



Safety Procedures

**WARNING**



Dangerous environment.  
Highly flammable/explosive fuels and high voltage are present.

Failure to observe all safety precautions could result in serious injury or death.

Observe all safety precautions as outlined in Gilbarco® manuals.

Installation Procedures

1.

Install a single EMERGENCY POWER CUTOFF control to remove AC power from the site dispensing the equipment.  
*Note: The control is an additional safety feature, and not a substitute for National Electrical Code (NEC®)/National Fire Protection Association (NFPA) 30 circuit breaker requirements. Label the EMERGENCY POWER CUTOFF switch and instruct the owner to keep the area clear of obstacles.*
2.

Connect an insulated grounding conductor from the dispenser power panel to the site grounding electrode (size per NEC).
3.

Install power breakers to each circuit leading to the dispensing unit and Submersible Turbine Pump (STP) also. They must be capable of simultaneously disconnecting hot and neutral conductors.  
*Note: In Canada, switching neutral is contrary to the Canadian Electrical Code (CEC), reference part 1, rule 14-014.*
4.

Only field wiring connections are shown in the Junction Boxes (J-boxes). Cap all unused wires. Local and NECs may apply.
5.

Install conduit per NEC for hazardous locations. Potting is required for conduit that passes within any portion of a hazardous vapor area to ensure vapor barrier integrity.
6.

Wires - All wires are 14 American Wire Gauge (AWG) copper stranded unless otherwise noted. Power loading and distance run may require larger wire size. Wire all circuits NEC Class 1, except wiring to speaker (intercom) and call button, which must be NEC Class 2. Gilbarco two-wire is NEC Class 1 and may share the main power conduit.

7.

Two-wire Communication Wiring: For installations with 'new' wiring, use Unshielded Twisted Pair (UTP) data wires. Shielded wire must not be used.  
Wiring Specifications: Two-wire twisted pair with 10 to 12 twists per foot, stranded annealed copper tinned with 18 AWG minimum required for runs up to 1000 feet or 14 AWG minimum for runs up to 2600 feet. Do not daisy chain communications wiring.  
Insulation Specifications: PVC insulation of type Thermoplastic Flexible Fixture Wire Nylon Jacketed (TFFN) or Machine Tool Wire (MTW), Underwriters Laboratories (UL®)-approved gasoline and oil-resistant. Reference C&M Corporation Part # 27525 (18 AWG) 105C or equivalent. Refer to *MDE-3802 Encore® and Eclipse® Site Preparation Manual* requirements where 14 AWG may be required.
8.

Consult manufacturer specifications for wire nuts to determine the maximum number of wires and wires sizes that may be used per nut.
9.

Do not provide service loops or leave excess wire in electronics cabinet. Cut all wire lengths to a size sufficient to reach termination without stress or excess. Dress all wires neatly along surfaces so that they do not obstruct access to terminations and devices.
10.

For U.S. 240 V installations, wires labeled 'HOT' are to be connected to L1 and wires labeled 'NEUTRAL' are to be connected to L2.
11.

For three-phase systems, make appropriate connections to AC Hot and Return service. Motors must rotate counterclockwise.

Electrical Rating

Includes all options except valance lights.

12.0 AMP @ 120 VAC 60 Hz.  
6.0 AMP @ 240 VAC 50 Hz.







Use one 15 AMP breaker per dispenser to power electronics and ensure proper lockout and tagout.

Gilbarco requires valance lights be placed on a separate 15 AMP breaker.

