

Installation Manual

Automated Fuel

Maintenance

System



FT-I-5A



APPROVED

FUEL TECHNOLOGIES INTERNATIONAL LLC

www.fueltech.us

Installation

Contents

<i>Overview</i>	<i>Page 2</i>
<i>Installation Notes</i>	<i>Page 3</i>
<i>Identifying Parts FT-I-5A</i>	<i>Page 4</i>
<i>Stand Alone Installation</i>	<i>Page 5</i>
<i>Alternate In-Line Installation</i>	<i>Page 6</i>
<i>Electrical Drawings</i>	<i>Page 7 - 12</i>
<i>Cabinet Drawings</i>	<i>Page 13 & 14</i>

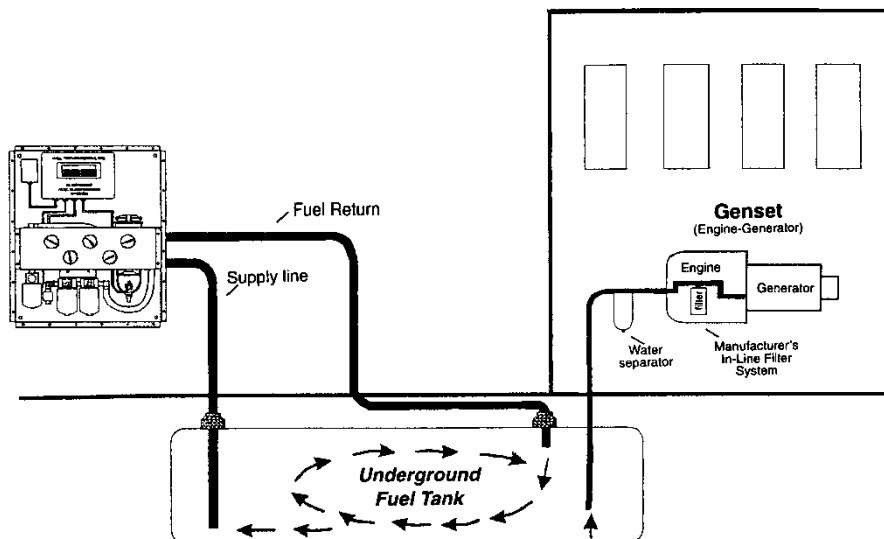
OVERVIEW

1. The complete automated diesel fuel maintenance system with cabinet shall be designed for wall or pedestal mounting

Supply line to be installed at the sump end of the storage tank 1" from the bottom and Plumbed to the automated fuel maintenance system. A **FOOT VALVE** must be installed on supply line to keep system primed.

2. A return line to be installed to the opposite end of the storage tank.
3. Caution should be taken not to exceed the 15-ft. suction lift capability of the fuel circulation pump. Should vertical suction lift exceed 15 ft. the circulation pump in FTI cabinet can be removed and replaced with a submersible pump in the storage tank. The submersible pump shall be wired to the FTI control panel. A flow control valve and a flow meter may be required to set fuel flow at 5 GPM, depending on the system. (**The inline Flow Switch (Flow or No Flow) will not be required, and is removed for this application.**)
4. Conditioner Stabilizer to be added to the existing fuel tank, and proportionally when additional fuel is added to the storage tank.
5. Biocide to be added to stored diesel fuel annually.

HOW IT WORKS



INSTALLATION NOTES

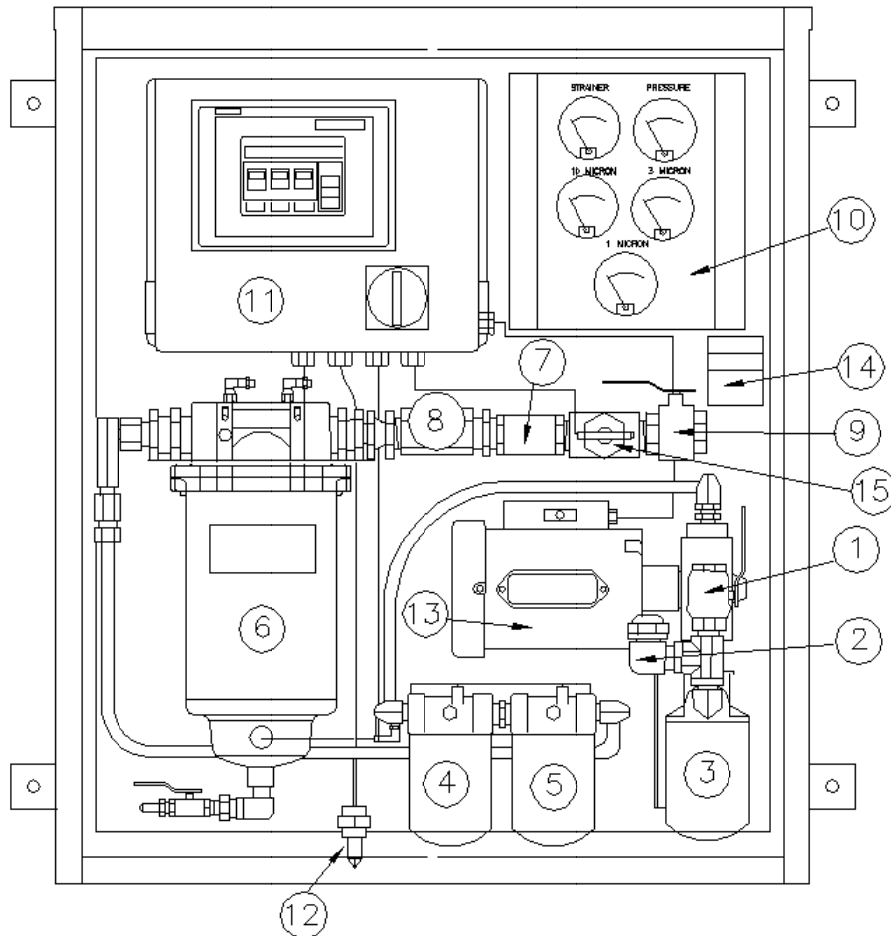
1. FTI systems operate on either above ground or underground tanks. Any installation should be completed by a qualified plumbing contractor and qualified electrician.
2. Wall mount or pedestal mount should be bolted into place.
3. 120V AC, Single Phase, 20 amp. power supply must be available at system location.
4. A Disconnect switch is provided on FTI control panel for power shut off.
5. Pipe plugs were installed in the supply and return line for shipping purposes only, and must be removed prior to installation.
6. Holes will need to be added in cabinet for electrical, Fuel supply line, and Fuel return line.
7. All FTI models are factory tested using lightweight oil. Some of this fluid may remain in the unit. It will not interfere with the performance of the system.
8. On initial start up, if the system does not fill with fluid, the pump may require priming.
(SEE PRIMING PORT LOCATION ON NEXT PAGE)

