

Wiring Diagram

Industrial Generator Sets



Models:

KG40-KG125

Controllers:

APM402

APM603

Decision-Maker® 3000

KOHLER®

TP-7112 10/22e

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: _____

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 _____

Accessory Number	Accessory Description

Accessory Number	Accessory Description

This manual provides wiring diagrams for the KG40-80 generator set models equipped with the following controller:

- APM402
- APM603
- Decision-Maker® 3000

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Service Assistance

For professional advice and conscientious service, please contact your nearest Kohler distributor or dealer.

- Visit the Kohler Co. website at KOHLERPower.com.
- Look at the labels and decals on your Kohler product or review the appropriate literature or documents included with the product.
- Call toll free in the US and Canada 1-800-544-2444.
- Outside the US and Canada, call the nearest regional office.

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Fax: (91) 80 3315972

Japan, Korea

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

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 Wiring Diagrams Reference chart to determine the wiring diagram numbers for your unit. Refer to Controller Identification for controller type identification, if necessary. Diagrams are arranged in alphanumeric order on the following pages.

Wiring Diagram Cross-Reference

Generator Set Model No.	Hz	Generator Set Spec No.	Wiring Diagram Group No.
KG40	60	GM102292-GA4	1
		GM116235-GA1	4
KG45	60	GM102292-GA3	1
		GM116235-GA2	4
KG50	60	GM102292-GA2	1
		GM116235-GA3	4
KG60	60	GM102292-GA1	1
		GM116235-GA4	4
KG80	60	GM105406-GA1	2
	60	GM105406-GA2	
	60	GM105406-GA3	
	60	GM105406-GA4	
KG100	60	GM105405-GA1	3
KG125	60	GM105405-GA2	

Wiring Diagram Reference Charts

KG40-KG60

Group 1	
Drawing Number	Page
APM402 and Decision-Maker® 3000 Controller	
Point-to-Point Wiring Diagram	
GM103152D- 1	50
GM103152D- 2	51
GM103152D- 3	52
GM35943D- 1	45
GM94439B- 1 (Battery Charger)	48
GM94439B- 2 (Battery Charger)	49
Schematic Diagram	
ADV-9007C- 1	13
ADV-9007C- 2	14
ADV-9007C- 3	15
ADV-9007C- 4	16
Accessory Connections	
GM78246H- 1	46
GM78246H- 2	47
Alternator Reconnections	
ADV-5875AC- 1	9
ADV-5875AC- 2	10

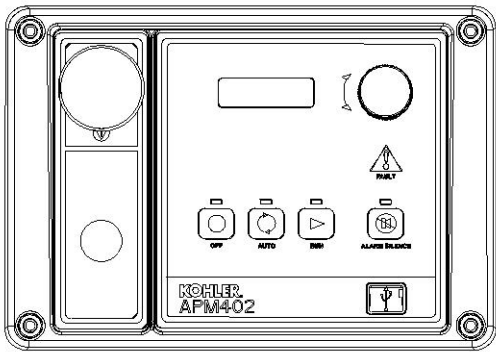
Group 4	
Drawing Number	Page
APM402 and Decision-Maker® 3000 Controller	
Point-to-Point Wiring Diagram	
GM116761A- 1	73
GM116761A- 2	74
GM116761A- 3	75
GM116761A- 4	76
GM35943D- 1	45
GM94439B- 1 (Battery Charger)	48
GM94439B- 2 (Battery Charger)	49
Schematic Diagram	
ADV-9774- 1	41
ADV-9774- 2	42
ADV-9774- 3	43
ADV-9774- 4	44
Accessory Connections	
GM78246H- 1	46
GM78246H- 2	47
Alternator Reconnections	
ADV-5875AC- 1	9
ADV-5875AC- 2	10

KG80

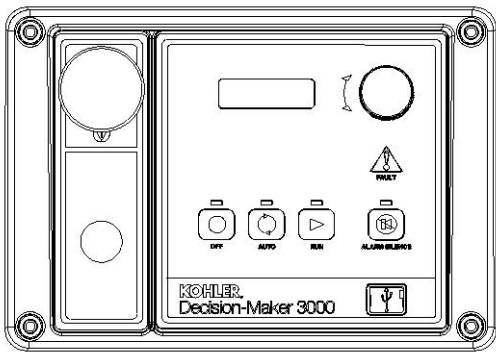
Group 2	
Drawing Number	Page
APM402 Controller	
Point-to-Point Wiring Diagram	
GM104907D- 1	56
GM104907D- 2	57
GM104907D- 3	58
GM35943D- 1	45
GM94439B- 1 (Battery Charger)	48
GM94439B- 2 (Battery Charger)	49
Schematic Diagram	
ADV-9052D- 1	21
ADV-9052D- 2	22
ADV-9052D- 3	23
ADV-9052D- 4	24
Accessory Connections	
GM78246H- 1	46
GM78246H- 2	47
Alternator Reconnections	
ADV-5875AC- 1	9
ADV-5875AC- 2	10
APM603 Controller	
Point-to-Point Wiring Diagram	
GM114689B- 1	59
GM114689B- 2	60
GM114689B- 3	61
GM114689B- 4	62
GM114689B- 5	63
GM114689B- 6	64
Schematic Diagram	
ADV-9211A- 1	25
ADV-9211A- 2	26
ADV-9211A- 3	27
ADV-9211A- 4	28
ADV-9211A- 5	29
ADV-9211A- 6	30
ADV-9211A- 7	31
Alternator Reconnections	
ADV-5875AC- 6	11
ADV-5875AC- 7	12

KG100-KG125

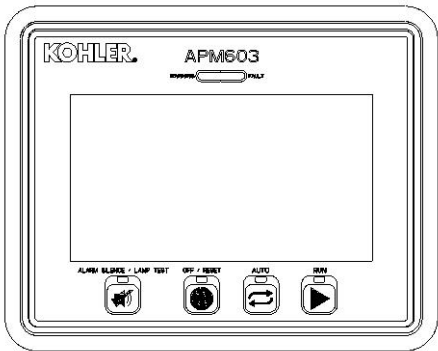
Group 3	
Drawing Number	Page
APM402 Controller	
Point-to-Point Wiring Diagram	
GM104026D- 1	53
GM104026D- 2	54
GM104026D- 3	55
GM35943D- 1	45
GM94439B- 1 (Battery Charger)	48
GM94439B- 2 (Battery Charger)	49
Schematic Diagram	
ADV-9021C- 1	17
ADV-9021C- 2	18
ADV-9021C- 3	19
ADV-9021C- 4	20
Accessory Connections	
GM78246H- 1	46
GM78246H- 2	47
Alternator Reconnections	
ADV-5875AC- 1	9
ADV-5875AC- 2	10
APM603 Controller	
Point-to-Point Wiring Diagram	
GM114690B- 1	65
GM114690B- 2	66
GM114690B- 3	67
GM114690B- 4	68
GM114690B- 5	69
GM114690B- 6	70
GM114690B- 7	71
GM114690B- 8	72
Schematic Diagram	
ADV-9212- 1	32
ADV-9212- 2	33
ADV-9212- 3	34
ADV-9212- 4	35
ADV-9212- 5	36
ADV-9212- 6	37
ADV-9212- 7	38
ADV-9212- 8	39
ADV-9212- 9	40
Alternator Reconnections	
ADV-5875AC- 6	11
ADV-5875AC- 7	12



APM402 Controller

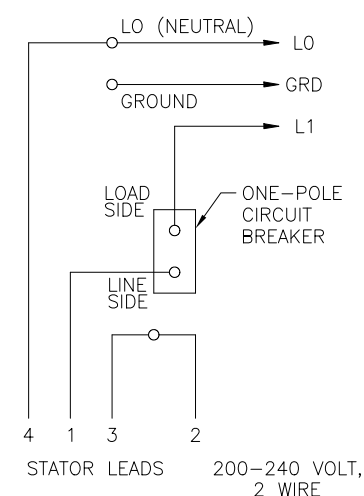
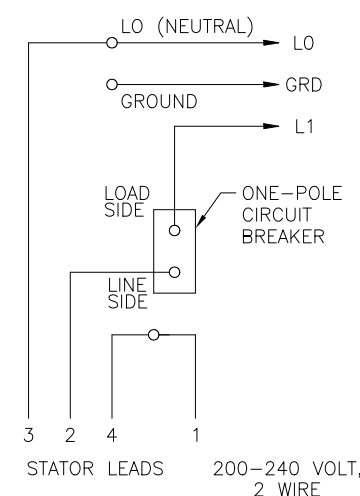
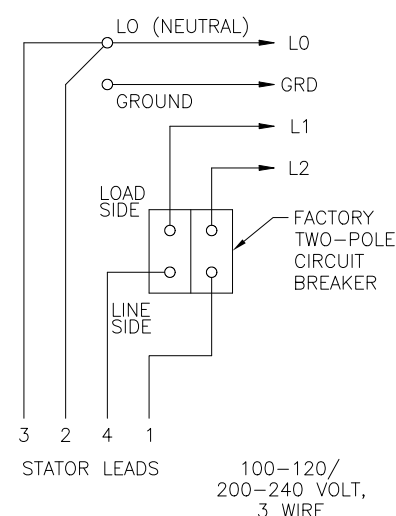
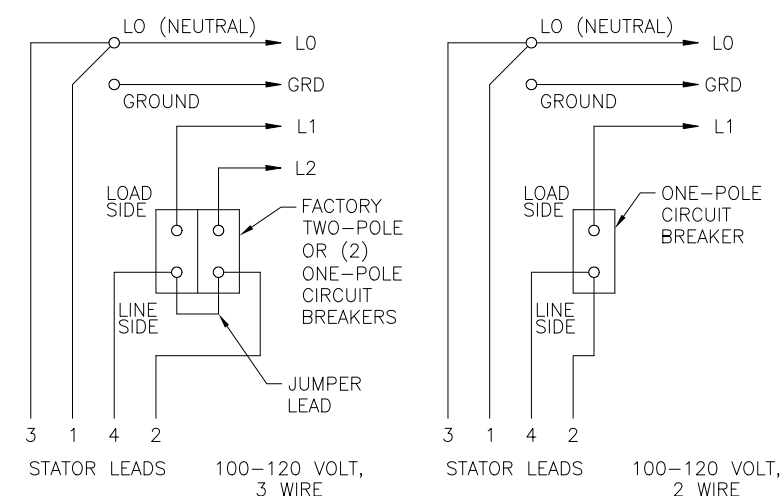
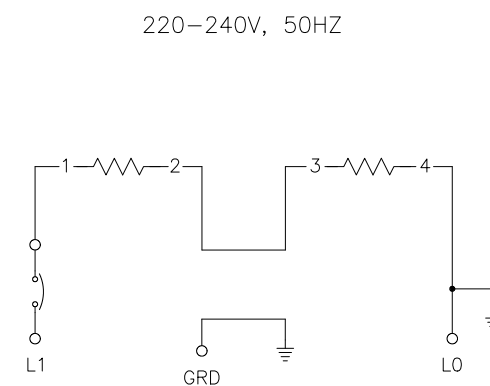
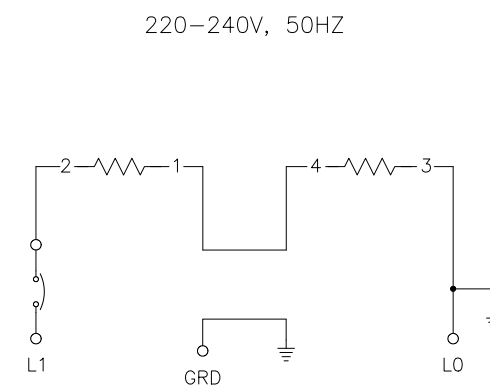
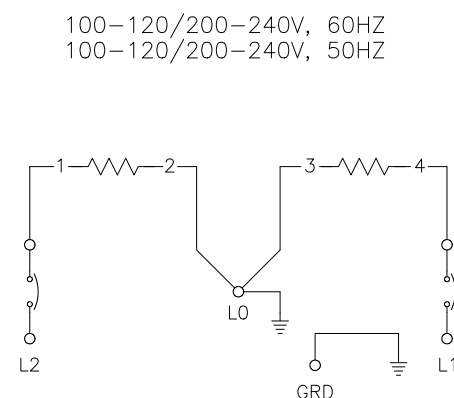
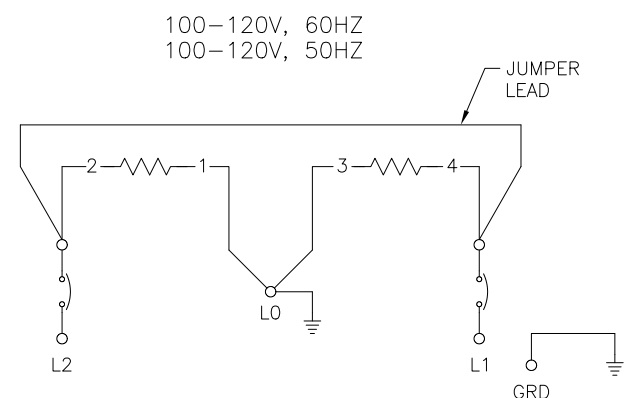


Decision-Maker® 3000 Controller



APM603 Controller

REV	DATE	REVISION	BY
AB	10-4-19	SEE SHEET 4 [CT199071]	DS
AC	02-25-20	SEE SHEET 5 [CT202143]	SBR



NOTE:
FOR 230 VAC, 1PH, 50 HZ
CONNECT LEADS #2 AND #3
PER GM38314 DRAWING

PB3, PB5 OR ADC2100 REGULATORS

PB3, PB5, ADC2100, PERMANENT MAGNET (PM)
AND WOUND FIELD (WF) REGULATORS

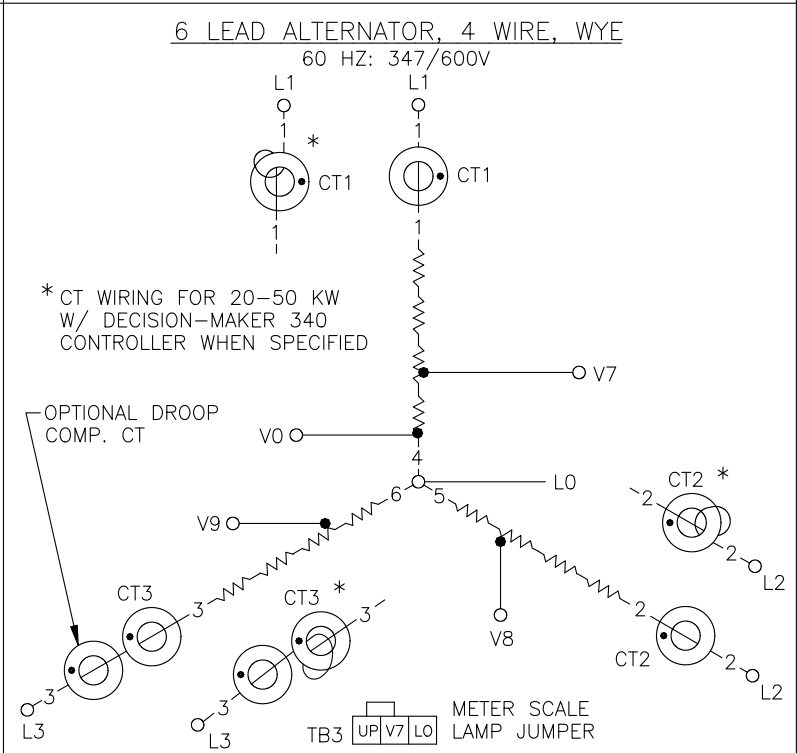
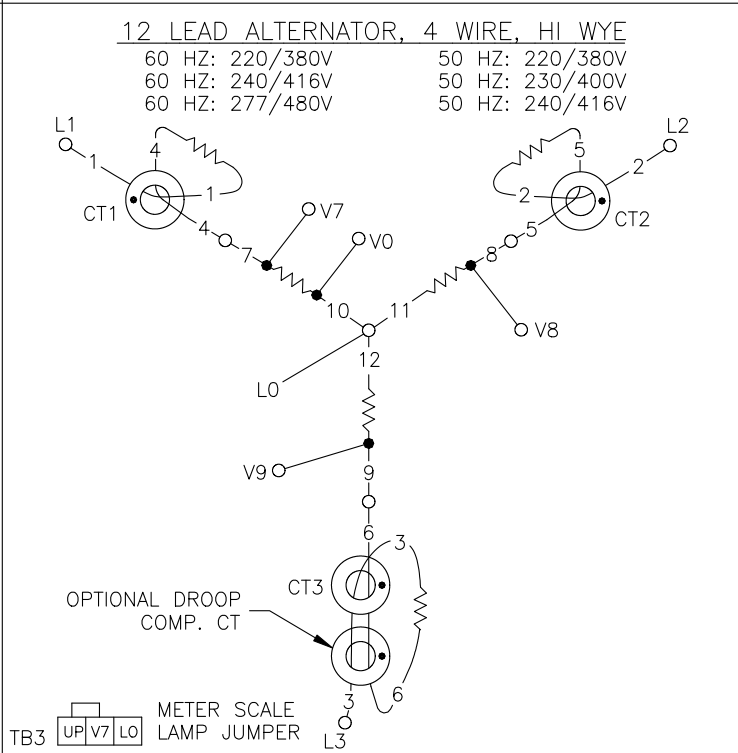
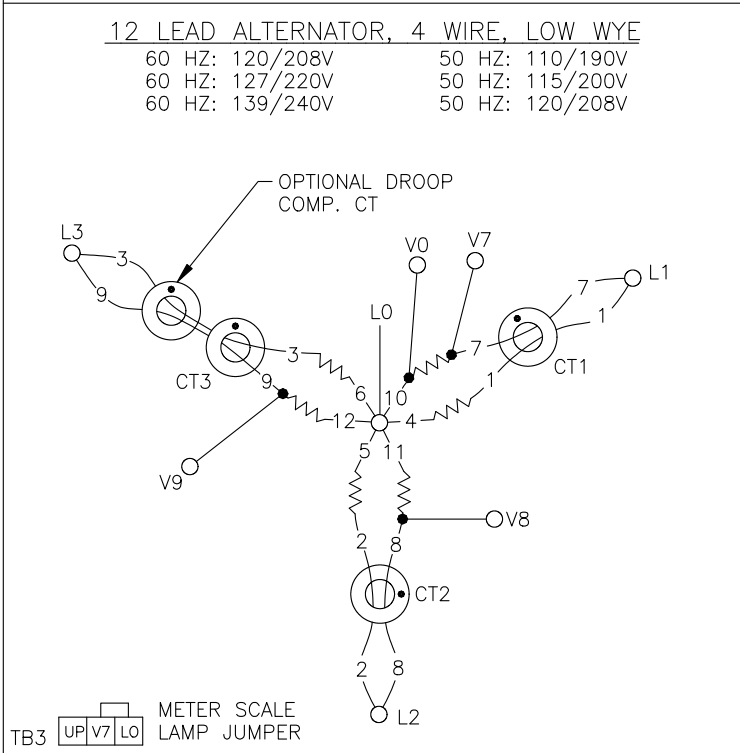
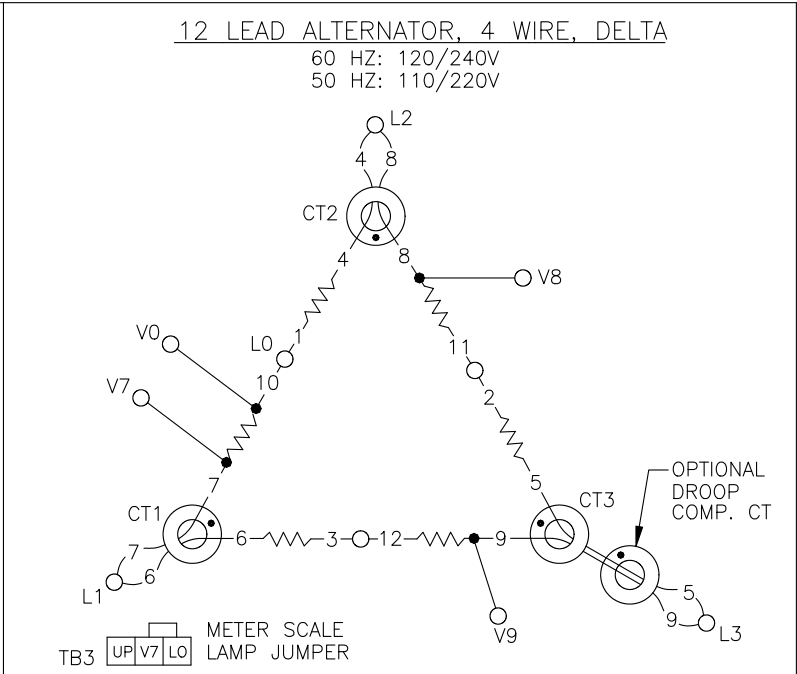
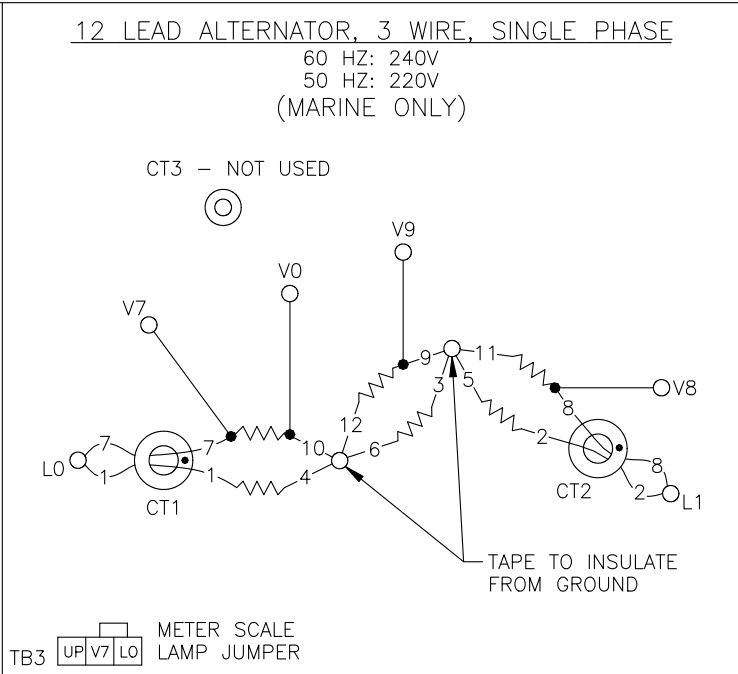
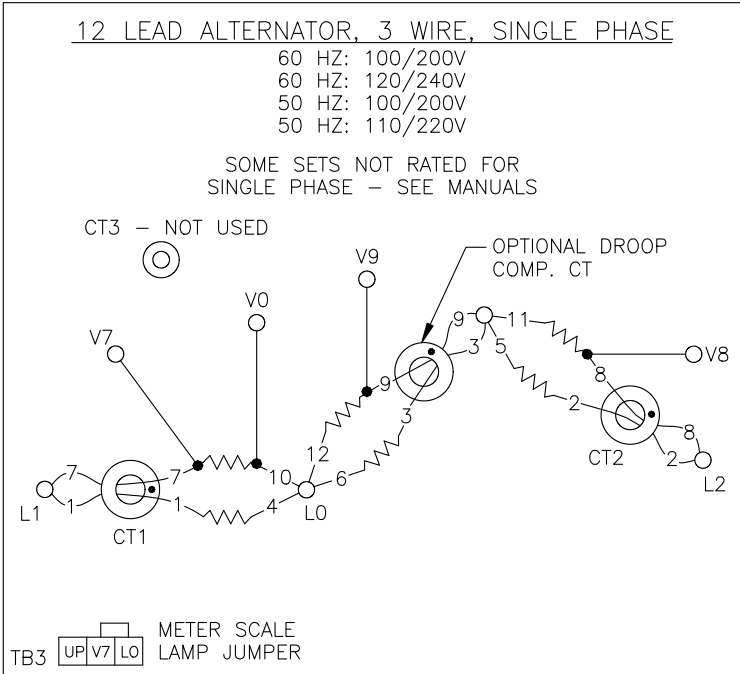
NON-ADC2100 REGULATORS

ADC2100 REGULATORS
ADC2/ADC2D REGULATORS
RDC2 REGULATORS

NOTES:
SOME 4E, 4 LEAD, DEDICATED SINGLE PHASE STATORS HAVE
DUAL LEADS LABELED 1, 2, 3, 4, AND 1A, 2A, 3A, 4A. IN THIS
CASE CONNECT 1 & 1A, 2 & 2A, 3 & 3A, 4 & 4A
SOME STATORS HAVE DUAL LEADS. ALWAYS CONNECT LEADS
OF THE SAME LABEL TOGETHER.

SINGLE PHASE
4 LEAD ALTERNATORS

REV	DATE	REVISION	BY	M
AB	10-4-19	SEE SHEET 4 [CT199071]	DS	
AC	02-25-20	SEE SHEET 5 [CT202143]	SBR	



NOTES:

CURRENT TRANSFORMER DOT OR "H1" TOWARD GENERATOR.

CURRENT TRANSFORMERS NOT USED ON ALL SETS.

SOME STATORS HAVE DUAL LEADS. ALWAYS CONNECT LEADS OF THE SAME LABEL TOGETHER.

