

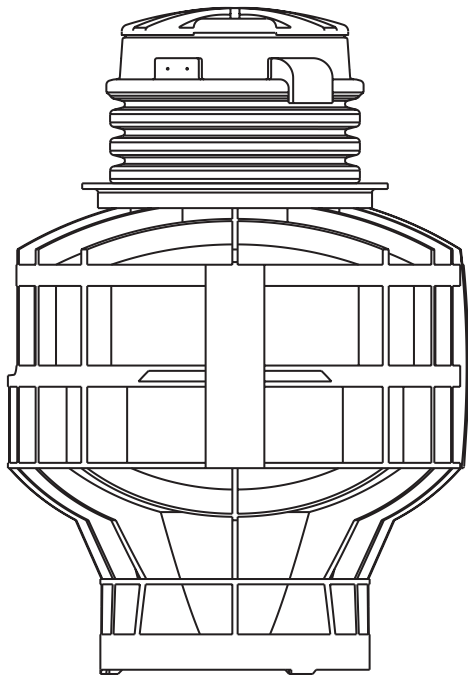
This product has been reviewed and approved by BHWSD for use as a grinder system for single family residential connections as an alternative to a STEP system. Installation of grinder and forcemain connection shall follow Clark Regional Wastewater District standards.

WH231/WR231

General Features

The model WH231 or WR231 grinder pump station is a complete unit that includes: the grinder pump, check valve, polyethylene tank, controls, and alarm panel. The lower portion of the tank has a smaller diameter, tapered down to a dish-shaped bottom. These design features reduce the retained volume and promote scouring, which will minimize odor and corrosiveness.

- Rated for flows of 850 gpd (3218 lpd)
- 237 gallons (874 liters) of capacity
- Standard outdoor heights range from 55 inches to 92 inches



The WH231 is the “hardwired,” or “wired,” model where a cable connects the motor controls to the level controls through watertight penetrations.

The WR231 is the “radio frequency identification” (RFID), or “wireless,” model that uses wireless technology to communicate between the level controls and the motor controls.

Operational Information

Motor

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections

4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections

Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

Discharge

15 gpm at 0 psig (0.95 lps at 0 m)
11 gpm at 40 psig (0.69 lps at 28 m)
7.8 gpm at 80 psig (0.49 lps at 56 m)

Accessories

E/One recommends that the Uni-Lateral, E/One’s own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

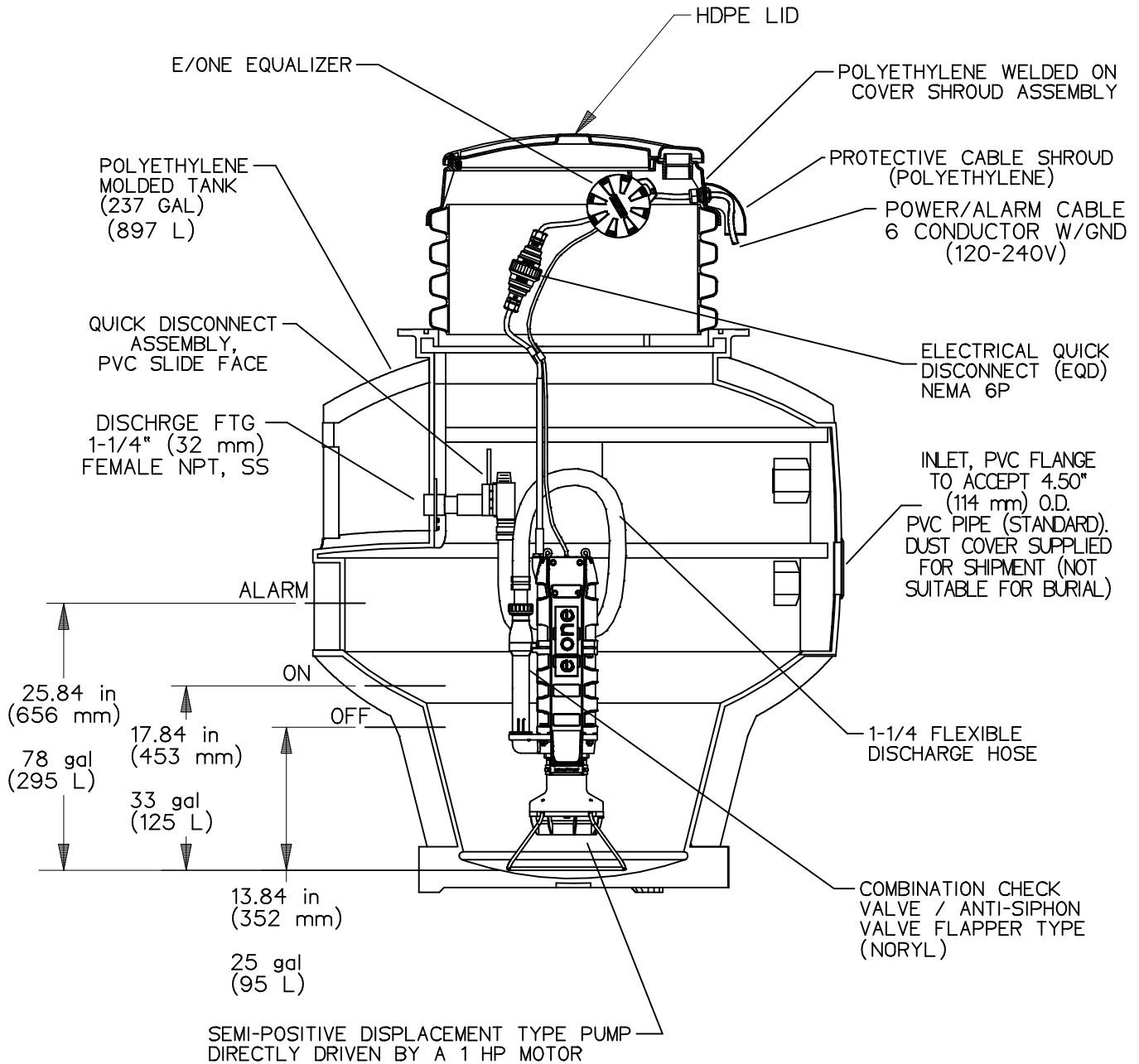
Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.