DO NOT RUN LONGER THAN TWO MINUTES WITHOUT FLUIDS

9. To *prime the pump, fill supply line with fuel*. Remove the Priming Cap and fill. Restart the system.
10. For starting system see operations manual.

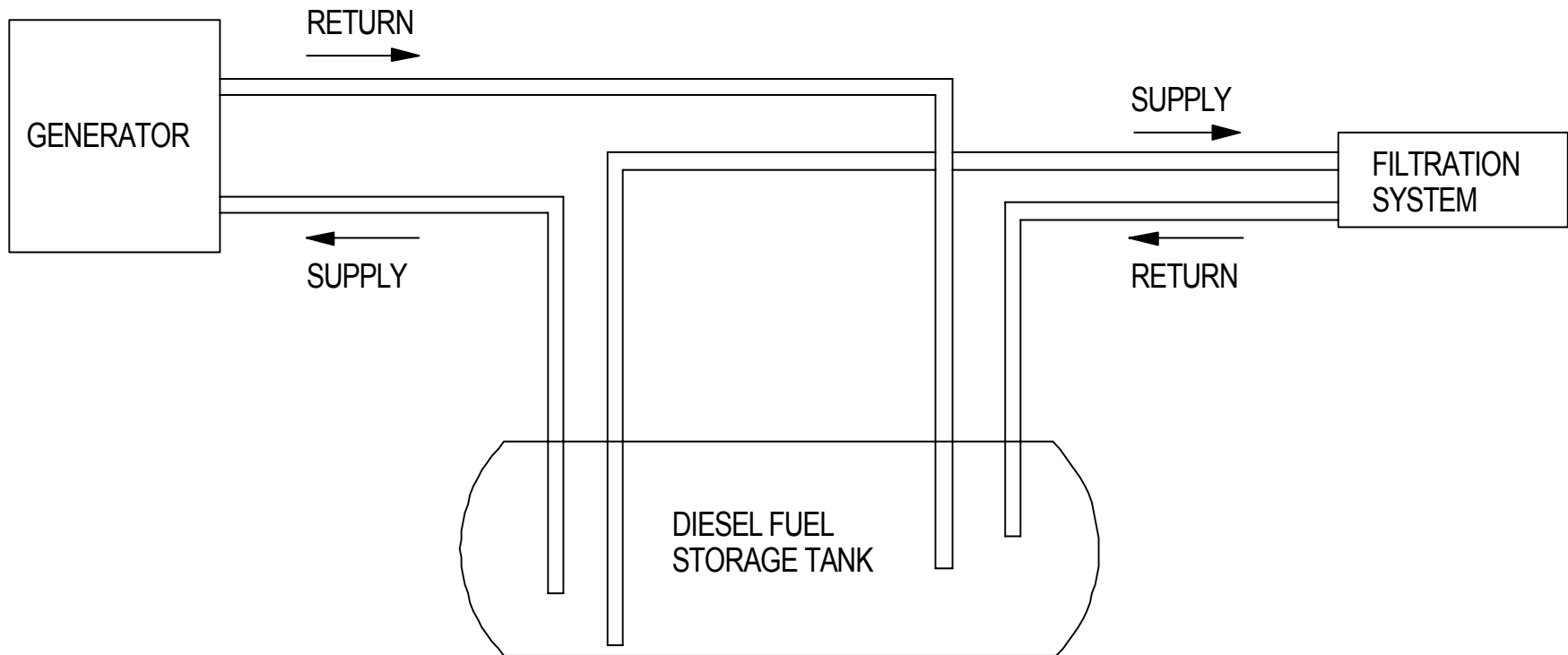
IDENTIFYING PARTS

FT-I-5A



- 1) Supply Line Connection - $\frac{3}{4}$ " NPT
- 2) Priming Port (Remove Cap and fill with Fuel to prime pump)
- 3) Strainer – Spin on Type with 100 Mesh, 149 Micron Element
- 4) 10 Micron Pre Filter, Spin On Type
- 5) 3 Micron Pre Filter, Spin On Type
- 6) 1 Micron Element and Water Separator
- 7) Check Valve
- 8) Site Glass
- 9) Return line Connection – $\frac{3}{4}$ " NPT
- 10) Switch Gauge Panel
- 11) Controller
- 12) Leak Detector
- 13) Pump / Motor Assembly
- 14) Serial Number, Model Number, FM Approved Tags
- 15) Flow Switch (Flow or no Flow)