Reference Manuals

*MDE-2755 STP Control and Dispenser Isolation Relay Box (PA0287)*  
*MDE-3116 Distribution Box PA0306 Installation Instructions*  
*MDE-3802 Encore and Eclipse Site Preparation Manual*  
*MDE-3804 Encore and Eclipse Start-up/Service Manual*  
*MDE-3985 Encore Installation Manual*

**Symbols Chart**

Wire Nut	
Earth Ground Screw Terminal	
Earth Ground	
No Connection	
Connection	
Crimp Connector	

**Wire Color Chart**

Black	B
Brown	BR
Red	R
Orange	OR
Yellow	Y
Green	GN
Blue	BU
Violet	V
Gray	GY
White	W
White Black	WB
White Red	WR

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3	Encore 550 Self Contained Pump, Single-phase Motor, 115/120 VAC, and 220/230 VAC
4	Encore 550 Self Contained Pump, 3-phase 115/120 VAC, and 220/230 VAC
5	Encore 550 Self Contained Pump, 3-phase 220 VAC, and 380 VAC



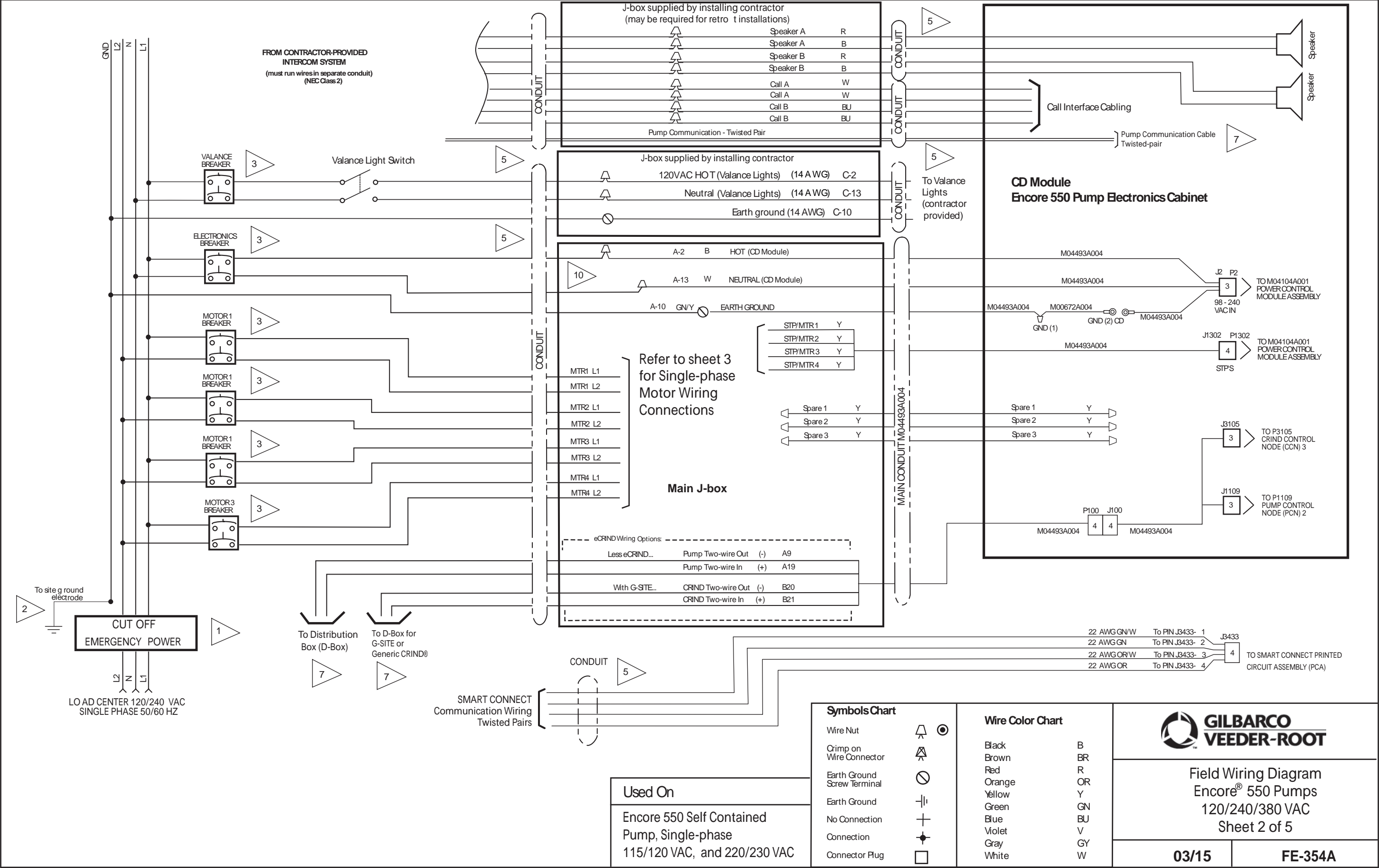
Field Wiring Diagram Encore® 550  
Pumps 120/240/380 VAC  
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Used On

