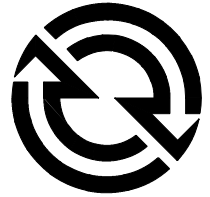


Wiring Diagrams

SPECTRUM®

DETROIT DIESEL



Generator Sets

Models:

20-180DS
80/100/200DSE

Controllers:

Digital

Microprocessor-Plus

Microprocessor

Basic

Manual

Engine Gauge Box for Paralleling Switchgear



This manual provides wiring diagrams for the 20–180DS and 80/100/200DSE Perkins- and Detroit Diesel Series 40-powered generator sets equipped with one of the following controllers:

- Digital Controller
- Microprocessor-Plus Controller
 - 16-Light
 - 7-Light
- Microprocessor Controller
 - 16-Light
 - 6-Light
- Basic Controller
 - Standard
 - Standard with Engine Gauges
 - Expanded with Engine Gauges and AC Meters
- Manual Controller
- Engine Gauge Box for Paralleling Switchgear

At the time of print this manual applied to the model numbers and specification (spec) numbers shown in the Wiring Diagram Cross-Reference chart. On occasion this manual may apply to specs not listed in the Wiring Diagram Cross-Reference chart.

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

x:in:001:002:a

Service Assistance

Service Information

Please contact a local authorized distributor/dealer for sales, service, or other information about Spectrum products.

To locate a local authorized distributor/dealer inside the U.S.A. and Canada

- Look on the product or the information included with the product
- Consult the Yellow Pages under the heading Generators—Electric
- Call (920) 459-1877

To locate a local authorized distributor/dealer outside the U.S.A. and Canada

- Look on the product or the information included with the product
- Consult the telephone directory under the heading Generators—Electric
- Call the nearest regional office

Africa, Europe, Middle East

London Regional Office
Langley, Slough, England
Phone: (44) 1753-580-771
Fax: (44) 1753-580-036

Australia

Australia Regional Office
Queensland, Australia
Phone: (617) 3893-0061
Fax: (617) 3893-0072

China

China Regional Office
Shanghai, People's Republic of China
Phone: (86) 21-6482 1252
Fax: (86) 21-6482 1255

India, Bangladesh, Sri Lanka

India Regional Office
Bangalore, India
Phone: (91) 80-2284270
(91) 80-2284279
Fax: (91) 80-2284286

Japan

Japan Regional Office
Tokyo, Japan
Phone: (813) 3440-4515
Fax: (813) 3440-2727

Latin America

Latin America Regional Office
Lakeland, Florida, U.S.A.
Phone: (941) 619-7568
Fax: (941) 701-7131

South East Asia

Singapore Regional Office
Singapore, Republic of Singapore
Phone: (65) 264-6422
Fax: (65) 264-6455

Product 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 Number _____

Specification Number _____

Serial Number _____

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

Engine Identification

Record the product identification information from the engine nameplate.

Manufacturer _____

Model Number _____

Serial Number _____

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 Diagram Reference chart to determine the wiring diagram numbers for your unit. Refer to the generator set operation manual for controller type identification if necessary.

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Wiring Diagram Cross-Reference

Generator Set Model No.	Hz	Generator Set Spec No.	Wiring Diagram Version No.
20DS	50/60	PA-192001	(1-1, 1-2)*
30DS	50/60	PA-192101	(1-1, 1-2)*
40DS	50/60	PA-192201	(1-1, 1-2)*
50DS	50/60	PA-192301	(1-1, 1-2)*
60DS	50/60	PA-192401	(1-1, 1-2)*
80DS	50/60	PA-192501	(1-1, 1-2)*
100DS	50/60	PA-192601	(1-1, 1-2)*
125DS	50/60	PA-192701	(1-1, 1-2)*
150DS	50/60	PA-192801	(1-1, 1-2)*
180DS	50/60	PA-192901	(1-1, 1-2)*
80DSE	50/60	PA-192519	1-2
100DSE	50/60	PA-192619	1-2
200DSE	50/60	PA-192927	2

* Use version 1-1 for serial numbers below 363369.
Use version 1-2 for serial number 363369 and above.

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Controller Wiring Diagrams Reference

Controller Description (20-180DS, 80/100DSE)	Version 1-1	P.	Version 1-2	P.
Digital Controller				
Point-to-Point Wiring Diagram				
Sheet 1	—		347941A-J	33
Sheet 2	—		347941B-J	34
Schematic Diagram				
Sheet 1	—		ADV-6130A-H	8
Sheet 2	—		ADV-6130B-H	9
Accessory Connections				
Accessories	—		354246A-D	35
Remote Annunciator Kit	—		354246B-D	36
Microprocessor-Plus and Microprocessor Controller				
Point-to-Point Wiring Diagram				
Sheet 1	324148-F	19	324735-F	22
Sheet 2	324149-D	20	—	
Schematic Diagram				
Sheet 1	ADV-5618-E	1	ADV-6002-E	5
Sheet 2	ADV-5619-J	2	—	
Accessory Connections				
Accessories	255828A-N	16	328912A-F	29
Remote Annunciator Kit, Sheet 1	255828B-N	17	328912B-F	30
Remote Annunciator Kit, Sheet 2	255828C-N	18	—	
Basic Controller				
Point-to-Point Wiring Diagram				
Standard	—		347327-F	32
Standard with Engine Gauges	—		347327-F	32
Standard with Engine Gauges and AC Meters (12 Lead)	—		347058-J	31
Schematic Diagram				
Standard	—		ADV-6010-E	7
Standard with Engine Gauges	—		ADV-6010-E	7
Standard with Engine Gauges and AC Meters (12 Lead)	—		ADV-6008-G	6
Manual Controller				
Point-to-Point Wiring Diagram				
Sheet 1	324150-H	21	324150-H	21
Schematic Diagram				
Sheet 1	ADV-5664-F	3	ADV-5664-F	3
Sheet 2	ADV-5665-G	4	—	

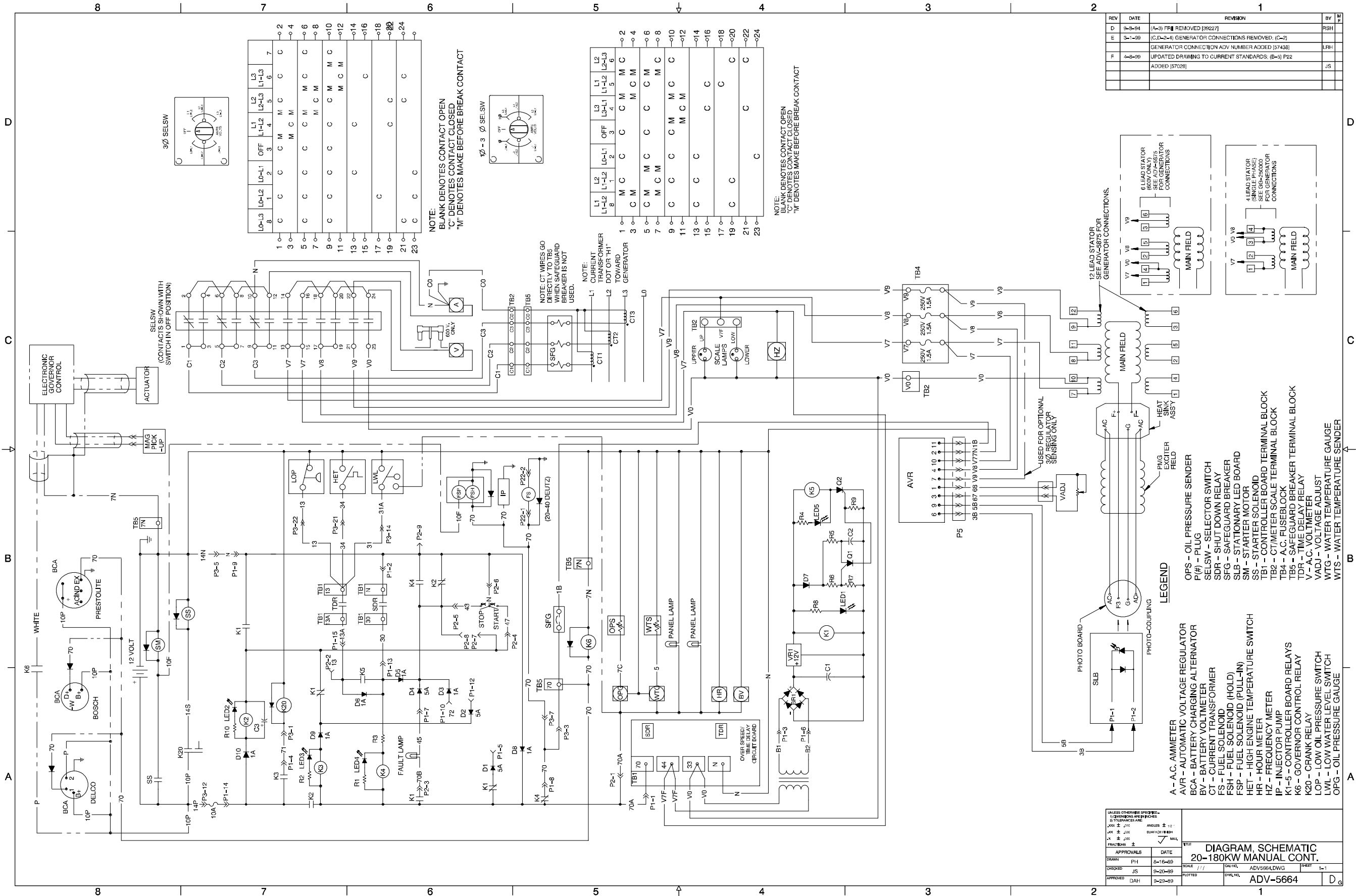
NOTE: Version 1-1 uses the Microprocessor controller.
Version 1-2 uses the Microprocessor-Plus controller.

