Photos



Electrical pump panel



Electrical panel breakers



Septic pump panel specs.



Panel in park
restrooms

CentriPro, ITT INDUSTRIES
SES SERIES CUSTOMIZED PANELS
SINGLE PHASE DUPLEX PUMP CONTROL PANEL
D10020N1

PANEL INSTALLATION:

NOTE: This control panel must be installed and serviced by a licensed electrician in accordance with the National Electric Code NFPA-70, state and local electrical codes.

All conduits running from the sump or tank to the control panel must be sealed with conduit sealant to prevent moisture or gases from entering the panel. NEMA 4X enclosures are for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water and hose-directed water. **Cable connectors must be liquid-tight in NEMA 4X enclosures.**

- 1) Determine hole location on panel for liquid-tight or conduit connectors. Drill proper sized holes for liquid-tight or conduit connectors.
- 2) Determine mounting location for control panel. Mount panel using drilled holes.
- 3) Attach connectors and conduits.
- 4) Run pump cable and float cable through conduit. Make field connections per enclosed schematic(s).
- 5) Run "Power In" conductors through conduit. Wire to terminals per enclosed schematic(s).
- 6) Manual testing of float switch operation prior to installation in the pump chamber is recommended. Manual testing should simulate pumping operation.

AUTOMATIC OPERATION:

Place the HAND-OFF-AUTO switch in auto position. A rise in sump level past the "OFF" float and a further rise in sump level past the "ON" float energizes the contactor, starting the pump. As the sump level drops below the "ON" float, the circuit is held by holding contacts until the level is below the "OFF" float.

CentriPro, ITT INDUSTRIES

AUBURN, NY

MANUAL OPERATION:

The pump may be operated at any time by use of the HAND-OFF-AUTO switch.

ALARM:

Should the pump fail to lower the sump level and a continued rise activates the "ALARM" bulb, the external alarm horn and the high level flashing light will energize. A drop in sump pump level below the "ALARM" bulb will not de-energize the alarm. The alarm circuit will continue to be energized until the alarm-reset push-button is depressed. When the alarm circuit is energized, the horn may be silenced. The alarm circuit can be reset only after the alarm float is satisfied.

