

DRAWING LIST

SHT	DESCRIPTION
1	TITLE SHEET.
2	ELECTRICAL OVERVIEW – ESO RELAY WIRING.
3	CONTROL PANEL FIELD WIRING – ESO RELAY WIRING.
4	CONTROL PANEL FIELD WIRING – COMPONENT CONNECTIONS.
5	DISPENSER SHUTDOWN RELAY CIRCUIT COMPONENTS.
6	DISPENSER SHUTDOWN RELAY CIRCUIT WIRING DIAGRAM.
7	GREEN MACHINE JUNCTION BOX FIELD WIRING DIAGRAM.
8	PRESSURE SENSOR WIRING DIAGRAM.
9	VACUUM PUMP MOTOR WIRING DIAGRAM.
10	WIRING CONNECTIONS.

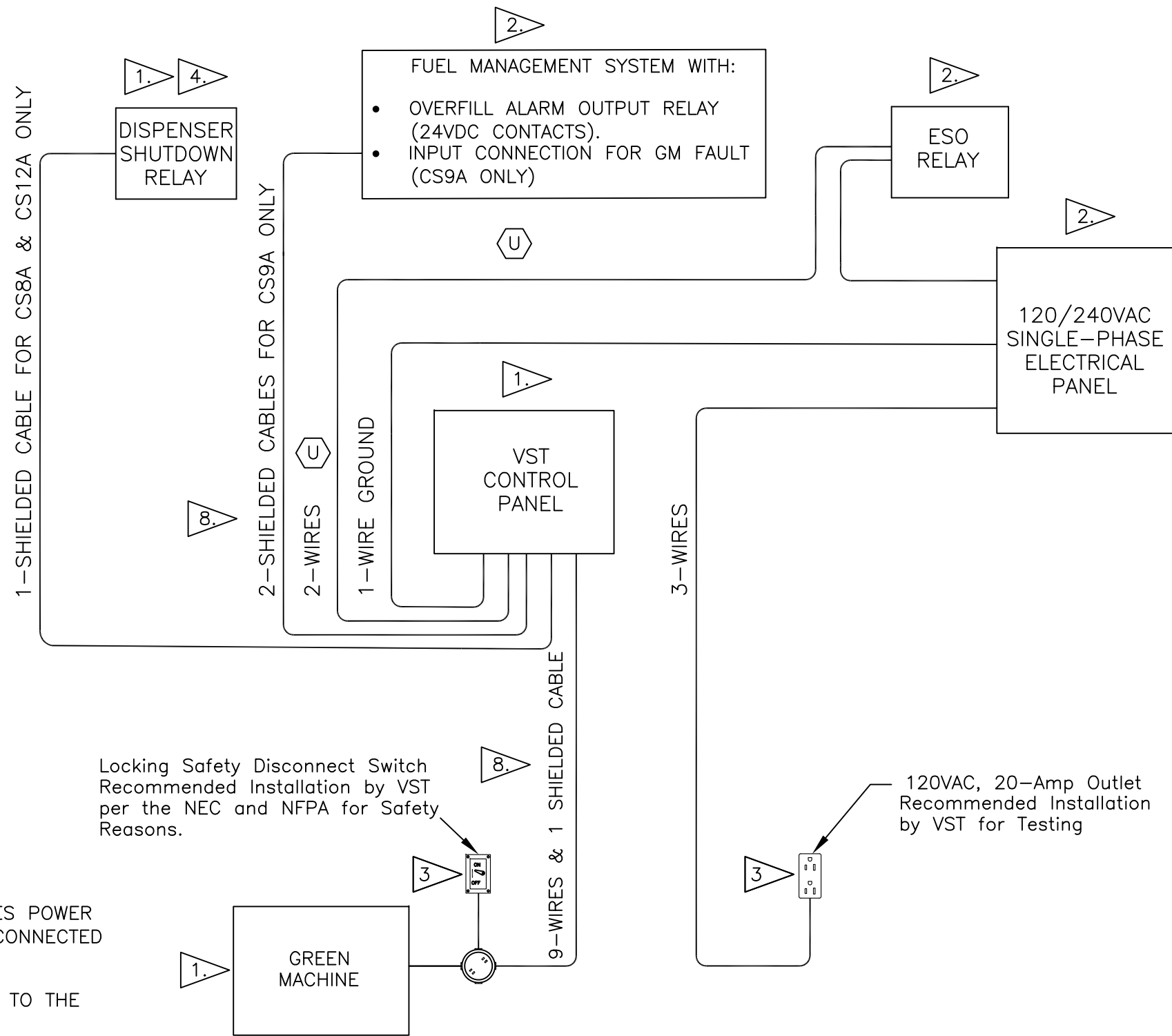
ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24	TITLE INSTALLATION DRAWING GREEN MACHINE – GEN 3	DWG NO. 5790-002	REV U
CHECKED BY R. GRANTHAM	DATE 10/31/24			
APPROVED BY G. WALKER	DATE 10/31/24			
 Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vsthose.com			THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	SHEET NO. 1 OF 10

FILENAME: 5790-002 TITLE: GREEN MACHINE – GEN 3 SCALE: N/A

NOTES:

- 1. ITEM(S) ARE SUPPLIED BY VST, INC.
- 2. ITEM(S) ARE EXISTING AT GDF SITE LOCATION.
- 3. ITEM(S) ARE SUPPLIED BY CONTRACTOR.
- 4. ITEM IS FOR CS8A AND CS12A GREEN MACHINES ONLY.
- 5. THE STATION EMERGENCY SHUT-OFF (ESO) RELAY SUPPLIES POWER TO THE VST CONTROL PANEL 3-WIRES). GROUND TO BE CONNECTED AT MAIN PANEL TO MINIMIZE ELECTRICAL INTERFERENCE.
- 6. THE ESO RELAY, WHEN ACTIVATED, WILL TURN OFF POWER TO THE VST CONTROL PANEL.
- 7. THE OVERFILL OUTPUT RELAY WILL TURN OFF THE GREEN MACHINE WHEN AN OVERFILL OCCURS (2-WIRES).
- 8. THE SHIELDED CABLE IS A BELDEN 88760 (OR EQUIVALENT) 18AWG STRANDED (19X30) TC CONDUCTORS, PLENUM, FEP INSULATION, TWISTED PAIR, OVERALL BELDFOIL SHIELD (100% COVERAGE), 20AWG STRANDED TC DRAIN WIRE, FEP JACKET.



Locking Safety Disconnect Switch
Recommended Installation by VST
per the NEC and NFPA for Safety
Reasons.