Controller Wiring Diagrams Reference, continued

Controller Description (200DSE)	Version 2	P.
Digital Controller		
Point-to-Point Wiring Diagram		
Sheet 1	324950A-	25
Sheet 2	324950B-	26
Schematic Diagram		
Sheet 1	ADV-6510A-	12
Sheet 2	ADV-6510B-	13
Accessory Connections		
Accessories	354246A-D	35
Remote Annunciator Kit	354246B-D	36
Microprocessor-Plus Controller		
Point-to-Point Wiring Diagram		
Sheet 1	324958A-	27
Sheet 2	324958B-	28
Schematic Diagram		
Sheet 1	ADV-6509A-A	10
Sheet 2	ADV-6509B-A	11
Accessory Connections		
Accessories	328912A-F	29
Remote Annunciator Kit, Sheet 1	328912B-F	30
Remote Annunciator Kit, Sheet 2	—	
Engine Gauge Box for Paralleling Switchgear		
Point-to-Point Wiring Diagram		
Sheet 1	324949A-	23
Sheet 2	324949B-	24
Schematic Diagram		
Sheet 1	ADV-6511A-	14
Sheet 2	ADV-6511B-	15

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Notes

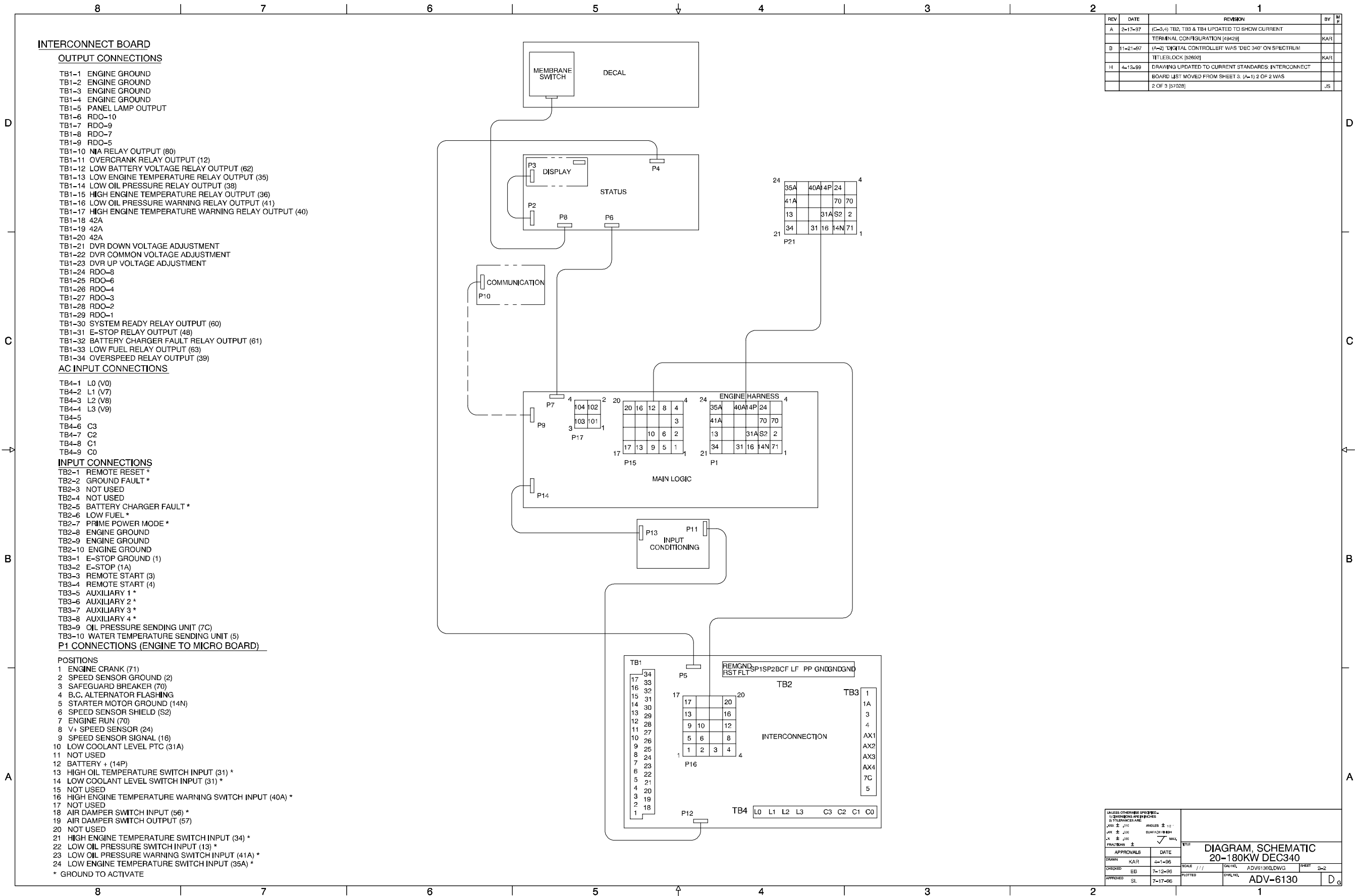


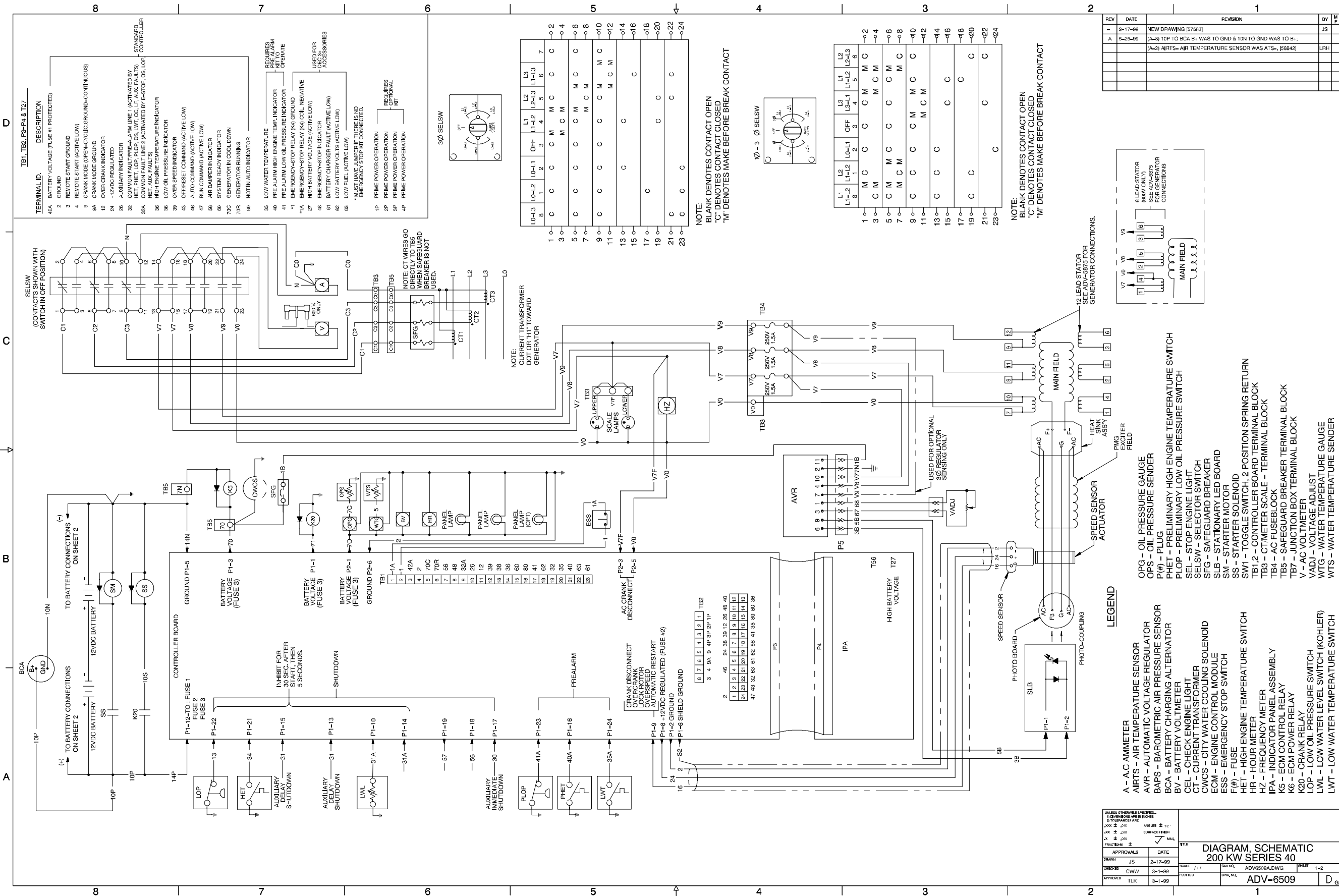
Manual Controller, Schematic Diagram, Sheet 1, ADV-5664-F