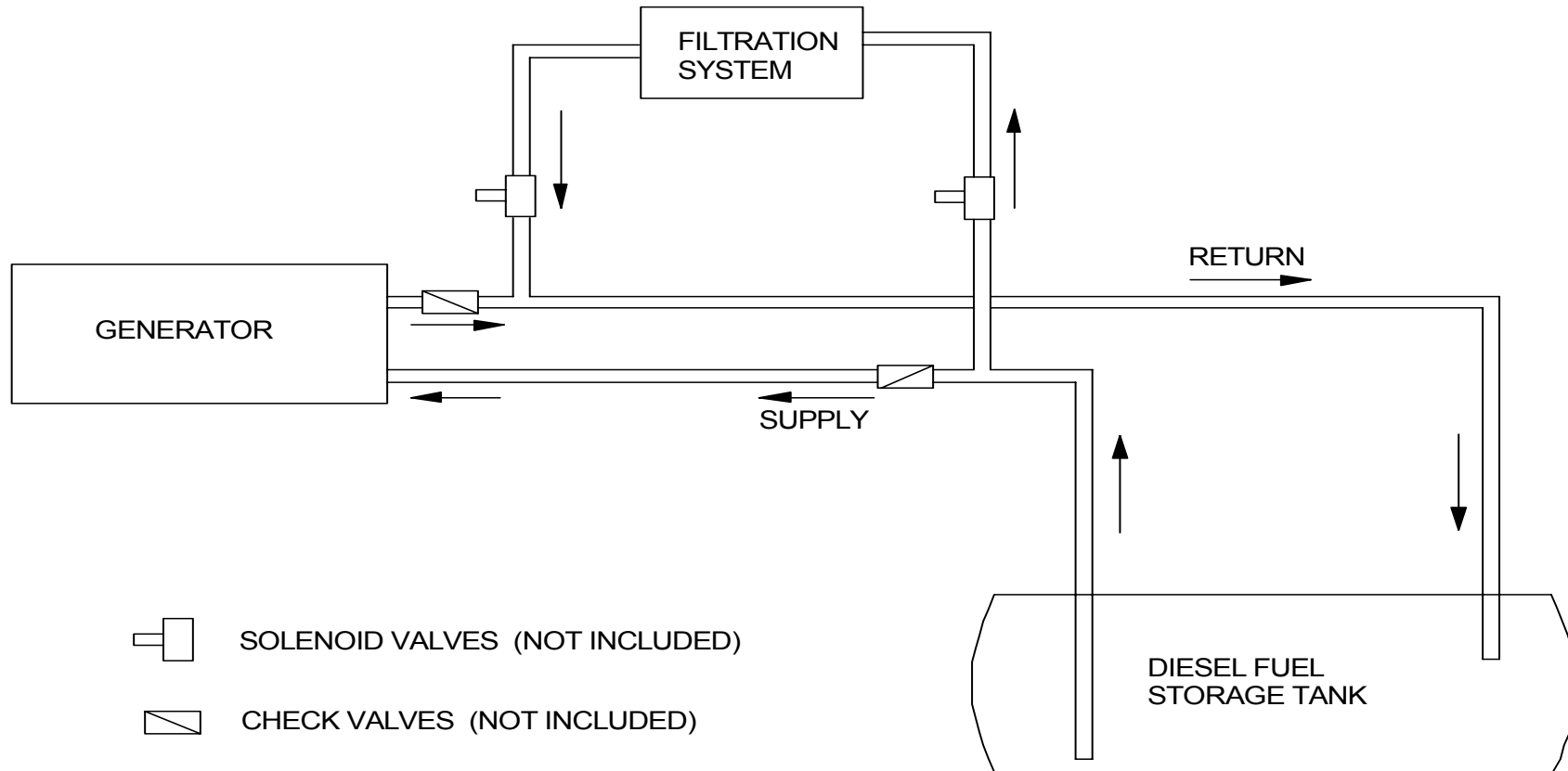
PREFERRED STAND ALONE INSTALLATION



Notes:

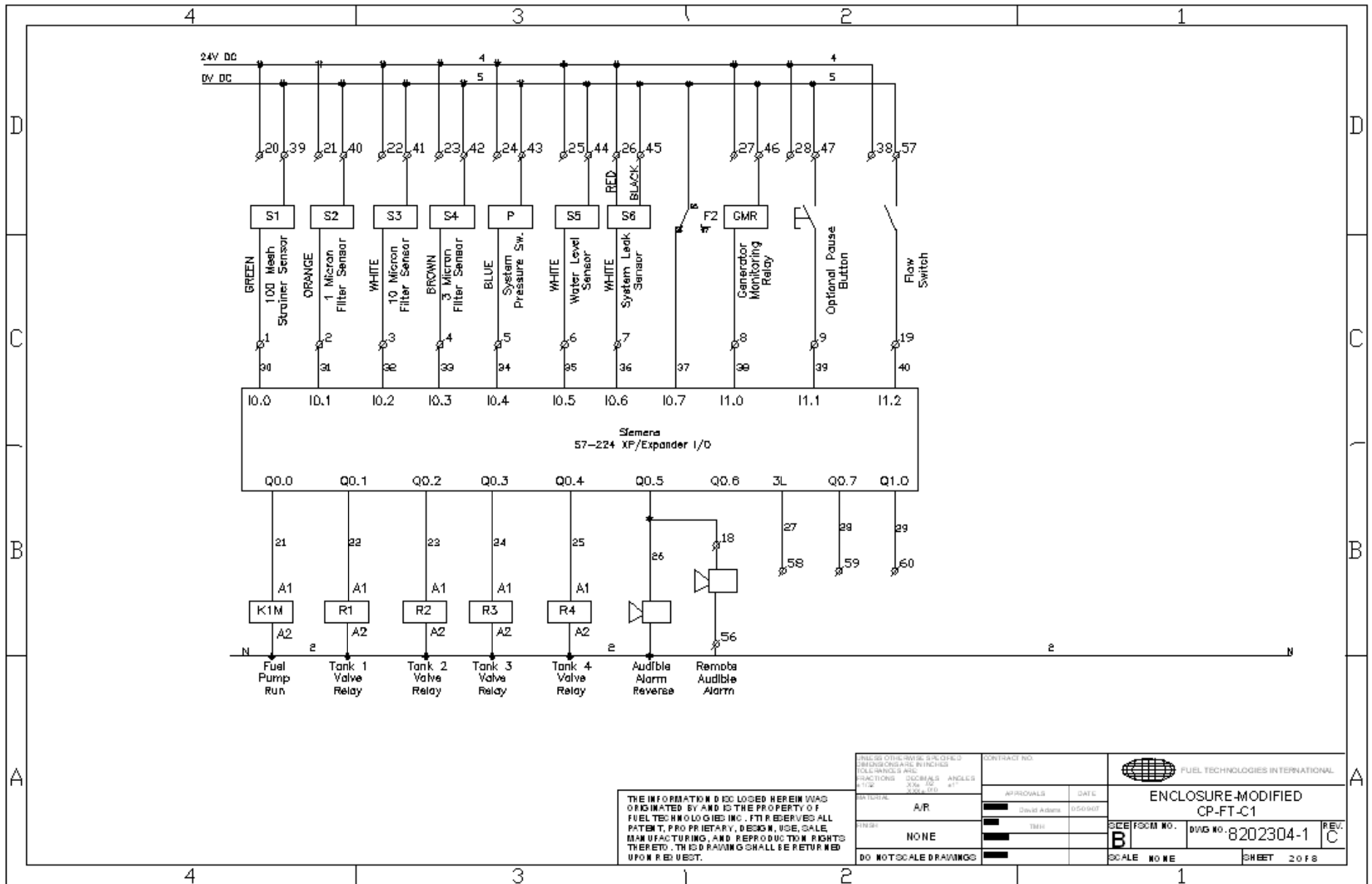
1. FTI supply line should be installed 1" from bottom of storage tank, at sump end.
2. A foot valve must be installed on supply line to keep system primed.

