General description :

Package :

- Submittal data sheets
- Dimensional data
- Wiring schematics
- Field connection

Type of material	: Electric controller
Référence matérial	: ACPD-GFD
Lieu de fabrication	: EU
Norm standard	: NFPA20
Product instrumentation voltage	: 12V ou 24V

Dimensions :

600 * 700 * 200mm

Standard data sheet :

Standard & Certification	Built to NFPA 20 (latest edition)	
	☐ CE Mark: Various EN, IEC & CEE directives and standards	
Enclosure	**Protection Rating** IP55	
	Accessories • Bottom entry gland plate	**Paint Specifications** • Red RAL3002 • Powder coating • Glossy textured finish
General	AC	☐ 208V to 240V/1ph/50-60hz
	DC	☐ 12VDC ☐ 24VDC
	Grounding system	• Negative
	Battery chargers	• Two independent fully automatic • 10A continuous charge • 500mA trickle charge

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Electrical Reading	• Battery 1 & Battery 2 voltage • Battery 1 & Battery 2 charging amperage • Charging mode	
Voltage Isolation	AC	• Main disconnect switch to isolate from main power • Circuit breakers to isolate power to battery chargers
	DC	• Circuit breakers to isolate batteries from battery chargers
Pressure Reading	• Continuous system pressure display • Cut-in and Cut-out pressure setting	
Pressure and Event Recorder	• Pressure readings with date stamp • Event recording with date stamp • Under regular maintained operation, events can be stored in memory for up to 5 years • Data viewable on operator interface display screen • Downloadable by USB port to external memory device	
Pressure sensing	• Pressure transducer and run test solenoid valve assembly for fresh water application • Pressure sensing connection 1/2” Female NPT • Drain connection 3/8” • Rated for 0-500psi Working pressure (calibrated at 0-300psi) • Externally mounted with protective cover	

Audible Alarm	4” alarm bell - 85 dB at 10ft. (3m)
Visual & Audible Alarms	Visual only • Engine run • Periodic test • Cranking Cycle • Main switch AUTO • Main switch in HAND • Main switch in OFF • System overpressure • AC Failure • High fuel level • Fail when running • Fuel tank leak Visual and Audible • Overspeed • Battery #1 & battery #2 failure • Low fuel level • Low oil pressure • Charger #1 & Charger #2 failure • Water reservoir low • High engine temperature • Fail to start
Remote Alarm Contacts	SPDT-8A-250V.AC • Engine run (2) • Common controller trouble • Charger #1 & Charger #2 failure • Pressure line failure • DC failure • Common engine trouble • Low/High engine temperature • Battery #1 & battery #2 failure • Overspeed • Fail to start • Loss of continuity (starter) #1 and/or #2 • Low oil pressure • Fuel injection malfunction* • ECM selector switch in alternate position** • Common pump room alarm • Low fuel level • Fuel tank leak • Water reservoir low • High fuel level • Low suction pressure • AC Failure • H-O-A selector switch in AUTO • H-O-A selector switch in OFF or HAND
ViZiTouch Light Operator Interface	• Embedded micro-computer with software PLC logic • 4.2” color touch screen (HMI technology) • Upgradable software • Expandable storage • Multi-language

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Operation	Selector Switch	• HAND-OFF-AUTO • Behind lockable and breakable cover	
	Automatic Start	• Start on pressure drop • Remote start signal from automatic device	
	Manual Start	• Crank 1 and Crank 2 start pushbuttons • Run test pushbutton • Deluge valve start • Remote start from manual device	
	Crank Cycle	• 6 consecutive cycle attempts • 3 X 15s crank from battery 1 or 2 alternatively • 15s rest in between each crank attempt	
	Stopping	• Manual with Stop pushbutton • Automatic after expiration of minimum run timer ***	
	Timers	Field Adjustable & Visual Countdown	• Minimum run timer ***(off delay) • Sequential start timer (on delay) • Periodic test timer
	Actuation	Visual Indication	• Pressure • Non-pressure
	Mode		• Automatic • Non-automatic

