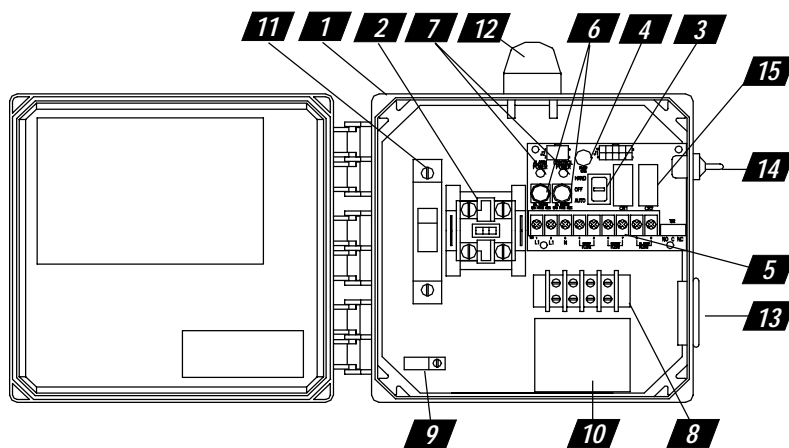


Job: _____	Representative: _____
_____	_____
_____	Order By: _____ Date: _____
Engineer: _____	Submitted By: _____ Date: _____
Contractor: _____	Approved By: _____ Date: _____

Single phase, duplex grinder capacitor start / run pump control.

The Model 123 control panels are designed to alternately control two 120, or 240 VAC single-phase pump in water and sewage installations. The alternating action equalizes pump wear. In addition to alternating pump control, these systems provide override control should either pump fail. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system. Common appliances include pump chambers and lift stations.



1. **Enclosure** measures 14 x 14 x 6 inches (40.64 x 5.56 x 15.24 cm). NEMA 4X (ultraviolet stabilized thermoplastic with removable flanges for outdoor or indoor use).
★Options selected may increase enclosure size and change component layout.
2. **IEC Motor Contactor** controls pump by switching electrical lines.
3. **HOA Switch** for manual pump control (mounted on circuit board).
4. **Alternating Circuit Board** provides pump control and alternation (U.S. Patent 5,909,352).
5. **Green Pump Run Indicator Light** (mounted on circuit board).
6. **Schematic Wiring Diagram**
7. **Incoming Pump Power Terminal Block / Pump Terminal Block**
8. **Circuit Breaker** provides pump disconnect and branch circuit protection.
9. **Control ON/OFF Switch** (mounted on circuit board)
10. **Ground Lugs**
11. **Float Status Indicator Lights** (mounted on circuit board).
12. **Control / Alarm Power Indicator Lights** (mounted on circuit board).
13. **Capacitor Start Module** - start/run capacitor kits.

STANDARD ALARM PACKAGE

14. **Red Alarm Beacon** provides 360° visual check of alarm condition.
15. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
16. **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
- Auxiliary alarm contact, form C type
- Door mounted pump run indicator