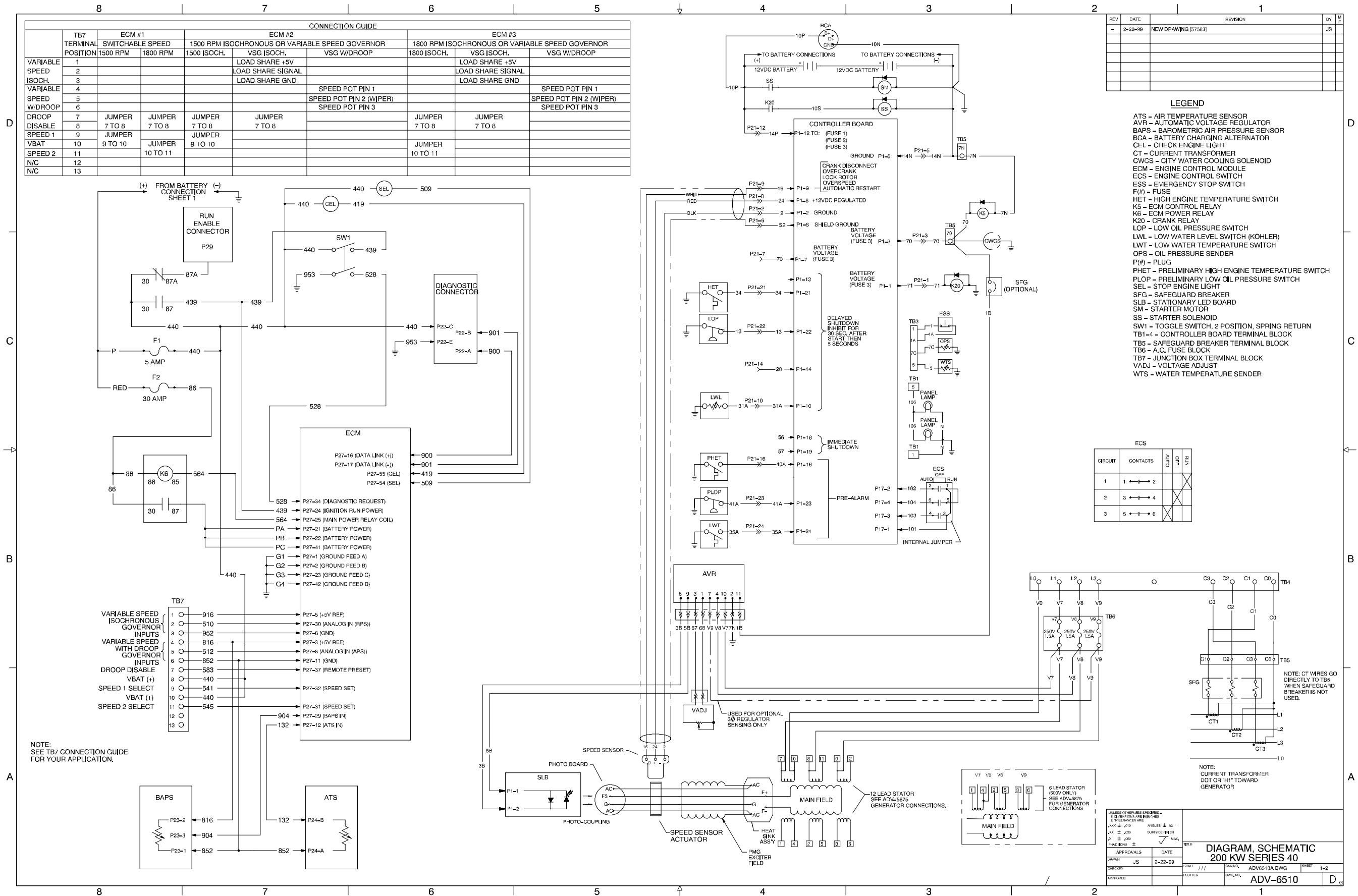


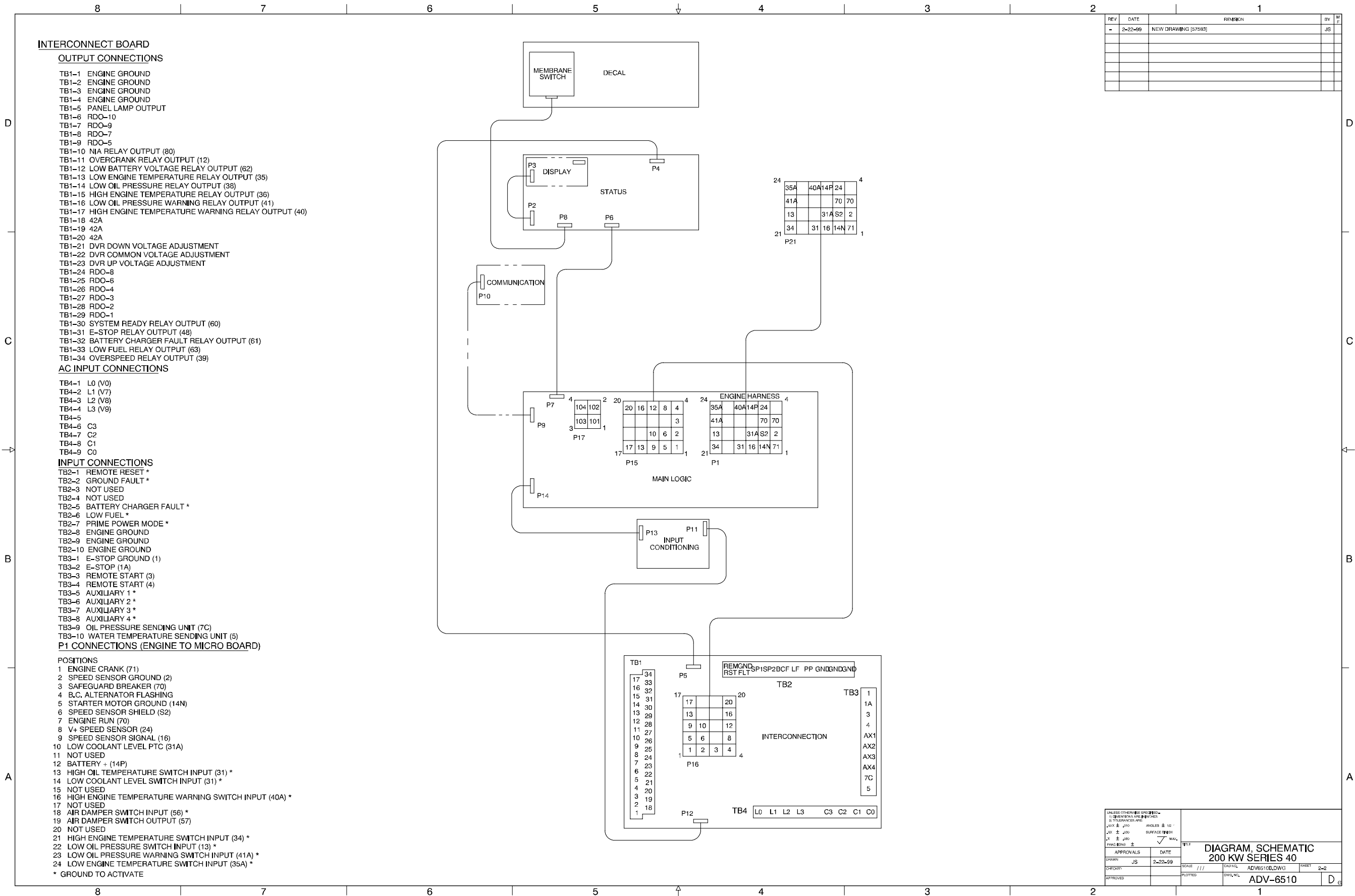








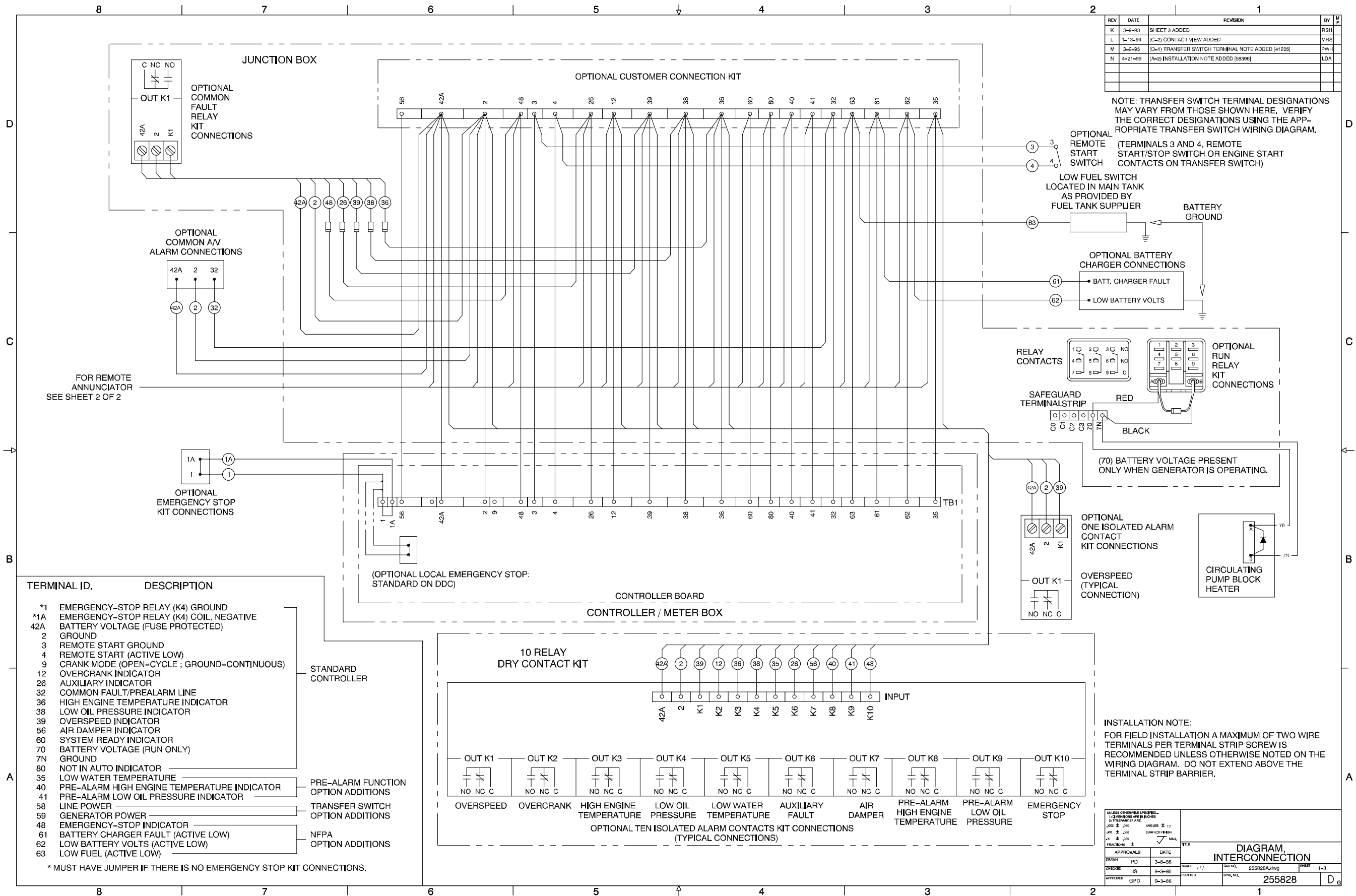




