Safety Procedures

WARNING



3. >

Dangerous environment. Highly flammable/explosion 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

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

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

Install power breakers to each circuit leading to the dispenser unit and Submersible Turbine Pump (STP). The power breaker 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.

Only field wiring connections are shown in the Junction Boxes 4 (J-boxes). Cap all unused wires. Local and NECs apply.

Potting is required for any conduit passing through any portion of 5. > a hazardous vapor area. Install conduits per NEC for hazardous locations.

Wire circuits are NEC Class 1. Wires are 14 American Wire Gauge (AWG) copper stranded. Power load and distance run may require a larger wire gauge.

Wiring to the speaker (intercom) and call button must be Class 2. Two-wire 6. 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.

- Consult manufacturer specifications for wire nuts to determine maximum number of wires that may be used per nut.
- Do not provide service loops or leave excess wire in electronics cabinet. Cut all wire lengths to size sufficient to reach termination without stress or excess. Dress all wires neatly along surfaces so as not to obstruct access to terminations and devices.

STP isolation boxes are required by NEC 514-16 to:

9.

- a. Allow the removal of service of one unit safely without removing the power from all dispensing equipment.
- b. Damage caused by cross phasing is not covered by warranty.
- c. Use local suppliers for isolation relay boxes.

For U.S. 240 VAC installations, wires labeled 'HOT' are to be connected to L1 and 10. wires labeled 'NEUTRAL' are to be connected to L2.

- For three-phase systems, make appropriate connections to AC Hot and return 11. service. Motors must rotate counterclockwise.
- Wiring to the speaker (intercom) and call button must be Class 2. 12. Two-wire communication wiring for installation with new wiring uses UTP data wires. Refer to NOTE 6.
- In Canada, installing communication circuits, such as data cables and AC 13. cables, in the same conduit as AC circuits is contrary to the CEC rule 60. New installations must have separate conduit for data/communication cables and power cables in the following circumstances [wiring for two-wire, data, communications, intercom, video, Ethernet[®], Gilbarco Long Range Ethernet (GLRE), must be in a separate conduit from the dispensers power and light conduit)]:

- All new installations of fuel dispensers or other electrical equipment, whether or not the raceways are exposed and made readily accessible as part of the installation process; or

- In any event if the raceways are exposed and made readily accessible for any reason.

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 to ensure proper lockout and tagout.

Encore

MPD Th MPD Fo MPD Sin MPD Sin Dual One Quad Tw Blender Blender Blender

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| Sheet | Description | | | |
| 1 | Cover Sheet | | | |
| 2 | Encore 550 Dispenser Without J-box | | | |
| 3 | Encore 550 Dispenser with J-box | | | |

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

| <u>_</u> | Active STP Connections | | | | |
|--------------|------------------------|------|------|------|--|
| 9 | STP1 | STP2 | STP3 | STP4 | |
| ree-grade | X | X | X | | |
| ur-grade | X | X | X | X | |
| ngle-hose | X | X | X | | |
| ngle-hose +1 | X | X | X | X | |
| e-grade | X | | | | |
| vo-grade | X | X | | | |
| Six-hose | X | X | | | |
| X+1 | X | X | X | | |
| X+0 | X | X | | | |
| | | | | | |

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-3985 Encore Installation Manual



Field Wiring Diagram Encore[®] 550 Dispensers 120/240 VAC Sheet 1 of 3

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