*** Automatic shutdown shall be approved by the AHJ.

		Automatic Start	Manual or Remote start	Run Test or periodic test
Alarm and shutdown schedule	High Coolant	Alarm only	Alarm only	Shutdown
	Low Oil Pressure	Alarm only	Alarm only	Shutdown
	Overspeed	Shutdown	Shutdown	Shutdown

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Options :

☐ A1	Periodic test alarm contact (Form C-SPDT)
☐ A2	Overspeed alarm contact (Form C-SPDT)
☐ A3	Low oil pressure alarm contact (Form C-SPDT)
☐ A4	High coolant temperature alarm contact (Form C-SPDT)
☐ A5	Failure to start alarm contacts alarm contact (Form C-SPDT)
☐ A6	Battery 1 & 2 failure alarm contact (2 x Form C-SPDT)
☐ A7	Charger 1 & 2 failure alarm contact (2 x Form C-SPDT)
☐ A8	AC failure alarm contact (Form C-SPDT)
☐A9	System overpressure alarm contact (For engines with PLD) (Form C-SPDT)
☐ A11	Extra controller trouble alarm contact (Form C-SPDT)
☐ A12	Extra engine trouble alarm contact (Form C-SPDT)
☐ Ax	Additional engine alarm contact (Form C-SPDT) (specify function)
☐ B1	Low fuel level alarm contact (Form C-SPDT)
☐ B2	Water reservoir level low alarm contact (Form C-SPDT)
☐ B3	Water reservoir empty alarm contact (Form C-SPDT)
☐ B4	Low pump room temperature alarm contact (Form C-SPDT)
☐ B5	High fuel level alarm contact (Form C-SPDT)
☐ B6	Low system (discharge) pressure alarm contact (Form C-SPDT)
☐ B7	Low suction pressure alarm contact (Form C-SPDT)
☐ B8	Pump on demand alarm contact (Form C-SPDT)
☐ B9	Fuel tank leak alarm contact (Form C-SPDT)
☐ B10	Main relief valve open alarm contact (Form C-SPDT)
☐ B11	Flow meter loop valve open alarm contact (Form C-SPDT)
☐ B12	Water reservoir level high alarm contact (Form C-SPDT)
☐ B13	High pump room temperature alarm contact (Form C-SPDT)
☐ Bx	Additional pump room alarm contact (Form C-SPDT) (specify function)
☐ C6	Nickel – Cadmium battery chargers
☐ C7	Engine block heater circuit (same voltage as battery charger primary)
☐ C8	Foam pump application w/o pressure transducer and run test solenoid valve
☐ C9	Non pressure actuated controller w/o pressure transducer and run test solenoid valve
☐ C13	Louver activation circuit (battery power specific)

☐C9	Non pressure actuated controller w/o pressure transducer and run test solenoid valve
☐C13	Louver activation circuit (battery power specific)
☐C14	Delayed automatic start on AC power failure (factory set at 15 minutes)
☐C15	Low zone pump control function
☐C16	Middle zone pump control function
☐C17	High zone pump control function
☐C19	Lockout/interlock circuit from equipment installed inside the pump room
☐ D4	Pressure transducer and run test solenoid valve for fresh water rated for 0-500psi (for factory calibration purposes only)
☐D6	Pressure transducer and run test solenoid valve for sea water rated for 0-500PSI
☐D7A	Low fuel level float switch supplied as separate item (1-1/4")
☐D7B	Low fuel level float switch supplied as separate item (1-1/2")
☐D8A	High fuel level float switch supplied as separate item (1-1/4")
☐D8B	High fuel level float switch supplied as separate item (1-1/2")
☐D9A	Anti-condensation heater & thermostat
☐D9B	Anti-condensation heater & humidistat
☐D9C	Anti-condensation heater & thermostat & humidistat
☐D11	Low suction pressure transducer for fresh water rated at 0-300PSI with visual indication and alarm contact
☐D11A	Low suction pressure transducer for sea water rated at 0-300PSI with visual indication and alarm contact
☐D12	Tropicalization
☐D26	Combined low and high fuel level float switch (1-1/4")
☐D26A	Combined low and high fuel level float switch (1-1/2")
☐D27	Fuel level probe (1-1/4") Level indication
☐D28	Field programmable I/O board - 8 Input / 5 output
☐D29	Field programmable I/O board - 8 Input / 10 output
☐D30	Redundant pressure transducer for fresh water rated for 0-500PSI (calibrated at 0-300PSI)
☐D31	Redundant pressure transducer for sea water rated for 0-500PSI (calibrated at 0-300PSI)
☐D32A	Modbus TCP/IP provision
☐D33	Window kit for operator interface
☐D34A	Controller rated for 55°C ambient temperature