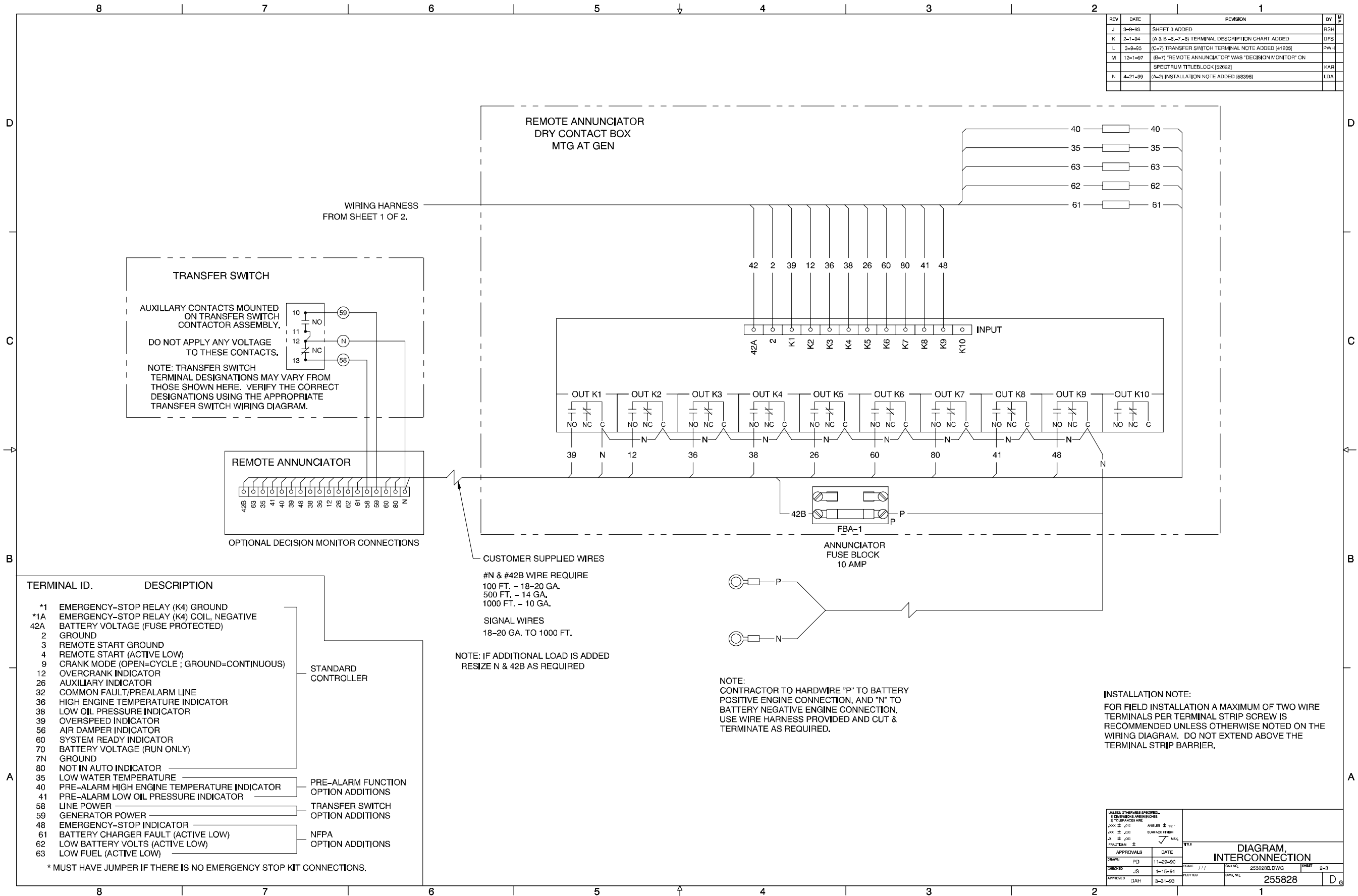
Digital Controller, Schematic Diagram, Sheet 2, ADV-6510B-





