

Wiring Diagrams

DETROIT DIESEL



Generator Sets

Models:

650-2250DSEC

Controllers:

Digital 550

Microprocessor-Plus



Product Identification Information

Product identification numbers determine service parts. Record the product identification numbers in the spaces below immediately after unpacking the products so that the numbers are readily available for future reference. Record field-installed kit numbers after installing the kits.

Generator Set Identification Numbers

Record the product identification numbers from the generator set nameplate(s).

Model Designation _____

Specification Number _____

Serial Number _____

Accessory Number	Accessory Description
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
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_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Controller Identification

Record the controller description from the generator set operation manual, spec sheet, or sales invoice.

Controller Description _____

Engine Identification

Record the product identification information from the engine nameplate.

Manufacturer _____

Model Designation _____

Serial Number _____

This manual provides wiring diagrams for the 650–1000DSEC and 1500–2250DSEC DDC/MTU engine-powered generator sets equipped with the following controllers:

- Digital 550
- Microprocessor-Plus

Information in this publication represents data available at the time of print. The manufacturer of DDC/MTU Power Generation products reserves the right to change this publication and the products represented without notice and without any obligation or liability whatsoever.

Service Assistance

For professional advice on generator set power requirements and conscientious service, please contact your nearest DDC/MTU Power Generation distributor.

- Consult the Yellow Pages under the heading Generators—Electric
- Visit the DDC/MTU Power Generation website at ddcmtupowergeneration.com
- Look at the labels and stickers on your DDC/MTU Power Generation product or review the appropriate literature or documents included with the product

Wiring Diagrams

Use the Wiring Diagram Cross-Reference chart to determine the wiring diagram version number for a given model number and spec number. Then find that version number and the controller type on the Controller

Wiring Diagrams Reference chart to determine the wiring diagram numbers for your unit. Refer to Controller Identification for controller type identification, if necessary.

Wiring Diagram Cross-Reference

Model No.	Hz	Generator Set Spec No.	Wiring Diagram Version No.
650DSEC	60	GM47454-GA1S, -GA6S	1
750DSEC	60	GM47454-GA2S, -GA7S	1
900DSEC	60	GM47454-GA4S, -GA9S	2
1000DSEC	60	GM47454-GA5S, -GA10S	2
1500DSEC	60	GM40635-GA1S, GA3S	3
1750DSEC	60	GM40635-GA1S, GA3S	3
2000DSEC	60	GM40635-GA2S, GA4S	3
2250DSEC	60	GM40635-GA2S, GA4S	3

650/750DSEC Controller Wiring Diagrams Reference

Controller Description	Version 1	Page
Digital 550		
Point-to-Point Wiring Diagram		
Sheet 1	GM40418A-A	30
Sheet 2	GM40418B-A	31
Schematic Diagram		
Sheet 1	ADV-7157A-A	10
Sheet 2	ADV-7157B-A	11
Accessory Connections		
Sheet 1	GM16088A-F	21
Sheet 2	GM16088B-F	22
Sheet 3	GM28632B-G	26
Sheet 4	GM28632C-G	27
Sheet 5	GM28632D-G	28
Sheet 6	GM28632E-G	29
Microprocessor-Plus		
Point-to-Point Wiring Diagram		
Sheet 1	GM40426A-A	32
Sheet 2	GM40426B-A	33
Schematic Diagram	ADV-7160-A	12
Accessory Connections		
Sheet 1	328912A-G	46
Sheet 2	328912B-G	47
Sheet 3	328912C-G	48
Sheet 4	GM28631B-B	23
Sheet 5	GM28631C-B	24
Sheet 6	GM28631D-B	25
Alternator Reconnections	ADV-5875C-G	9

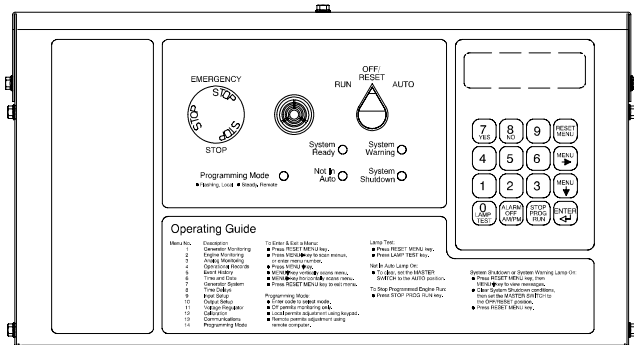
900/1000DSEC Controller Wiring Diagrams Reference