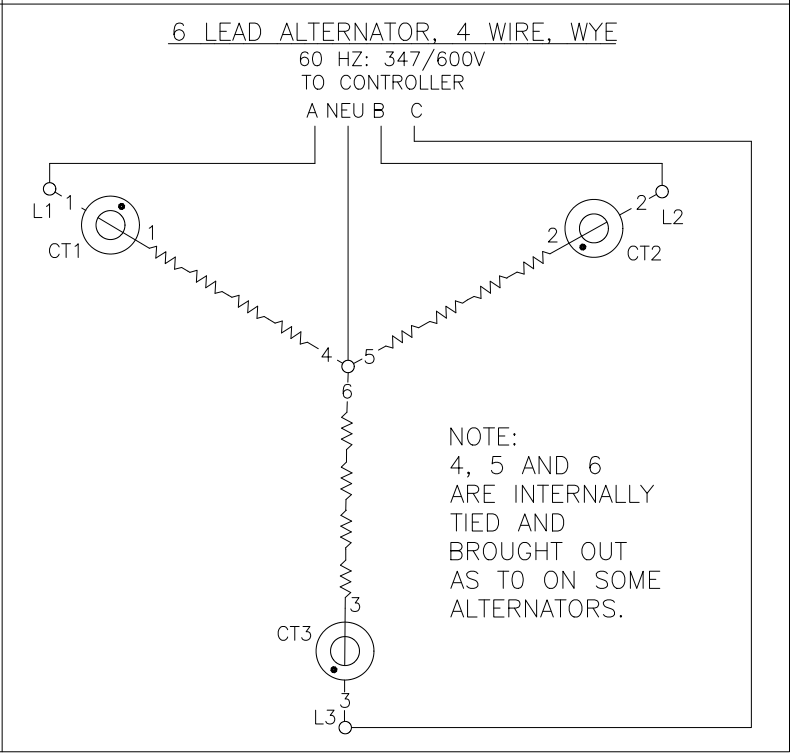
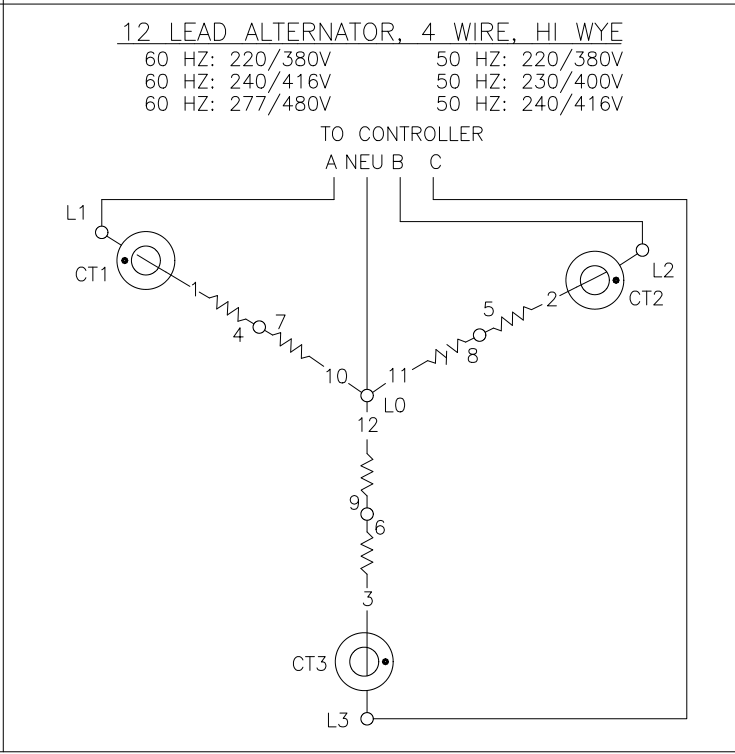
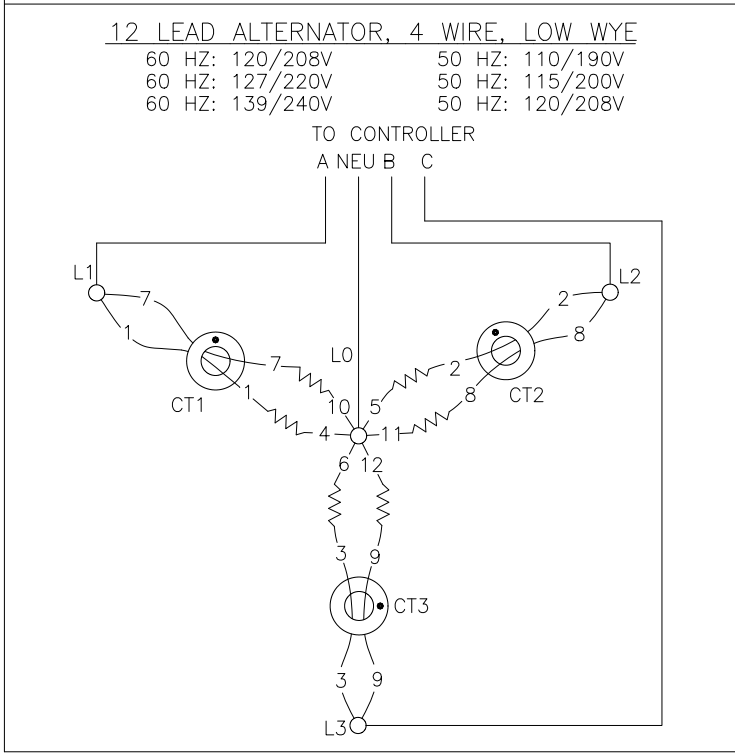
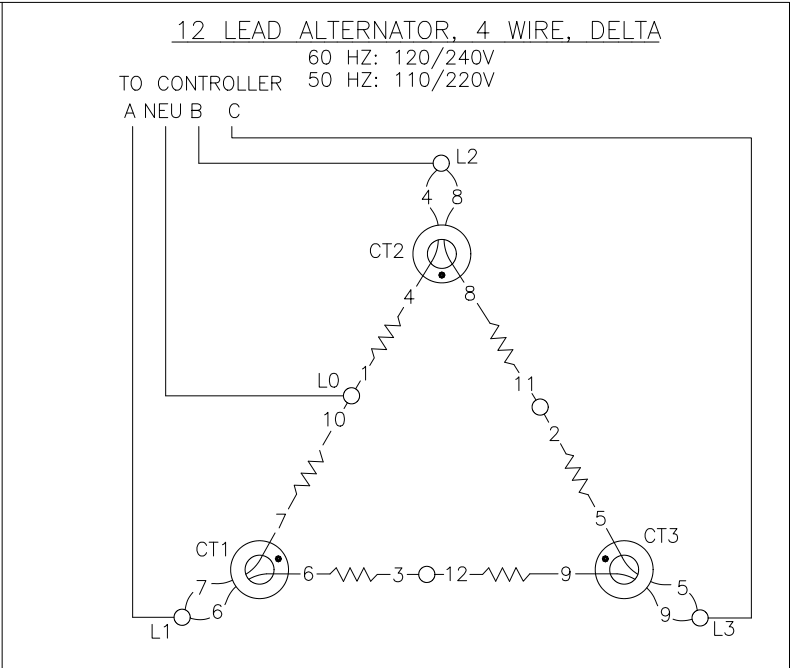
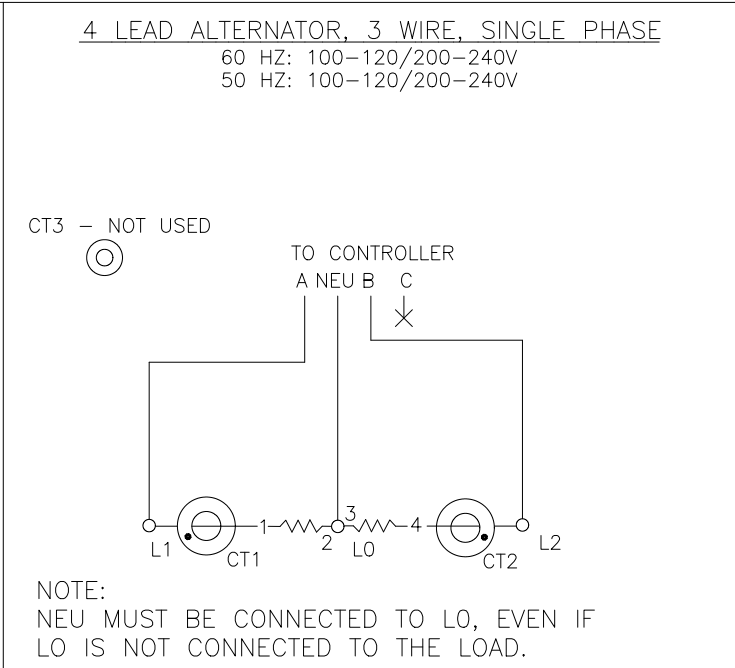
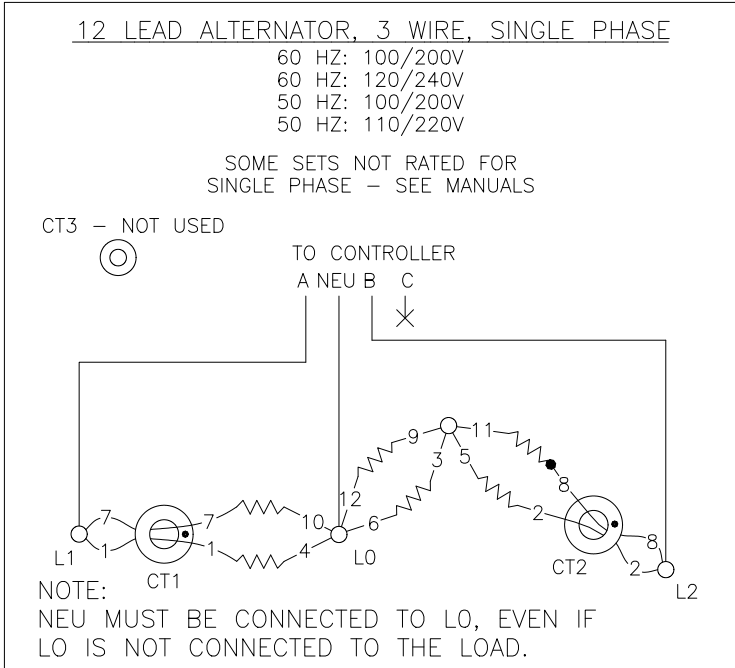
PHASE ROTATION

A	B	C
L1	L2	L3

3 PHASE
FRII ALTERNATORS,
20-60KW WOUND EXCITER FIELD ALTERNATORS,
AND 10-20KW SMALL STANDBY

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: .XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±		KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		TITLE	
DATE		DIAGRAM, ALTERNATOR CONNECTIONS	
DRAWN DFS	7-28-92	SCALE NONE	CAD NO.
CHECKED TLK	6-23-99	PLOTTED	SHEET 2-8
APPROVED JMH	6-23-99	DWG. NO. ADV-5875	

REV	DATE	REVISION	BY	U
AB	10-4-19	SEE SHEET 4 [CT199071]	DS	
AC	02-25-20	SEE SHEET 5 [CT202143]	SBR	



PHASE ROTATION

A B C
L1 L2 L3

NOTES:
CURRENT TRANSFORMER DOT OR "H1" TOWARD GENERATOR.
CURRENT TRANSFORMERS NOT USED ON ALL SETS.
SOME STATORS HAVE DUAL LEADS. ALWAYS CONNECT LEADS OF THE SAME LABEL TOGETHER.

APM603 CONTROLLER
DEC3500 CONTROLLER

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060		KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS DRAWN PRH CHECKED IF APPROVED IF		DATE 5-27-04 5-27-04 5-27-04	
FRACTIONS ±		TITLE DIAGRAM, ALTERNATOR CONNECTIONS	
SCALE NONE		SHEET 6-8	
DWG. NO. ADV-5875		D	

8

7

6

5

4

3

2

1

REV	DATE	REVISION	BY	U
AB	10-4-19	SEE SHEET 4 [CT199071]	DS	
AC	02-25-20	SEE SHEET 5 [CT202143]	SBR	

4 LEAD ALTERNATOR, 2 WIRE, SINGLE PHASE

60 HZ: 200-240V
50 HZ: 200-240V

CT3 - NOT USED

TO CONTROLLER

A

B

C

NEU

L1

CT1

1

2

3

4

CT2

L2/L0

NOTE:
NEU MUST BE CONNECTED TO L2/L0, EVEN
IF L0 IS NOT CONNECTED TO THE LOAD.

PHASE ROTATION

A B C

L1 L2 L3

NOTES:

CURRENT TRANSFORMER DOT OR "H1" TOWARD GENERATOR.

CURRENT TRANSFORMERS NOT USED ON ALL SETS.

SOME STATORS HAVE DUAL LEADS. ALWAYS CONNECT LEADS
OF THE SAME LABEL TOGETHER.

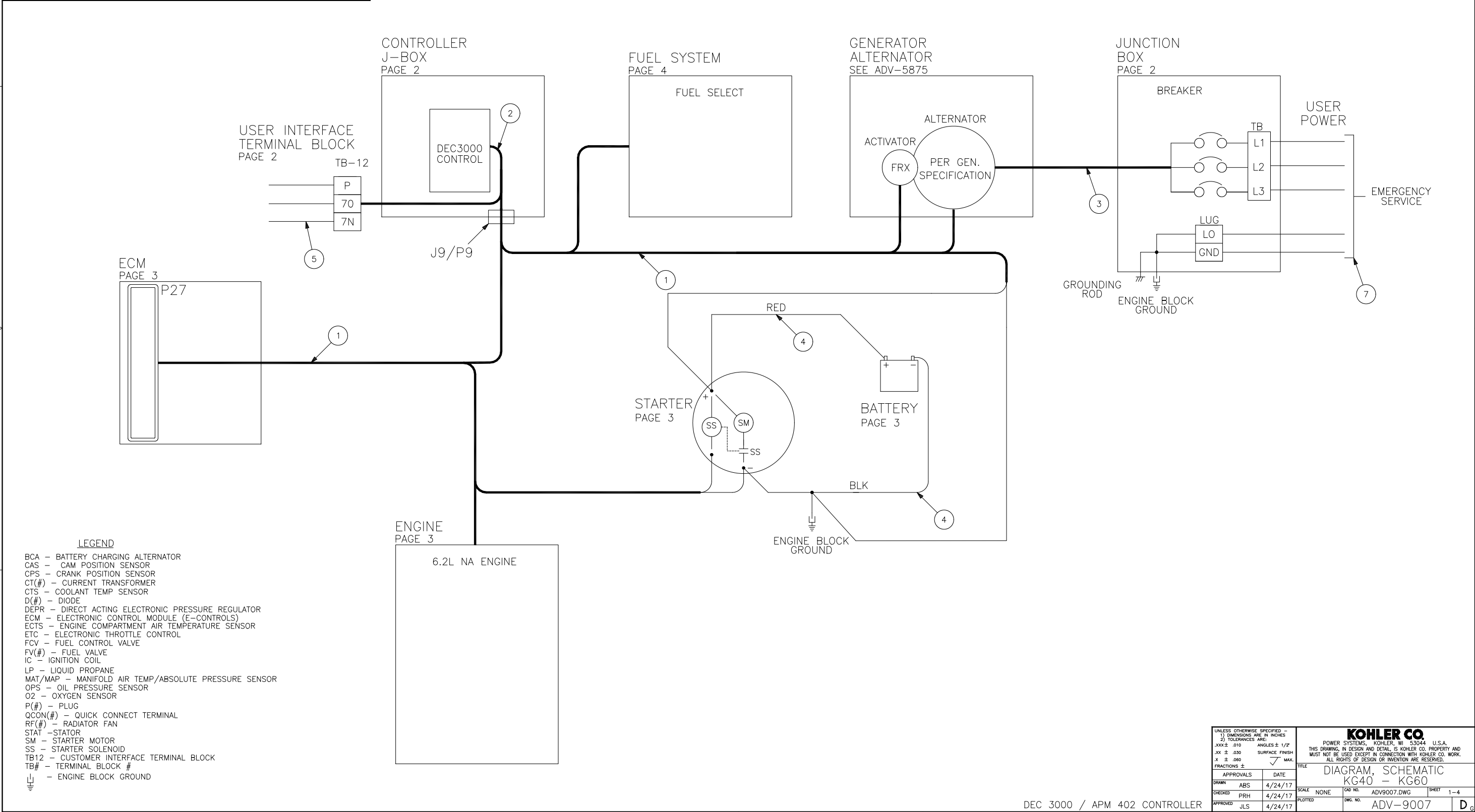
APM603 CONTROLLER
DEC3500 CONTROLLER

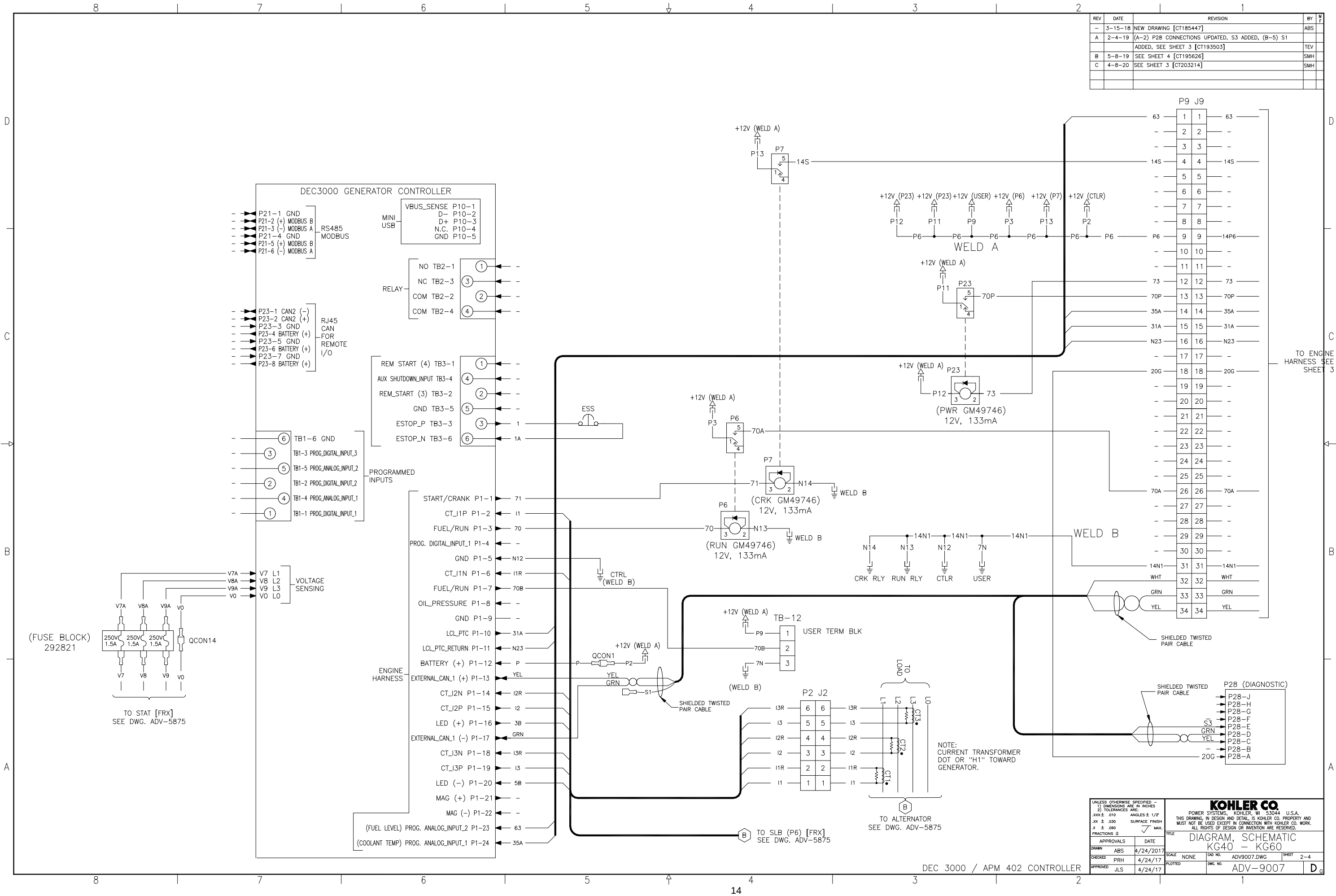
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APPROVALS	DATE	SCALE	DWG. NO.	SHEET
DRAWN PRH	5-27-04	NONE	ADV-5875	7-8
CHECKED IF	5-27-04			
APPROVED IF	5-27-04			

12

No.	Part Numbers	Description	Options	Field
1	GM103150	6.2L NA Ind Generator Harness	-	-
2	GM103151	6.2L NA Ind Controller Box Harness	-	-
3	GMXXXX	48/60RCLB Voltage hookup cables	-	-
4	GMXXXX	Battery Cables	-	-
5	N/A	Utility wiring	-	X
6	N/A	Site network cables	-	X
7	N/A	Site emergency service wiring	-	X
8	-	-	-	-
9	-	-	-	-
10	-	-	-	-

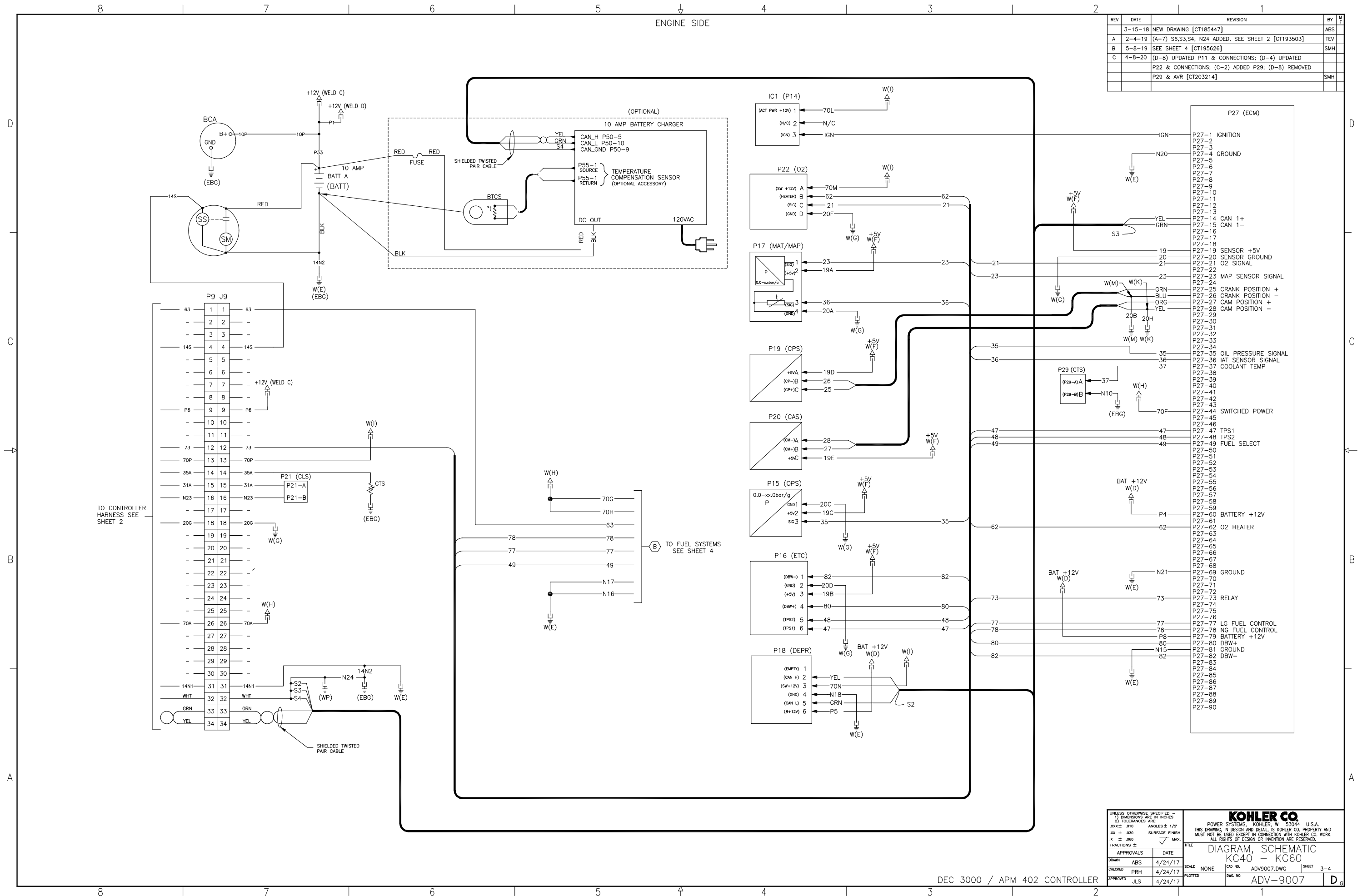
REV	DATE	REVISION	BY	U	F
-	3-15-18	NEW DRAWING [CT185447]	ABS		
A	2-4-19	SEE SHEET 2 & 3 [CT193503]	TEV		
B	5-8-19	SEE SHEET 4 [CT195626]	SMH		
C	4-8-20	SEE SHEET 3 [CT203214]	SMH		