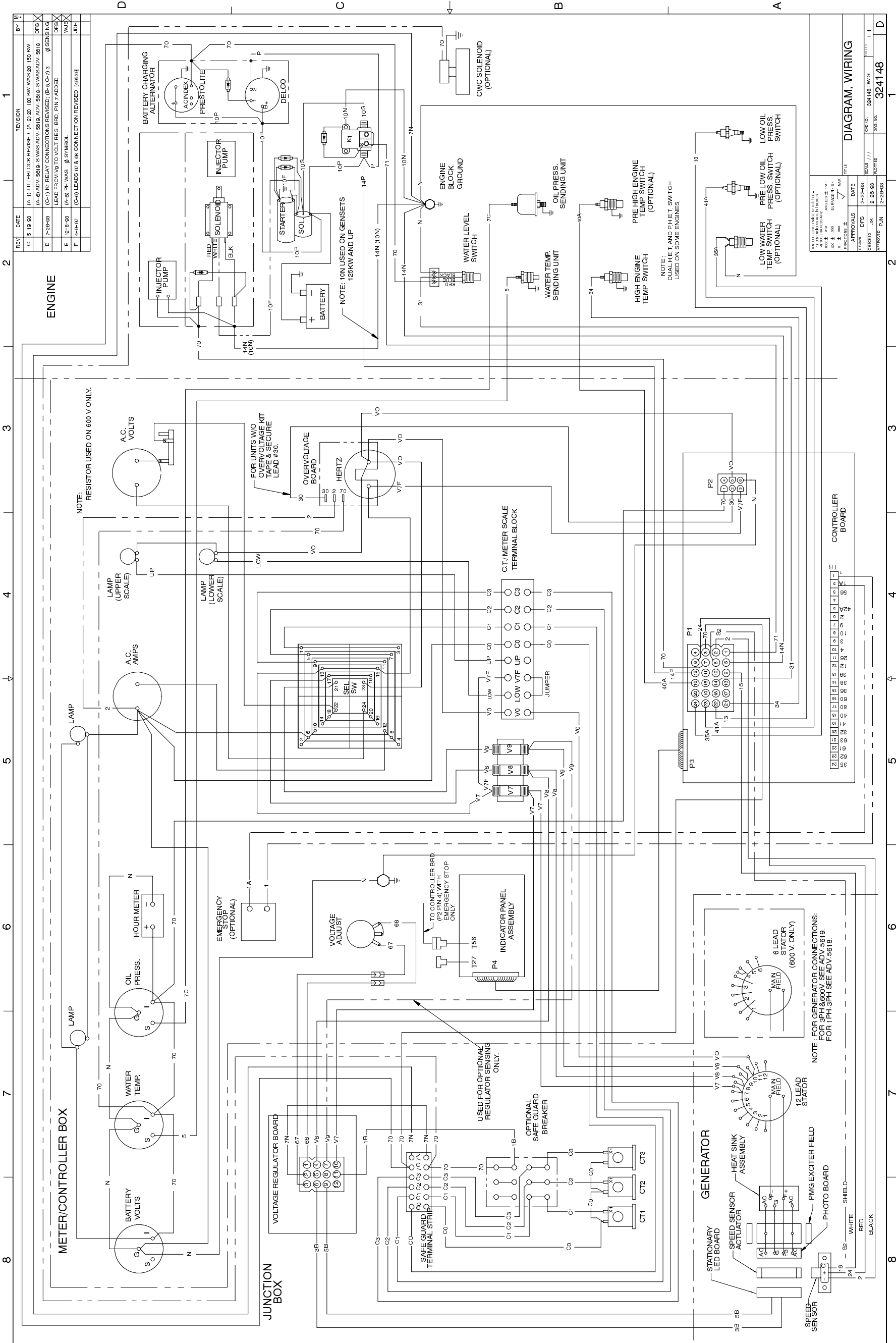


Microprocessor Controller, Accessory Connections, Accessories, 255828A-N

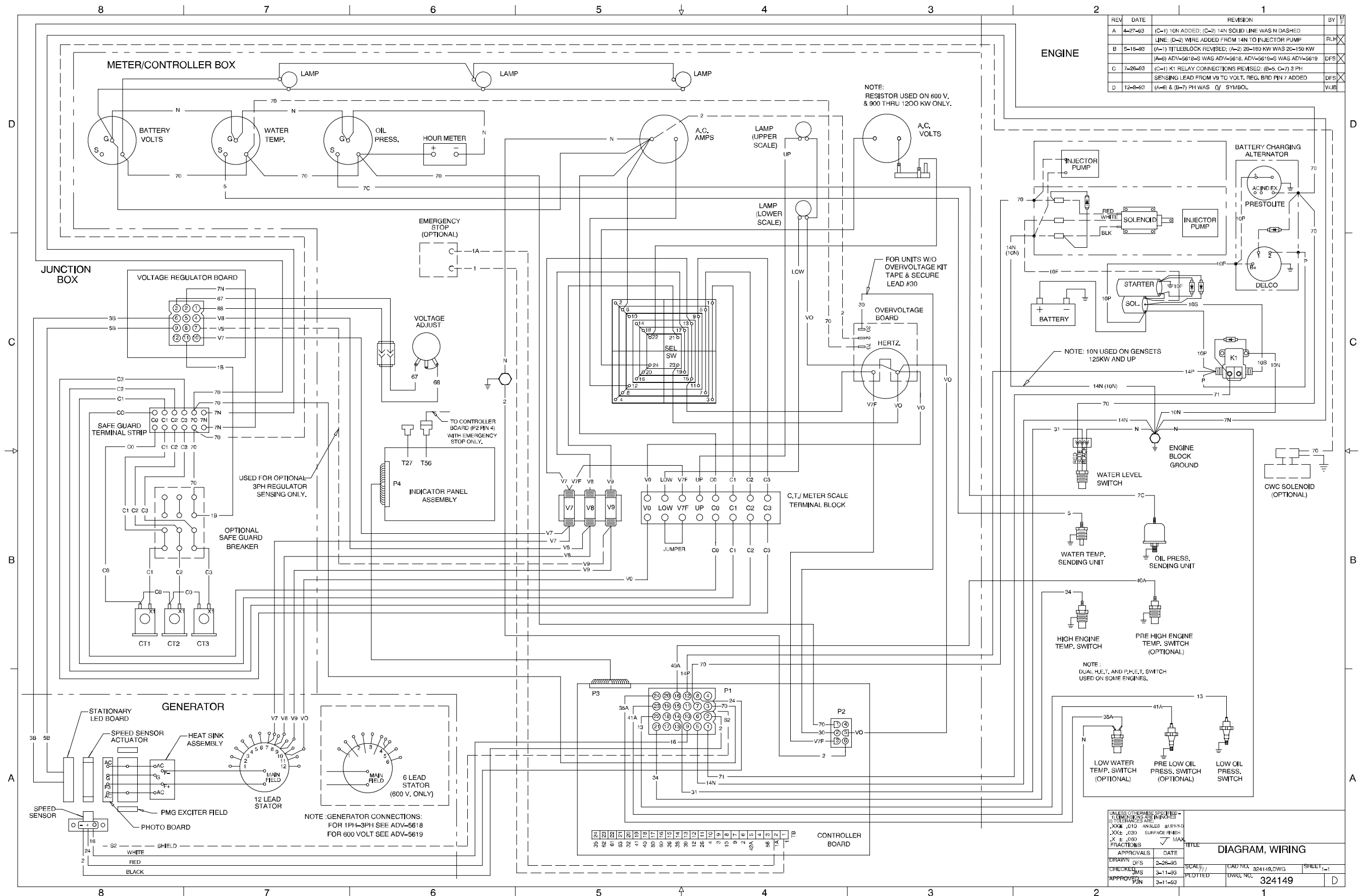


Microprocessor Controller, Accessory Connections, Remote Annunciator Kit, Sheet 1, 255828B-N

