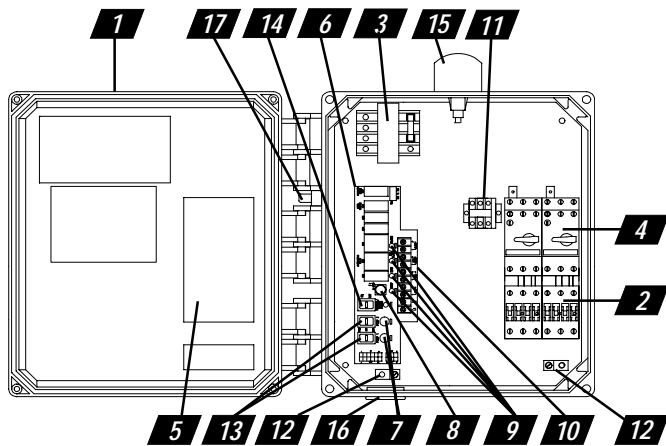


|                   |                                 |
|-------------------|---------------------------------|
| Job: _____        | Representative: _____           |
| _____             | _____                           |
| _____             | Order By: _____ Date: _____     |
| Engineer: _____   | Submitted By: _____ Date: _____ |
| Contractor: _____ | Approved By: _____ Date: _____  |

### Three phase, duplex alternating pump control with override.

The Model 322 control panel is designed to alternately control two three phase pumps in industrial and commercial water and sewage systems. The alternating action equalizes pump wear. In addition to the alternating pump control, this system provides override control should either pump fail. If an alarm condition occurs, the alarm switch activates the audio/visual alarm system. Common applications include lift stations, pump chambers, and irrigation systems.



1. **Enclosure** measures 14 x 12 x 6 inches (35.56 x 30.48 x 15.24 cm) NEMA 4X (ultraviolet stabilized thermoplastic with removable flanges for outdoor or indoor use).
2. **IEC Motor Contactors** control pumps by switching electrical lines.
3. **Multi-Tap Transformer** provides 120V control voltage.
4. **Motor Protective Switches** provide adjustable overload, branch circuit protection and pump disconnect.
5. **Schematic/Wiring Diagram**
6. **Alternating Circuit Board** provides pump control and alternation
7. **Green Pump Run Indicator Lights** (mounted on circuit board).
8. **Alarm Fuse/Control Fuse** (mounted on circuit board).
9. **Float Status Indicator Lights** (mounted on circuit board).
10. **Float Switch Terminal Block** (mounted on circuit board).
11. **Input Power Terminal Block**
12. **Ground Lug**
13. **HOA Switches** for manual pump control (mounted on circuit board).

### STANDARD ALARM PACKAGE

14. **Control ON/OFF Switch** (mounted on circuit board).
15. **Red Alarm Beacon** provides 360° visual check of alarm condition.
16. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
17. **Exterior Alarm Test/Normal/Silence Switch** allows horn and light to be tested or horn to be silenced in an alarm condition. Horn automatically resets once alarm condition is cleared.

### FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Complete with step-by-step installation instructions
- Three-year limited warranty
- Thermal cutout/heat sensor auto reset (for pumps w/thermal switch leads)
- Auxiliary alarm contact, form C
- Main disconnect non-fused rotary style, mounted through door.
- Door mounted pump run indicator.