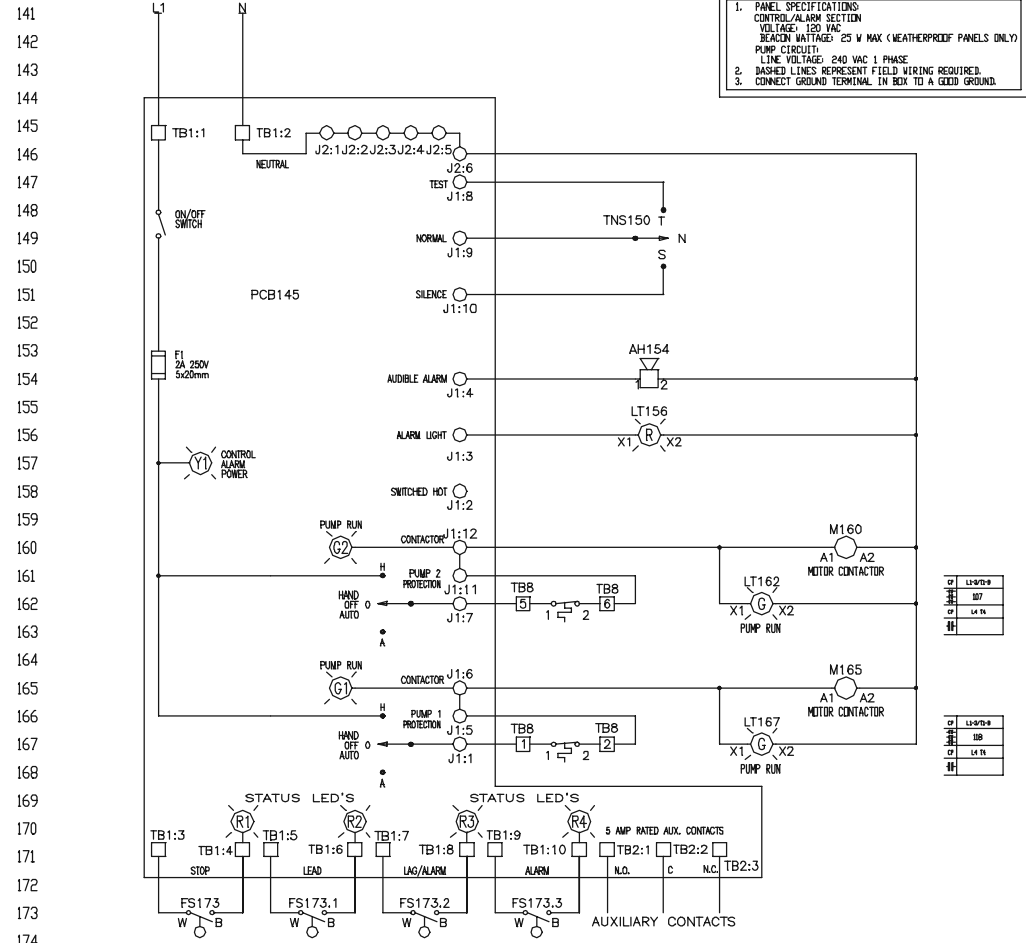
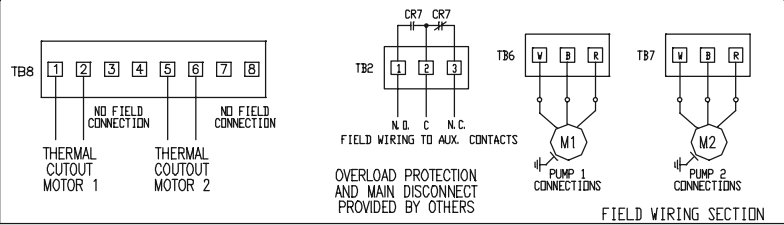
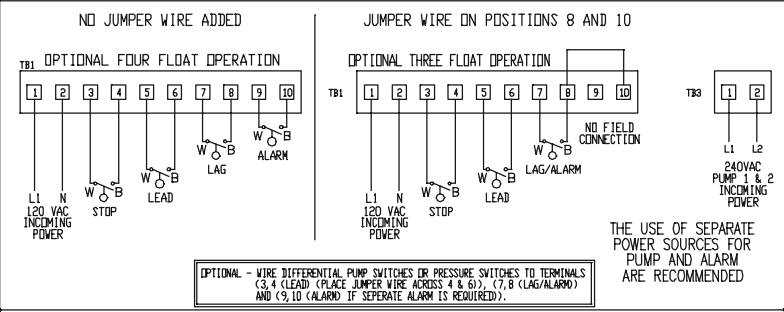
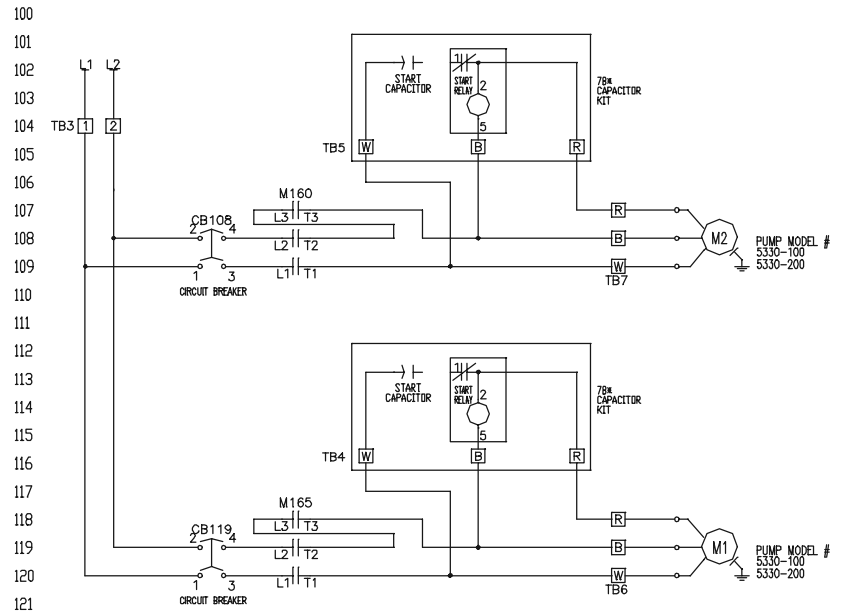
OPTIONS

- | | |
|--------------------------|---|
| <input type="checkbox"/> | 3A Alarm flasher |
| <input type="checkbox"/> | ★ 4A Low level cutout - requires float |
| <input type="checkbox"/> | ★ 4B Red low-level indicator & alarm
<i>must select 4A</i> |
| <input type="checkbox"/> | ★ 8A Elapsed time meter |
| <input type="checkbox"/> | ★ 8C Event (cycle) counter |
| <input type="checkbox"/> | 9A Pump overload |
| <input type="checkbox"/> | 10E Lockable latch |
| <input type="checkbox"/> | ★ 10F Lightning arrester |
| <input type="checkbox"/> | ★ 10K Anti-condensation heater |
| <input type="checkbox"/> | 19G Panel Wired for fourth control switch |

SINGLE PHASE - DUPLEX GRINDER MODEL 123

NOTES

- PANEL SPECIFICATIONS
CONTROL/ALARM SECTION
VOLTAGE: 120 VAC
BEACON VOLTAGE: 25 W MAX (WEATHERPROOF PANELS ONLY)
PUMP CIRCUIT
LINE VOLTAGE: 240 VAC 1 PHASE
- DASHED LINES REPRESENT FIELD WIRING REQUIRED.
- CONNECT GROUND TERMINAL IN BOX TO A GOOD GROUND.



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.

REF. CONTROL		EQU. NO.		DATE	DRWN	APP'D	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.		ARMSTRONG		PROJECT NO.	QUOTE NO.	REV.
				10/24/00	GDV	10/24/00					ARMG1231	N/A	A
					DRW P/N	SCALE	PAGE		1 of 1		1231(1)45566(1)9X78*		

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