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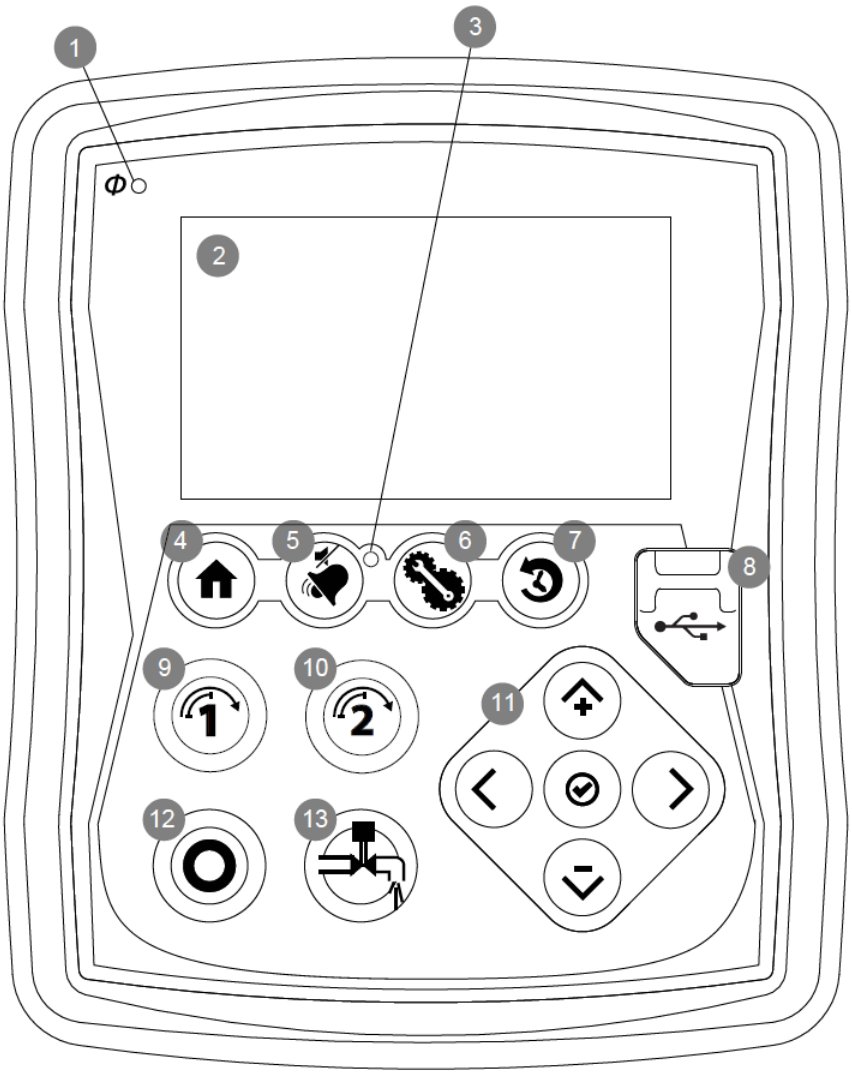
Interface :



1 - Power on LED
2 - Color touch screen
3 - Alarm LED
4 - HOME page button
5 - ALARM page button
6 - CONFIGURATION page button
7 - HISTORY page button
8 - USB port
9 - CRANK 1 button
10 - CRANK 2 button
11 - Contextual navigation pad
12 - STOP button
13 - RUN TEST button