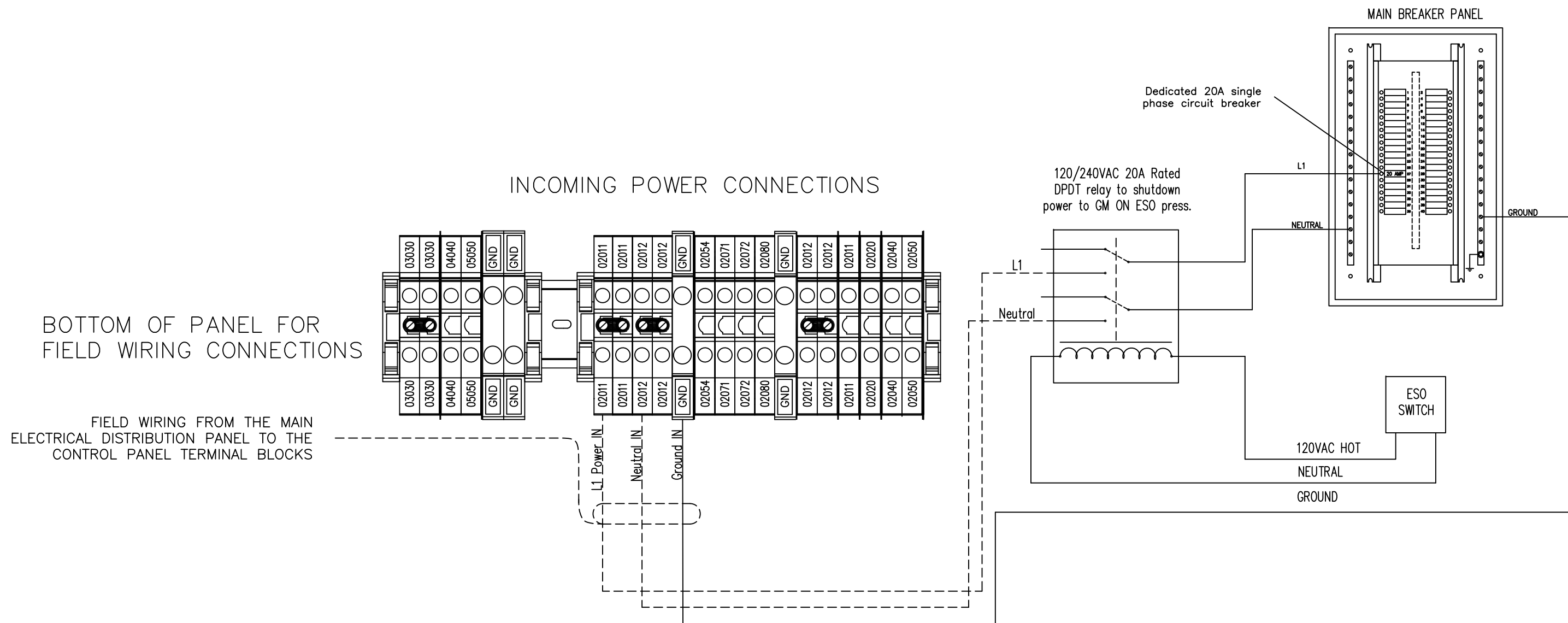
120VAC, 20-Amp Outlet
Recommended Installation
by VST for Testing

ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24
CHECKED BY R. GRANTHAM	DATE 10/31/24
APPROVED BY G. WALKER	DATE 10/31/24

TITLE INSTALLATION DRAWING GREEN MACHINE - GEN 3
VST Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com

DWG NO. 5790-002	REV U
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	
SHEET NO. 2 OF 10	



ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24
CHECKED BY R. GRANTHAM	DATE 10/31/24
APPROVED BY G. WALKER	DATE 10/31/24

TITLE
INSTALLATION DRAWING GREEN MACHINE – GEN 3
Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com

DWG NO.	REV	SHEET NO.
5790-002	U	3 OF 10

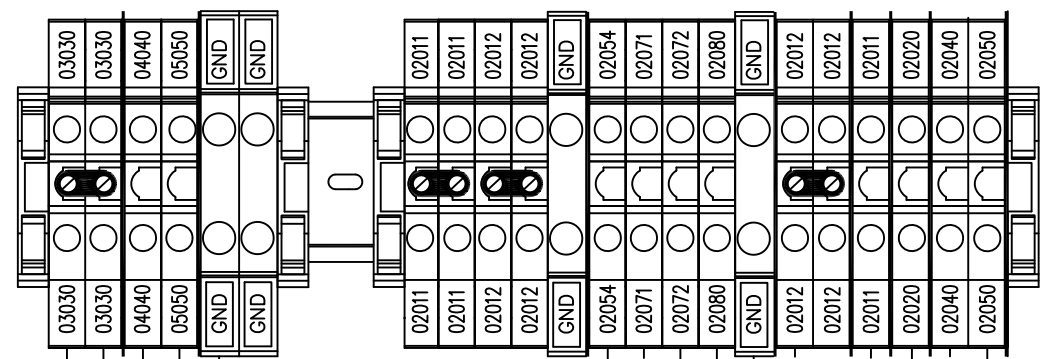
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.

FILENAME: 5790-002 TITLE: GREEN MACHINE – GEN 3 SCALE: N/A

CONTROL PANEL CONNECTIONS

CONNECTING

- * GREEN MACHINE INTERNAL JUNCTION BOX
- * PRESSURE SENSOR
- * SAFETY DISCONNECT SWITCH
- * OVERFILL ALARM RELAY
- * 72-HOUR STATION SHUTDOWN ALARM RELAY
- * GM FAULT



FIELD WIRING FROM THE CONTROL PANEL TERMINAL BLOCKS

INSIDE THE DATA HUT FIELD WIRING CONNECTIONS

GM FAULT WIRING CONNECTIONS FOR TLS (CS9A ONLY)

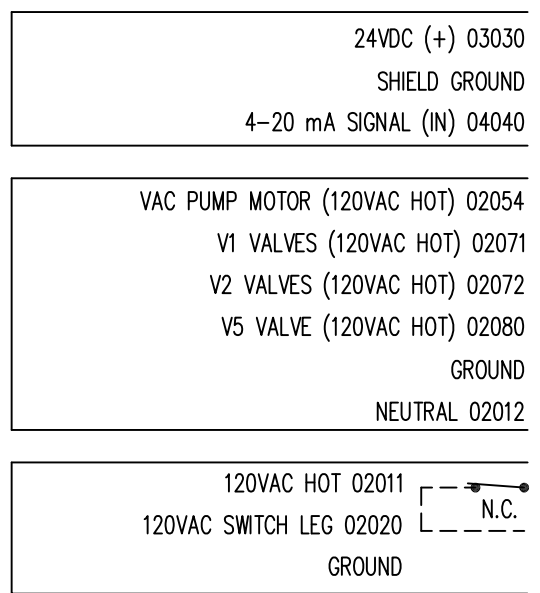
AT THE GREEN MACHINE FIELD WIRING CONNECTIONS

