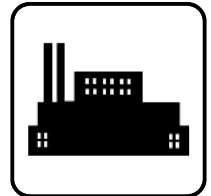


Wiring Diagrams

Industrial Generator Sets



Models:

200REOZP
230-400REOZD

Controllers:

Decision-Maker™ 550
Decision-Maker™ 340
Decision-Maker™ 3+, 16-Light
Decision-Maker™ 3+, 7-Light
Engine Gauge Box for Paralleling Switchgear

ISO 9001
KOHLER
GENERATORS
INTERNATIONALLY REGISTERED

KOHLER[®]
POWER SYSTEMS

TP-5988 6/01e

This manual provides wiring diagrams for the 200REOZP and 230-400REOZD Detroit Diesel-powered generator sets equipped with one of the following controllers:

- Decision-Maker™ 550
- Decision-Maker™ 340
- Decision-Maker™ 3+, 16-Light
- Decision-Maker™ 3+, 7-Light
- 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. Kohler Co. 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

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- Look on the product or in the information included with the product
- Consult the Yellow Pages under the heading Generators—Electric
- Visit the Kohler Co. Generator Division web site at www.kohlergenerators.com
- Inside the U.S.A. and Canada, call 1-800-544-2444
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X:in:008:001

Notes

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 the generator set operation manual for controller type identification, if necessary.

Wiring Diagram Cross-Reference

Generator Set Model No.	Hz	Generator Set Spec No.
200REOZP	50/60	PA-192926
230REOZD	50/60	PA-194316-323
250REOZD	50/60	PA-194332-339
275REOZD	50/60	PA-194348-355
300REOZD	50/60	PA-194364-368
350REOZD	50/60	PA-194374-401
400REOZD	50/60	PA-194405-407
230REOZD	50/60	GM13659-GA7, 8
250REOZD	50/60	GM13659-GA5, 6
275REOZD	50/60	GM13659-GA3, 4
300REOZD	50/60	GM13659-GA1, 2
350REOZD	50/60	GM13280-GA3, 4, 5
400REOZD	50/60	GM13280-GA1, 2

Controller Wiring Diagrams Reference

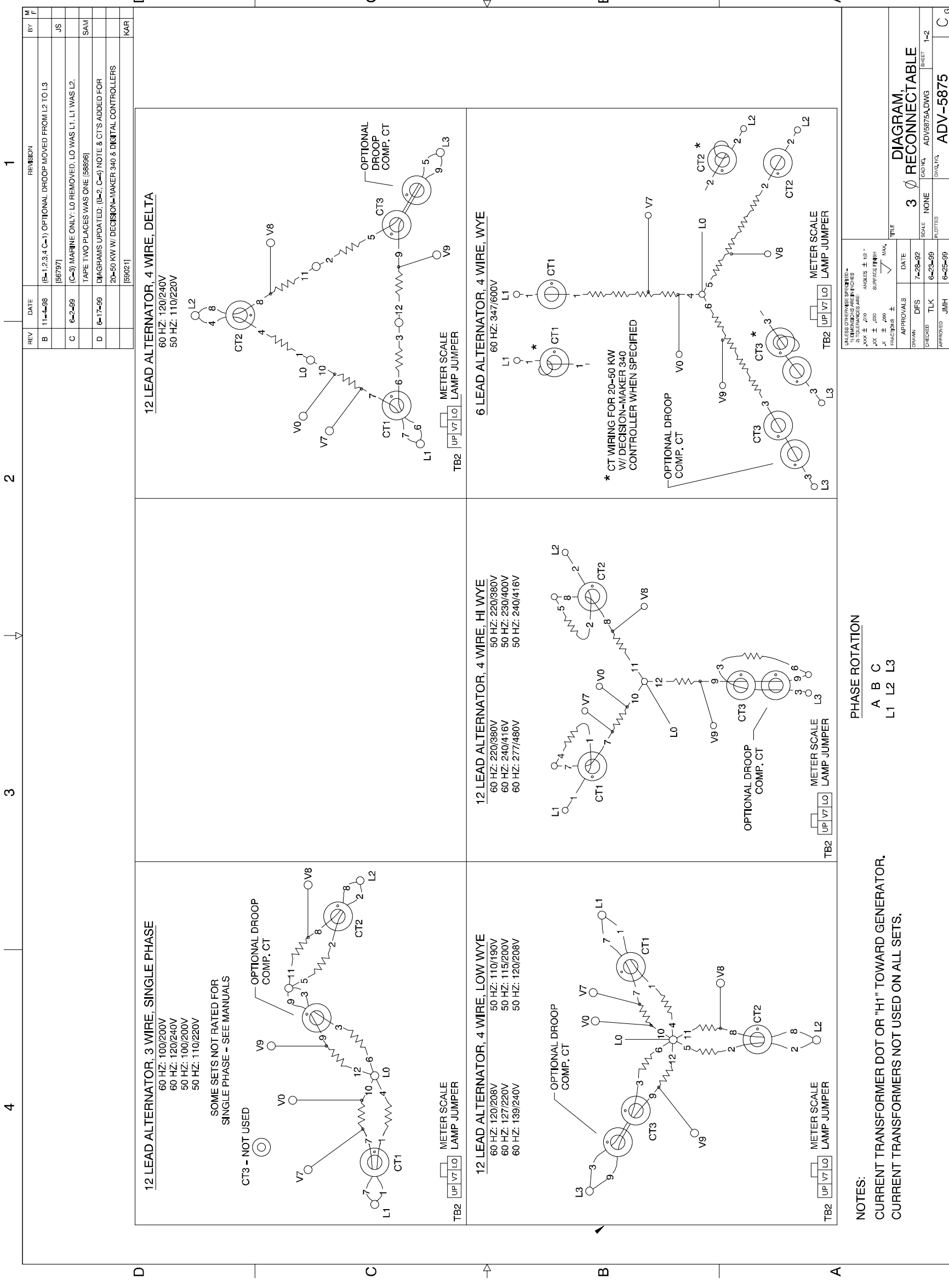
Controller Description (200REOZP)	Version 1	Page
Decision-Maker™ 550		
Point-to-Point Wiring Diagram		
Sheet 1	GM16870A-	29
Sheet 2	GM16870B-	30
Schematic Diagram		
Sheet 1	ADV-6596A-	21
Sheet 2	ADV-6596B-	22
Accessory Connections		
Sheet 1	GM16088A-A	27
Sheet 2	GM16088B-A	28
Decision-Maker™ 340		
Point-to-Point Wiring Diagram		
Sheet 1	324950A-A	35
Sheet 2	324950B-A	36
Schematic Diagram		
Sheet 1	ADV-6510A-	11
Sheet 2	ADV-6510B-	12
Accessory Connections		
Sheet 1	354246A-D	48
Sheet 2	354246B-D	49
Decision-Maker™ 3+		
Point-to-Point Wiring Diagram		
Sheet 1	324948A-A	31
Sheet 2	324948B-A	32
Schematic Diagram		
Sheet 1	ADV-6509A-A	9
Sheet 2	ADV-6509B-A	10
Accessory Connections		
Sheet 1	328912A-F	37
Sheet 2	328912B-F	38
Engine Gauge Box for Paralleling Switchgear		
Point-to-Point Wiring Diagram		
Sheet 1	324949A-A	33
Sheet 2	324949B-A	34
Schematic Diagram		
Sheet 1	ADV-6511A-	13
Sheet 2	ADV-6511B-	14
Generator Reconnections		
	ADV-5875A-D	1

Controller Wiring Diagrams Reference, continued

Controller Description (230-300REOZD)	Version 1	Page
Decision-Maker™ 550		
Point-to-Point Wiring Diagram		
Sheet 1	GM11502A-A	23
Sheet 2	GM11502B-A	24
Schematic Diagram		
Sheet 1	ADV-6533A-A	17
Sheet 2	ADV-6533B-A	18
Accessory Connections		
Sheet 1	GM16088A-A	27
Sheet 2	GM16088B-A	28
Decision-Maker™ 340		
Point-to-Point Wiring Diagram		
Sheet 1	343463A-B	40
Sheet 2	343463B-B	41
Schematic Diagram		
Sheet 1	ADV-6398A-B	4
Sheet 2	ADV-6398B-B	5
Accessory Connections		
Sheet 1	354246A-D	48
Sheet 2	354246B-D	49
Decision-Maker™ 3+		
Point-to-Point Wiring Diagram		
Sheet 1	354973A-B	50
Sheet 2	354973B-B	51
Schematic Diagram		
3 Phase/600 Volt	ADV-6396-B	3
Accessory Connections		
Sheet 1	328912A-F	37
Sheet 2	328912B-F	38
Generator Reconnections	ADV-5875A-D	1

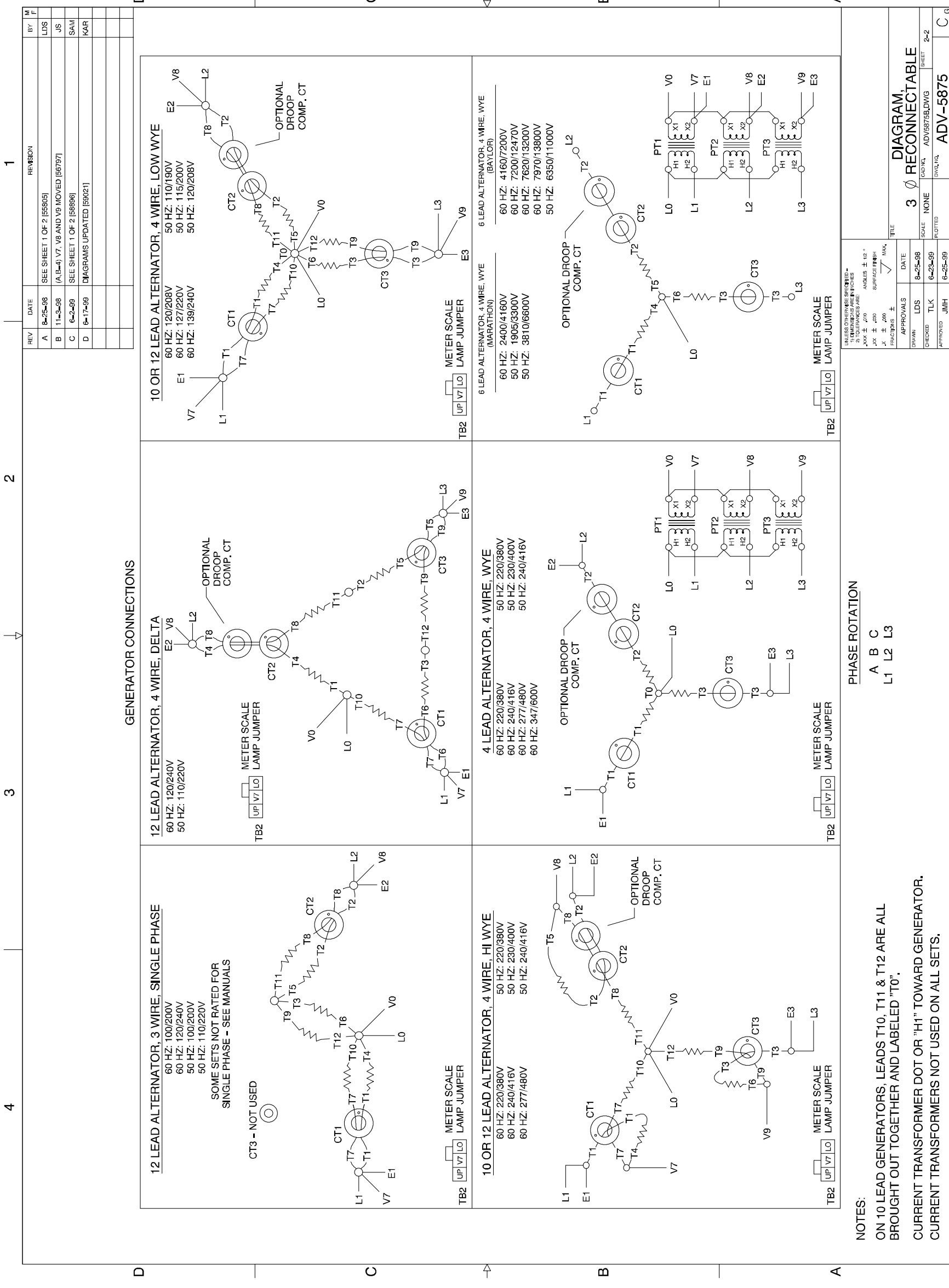
Controller Wiring Diagrams Reference, continued

Controller Description (350/400REOZD)	Version 1	Page
Decision-Maker™ 550		
Point-to-Point Wiring Diagram		
Sheet 1	GM11503A-A	25
Sheet 2	GM11503B-A	26
Schematic Diagram		
Sheet 1	ADV-6534A-A	19
Sheet 2	ADV-6534B-A	20
Accessory Connections		
Sheet 1	GM16088A-A	27
Sheet 2	GM16088B-A	28
Decision-Maker™ 340		
Point-to-Point Wiring Diagram		
Sheet 1	343578A-E	44
Sheet 2	343578B-E	45
Schematic Diagram		
Sheet 1	ADV-6401A-E	7
Sheet 2	ADV-6401B-E	8
Accessory Connections		
Sheet 1	354246A-D	48
Sheet 2	354246B-D	49
Decision-Maker™ 3+		
Point-to-Point Wiring Diagram		
Sheet 1	343576A-E	42
Sheet 2	343576B-E	43
Schematic Diagram		
3 Phase/600 Volt	ADV-6399-F	6
Accessory Connections		
Sheet 1	328912A-F	37
Sheet 2	328912B-F	38
Sheet 3	328912C-F	39
Engine Gauge Box for Paralleling Switchgear		
Point-to-Point Wiring Diagram		
Sheet 1	343796A-B	46
Sheet 2	343796B-B	47
Schematic Diagram		
Sheet 1	ADV-6516A-B	15
Sheet 2	ADV-6516B-B	16
Generator Reconnections	ADV-5875B-D	2



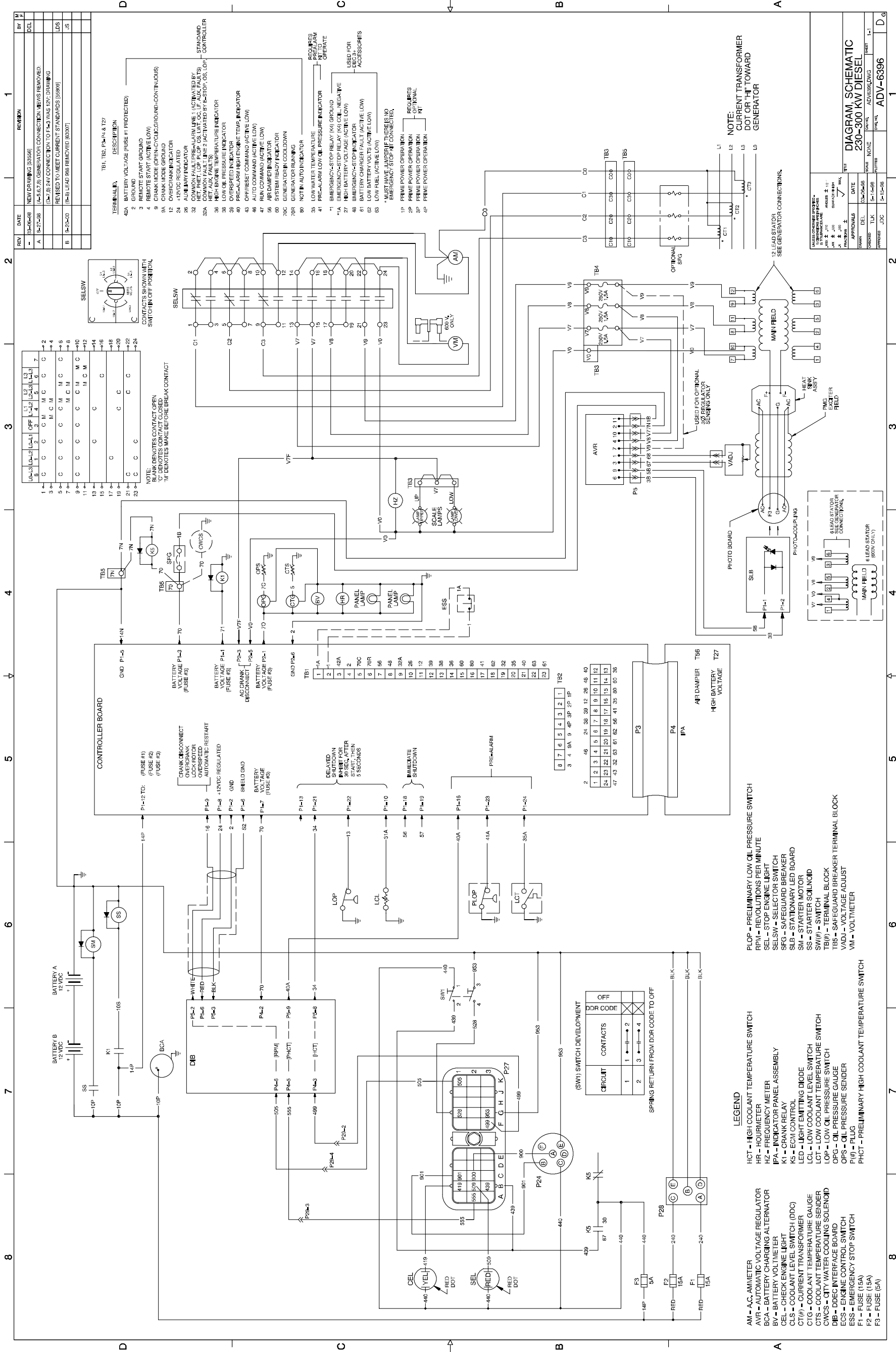
REV	DATE	REVISION	BY
B	11-1-98	(B-1,2,3,4 C-1) OPTIONAL DROOP MOVED FROM L2 TO L3	JS
C	6-2-99	(C-3) MARINE ONLY: LO REMOVED, LO WAS L1, L1 WAS L2. TAPE TWO PLACES WAS ONE [56696]	SAM
D	6-17-99	DIAGRAMS UPDATED: (B-2, C-4) NOTE & CT'S ADDED FOR 20-50 KW W/ DECISION-MAKER 340 & DIGITAL CONTROLLERS	KAR

UNLESS OTHERWISE SPECIFIED -	UNLESS OTHERWISE SPECIFIED -
ANGLES ± 1/2°	ANGLES ± 1/2°
SURFACE FINISH	SURFACE FINISH
FRACTIONS ±	FRACTIONS ±
APPROVALS	DATE
DRAWN	7-28-92
CHECKED	TLK
APPROVED	JMH
SCALE	NONE
CAD NO.	ADV5875ADW/G
DIAGRAM, RECONNECTABLE	
3 Ø	
ADV-5875	
SHEET 1-2	



REV	DATE	REVISION	BY	APP
A	8-25-98	SEE SHEET 1 OF 2 (58505)	LDS	
B	11-5-98	(A,B-4) V7, V8 AND V9 MOVED (86797)	JS	
C	6-2-99	SEE SHEET 1 OF 2 (58896)	SAM	
D	6-17-99	DIAGRAMS UPDATED (89021)	KAR	

UNLESS OTHERWISE SPECIFIED -		TOLERANCES ARE		TITLE	
XXX ± .010	ANGLES ± 12°	XXX ± .010	SURFACE FINISH	DATE	3 Ø RECONNECTABLE
XXX ± .005	MAX.	XXX ± .005	MAX.	APPROVALS	ADV5875B.DWG
XXX ± .005	MAX.	XXX ± .005	MAX.	DATE	ADV-5875
FRACTIONS ±		FRACTIONS ±		DRAWN	
				LDS	
				CHECKED	
				TLK	
				APPROVED	
				JMH	
				SCALE	
				6-25-98	
				6-25-99	
				6-25-99	
				PLOTTED	
				SHEET	2-2
					C G



REV	DATE	DESCRIPTION	BY	CHK
1	13-06-88	NEW DRAWING (35356)		
2	14-07-88	(4-5, 6, 7, 8) GENERATOR CONNECTION VIEWS REMOVED		
3	14-07-88	(12, 13) 24V CONNECTION TO F43 WAS 12V, DRAWING		
4	14-07-88	REVISED TO MEET CURRENT STANDARDS (5599)		
5	14-07-88	(5-8) LEAD 286 REMOVED (8007)		

TERMINAL	DESCRIPTION
1	BATTERY VOLTAGE (RISE #1 PROTECTED)
2	GROUND
3	REMOTE START (ACTIVE LOW)
4	REMOTE START (ACTIVE LOW)
5	CRANK MODE (OPEN-CYCLE GROUND-CONTINUOUS)
6	CRANK MODE GROUND
7	OVERCRANK INDICATOR
8	+12VDC REGULATED
9	AUXILIARY INDICATOR
10	COMMON FAULT LINE 2 (ACTIVATED BY 1-STOP, OS, LOP, NET FRET, LOP, PLOP, CS, LMT, OC, LF, AUX, FAULTS)
11	HIGH ENGINE TEMPERATURE INDICATOR
12	LOW OIL PRESSURE INDICATOR
13	OVERSPEED INDICATOR
14	PRE-ALARM HIGH ENGINE TEMP. INDICATOR
15	OFF-PRESET COMMAND (ACTIVE LOW)
16	AUTO COMMAND (ACTIVE LOW)
17	STOP COMMAND (ACTIVE LOW)
18	STOP COMMAND (ACTIVE LOW)
19	STOP COMMAND (ACTIVE LOW)
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53	STOP COMMAND (ACTIVE LOW)
54	STOP COMMAND (ACTIVE LOW)
55	STOP COMMAND (ACTIVE LOW)
56	STOP COMMAND (ACTIVE LOW)
57	STOP COMMAND (ACTIVE LOW)
58	STOP COMMAND (ACTIVE LOW)
59	STOP COMMAND (ACTIVE LOW)
60	STOP COMMAND (ACTIVE LOW)
61	STOP COMMAND (ACTIVE LOW)

NOTE: BLANK DENOTES CONTACT OPEN
 'X' DENOTES MAKE BEFORE BREAK CONTACT

TERMINAL BLOCK (TBI) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
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TERMINAL BLOCK (TB2) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB3) PINOUT:

1	2	3	4	5	6	7	8	9	10	11
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TERMINAL BLOCK (TB4) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB5) PINOUT:

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TERMINAL BLOCK (TB6) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB7) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB8) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB9) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB10) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB11) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB12) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB13) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB14) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB15) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB16) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB17) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB18) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB19) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB20) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB21) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB22) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB23) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB24) PINOUT:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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TERMINAL BLOCK (TB25) PINOUT:

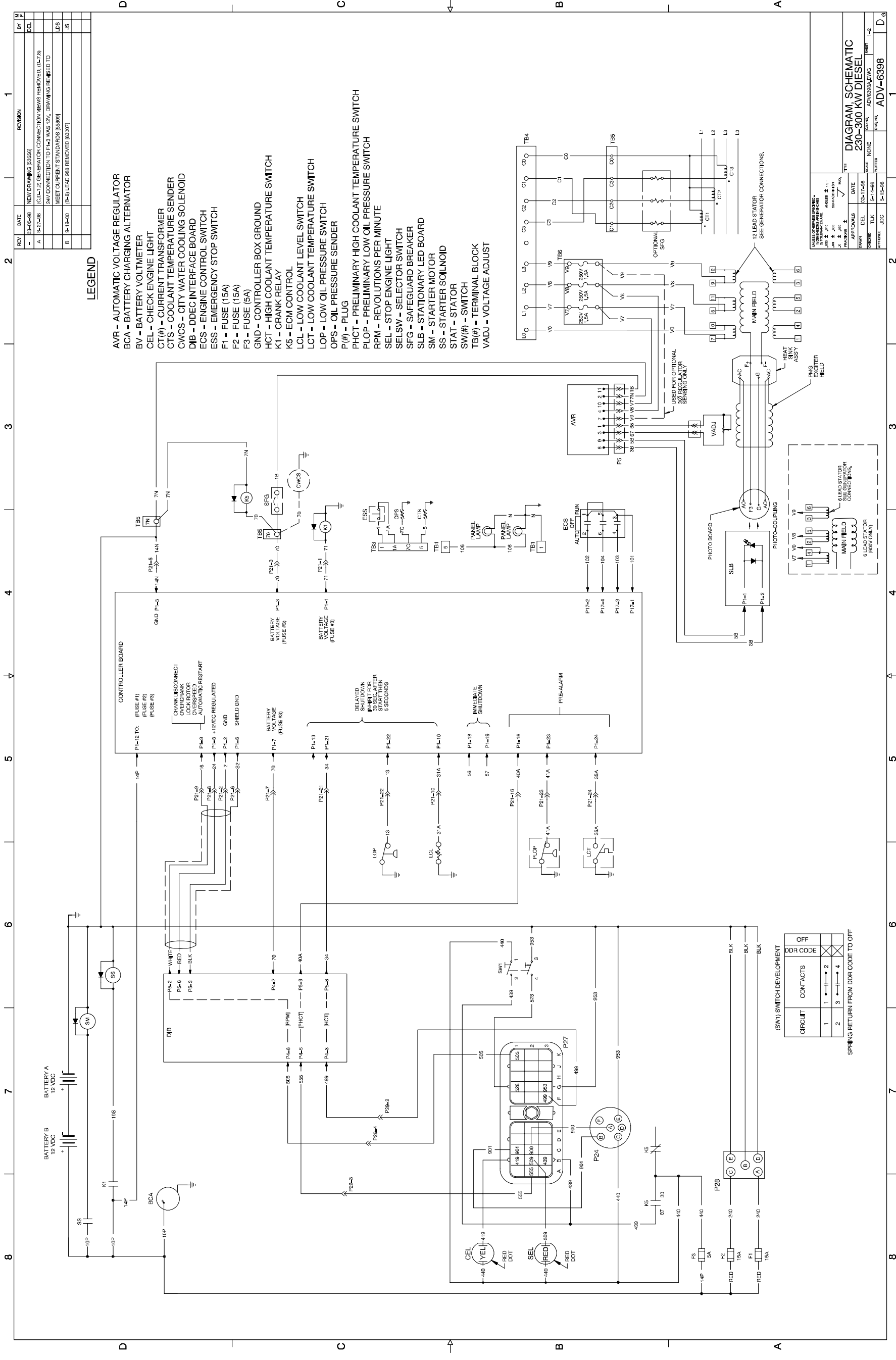
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TERMINAL BLOCK (TB26) PINOUT:

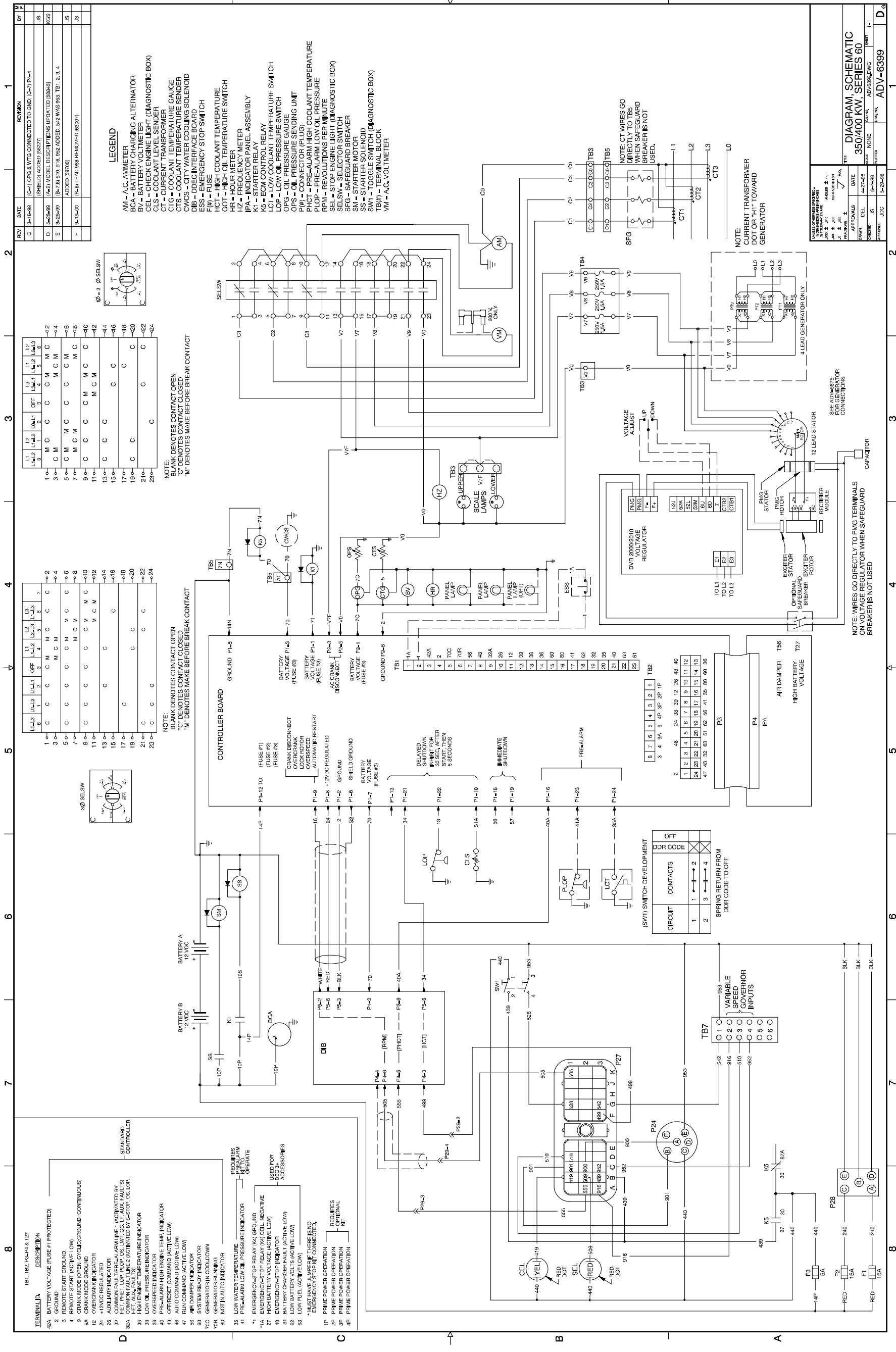
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TERMINAL BLOCK (TB27) PINOUT:

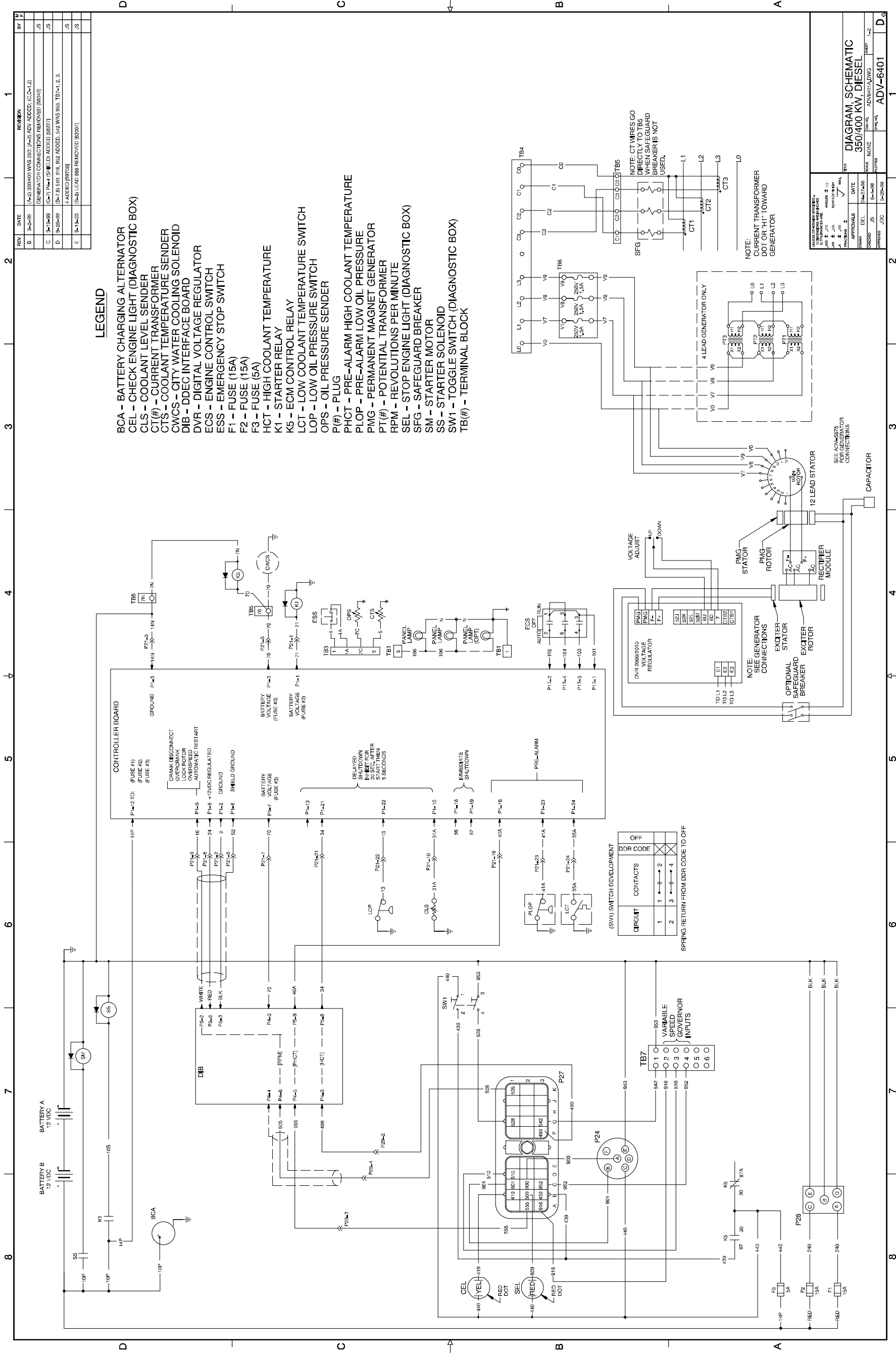
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Decision-Maker™ 340 Controller, Schematic Diagram, Sheet 1, ADV-6398A-B



Decision-Maker™ 3+ Controller, Schematic Diagram, 3 Phase/600 Volt, ADV-6399-F



Decision-Maker™ 340 Controller, Schematic Diagram, Sheet 1, ADV-6401A-E

INTERCONNECT BOARD

OUTPUT CONNECTIONS

- TB1-1 ENGINE GROUND
- TB1-2 ENGINE GROUND
- TB1-3 ENGINE GROUND
- TB1-4 ENGINE GROUND
- TB1-5 PANEL LAMP OUTPUT
- TB1-6 RDO-10
- TB1-7 RDO-9
- TB1-8 RDO-7
- TB1-9 RDO-5
- TB1-10 NIA RELAY OUTPUT (60)
- TB1-11 OVERCRANK RELAY OUTPUT (12)
- TB1-12 LOW BATTERY VOLTAGE RELAY OUTPUT (62)
- TB1-13 LOW COOLANT TEMPERATURE RELAY OUTPUT (35)
- TB1-14 LOW OIL PRESSURE RELAY OUTPUT (38)
- TB1-15 HIGH COOLANT TEMPERATURE RELAY OUTPUT (36)
- TB1-16 LOW OIL PRESSURE WARNING RELAY OUTPUT (41)
- TB1-17 HIGH COOLANT TEMPERATURE WARNING RELAY OUTPUT (40)
- TB1-18 42A
- TB1-19 42A
- TB1-20 42A
- TB1-21 DVR DOWN VOLTAGE ADJUSTMENT
- TB1-22 DVR COMMON VOLTAGE ADJUSTMENT
- TB1-23 DVR UP VOLTAGE ADJUSTMENT
- TB1-24 RDO-8
- TB1-25 RDO-6
- TB1-26 RDO-4
- TB1-27 RDO-3
- TB1-28 RDO-2
- TB1-29 RDO-1
- TB1-30 SYSTEM READY RELAY OUTPUT (60)
- TB1-31 E-STOP RELAY OUTPUT (48)
- TB1-32 BATTERY CHARGER FAULT RELAY OUTPUT (61)
- TB1-33 LOW FUEL RELAY OUTPUT (63)
- TB1-34 OVERSPEED RELAY OUTPUT (39)

AC INPUT CONNECTIONS

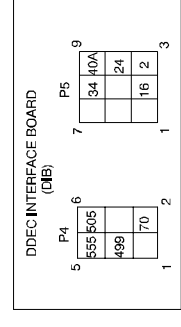
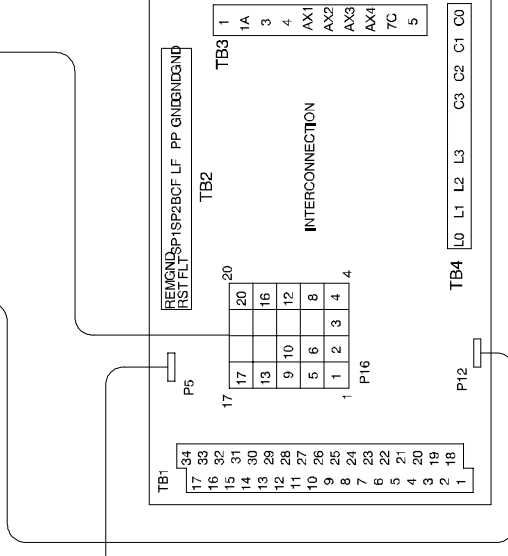
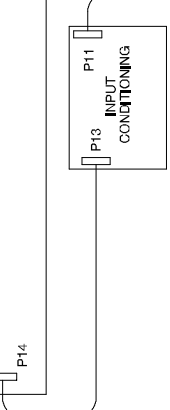
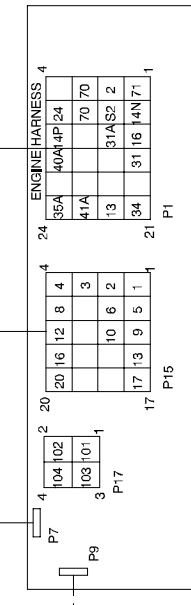
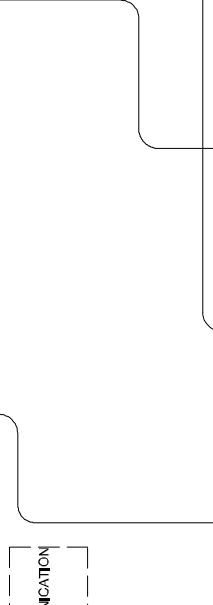
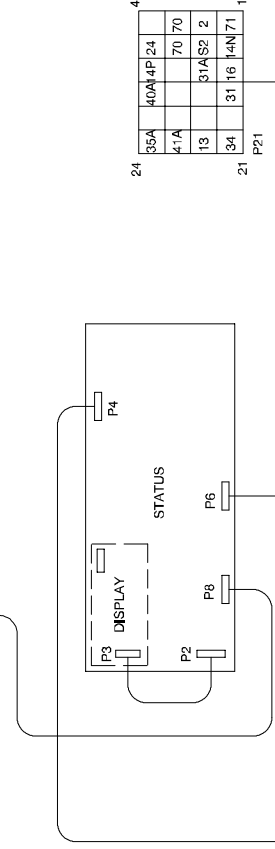
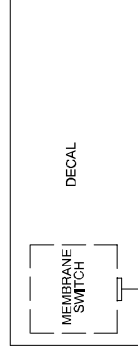
- TB4-1 L0 (V0)
- TB4-2 L1 (V7)
- TB4-3 L2 (V8)
- TB4-4 L3 (V9)
- TB4-5
- TB4-6 C3
- TB4-7 C2
- TB4-8 C1
- TB4-9 C0

INPUT CONNECTIONS

- TB2-1 REMOTE RESET *
- TB2-2 GROUND FAULT *
- TB2-3 NOT USED
- TB2-4 NOT USED
- TB2-5 BATTERY CHARGER FAULT *
- TB2-6 LOW FUEL *
- TB2-7 PRIME POWER MODE *
- TB2-8 ENGINE GROUND
- TB2-9 ENGINE GROUND
- TB2-10 ENGINE GROUND
- TB3-1 E-STOP GROUND (1)
- TB3-2 E-STOP (1A)
- TB3-3 REMOTE START (3)
- TB3-4 REMOTE START (4)
- TB3-5 AUXILIARY 1 *
- TB3-6 AUXILIARY 2 *
- TB3-7 AUXILIARY 3 *
- TB3-8 AUXILIARY 4 *
- TB3-9 OIL PRESSURE SENDING UNIT (7C)
- TB3-10 WATER TEMPERATURE SENDING UNIT (6)

P1 CONNECTIONS (ENGINE TO MICRO BOARD)

- POSITIONS
- 1 ENGINE CRANK (71)
- 2 SPEED SENSOR GROUND (2)
- 3 SAFEGUARD BREAKER (70)
- 4 B.C. ALTERNATOR FLASHING
- 5 STARTER MOTOR GROUND (14N)
- 6 SPEED SENSOR SHIELD (S2)
- 7 ENGINE RUN (70)
- 8 V+ SPEED SENSOR (24)
- 9 SPEED SENSOR SIGNAL (16)
- 10 LOW COOLANT LEVEL PTC (31A)
- 11 NOT USED
- 12 BATTERY + (14P)
- 13 HIGH OIL TEMPERATURE SWITCH INPUT (31) *
- 14 LOW COOLANT LEVEL SWITCH INPUT (31) *
- 15 NOT USED
- 16 HIGH COOLANT TEMPERATURE WARNING SWITCH INPUT (40A) *
- 17 NOT USED
- 18 AIR DAMPER SWITCH OUTPUT (57)
- 19 AIR DAMPER SWITCH INPUT (56) *
- 20 NOT USED
- 21 HIGH COOLANT TEMPERATURE SWITCH INPUT (34) *
- 22 LOW OIL PRESSURE SWITCH INPUT (13) *
- 23 LOW OIL PRESSURE WARNING SWITCH INPUT (41A) *
- 24 LOW COOLANT TEMPERATURE SWITCH INPUT (35A) *
- * GROUND TO ACTIVATE



REV	DATE	DESCRIPTION	BY	CHK
A	3-2-99	NEW DRAWING (55546)	DEL	
B	3-1-99	(A-2) 350/400 WAS (59043)	JS	
C	3-1-99	SEE SHEET 1 OF 2 (59227)	JS	
D	3-25-99	SEE SHEET 1 OF 2 (59706)	JS	
E	3-18-00	(C-2) CONNECTIONS 58 & 31 REMOVED (5907)	JS	