Controller Description	Version 2	Page
Digital 550		
Point-to-Point Wiring Diagram		
Sheet 1	GM40429A-A	36
Sheet 2	GM40429B-A	37
Schematic Diagram		
Sheet 1	ADV-7162A-A	14
Sheet 2	ADV-7162B-A	15
Accessory Connections		
Sheet 1	GM16088A-F	21
Sheet 2	GM16088B-F	22
Sheet 3	GM28632B-G	26
Sheet 4	GM28632C-G	27
Sheet 5	GM28632D-G	28
Sheet 6	GM28632E-G	29
Microprocessor-Plus		
Point-to-Point Wiring Diagram		
Sheet 1	GM40428A-A	34
Sheet 2	GM40428B-A	35
Schematic Diagram	ADV-7161-A	13
Accessory Connections		
Sheet 1	328912A-G	46
Sheet 2	328912B-G	47
Sheet 3	328912C-G	48
Sheet 4	GM28631B-B	23
Sheet 5	GM28631C-B	24
Sheet 6	GM28631D-B	25
Alternator Reconnections	ADV-5875C-G	9

1500-2250DSEC Controller Wiring Diagrams Reference

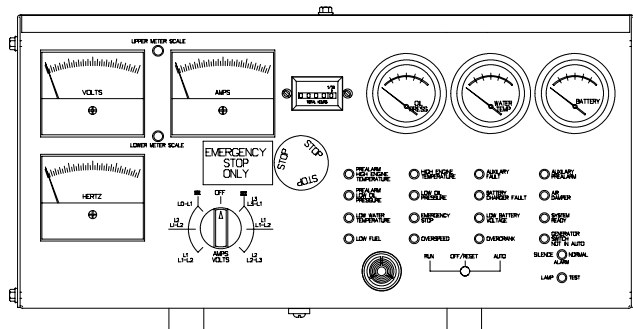
Controller Description	Version 3	Page
Digital 550 (380-600 V)		
Point-to-Point Wiring Diagram		
Sheet 1	GM40957A-	42
Sheet 2	GM40957B-	43
Schematic Diagram		
Sheet 1	ADV-7253A-	17
Sheet 2	ADV-7253B-	18
Accessory Connections		
Sheet 1	GM16088A-F	21
Sheet 2	GM16088B-F	22
Sheet 3	GM28632B-G	26
Sheet 4	GM28632C-G	27
Sheet 5	GM28632D-G	28
Sheet 6	GM28632E-G	29
Digital 550 (4160 V)		
Point-to-Point Wiring Diagram		
Sheet 1	GM40958A-	44
Sheet 2	GM40958B-	45
Schematic Diagram		
Sheet 1	ADV-7254A-	19
Sheet 2	ADV-7254B-	20
Microprocessor-Plus (380-600 V)		
Point-to-Point Wiring Diagram		
Sheet 1	GM40953A-	38
Sheet 2	GM40953B-	39
Schematic Diagram	ADV-7252-	16
Accessory Connections		
Sheet 1	328912A-G	46
Sheet 2	328912B-G	47
Sheet 3	328912C-G	48
Sheet 4	GM28631B-B	23
Sheet 5	GM28631C-B	24
Sheet 6	GM28631D-B	25
Microprocessor-Plus (1905-4160 V)		
Point-to-Point Wiring Diagram		
Sheet 1	GM40955A-	40
Sheet 2	GM40955B-	41
Schematic Diagram	ADV-7252-	16
Alternator Reconnections	ADV-5875C-G	9