SHIELDED CABLE
GROUND SHIELD AT GM CONTROL PANEL SIDE

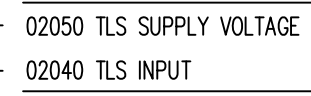
PRESSURE SENSOR CABLE

GREEN MACHINE INTERNAL JUNCTION BOX

SAFETY DISCONNECT ON/OFF SWITCH (LOCATED AT GM)

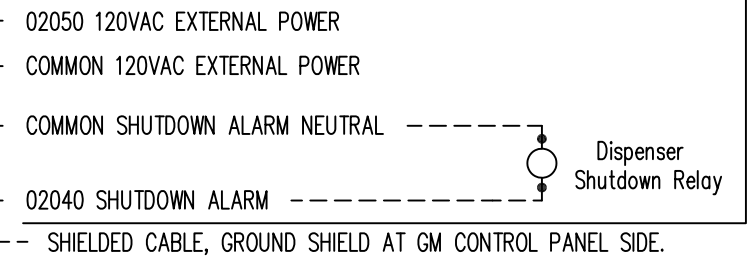


SHIELDED CABLE, GROUND SHIELD AT TLS SIDE.



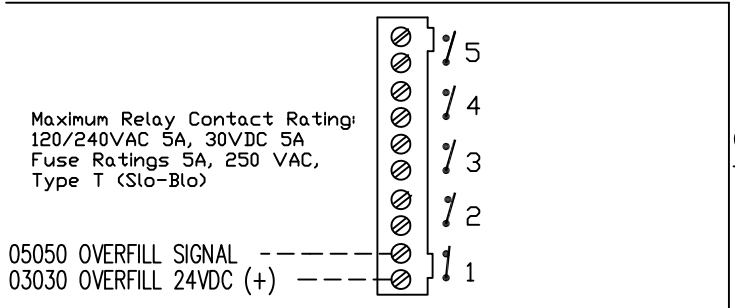
- OR -

DISPENSER SHUTDOWN RELAY WIRING (CS8A & CS12A ONLY)



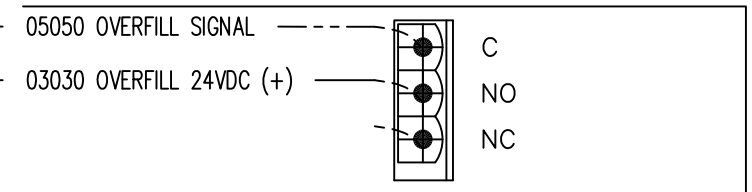
SUBMERSIBLE TURBINE PUMPS DISPENSER SHUTDOWN RELAY COIL (HOOK RELAY)

OVERFILL FIELD WIRING CONNECTIONS



OVERFILL ALARM RELAY, TYPE 1, TLS-450 Plus

- OR -



OVERFILL ALARM RELAY, TYPE 2, TLS-350 OR EQUIVLENT 4-RELAY MODULE

SHIELDED CABLE, GROUND SHIELD AT GM CONTROL PANEL SIDE.

SHIELDED CABLE, GROUND SHIELD AT GM CONTROL PANEL SIDE.



DRAWN BY P. ELAM	DATE 10/31/24
CHECKED BY R. GRANTHAM	DATE 10/31/24
APPROVED BY G. WALKER	DATE 10/31/24

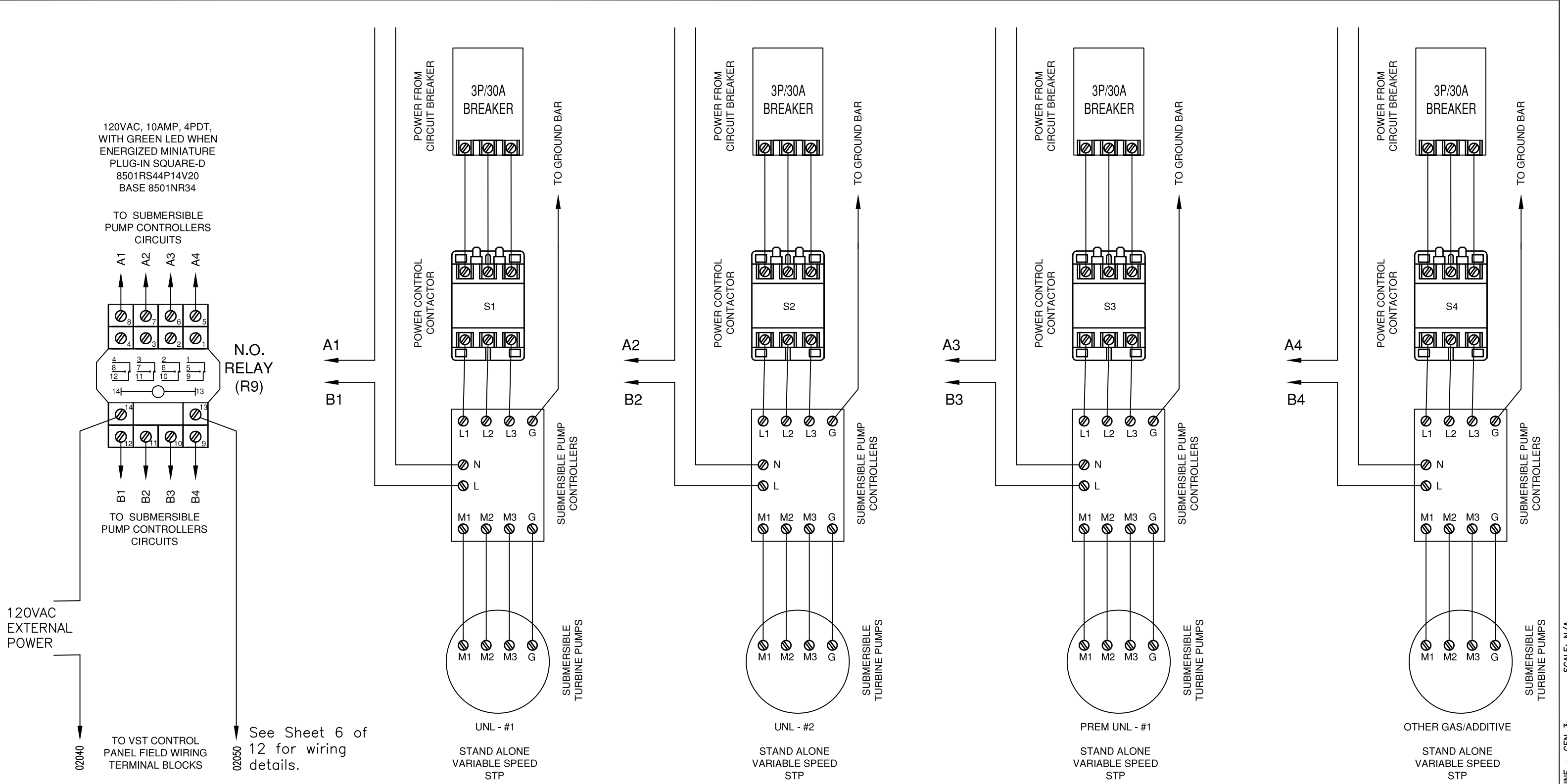
TITLE
**INSTALLATION DRAWING
GREEN MACHINE - GEN 3**