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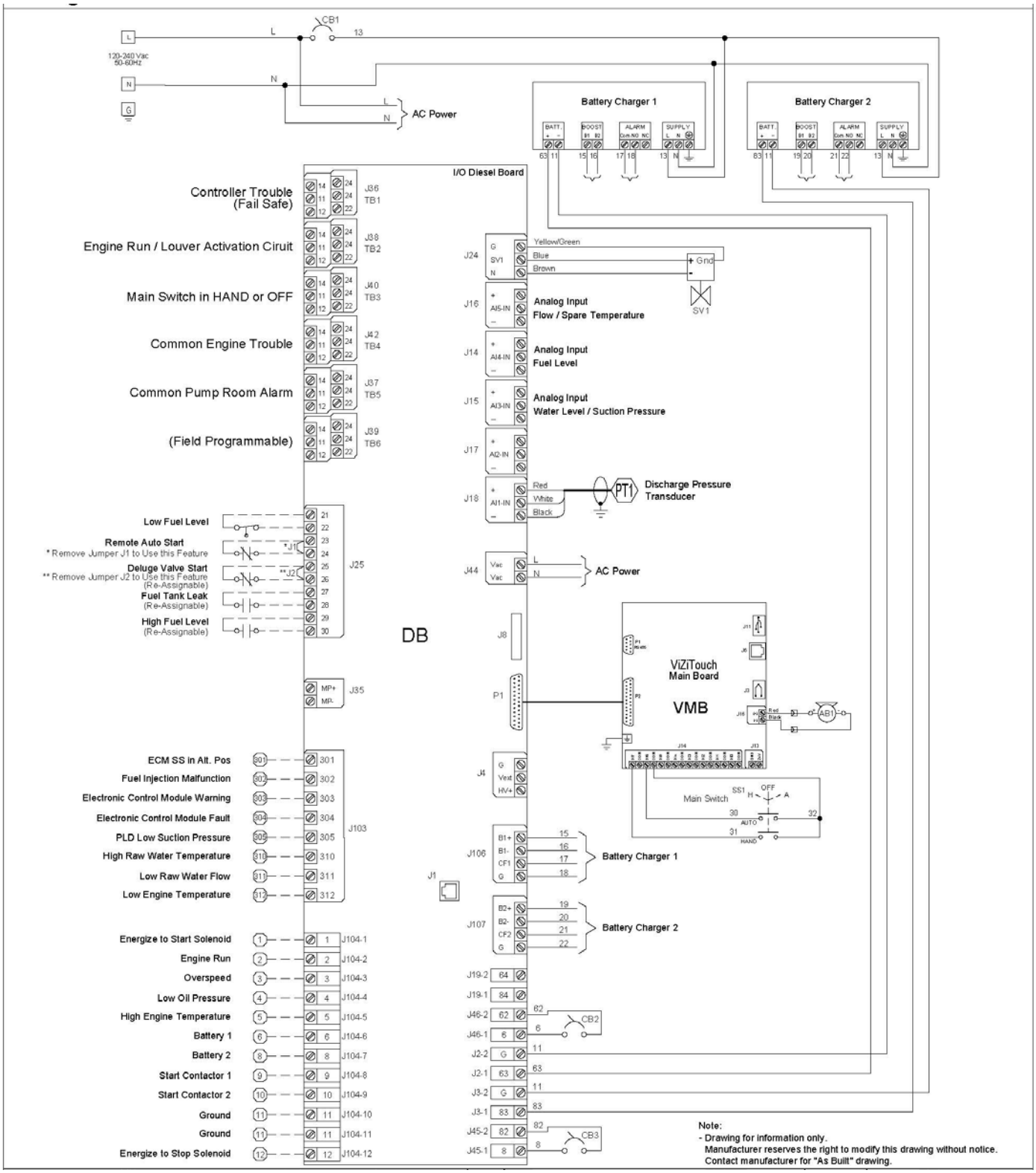
Electric wiring diagrams :