Controller Identification



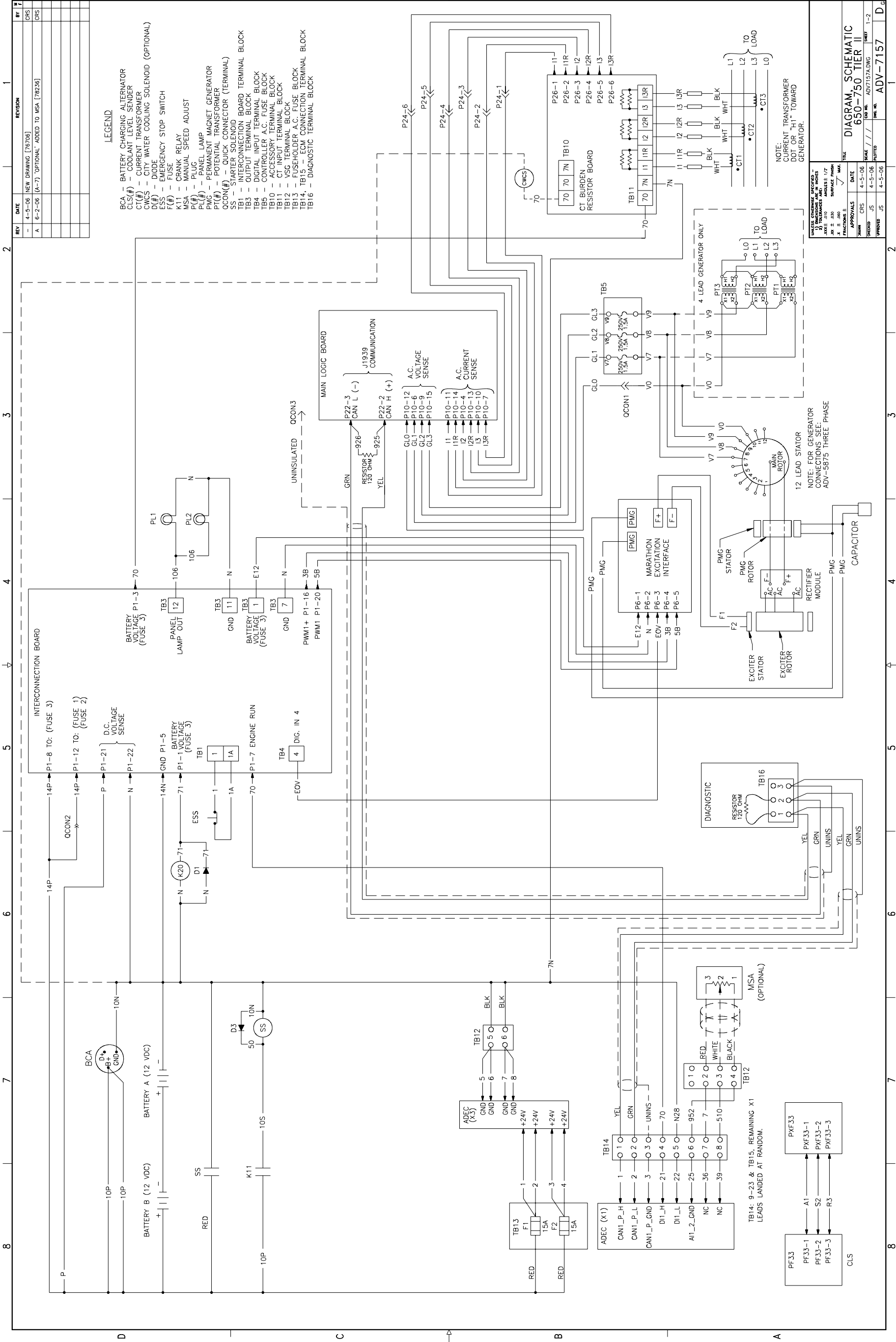
Digital 550 Controller

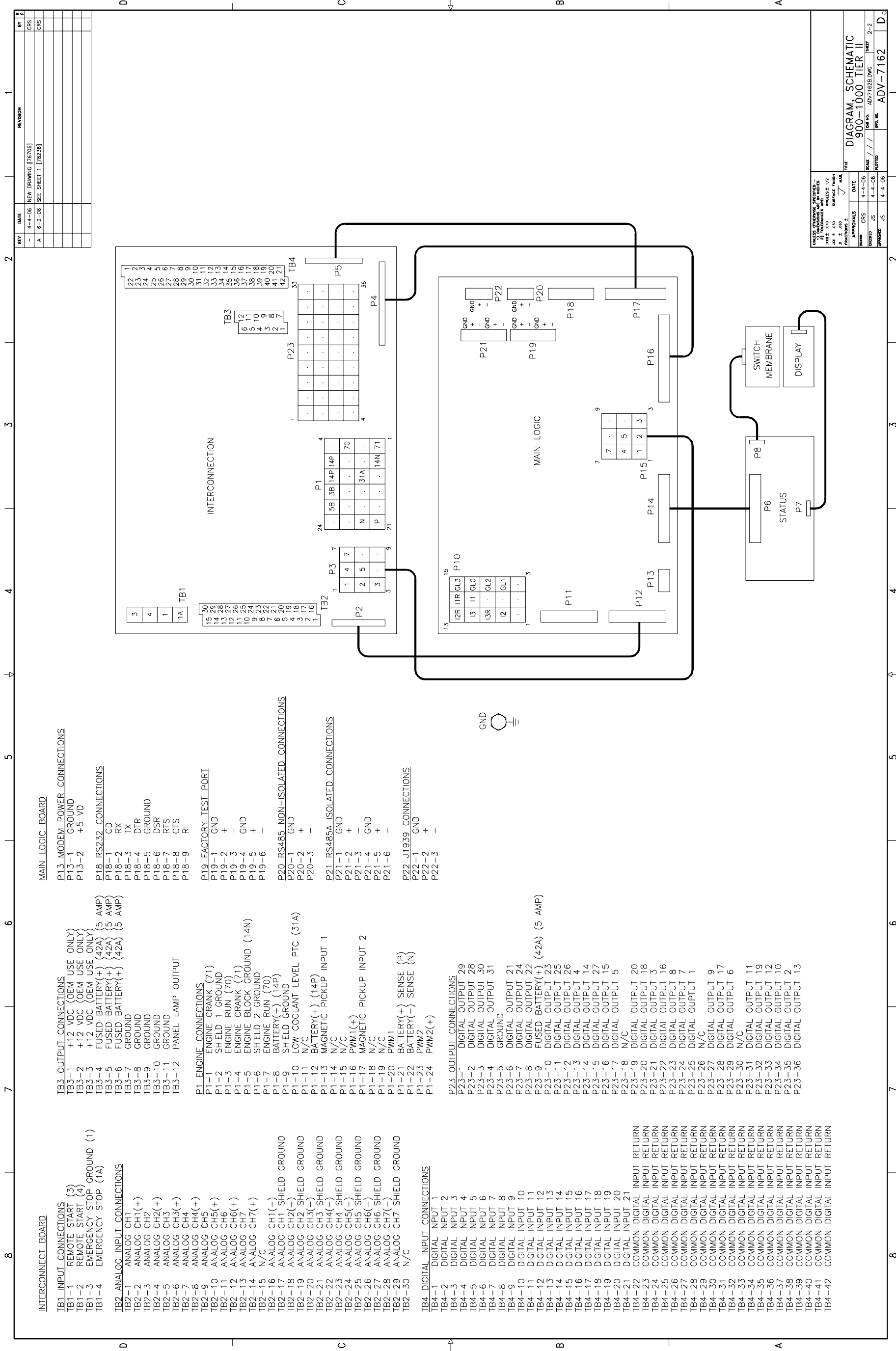
- Audiovisual annunciation with NFPA 110 Level 1 capability.
- Programmable microprocessor logic and digital display features.
- Safeguard circuit protection standard.
- 12- or 24-volt engine electrical system capability.
- Remote start, remote annunciation, and remote communication options.