ALTERNATE IN LINE INSTALLATION



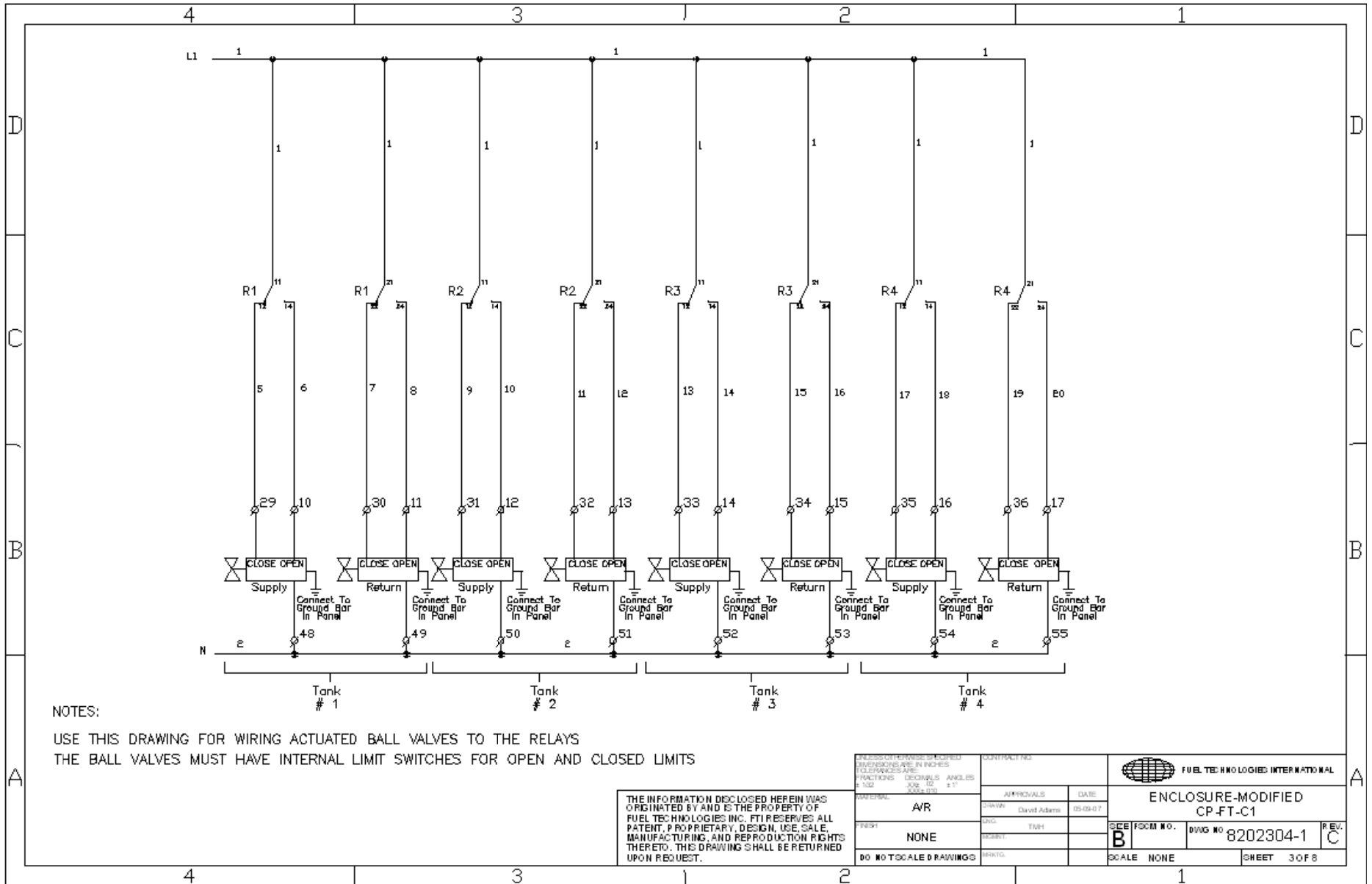
Notes:

1. Wire connections must be made from Generator to FTI Control Box to shut off Filtration System when Generator is running.