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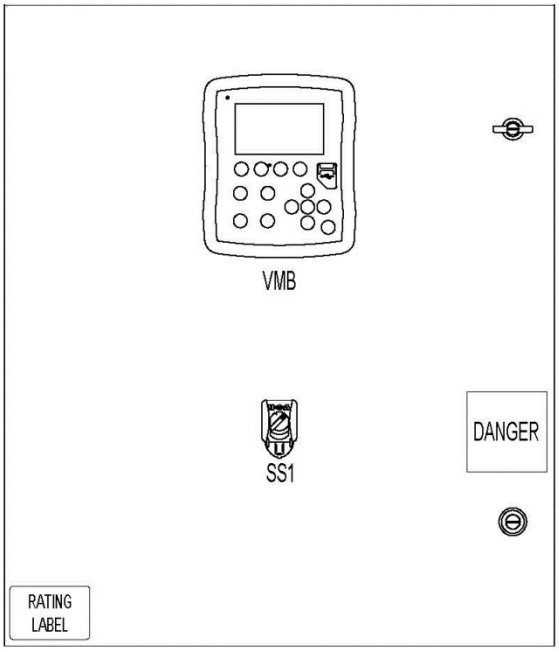
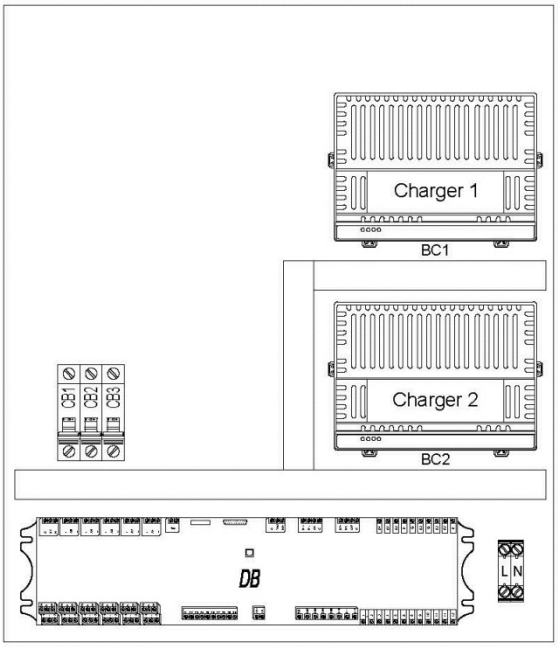
Layout

Built to the latest edition of the NFPA 20 standard

Designation	Description
CB1-2-3	Magnetic Breaker 1 Pole
BC1-BC2	Battery Charger #1 and #2
DB	I/O Diesel Board
SS1	Lockable 3 Position Selector Switch
VMB	ViZiTouch Main Board



Front Door Layout



Internal Layout

Note:
- Drawing for information only.
  Manufacturer reserves the right to modify this drawing without notice.
  Contact manufacturer for "As Built" drawing.

Projection

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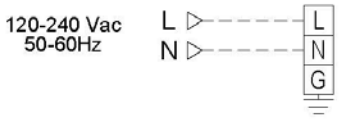
Terminal Diagram

Built to the latest edition of the NFPA 20 standard

Power Supply

Terminals Wire Size:
16 - 6 AWG
2 Nm

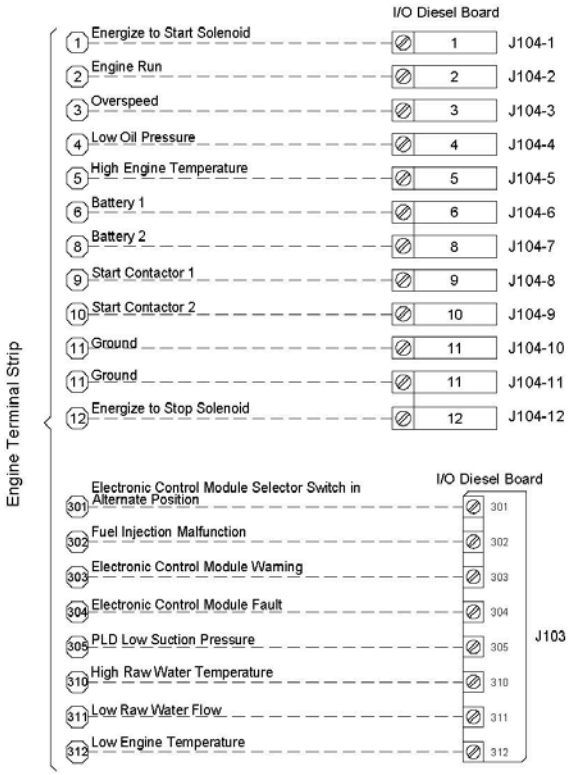


Engine Connections

All wiring between the controller and diesel engine shall be stranded (NFPA20).