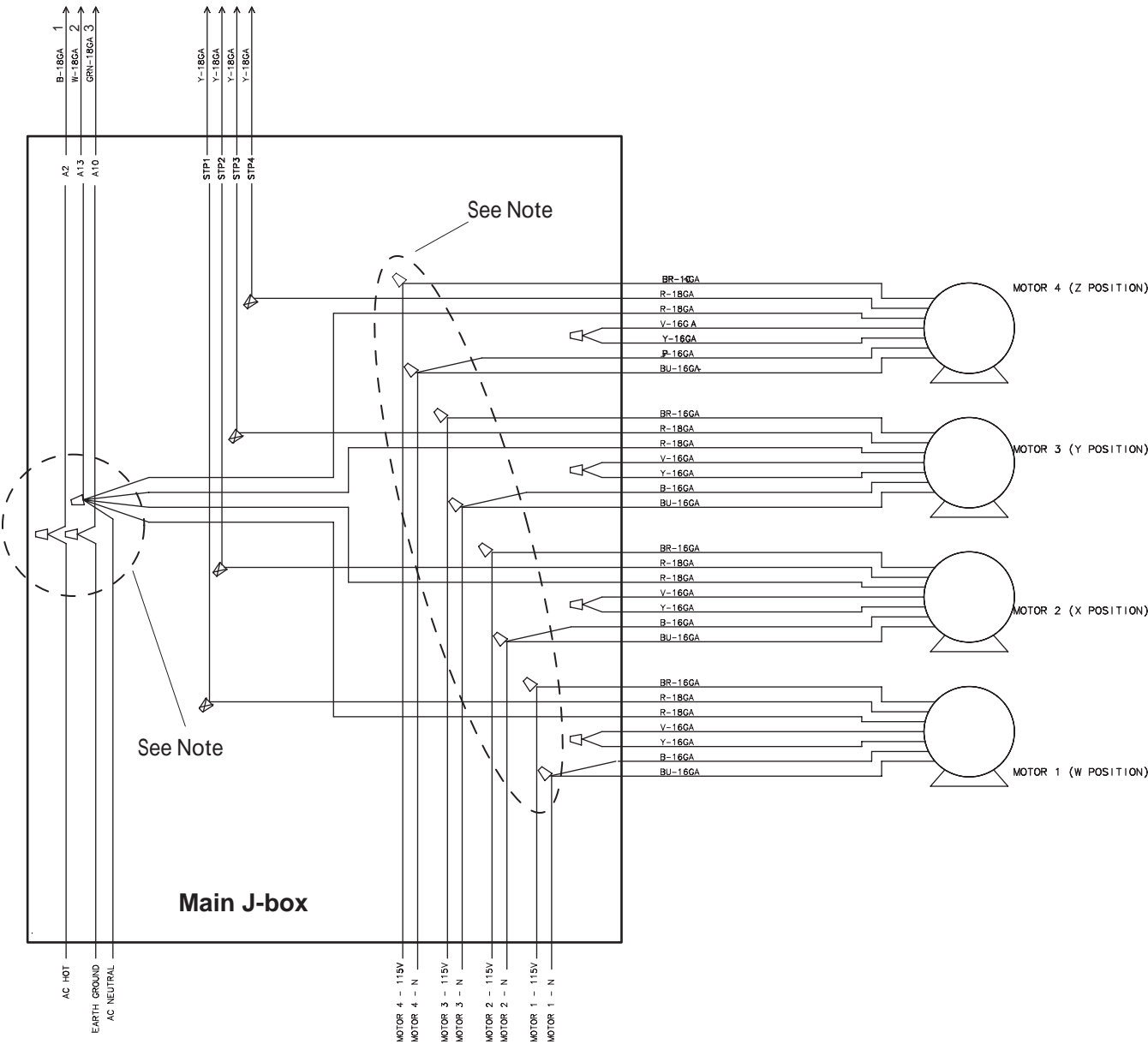
Encore 550 Self Contained Pumps

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