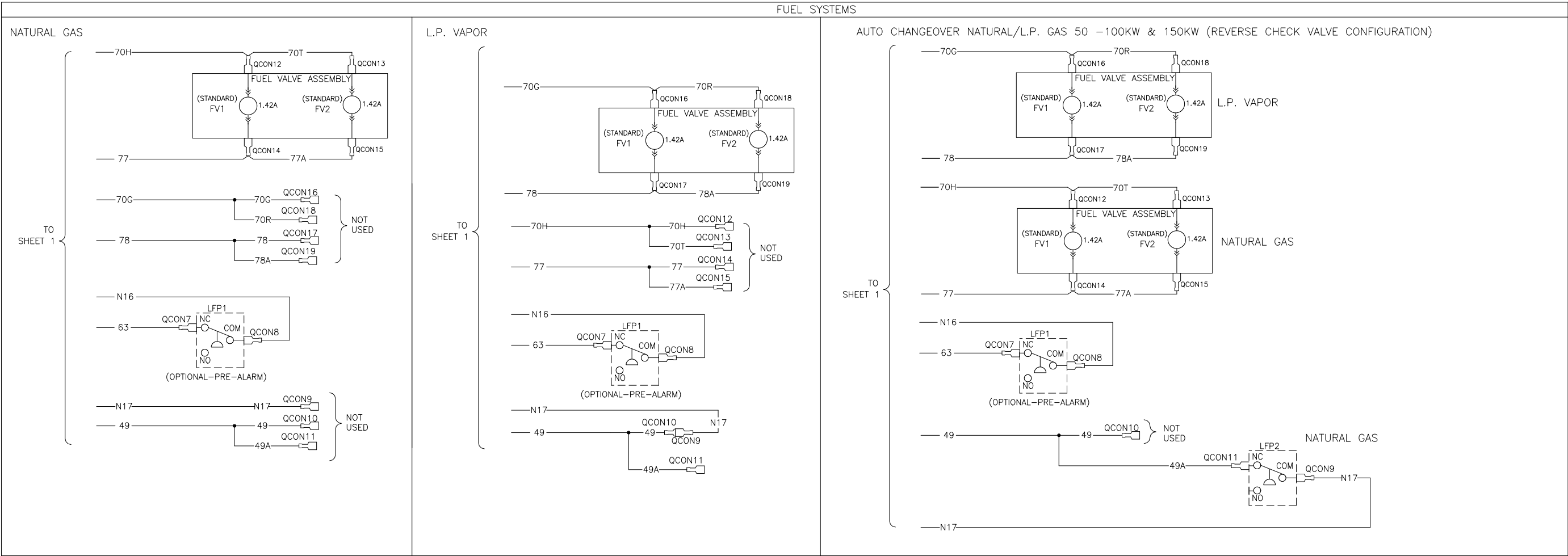


REV	DATE	REVISION	BY	MF
-	3-15-18	NEW DRAWING [CT185447]	ABS	
A	2-4-19	(A-2) P28 CONNECTIONS UPDATED, S3 ADDED, (B-5) S1 ADDED, SEE SHEET 3 [CT193503]	TEV	
B	5-8-19	SEE SHEET 4 [CT195626]	SMH	
C	4-8-20	SEE SHEET 3 [CT203214]	SMH	

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX.X ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 MAX. FRACTIONS ±		KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	TITLE
DRAWN	ABS	4/24/2017	DIAGRAM, SCHEMATIC
CHECKED	PRH	4/24/17	KG40 - KG60
APPROVED	JLS	4/24/17	
SCALE NONE		CAD NO. ADV9007.DWG	SHEET 2-4
DWG. NO. ADV-9007		D ₆	



REV	DATE	REVISION	BY	UF
-	3-15-18	NEW DRAWING [CT185447]	ABS	
A	2-4-19	SEE SHEET 2 & 3 [CT193503]	TEV	
B	5-8-19	(B, C-5 TO-8) FUEL SELECTION CONNECTION UPDATED		
		[CT195626]	SMH	
C	4-8-20	SEE SHEET 3 [CT203214]	SMH	

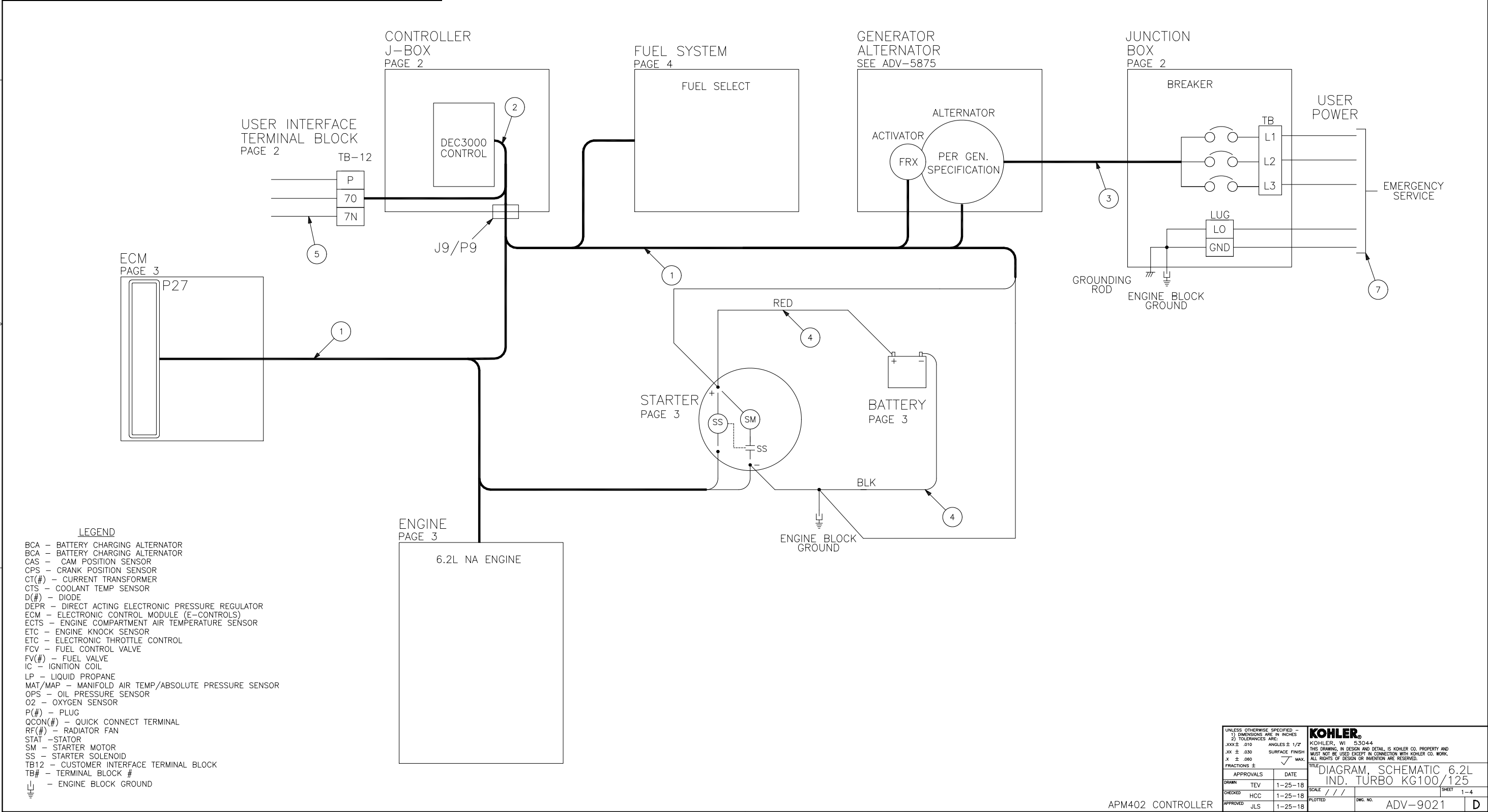


UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±				KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE		TITLE	
DRAWN HCC		4/24/17		DIAGRAM, SCHEMATIC	
CHECKED PRH		4/24/17		KG40 - KG60	
APPROVED JLS		4/24/17		SCALE NONE	
				DWG. NO. ADV9007.DWG	
				SHEET 4-4	
				Dwg. No. ADV-9007	
				D _G	

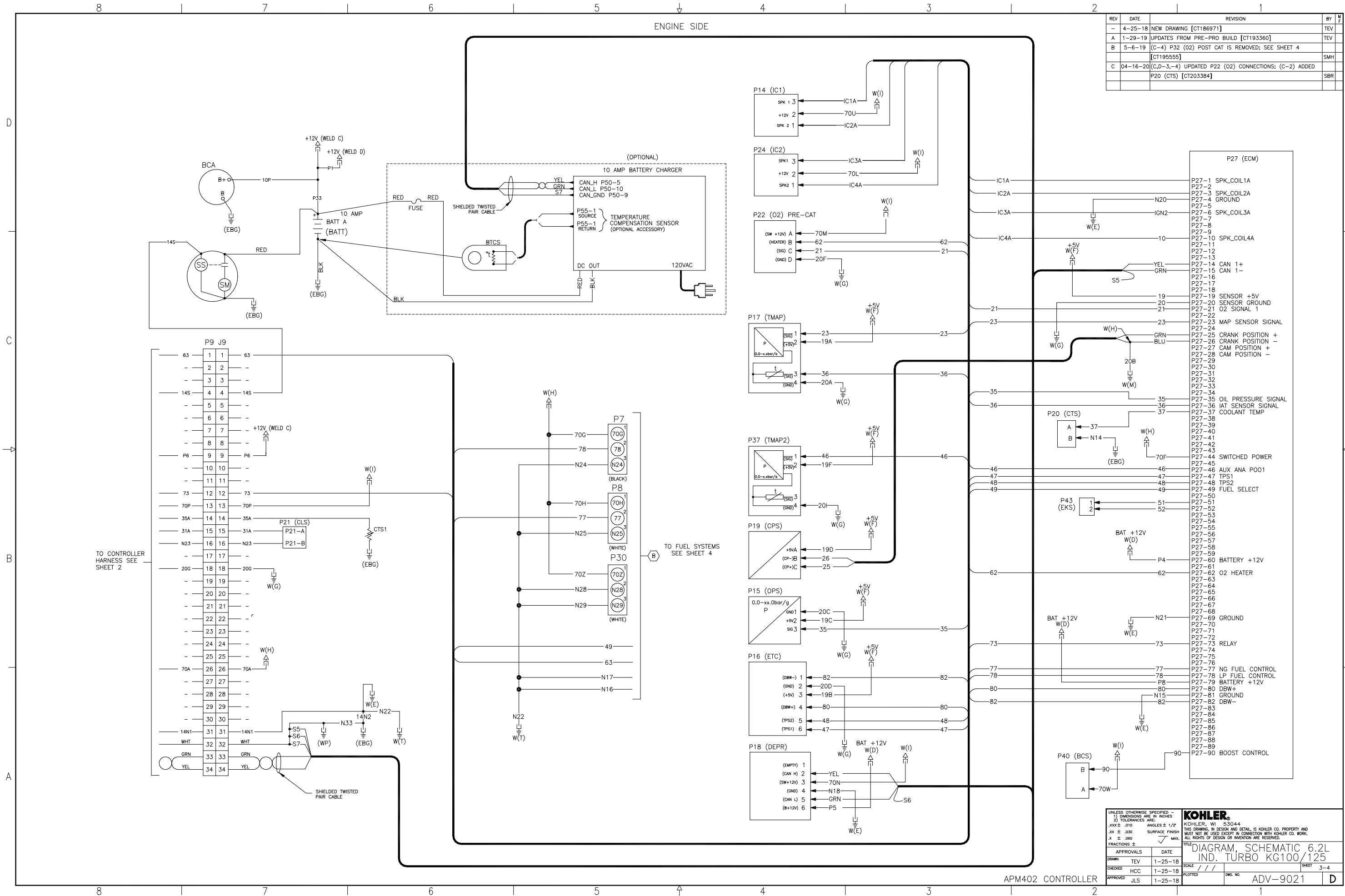
DEC 3000 / APM 402 CONTROLLER

No.	Part Numbers	Description	Options	Field
1	GM104024	Harness, Engine, 6.2L Ind. Turbo KG100/125	-	-
2	GM104025	Harness, Control, 6.2L Ind. Turbo, KG80/100/125	-	-
3	GMXXXXX	48/60RCLB Voltage hookup cables	-	-
4	GMXXXXX	Battery Cables	-	-
5	N/A	Utility wiring	-	X
6	N/A	Site network cables	-	X
7	N/A	Site emergency service wiring	-	X
8	-	-	-	-
9	-	-	-	-
10	-	-	-	-

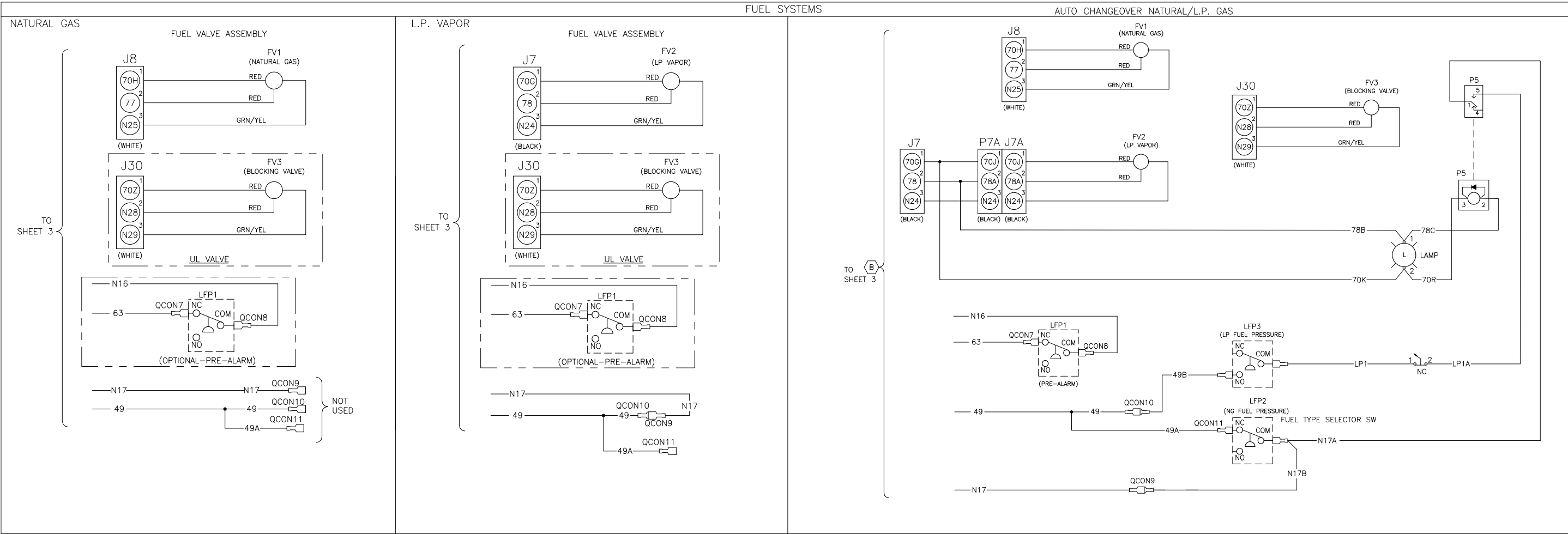
REV	DATE	REVISION	BY	UF
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	5-6-19	SEE SHEETS 3 & 4 [CT195555]	SMH	
C	04-16-20	SEE SHEET 3 [CT203384]	SBR	



UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN TEV		1-25-18	
CHECKED HCC		1-25-18	
APPROVED JLS		1-25-18	
SCALE / / /		SHEET 1-4	
PLOTTED		DWG. NO. ADV-9021	



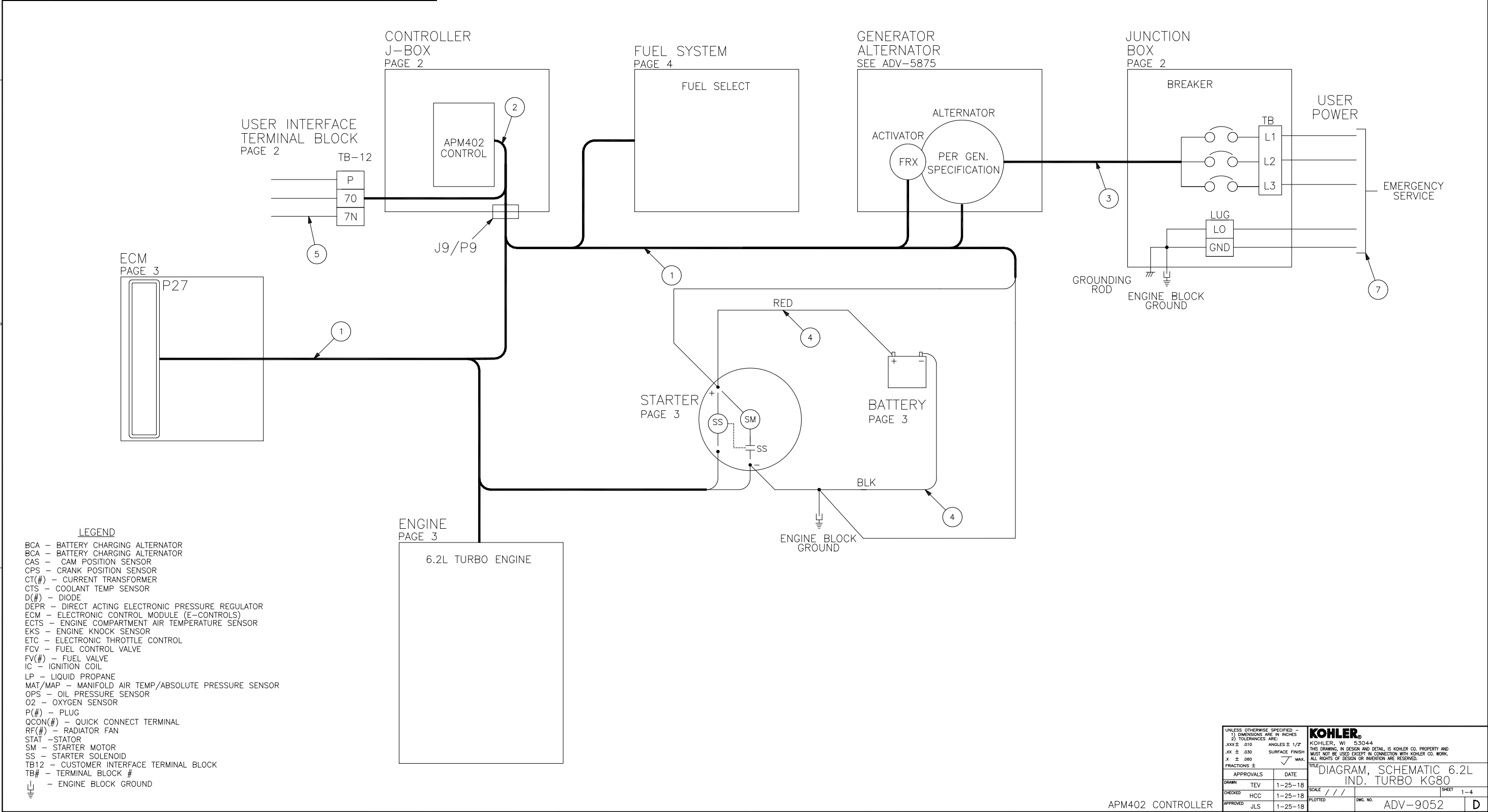
REV	DATE	REVISION	BY	U
—	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	5-6-19	(B,C-2-3-4) AUTO CHANGEOVER LAYOUT IS UPDATED; SEE SHEET 3 [CT195555]	SMH	
C	04-16-20	SEE SHEET 3 [CT203384]	SBR	

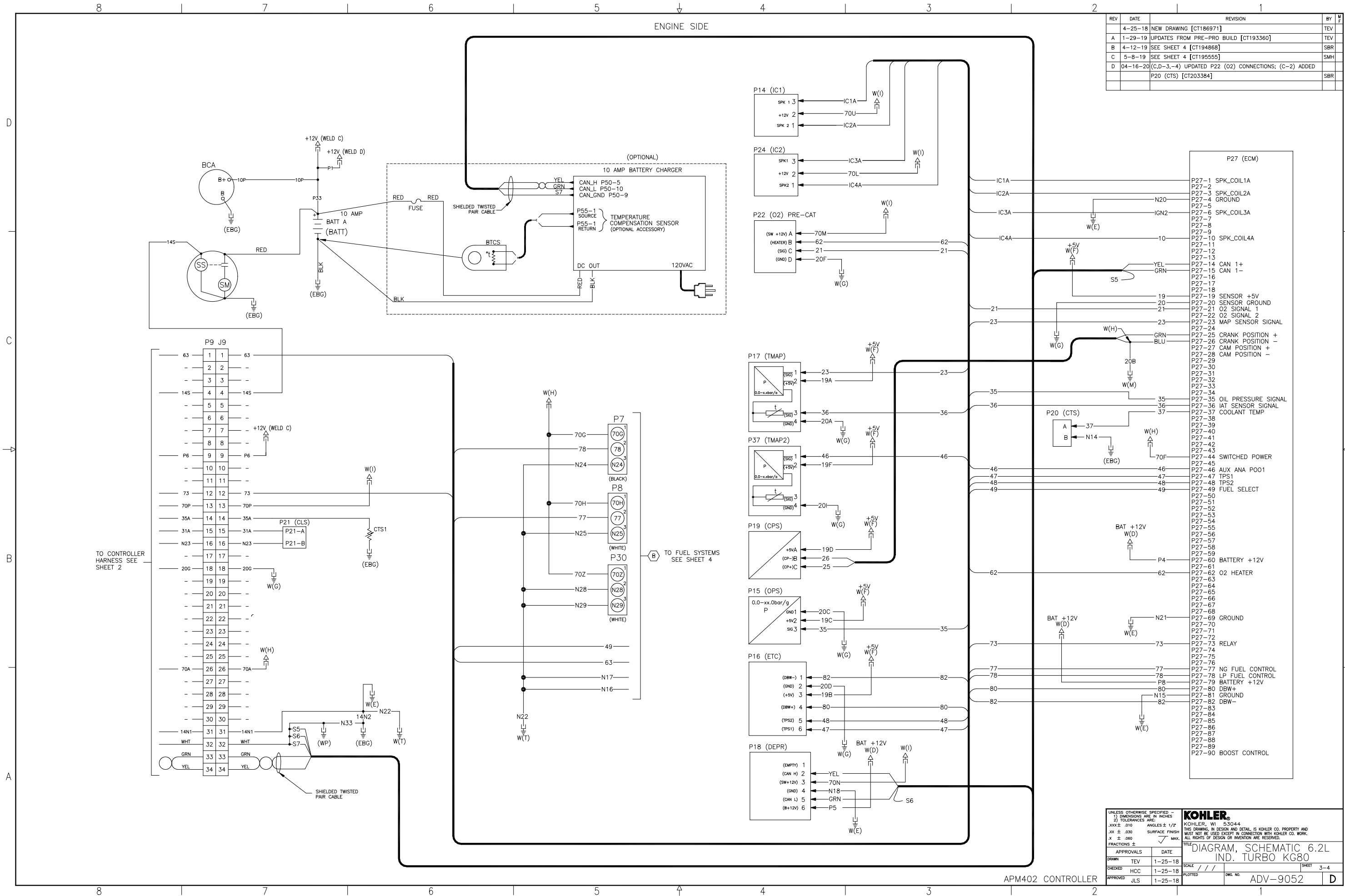


UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN TEV		1-25-18	
CHECKED HCC		1-25-18	
APPROVED JLS		1-25-18	
SCALE		SHEET 4-4	
PLOTTED		DWG. NO. ADV-9021	