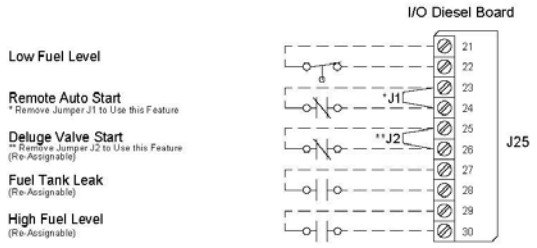
Terminals 301, 302, 303, 304, 305, 310, 311, 312
14-12 AWG (2.5-4 mm2)
4.4 Lb.In (0.5 Nm)
Terminals 2, 3, 4, 5
14-8 AWG (2.5-10 mm2)
16 Lb.In (1.8 Nm)
Terminals 1, 9, 10, 12
10-8 AWG (6-10 mm2)
16 Lb.In (1.8 Nm)

Battery wiring:
Terminals 6, 8, 11
0-5' (0-1.5m) - 12 AWG (4 mm2)
6-10' (1.8-3m) - 10 AWG (6 mm2)
11-15' (3.3-4.5m) - 8 AWG (10 mm2)
16-20' (4.8-6m) - 2x10 AWG (2x6 mm2)
21-32' (6.4-9.75m) - 2x8 AWG (2x10 mm2)
16 Lb.In (1.8 Nm)



Field Connections

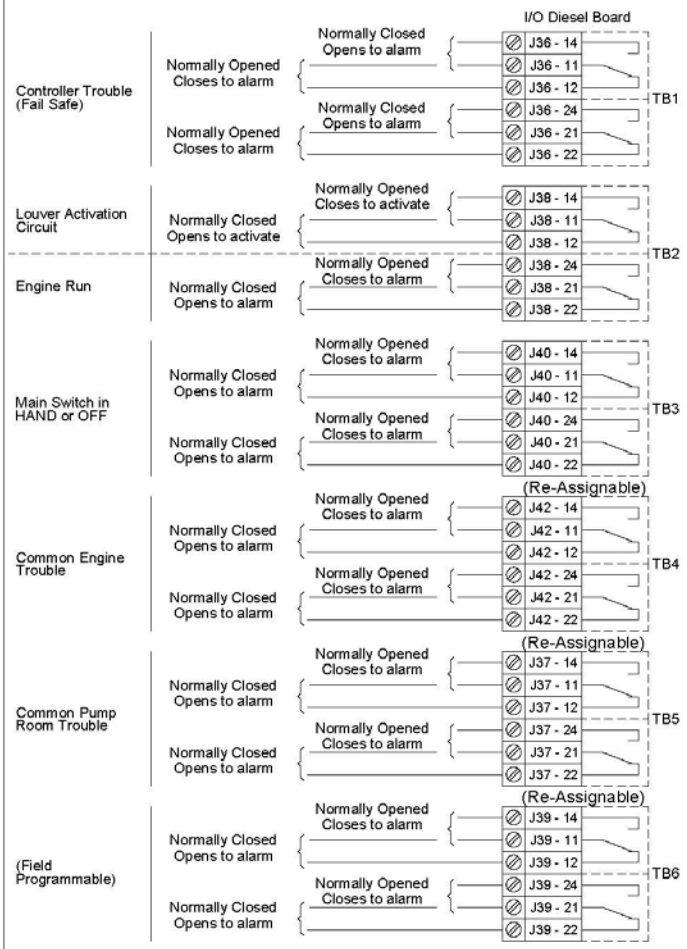
Terminals Wire Size:
24 - 12 AWG
0.5 Nm



Alarm Contacts

Terminals Wire Size:
24 - 12 AWG
0.5 Nm

(11-12-14) / 8A
(21-22-24) / 5A



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