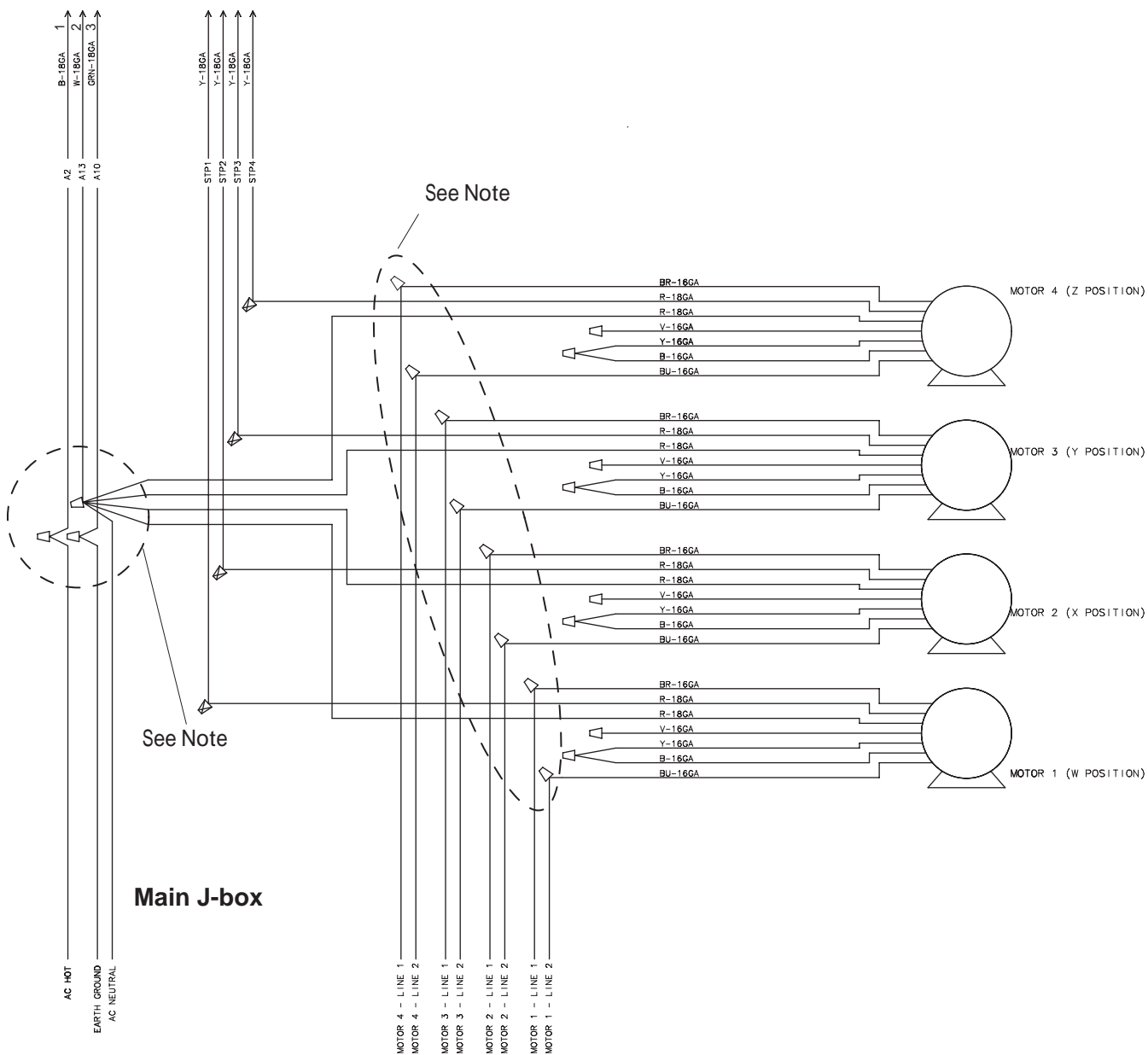
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SINGLE-PHASE MOTOR CONNECTION, 115/120 VAC