Vapor Systems Technologies, Inc.
Springboro, Ohio 45066 www.vstthose.com

DWG NO. 5790-002	REV U
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	
SHEET NO. 4 OF 10	

ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

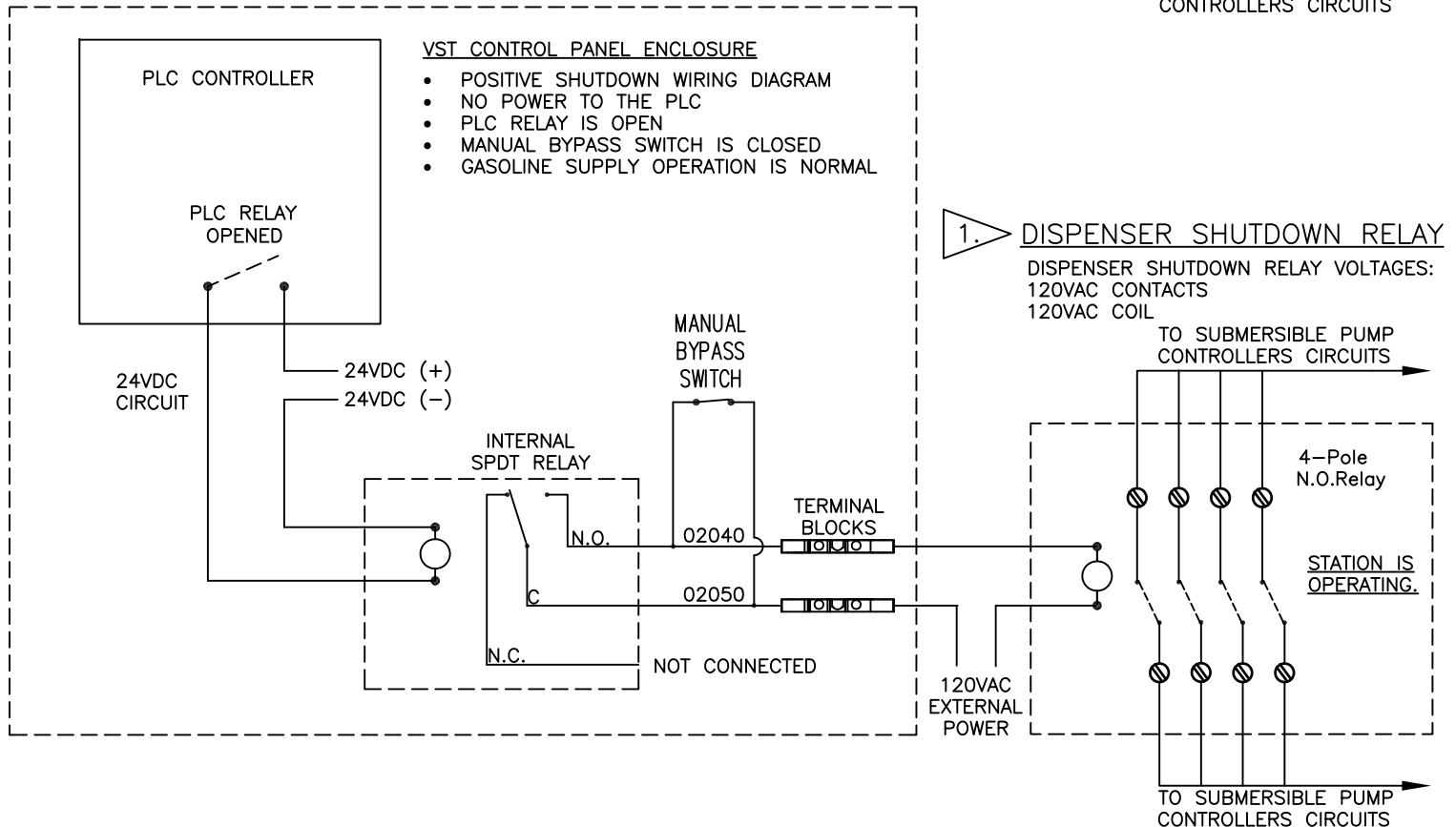