Patent Numbers: 5,752,315
5,562,254 5,439,180

NA0059P01 Rev B

OPTIONS : **WH231** (HARD WIRED LEVEL CONTROLS)
 WR231 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED
 SEE INSTALLATION INSTRUCTIONS
 FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

AD	SGS	12/23/10	F	
DR BY	CHK'D	DATE	ISSUE	SCALE



MODEL WH231 / WR231
 DETAIL SHEET

NA0059P02

E/One Sentry™

Alarm Panel — Protect Plus Package

Description

The E/One Sentry panels are custom designed for use with Environment One grinder pump stations. They can be configured to meet the needs of your application, from basic alarm indication to advanced warning of pending service requirements.

E/One Sentry panels are supplied with audible and visual high level alarms. They are easily installed in accordance with relevant national and local codes. Standard panels are approved by UL, CSA, CE and NSF to ensure high quality and safety.

The panel features a corrosion-proof, NEMA 4X-rated, thermoplastic enclosure. A padlock is provided to prevent unauthorized entry (safety front).



Standard Features

Includes all features of the basic configuration of the E/One Sentry panel, including circuit breakers, 240 or 120 VAC service, terminal blocks and ground lugs, audible alarm with manual silence, manual run feature and run indicator, redundant “Start” function with high level alarm, safety front, conformal-coated board and overload protection.

Includes all of the features of the E/One Sentry Protect package, including a Trouble indication that shuts down the pump temporarily in the event of an unacceptable operating condition (brownout, system overpressure, run dry), as well as:

Predictive status display module

Pre-alarm indication for major operating parameters

Alarm indications for major operating parameters

Hour meter, cycle counter and alarm delay

LCD display and user-friendly interface

Inner cover (dead front)

Contact group — dry and Remote Sentry

Optional Features

**OTHER
REQUIRED
FEATURES**

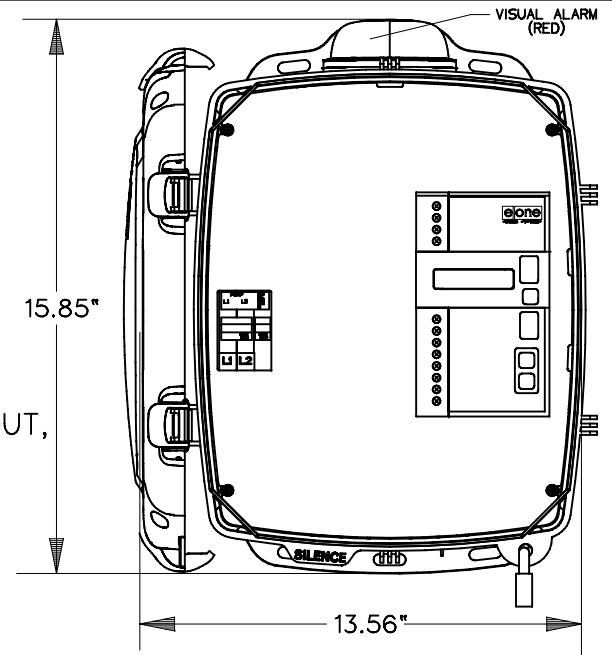
Generator receptacle with auto transfer
GFCI