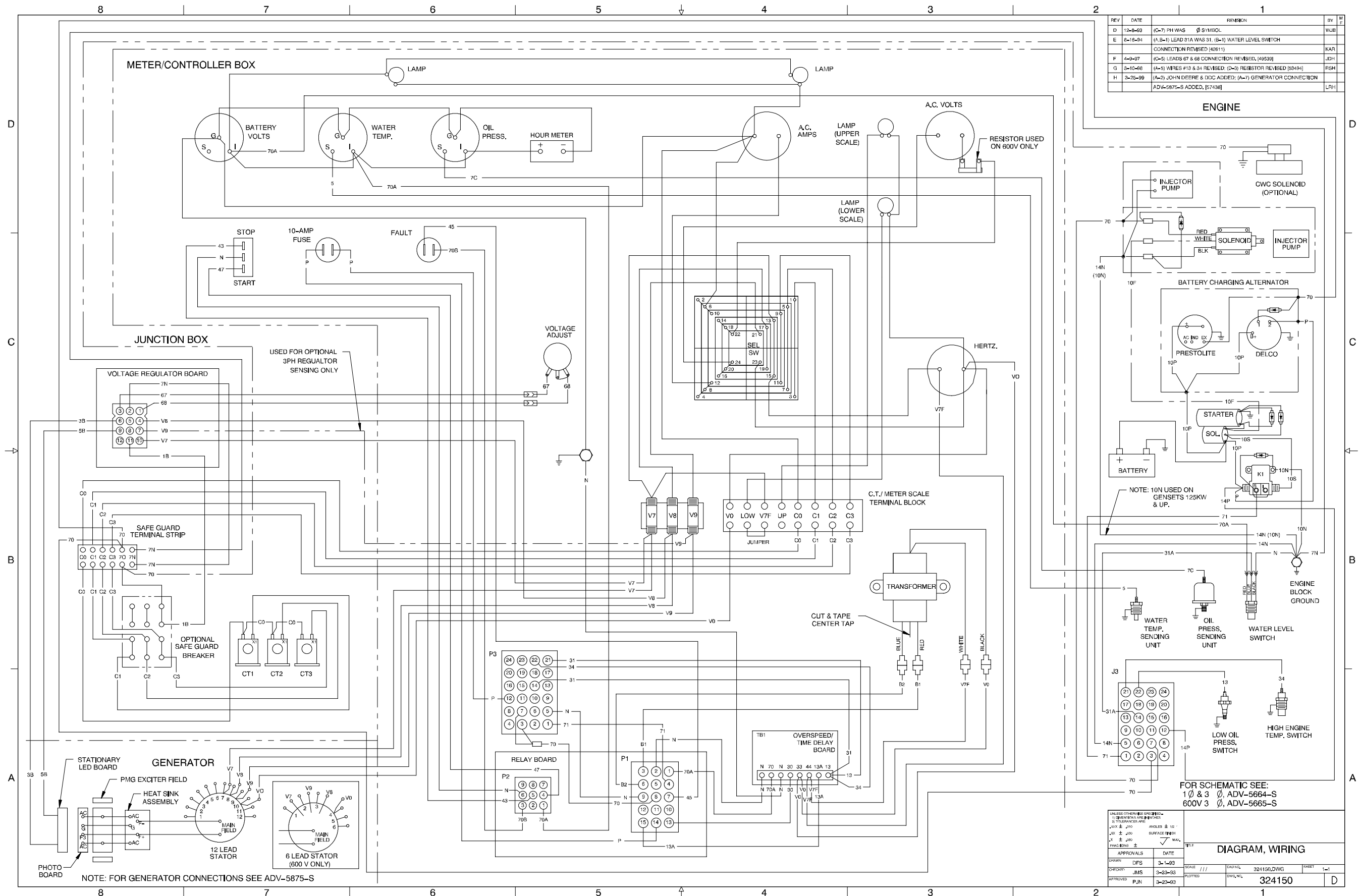




Microprocessor Controller, Point-to-Point Wiring Diagram, Sheet 1, 324148-F

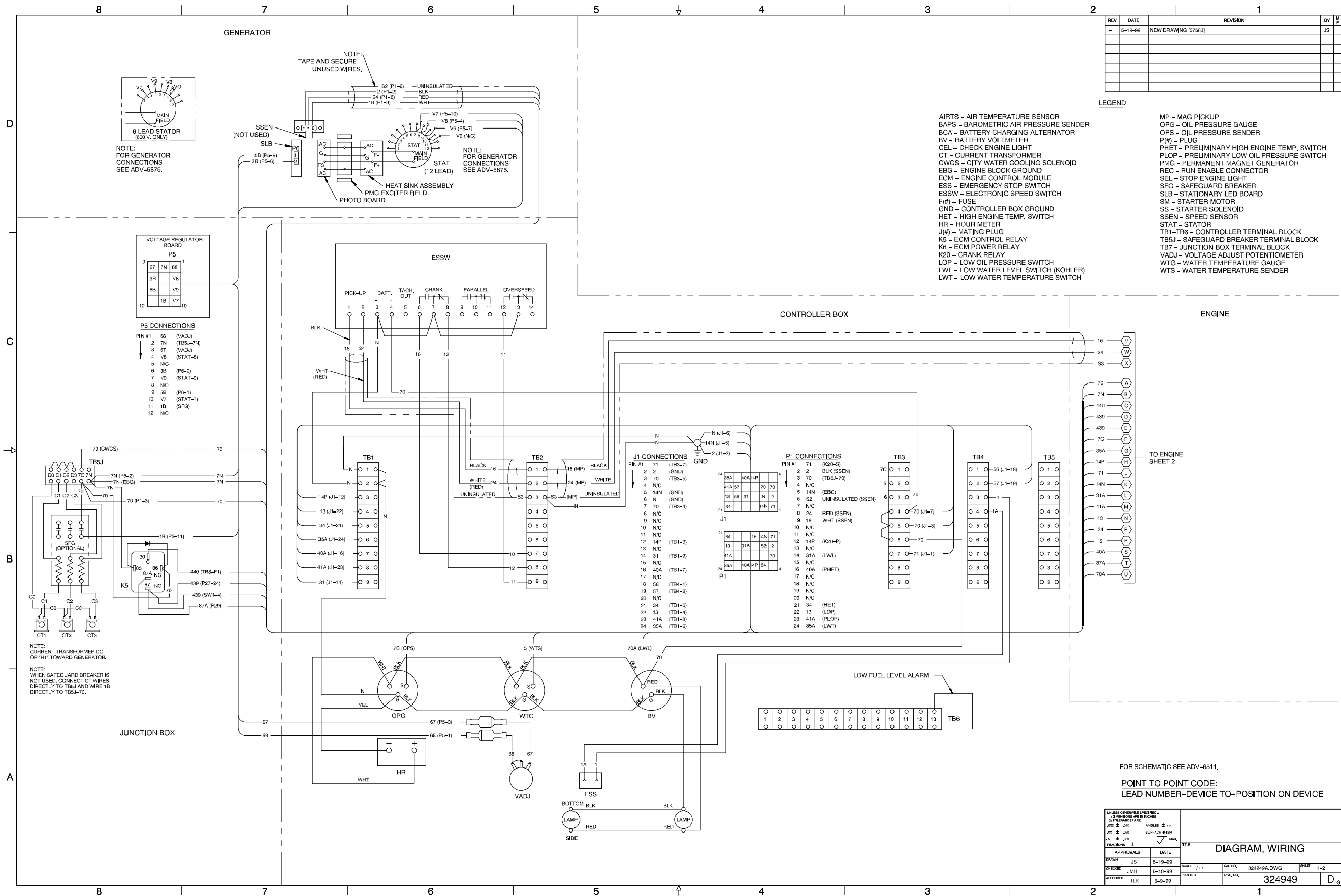


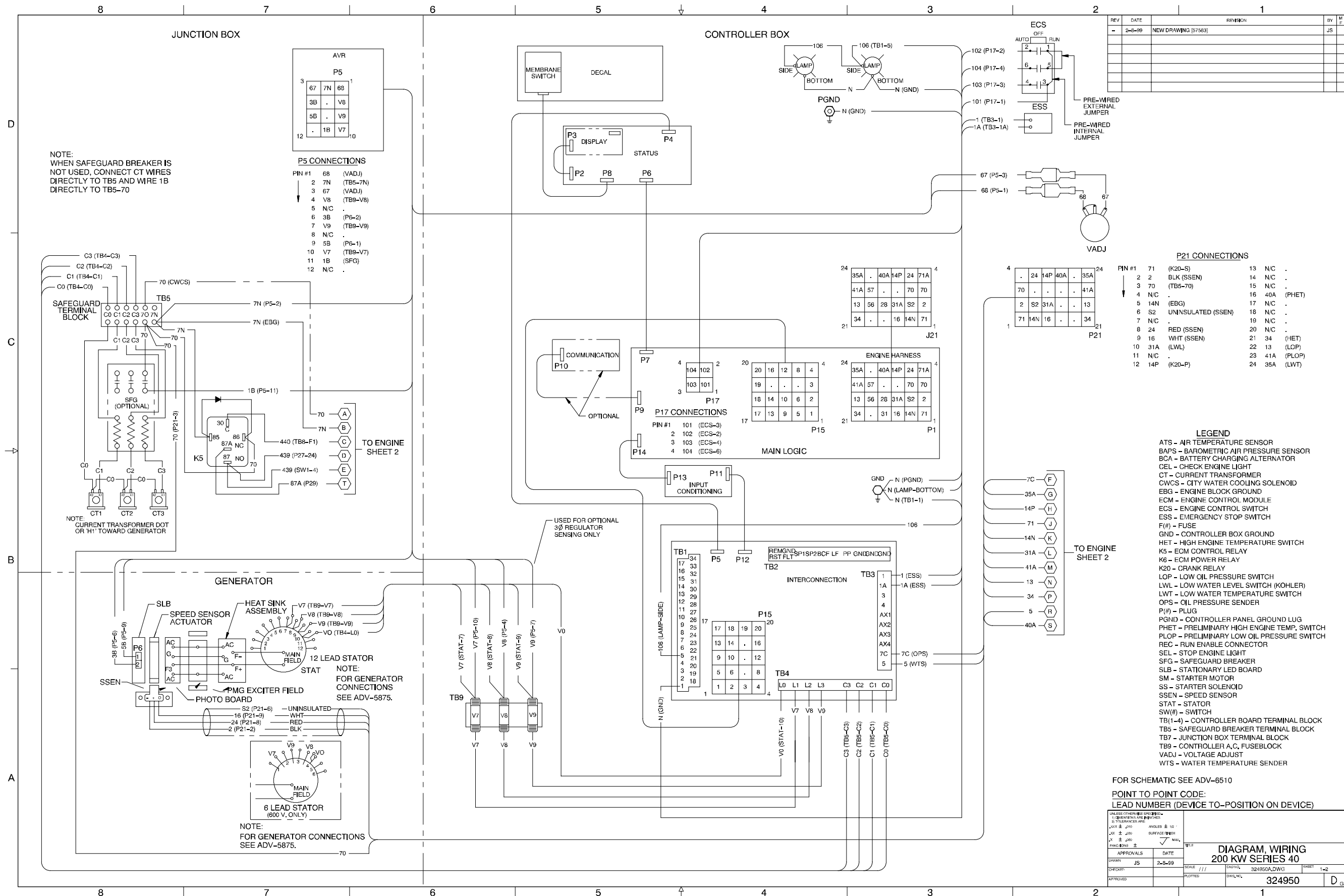
Microprocessor Controller, Point-to-Point Wiring Diagram, Sheet 2, 324149-D