APPROVALS	DATE	SCALE	SHEET
DESIGNED BY: JWC	3-2-99	1:1	3-2
CHECKED BY: JS	3-2-99		
APPROVED BY: JWC	3-25-99		

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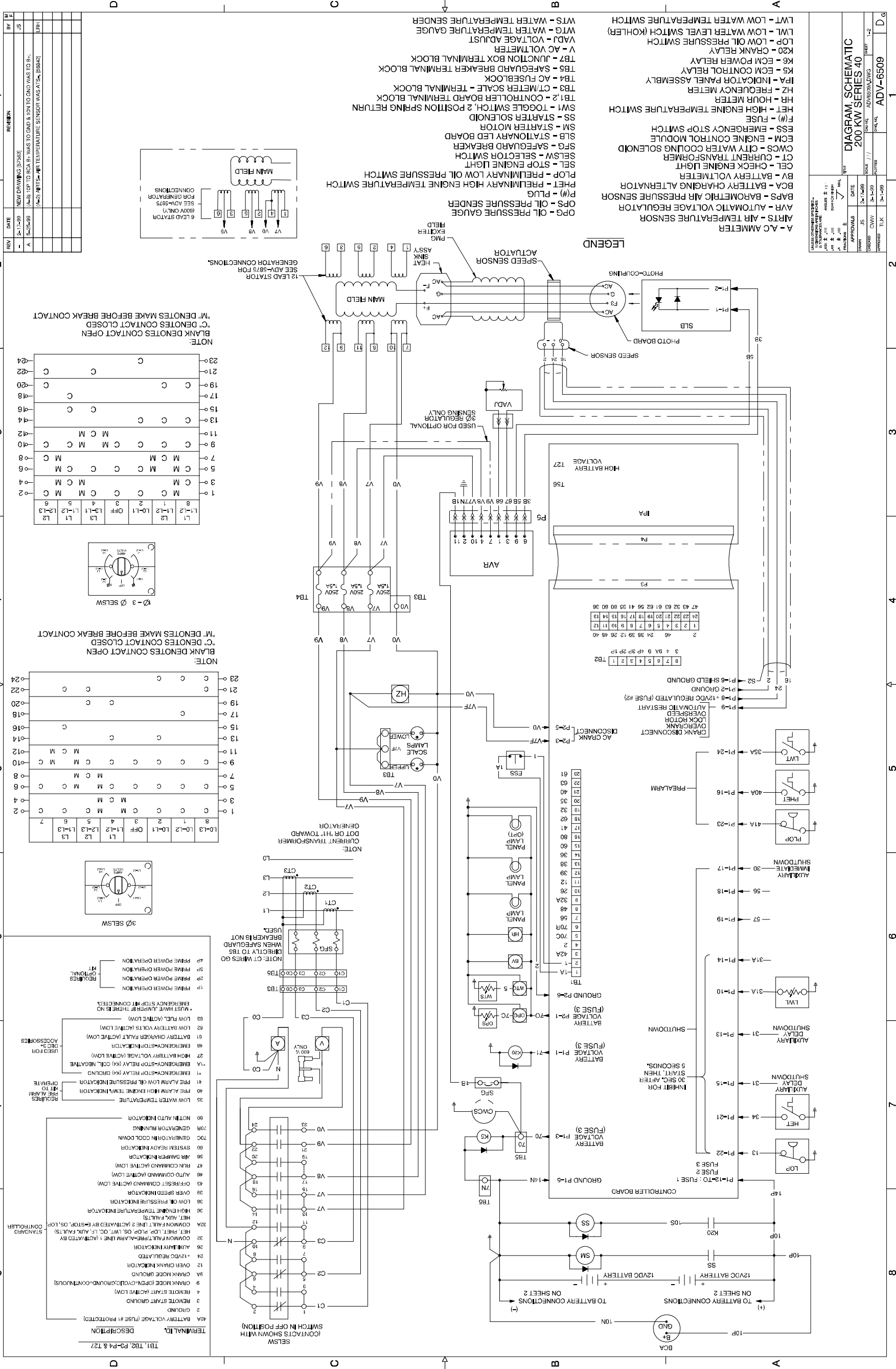
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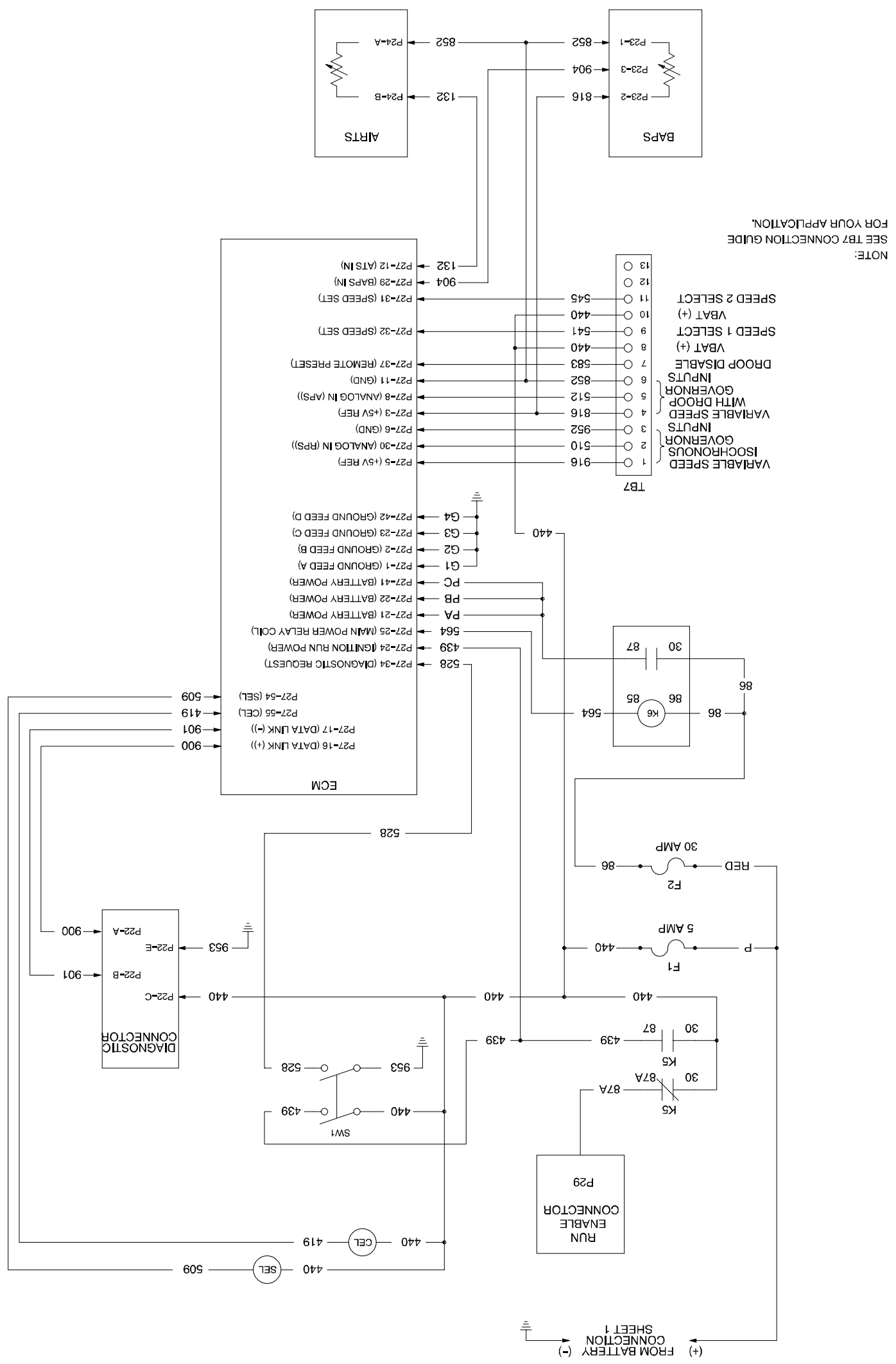


Decision-Maker™ 3+ Controller, Schematic Diagram, Sheet 1, ADV-6509A-A

Decision-Maker™ 3+ Controller, Schematic Diagram, Sheet 2, ADV-6509B-A

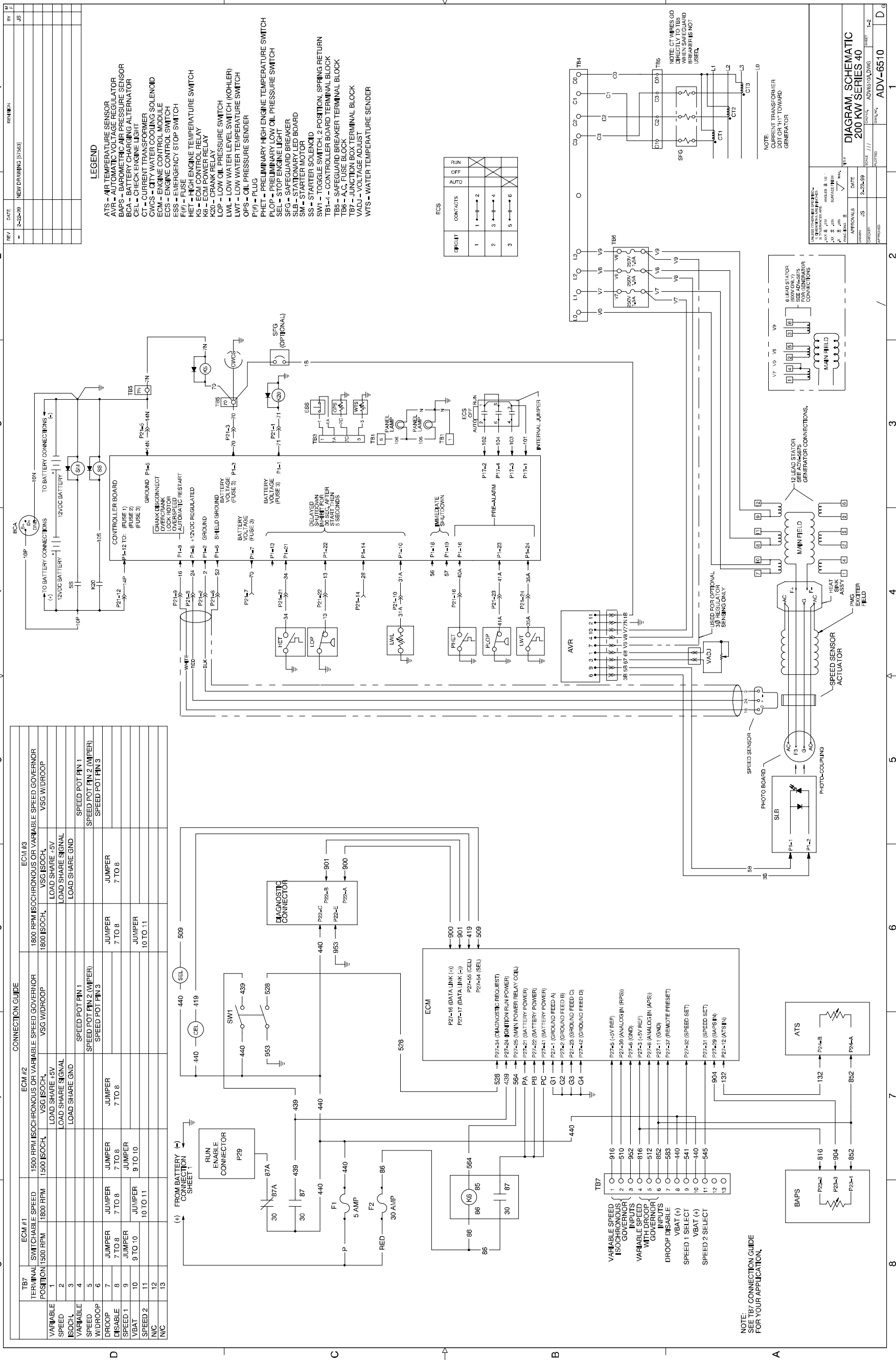
TITLE DIAGRAM, SCHEMATIC 200 KW SERIES 40	
DRAWN: J.S. CHECKED: C.W.V. APPROVED: T.L.K.	DATE: 3-14-99 SCALE: 1/1 SHEET: 3-2 PART: ADV-6509

TERMINAL	POSITION	ECM #1	ECM #2	ECM #3
1	1	1500 RPM	1800 RPM	1800 RPM
2	2	ISOCNH. +5V	ISOCNH. +5V	ISOCNH. +5V
3	3	ISOCNH.	ISOCNH.	ISOCNH.
4	4	VARIABLE	VARIABLE	VARIABLE
5	5	SPEED W/DROOP	SPEED W/DROOP	SPEED W/DROOP
6	6	SPEED	SPEED	SPEED
7	7	DROOP	DROOP	DROOP
8	8	DISABLE	DISABLE	DISABLE
9	9	SPEED 1	SPEED 1	SPEED 1
10	10	VBAT	VBAT	VBAT
11	11	SPEED 2	SPEED 2	SPEED 2
12	12	N/C	N/C	N/C
13	13	N/C	N/C	N/C



REV	DATE	REVISION	BY
1	3-14-99	NEW DRAWING (5/7/98)	J.S.
2	5-25-99	(C-1) PARTS WAS ATTS. (B-7) IS ADDED 2 PLACES. (R6842)	LPH

Decision-Maker™ 340 Controller, Schematic Diagram, Sheet 1, ADV-6510A-



CONNECTION GUIDE

ECM #1	ECM #2	ECM #3
1500 RPM ISOSYNCHRONOUS OR VARIABLE SPEED GOVERNOR	1500 RPM ISOSYNCHRONOUS OR VARIABLE SPEED GOVERNOR	1800 RPM ISOSYNCHRONOUS OR VARIABLE SPEED GOVERNOR
VARIABLE SPEED	VSG ISOCYL, LOAD SHARE +5V	VSG ISOCYL, LOAD SHARE +5V
ISOCYL	LOAD SHARE SIGNAL	LOAD SHARE SIGNAL
VARIABLE SPEED	LOAD SHARE GND	LOAD SHARE GND
SPEED WIDROOP	SPEED POT PIN 1	SPEED POT PIN 1
DISABLE	SPEED POT PIN 2 (WIPER)	SPEED POT PIN 2 (WIPER)
VBAT	SPEED POT PIN 3	SPEED POT PIN 3
N/C	JUMPER 7 TO 8	JUMPER 7 TO 8
N/C	JUMPER 9 TO 10	JUMPER 9 TO 10
N/C	JUMPER 10 TO 11	JUMPER 10 TO 11

REV	DATE	DESCRIPTION	BY	CHK
1	2-22-99	NEW DRAWING (57/88)	JS	

LEGEND

ATS - AIR TEMPERATURE SENSOR
 AVR - AUTOMATIC VOLTAGE REGULATOR
 BAPS - BAROMETRIC AIR PRESSURE SENSOR
 BCA - BATTERY CHARGING ALTERNATOR
 CEL - CHECK ENGINE LIGHT
 CT - CURRENT TRANSFORMER
 CWCS - CITY WATER COOLING SOLENOID
 ECM - ENGINE CONTROL MODULE
 ESS - EMERGENCY STOP SWITCH
 F(I) - FUSE
 HET - HIGH ENGINE TEMPERATURE SWITCH
 K5 - ECM CONTROL RELAY
 K6 - ECM POWER RELAY
 K20 - CRANK RELAY
 K21 - LOW OIL PRESSURE SWITCH
 K22 - LOW WATER LEVEL SWITCH (KOHLER)
 LWT - LOW WATER TEMPERATURE SWITCH
 LOP - LOW OIL PRESSURE SWITCH
 OP5 - OIL PRESSURE SENDER
 P(I) - PLUG
 PHET - PRELIMINARY HIGH ENGINE TEMPERATURE SWITCH
 PLOP - PRELIMINARY LOW OIL PRESSURE SWITCH
 SEC - STARTER ENGINE BREAKER
 SLB - STATIONARY LED BOARD
 SM - STARTER MOTOR
 SS - STARTER SOLENOID
 SW1 - TOGGLE SWITCH, 2 POSITION, SPRING RETURN
 TB1-4 - CONTROLLER BOARD TERMINAL BLOCK
 TB5 - SAFEGUARD BREAKER TERMINAL BLOCK
 TB6 - A.C. FUSE BLOCK
 TB7 - JUNCTION BOX TERMINAL BLOCK
 VADJ - VOLTAGE ADJUST
 WTS - WATER TEMPERATURE SENDER

ECS

CIRCUIT	CONTACTS	OFF	RUN
1	1	2	
2	3	4	
3	5	6	

NOTE: CT WIRES GO SPECIFICALLY TO TB5 WHEN SAFEGUARD USE IS NOT REQUIRED.

NOTE: CURRENT TRANSFORMER DOT OR "H" TOWARD GENERATOR.

NOTE: USED FOR OPTIONAL SPEED SENSOR SIGNAL ONLY.

NOTE: 6 LEAD STATOR SEE ADV-6510A FOR CONNECTIONS.

NOTE: HEAT SINK ASSY. EXCITER FIELD.

NOTE: PHOTO BOARD.

NOTE: BAPS.

NOTE: TB7 CONNECTION GUIDE FOR YOUR APPLICATION.

DIAGRAM, SCHEMATIC 200 KW SERIES 40

ADV-6510

DATE: 2-22-99

SCALE: 1/1

REVISED: 1-2

DESIGNED: ADV-6510

APPROVED: JS

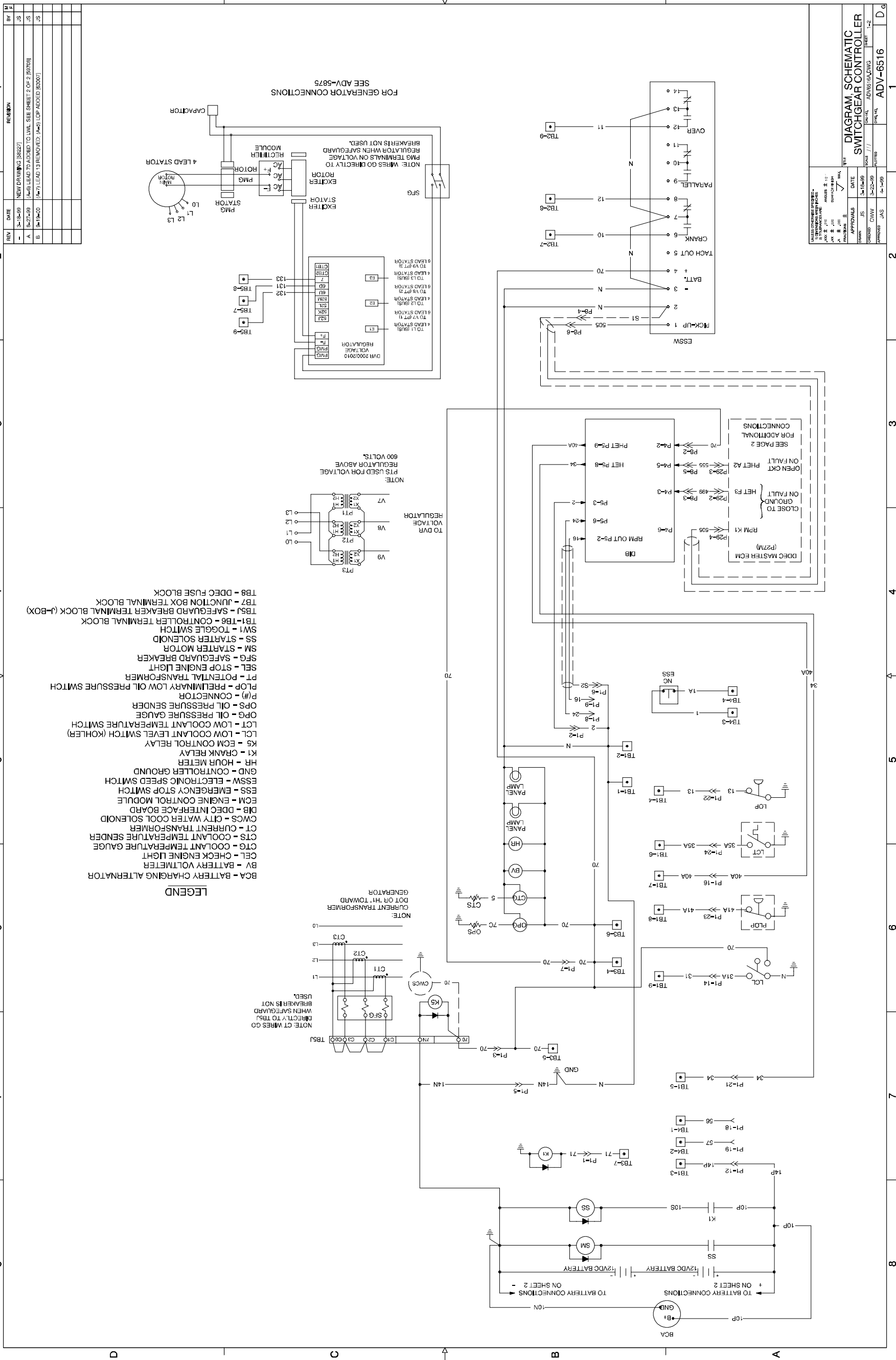
DATE: 2-22-99

SCALE: 1/1

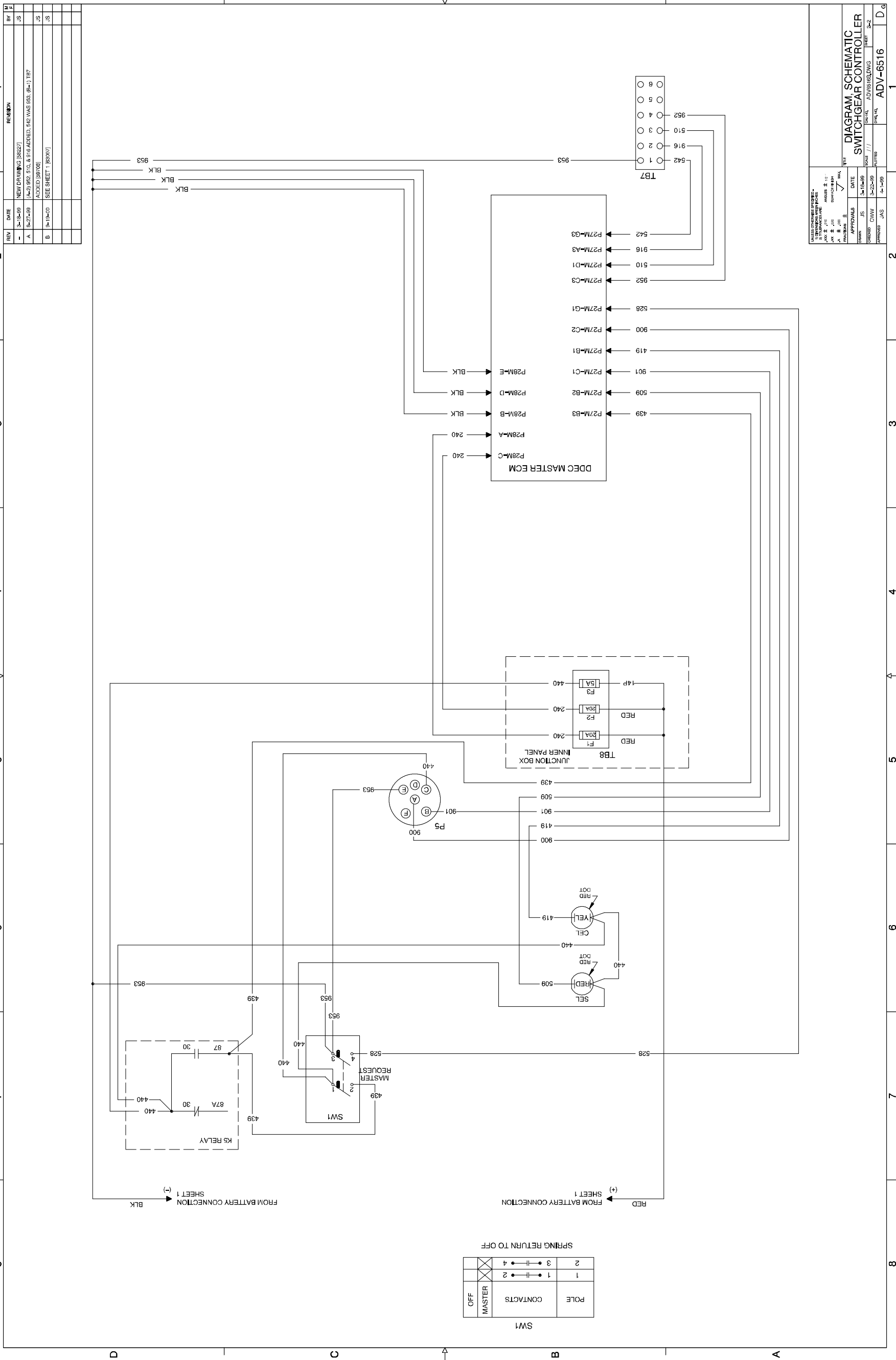
REVISED: 1-2

DESIGNED: ADV-6510

Engine Gauge Box for Paralleling Switchgear, Schematic Diagram, Sheet 1, ADV-6516A-B



Engine Gauge Box for Paralleling Switchgear, Schematic Diagram, Sheet 2, ADV-6516B-B