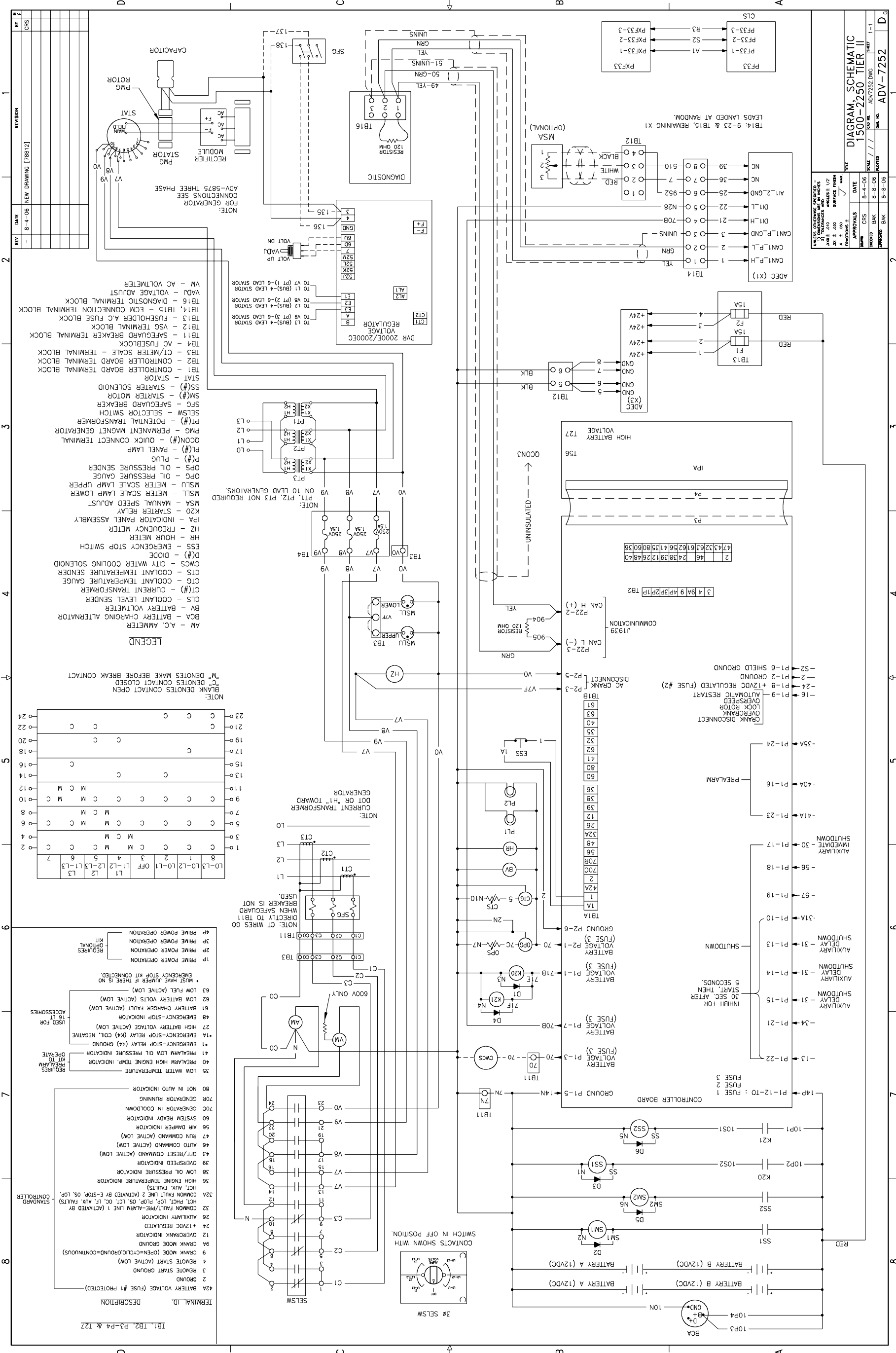


Microprocessor-Plus, 16-Light Controller

- Audiovisual annunciation with NFPA 110 Level 1 capability.
- Microprocessor logic, AC meters, and engine gauge features.
- 12- or 24-volt engine electrical system capability.
- Remote start, prime power, and remote annunciation options.