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<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS AND ANGLES IN DEGREES</small> <small>FRACTIONS DECIMALS ANGLES</small> <small>1/16 1/32 1/64 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1 1 1/4 1 1/2 1 3/4 2 2 1/4 2 1/2 3 3 1/4 3 1/2 4</small>	<small>CONTRACT NO.</small> <small>APPROVALS</small> <small>DATE</small> <small>DATE APPROV.</small> <small>05/09/02</small>	 FUEL TECHNOLOGIES INTERNATIONAL ENCLOSURE-MODIFIED CP-FT-C1 <small>SCE/FCOM NO.</small> B <small>DWG NO.</small> 8202304-1 <small>REV.</small> C <small>SCALE</small> NONE <small>SHEET</small> 2 OF 8
<small>REVISION</small> A/R	<small>DO NOT SCALE DRAWINGS</small>	

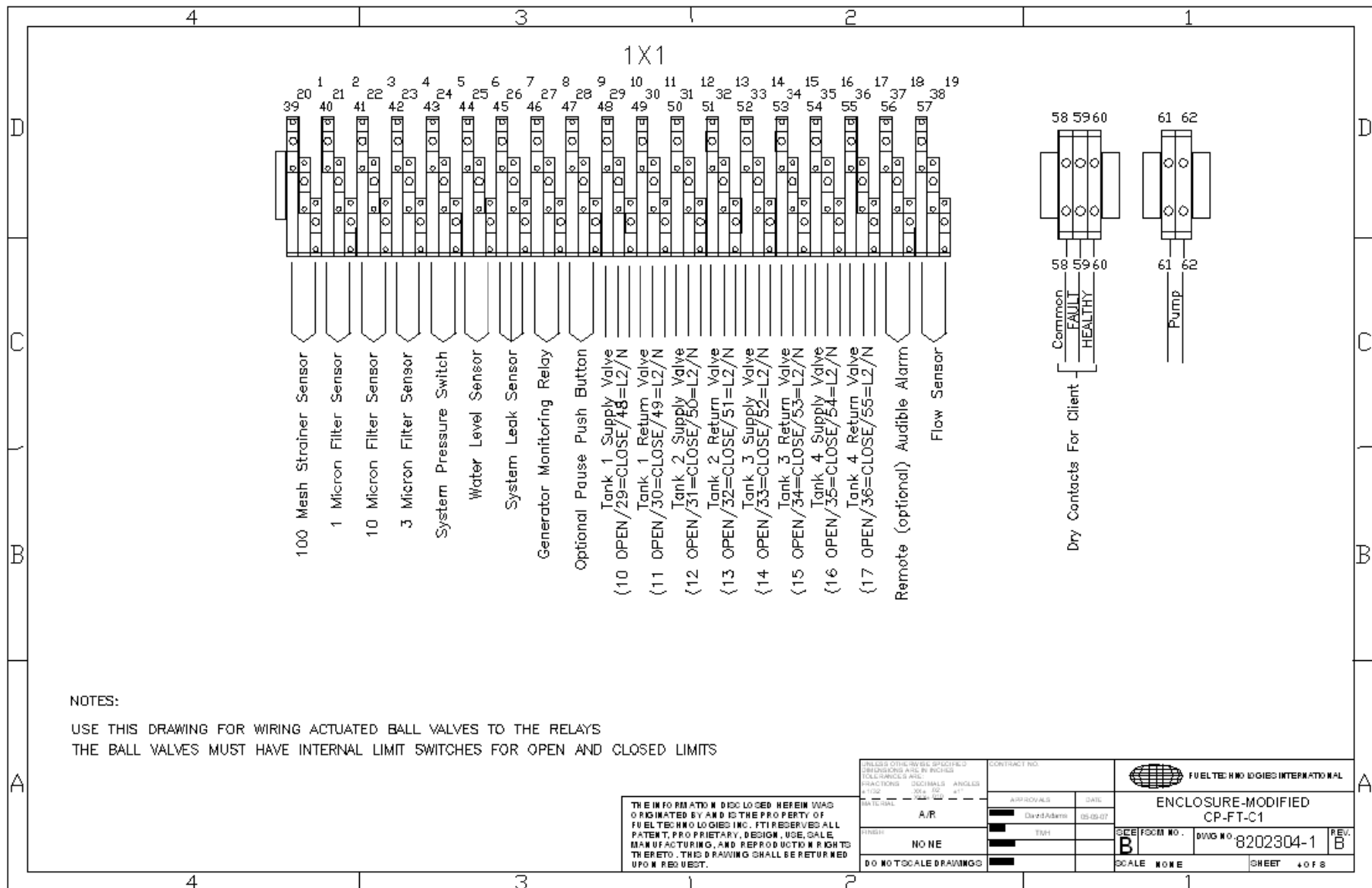


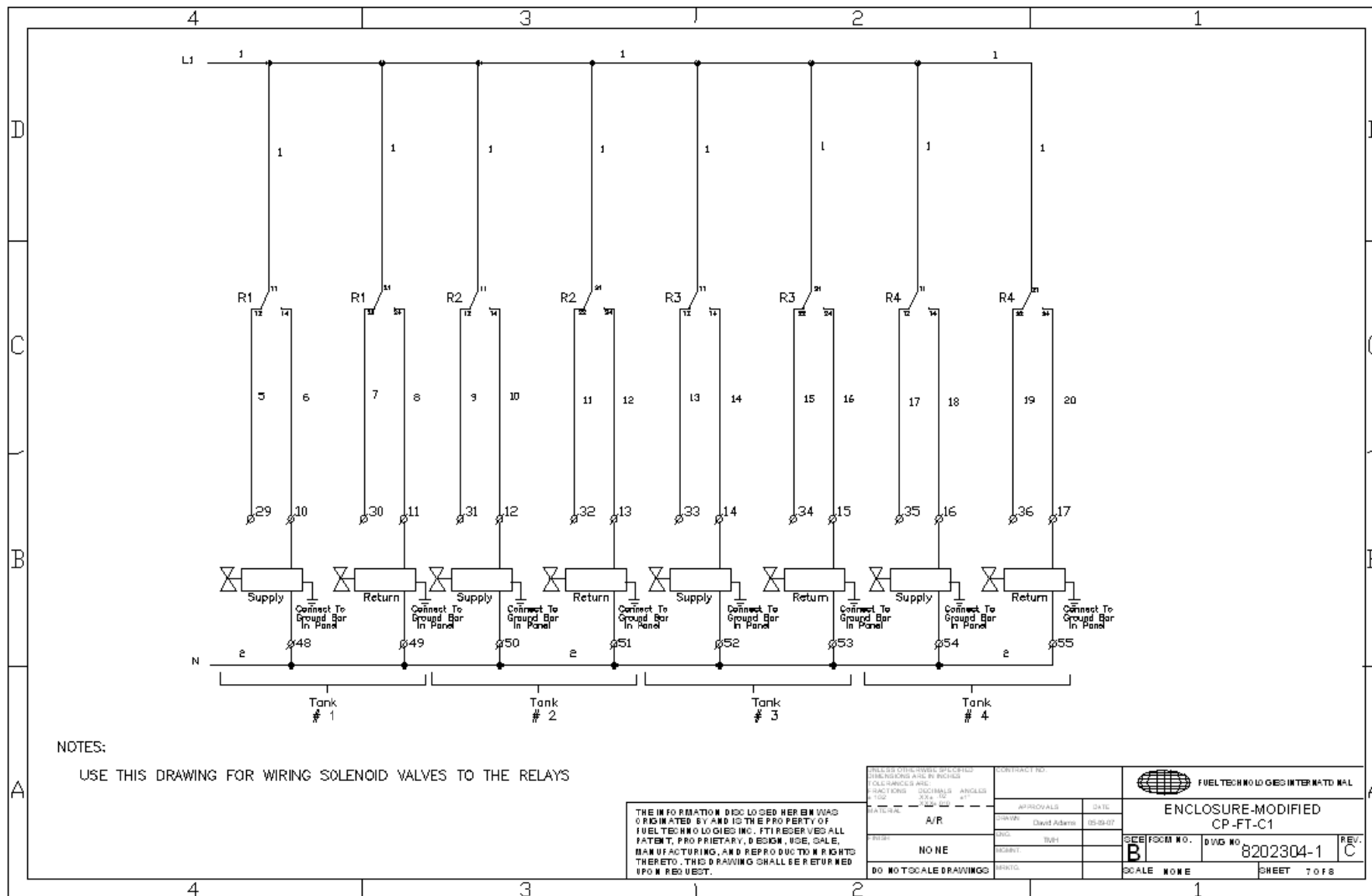
NOTES:

USE THIS DRAWING FOR WIRING ACTUATED BALL VALVES TO THE RELAYS
 THE BALL VALVES MUST HAVE INTERNAL LIMIT SWITCHES FOR OPEN AND CLOSED LIMITS

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		SCALE NONE	SHEET 3 OF 8		





NOTES:

USE THIS DRAWING FOR WIRING SOLENOID VALVES TO THE RELAYS

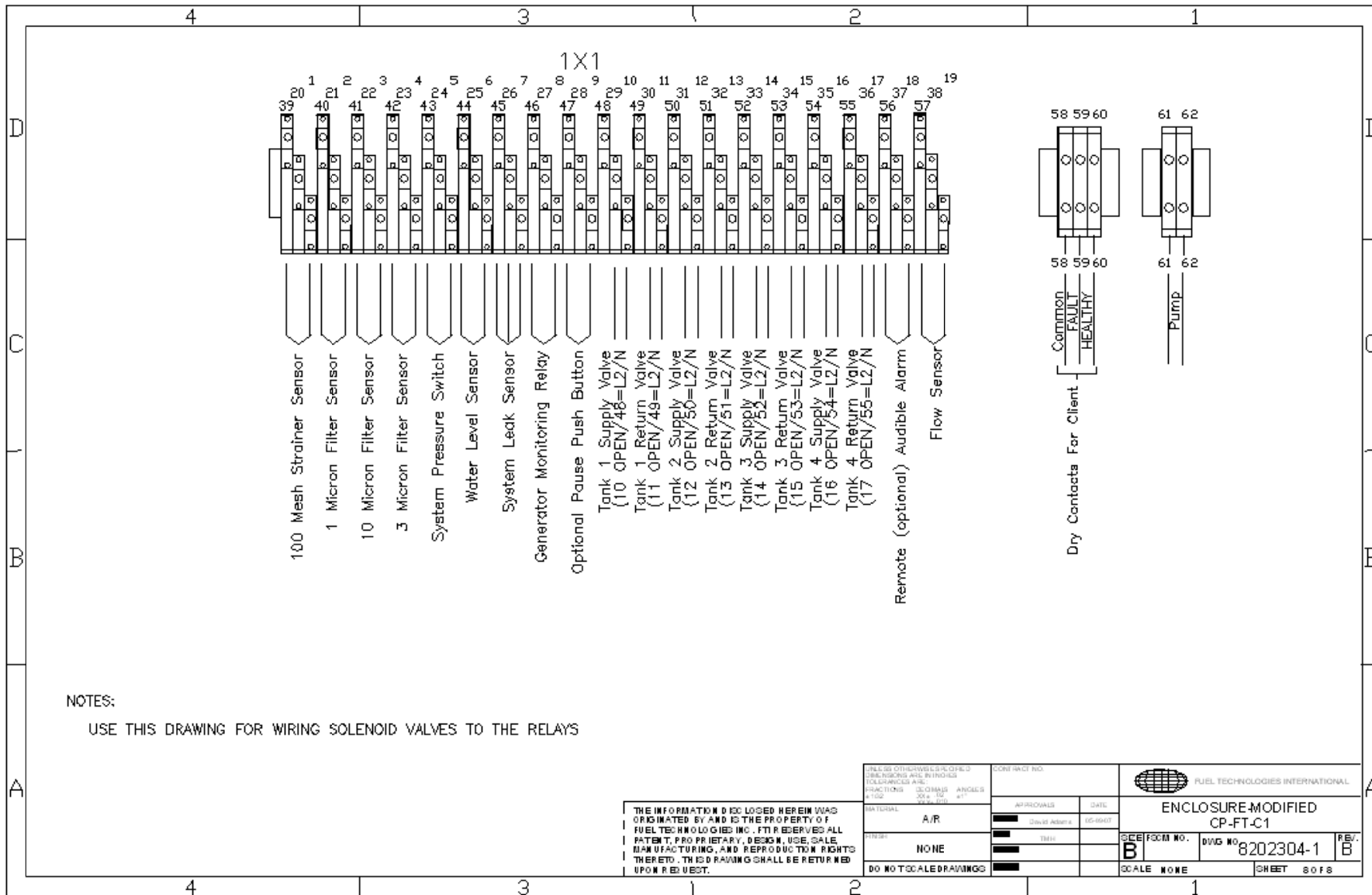
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ENCLOSURE-MODIFIED
CP-FT-C1