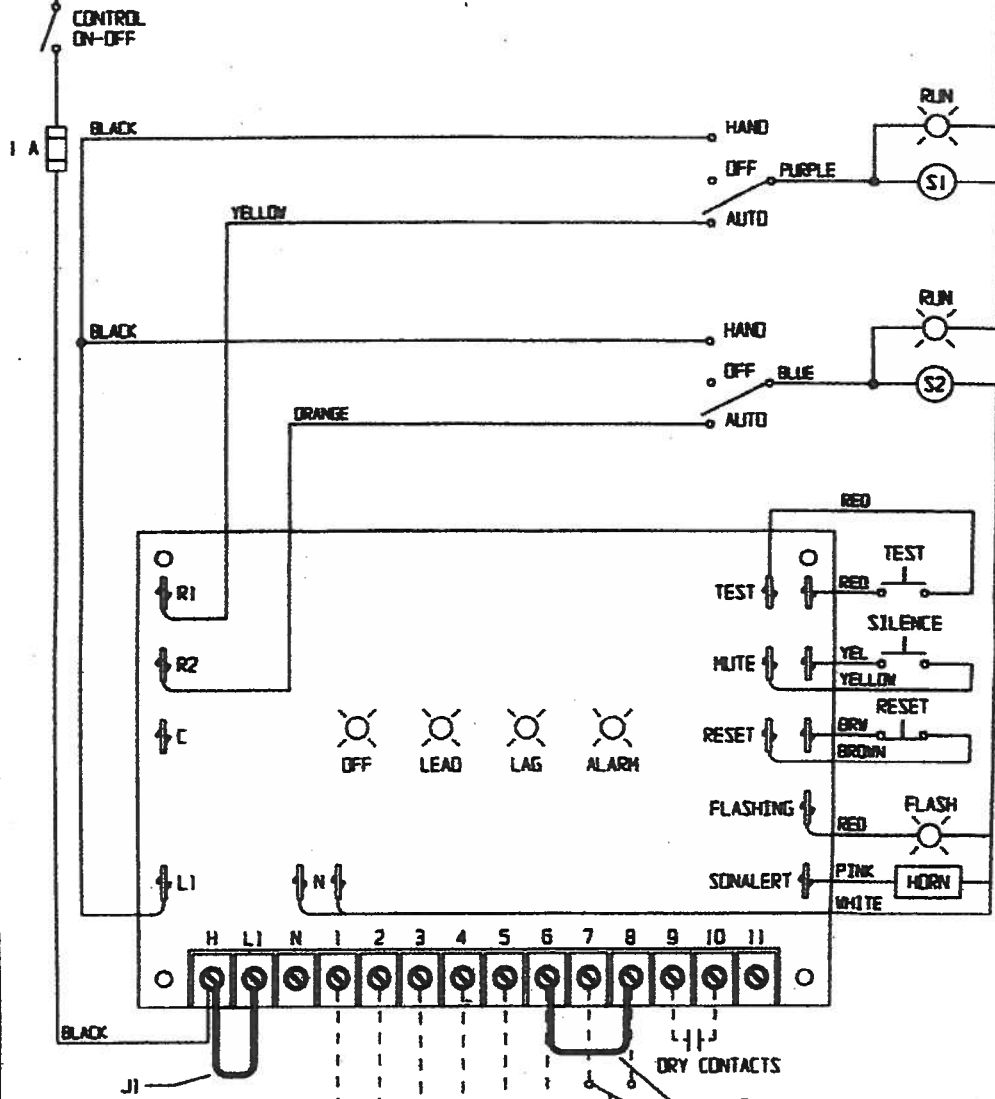
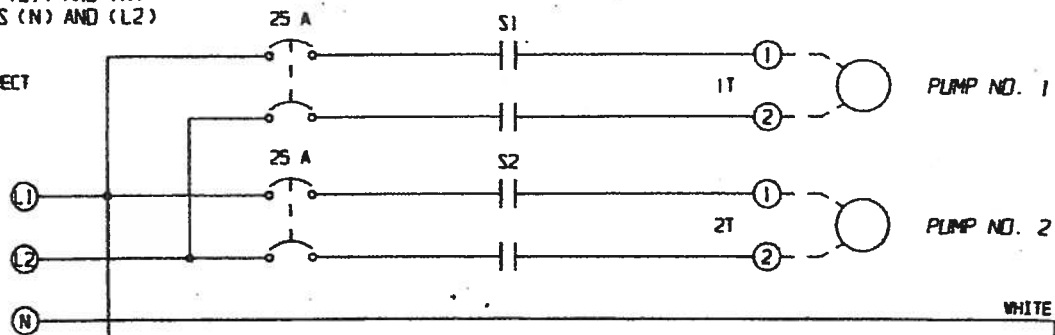
CAUTION: Before checking electrical connections within the control or attempting to replace any components, turn off all branch circuits supplying power to the control panel. A separate 120 vac control circuit power supply may be connected to the control panel.

NOTE: The alarm circuit can be tested by momentarily depressing the alarm test push button. Once satisfied that the alarm circuit is functioning, release the alarm test push button and the alarm will de-energize.

FOR 120 VOLT OPERATION
USE TERMINALS (L1) AND (N)
JUMP TERMINALS (N) AND (L2)

PROVIDE DISCONNECT
PER NEC CODE

230 VAC
SINGLE PHASE
60 HZ



FOR SEPARATE 120 VAC
CONTROL POWER SUPPLY,
REMOVE JUMPER (J1) FROM
TERMINALS (H) AND (L1).
CONNECT 15 AMP MAX.
PROTECTED 120 VAC SUPPLY
TO TERMINALS (L1) AND (N).
WITH THE NEUTRAL OF THE
SUPPLY TO (N).

OFF FLOAT

FACTORY WIRING FOR (3) FLOAT
OPERATION. FOR (4) FLOAT OPERATION,
REMOVE JUMPER (J2) FROM TERMINALS
(6) AND (8). INSTALL LAG FLOAT ON
TERMINALS (5) AND (6).