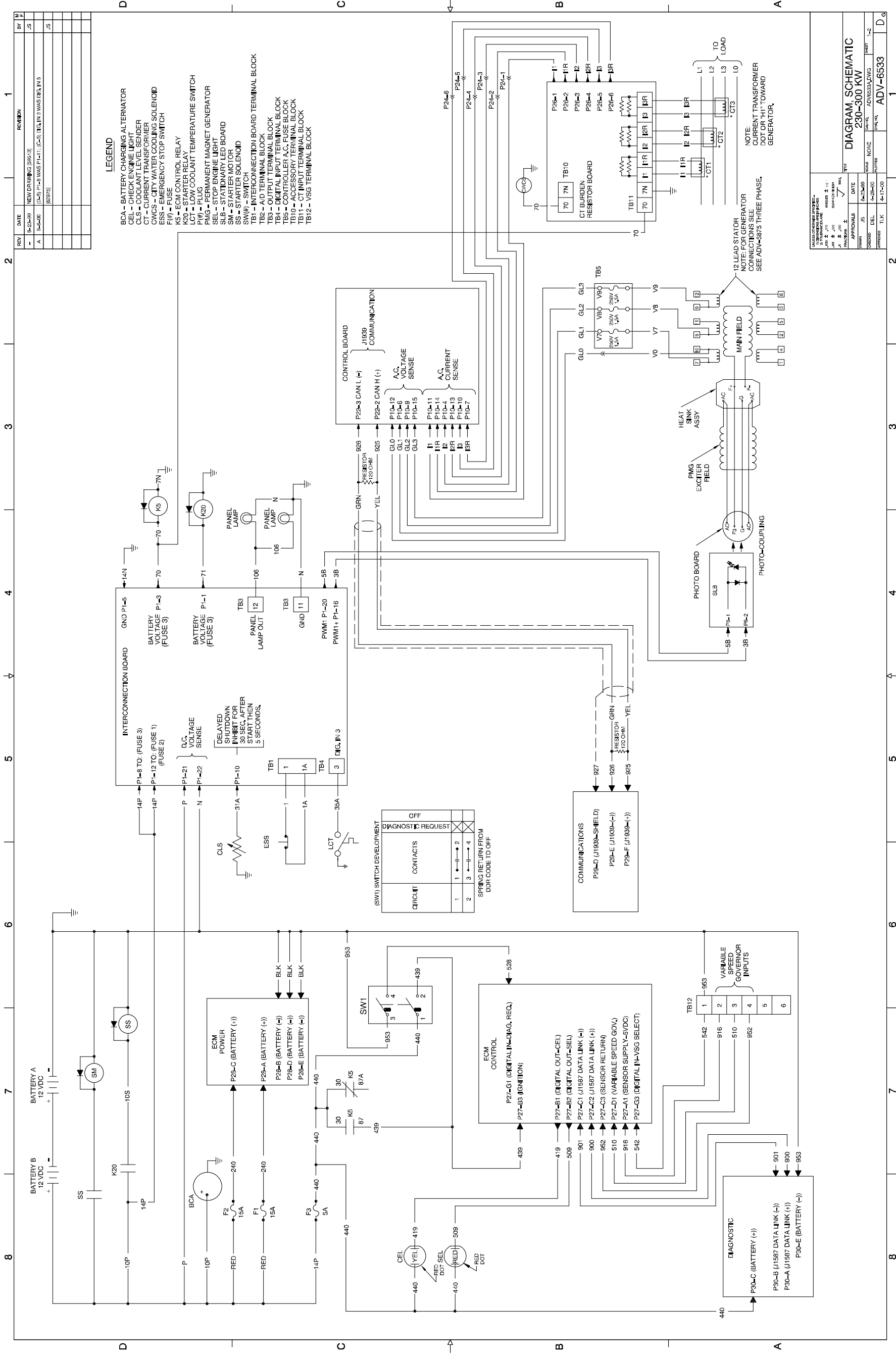
POLE	CONTACTS	MASTER	OFF
1	1 • • 2	•	•
2	3 • • 4	•	•

SPRING RETURN TO OFF

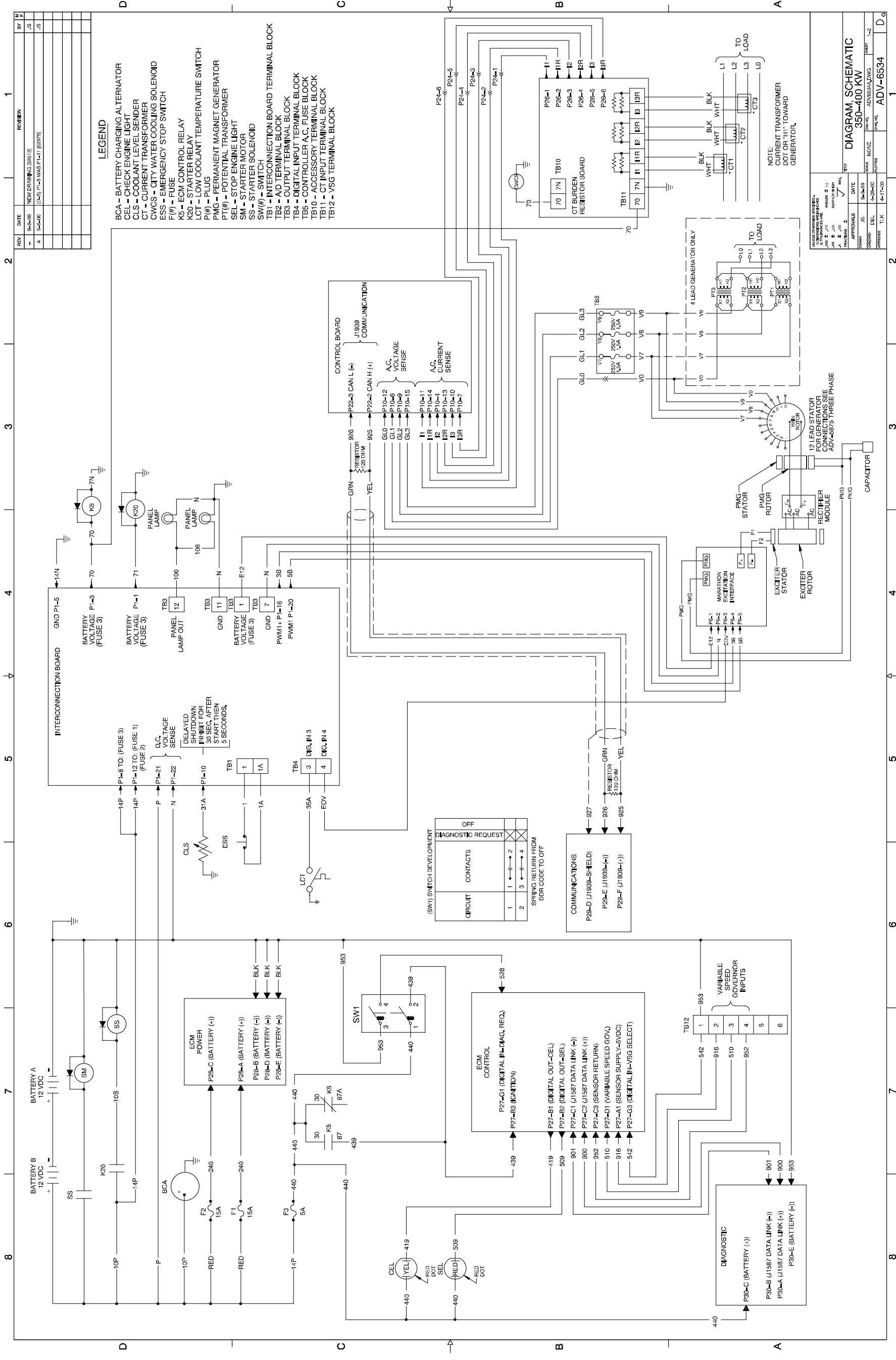
DATE	12/11/99	BY	J.S.
APPROVALS		DATE	
DESIGNED	OWW	SCALE	1/1
DRAWN	ADV/BS/BLD/WG	SHEET	3-2
PROJECT	ADV-6516	REVISED	

DIAGRAM, SCHEMATIC SWITCHGEAR CONTROLLER

REV	DATE	BY	REVISION
1	12/11/99	J.S.	NEW DRAWING (SR227)
2	04/27/00	J.S.	(4-2) 952, 510, & 916 ADDED, 542 WAS 953, (8-1) 197 ADDED (SR098)
3	03/14/00	J.S.	SEE SHEET 1 (SR097)



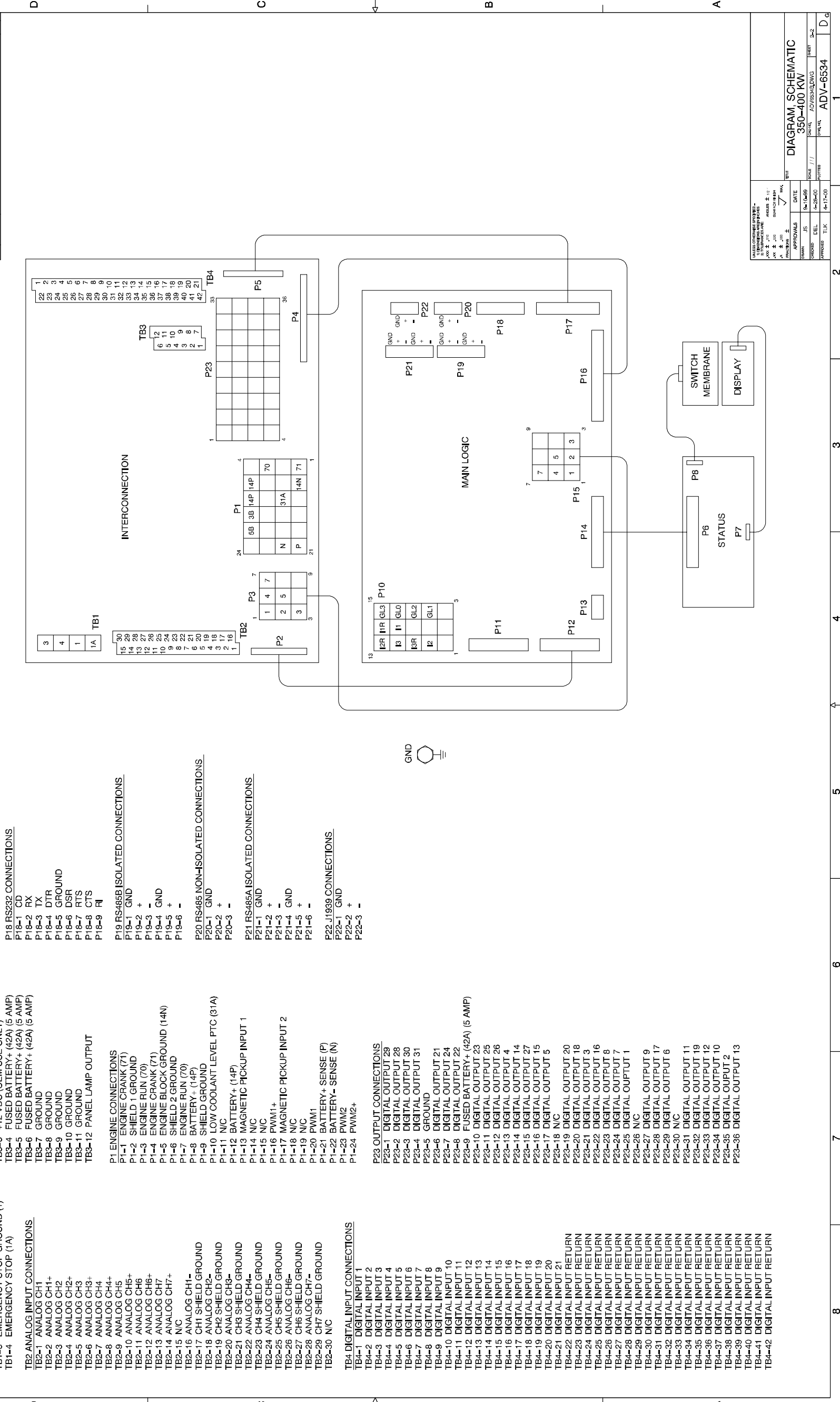
Decision-Maker™ 550 Controller, Schematic Diagram, Sheet 1, ADV-6533A-A



Decision-Maker™ 550 Controller, Schematic Diagram, Sheet 1, ADV-6534A-A

REV	DATE	DESCRIPTION	BY	APP
1	03/04/09	NEW DRAWING (96413)		
2	03/05/09	(C-7) PHASE 1HP WAS 70, P1-11, NC WAS HP, P1-14, NC WAS 18N (82976)		
3				
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REV	DATE	DESCRIPTION	BY	APP
1	03/04/09	NEW DRAWING (96413)		
2	03/05/09	(C-7) PHASE 1HP WAS 70, P1-11, NC WAS HP, P1-14, NC WAS 18N (82976)		
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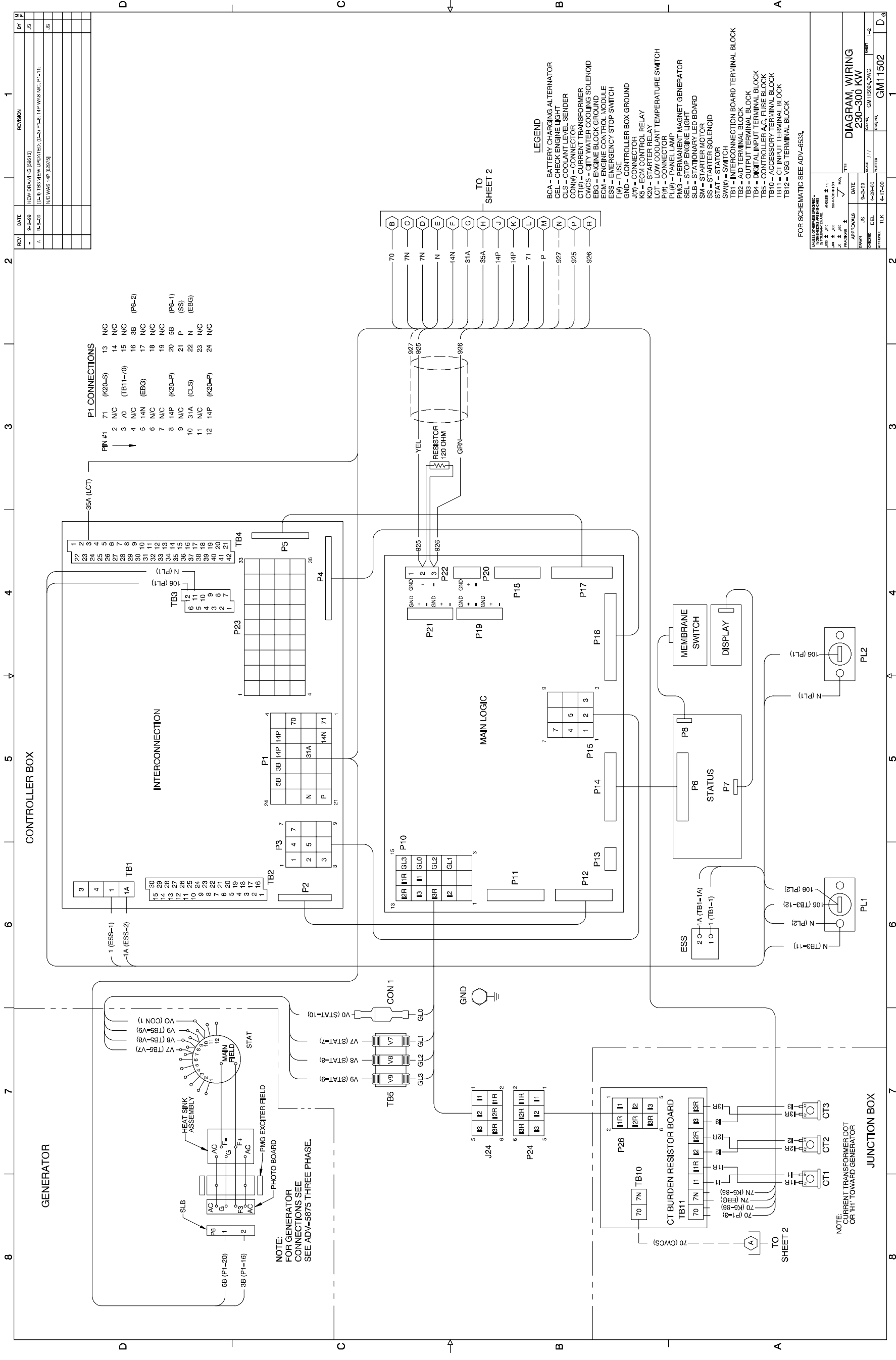
DIAGRAM, SCHEMATIC
350-400 KW

ADV-6534

DATE: 03/04/09
SCALE: 1/1
SHEET: 3-2

APPROVALS: T.L.K.

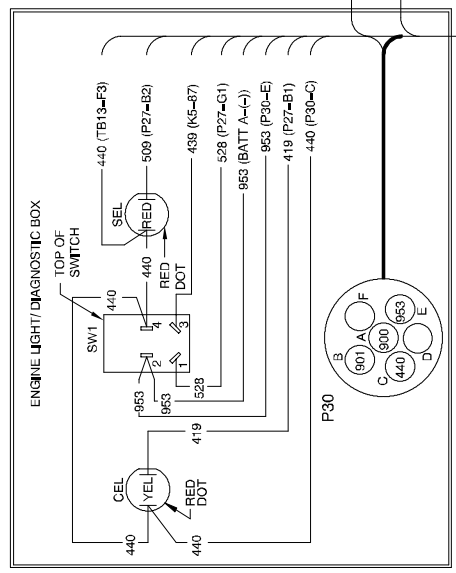
Decision-Maker™ 550 Controller, Schematic Diagram, Sheet 2, ADV-6534B-A



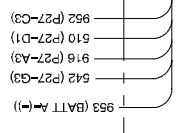
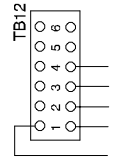
Decision-Maker™ 550 Controller, Point-to-Point Wiring Diagram, Sheet 1, GM11502A-A

REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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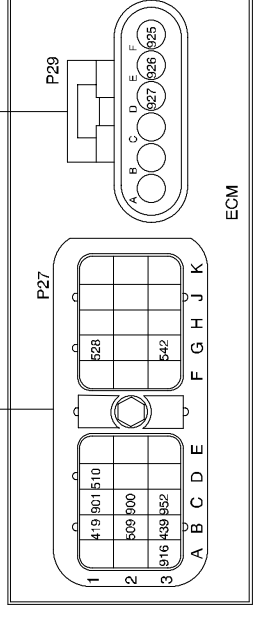
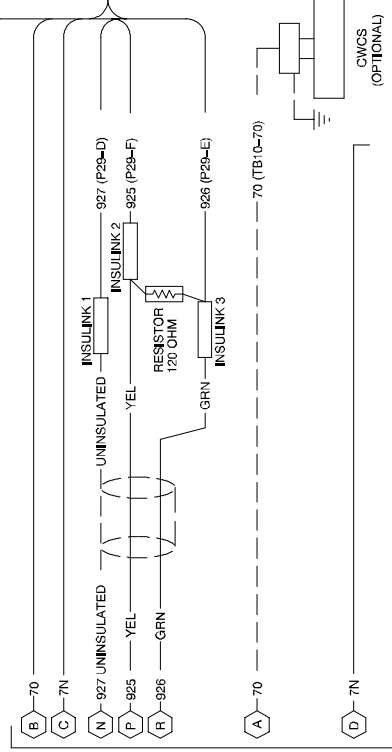
JUNCTION BOX



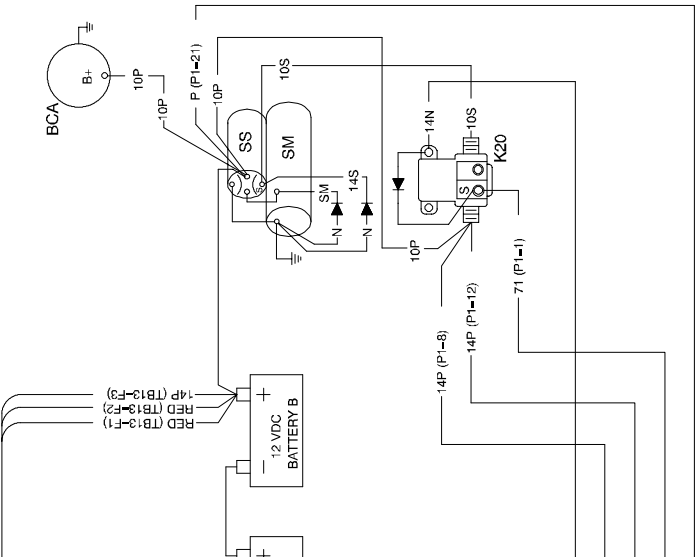
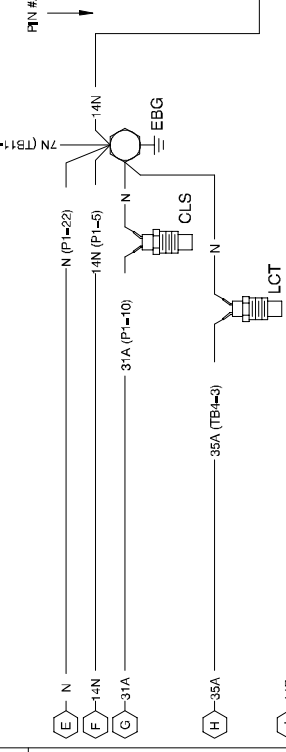
- P30 CONNECTIONS**
 FN # A 900 (P27-C2)
 B 901 (P27-C1)
 C 440 (CEL)
 D N/C
 E 953 (SW1-2)
 F N/C



ENGINE



- P27 CONNECTIONS**
 FN # A1 N/C (CAMITY PLUG)
 A2 N/C (CAMITY PLUG)
 A3 916 (TB12-2)
 B1 419 (CEL)
 B2 509 (SEL)
 B3 439 (SW1-2)
 C1 901 (P30-B)
 C2 900 (P30-A)
 C3 952 (TB12-4)
 D1 510 (TB12-3)
 D2 N/C (CAMITY PLUG)
 D3 N/C (CAMITY PLUG)
 E1 N/C (CAMITY PLUG)
 E2 N/C (CAMITY PLUG)
 E3 N/C (CAMITY PLUG)
 F1 N/C (CAMITY PLUG)
 F2 N/C (CAMITY PLUG)
 F3 N/C (CAMITY PLUG)
 G1 528 (SW1-1)
 G2 N/C (CAMITY PLUG)
 G3 542 (TB12-1)
 H1 N/C (CAMITY PLUG)
 H2 N/C (CAMITY PLUG)
 H3 N/C (CAMITY PLUG)
 J1 N/C (CAMITY PLUG)
 J2 N/C (CAMITY PLUG)
 J3 N/C (CAMITY PLUG)
 K1 N/C (CAMITY PLUG)
 K2 N/C (CAMITY PLUG)
 K3 N/C (CAMITY PLUG)
- P28 CONNECTIONS**
 FN # A N/C (CAMITY PLUG)
 B N/C (CAMITY PLUG)
 C N/C (CAMITY PLUG)
 D 927 (INSULINK 1)
 E 926 (INSULINK 3)
 F 925 (INSULINK 2)
- P29 CONNECTIONS**
 FN # A N/C (CAMITY PLUG)
 B N/C (CAMITY PLUG)
 C N/C (CAMITY PLUG)
 D 927 (INSULINK 1)
 E 926 (INSULINK 3)
 F 925 (INSULINK 2)
- P28 CONNECTIONS**
 FN # A 240 (TB13-F1)
 B BLK (BATT A-(-))
 C 240 (TB13-F2)
 D BLK (BATT A-(-))
 E BLK (BATT A-(-))



REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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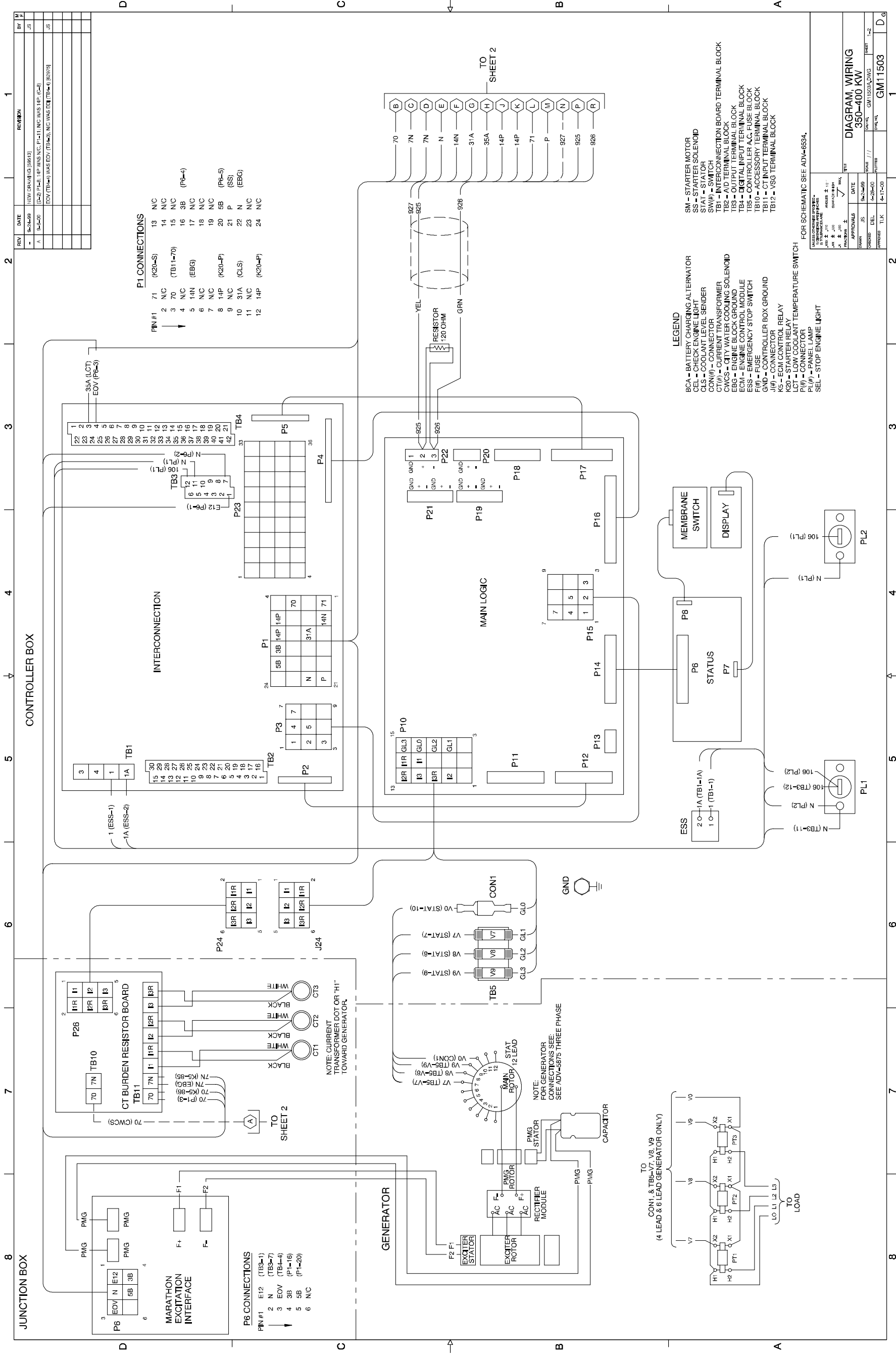
REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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REV	DATE	DESCRIPTION	BY	CHK
1	03-20-00	NEW DRAWING (96813)	J.S.	
2	04-11-00	(D-1) 440 (SEL) REMOVED FROM NS. (C-5) 440 (SEL) ADDED TO 13 (P27-5)	J.S.	
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Decision-Maker™ 550 Controller, Point-to-Point Wiring Diagram, Sheet 2, GM11502B-A



REV	DATE	BY	REVISION
1	03-24-99		NEW DRAWING (59413)
2	04-20-00		(C=2) P1=4, 4P WAS N/C, F1=H, N/C WAS 14P, (C=8) EOV (TB4-1) WAS EOV, (TB4-2), N/C WAS EOV, (TB4-3) (P6-4) (P6-5)

P1 CONNECTIONS

PIN #1	71	(K20-S)	13	N/C
	2	N/C	14	N/C
	3	70	15	N/C
	4	N/C	16	3B (P6-4)
	5	14N	17	N/C
	6	N/C	18	N/C
	7	N/C	19	N/C
	8	14P	20	5B (P6-5)
	9	N/C	21	P (SS)
	10	31A	22	N (EBG)
	11	N/C	23	N/C
	12	14P	24	N/C

P6 CONNECTIONS

PIN #1	E12	(TB3-1)	
	2	N	(TB3-7)
	3	EOV	(TB4-4)
	4	3B	(P1-16)
	5	5B	(P1-20)
	6	N/C	

P10 CONNECTIONS

1	IR	GL3
2	I1	GL0
3	IR	GL2
4	I2	GL1

P15 CONNECTIONS

1	1
2	2
3	3

P17 CONNECTIONS

1	1
2	2
3	3

P18 CONNECTIONS

1	1
2	2
3	3

P19 CONNECTIONS

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2	2
3	3

P20 CONNECTIONS

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P21 CONNECTIONS

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P22 CONNECTIONS

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P23 CONNECTIONS

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P24 CONNECTIONS

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P25 CONNECTIONS

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P26 CONNECTIONS

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P27 CONNECTIONS

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P28 CONNECTIONS

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P29 CONNECTIONS

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P30 CONNECTIONS

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P31 CONNECTIONS

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P32 CONNECTIONS

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P33 CONNECTIONS

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P34 CONNECTIONS

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P35 CONNECTIONS

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P36 CONNECTIONS

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P37 CONNECTIONS

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P38 CONNECTIONS

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P39 CONNECTIONS

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P40 CONNECTIONS

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P41 CONNECTIONS

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P42 CONNECTIONS

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P43 CONNECTIONS

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P44 CONNECTIONS

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P45 CONNECTIONS

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P46 CONNECTIONS

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P47 CONNECTIONS

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P48 CONNECTIONS

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P49 CONNECTIONS

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P50 CONNECTIONS

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P51 CONNECTIONS

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P52 CONNECTIONS

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P53 CONNECTIONS

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P54 CONNECTIONS

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P55 CONNECTIONS

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P56 CONNECTIONS

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P57 CONNECTIONS

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P58 CONNECTIONS

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P59 CONNECTIONS

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P60 CONNECTIONS

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P61 CONNECTIONS

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P62 CONNECTIONS

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P63 CONNECTIONS

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P64 CONNECTIONS

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P65 CONNECTIONS

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P66 CONNECTIONS

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P67 CONNECTIONS

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P68 CONNECTIONS

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P69 CONNECTIONS

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P70 CONNECTIONS

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P71 CONNECTIONS

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P91 CONNECTIONS

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P92 CONNECTIONS

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P93 CONNECTIONS

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P95 CONNECTIONS

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P109 CONNECTIONS

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P110 CONNECTIONS

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P111 CONNECTIONS

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P112 CONNECTIONS

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P116 CONNECTIONS

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P117 CONNECTIONS

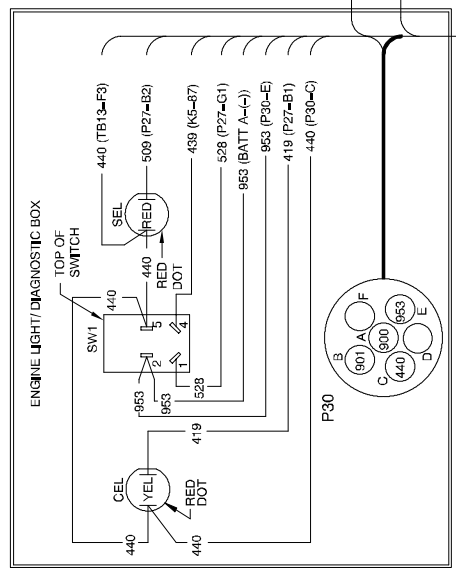
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P118 CONNECTIONS

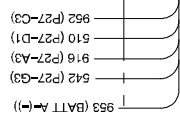
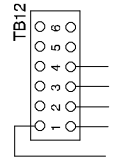
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REV	DATE	DESCRIPTION	BY	CHK
1	03-24-99	NEW DRAWING (98813)	JS	
2	04-04-00	(D-5) 440 (SEL) REMOVED FROM AS (C-9) 440 (SEL) ADDED TO (S) (62978)	JS	
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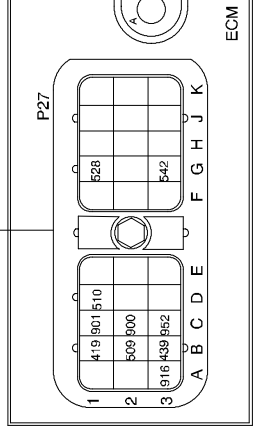
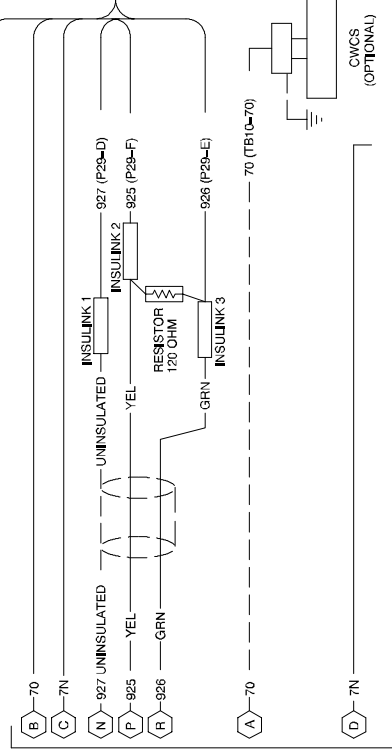
JUNCTION BOX



- P30 CONNECTIONS**
- FIN # A 900 (P27-C2)
 - B 901 (P27-C1)
 - C 440 (CEL)
 - D N/C
 - E 953 (SW1-2)
 - F N/C



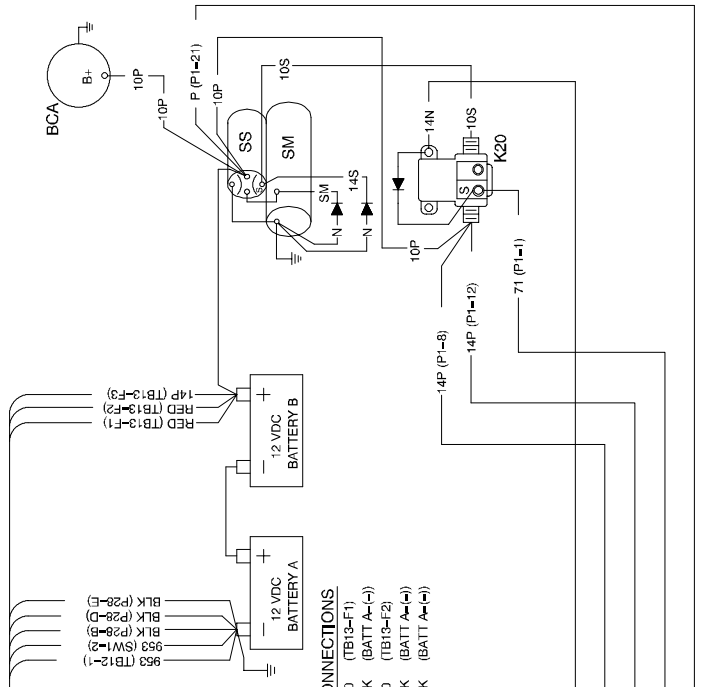
ENGINE



- P27 CONNECTIONS**
- FIN # A1 N/C
 - A2 N/C
 - A3 916
 - B1 419
 - B2 509
 - B3 439
 - C1 901
 - C2 900
 - C3 952
 - D1 510
 - D2 N/C
 - D3 N/C
 - E1 N/C
 - E2 N/C
 - F1 N/C
 - F2 N/C
 - F3 N/C
 - G1 528
 - G2 N/C
 - G3 542
 - H1 N/C
 - H2 N/C
 - H3 N/C
 - J1 N/C
 - J2 N/C
 - J3 N/C
 - K1 N/C
 - K2 N/C
 - K3 N/C

- P29 CONNECTIONS**
- FIN # A N/C
 - B N/C
 - C N/C
 - D 927
 - E 926
 - F 925

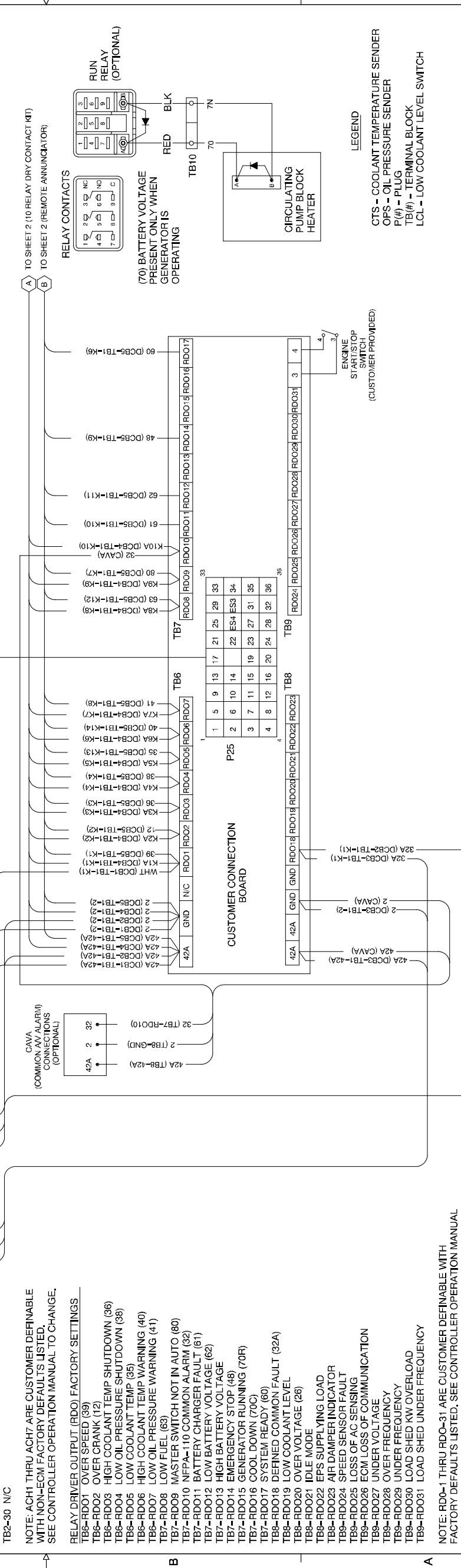
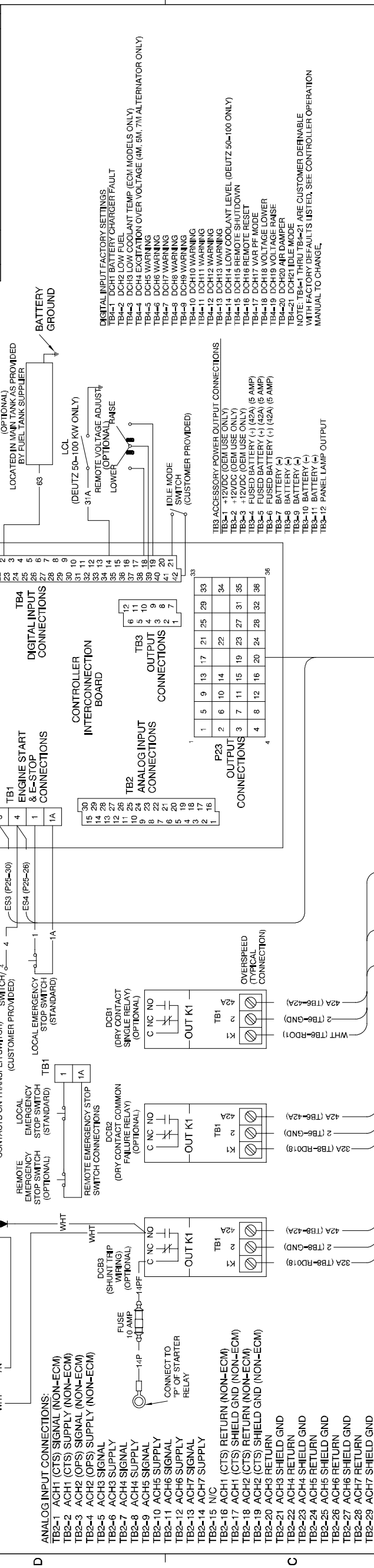
- P28 CONNECTIONS**
- FIN # A 240
 - B BLK
 - C 240
 - D BLK
 - E BLK



APPROVALS	DATE	SCALE	SHEET
DESIGNED BY: JS	03-24-99	1/1	3-2
CHECKED BY: DEL	04-04-00		
APPROVED BY: TJK	04-28-00		

DIAGRAM, WIRING
350-400 KW

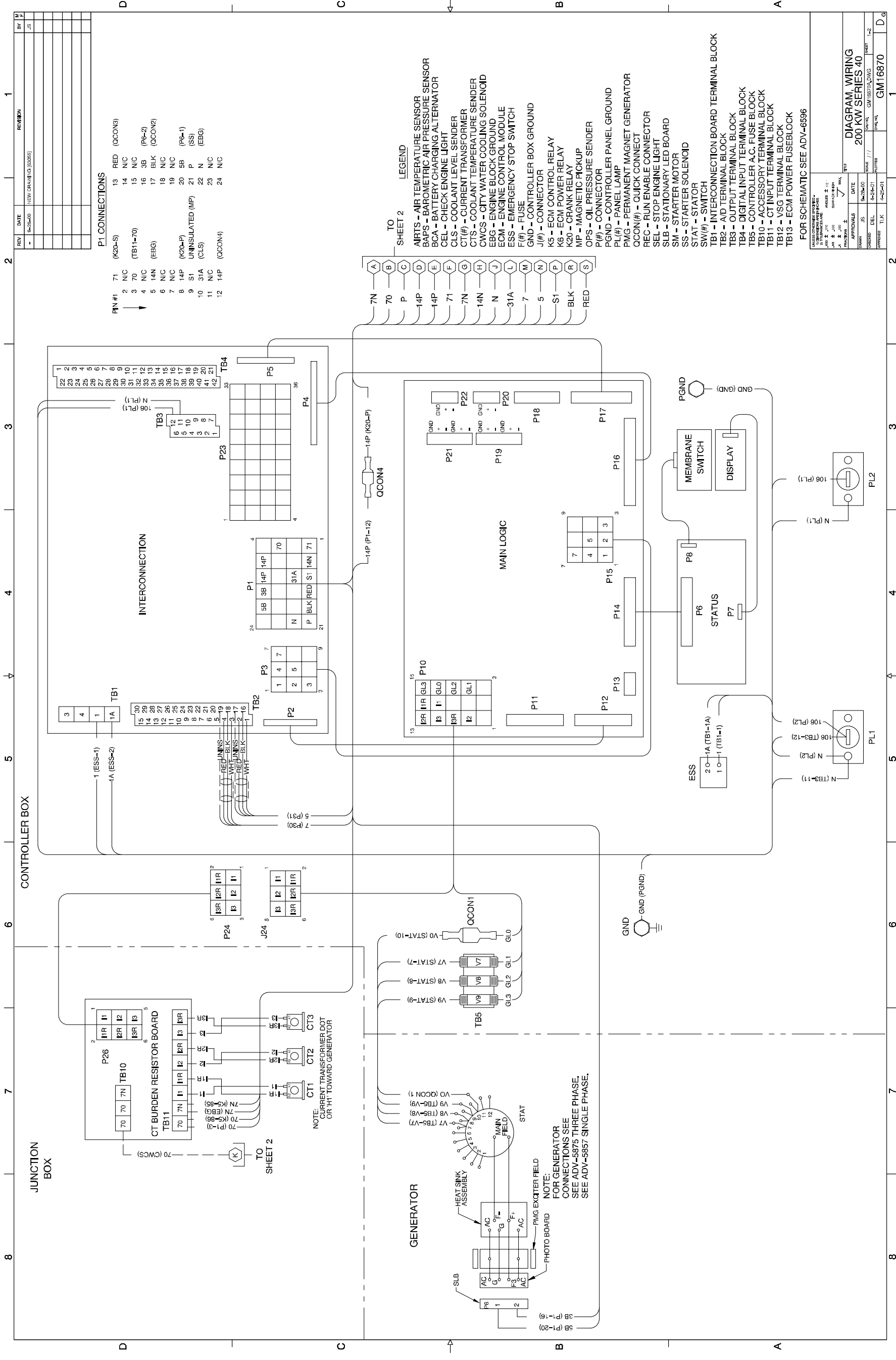
REV	DATE	REVISION	BY
A	14-08-00	(C-7) DCB3 SHUNT TRIP WIRING WAS (JALE MODE, (A,B-5) RELAY DRIVER OUTPUTS REWIRING (B-3) LEAD 60 MOVED TO RBD17 FROM RBD14 LEAD 48 MOVED TO RBD14 FROM RBD16. (D-3) LCL AND REMOTE VOLTAGE ADJUST ADDED. (C-2) LOW COOLANT LEVEL, REMOTE SHUTDOWN, REMOTE RESET, VAR PF MODE, VOLTAGE LOWER VOLTAGE RAISE AND 4RDAMPER ADDED (RBT113)	JS



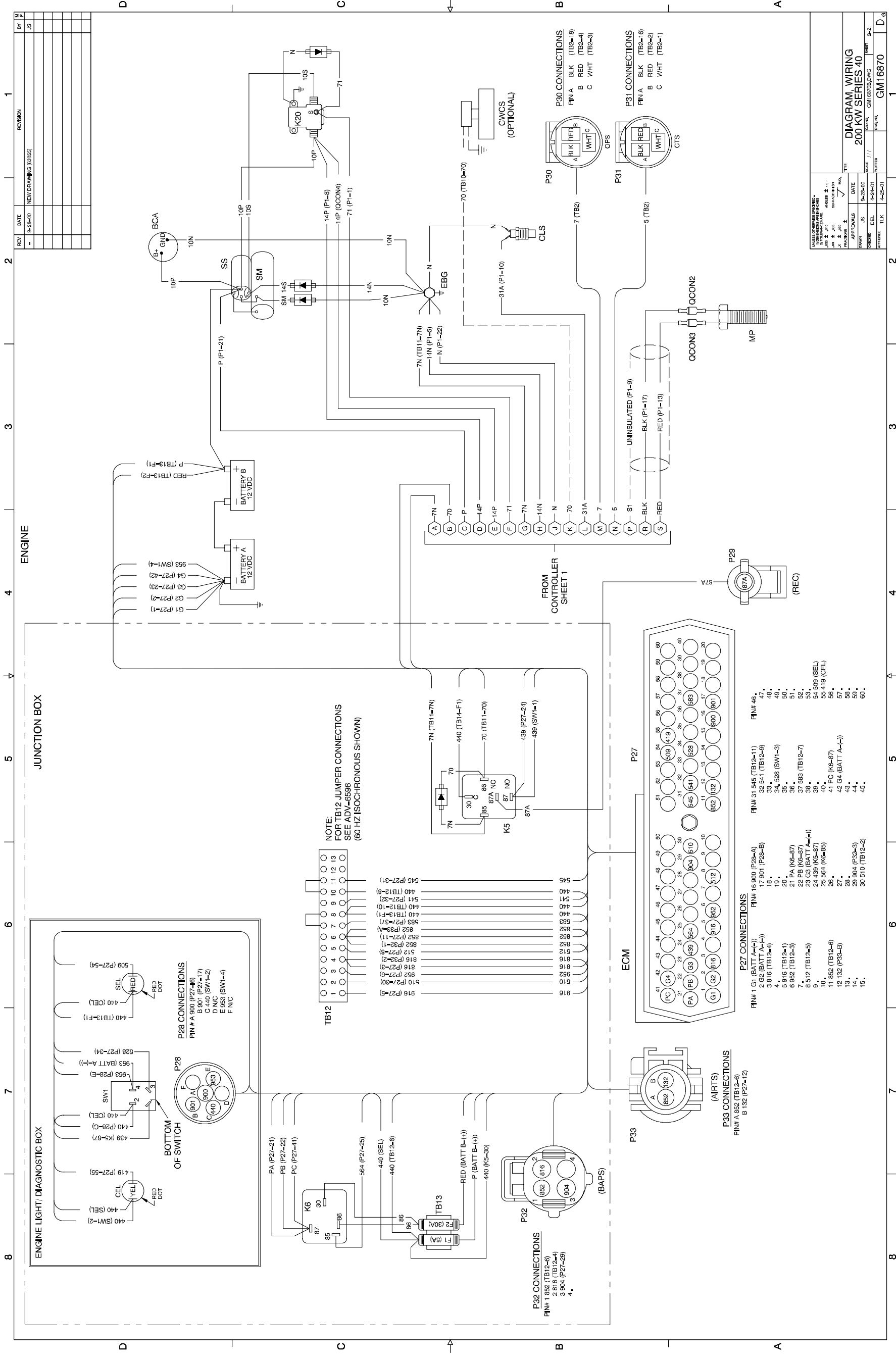
DATE	BY	APPROVALS	DATE	BY	APPROVALS
14-08-00	JS	[Signature]	14-08-00	JS	[Signature]