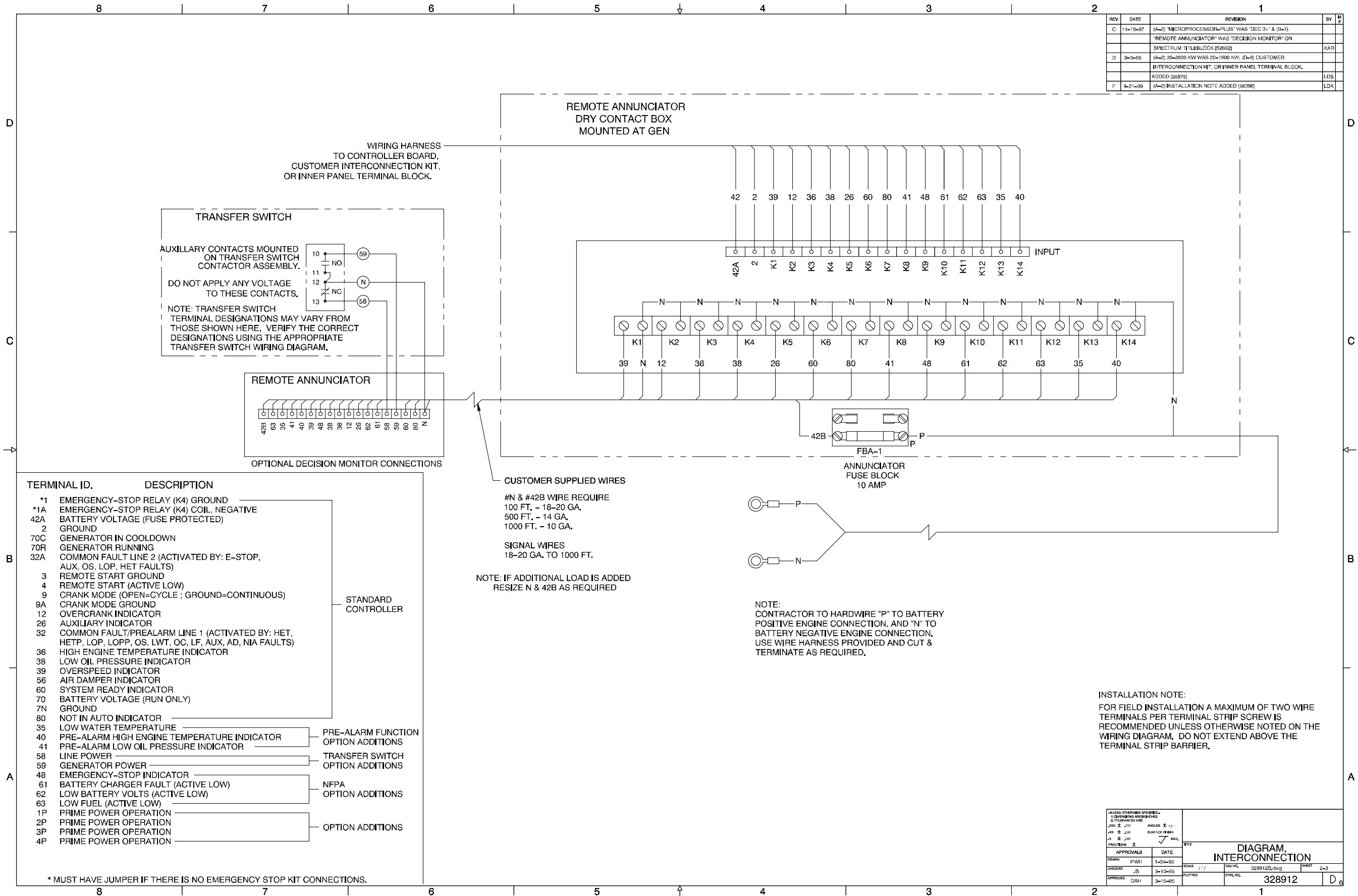
Manual Controller, Point-to-Point Wiring Diagram, 324150-H



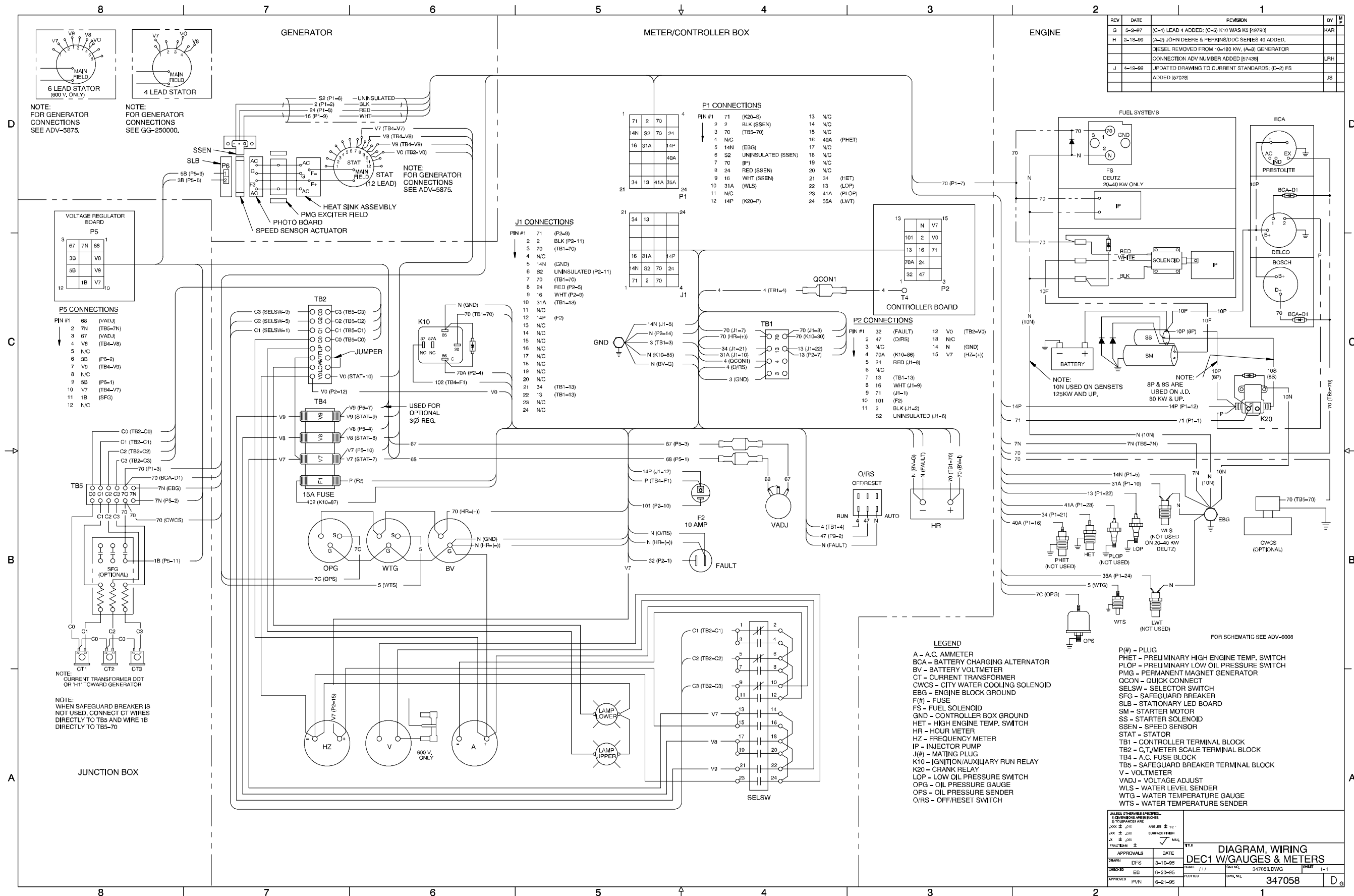






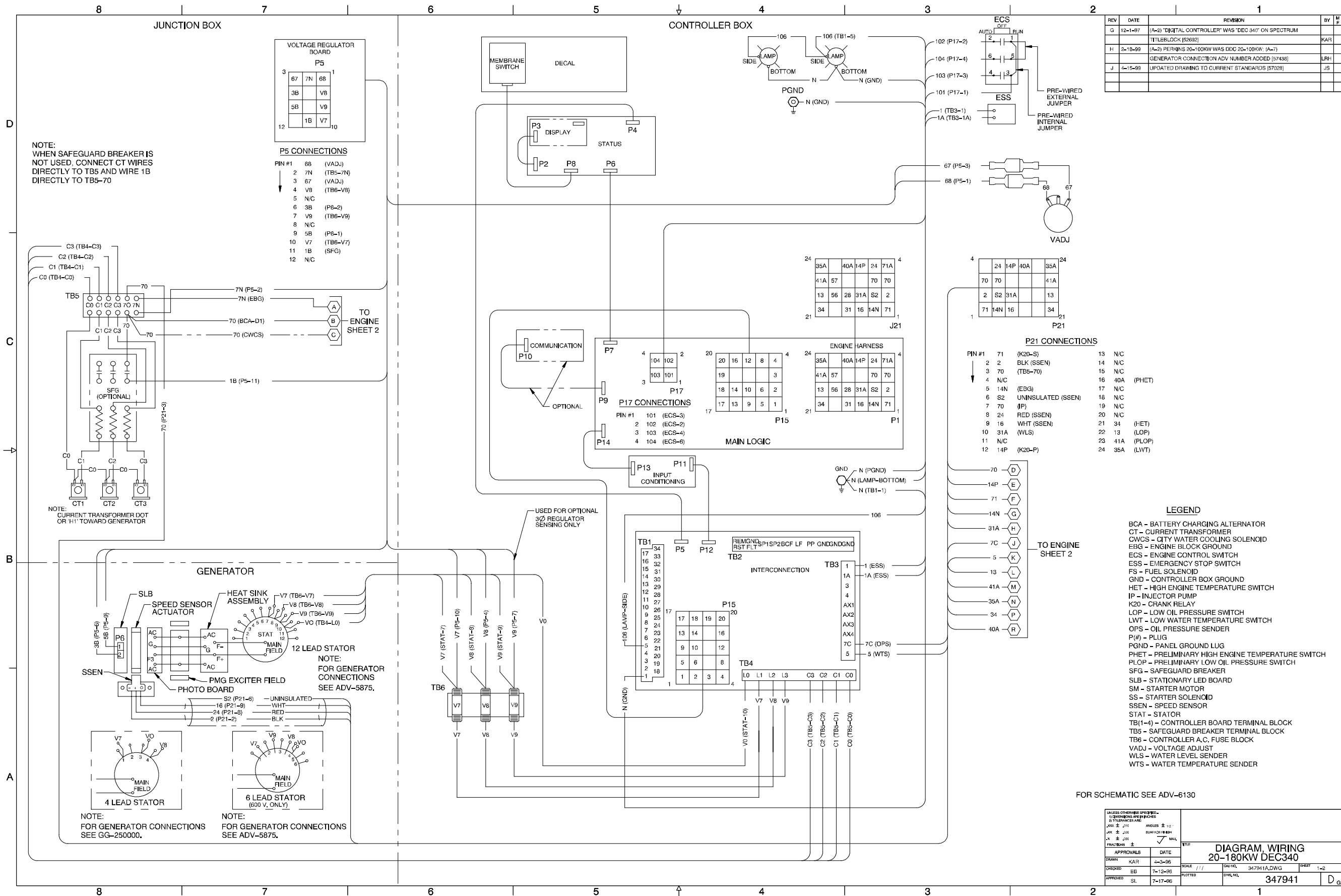


Microprocessor Controller, Accessory Connections, Remote Annunciator Kit, Sheet 1, 328912B-F