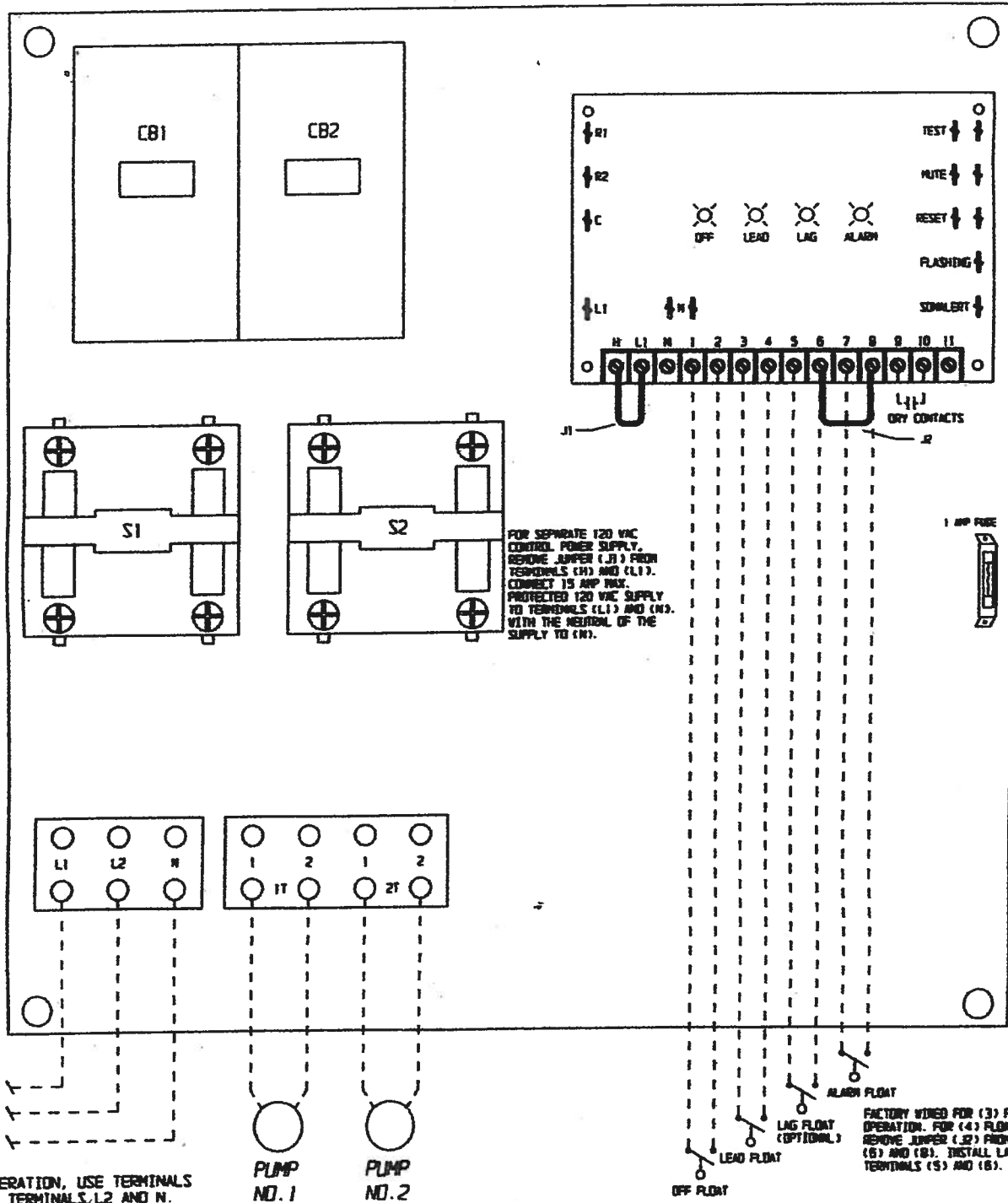
FOR USE WITH WIDE ANGLE FLOAT SWITCH (ONE FLOAT FOR BOTH ON AND OFF OPERATION).
JUMP TERMINALS (3) AND (4), INSTALL WIDE ANGLE FLOAT TO TERMINALS (1) AND (2).

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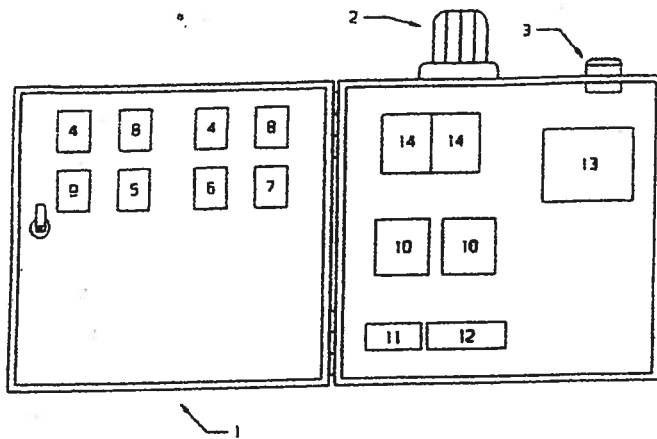
MODEL NUMBER	010020N/1	ORDER
DATE	8-1-07	REVISION
DATE		

PREPARED BY: **CentriPro**
ITT Industries
BOULAY FABRICATION, INC.