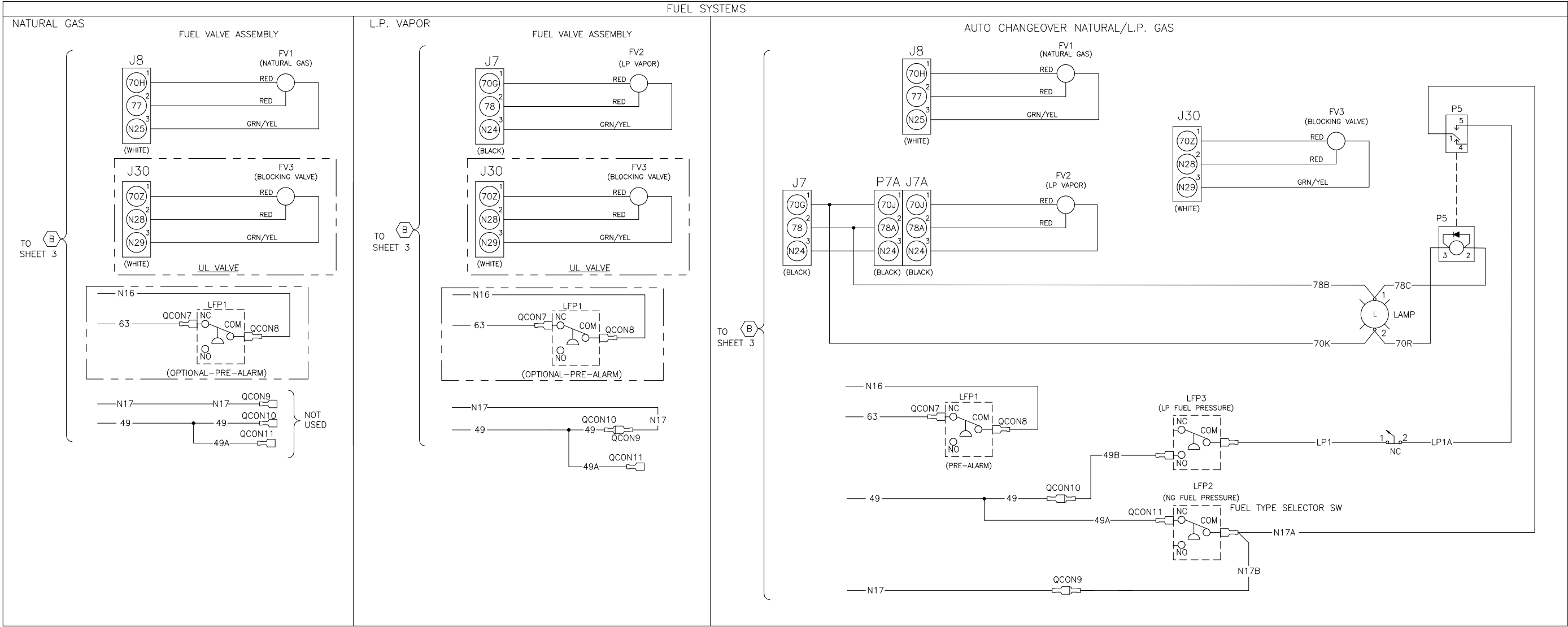
No.	Part Numbers	Description	Options	Field
1	GM104905	Harness, Engine, 6.2L Ind. Turbo KG80	-	-
2	GM104025	Harness, Control, 6.2L Ind. Turbo KG80/100/125	-	-
3	GMXXXXX	48/60RCLB Voltage hookup cables	-	-
4	GMXXXXX	Battery Cables	-	-
5	N/A	Utility wiring	-	X
6	N/A	Site network cables	-	X
7	N/A	Site emergency service wiring	-	X
8	-	-	-	-
9	-	-	-	-
10	-	-	-	-

REV	DATE	REVISION	BY	U
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	4-12-19	SEE SHEET 4 [CT194868]	SBR	
C	5-8-19	SEE SHEET 4 [CT195555]	SMH	
D	04-16-20	SEE SHEET 3 [CT203384]	SBR	





REV	DATE	REVISION	BY	UF
—	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	4-12-19	(B,C-1 TO 4) DUEL FUEL CONNECTIONS ADDED [CT194868]	SBR	
C	5-8-19	(C-2) QCON 1 IS REMOVED [CT195555]	SMH	
D	04-16-20	SEE SHEET 3 [CT203384]	SBR	



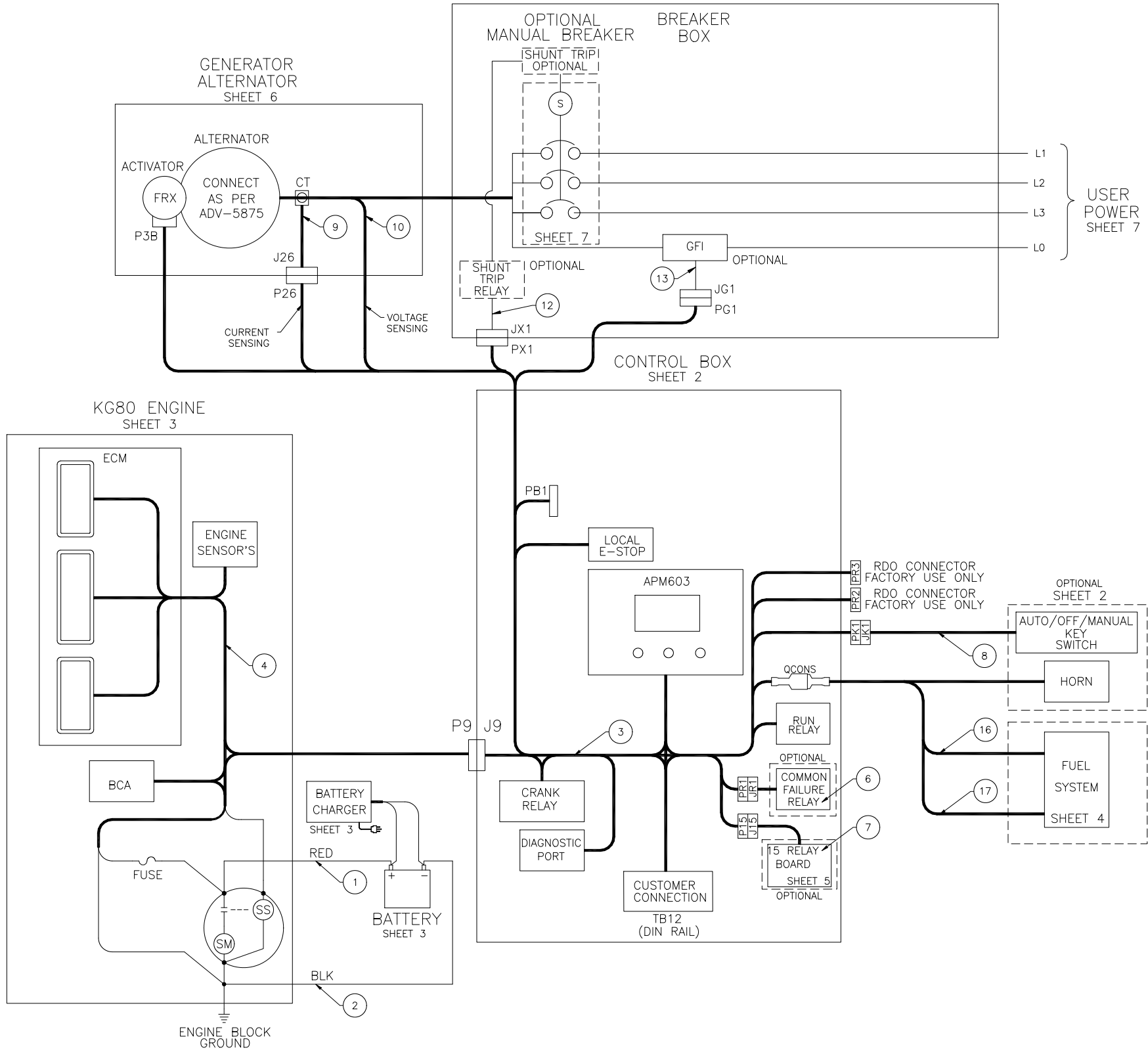
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	TITLE
DRAWN TEV		1-25-18	DIAGRAM, SCHEMATIC 6.2L
CHECKED HCC		1-25-18	IND. TURBO KG80
APPROVED JLS		1-25-18	SCALE / / / SHEET 4-4
			DWG. NO. ADV-9052

APM402 CONTROLLER

SR. NO.	PART NO.	DESCRIPTION	OPTION	FIELD
1	XXXXXX	BATTERY CABLE POSITIVE	—	—
2	XXXXXX	BATTERY CABLE NEGATIVE	—	—
3	GM109325	HARNESS, CONTROL BOX APM603 KG80/100/125	—	—
4	GM114086	ENGINE HARNESS KG80	—	—
5	GM108010	DUAL FUEL RESET BOX HARNESS	X	—
6	GM105367	COMMON FAILURE RELAY	X	X
7	GM105366	15 RELAY DRY CONTACT	X	X
8	GM105663	RUN/OFF/AUTO KEYSWITCH	X	X
9	GM105368	CURRENT SENSE HARNESS	—	—
10	GM108013	BUS VOLTAGE SENSE HARNESS	X	—
11	GM111289	FUEL TYPE INDICATION HARNESS	X	—
12	GM105369	SHUNT TRIP RELAY HARNESS	X	X
13	GM105370	GROUND FAULT HARNESS	X	X
14	GM114689	WIRING DIAGRAM	—	—

LEGENDS

BCA - BATTERY CHARGING ALTERNATOR
CLS - COOLANT LEVEL SENDER
CPS - CRANK POSITION SENSOR
CT(#) - CURRENT TRANSFORMER
D(#) - DIODE
DIAG - DIAGNOSTIC LAMP
ECM - ENGINE CONTROL MODULE
ESS - EMERGENCY STOP SWITCH
ETC - ELECTRONIC THROTTLE CONTROL
FLS - FUEL LEVEL SENDER
FTS - FUEL TEMP SENDER
MAP - MANIFOLD AIR PRESSURE
MAT - MANIFOLD AIR TEMP SENSOR
OPS - OIL PRESSURE SENDER
P(#) - PLUG
QCON(#) - QUICK CONNECT
SLB - STATIONARY LED BOARD
SM - STARTER MOTOR
SS - STARTER SOLENOID
STAT - STATOR
SW(#) - SWITCH
TB(#) - TERMINAL BLOCK
W(#) - WIRE WELD
WFS - WATER IN FUEL SENDER
⏏ EBG - ENGINE BLOCK GROUND
⏏ GND - CONTROLLER BOX GROUND
⏏ PGND - PANEL GROUND

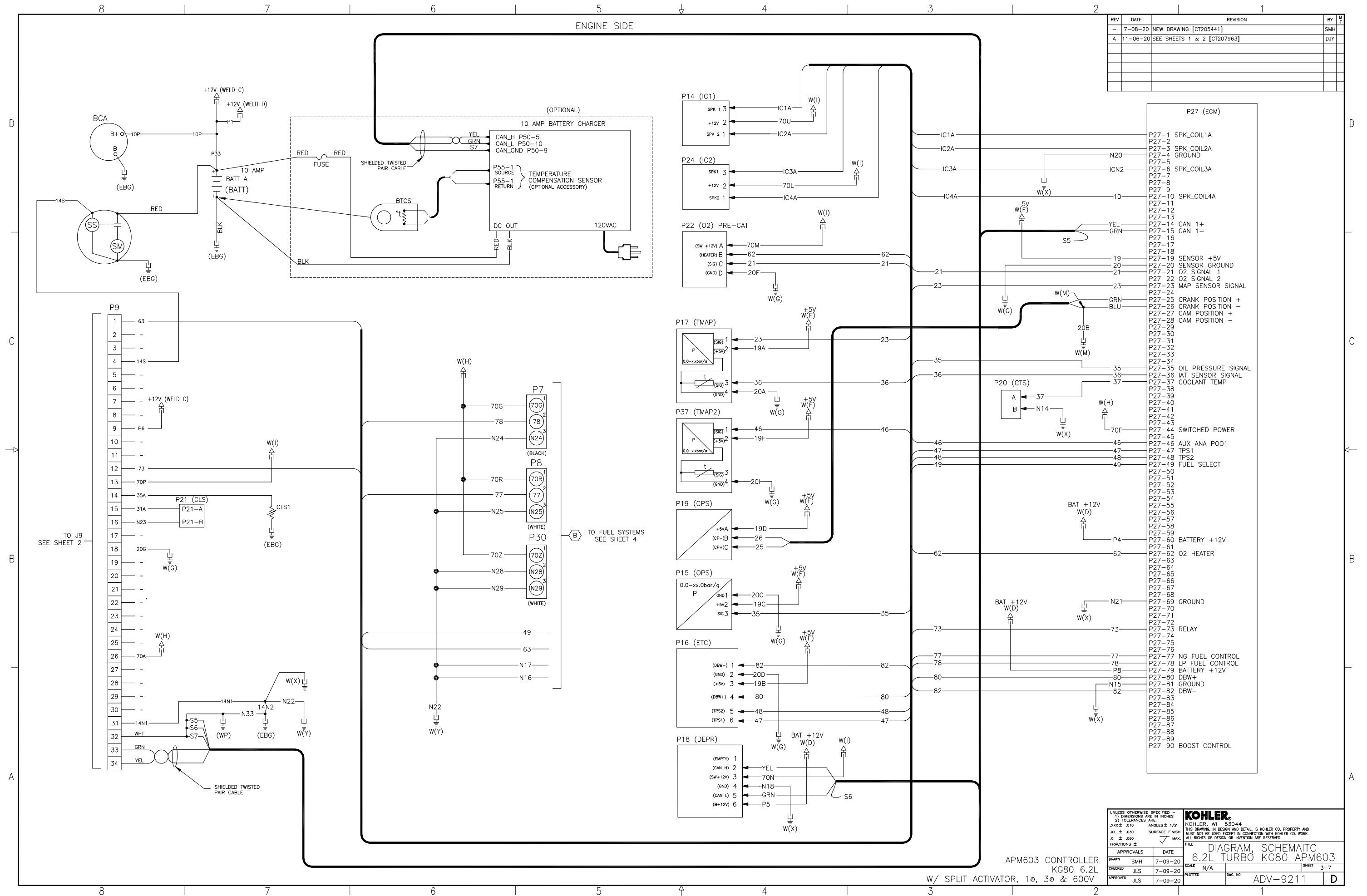


* REMOVE RESISTORS IF PARALLELING

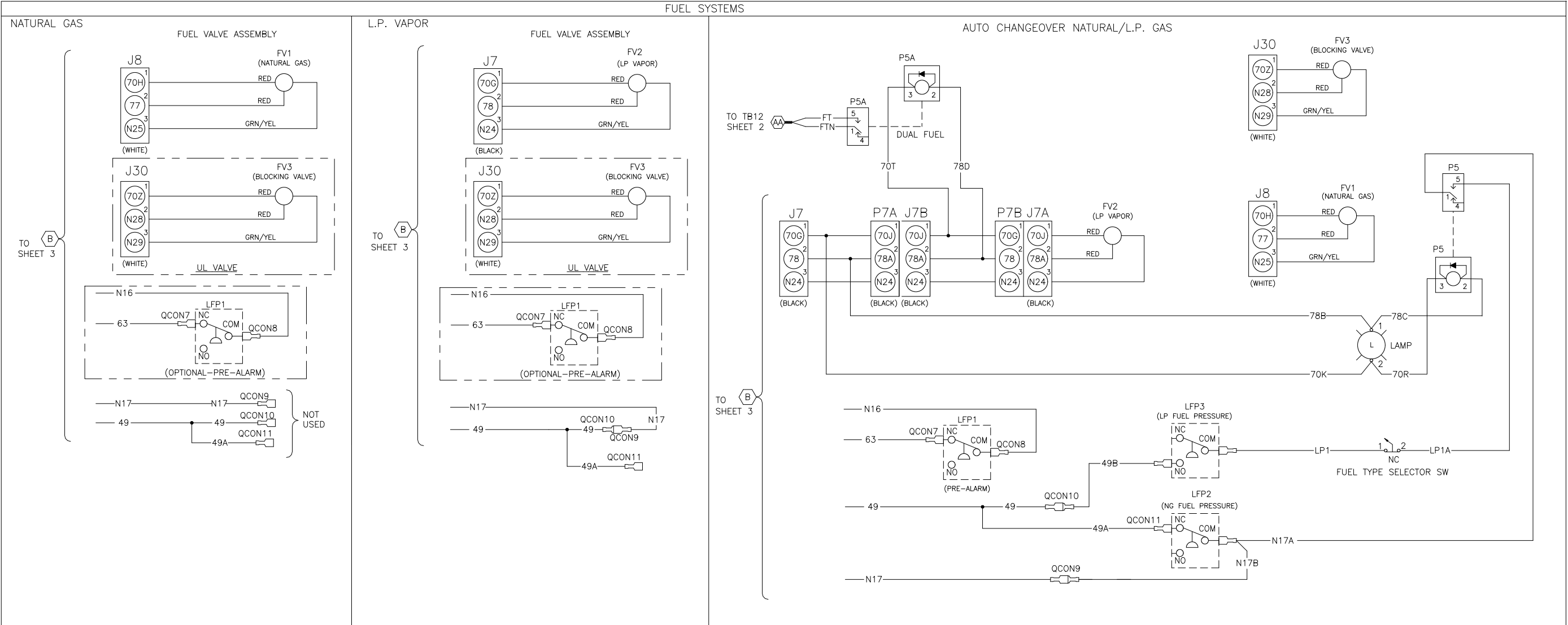
TB12 CONNECTION CHART		
FUNCTION	POS	SIGNAL DESCRIPTION
REMOTE E-STOP	1	REMOTE EMERGENCY STOP
	2	
REMOTE START	3	REMOTE START SIGNAL
	4	
CUSTOMER INTERFACE	5	FUSED BATTERY POWER
	6	BATT VOLTS WHEN RUNNING
CUSTOMER INTERFACE	7	BATTERY NEGATIVE
	8	A (-)
	9	B (+)
	10	SHIELD
LOW FUEL	11	LOW FUEL PRESSURE
	12	LOW FUEL LEVEL SWITCH RETURN
BAT CHRG FLT	13	BATTERY CHARGER FAULT
RES IN RETURN	14	BATTERY CHARGER FAULT RETURN
AUX WARNING	15	AUXILIARY WARNING
RES IN RETURN	16	AUXILIARY WARNING RETURN
AUX FAULT	17	AUXILIARY FAULT
RES IN RETURN	18	AUXILIARY FAULT RETURN
CUSTOMER INTERFACE	19	A (-)
	20	B (+)
	21	SHIELD
CUSTOMER INTERFACE	22	A (-)
	23	B (+)
	24	SHIELD
RUN RELAY	25	COMMON CONTACT
	26	NORMALLY OPEN CONTACT
	27	NORMALLY CLOSED CONTACT
SPEED BIAS	28	WHT +/- 10V-
	29	BLK +/- 10V+ S9 UNINS.
VOLTAGE BIAS	31	WHT +/- 10V-
	32	BLK +/- 10V+ S10 UNINS.
	33	S10 UNINS.
FUEL TYPE	34	FUEL TYPE
	35	FUEL TYPE RETURN
	36	
	37	
	38	
	39	
	40	

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX±.010 ANGLES± 1/2° .XX ±.030 SURFACE FINISH .X ±.060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. TITLE DIAGRAM, SCHEMATIC 6.2L TURBO KG80 APM603 SCALE N/A DWG. NO. ADV-9211	
APPROVALS	DATE	SHEET	1-7
DRAWN SMH	7-09-20		
CHECKED JLS	7-09-20		
APPROVED JLS	7-09-20		

APM603 CONTROLLER
KG80 6.2L
W/ SPLIT ACTIVATOR, 1ø, 3ø & 600V

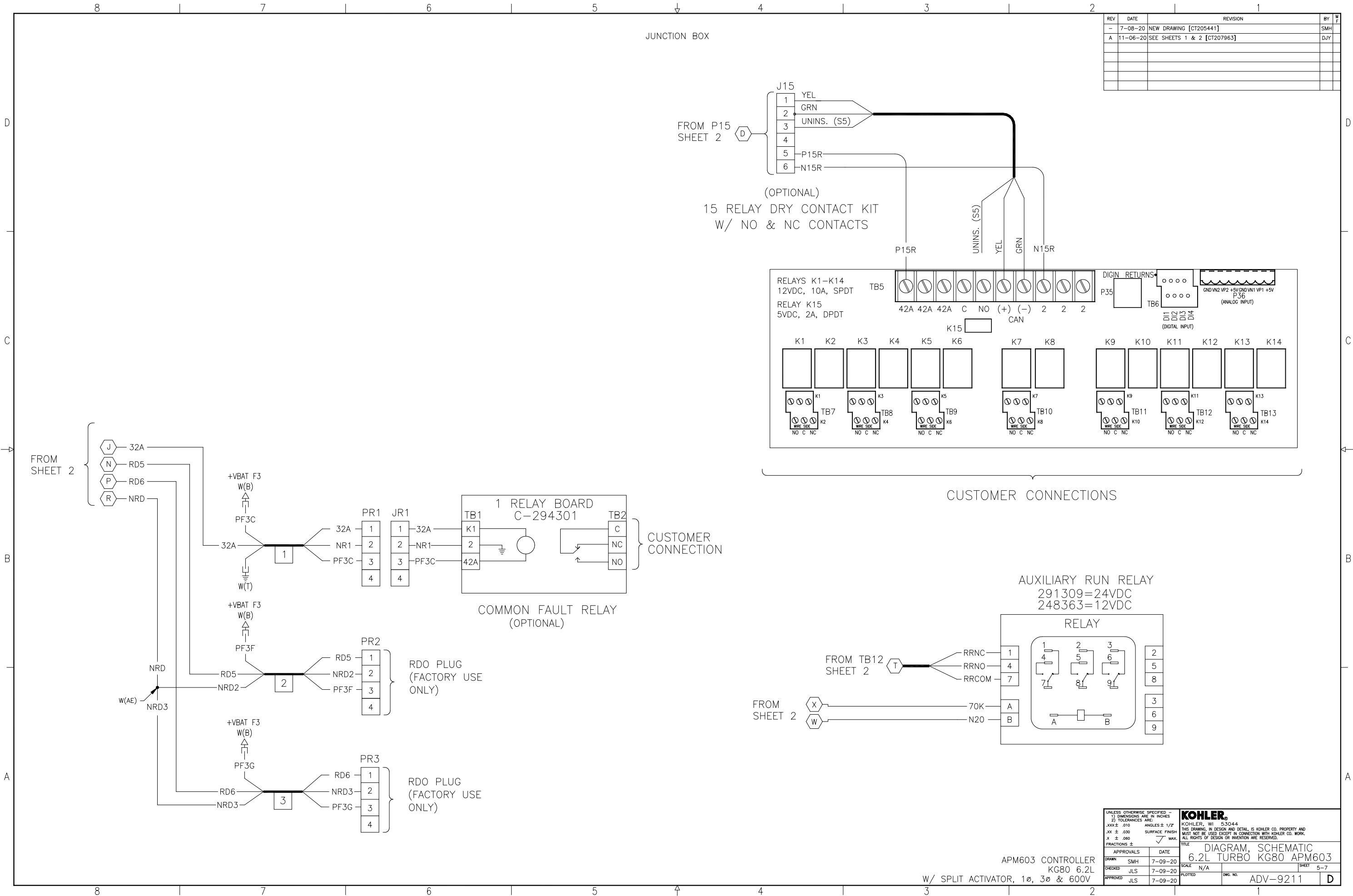


REV	DATE	REVISION	BY	UF
-	7-08-20	NEW DRAWING [CT205441]	SMH	
A	11-06-20	SEE SHEETS 1 & 2 [CT207963]	DJY	



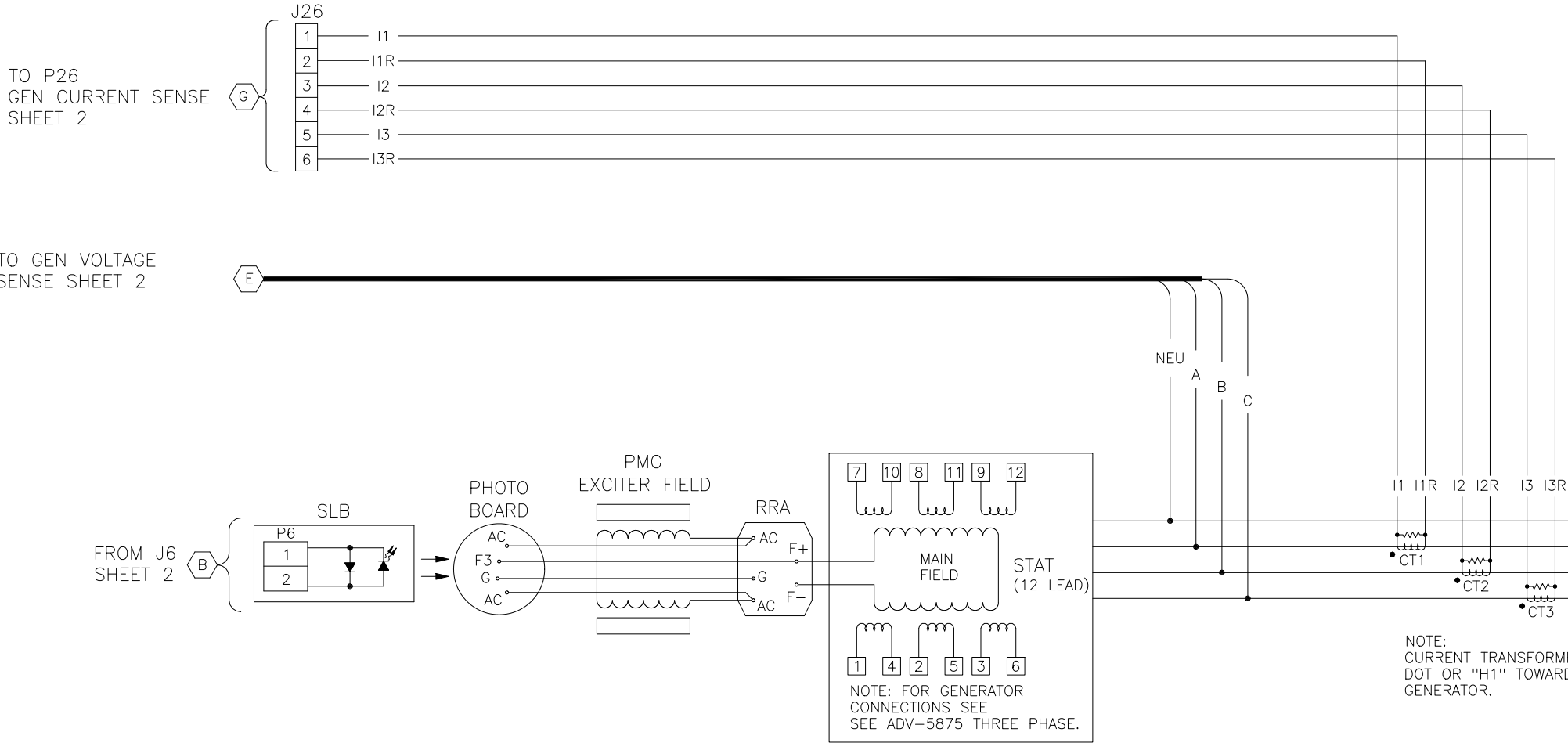
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN SMH		7-09-20	
CHECKED JLS		7-09-20	
APPROVED JLS		7-09-20	
SCALE N/A		SHEET 4-7	
DWG. NO. ADV-9211		D	