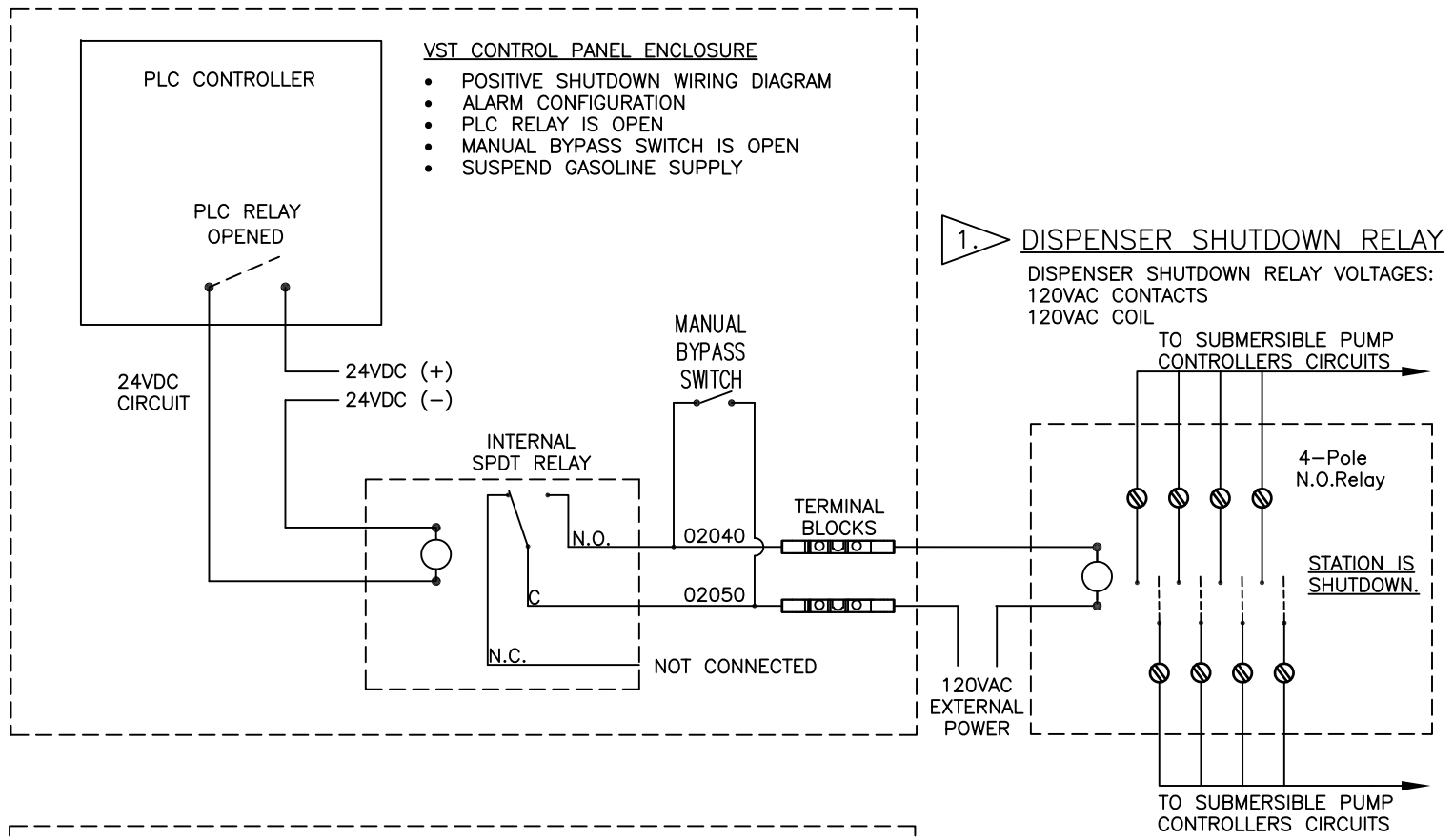
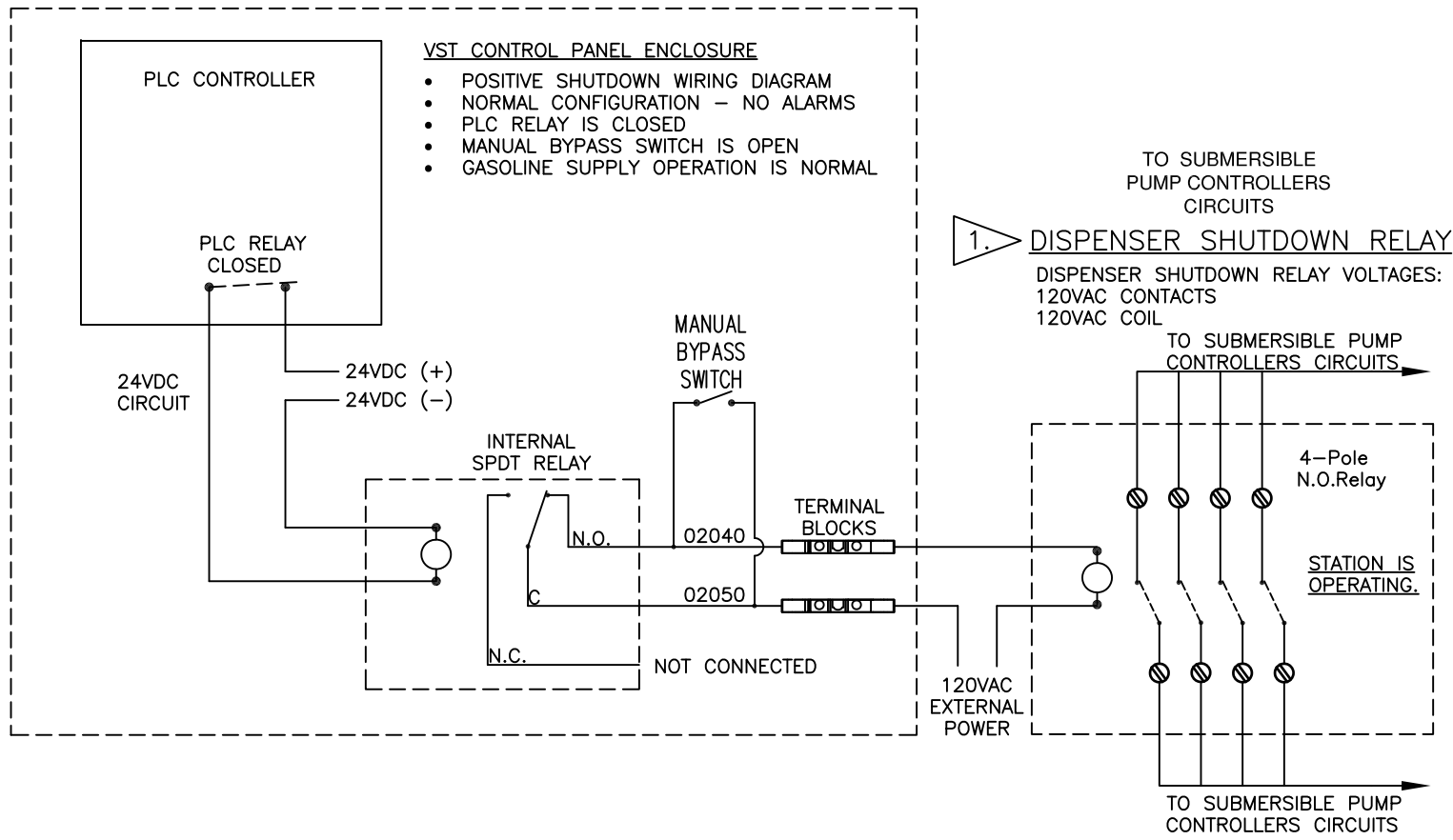
SCALE: N/A
TITLE: GREEN MACHINE - GEN 3
FILENAME: 5790-002



1. DISPENSER SHUTDOWN RELAY

- NOTES:
- 1. ITEM IS FOR CS8A and CS12A GREEN MACHINES ONLY.