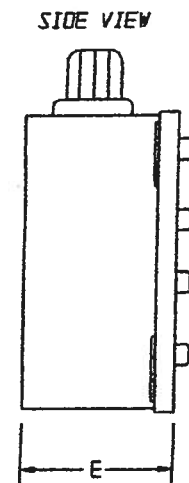
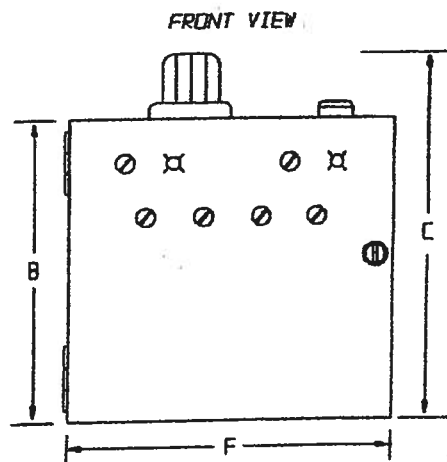
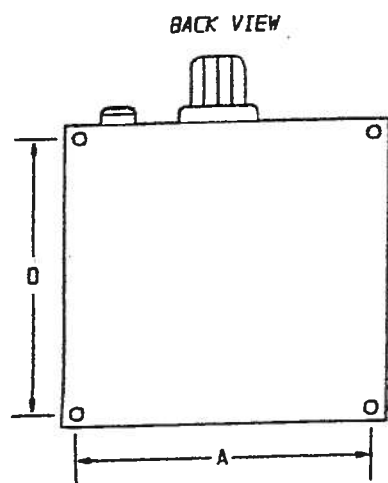
D10020N1 PANEL LAYOUT



SES SERIES 010020N1



ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	NEMA 1 ENCLOSURE	10	CONTACTORS
2	FLASHING ALARM LIGHT	11	TERMINAL STRIP
3	ALARM HORN	12	TERMINAL STRIP
4	PUMP RUN LIGHTS	13	CONTROL BOARD
5	HORN ON-OFF SELECTOR SWITCH	14	MOTOR CIRCUIT BREAKERS
6	ALARM TEST SELECTOR SWITCH		
7	CONTROL POWER ON-OFF SELECTOR SWITCH		
8	M-O-A SELECTOR SWITCHES		
9	ALARM RESET SELECTOR SWITCH		



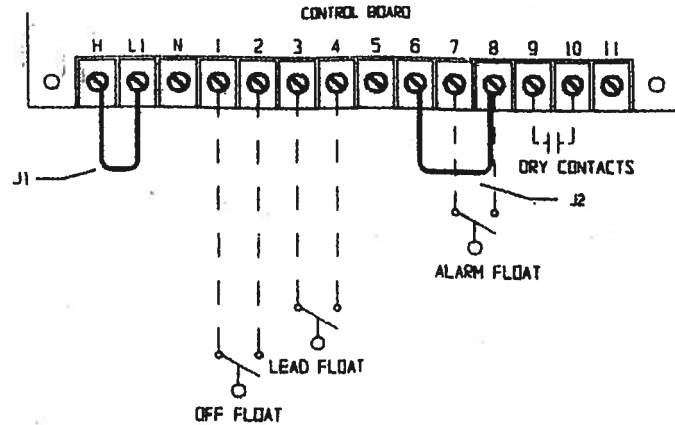
ENCLOSURE DIMENSIONS
(IN INCHES)

A	B	C	D	E	F
11	14	17 1/4	11	6	12

FLOAT INSTALLATION

TYPICAL THREE FLOAT OPERATION

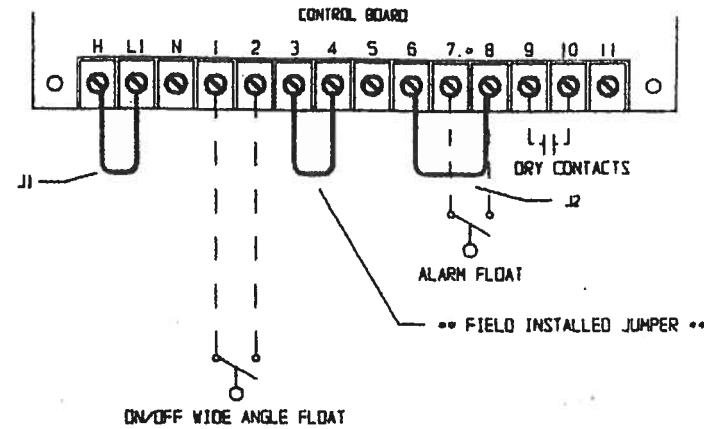
(LAG PUMP AND HIGH LEVEL ALARM ACTIVATE AT SAME LEVEL, USING COMMON FLOAT)