REV	DATE	REVISION	BY
1	14-08-00	DIAGRAM, ACCESSORY INTERCONNECTION	JS

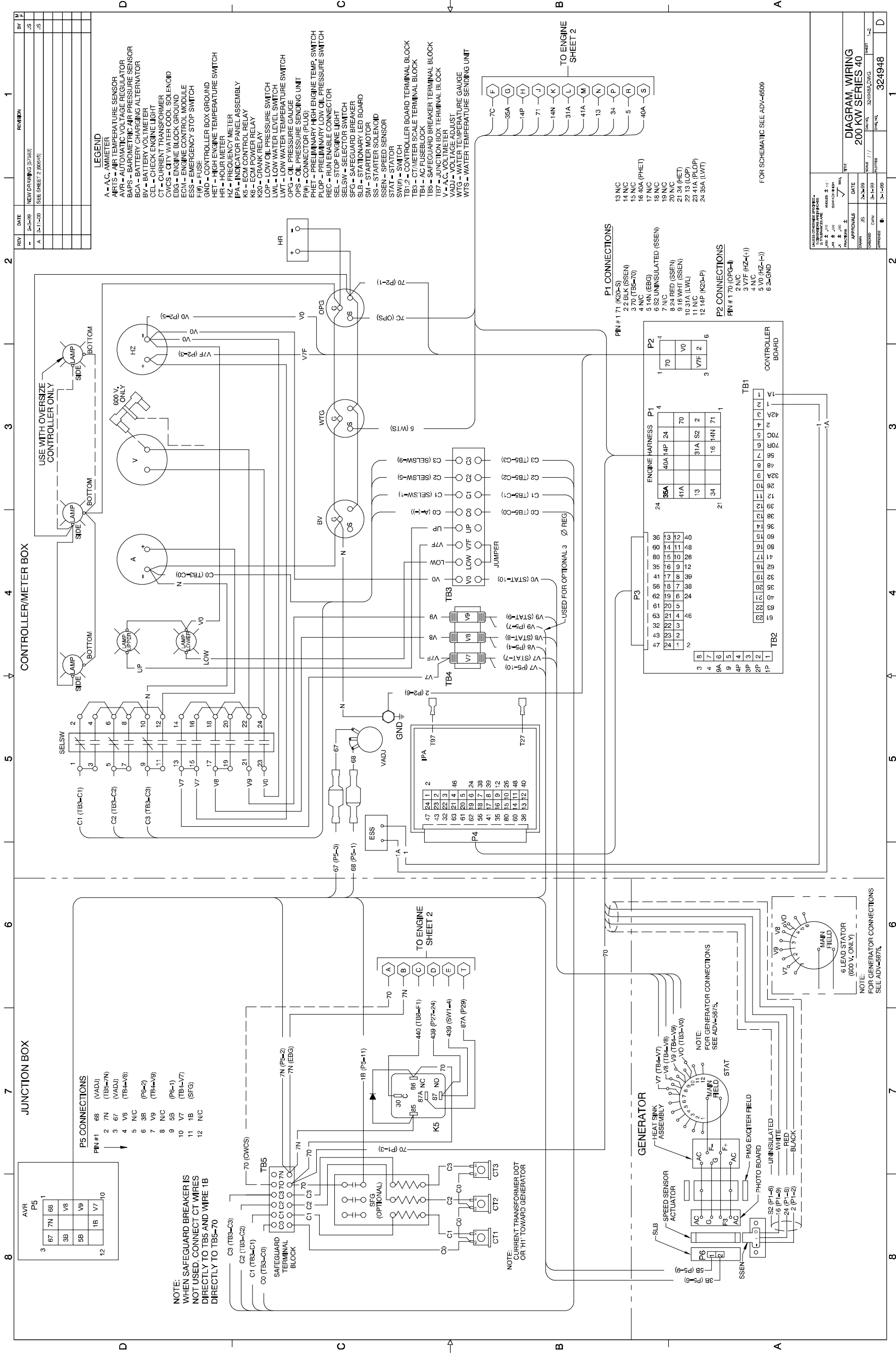
Decision-Maker™ 550 Controller, Accessory Connections, Sheet 1, GM16088A-A



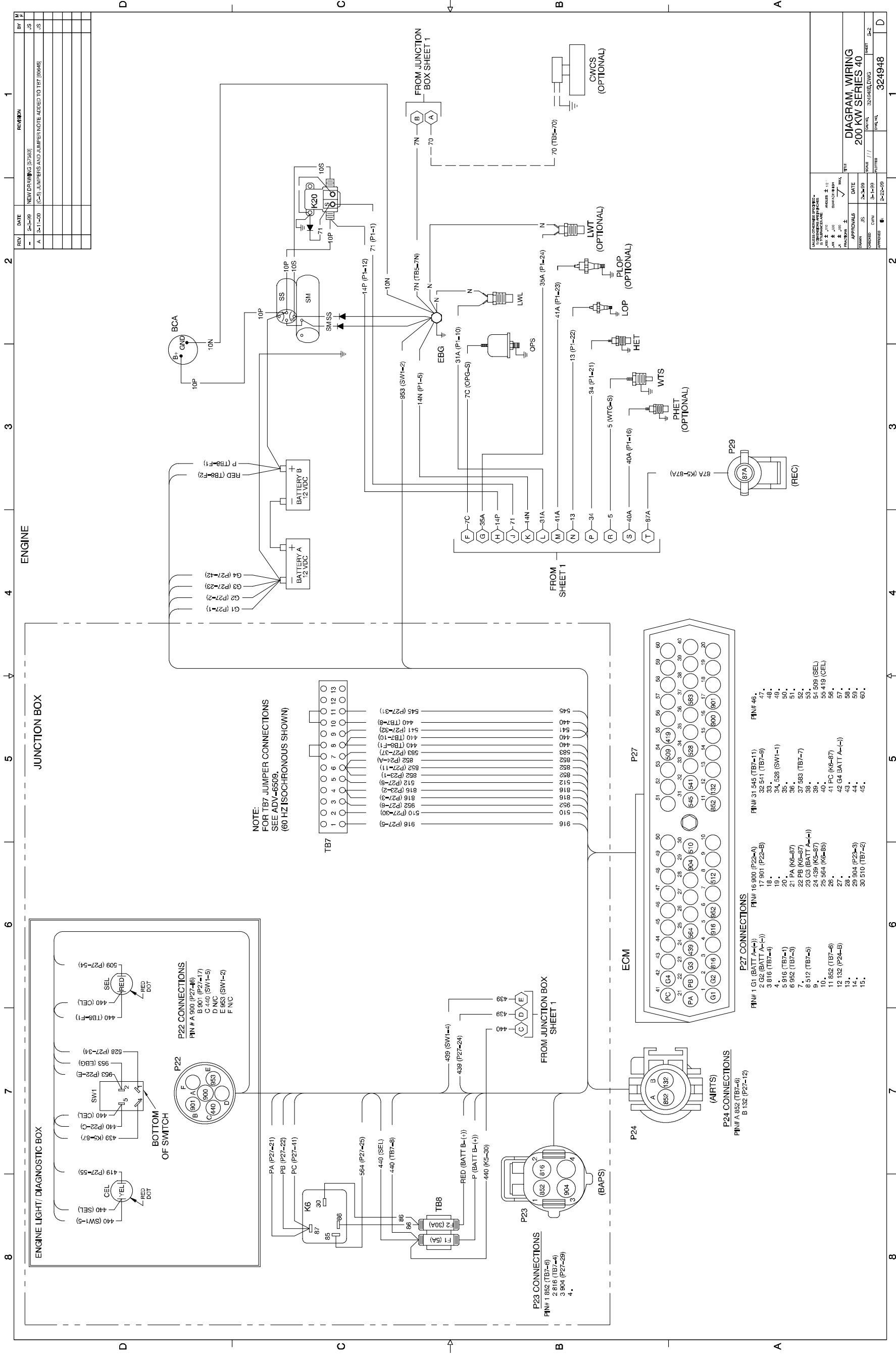
Decision-Maker™ 550 Controller, Point-to-Point Wiring Diagram, Sheet 1, GM16870A-A



Decision-Maker™ 550 Controller, Point-to-Point Wiring Diagram, Sheet 2, GM16870B-



Decision-Maker™ 3+ Controller, Point-to-Point Wiring Diagram, Sheet 1, 324948A-A



REV	DATE	REVISION	BY
-	5-5-89	NEW DRAWING (57885)	JS
A	3-11-90	(C-5) JUMPER AND JUMPER NOTE ADDED TO TB7 (86045)	JS

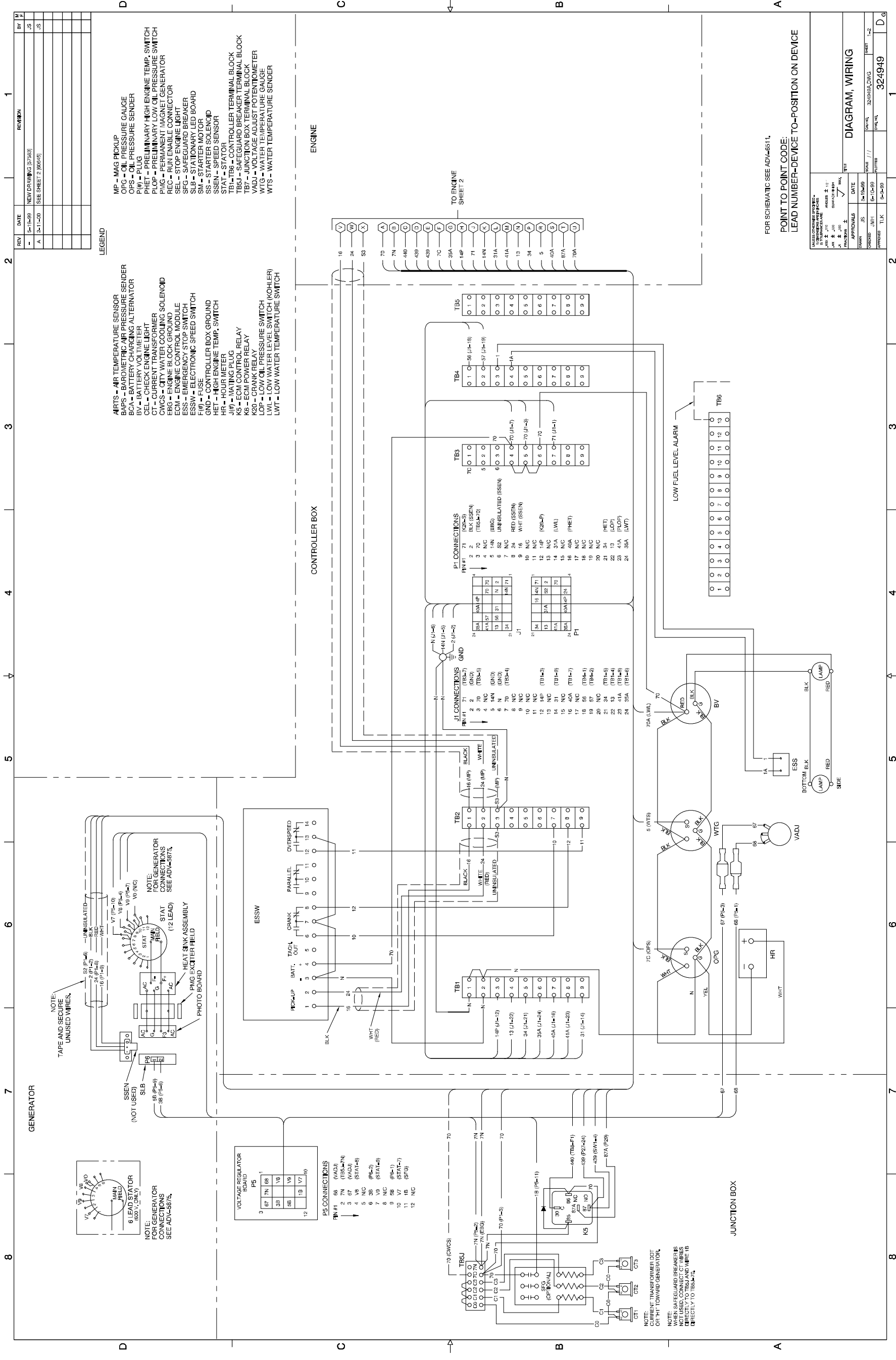
APPROVALS	DATE	BY
DESIGNED	5-5-89	JS
CHECKED	5-12-89	JS
APPROVED	5-25-89	JS

DATE: 3-25-90
SCALE: 1/1
SHEET: 3-2

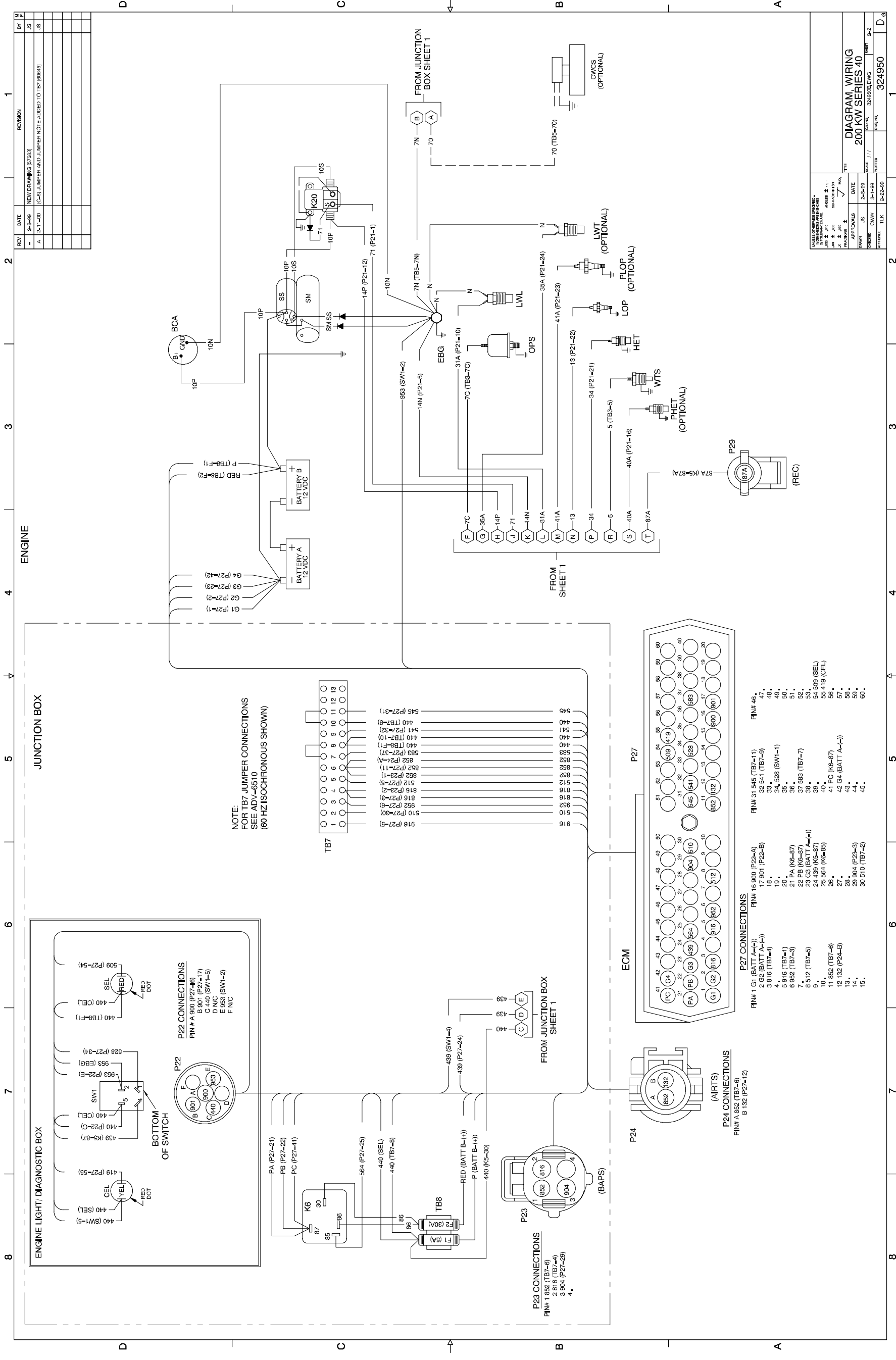
DIAGRAM WIRING
200 KW SERIES 40

DATE: 3-25-90
SCALE: 1/1
SHEET: 3-2

Decision-Maker™ 3+ Controller, Point-to-Point Wiring Diagram, Sheet 2, 324948B-A



Engine Gauge Box for Paralleling Switchgear, Point-to-Point Wiring Diagram, Sheet 1, 324949A-A



REV	DATE	REVISION	BY
1	3-5-89	NEW DRAWING (57585)	JS
2	3-11-90	(C-5) JUMPER AND JUMPER NOTE ADDED TO TB7 (60416)	JS

APPROVALS	DATE	SCALE	SHEET
DESIGNED BY: JS	3-5-89	1/1	3-2
CHECKED BY: JS	3-15-89		
APPROVED BY: TJK	3-25-89		

DESCRIPTION	DATE	SCALE	SHEET
DIAGRAM WIRING	3-5-89	1/1	3-2
200 KW SERIES 40	3-15-89		
324950B-A	3-25-89		

ENGINE

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

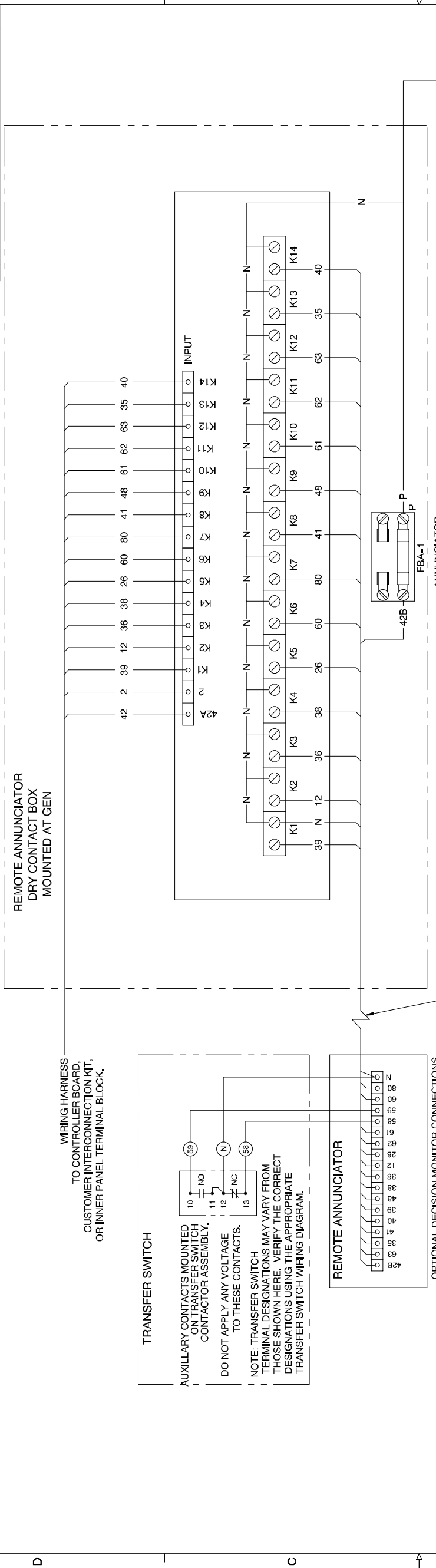
JUNCTION BOX

JUNCTION BOX

JUNCTION BOX

Decision-Maker™ 340 Controller, Point-to-Point Wiring Diagram, Sheet 2, 324950B-A

REV	DATE	REVISION	BY
C	11-13-07	(1-2) MICROPROCESSOR ALARM WAS DEC 3+ & (3-7) REMOTE ANNUNCIATOR WAS DECISION MONITOR ON SPECTRUM TITLER BLOCK (58920)	KAP
D	04-23-08	(4-2) 20-200 KW WAS 20-1000 KW (4-3) CUSTOMER INTERCONNECTION KIT, OR INNER PANEL TERMINAL BLOCK, ADDED (58975)	URS
F	11-21-09	(F-2) INSTALLATION NOTE ADDED (58986)	LDN



TRANSFER SWITCH
 AUXILIARY CONTACTS MOUNTED ON TRANSFER SWITCH CONTACTOR ASSEMBLY.
 DO NOT APPLY ANY VOLTAGE TO THESE CONTACTS.
 NOTE: TRANSFER SWITCH TERMINAL DESIGNATIONS MAY VARY FROM THOSE SHOWN HERE. VERIFY THE CORRECT DESIGNATIONS USING THE APPROPRIATE TRANSFER SWITCH WIRING DIAGRAM.