APM603 CONTROLLER
KG80 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V



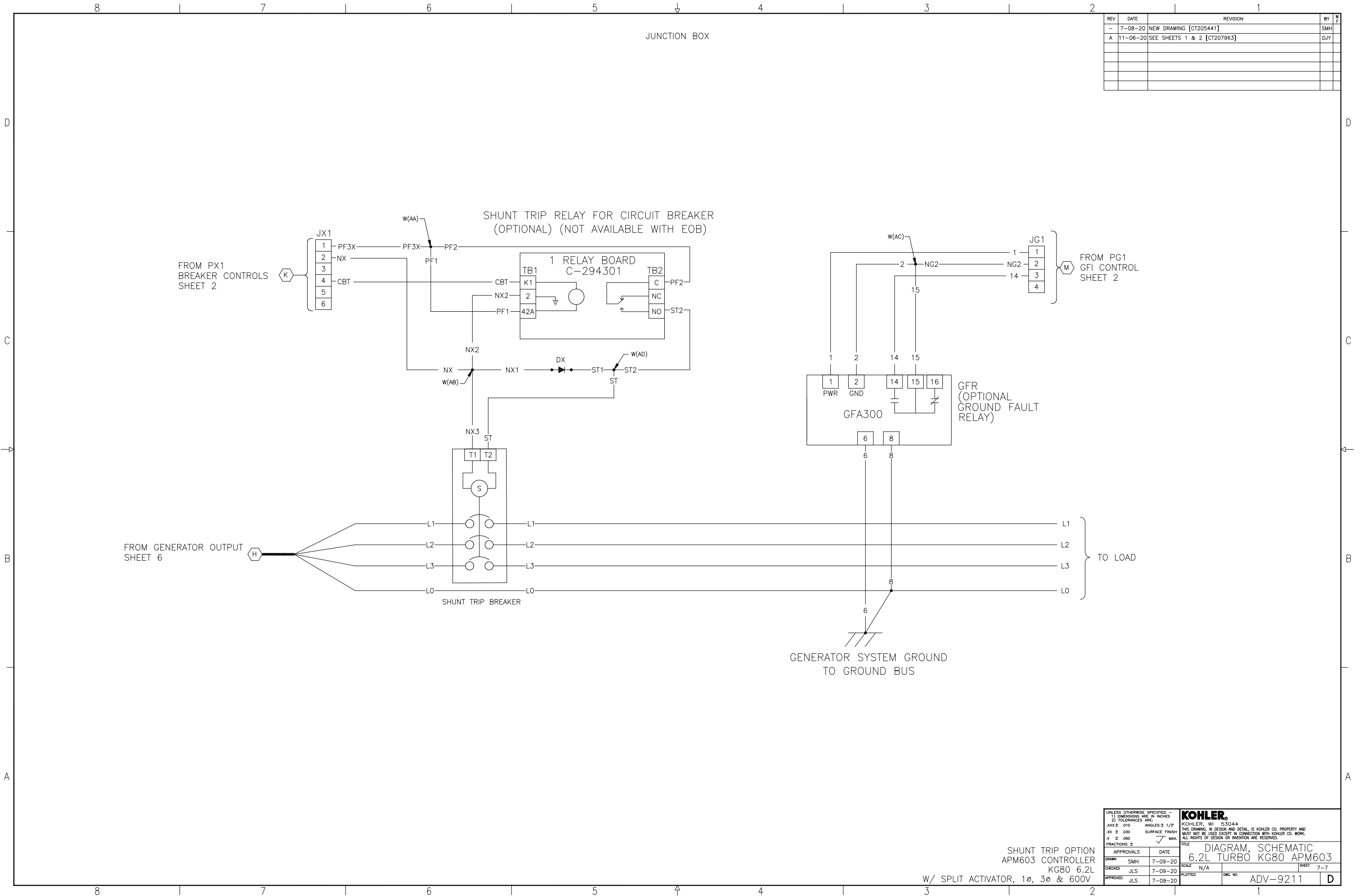
ALTERNATOR

REV	DATE	REVISION	BY	U
-	7-08-20	NEW DRAWING [CT205441]	SMH	F
A	11-06-20	SEE SHEETS 1 & 2 [CT207963]	DJY	



UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN SMH		7-09-20	
CHECKED JLS		7-09-20	
APPROVED JLS		7-09-20	
SCALE N/A		SHEET 6-7	
PLOTTED		DWG. NO. ADV-9211	

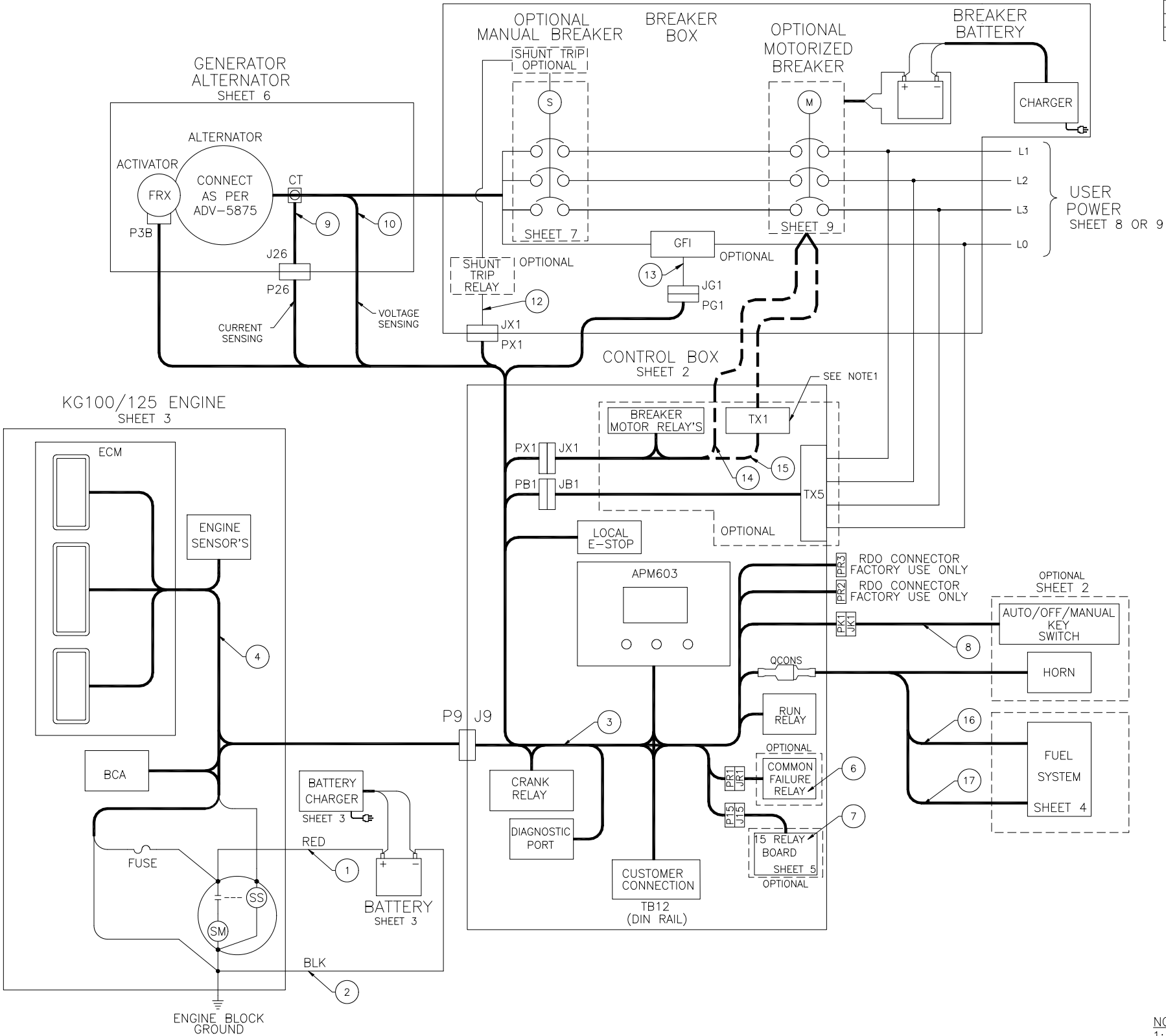
ALTERNATOR SIDE
APM603 CONTROLLER
KG80 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V



S/N	PART NO.	DESCRIPTION	OPTION	FIELD
1	XXXXXX	BATTERY CABLE POSITIVE	-	-
2	XXXXXX	BATTERY CABLE NEGATIVE	-	-
3	GM109325	HARNESS, CONTROL BOX APM603 KG80/100/125	-	-
4	GM114085	ENGINE HARNESS KG100/125	-	-
5	GM108010	DUAL FUEL RESET BOX HARNESS	X	-
6	GM105367	COMMON FAILURE RELAY	X	X
7	GM105366	15 RELAY DRY CONTACT	X	X
8	GM105663	RUN/OFF/AUTO KEYSWITCH	X	X
9	GM105368	CURRENT SENSE HARNESS	-	-
10	GM108013	BUS VOLTAGE SENSE HARNESS	X	-
11	GM111289	FUEL TYPE INDICATION HARNESS	X	-
12	GM105369	SHUNT TRIP RELAY HARNESS	X	X
13	GM105370	GROUND FAULT HARNESS	X	X
14	GM105371	LOCAL MOTORIZED BREAKER HARNESS	X	-
15	GM105373	REMOTE MOTORIZED BREAKER HARNESS	X	X
16	GM114690	WIRING DIAGRAM	-	-

LEGENDS

BCA - BATTERY CHARGING ALTERNATOR
CLS - COOLANT LEVEL SENDER
CPS - CRANK POSITION SENSOR
CT(#) - CURRENT TRANSFORMER
D(#) - DIODE
DIAG - DIAGNOSTIC LAMP
ECM - ENGINE CONTROL MODULE
ESS - EMERGENCY STOP SWITCH
ETC - ELECTRONIC THROTTLE CONTROL
FLS - FUEL LEVEL SENDER
FTS - FUEL TEMP SENDER
MAP - MANIFOLD AIR PRESSURE
MAT - MANIFOLD AIR TEMP SENSOR
OPS - OIL PRESSURE SENDER
P(#) - PLUG
QCON(#) - QUICK CONNECT
SLB - STATIONARY LED BOARD
SM - STARTER MOTOR
SS - STARTER SOLENOID
STAT - STATOR
SW(#) - SWITCH
TB(#) - TERMINAL BLOCK
W(#) - WIRE WELD
WFS - WATER IN FUEL SENDER
EBG - ENGINE BLOCK GROUND
GND - CONTROLLER BOX GROUND
PGND - PANEL GROUND

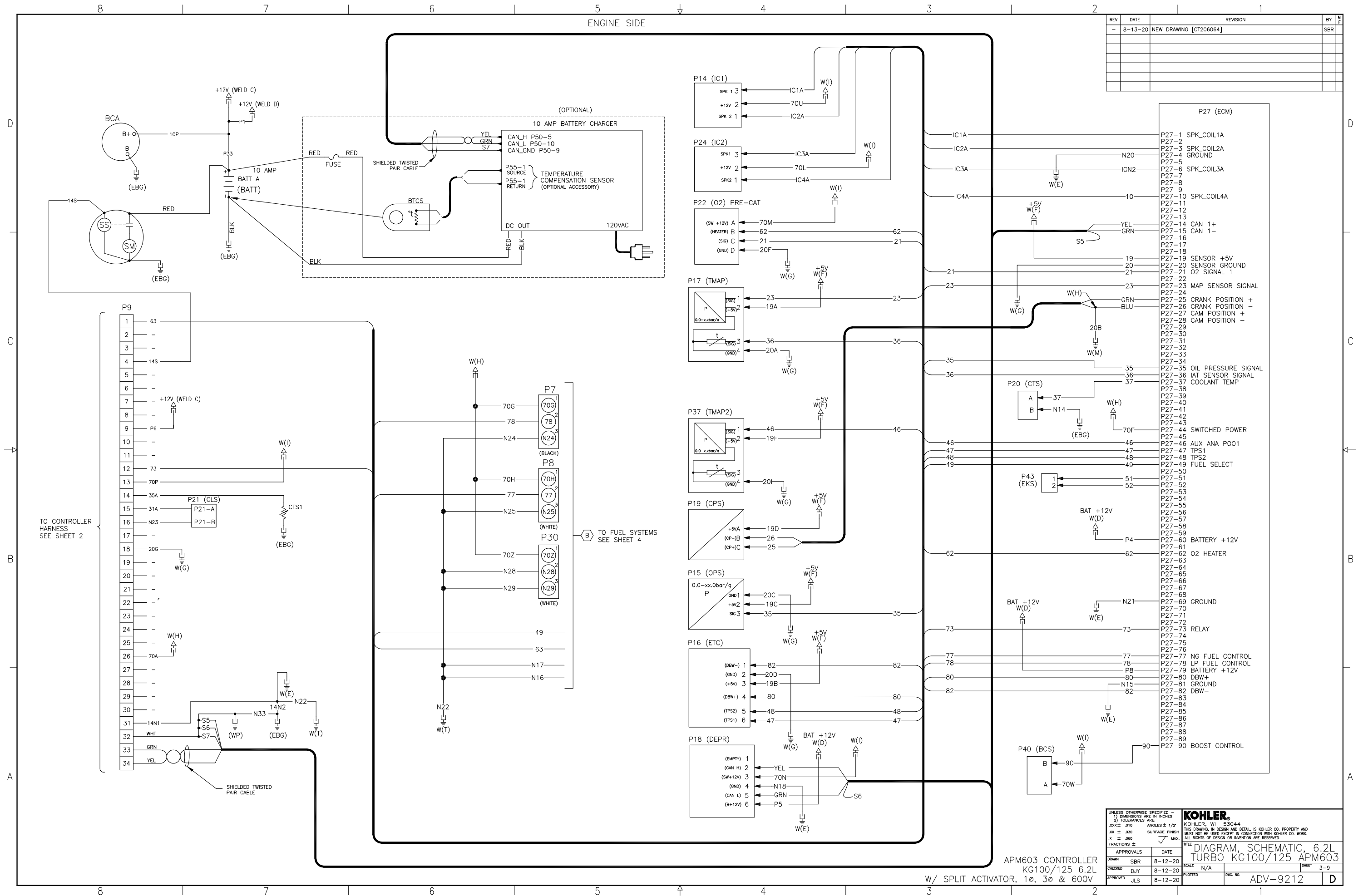


* REMOVE RESISTORS IF PARALLELING		
TB12 CONNECTION CHART		
FUNCTION	POS	SIGNAL DESCRIPTION
REMOTE E-STOP	1	REMOTE EMERGENCY STOP
	2	
REMOTE START	3	REMOTE START SIGNAL
	4	
CUSTOMER INTERFACE	5	FUSED BATTERY POWER
	6	BATT VOLTS WHEN RUNNING
CUSTOMER INTERFACE	7	BATTERY NEGATIVE
	8	A (-)
	9	B (+)
	10	SHIELD
LOW FUEL	11	LOW FUEL PRESSURE
	12	LOW FUEL LEVEL SWITCH RETURN
BAT CHRG FLT	13	BATTERY CHARGER FAULT
RES IN RETURN	14	BATTERY CHARGER FAULT RETURN
AUX WARNING	15	AUXILIARY WARNING
RES IN RETURN	16	AUXILIARY WARNING RETURN
AUX FAULT	17	AUXILIARY FAULT
RES IN RETURN	18	AUXILIARY FAULT RETURN
CUSTOMER INTERFACE	19	A (-)
	20	B (+)
	21	SHIELD
CUSTOMER INTERFACE	22	A (-)
	23	B (+)
	24	SHIELD
	25	COMMON CONTACT
RUN RELAY	26	NORMALLY OPEN CONTACT
	27	NORMALLY CLOSED CONTACT
SPEED BIAS	28	WHT +/- 10V-
	29	BLK +/- 10V+
	30	S9 UNINS.
VOLTAGE BIAS	31	WHT +/- 10V-
	32	BLK +/- 10V+
	33	S10 UNINS.
FUEL TYPE	34	FUEL TYPE
	35	FUEL TYPE RETURN
	36	
	37	
	38	
	39	
	40	

NOTES:
1: TX1 ONLY USED FOR REMOTE MOUNTED BREAKERS.

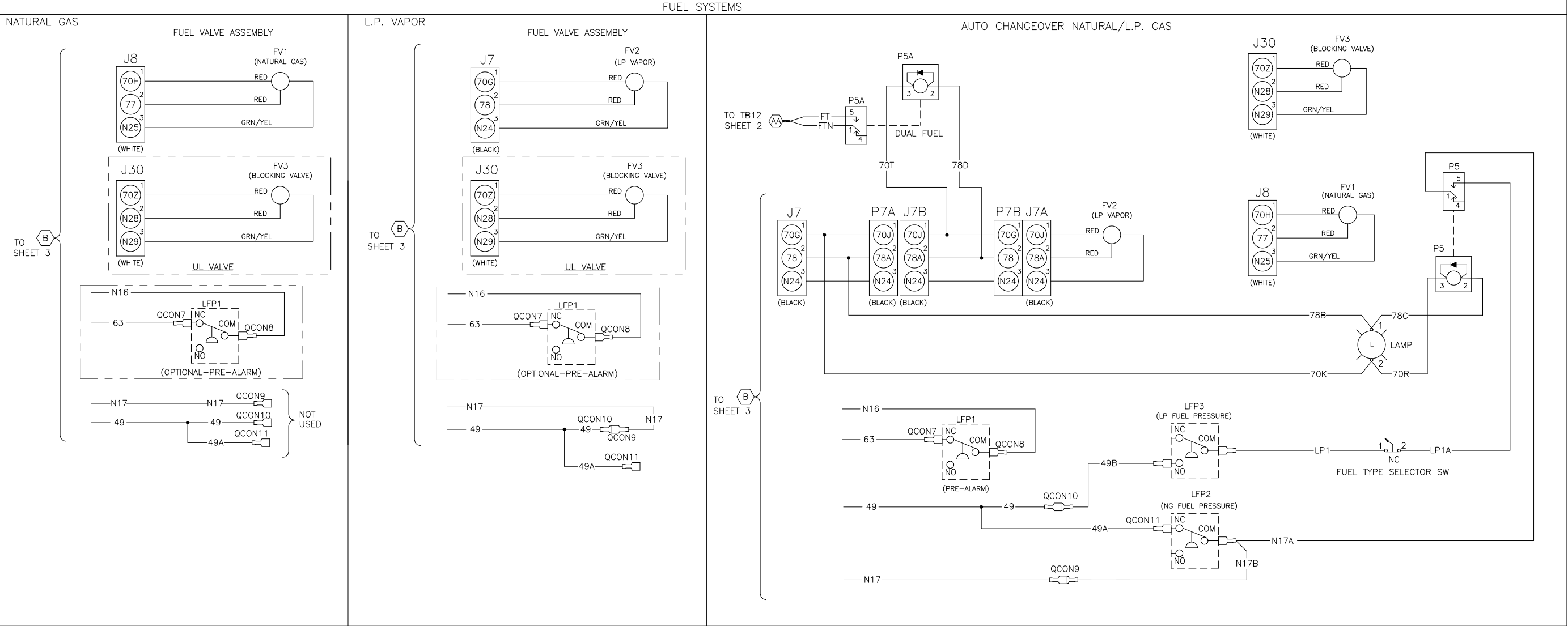
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX.X ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN SBR		8-12-20	
CHECKED DJY		8-12-20	
APPROVED JLS		8-12-20	
SCALE N/A		SHEET 1-9	
PLOTTED		DWG. NO. ADV-9212	
		D	

APM603 CONTROLLER
KG100/125 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V



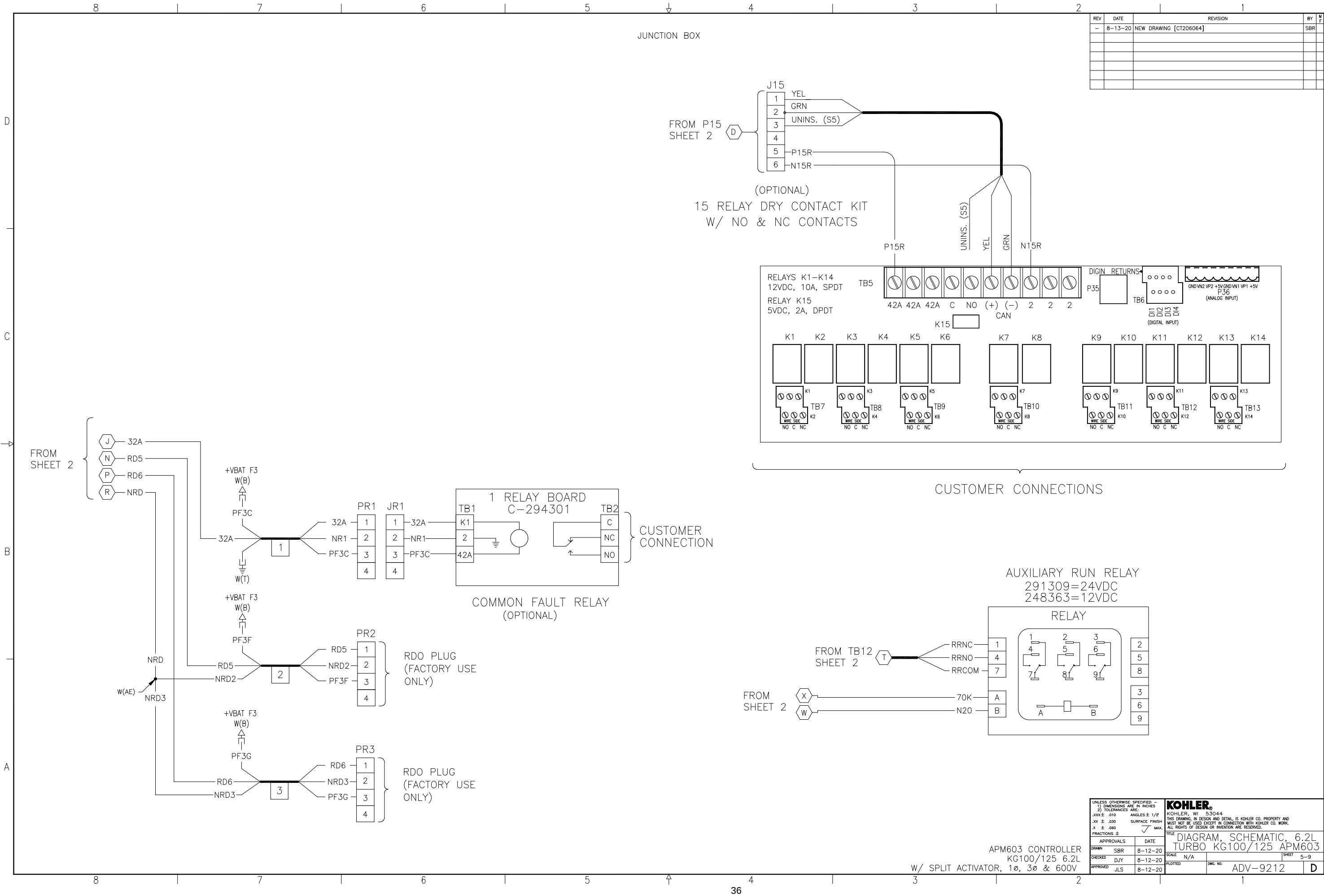
FUEL SYSTEMS

REV	DATE	REVISION	BY	CHK
-	8-13-20	NEW DRAWING [CT206064]	SBR	



UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
TITLE DIAGRAM, SCHEMATIC, 6.2L TURBO KG100/125 APM603		SHEET 4-9	
APPROVALS	DATE	SCALE	N/A
DRAWN SBR	8-12-20	PLOTTED	
CHECKED DJY	8-12-20	DWG. NO.	ADV-9212
APPROVED JLS	8-12-20		D

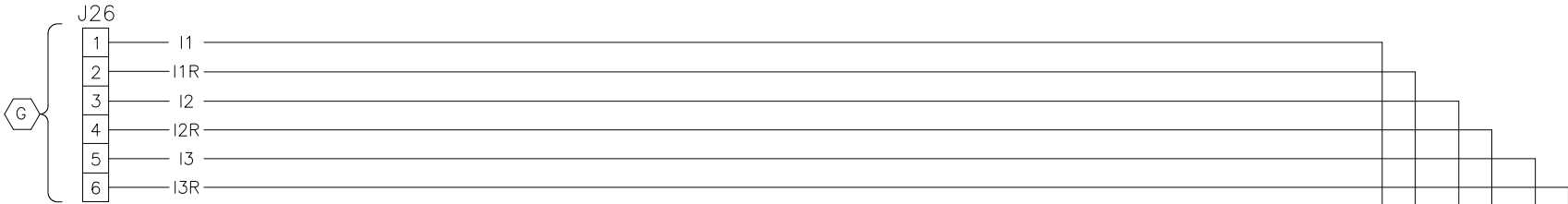
APM603 CONTROLLER
KG100/125 6.2L
W/ SPLIT ACTIVATOR, 1ø, 3ø & 600V



ALTERNATOR

REV	DATE	REVISION	BY	U
-	8-13-20	NEW DRAWING [CT206064]	SBR	F

TO P26
GEN CURRENT SENSE
SHEET 2



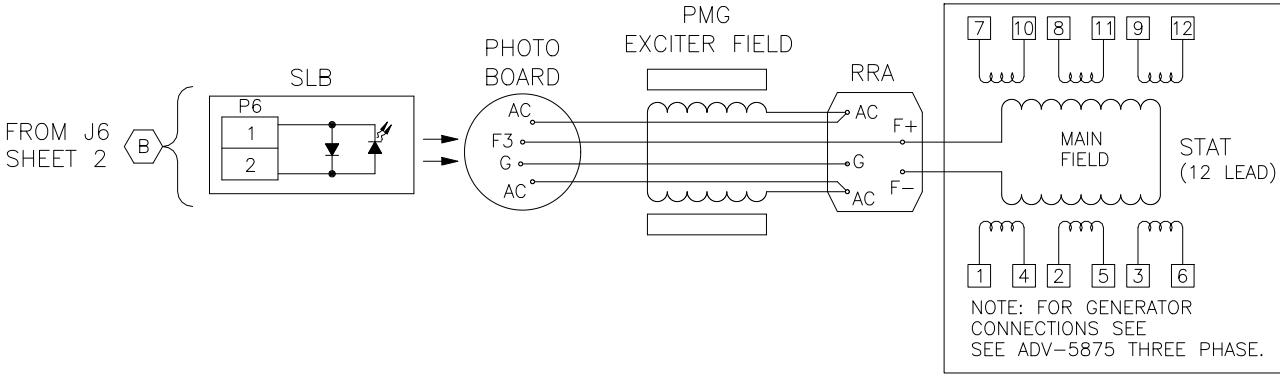
TO GEN VOLTAGE
SENSE SHEET 2



NEU
A
B
C

NOTE:
CURRENT TRANSFORMER
DOT OR "H1" TOWARD
GENERATOR.