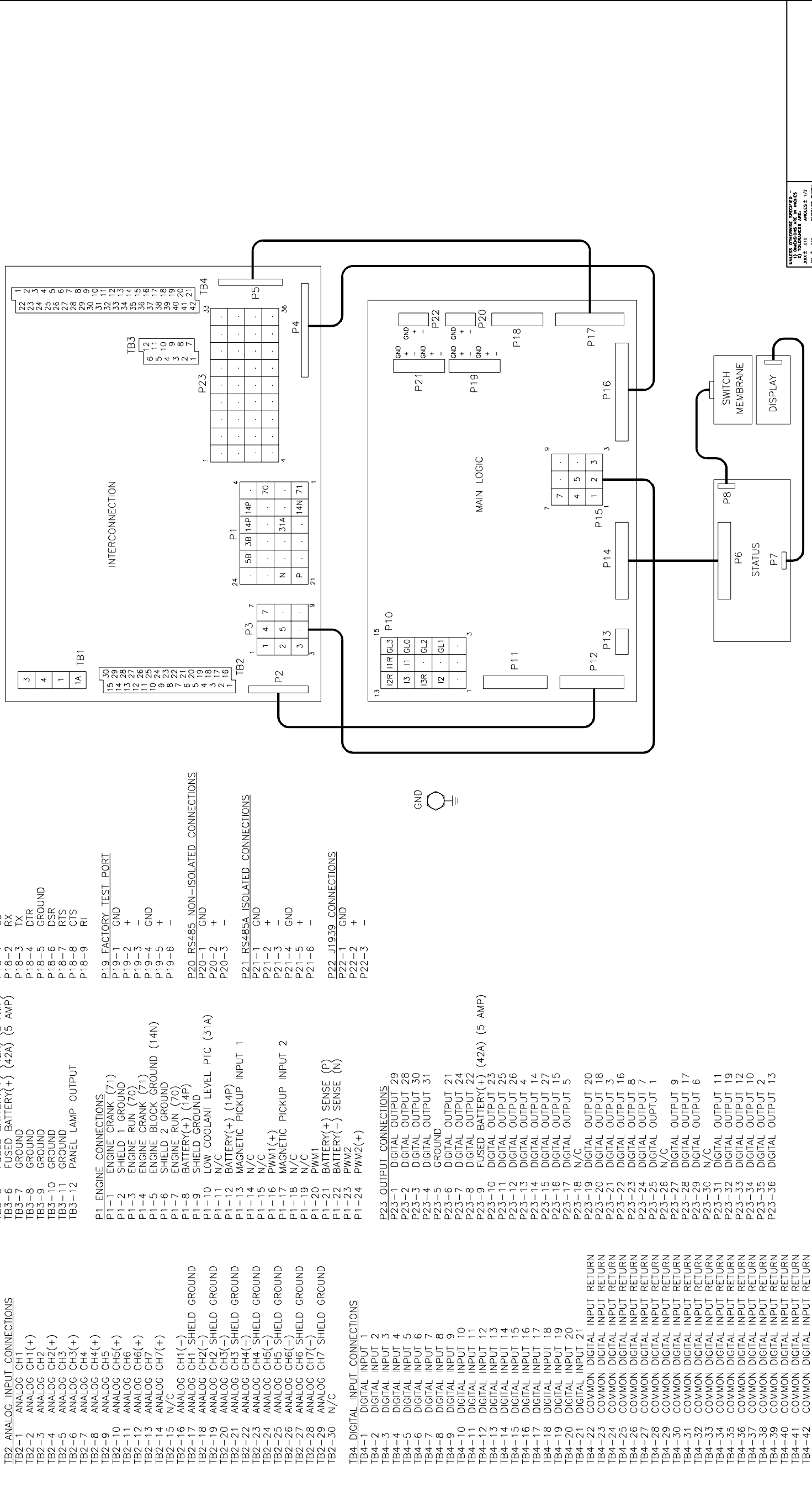


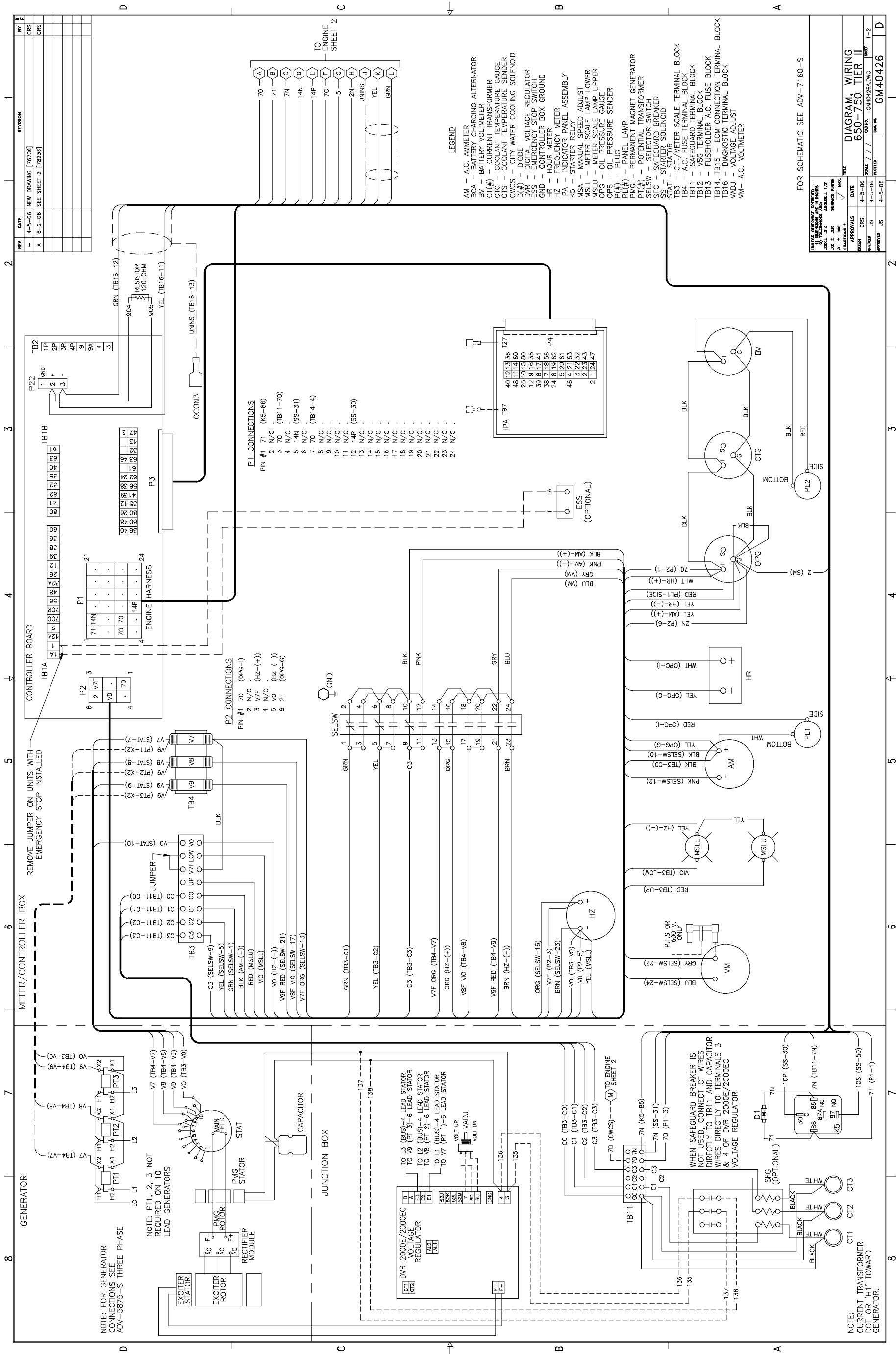


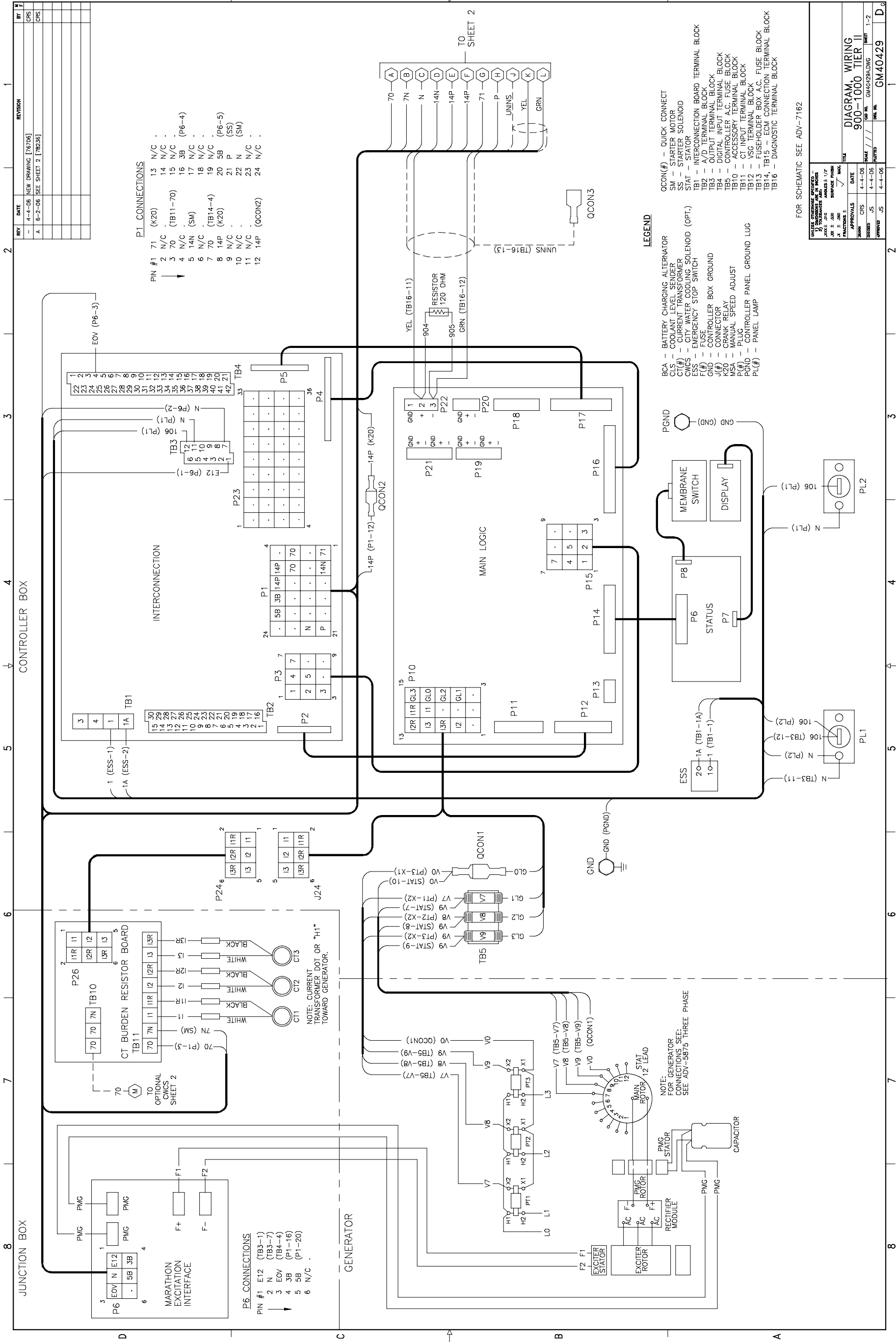


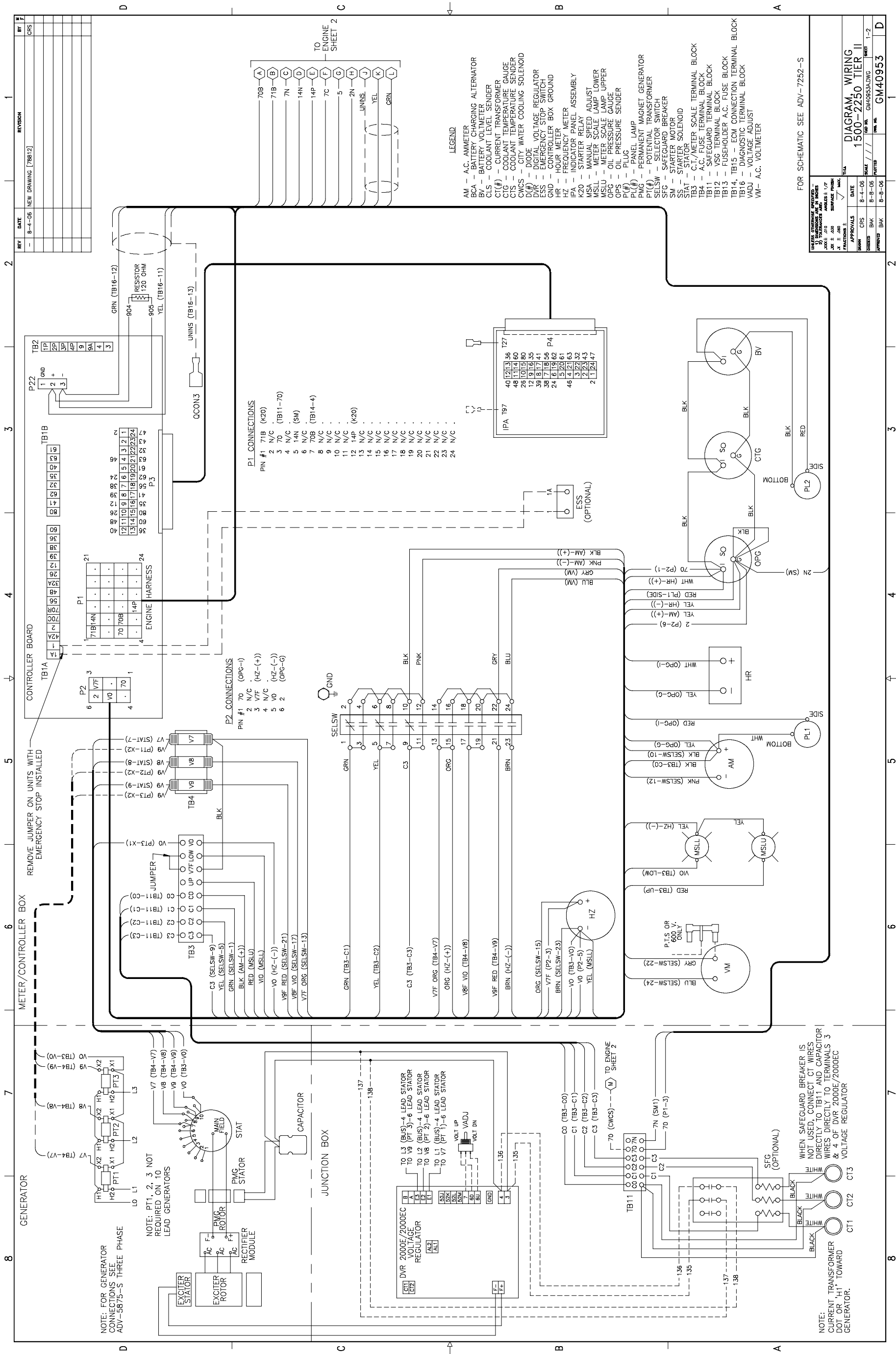
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1	8-4-06	NEW DRAWING [78812]		
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INTERCONNECT BOARD		MAIN LOGIC BOARD	
TB1 INPUT CONNECTIONS	TB3 OUTPUT CONNECTIONS	P13 MODEM POWER CONNECTIONS	
TB1-1 REMOTE START (3)	TB3-1 +12 VDC (OEM USE ONLY)	P13-1 GROUND	
TB1-2 REMOTE START (4)	TB3-2 +12 VDC (OEM USE ONLY)	P13-2 +5 VD	
TB1-3 EMERGENCY STOP GROUND (1)	TB3-3 +12 VDC (OEM USE ONLY)		

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DDC/MTU Power Generation
605 North 8th Street, Suite 501
Sheboygan, Wisconsin 53081 USA
Phone 920-451-0846, Fax 920-451-0843
ddcmtupowergeneration.com