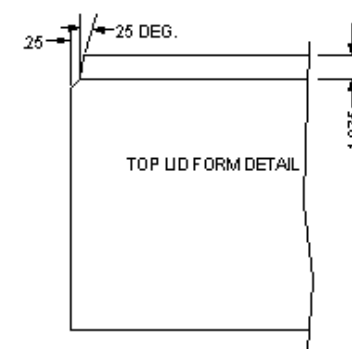
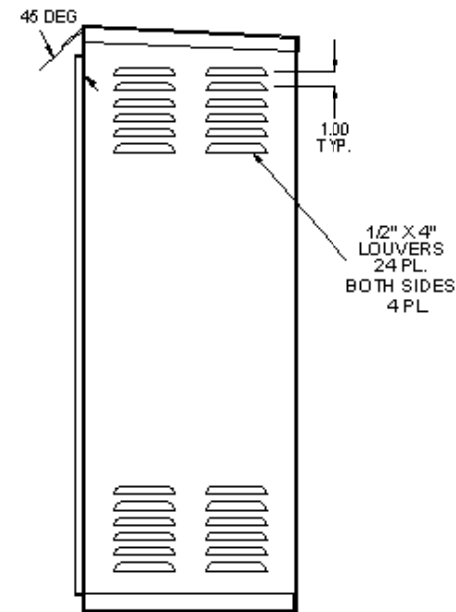
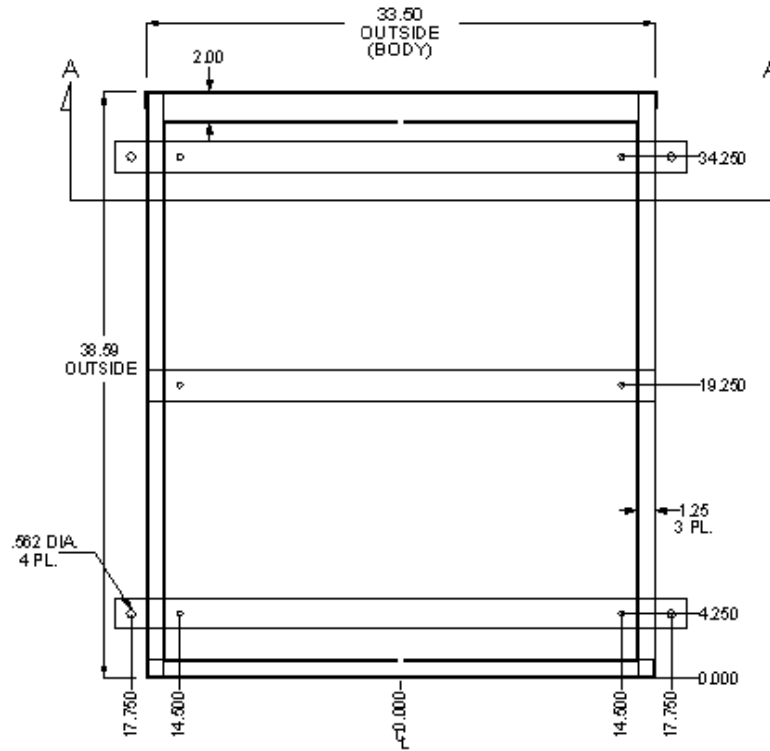
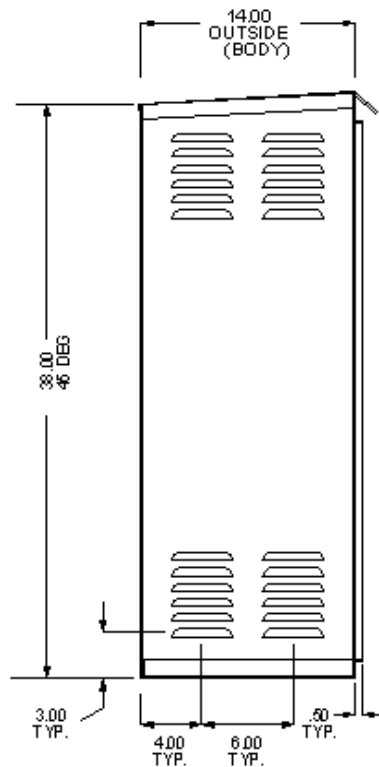
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SHEET 7 OF 8