TO LOAD, BUS BAR,
OR BREAKERS
SHEET 7, 8, OR 9



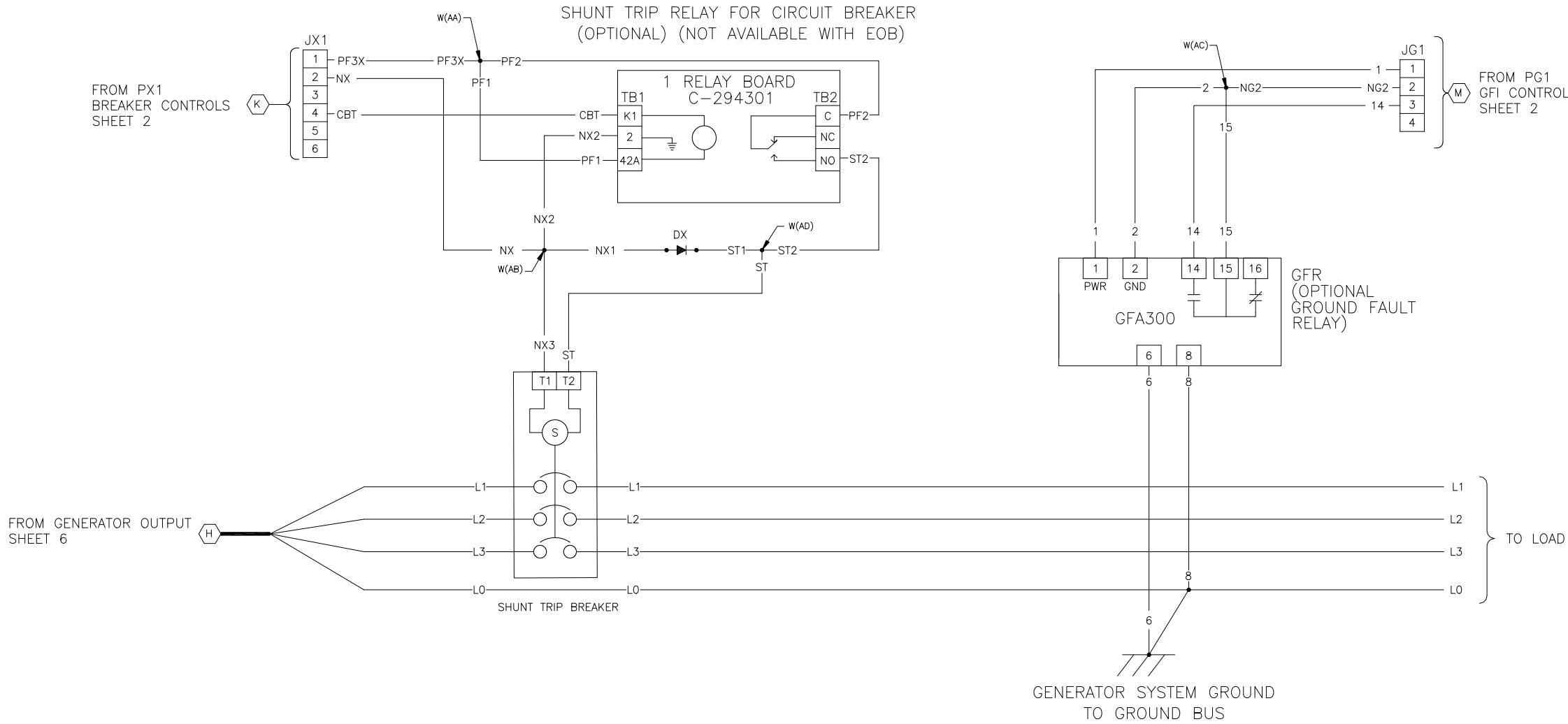
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN SBR		8-12-20	
CHECKED DJY		8-12-20	
APPROVED JLS		8-12-20	
SCALE N/A		SHEET 6-9	
PLOTTED		DWG. NO. ADV-9212	

ALTERNATOR SIDE
APM603 CONTROLLER
KG100/125 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V

TITLE
DIAGRAM, SCHEMATIC, 6.2L
TURBO KG100/125 APM603

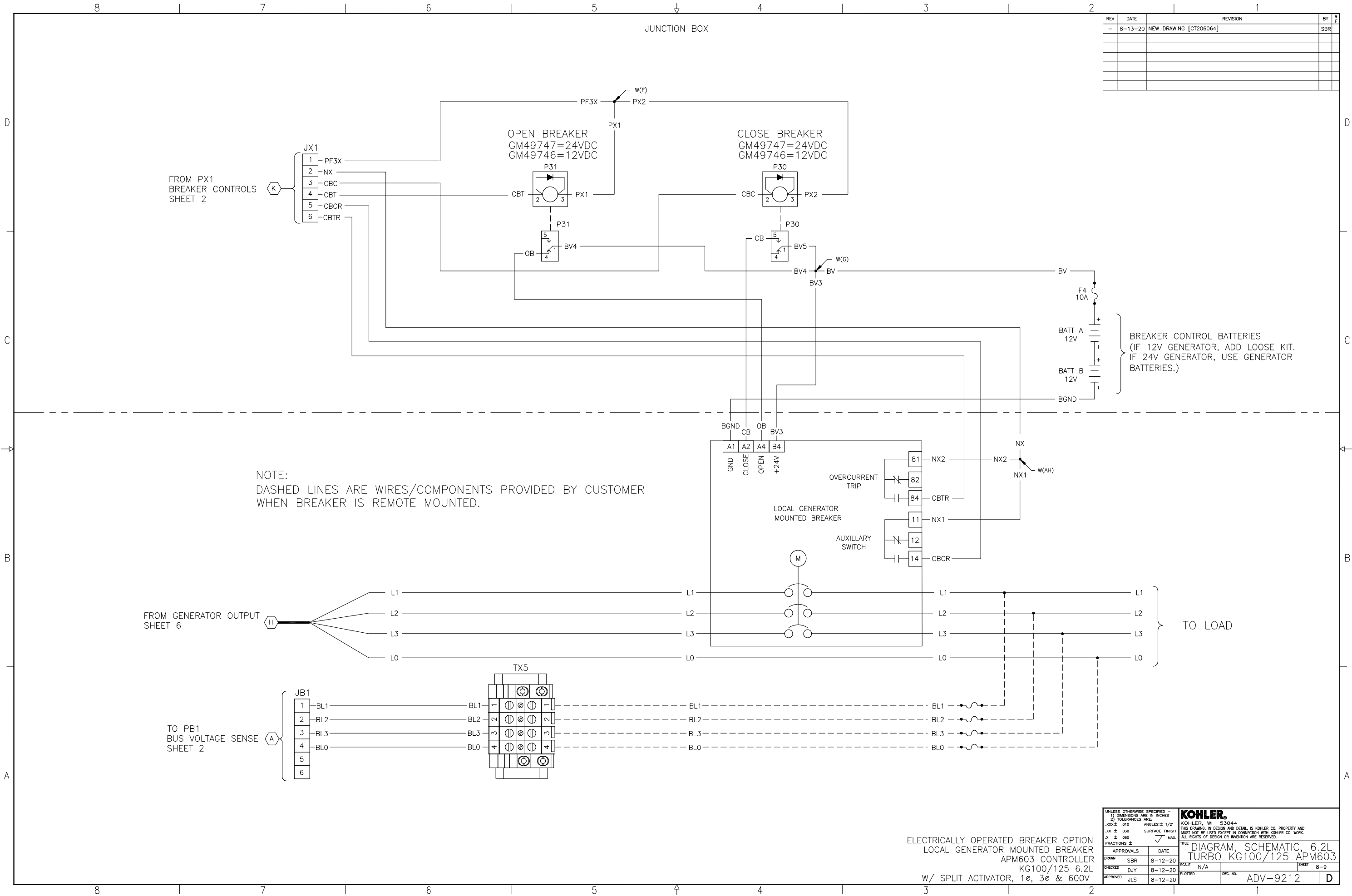
JUNCTION BOX

REV	DATE	REVISION	BY	U
-	8-13-20	NEW DRAWING [CT206064]	SBR	F



UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±				KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE		TITLE	
DRAWN SBR		8-12-20		DIAGRAM, SCHEMATIC, 6.2L TURBO KG100/125 APM603	
CHECKED DJY		8-12-20		SCALE N/A	SHEET 7-9
APPROVED JLS		8-12-20		DWG. NO. ADV-9212	D

SHUNT TRIP OPTION
APM603 CONTROLLER
KG100/125 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V

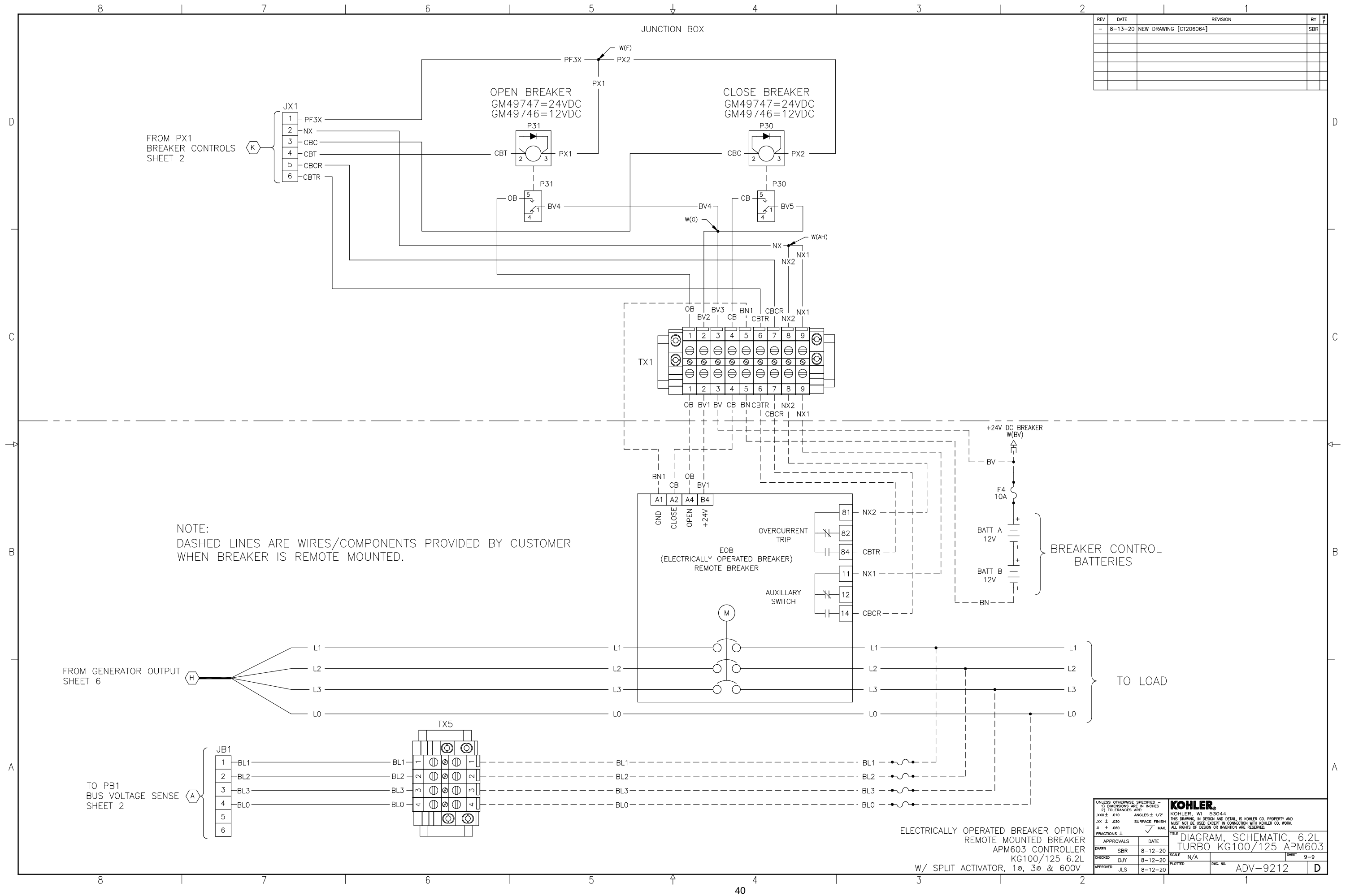


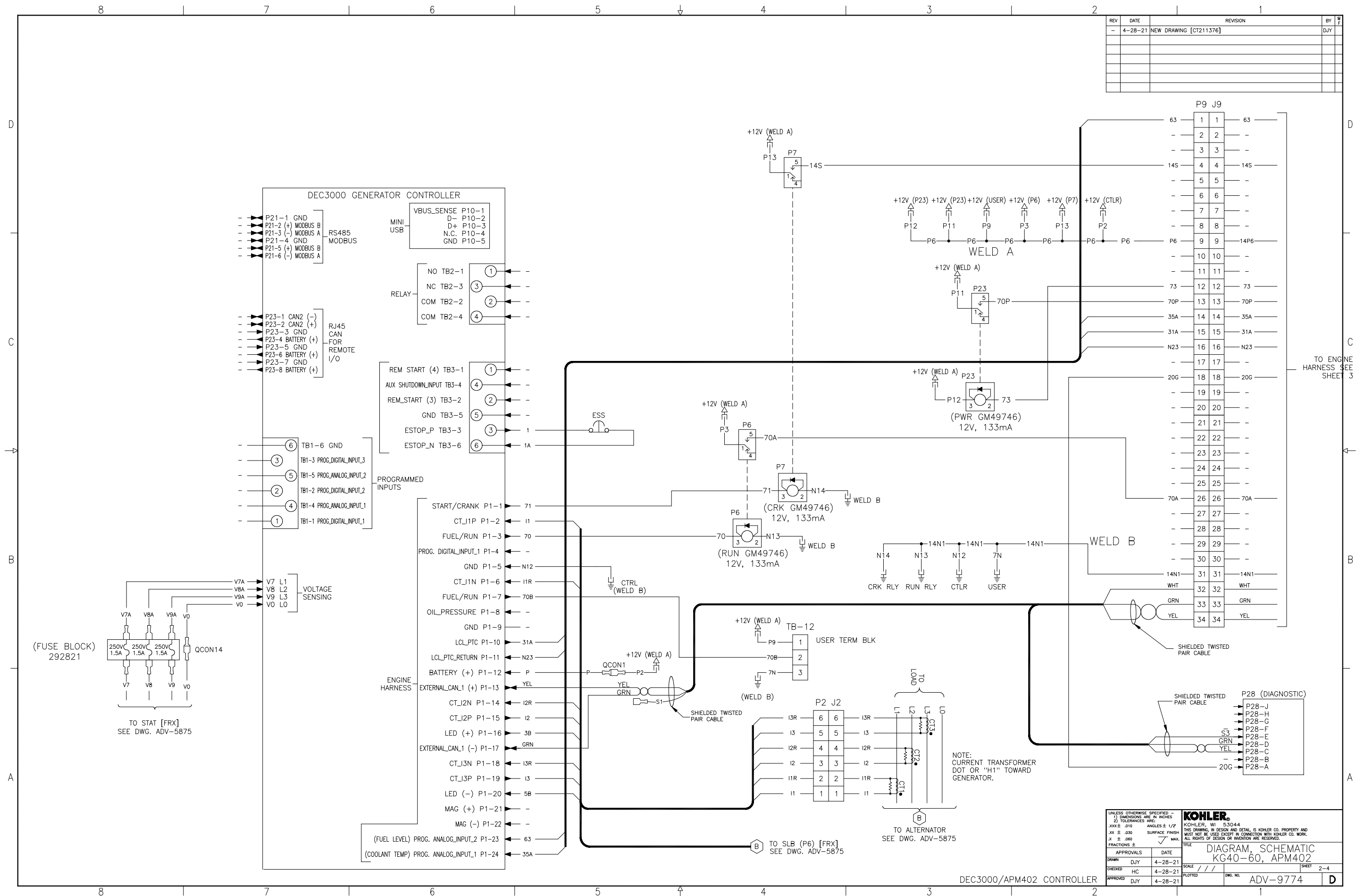
REV	DATE	REVISION	BY	U
-	8-13-20	NEW DRAWING [CT206064]	SBR	F

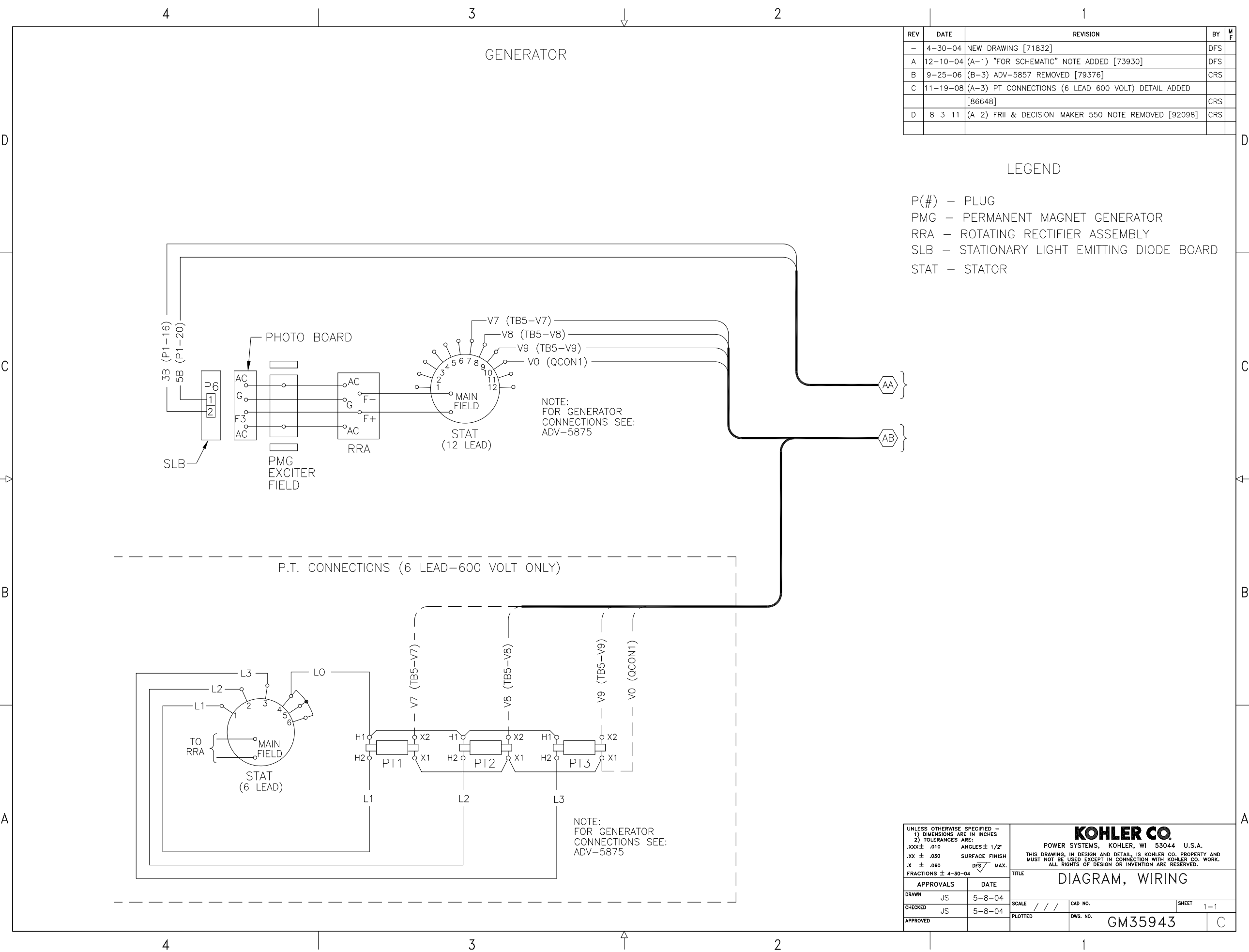
BREAKER CONTROL BATTERIES
(IF 12V GENERATOR, ADD LOOSE KIT.
IF 24V GENERATOR, USE GENERATOR
BATTERIES.)