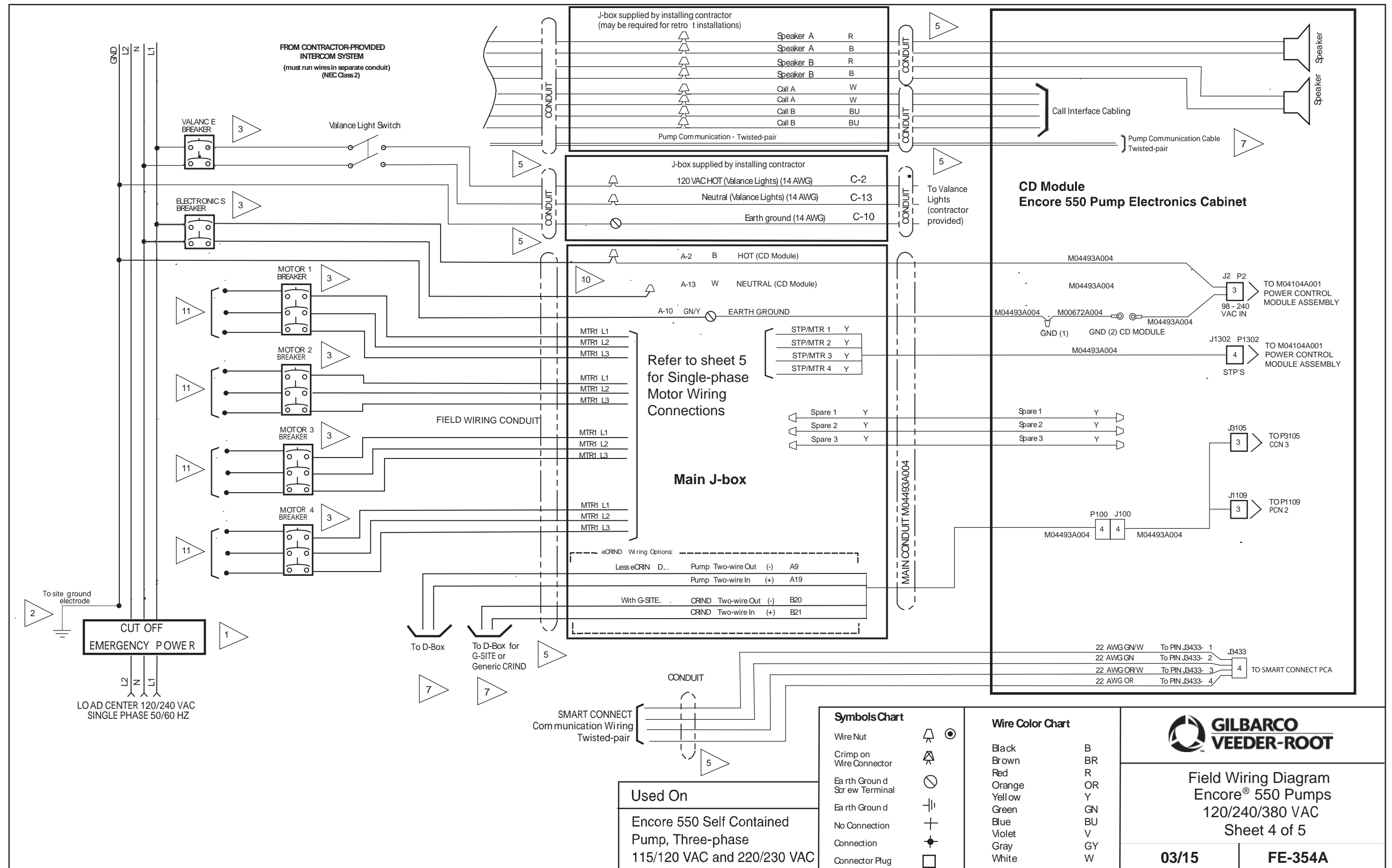
SINGLE-PHASE MOTOR CONNECTION, 220/230 VAC