NOTES:
USE THIS DRAWING FOR WIRING SOLENOID VALVES TO THE RELAYS

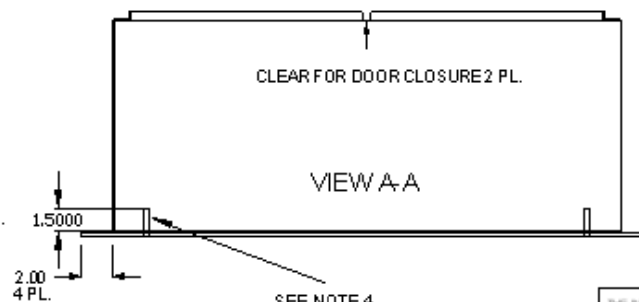
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DO NOT SCALE DRAWINGS		SCALE: NONE		DVG NO. 8202304-1	
				REV. B	
				SHEET 8 OF 8	



- NOTES: 1. CABINET TOP & BOTTOM ARE WELDED TO BODY. FINISH ALL EXTERNAL SEAMS. TOP OVER BODY. BOTTOM INSIDE BODY.
2. FINISHED CABINET TO BE WATER RESISTANT. (SEAMS TOP & BOTTOM)
3. BREAK ALL SHARP EDGES.
4. .375 DIA. THRU CABINET & FLAT STOCK. WELD THREADED ROD TO FLAT STK. & GRIND FLUSH.
5. ASSEMBLED UNIT WEIGHT IS APPROX. 200 LBS.

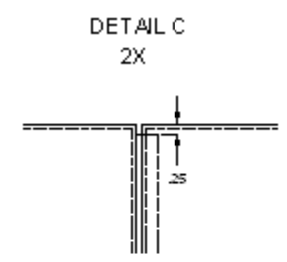
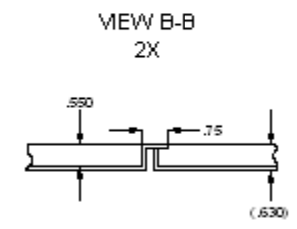
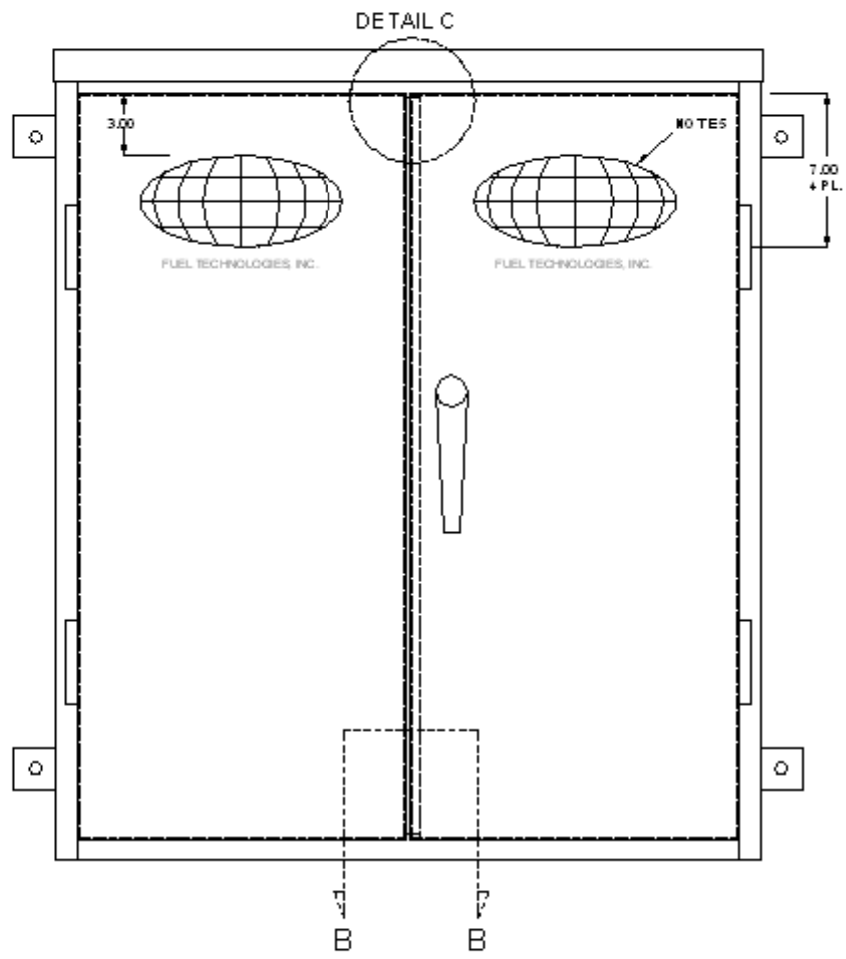
FINISH - POWDER COAT
 CARDINAL GRAY HAMMERTONE
 P/N T064-GR05



SEE NOTE 4
 INSTALL 3/8" STUD AS SHOWN. 6 PL.

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15 GA CRS		CABINET FTI MODEL 5	
REF. REV. 2		6801988	



NOTES 1. FABRICATE 13 GA. CBS DOORS PER DETAILS.
INSIDE DIMS. TO CLEAR CAB. UP .06" SIDE.
APPLY 1/2" X 1/8" RUBBER WEATHER STRIP 7 PL.
AFTER FINISH.

- 2 HANDLE- STAINLESS, 3 POINT LATCH, PADDLE LOCKABLE
- 3 HINGES - STAINLESS, BOLT ON, LIFT OFF
- 4 FINISH - POWDER COAT
CARDINAL GRAY HAMMERTONE
P/N T064-GR05
- 5 SILKSCREEN 2 PL.

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	AIR PAINT	6601988 30