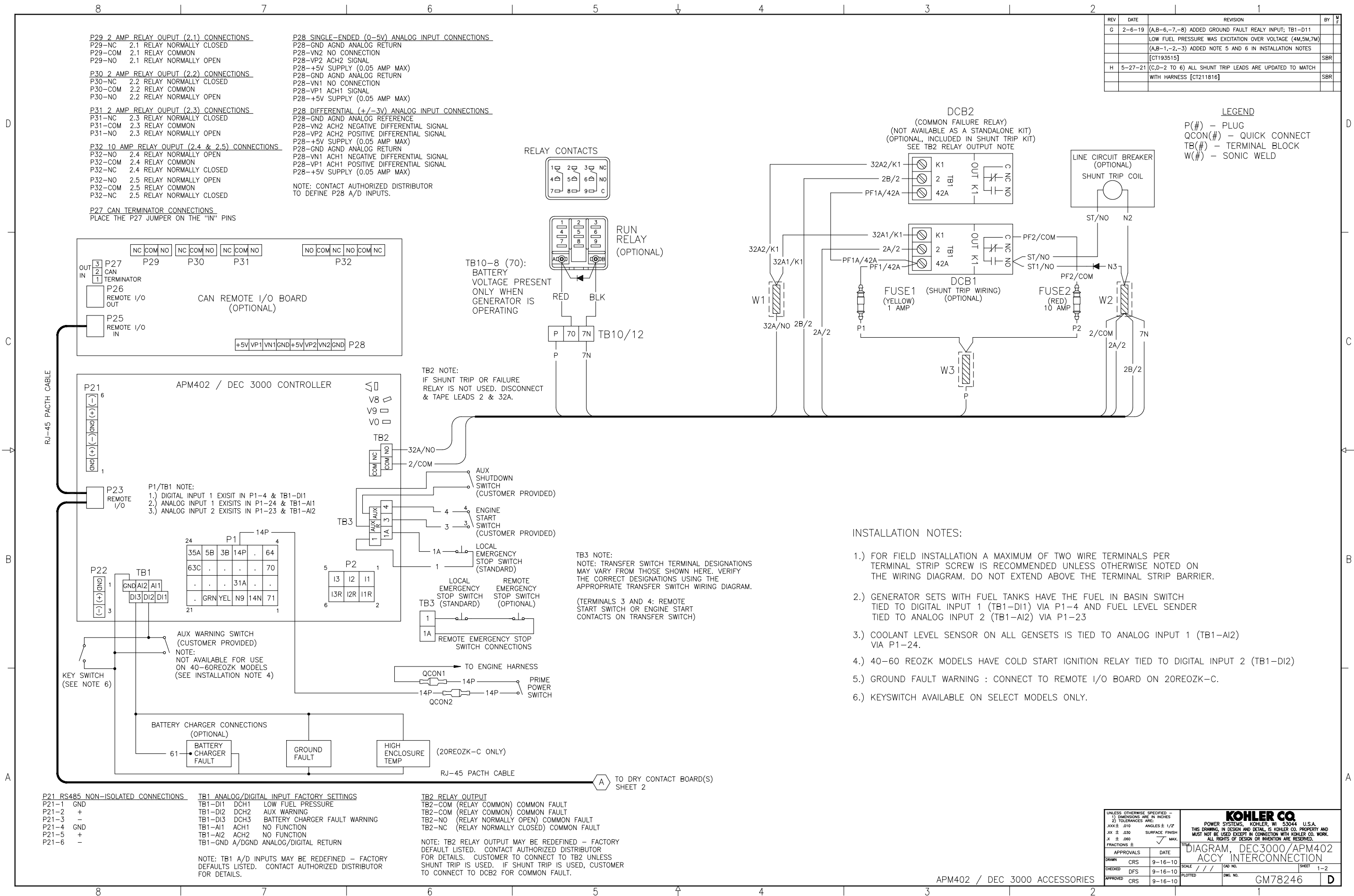
ELECTRICALLY OPERATED BREAKER OPTION
LOCAL GENERATOR MOUNTED BREAKER
APM603 CONTROLLER
KG100/125 6.2L
W/ SPLIT ACTIVATOR, 1Ø, 3Ø & 600V

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX.X ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
TITLES		TITLE	
APPROVALS		DATE	
DRAWN SBR		8-12-20	
CHECKED DJY		8-12-20	
APPROVED JLS		8-12-20	
SCALE N/A		SHEET 8-9	
PLOTTED		DWG. NO. ADV-9212	
		D	







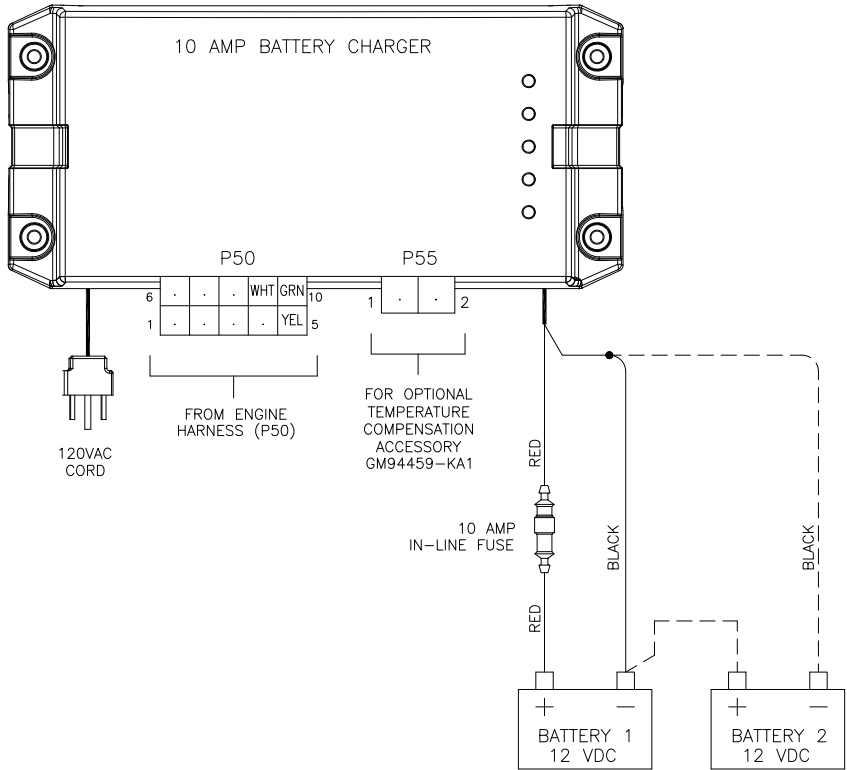


SINGLE BATTERY BANK CONECTIONS

REV	DATE	REVISION	BY	W	F
-	10-20-14	NEW DRAWING [CT96697]	DFS		
A	8-20-15	(A-6, B-2 & -5) P50A-9, P50B-9 & P50C-9: WHITE (W3)			
		WAS N/C; (A-5) W3 ADDED & SEE SHEET 2 [CT120205]	DFS		
B	3-24-17	(B-6,C-2-4) UPDATED P50A, P50B & P50C PINS #2 & 7			
		ADDED: (A-5) 2 ADDITIONAL WELDS ADDED; (C-7,-4-2) P50			
		WAS P1, P55 WAS P2 (3 PLACES); [CT172520]	BTW		

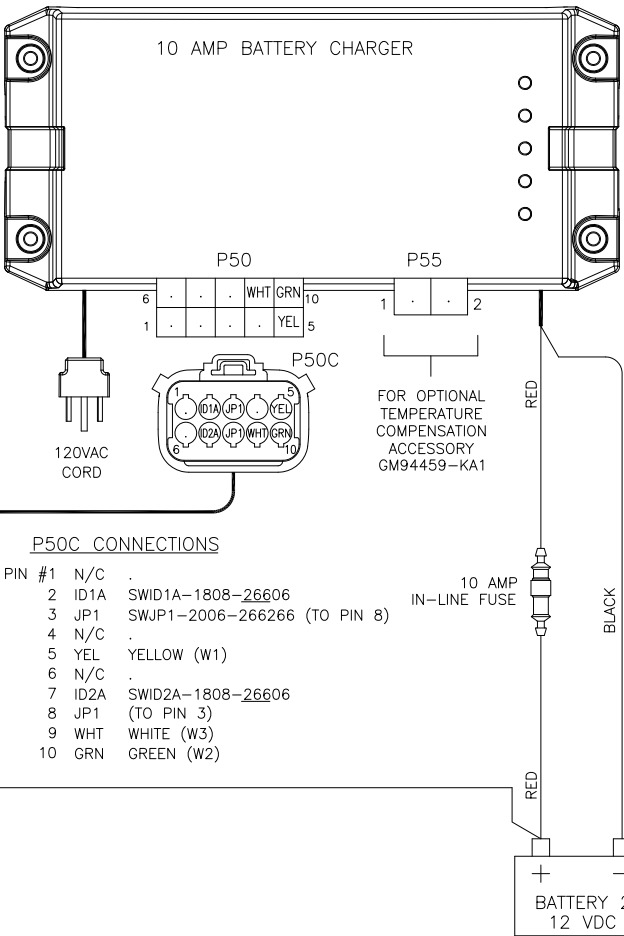
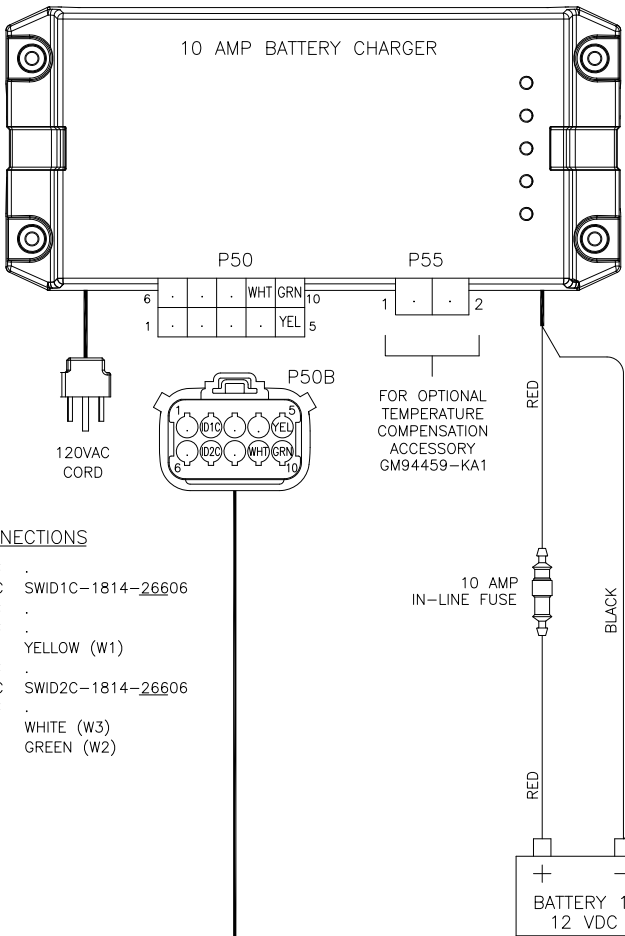
(1 CHARGER – 1 OR 2 BATTERIES) [12V OR 24V SYSTEM]

(2 CHARGERS – WITH 1 CHARGER FOR EACH 12V BATTERY) [24V SYSTEM]



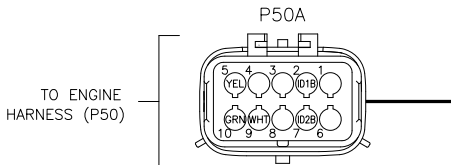
P50B CONNECTIONS

PIN #	1	N/C	.
2	ID1C	SWID1C-1814-26606	.
3	N/C	.	.
4	N/C	.	.
5	YEL	YELLOW (W1)	.
6	N/C	.	.
7	ID2C	SWID2C-1814-26606	.
8	N/C	.	.
9	WHT	WHITE (W3)	.
10	GRN	GREEN (W2)	.



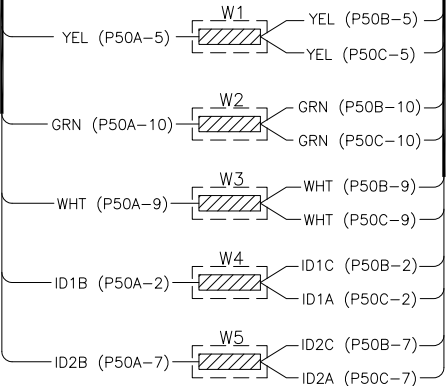
P50C CONNECTIONS

PIN #	1	N/C	.
2	ID1A	SWID1A-1808-26606	.
3	JP1	SWJP1-2006-266266 (TO PIN 8)	.
4	N/C	.	.
5	YEL	YELLOW (W1)	.
6	N/C	.	.
7	ID2A	SWID2A-1808-26606	.
8	JP1	(TO PIN 3)	.
9	WHT	WHITE (W3)	.
10	GRN	GREEN (W2)	.



P50A CONNECTIONS

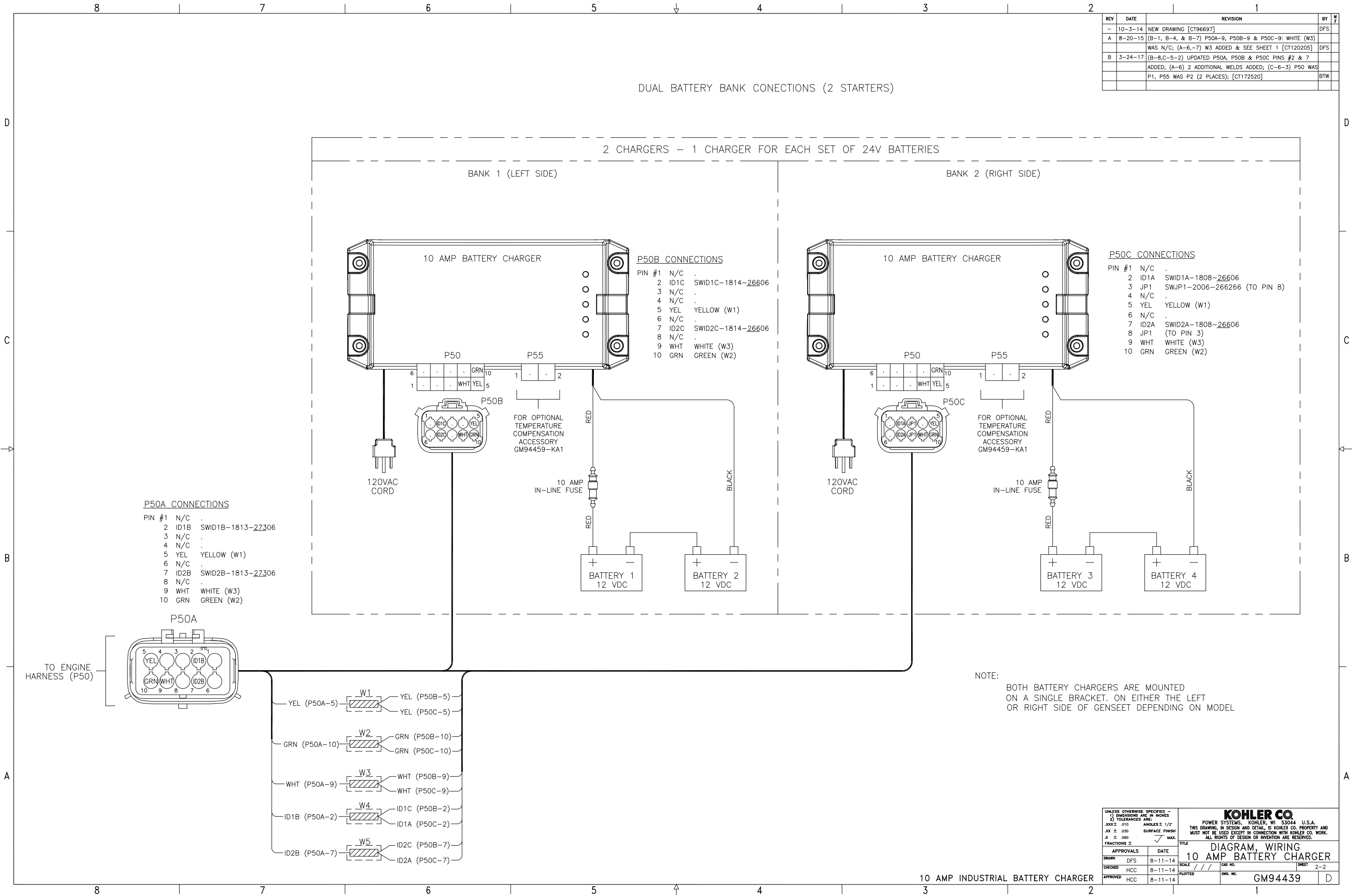
PIN #	1	N/C	.
2	ID1B	SWID1B-1813-27306	.
3	N/C	.	.
4	N/C	.	.
5	YEL	YELLOW (W1)	.
6	N/C	.	.
7	ID2B	SWID1B-1813-27306	.
8	N/C	.	.
9	WHT	WHITE (W3)	.
10	GRN	GREEN (W2)	.



NOTE:
FOR SCHEMATIC DIAGRAM SEE ADV-8749

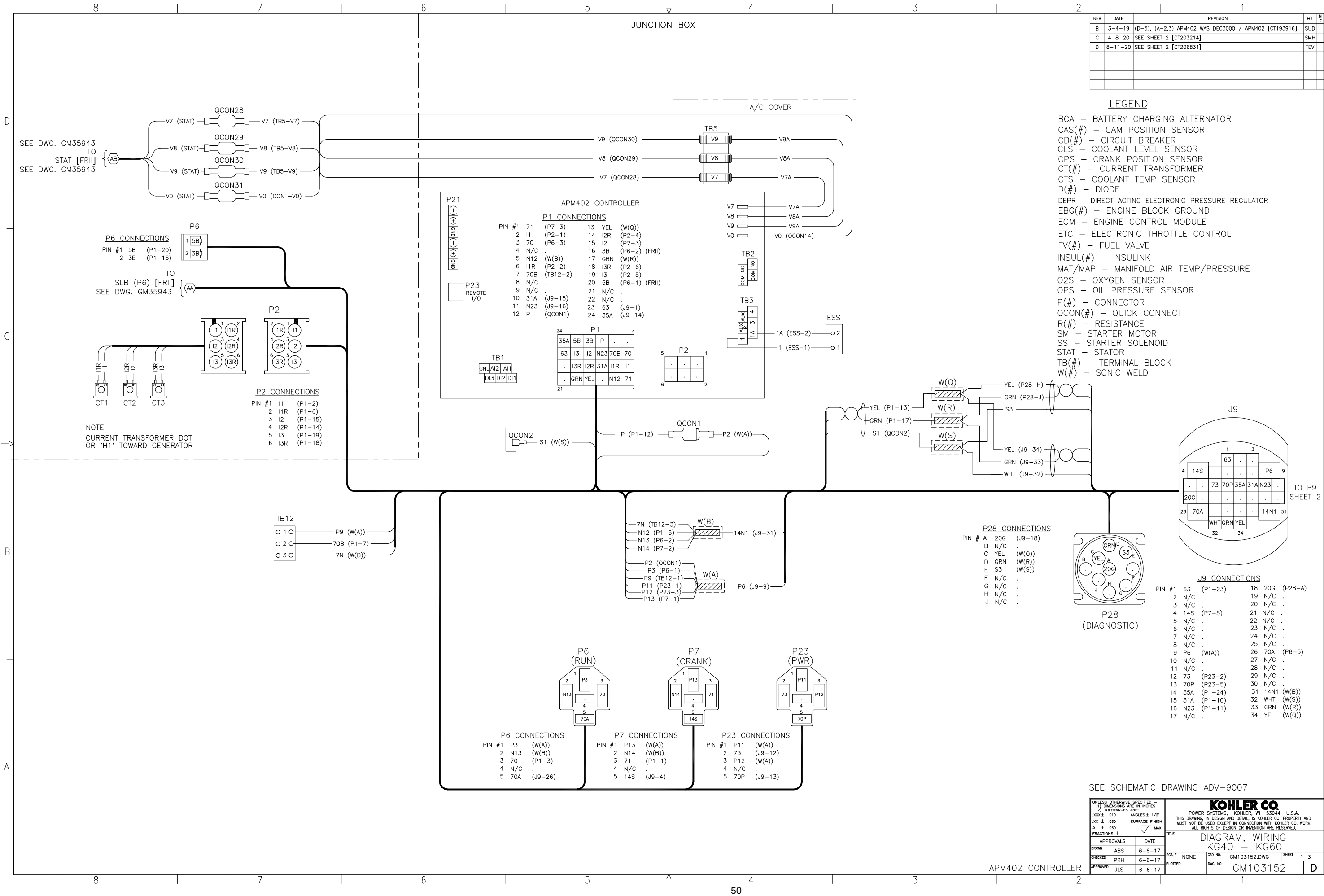
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .020 SURFACE FINISH X ± .060 FRACTIONS ± MAX.		KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN	DFS	8-11-14	
CHECKED	HCC	8-11-14	
APPROVED	HCC	8-11-14	
TITLE		DIAGRAM, WIRING 10 AMP BATTERY CHARGER	
SCALE		///	
SHEET		1-2	
DWG. NO.		GM94439	

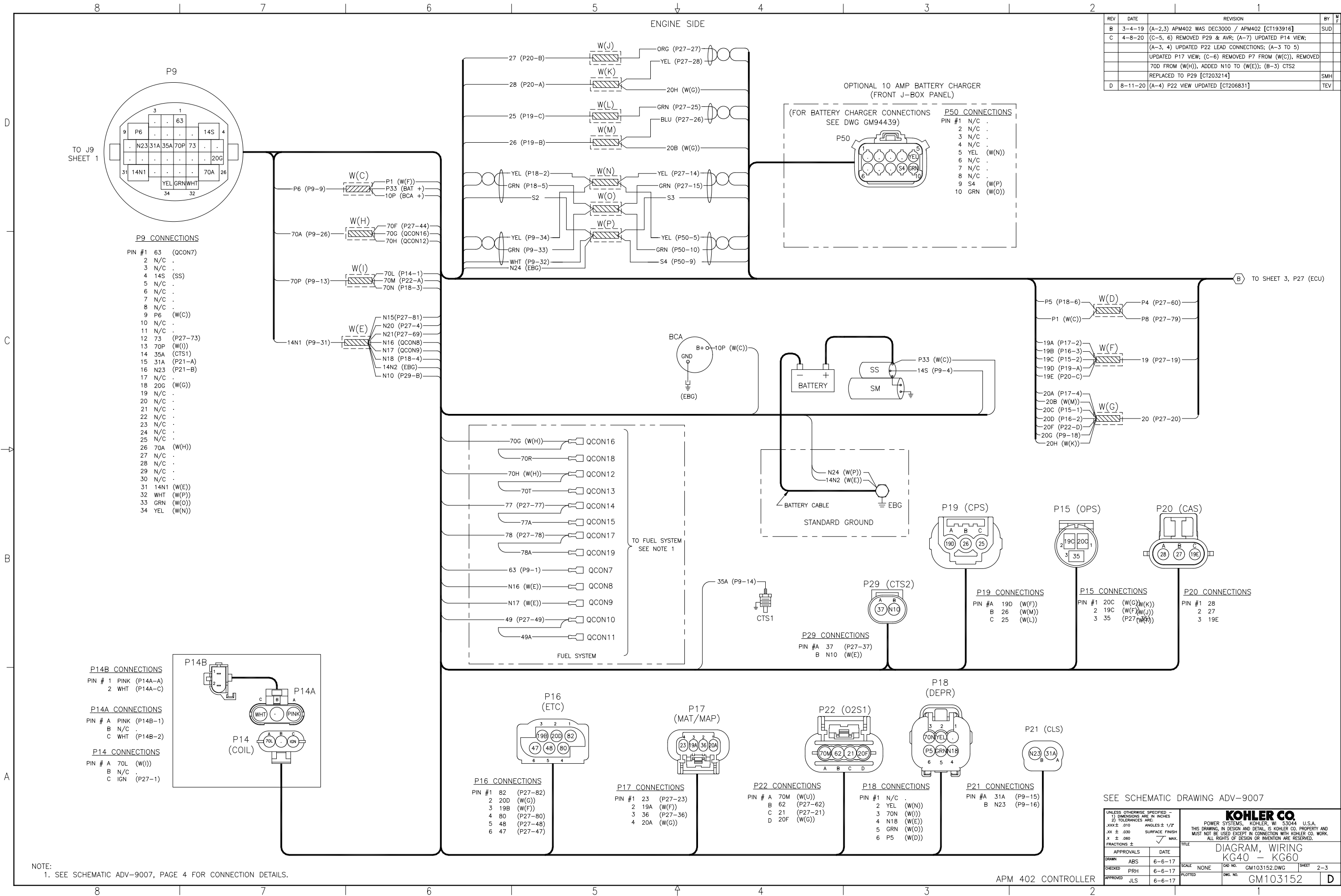
10 AMP INDUSTRIAL BATTERY CHARGER



REV	DATE	REVISION	BY	W	F
-	10-3-14	NEW DRAWING [CT96697]	DFS		
A	8-20-15	(B-1, B-4, & B-7) P50A-9, P50B-9 & P50C-9: WHITE (W3)			
		WAS N/C; (A-6,-7) W3 ADDED & SEE SHEET 1 [CT120205]	DFS		
B	3-24-17	(B-8,C-5-2) UPDATED P50A, P50B & P50C PINS #2 & 7			
		ADDED; (A-6) 2 ADDITIONAL WELDS ADDED; (C-6-3) P50 WAS			
		P1, P55 WAS P2 (2 PLACES); [CT172520]	BTW		

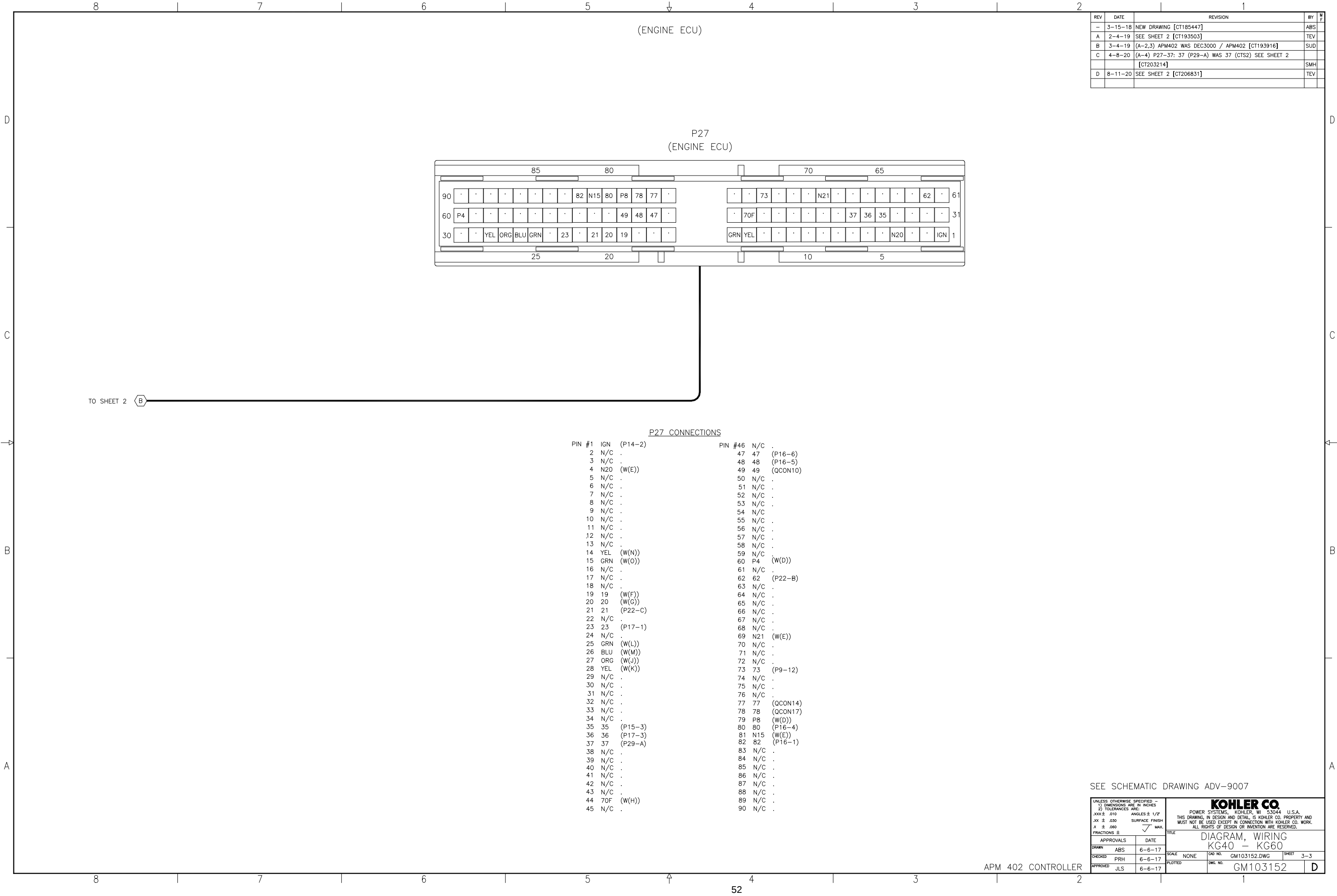
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: .XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 FRACTIONS ± MAX.		KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS	DATE	TITLE 10 AMP BATTERY CHARGER	
DRAWN DFS	8-11-14	SCALE	SHEET 2-2
CHECKED HCC	8-11-14	PLOTTED	
APPROVED HCC	8-11-14	DWG. NO. GM94439	