ECN	DESCRIPTION	RELEASED	DRAWN BY	DATE	TITLE	DWG. NO.	REV
2582	PER EC	11/12/24	P. ELAM	10/31/24	INSTALLATION DRAWING GREEN MACHINE - GEN 3	5790-002	U
			CHECKED BY	DATE			
			R. GRANTHAM	10/31/24			
			APPROVED BY	DATE	Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com		SHEET NO.
			G. WALKER	10/31/24			



Positive shutdown wiring diagram. Turning OFF power to the VST Control Panel will disable fueling. Splice into the dispenser shutoff signal after all other wiring to the vst control panel is complete and is fully functional. test the dispenser shutoff relay control before connecting dispenser shutoff wires to the dispenser shutoff relay.

if the VST Control Panel loses power, the bypass switch can closed to keep the station operational.

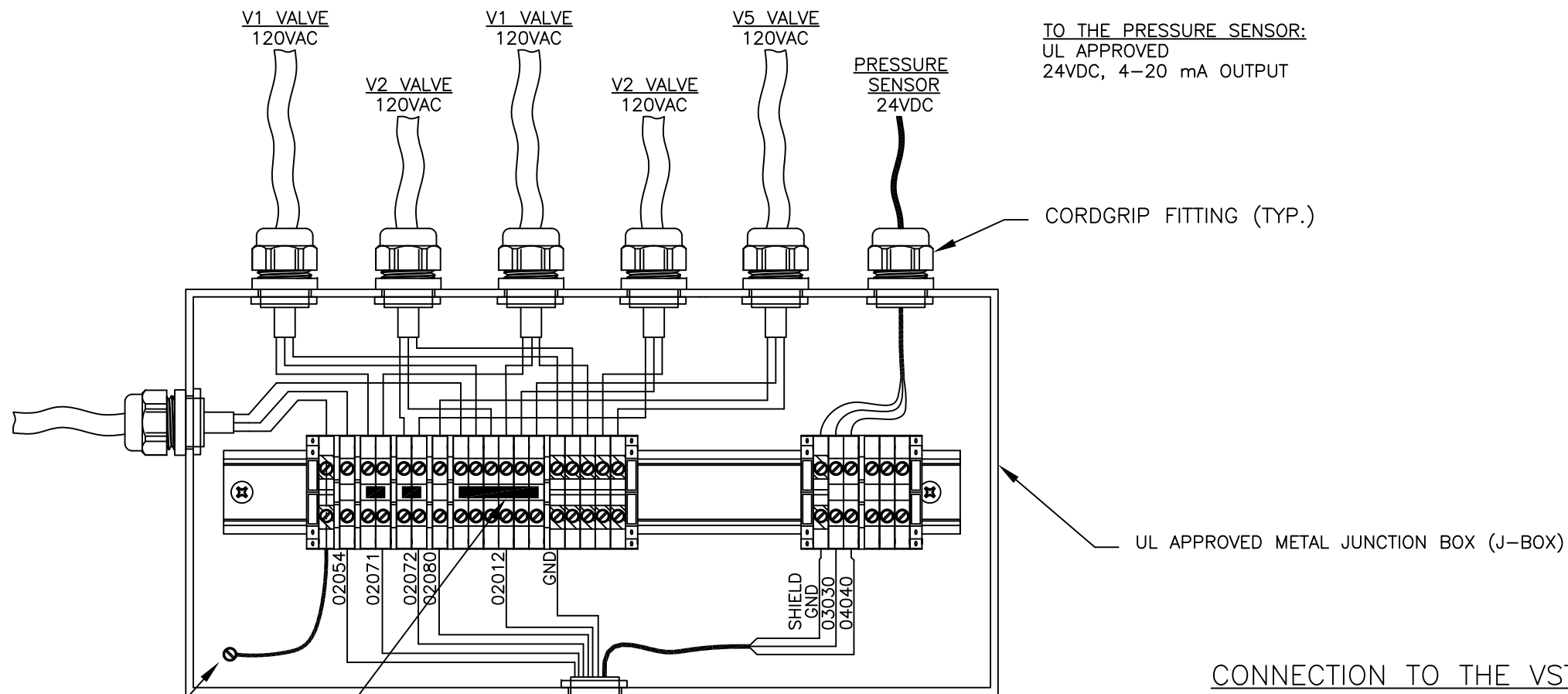
NOTES:
 1. ITEM IS FOR CS8A AND CS12A GREEN MACHINES ONLY.

ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24	TITLE INSTALLATION DRAWING GREEN MACHINE – GEN 3	DWG NO. 5790-002	REV U
CHECKED BY R. GRANTHAM	DATE 10/31/24		SHEET NO. 6 OF 10	
APPROVED BY G. WALKER	DATE 10/31/24		 Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com  THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	

SCALE: N/A
TITLE: GREEN MACHINE – GEN 3
FILENAME: 5790-002

TO THE VACUUM PUMP MOTOR
UL APPROVED CLASS 1, DIV. II
120VAC, 1Ø, 60Hz, 1/2Hp



TO THE PRESSURE SENSOR:
UL APPROVED
24VDC, 4-20 mA OUTPUT

CORDGRIP FITTING (TYP.)

UL APPROVED METAL JUNCTION BOX (J-BOX)

CONNECTION TO THE VST CONTROL PANEL

- 02054 VACUUM PUMP MOTOR POWER (L1)
- 02071 V1 CONTROL VALVES POWER (L2)
- 02072 V2 CONTROL VALVES POWER (L3)
- 02080 V5 CONTROL VALVE POWER (L4)
- 02012 NEUTRAL
- GND GROUND

EQUIPMENT GROUND

TERMINAL BLOCK
JUMPER (TYP.)