CONTROL PANEL COMES FACTORY WIRED FOR THREE FLOAT OPERATION.
INSTALL OFF FLOAT TO TERMINALS (1) & (2).
INSTALL LEAD FLOAT TO TERMINALS (3) & (4).
INSTALL HIGH LEVEL/LAG START FLOAT TO TERMINALS (7) & (8).

FLOAT INSTALLATION

WIDE ANGLE FLOAT (ONE FLOAT FOR BOTH ON AND OFF OPERATION)

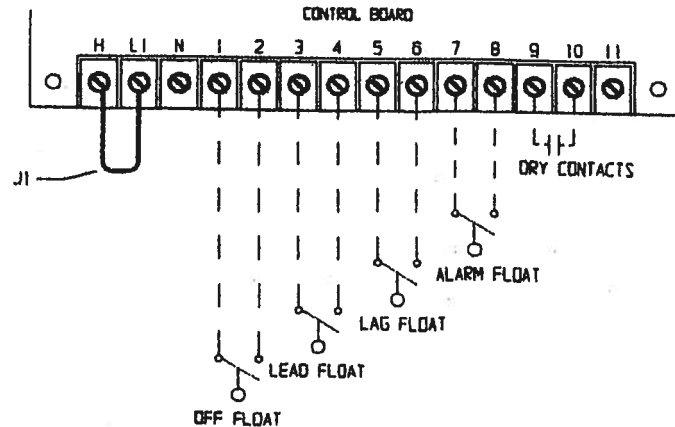


INSTALL WIDE ANGLE ON/OFF FLOAT TO TERMINALS (1) & (2).
INSTALL A JUMPER WIRE (NOT SUPPLIED WITH PANEL) TO TERMINALS (3) & (4).
INSTALL HIGH LEVEL/LAG START FLOAT TO TERMINALS (7) & (8).

FLOAT INSTALLATION

TYPICAL FOUR FLOAT OPERATION

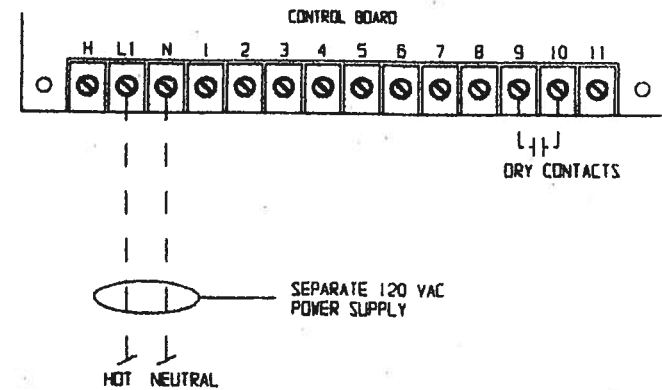
(LAG PUMP AND HIGH LEVEL ALARM ACTIVATE AT DIFFERENT LEVELS, USING SEPARATE FLOATS)



JUMPER (J2) MUST BE REMOVED FROM TERMINALS (6) & (8).
INSTALL OFF FLOAT TO TERMINALS (1) & (2).
INSTALL LEAD FLOAT TO TERMINALS (3) & (4).
INSTALL LAG FLOAT TO TERMINALS (5) & (6).
INSTALL HIGH LEVEL ALARM FLOAT TO TERMINALS (7) & (8).

SEPARATE 120 VAC SUPPLY

INSTALLATION OF SEPARATE 120 VAC CONTROL CIRCUIT POWER IF REQUIRED.



JUMPER (J1) MUST BE REMOVED FROM TERMINALS (H) & (LI).
INSTALL 15 AMP MAX. PROTECTED 120 VAC SUPPLY TO TERMINALS (LI) & (N).
WITH NEUTRAL OF SUPPLY TO TERMINAL (N).
INSTALL FLOATS SWITCHES USING ONE OF THE THREE INSTALLATION GUIDES.