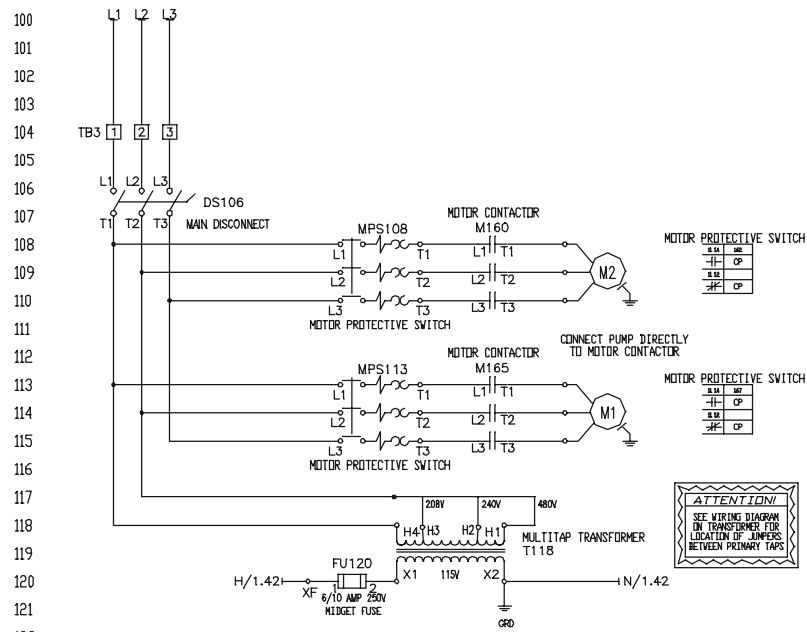
### OPTIONS

- 3A Alarm flasher
- ★ 4A Low level cutout - requires float
- ★ 4B Red low-level indicator & alarm *must select 4A*
- ★ 5E Seal failure circuit & red indicator (2 wire)
- 8A Elapsed time meter
- ★ 8C Event (cycle) counter
- 10A Clear inner swing-out door w/dead front (components mounted on inner door)
- 10E Lockable latch
- 10G Lightning arrestor
- 10K Anti-condensation heater
- 19G Panel wired to accept fourth control switch

# THREE PHASE - DUPLEX MODEL 322

**NOTES**

- PANEL SPECIFICATIONS:  
CONTROL/ALARM SECTION  
VOLTAGE: 120 VAC  
SEALING VOLTAGE: 25 V MAX  
PUMP CIRCUIT:  
LINE VOLTAGE: 208/240/480 VAC 3 PHASE
- DASHED LINES REPRESENT FIELD WIRING REQUIRED.
- CONNECT GROUND TERMINAL IN BOX TO A GOOD GROUND.



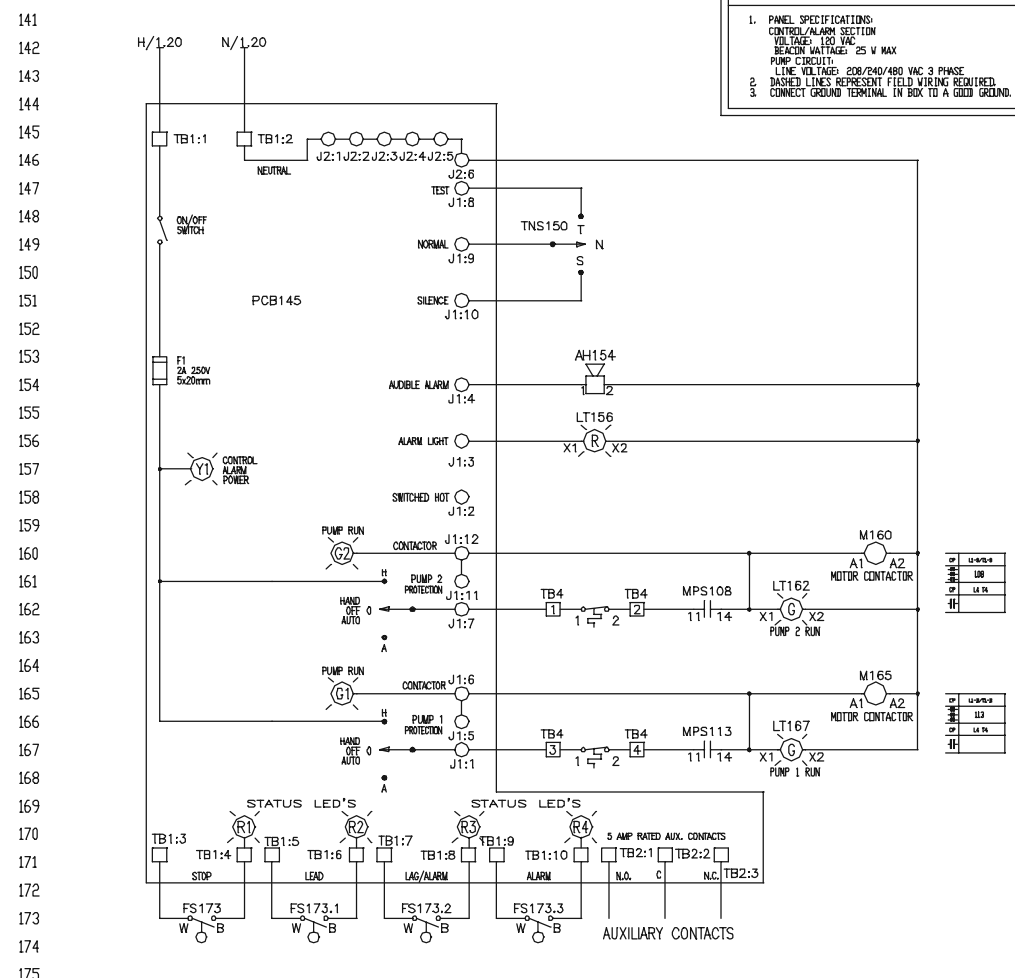
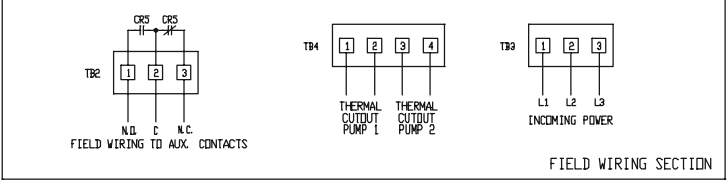
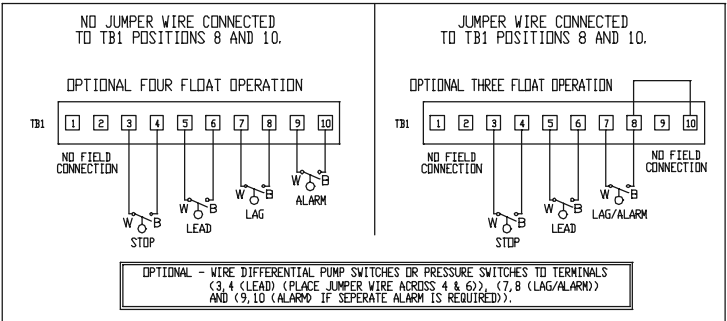
**MOTOR PROTECTIVE SWITCH**