3/4" LIQUIDTIGHT CONDUIT FROM
THE 3/4" CONDUIT FITTING ON THE
GREEN MACHINE INLET CONNECTION

PRESSURE SENSOR CABLE:

- 03030 SHIELD GROUND
- 24VDC (+)
- 04040 4-20 mA SIGNAL (IN)

2. 2 CONDUCTOR, 18AWG, TWISTED PAIR, SHIELDED.
(SEE THE INSTALLATION MANUAL FOR DETAILS)

1. ALL CONNECTING WIRES AND THE PS
SENSOR CABLE ARE PROVIDED BY THE
CONTRACTOR.

2. BELDEN 88760 (OR EQUIVALENT).

3. SEE THE GREEN MACHINE INSTALLATION
AND MAINTENANCE MANUAL FOR DETAILS.

4. ALL FIELD WIRING MUST MEET THE NEC
AND NFPA CODE REQUIREMENTS.

5. GROUND SHIELD DRAIN WIRE AT GM
CONTROL PANEL.



DRAWN BY P. ELAM	DATE 10/31/24
CHECKED BY R. GRANTHAM	DATE 10/31/24
APPROVED BY G. WALKER	DATE 10/31/24

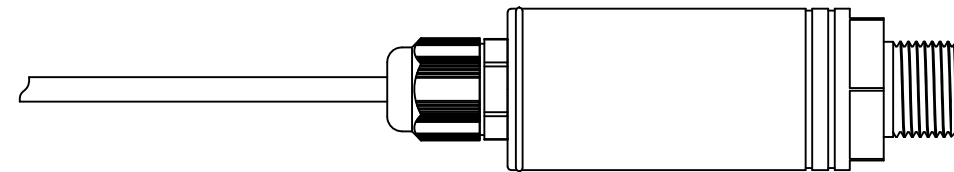
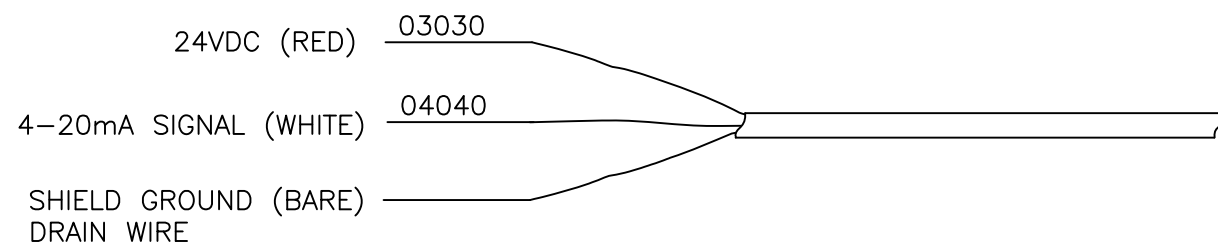
TITLE
**INSTALLATION DRAWING
GREEN MACHINE - GEN 3**

VST Vapor Systems Technologies, Inc.
Springboro, Ohio 45066 www.vstthose.com


DWG NO. 5790-002	REV U
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	
SHEET NO. 7 OF 10	

ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

SCALE: N/A
TITLE: GREEN MACHINE - GEN 3
FILENAME: 5790-002



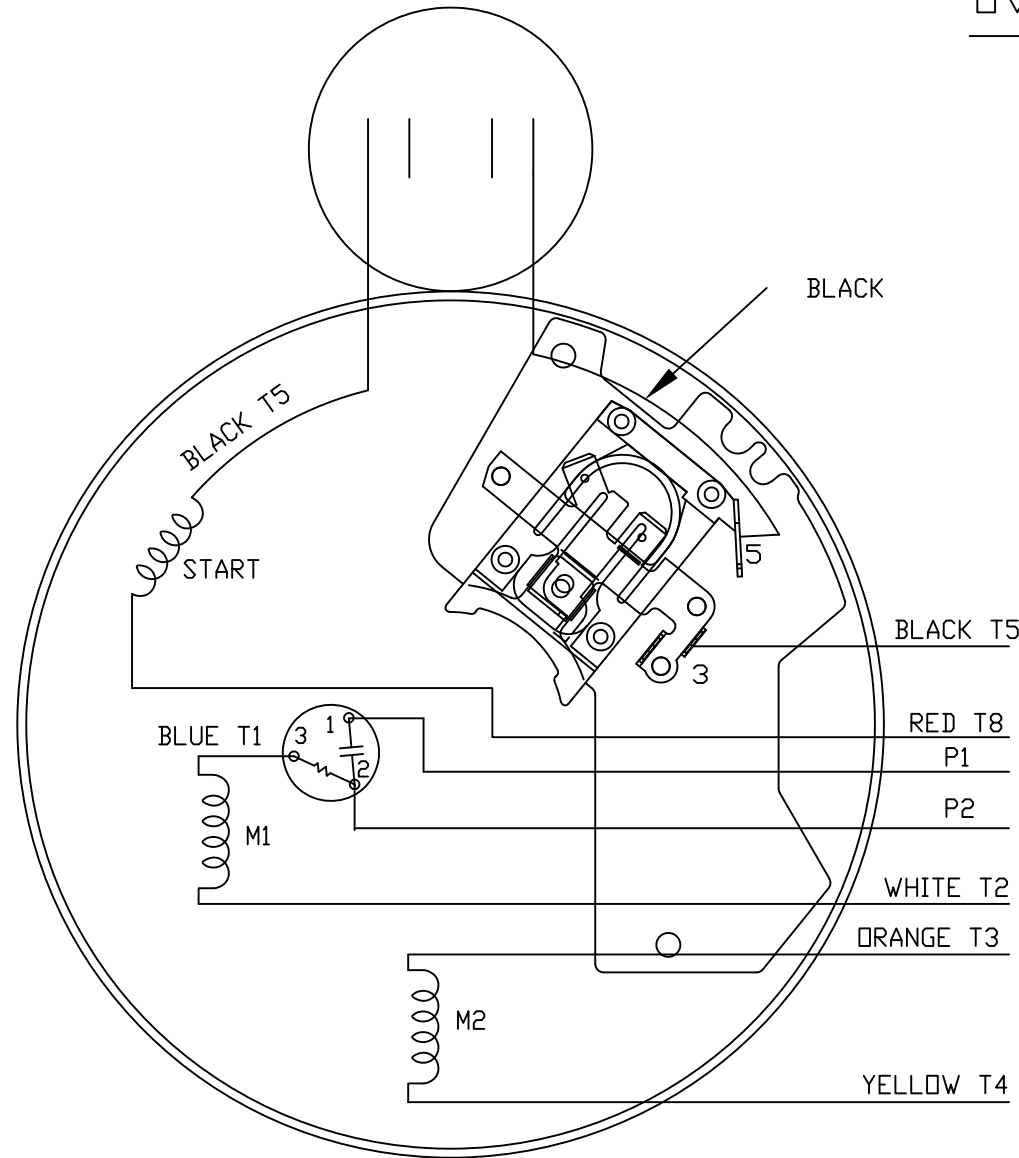
ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24	TITLE INSTALLATION DRAWING GREEN MACHINE - GEN 3	DWG NO. 5790-002	REV U
CHECKED BY R. GRANTHAM	DATE 10/31/24			
APPROVED BY G. WALKER	DATE 10/31/24			
 Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vsthose.com		 3RD ANGLE PROJECTION	THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	SHEET NO. 8 OF 10

FILENAME: 5790-002 TITLE: GREEN MACHINE - GEN 3 SCALE: N/A

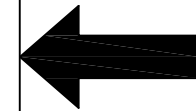
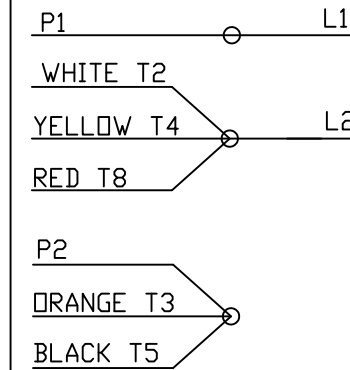
THERMALLY PROTECTED

DUAL VOLTAGE
CAPACITOR START
OVERLOAD SELECT ROT.