Note: Connections made in field.

Used On  
Encore 550 Self Contained  
Pump, Single-phase Motor,  
115/120 VAC, and 220/230 VAC

Symbols Chart		Wire Color Chart		 Field Wiring Diagram Encore® 550 Pumps 120/240/380 VAC Sheet 3 of 5	
Wire Nut		Black	B	03/15	FE-354A
Crimp on Wire Connector		Brown	BR		
Earth Ground Screw Terminal		Red	R		
Earth Ground		Orange	OR		
No Connection		Yellow	Y		
Connection		Green	GN		
		Blue	BU		
		Violet	V		
		Gray	GY		
		White	W		



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2) Motors must rotate counter clockwise.

Encore 550 Self Contained  
Pump, Three-Phase Motor,  
220 VAC and 380 VAC

THREE-PHASE MOTOR CONNECTION, 380 VAC

See Note 1









Main J-box

AC HOT  
EARTH GROUND  
AC NEUTRAL

MOTOR 4 (3 PHASE LINES)  
MOTOR 3 (3 PHASE LINES)  
MOTOR 2 (3 PHASE LINES)  
MOTOR 1 (3 PHASE LINES)

Y-18GA LEAD 1  
Y-18GA LEAD 2  
Y-18GA LEAD 3  
Y-18GA LEAD 4  
Y-18GA LEAD 5  
Y-18GA LEAD 6  
R-18GA  
R-18GA

MOTOR 4 (Z POSITION)  
MOTOR 3 (Y POSITION)  
MOTOR 2 (X POSITION)  
MOTOR 1 (W POSITION)

<div>Symbols Chart</div> <div><div>Wire Nut</div><div></div><div></div></div> <div><div>Crimp on Wire Connector</div><div></div></div> <div><div>Earth Ground Screw Terminal</div><div></div></div> <div><div>Earth Ground</div><div></div></div> <div><div>No Connection</div><div></div></div> <div><div>Connection</div><div></div></div>	<div>Wire Color Chart</div> <div><div>Black</div><div>B</div></div> <div><div>Brown</div><div>BR</div></div> <div><div>Red</div><div>R</div></div> <div><div>Orange</div><div>OR</div></div> <div><div>Yellow</div><div>Y</div></div> <div><div>Green</div><div>GN</div></div> <div><div>Blue</div><div>BU</div></div> <div><div>Violet</div><div>V</div></div> <div><div>Gray</div><div>GY</div></div> <div><div>White</div><div>W</div></div>	<div><div></div><div><div>GILBARCO</div><div>VEEDER-ROOT</div></div></div> <div><div>Field Wiring Diagram</div><div>Encore® 550 Pumps</div><div>120/240/380 VAC</div><div>Sheet 5 of 5</div></div> <div><div>03/15</div><div>FE-354A</div></div>
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