|       |    |
|-------|----|
| STOP  | OP |
| LEAD  | OP |
| LAG   | OP |
| ALARM | OP |

**MOTOR PROTECTIVE SWITCH**

|       |    |
|-------|----|
| STOP  | OP |
| LEAD  | OP |
| LAG   | OP |
| ALARM | OP |

**ATTENTION!**  
SEE WIRING DIAGRAM ON TRANSFORMER FOR LOCATION OF JUMPERS BETWEEN PRIMARY TAPS



**MOTOR PROTECTIVE SWITCH**

|       |    |
|-------|----|
| STOP  | OP |
| LEAD  | OP |
| LAG   | OP |
| ALARM | OP |

**MOTOR PROTECTIVE SWITCH**

|       |    |
|-------|----|
| STOP  | OP |
| LEAD  | OP |
| LAG   | OP |
| ALARM | OP |

TEMPERATURE RATING OF FIELD INSTALLED CONDUCTORS MUST BE AT LEAST 140 DEG. F. (60 DEG. C.). TERMINAL STRIPS AND GROUND LUG WILL ACCEPT COPPER CONDUCTORS. TORQUE RATING OF TERMINAL STRIP CLAMPING SCREWS IS 16 IN/LBS FOR ALARM AND PUMP CONTROL SECTION AND 50 IN/LBS FOR GROUND LUG.

|   |     |     |      |     |      |      |      |      |      |            |           |      |
|---|-----|-----|------|-----|------|------|------|------|------|------------|-----------|------|
| REV   | ECO | NO. | DATE | DRN | APPD | CHKD | DATE | APPD | DATE | PROJCT NO. | QUOTE NO. | REV. |
|   |     |     |      |     |      |      |      |      |      | ARMG322L   | N/A       | A    |
| NOTICE: THIS DRAWING CONTAINS PROPRIETARY INFORMATION AND IT SHALL NOT BE USED OR REPRODUCED OR ITS CONTENTS DISCLOSED IN WHOLE OR IN PART, WITHOUT PRIOR WRITTEN CONSENT.        |     |     |      |     |      |      |      |      |      |            |           |      |
| DRN BY: CDY 8/1/00<br>CHKD BY: DPH 8/2/00<br>APPD BY: RMS 8/2/00<br>DEN NAME: ARMSTRONG<br>DEN P/N: N/A<br>PAGE: 1<br>SCALE: 1/1<br>DWG SIZE: 11x17<br>TITLE: 32218114K5SMA14B19X |     |     |      |     |      |      |      |      |      |            |           |      |

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