Main service disconnect

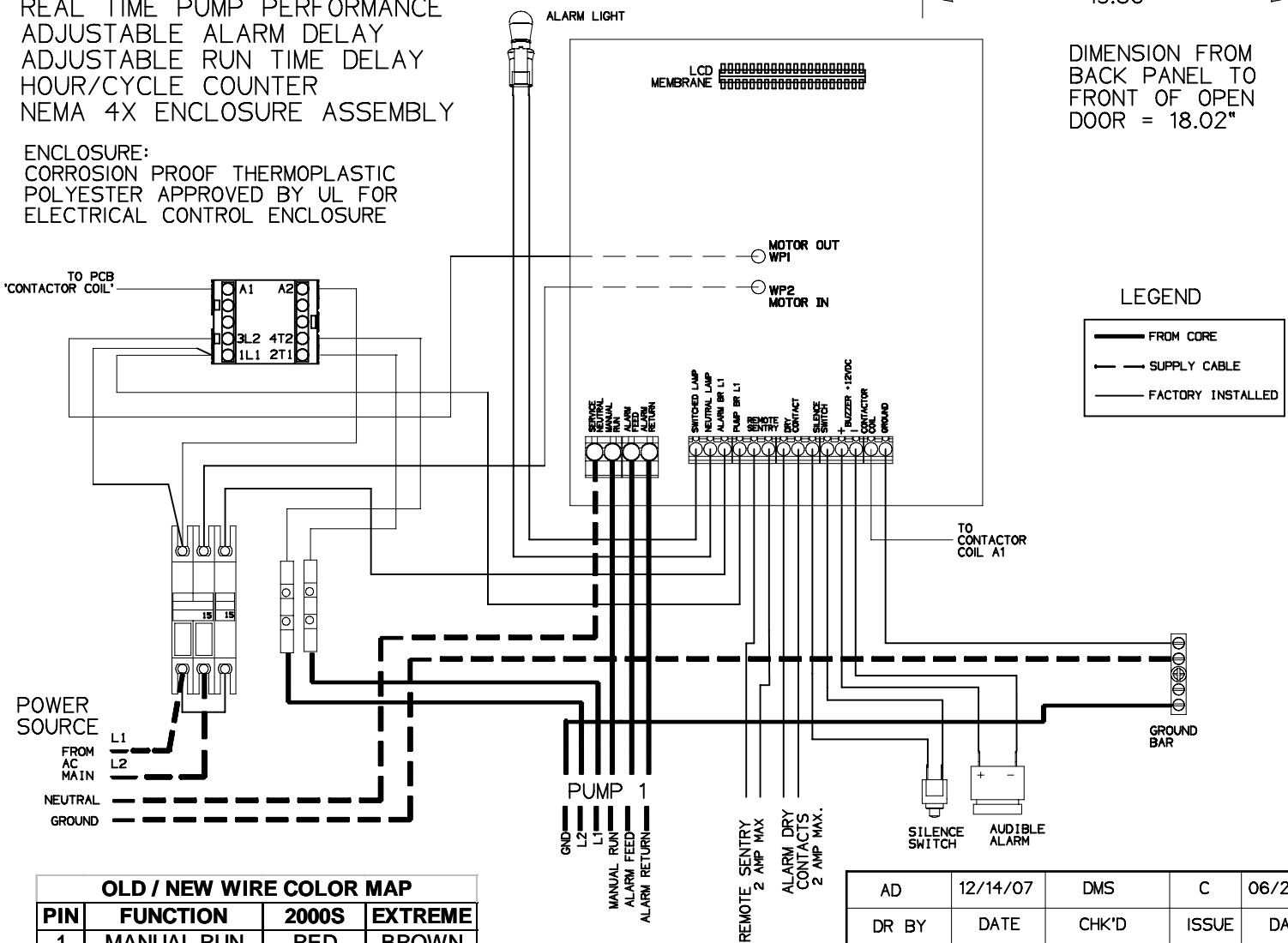
SENTRY PROTECT PLUS SIMPLEX

- REDUNDANT RUN (HIGH LEVEL)
- EXTERNAL VISUAL & AUDIBLE ALARM
- REMOTE SENTRY DRY CONTACTS FOR
- OPTIONAL POWER LOSS HIGH LEVEL
- ALARM (POWER LOSS ALARM FOR WIRELESS)
- MANUAL ALARM SILENCE
- MANUAL RUN
- STATUS LED'S: NORMAL, PUMP RUNNING, HIGH LEVEL
- TROUBLE INDICATIONS: RUN DRY, OVERPRESSURE, BROWNOUT,
- VOLTAGE, EXTENDED RUN TIME
- DRY CONTACTS
- CONFORMAL COATED CIRCUIT BOARD (BOTH SIDES)
- PADLOCK
- DEAD FRONT
- PREDICTIVE ALARMS
- REAL TIME PUMP PERFORMANCE
- ADJUSTABLE ALARM DELAY
- ADJUSTABLE RUN TIME DELAY
- HOURLY/CYCLE COUNTER
- NEMA 4X ENCLOSURE ASSEMBLY

ENCLOSURE:
CORROSION PROOF THERMOPLASTIC
POLYESTER APPROVED BY UL FOR
ELECTRICAL CONTROL ENCLOSURE



DIMENSION FROM
BACK PANEL TO