NORMAL ROTATION FOR GM IS C.W.

LOW VOLT. - C.W. ROTATION.



CAUTION:

FOR GREEN MACHINE WIRING MOTOR REPLACEMENT.

			TOLERANCES UNLESS SPECIFIED		ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN
			DEC.	INCHES		CHK
			.X	±.1		APPD
			.XX	±.02		SCALE 5=8
			.XXX	±.005		REF
			.XXXX	±.0005	MAT'L.	FMF
NO.	REVISION	BY & DATE	CHK	ANG ± 7'30"	FINISH	PREV
			RFP	CAD FILE		SIZE
			DIST			DRAWING NO. PAGE OF REV.
					A	1

DRAWN BY	DATE
P. ELAM	10/31/24
CHECKED BY	DATE
R. GRANTHAM	10/31/24
APPROVED BY	DATE
G. WALKER	10/31/24

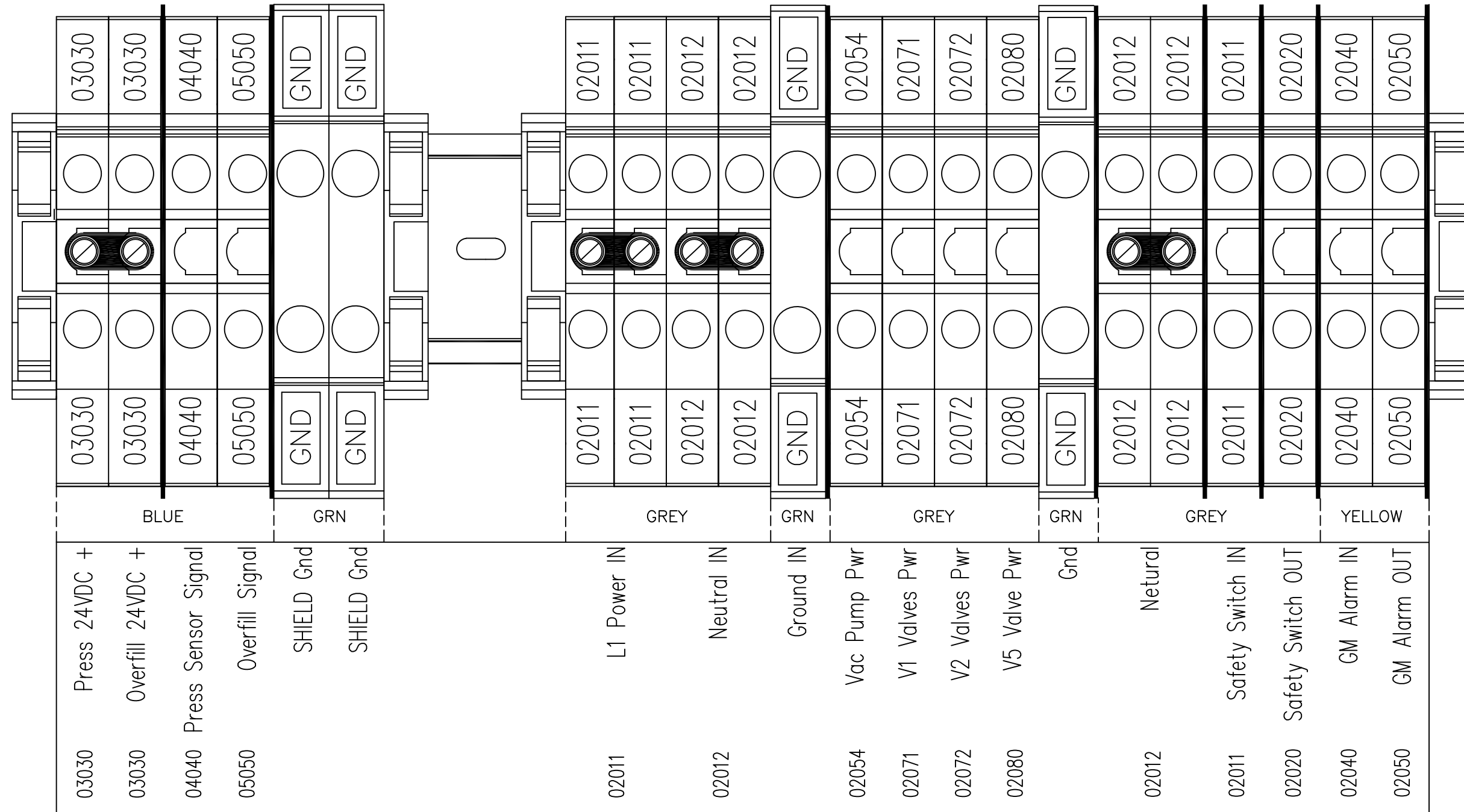
TITLE	DWG NO.
INSTALLATION DRAWING GREEN MACHINE - GEN 3	5790-002
Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com	

REV	SHEET NO.
U	9 of 10
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	

ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

SCALE: N/A
TITLE: GREEN MACHINE - GEN 3
FILENAME: 5790-002

CONTROL PANEL WIRING CONNECTIONS

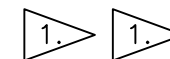


NOTE:

1. ITEM IS FOR CS8A, CS9A, AND CS12A GREEN MACHINES ONLY.



FIELD WIRING CONNECTIONS



ECN	DESCRIPTION	RELEASED
2582	PER EC	11/12/24

DRAWN BY P. ELAM	DATE 10/31/24
CHECKED BY R. GRANTHAM	DATE 10/31/24
APPROVED BY G. WALKER	DATE 10/31/24

TITLE INSTALLATION DRAWING GREEN MACHINE - GEN 3
Vapor Systems Technologies, Inc. Springboro, Ohio 45066 www.vstthose.com

DWG NO. 5790-002	REV U
THE INFORMATION ON THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT MAY BE USED ONLY FOR THE PURPOSE FOR WHICH VAPOR SYSTEMS TECHNOLOGIES, INC. PROVIDED IT.	SHEET NO. 10 OF 10