REMOTE ANNUNCIATOR
 REMOTE ANNUNCIATOR DRY CONTACT BOX MOUNTED AT GEN

CUSTOMER SUPPLIED WIRES
 #N & #42B WIRE REQUIRE
 100 FT. - 18-20 GA.
 500 FT. - 14 GA.
 1000 FT. - 10 GA.
 SIGNAL WIRES
 18-20 GA. TO 1000 FT.
 NOTE: IF ADDITIONAL LOAD IS ADDED RESIZE N & 42B AS REQUIRED

ANNUNCIATOR FUSE BLOCK 10 AMP
 FBA-1

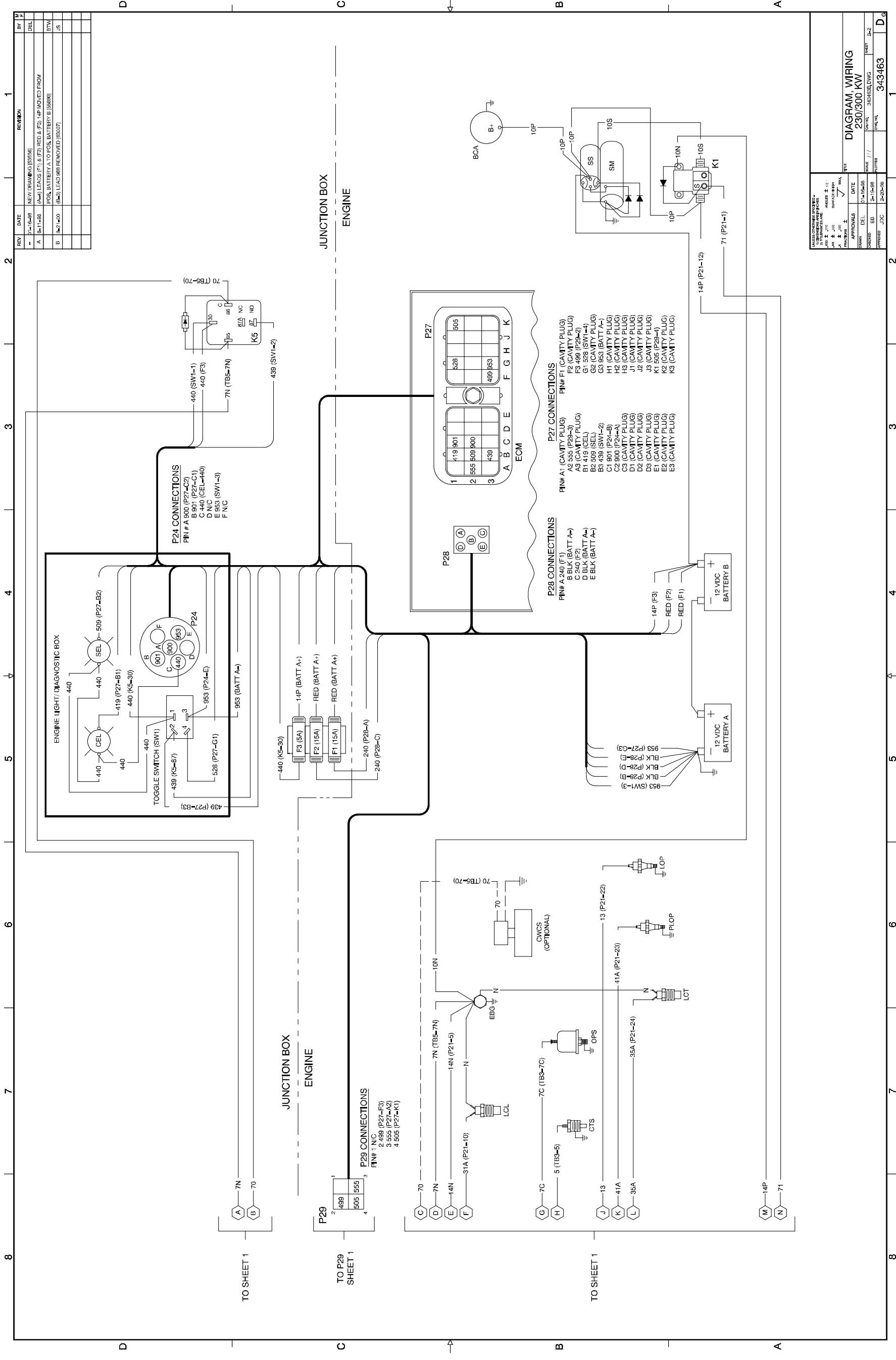
NOTE:
 CONTRACTOR TO HARDWIRE "P" TO BATTERY POSITIVE ENGINE CONNECTION AND "N" TO BATTERY NEGATIVE ENGINE CONNECTION. USE WIRE HARNESS PROVIDED AND CUT & TERMINATE AS REQUIRED.

INSTALLATION NOTE:
 FOR FIELD INSTALLATION A MAXIMUM OF TWO WIRE TERMINALS PER TERMINAL STRIP SCREWS IS RECOMMENDED UNLESS OTHERWISE NOTED ON THE WIRING DIAGRAM. DO NOT EXTEND ABOVE THE TERMINAL STRIP BARRIER.

APPROVALS	DATE	REF
DESIGNED BY: J.S.	11-21-09	328912/01
CHECKED BY: D.H.	11-21-09	328912/01
APPROVED BY: J.S.	11-21-09	328912/01
APPROVED BY: D.H.	11-21-09	328912/01

DIAGRAM, INTERCONNECTION

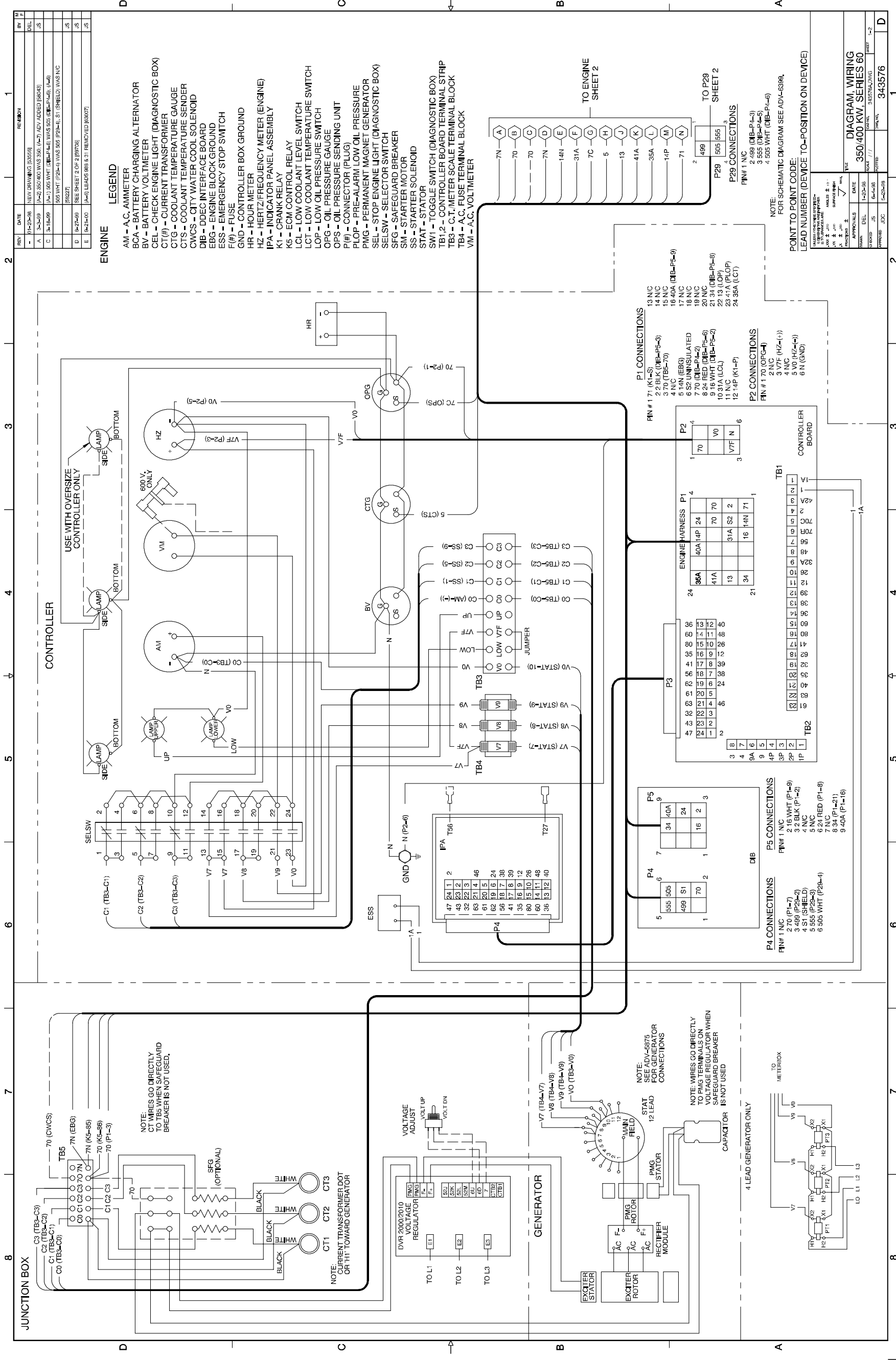
328912



REVISION	DATE	BY
1	04-08	DEL
2	04-08	DEL
3	04-08	DEL
4	04-08	DEL
5	04-08	DEL
6	04-08	DEL
7	04-08	DEL
8	04-08	DEL
9	04-08	DEL
10	04-08	DEL

APPROVALS	DATE
DESIGNED BY	04-08
CHECKED BY	04-08
APPROVED BY	04-08
DATE	04-08
SCALE	1/1
SHEET	34-2
DIAGRAM WIRING	343463B-B
343463B-B	343463B-B
343463B-B	343463B-B
343463B-B	343463B-B

Decision-Maker™ 340 Controller, Point-to-Point Wiring Diagram, Sheet 2, 343463B-B



ENGINE LEGEND

- AM - A.C. AMMETER
- BCA - BATTERY CHARGING ALTERNATOR
- BV - BATTERY VOLT METER
- CEL - CHECK ENGINE LIGHT (DIAGNOSTIC BOX)
- CT(#)- CURRENT TRANSFORMER
- CTG - COOLANT TEMPERATURE GAUGE
- CTS - COOLANT TEMPERATURE SENDER
- CWCS - CITY WATER COOL SOLENOID
- DIB - DDEC INTERFACE BOARD
- EBG - ENGINE BLOCK GROUND
- ESS - EMERGENCY STOP SWITCH
- F(#)- FUSE
- GND - CONTROLLER BOX GROUND
- HR - HOUR METER
- HZ - HERTZ/FREQUENCY METER (ENGINE)
- IPA - INDICATOR PANEL ASSEMBLY
- K1 - CRANK RELAY
- K5 - ECM CONTROL RELAY
- LCL - LOW COOLANT LEVEL SWITCH
- LCT - LOW COOLANT TEMPERATURE SWITCH
- LPT - LOW OIL PRESSURE SWITCH
- OPG - OIL PRESSURE GAUGE
- OPS - OIL PRESSURE SENDING UNIT
- P(#)- CONNECTOR (PLUG)
- PLOP - PRE-ALARM LOW OIL PRESSURE
- PMG - PERMANENT MAGNET GENERATOR
- SEL - STOP ENGINE LIGHT (DIAGNOSTIC BOX)
- SELSW - SELECTOR SWITCH
- SFG - SAFEGUARD BREAKER
- SM - STARTER MOTOR
- SS - STARTER SOLENOID
- STAT - STATOR
- SW1 - TOGGLE SWITCH (DIAGNOSTIC BOX)
- TB1,2 - CONTROLLER BOARD TERMINAL STRIP
- TB3 - C.T./METER SCALE TERMINAL BLOCK
- TB4 - A.C. FUSE TERMINAL BLOCK
- VM - A.C. VOLT METER

CONTROLLER

USE WITH OVERSIZE CONTROLLER ONLY

AM, V0, V7, V8, V9, V0 (STAT-1), V0 (STAT-2), V0 (STAT-3), V0 (STAT-4), V0 (STAT-5), V0 (STAT-6), V0 (STAT-7), V0 (STAT-8), V0 (STAT-9), V0 (STAT-10), V0 (STAT-11), V0 (STAT-12), V0 (STAT-13), V0 (STAT-14), V0 (STAT-15), V0 (STAT-16), V0 (STAT-17), V0 (STAT-18), V0 (STAT-19), V0 (STAT-20), V0 (STAT-21), V0 (STAT-22), V0 (STAT-23), V0 (STAT-24)

GENERATOR

EXCITER STATOR, EXCITER ROTOR, PMG ROTOR, PMG STATOR, REC'TIFIER MODULE, STAT 12 LEAD, VOLT ADJUST, VOLT UP, VOLT DN

NOTE: WIRES GO DIRECTLY TO PMG TERMINALS ON VOLTAGE REGULATOR WHEN SAFEGUARD BREAKER IS NOT USED.

JUNCTION BOX

NOTE: CURRENT TRANSFORMER DOT OR 'H' TOWARD GENERATOR

CT1, CT2, CT3, C0, C1, C2, C3, TB5, TB6, TB7, TB8, TB9, TB10, TB11, TB12, TB13, TB14, TB15, TB16, TB17, TB18, TB19, TB20, TB21, TB22, TB23, TB24, TB25, TB26, TB27, TB28, TB29, TB30, TB31, TB32, TB33, TB34, TB35, TB36, TB37, TB38, TB39, TB40, TB41, TB42, TB43, TB44, TB45, TB46, TB47, TB48, TB49, TB50, TB51, TB52, TB53, TB54, TB55, TB56, TB57, TB58, TB59, TB60, TB61, TB62, TB63, TB64, TB65, TB66, TB67, TB68, TB69, TB70, TB71, TB72, TB73, TB74, TB75, TB76, TB77, TB78, TB79, TB80, TB81, TB82, TB83, TB84, TB85, TB86, TB87, TB88, TB89, TB90, TB91, TB92, TB93, TB94, TB95, TB96, TB97, TB98, TB99, TB100

CONNECTOR TABLES

P1 CONNECTIONS

FN # 1	71 (K1-S)
2	81A (DB-P5-3)
3	70 (TBS-70)
4	4 NC
5	14N (EBG)
6	6 S2 UNINSULATED
7	70 (DB-P4-2)
8	8-24 RED (DB-P4-6)
9	16 WHT (DB-P5-2)
10	31A (LCL)
11	11 NC
12	14P (K1-P)
13	13 NC
14	14 NC
15	15 NC
16	16-40A (DB-P5-9)
17	17 NC
18	18 NC
19	19 NC
20	20 NC
21	21-34 (DB-P5-8)
22	22-13 (LOP)
23	41A (PLOP)
24	35A (LCT)

P2 CONNECTIONS

FN # 1	70 (OPG-4)
2	2 NC
3	3 VTF (HZ-+)
4	5 V0 (HZ-+)
5	6 N (GND)

P3 CONNECTIONS

3	8
4	7
5	9A
6	9
7	4P
8	3P
9	2P
10	1P

P4 CONNECTIONS

FN # 1	1 NC
2	70 (P1-7)
3	459 (P25-2)
4	51A (SHELD)
5	5 NC
6	505 WHT (P25-4)

P5 CONNECTIONS

FN # 1	1 NC
2	15 WHT (P1-9)
3	2 BLK (P1-2)
4	5 NC
5	6-24 RED (P1-8)
7	7 NC
8	8-34 (P1-21)
9	9-40A (P1-16)

ENGINE HARNESS

1	70
2	V7
3	N
4	40A 14P 24
5	36A
6	41A
7	13
8	31A S2
9	34
10	16 14N 71
11	21
12	3
13	8
14	4
15	7
16	9A
17	9
18	4P
19	3P
20	2P
21	1P

TERMINAL STRIPS

TB1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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TB2

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TB3

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TB4

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TB5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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REVISION

REV	DATE	NEW DRAWING (50555)	REVISION	BY	CHK
A	3-2-89	(A-2) 350/400 WAS 390 (A-7) ADV ADDED (8042)		JS	JS
C	3-18-89	(A-1) 505 WHT (DB-P4-6) WAS 505 (DB-P4-6) (A-6)			
D	3-27-89	505 WHT (P25-4) WAS 505 (P25-4), S1 (SHELD) WAS NC		JS	JS
E	1-21-90	SEE SHEET 2 OF 2 (89758)			
F	1-21-90	(A-6) LEADS 888 & 831 REMOVED (8007)		JS	JS

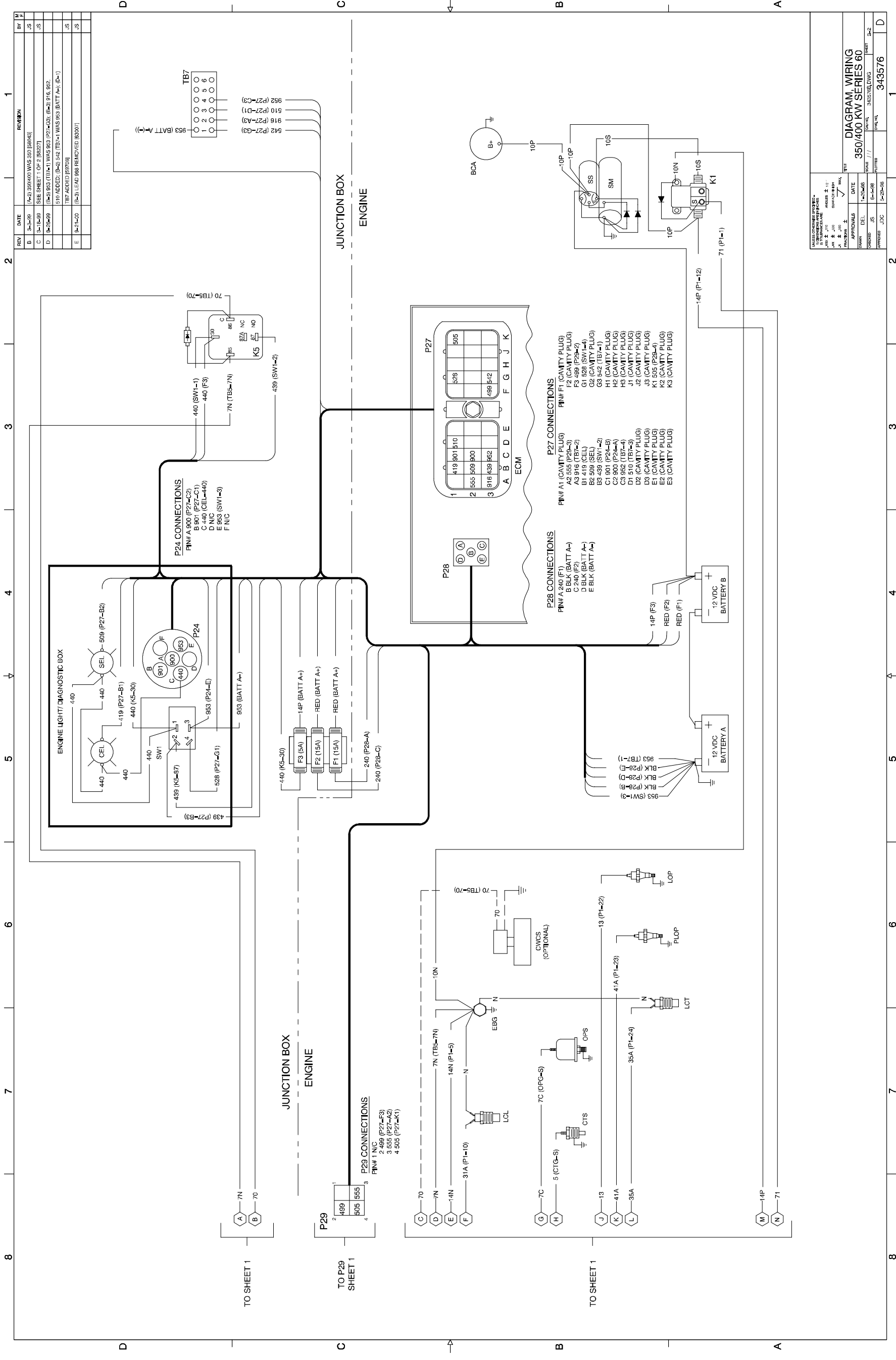
DIAGRAM WIRING

350/400 KW, SERIES 60

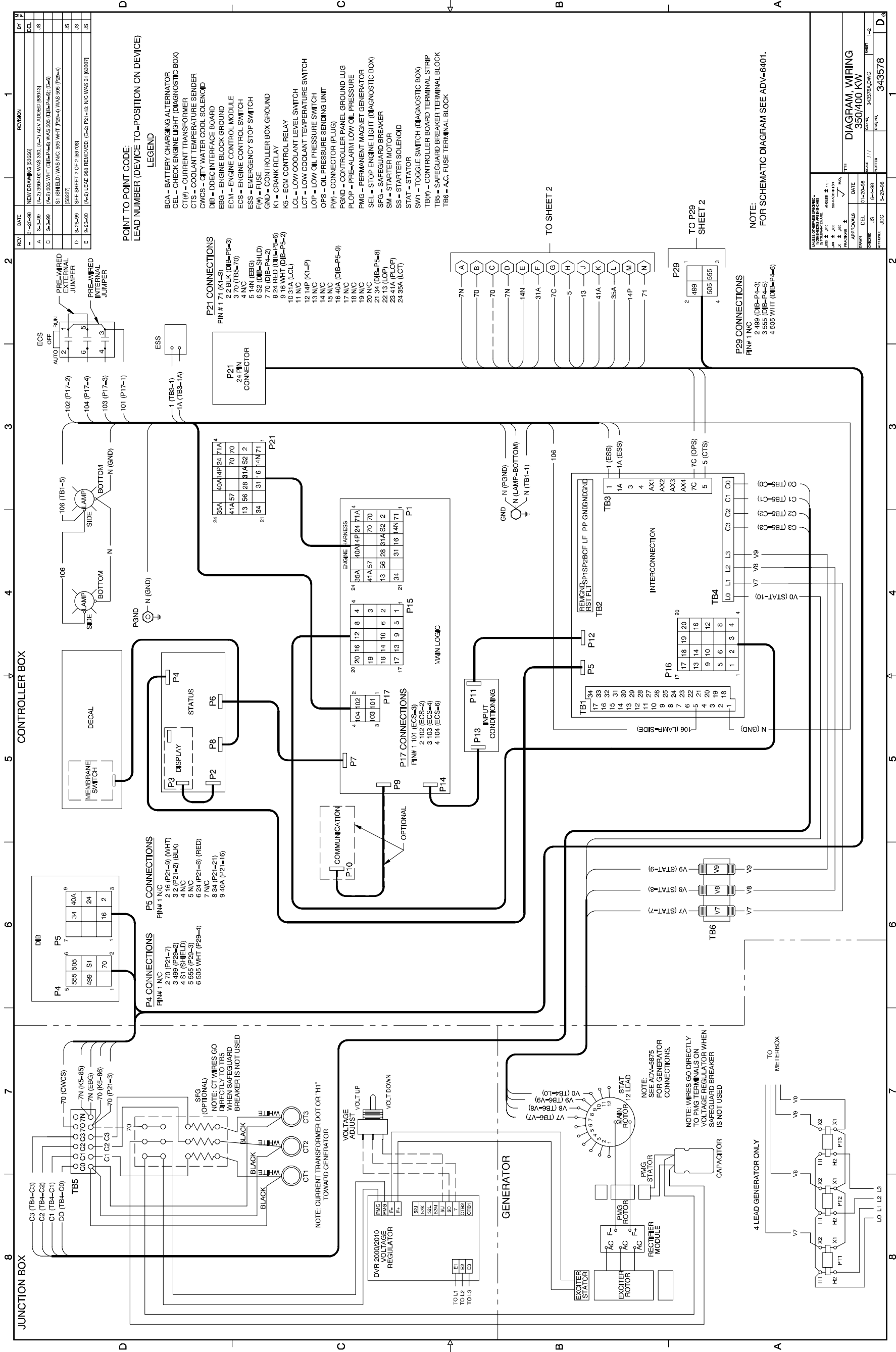
DATE: 1-23-90
SCALE: 1/1
DRAWN: JS
CHECKED: JS
APPROVED: JOC