FRONT OF OPEN
DOOR = 18.02"



OLD / NEW WIRE COLOR MAP			
PIN	FUNCTION	2000S	EXTREME
1	MANUAL RUN	RED	BROWN
2	L1	BLACK	RED
3	L2	WHITE	BLACK
4	GND	GREEN	GRN/YEL
5	ALARM FEED	ORANGE	YELLOW
6	ALARM RETURN	BLUE	BLUE

CONTROL CABLE:
TYPE TC: DIRECT BURIAL,
SIX CONDUCTOR

AD	12/14/07	DMS	C	06/23/11
DR BY	DATE	CHK'D	ISSUE	DATE



SENTRY PROTECT PLUS PANEL, SIMPLEX
240V 60Hz DOUBLE POLE POWER

NA0079P03

SENTRY PROTECT PLUS SIMPLEX

REDUNDANT RUN (HIGH LEVEL)
EXTERNAL VISUAL & AUDIBLE ALARM
REMOTE SENTRY DRY CONTACTS FOR
OPTIONAL POWER LOSS HIGH LEVEL
ALARM (POWER LOSS ALARM FOR WIRELESS)

MANUAL ALARM SILENCE

MANUAL RUN

STATUS LED'S: NORMAL, PUMP RUNNING, HIGH LEVEL

TROUBLE INDICATIONS: RUN DRY, OVERPRESSURE, BROWNOUT,
VOLTAGE, EXTENDED RUN TIME

DRY CONTACTS

CONFORMAL COATED CIRCUIT BOARD (BOTH SIDES)

