



Mark IIx6 Diesel Engine Fire Pump Controllers

Field Connections

FTA1100J

-WIRE SIZES- COPPER CONDUCTORS ONLY

USE #14 AWG WIRE [16 MWG] MINIMUM FOR ALL ELECTRICAL CONNECTIONS EXCEPT FOR BATTERY CHARGER CONNECTIONS. (BATTERY CHARGERS CONNECTED TO TERMINALS 6, 8 AND 11) ON TERMINALS 6, 8 AND 11 USE THE FOLLOWING INFORMATION TO DETERMINE WIRE SIZES:

LINEAR FEET (IN CONDUIT RUN) FROM CONTROLLER TO TERMINAL BLOCK ON ENGINE	MINIMUM WIRE SIZE
0' - 25' (7.63m)	#10 AWG [6 MM ²]
25' - 50' [7.62m - 15.24m]	#8 AWG [10 MM ²]

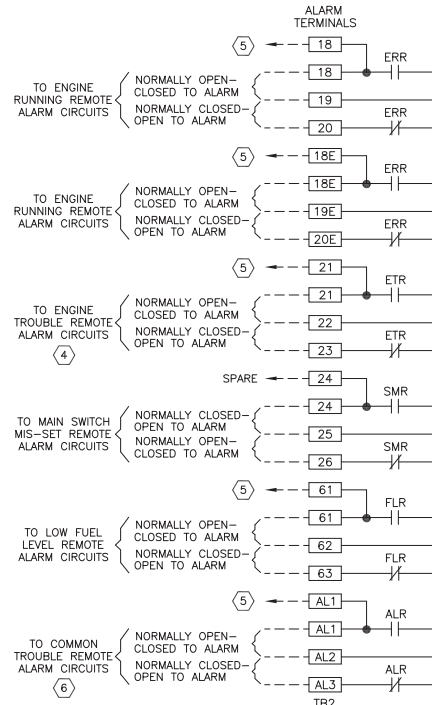
TERMINALS AND TIGHTENING TORQUE		
TERMINAL TYPE	WIRE SIZE	TIGHTENING TORQUE
POWER TERMINALS 45 AMP (G, 1-12)	#14-8 AWG [2.5-10 MM ²]	14.2 in-lb [1.6 Nm]
CONTROL AND ALARM TERMINALS (TB2, TB3)	#14-12 AWG [2.5-4 MM ²]	5.6 in-lb [.6 Nm]
CONTROL AND ALARM TERMINALS (301-312)	#14-12 AWG [2.5-4 MM ²]	7.1 in-lb [.8 Nm]
CIRCUIT BREAKERS	#14-4 AWG [2.5-25 MM ²]	17.5 in-lb [2 Nm]

-NOTES-

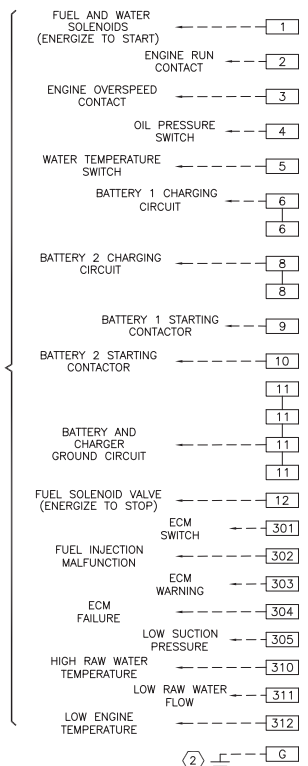
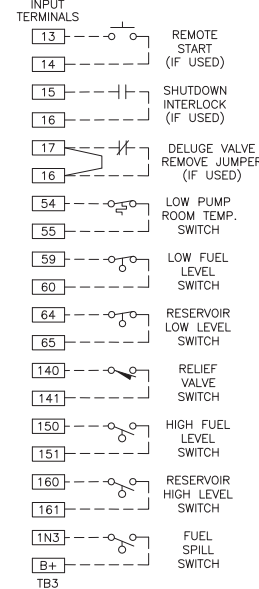
- IF CONTROLLER IS ARRANGED FOR OPERATION ON 220-240 VOLTS (MODIFICATION -BA) CONNECT TO THESE TERMINALS
- TERMINAL G MUST BE WIRED TO INCOMING LINE BONDED GROUND. REFER TO ARTICLE 250, **NATIONAL ELECTRICAL CODE**, NFPA70.
- TERMINALS 1 THRU 12, 301 THRU 305, & 310 THRU 312 CONNECT TO LIKE NUMBERED TERMINALS ON THE ENGINE TERMINAL BLOCK. SOME ENGINES MAY NOT USE ALL TERMINALS. REFER TO ENGINE MANUFACTURER'S WIRING DIAGRAM FOR CORRECT CONNECTIONS.
- ENGINE TROUBLE ALARM CIRCUITS OPERATE IF ANY ONE OR MORE OF THE FOLLOWING TROUBLES OCCUR: ENGINE OVERSPEED, LOW OIL PRESSURE, HIGH WATER TEMPERATURE, BATTERY CHARGER OR BATTERY FAILURE, FAILED TO START, AND STARTING CONTACTOR COIL FAILURE. ELECTRONIC ENGINE ALARMS (TERMINALS 301-312) ARE FIELD PROGRAMMABLE FOR INCLUSION IN ENGINE TROUBLE ALARM.
- SPARE TERMINAL PROVIDED FOR PARALLEL CONNECTION OF REMOTE ALARMS (IF REQUIRED).
- COMMON TROUBLE ALARM CIRCUIT OPERATES WHEN ANY ALARM OCCURS.

-GENERAL NOTES-

ALL ALARM CONTACTS ARE RATED FOR PILOT CIRCUIT DUTY, 250 VAC, 30 VDC MAXIMUM, 10 AMPERES, NON-INDUCTIVE.



PRESSURE SYSTEM CONNECTION
1/2" FNPT



THIS FIELD CONNECTION DIAGRAM IS FOR DIESEL ENGINES LISTED FOR DRIVING CENTRIFUGAL FIRE PUMPS SUPPLIED BY THE FOLLOWING MANUFACTURERS:

- CATERPILLAR, INC., ENGINE DIVISION, PEORIA, IL
- CLARKE DETROIT DIESEL-ALLISON, INC. CINCINNATI, OH
- CUMMINS ENGINE CO., INC., COLUMBUS, IN
- DEUTZ CORP., NORCROSS, GA.
- KIRLOSKAR CUMMINS, LTD., PUNE, INDIA

FOR ENGINES OR MANUFACTURERS NOT LISTED ABOVE, CONSULT THE FACTORY.

UPDATED TITLE BLOCK	F	280454	JMW	TEF	08-26-19
REVISED PER FM & NFPA-20 ADD'L ALARM REQUIREMENTS	E	255410	GFD	GFD	06-19-15
REVISION DESCRIPTION	REV	ECN NO	BY	APP	DATE
FIELD CONNECTIONS	FTA1100-J		DRAWING NUMBER FC1100-20		
MARK II DIESEL ENGINE FIRE PUMP CONTROLLER STANDARD FIELD CONNECTIONS	DWG REV	F	ECN NO	280454	SHEET 1 OF 1

THIRD ANGLE PROJECTION	SIZE	A	BY	TEF	DATE	12-14-02	<p>© Firetrol, Inc. Not for construction. Subject to change without notice.</p>
	DRAWN BY	TEF	DATE	12-14-02			
	FINAL APPROVAL	TEF	DATE	12-14-02			