DIAGRAM WIRING
350/400 KW, SERIES 60
SCALE: 1/1
DRAWN: JS
CHECKED: JS
APPROVED: JOC

343576



Decision-Maker™ 3+ Controller, Point-to-Point Wiring Diagram, Sheet 2, 343576B-E



POINT TO POINT CODE:
LEAD NUMBER (DEVICE TO-POSITION ON DEVICE)

LEGEND

- BGA - BATTERY CHARGING ALTERNATOR
- CEL - CHECK ENGINE LIGHT (DIAGNOSTIC BOX)
- CT(I) - CURRENT TRANSFORMER
- CTS - COOLANT TEMPERATURE SENDER
- CWCS - CITY WATER COOL SOLENOID
- DIB - DDEC INTERFACE BOARD
- EBG - ENGINE BLOCK GROUND
- ECM - ENGINE CONTROL MODULE
- ECS - ENGINE CONTROL SWITCH
- ESS - EMERGENCY STOP SWITCH
- F# - FUSE
- GND - CONTROLLER BOX GROUND
- K1 - CRANK RELAY
- K5 - ECM CONTROL RELAY
- LCL - LOW COOLANT LEVEL SWITCH
- LOP - LOW OIL PRESSURE SWITCH
- LPT - LOW OIL PRESSURE SENDING UNIT
- P# - CONNECTOR (PLUG)
- PGND - CONTROLLER PANEL GROUND LUG
- PLOP - PRE-ALARM LOW OIL PRESSURE
- PMG - PERMANENT MAGNET GENERATOR
- SEL - STOP ENGINE LIGHT (DIAGNOSTIC BOX)
- SFG - SAFEGUARD BREAKER
- SM - STARTER MOTOR
- SS - STARTER SOLENOID
- STAT - STATOR
- SW1 - TOGGLE SWITCH (DIAGNOSTIC BOX)
- TB# - CONTROLLER BOARD TERMINAL STRIP
- TB5 - SAFEGUARD BREAKER TERMINAL BLOCK
- TB8 - A.C. FUSE TERMINAL BLOCK

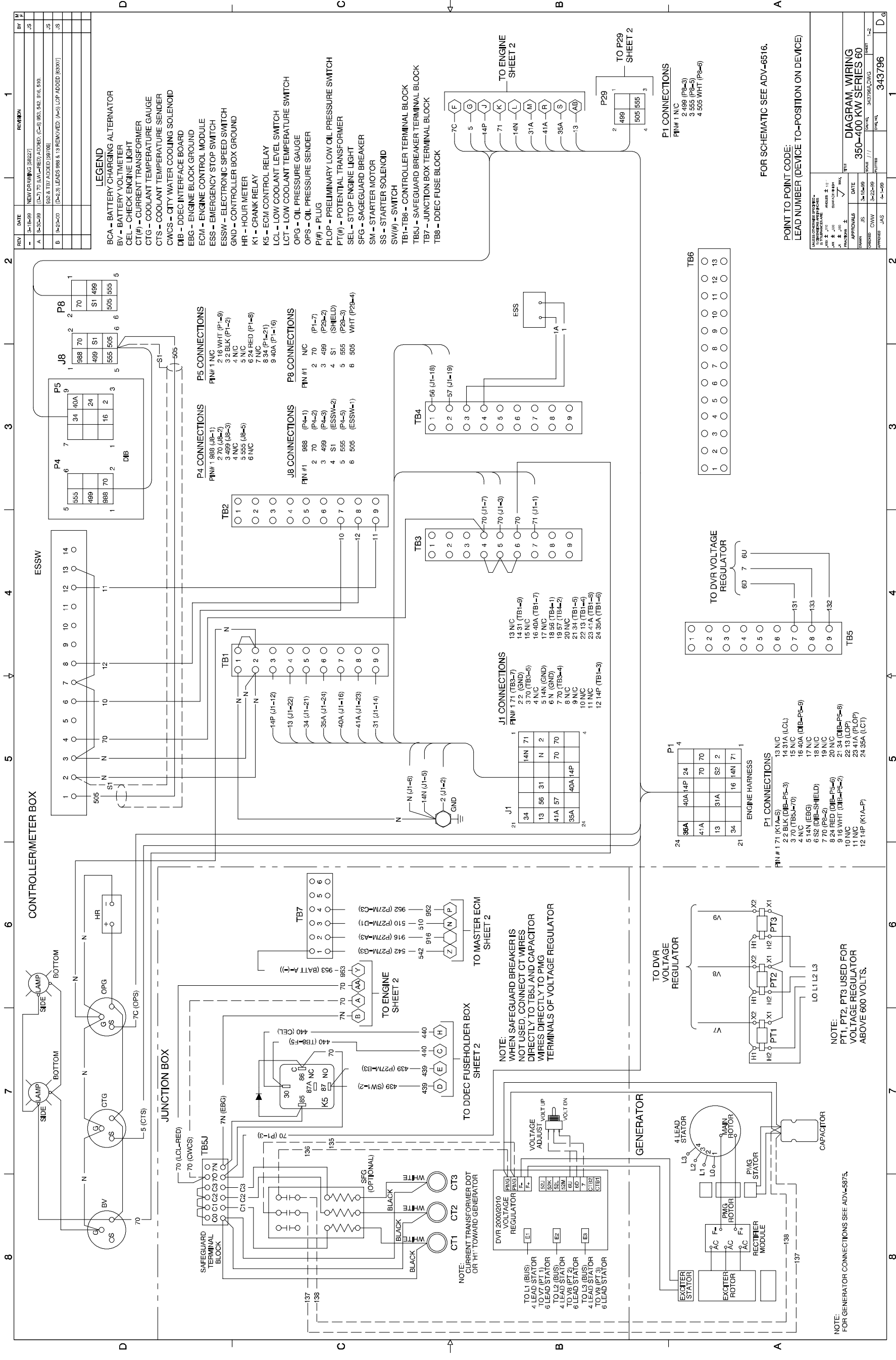
P21 CONNECTIONS

- PIN # 1 71 (K1-S)
- 2 2 BLK (DIB-P5-3)
 - 3 4 N/C (TBS-70)
 - 4 5 14N (EBG)
 - 5 14N (EBG)
 - 6 52 (DIB-SHLD)
 - 7 70 (DIB-P4-2)
 - 8 24 RED (DIB-P5-6)
 - 9 16 WHT (DIB-P5-2)
 - 10 31A (LCL)
 - 11 N/C
 - 12 14P (K1-P)
 - 13 N/C
 - 14 N/C
 - 15 N/C
 - 16 40A (DIB-P5-9)
 - 17 N/C
 - 18 N/C
 - 19 N/C
 - 20 N/C
 - 21 34 (DIB-P5-8)
 - 22 13 (LOP)
 - 23 41A (PLOP)
 - 24 35A (LCT)

NOTE:
FOR SCHEMATIC DIAGRAM SEE ADV-6401.

REVISION	DATE	BY	APPROVALS
1	10/24/88	JSC	
2	11/14/88	JSC	
3	12/14/88	JSC	
4	1/14/89	JSC	
5	2/14/89	JSC	
6	3/14/89	JSC	
7	4/14/89	JSC	
8	5/14/89	JSC	
9	6/14/89	JSC	
10	7/14/89	JSC	
11	8/14/89	JSC	
12	9/14/89	JSC	
13	10/14/89	JSC	
14	11/14/89	JSC	
15	12/14/89	JSC	
16	1/14/90	JSC	
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19	4/14/90	JSC	
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21	6/14/90	JSC	
22	7/14/90	JSC	
23	8/14/90	JSC	
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31	4/14/91	JSC	
32	5/14/91	JSC	
33	6/14/91	JSC	
34	7/14/91	JSC	
35	8/14/91	JSC	
36	9/14/91	JSC	
37	10/14/91	JSC	
38	11/14/91	JSC	
39	12/14/91	JSC	
40	1/14/92	JSC	
41	2/14/92	JSC	
42	3/14/92	JSC	
43	4/14/92	JSC	
44	5/14/92	JSC	
45	6/14/92	JSC	
46	7/14/92	JSC	
47	8/14/92	JSC	
48	9/14/92	JSC	
49	10/14/92	JSC	
50	11/14/92	JSC	
51	12/14/92	JSC	
52	1/14/93	JSC	
53	2/14/93	JSC	
54	3/14/93	JSC	
55	4/14/93	JSC	
56	5/14/93	JSC	
57	6/14/93	JSC	
58	7/14/93	JSC	
59	8/14/93	JSC	
60	9/14/93	JSC	
61	10/14/93	JSC	
62	11/14/93	JSC	
63	12/14/93	JSC	
64	1/14/94	JSC	
65	2/14/94	JSC	
66	3/14/94	JSC	
67	4/14/94	JSC	
68	5/14/94	JSC	
69	6/14/94	JSC	
70	7/14/94	JSC	
71	8/14/94	JSC	
72	9/14/94	JSC	
73	10/14/94	JSC	
74	11/14/94	JSC	
75	12/14/94	JSC	
76	1/14/95	JSC	
77	2/14/95	JSC	
78	3/14/95	JSC	
79	4/14/95	JSC	
80	5/14/95	JSC	
81	6/14/95	JSC	
82	7/14/95	JSC	
83	8/14/95	JSC	
84	9/14/95	JSC	
85	10/14/95	JSC	
86	11/14/95	JSC	
87	12/14/95	JSC	
88	1/14/96	JSC	
89	2/14/96	JSC	
90	3/14/96	JSC	
91	4/14/96	JSC	
92	5/14/96	JSC	
93	6/14/96	JSC	
94	7/14/96	JSC	
95	8/14/96	JSC	
96	9/14/96	JSC	
97	10/14/96	JSC	
98	11/14/96	JSC	
99	12/14/96	JSC	
100	1/14/97	JSC	

Decision-Maker™ 340 Controller, Point-to-Point Wiring Diagram, Sheet 1, 343578A-E



REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

LEGEND

BCA - BATTERY CHARGING ALTERNATOR
 BV - BATTERY VOLTMETER
 CEL - CHECK ENGINE LIGHT
 CTG - CURRENT TRANSFORMER
 CTS - COOLANT TEMPERATURE GAUGE
 CTS - COOLANT TEMPERATURE SENDER
 CWCS - CITY WATER COOLING SOLENOID
 DBB - DDEC INTERFACE BOARD
 ECM - ENGINE CONTROL MODULE
 ESS - EMERGENCY STOP SWITCH
 ESWS - ELECTRONIC SPEED SWITCH
 GND - CONTROLLER BOX GROUND
 HR - HOUR METER
 K1 - CRANK RELAY
 K5 - ECM CONTROL RELAY
 LCI - LOW COOLANT LEVEL SWITCH
 LCT - LOW COOLANT TEMPERATURE SWITCH
 LPI - OIL PRESSURE GAUGE
 OPG - OIL PRESSURE SENDER
 P(#)- PLUG
 PLOP - PRELIMINARY LOW OIL PRESSURE SWITCH
 PT(#)- POTENTIAL TRANSFORMER
 SEL - STOP ENGINE LIGHT
 SFG - SAGEGUARD BREAKER
 SIM - STARTER MOTOR
 SS - STARTER SOLENOID
 SW(#)- SWITCH
 TB1-TB6 - CONTROLLER TERMINAL BLOCK
 TB5J - SAFEGUARD BREAKER TERMINAL BLOCK
 TB7 - JUNCTION BOX TERMINAL BLOCK
 TB8 - DDEC FUSE BLOCK

REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

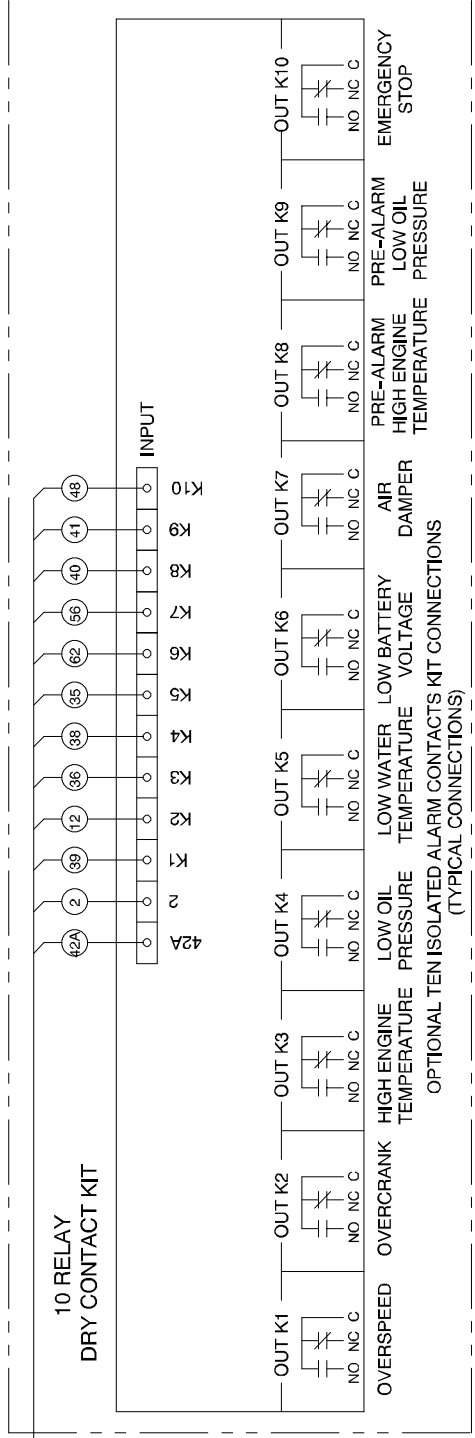
REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

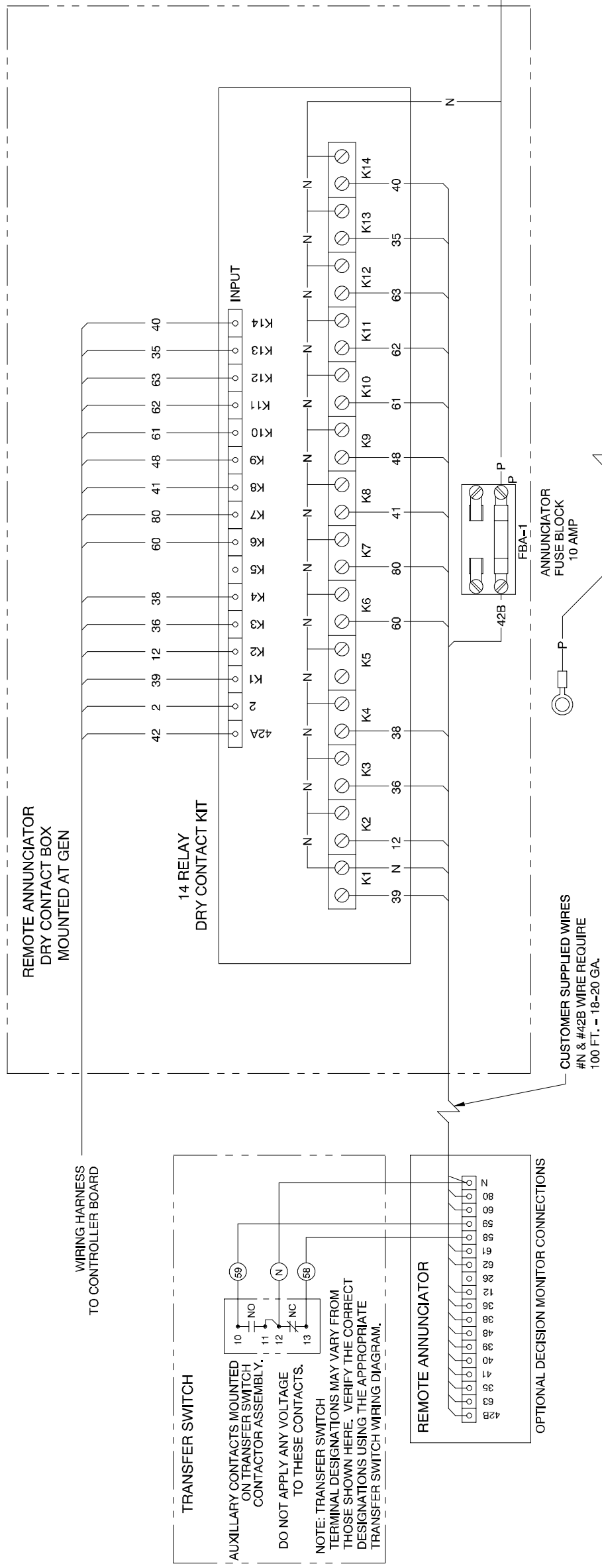
REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

REV	DATE	DESCRIPTION	BY	CHK
1	10-18-99	NEW DRAWING (36227)	JS	JS
2	04-23-00	(D=7) TO LWA-RED ADDED, (C=8) 962, 942, 916, 910, 912 & TRV ADDED (69098)	JS	JS
3	04-23-00	(D=2,3) LEADS 988 & 13 REMOVED, (A=5) LOP ADDED (80907)	JS	JS

REV	DATE	DESCRIPTION	BY	APP
-	7-23-98	NEW DRAWING (7/78Z)	KAR	
A	1-24-97	(A-2) TERMINAL CONTROLLER WAS MOVED TO SPECTRUM TUBERLOCK (59828)	KAR	
D	4-15-98	(C-2) INSTALLATION NOTE ADDED (59828)	LDA	



INSTALLATION NOTE:
 FOR FIELD INSTALLATION A MAXIMUM OF TWO WIRE TERMINALS PER TERMINAL STRIP SCREW IS RECOMMENDED UNLESS OTHERWISE NOTED ON THE WIRING DIAGRAM. DO NOT EXTEND ABOVE THE TERMINAL STRIP BARRIER.



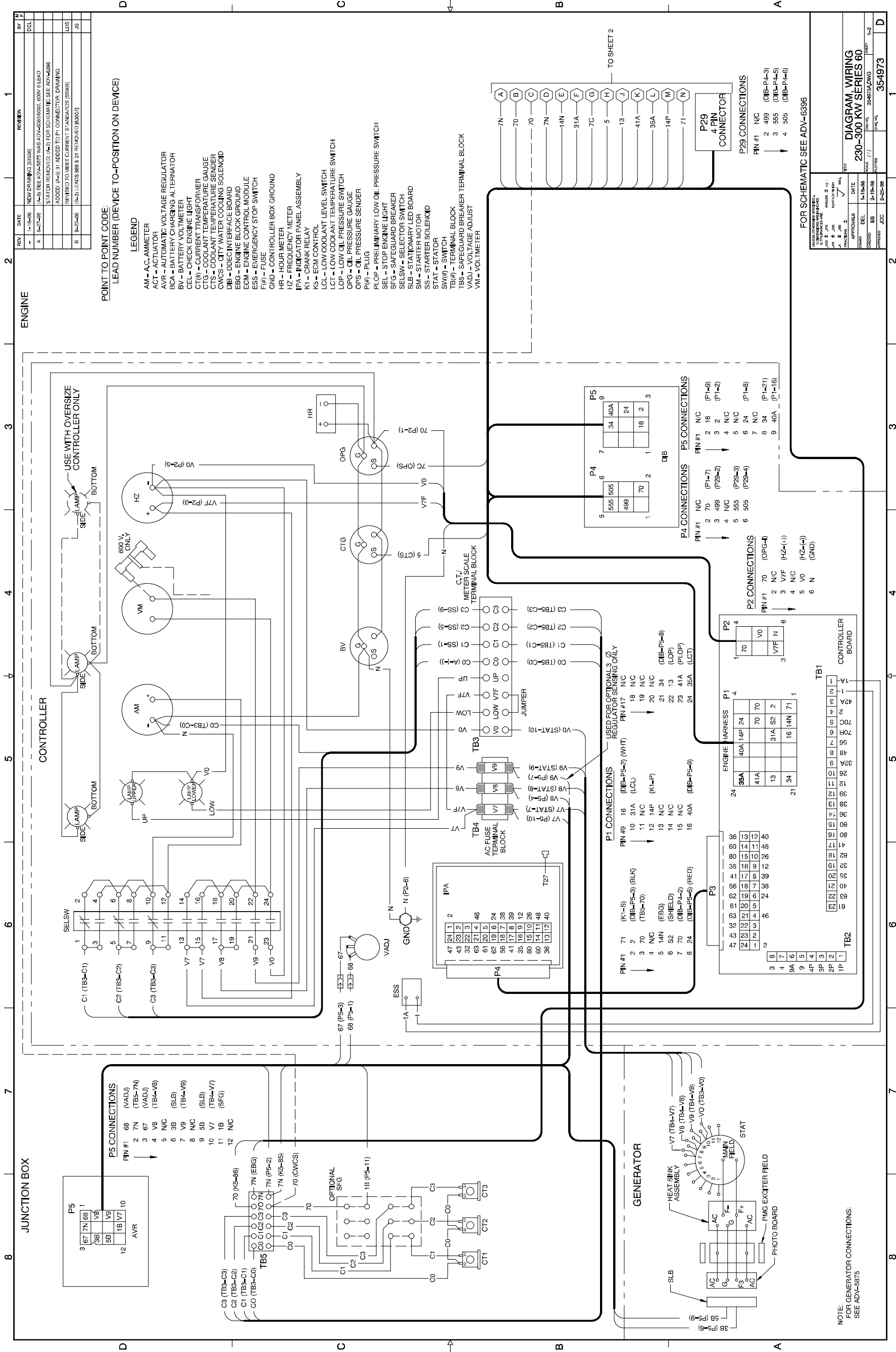
NO.	DATE	DESCRIPTION	BY	APP
1	7-23-98	NEW DRAWING (7/78Z)	KAR	
2	1-24-97	(A-2) TERMINAL CONTROLLER WAS MOVED TO SPECTRUM TUBERLOCK (59828)	KAR	
3	4-15-98	(C-2) INSTALLATION NOTE ADDED (59828)	LDA	

NO.	DATE	DESCRIPTION	BY	APP
1	7-23-98	NEW DRAWING (7/78Z)	KAR	
2	1-24-97	(A-2) TERMINAL CONTROLLER WAS MOVED TO SPECTRUM TUBERLOCK (59828)	KAR	
3	4-15-98	(C-2) INSTALLATION NOTE ADDED (59828)	LDA	

NO.	DATE	DESCRIPTION	BY	APP
1	7-23-98	NEW DRAWING (7/78Z)	KAR	
2	1-24-97	(A-2) TERMINAL CONTROLLER WAS MOVED TO SPECTRUM TUBERLOCK (59828)	KAR	
3	4-15-98	(C-2) INSTALLATION NOTE ADDED (59828)	LDA	

NO.	DATE	DESCRIPTION	BY	APP
1	7-23-98	NEW DRAWING (7/78Z)	KAR	
2	1-24-97	(A-2) TERMINAL CONTROLLER WAS MOVED TO SPECTRUM TUBERLOCK (59828)	KAR	
3	4-15-98	(C-2) INSTALLATION NOTE ADDED (59828)	LDA	

Decision-Maker™ 340 Controller, Accessory Connections, Sheet 2, 354246B-D



Decision-Maker™ 3+ Controller, Point-to-Point Wiring Diagram, Sheet 1, 354973A-B

Notes

TP-5988 6/01e

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KOHLER CO. Kohler, Wisconsin 53044
Phone 920-565-3381, Web site www.kohlergenerators.com
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Kohler Power Systems
Asia Pacific Headquarters
7 Jurong Pier Road
Singapore 619159
Phone (65)264-6422, Fax (65)264-6455