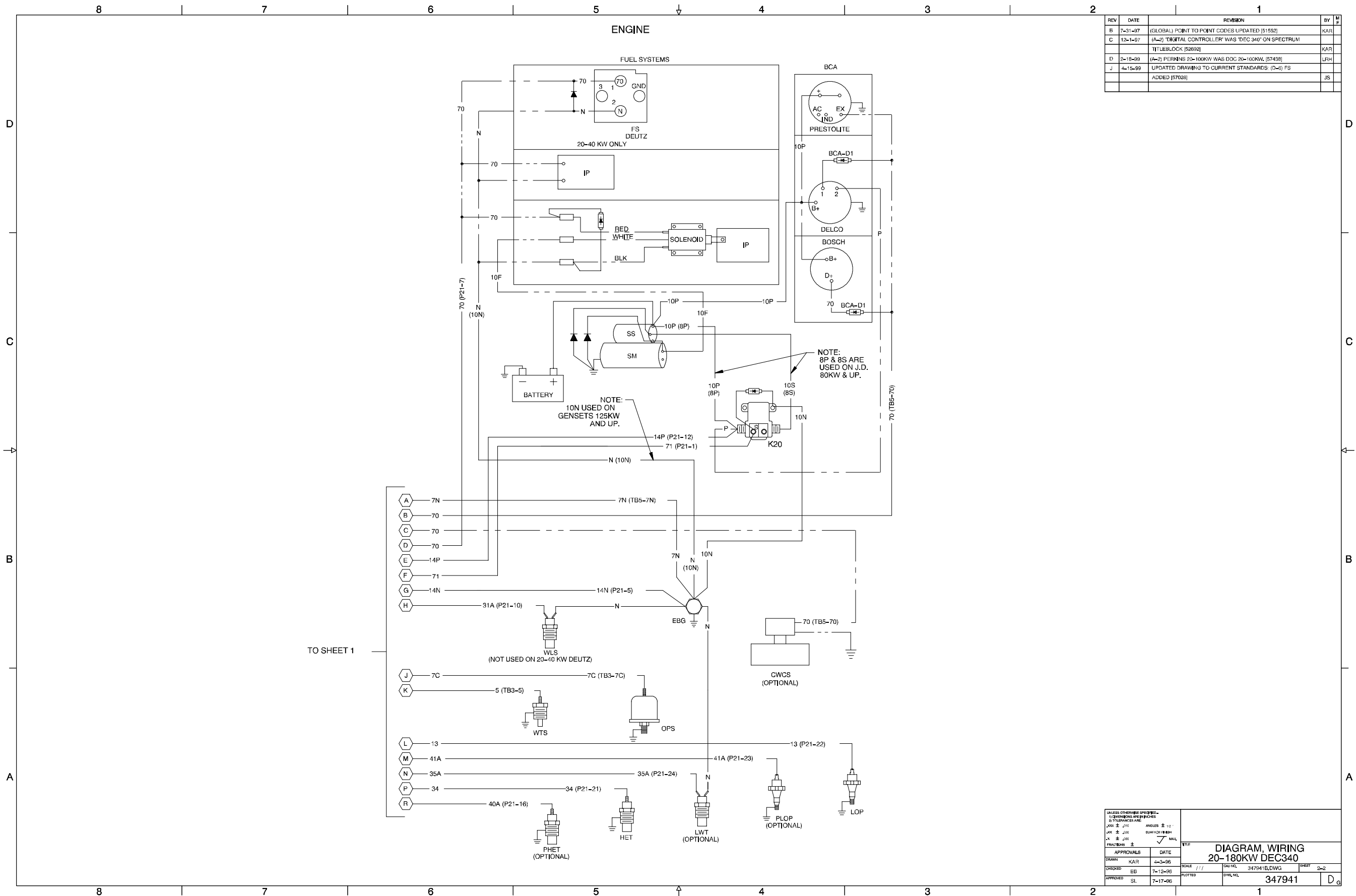


Basic Controller, Point-to-Point Wiring Diagram, Standard with Engine Gauges and AC Meters, 347058-J

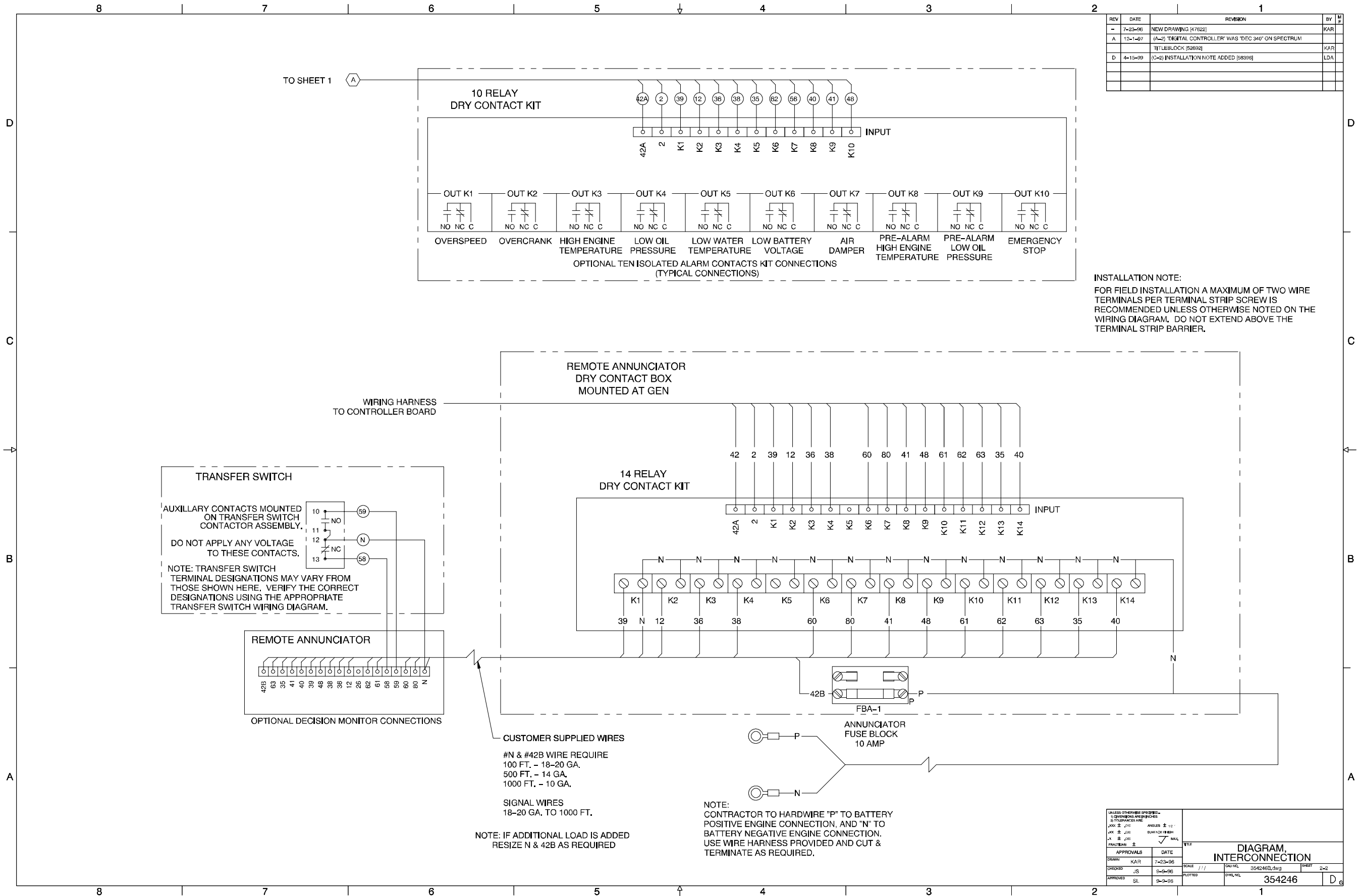




Digital Controller, Point-to-Point Wiring Diagram, Sheet 1, 347941A-J



Digital Controller, Point-to-Point Wiring Diagram, Sheet 2, 347941B-J



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