PADLOCK

DEAD FRONT

PREDICTIVE ALARMS

REAL TIME PUMP PERFORMANCE

ADJUSTABLE ALARM DELAY

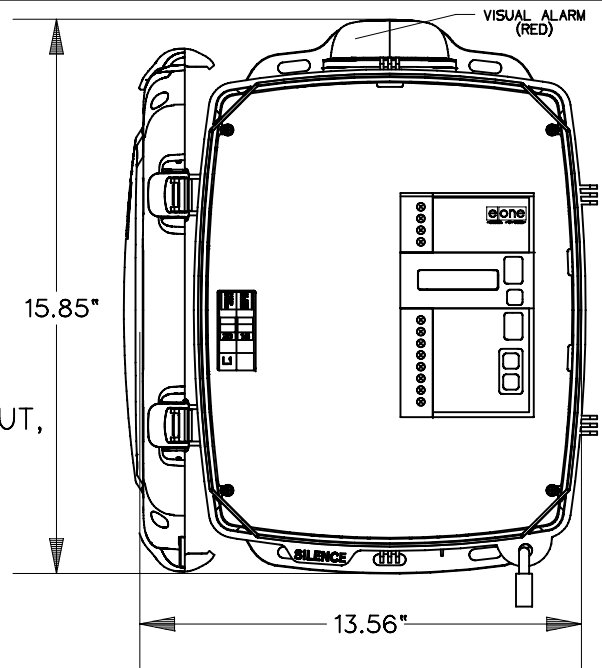
ADJUSTABLE RUN TIME DELAY

HOUR/CYCLE COUNTER

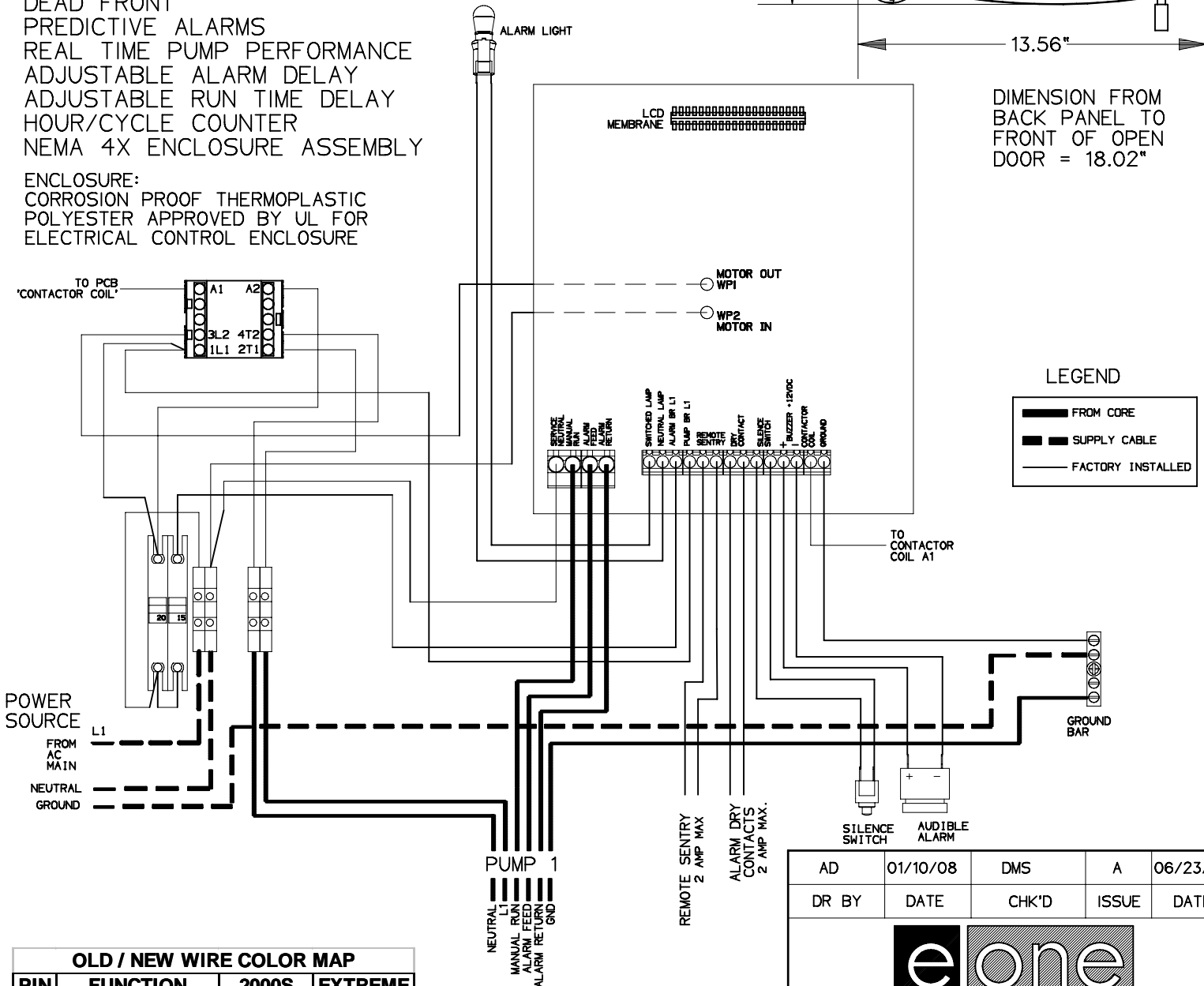
NEMA 4X ENCLOSURE ASSEMBLY

ENCLOSURE:

CORROSION PROOF THERMOPLASTIC
POLYESTER APPROVED BY UL FOR
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BACK PANEL TO
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DOOR = 18.02"



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6	ALARM RETURN	BLUE	BLUE

CONTROL CABLE:
TYPE TC: DIRECT BURIAL,
SIX CONDUCTOR

AD	01/10/08	DMS	A	06/23/11
DR BY	DATE	CHK'D	ISSUE	DATE



SENTRY PROTECT PLUS PANEL, SIMPLEX
120V SINGLE POLE POWER

NA0079P04