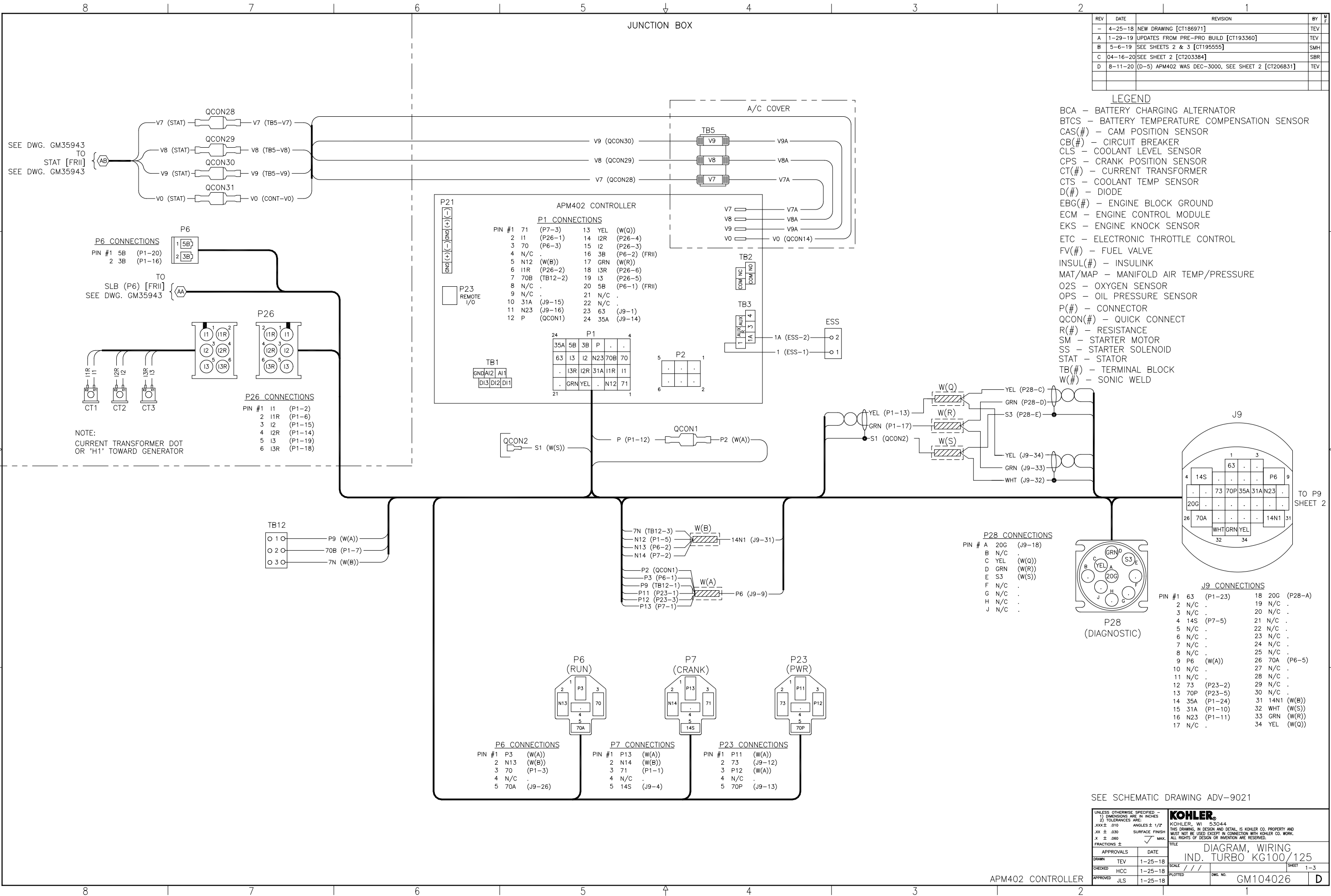




REV	DATE	REVISION	BY	U
B	3-4-19	(A-2,3) APM402 WAS DEC3000 / APM402 [CT193916]	SUD	
C	4-8-20	(C-5, 6) REMOVED P29 & AVR; (A-7) UPDATED P14 VIEW; (A-3, 4) UPDATED P22 LEAD CONNECTIONS; (A-3 TO 5) UPDATED P17 VIEW; (C-6) REMOVED P7 FROM (W(C)), REMOVED 70D FROM (W(H)), ADDED N10 TO (W(E)); (B-3) CTS2 REPLACED TO P29 [CT203214]	SMH	
D	8-11-20	(A-4) P22 VIEW UPDATED [CT206831]	TEV	

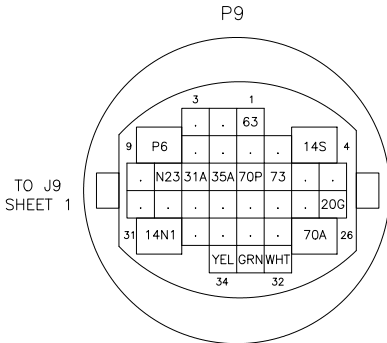
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX.X ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±				KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.			
APPROVALS		DATE		TITLE DIAGRAM, WIRING KG40 - KG60			
DRAWN ABS		6-6-17		SCALE NONE		SHEET 2-3	
CHECKED PRH		6-6-17		DWG. NO. GM103152.DWG		PLOTTED	
APPROVED JLS		6-6-17		D			





ENGINE SIDE

REV	DATE	REVISION	BY	U
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	5-6-19	(A-3,-4) P32 (O2) POST CAT IS REMOVED; SEE SHEET 3		
		[CT195555]	SMH	
C	04-16-20	(A,B-3 TO 5) CHANGED CTS2, P17, P22 AND P37 CONNECTORS; UPDATED P22 CONNECTIONS [CT203384]	SBR	
D	8-11-20	(A-4) P22 VIEW UPDATED, SEE SHEET 1 [CT206831]	TEV	



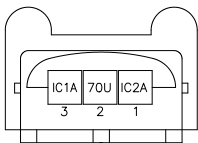
P9 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	63	(QCON7)
2	N/C	
3	N/C	
4	14S	(SS)
5	N/C	
6	N/C	
7	N/C	
8	N/C	
9	P6	(W(C))
10	N/C	
11	N/C	
12	73	(P27-73)
13	70P	(W(I))
14	35A	(CTS1)
15	31A	(P21-A)
16	N23	(P21-B)
17	N/C	
18	20G	(W(G))
19	N/C	
20	N/C	
21	N/C	
22	N/C	
23	N/C	
24	N/C	
25	N/C	
26	70A	(W(H))
27	N/C	
28	N/C	
29	N/C	
30	N/C	
31	14N1	(W(E))
32	WHT	(W(P))
33	GRN	(W(O))
34	YEL	(W(N))

P14 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	IC2A	(P27-3)
2	70U	(W(I))
3	IC1A	(P27-1)

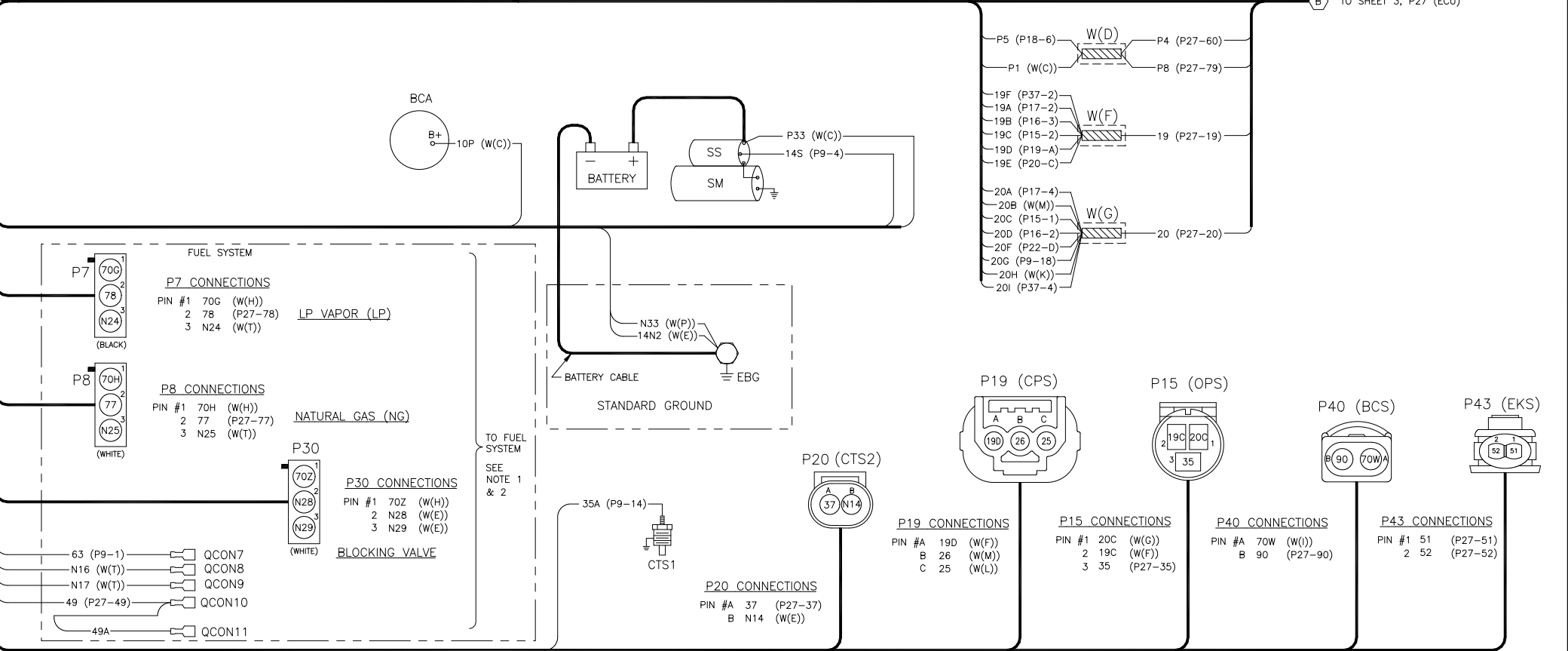
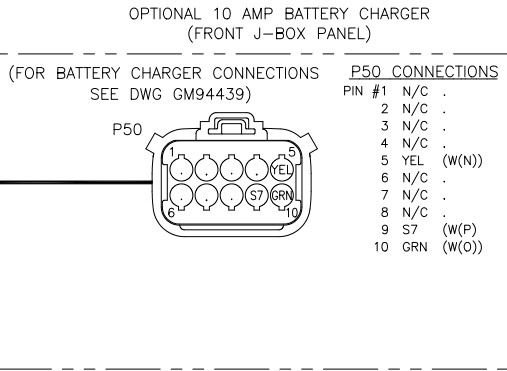
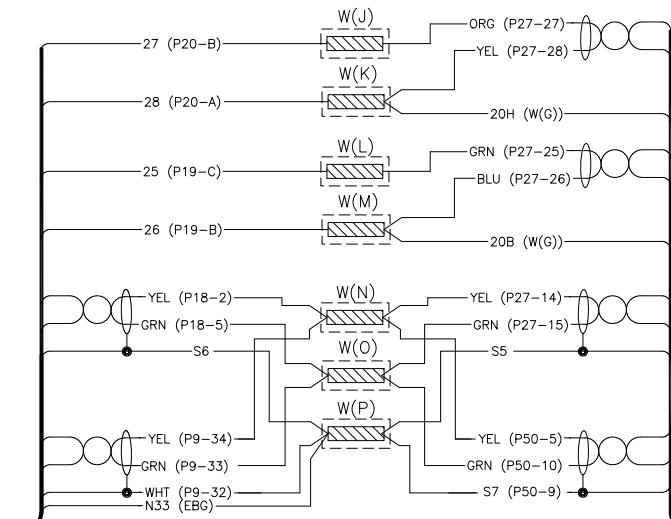
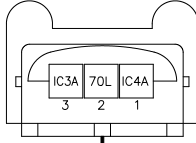
P14 (IC1)



P24 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	IC4A	(P27-10)
2	70L	(W(I))
3	IC3A	(P27-6)

P24 (IC2)



P16 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	82	(P27-82)
2	20D	(W(G))
3	19B	(W(F))
4	80	(P27-80)
5	48	(P27-48)
6	47	(P27-47)

P17 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	23	(P27-23)
2	19A	(W(F))
3	36	(P27-36)
4	20A	(W(G))

P37 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	46	(P27-46)
2	19F	(W(F))
3	N/C	
4	20I	(W(G))

P22 CONNECTIONS

PIN #	CODE	DESCRIPTION
A	70M	(W(I))
B	62	(P27-62)
C	21	(P27-21)
D	20F	(W(G))

P18 CONNECTIONS

PIN #	CODE	DESCRIPTION
1	N/C	
2	YEL	(W(N))
3	70N	(W(I))
4	N18	(W(E))
5	GRN	(W(O))
6	P5	(W(D))

P21 CONNECTIONS

PIN #	CODE	DESCRIPTION
A	31A	(P9-15)
B	N23	(P9-16)

NOTE:
1. SEE SCHEMATIC ADV-9021, PAGE 4 FOR CONNECTION DETAILS. 2. FOR DUAL FUEL WIRING SEE PAGE 3.

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX.X ± .010 ANGLES ± 1/2° X ± .060 SURFACE FINISH MAX. FRACTIONS ±		APPROVALS DATE DRAWN TEV 1-25-18 CHECKED HCC 1-25-18 APPROVED JLS 1-25-18		TITLE DIAGRAM, WIRING 6.2L IND. TURBO KG100/125 SCALE 1-25-18 PLOTTED 1-25-18 SHEET 2-3		DWG. NO. GM104026 D	
--	--	--	--	--	--	---------------------------	--

REV	DATE	REVISION	BY	MF
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	5-6-19	(A,B-4,-5) P27-61 & 22: LEADS 22 & 61 ARE REMOVED;		
		(B,C,D-4 TO-8) DUAL FUEL WIRING IS ADDED; SEE SHEET 2		
		[CT195555]	SMH	
C	04-16-20	SEE SHEET 2 [CT203384]	SBR	
D	8-11-20	SEE SHEET 1 & 2 [CT206831]	TEV	

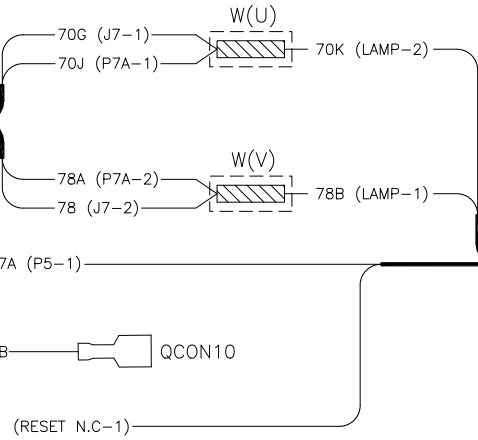
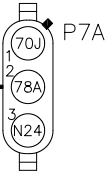
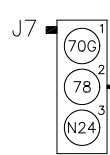
(OPTIONAL)

J7 CONNECTIONS

PIN #1	70G	(W(U))
2	78	(W(V))
3	N24	(P7A-3)

P7A CONNECTIONS

PIN #1	70J	(W(U))
2	78A	(W(V))
3	N24	(J7-3)

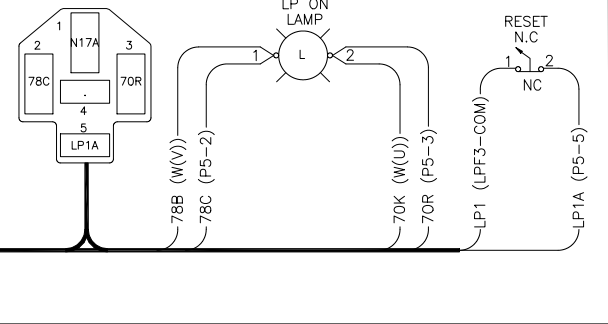


DUAL FUEL RESET BOX

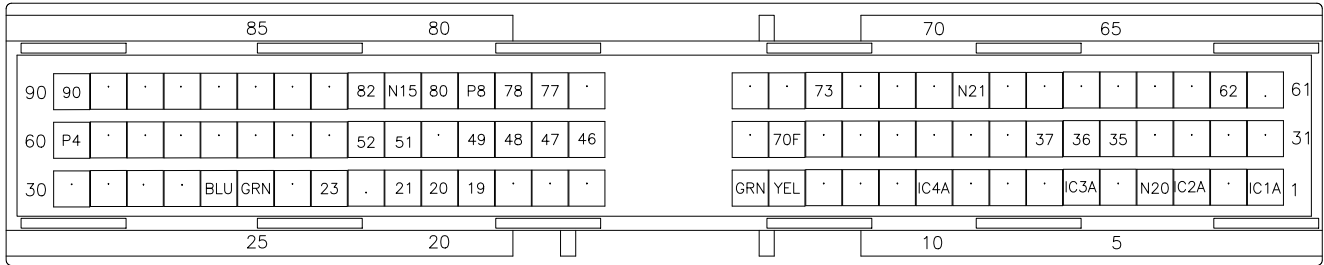
P5 CONNECTIONS

PIN #1	N17A	(LPF2-COM)
2	78C	(LAMP-1)
3	70R	(LAMP-2)
4	N/C	.
5	LP1A	(RESET N.C-2)

P5 (DUAL FUEL)



P27
(ENGINE ECU)



P27 CONNECTIONS

PIN #1	IC1A	(P14-3)	PIN #46	46	(P37-1)
2	N/C	.	47	47	(P16-6)
3	IC2A	(P14-1)	48	48	(P16-5)
4	N20	(W(E))	49	49	(QCON10)
5	N/C	.	50	N/C	.
6	IC3A	(P24-3)	51	51	(P43-1)
7	N/C	.	52	52	(P43-2)
8	N/C	.	53	N/C	.
9	N/C	.	54	N/C	.
10	IC4A	(P24-1)	55	N/C	.
11	N/C	.	56	N/C	.
12	N/C	.	57	N/C	.
13	N/C	.	58	N/C	.
14	YEL	(W(N))	59	N/C	.
15	GRN	(W(O))	60	P4	(W(D))
16	N/C	.	61	N/C	.
17	N/C	.	62	62	(P22-B)
18	N/C	.	63	N/C	.
19	19	(W(F))	64	N/C	.
20	20	(W(G))	65	N/C	.
21	21	(P22-C)	66	N/C	.
22	N/C	.	67	N/C	.
23	23	(P17-1)	68	N/C	.
24	N/C	.	69	N21	(W(E))
25	GRN	(W(L))	70	N/C	.
26	BLU	(W(M))	71	N/C	.
27	N/C	.	72	N/C	.
28	N/C	.	73	73	(P9-12)
29	N/C	.	74	N/C	.
30	N/C	.	75	N/C	.
31	N/C	.	76	N/C	.
32	N/C	.	77	77	(P8-2)
33	N/C	.	78	78	(P7-2)
34	N/C	.	79	P8	(W(D))
35	35	(P15-3)	80	80	(P16-4)
36	36	(P17-3)	81	N15	(W(E))
37	37	(P20-A)	82	82	(P16-1)
38	N/C	.	83	N/C	.
39	N/C	.	84	N/C	.
40	N/C	.	85	N/C	.
41	N/C	.	86	N/C	.
42	N/C	.	87	N/C	.
43	N/C	.	88	N/C	.
44	70F	(W(H))	89	N/C	.
45	N/C	.	90	90	(P40-B)

TO SHEET 2 **B**

SEE SCHEMATIC DRAWING ADV-9021

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° .XX ± .030 SURFACE FINISH .X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. TITLE DIAGRAM, WIRING 6.2L IND. TURBO KG100/25 SCALE DWG. NO. SHEET 3-3	
APPROVALS	DATE		
DRAWN	TEV	1-25-18	
CHECKED	HCC	1-25-18	
APPROVED	JLS	1-25-18	

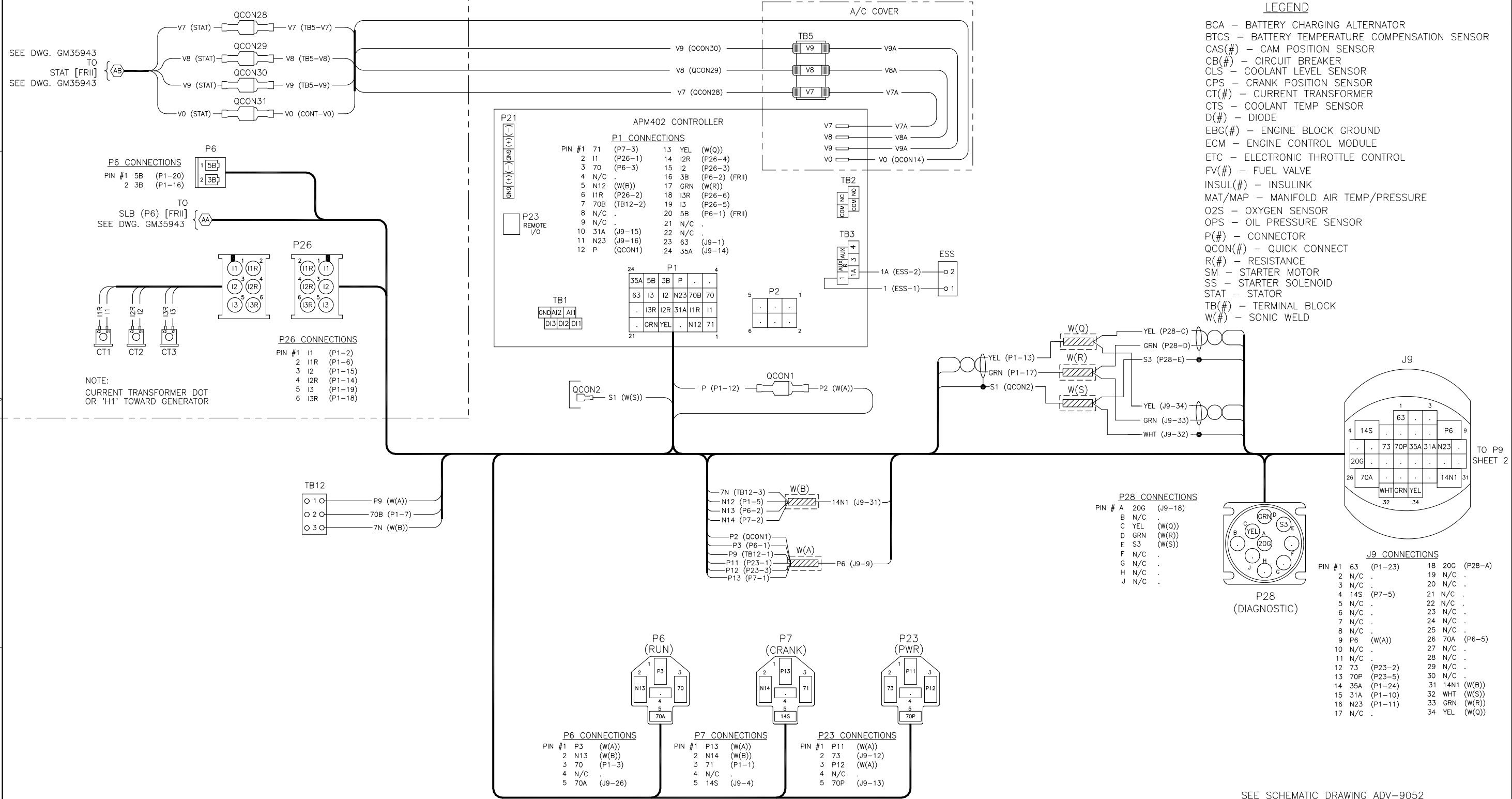
APM402 CONTROLLER

JUNCTION BOX

REV	DATE	REVISION	BY	U
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	4-12-19	SEE SHEET 3 [CT194868]	SBR	
C	04-16-20	SEE SHEET 2 [CT203384]	SBR	
D	8-11-20	SEE SHEET 2 [CT206831]	TEV	

LEGEND

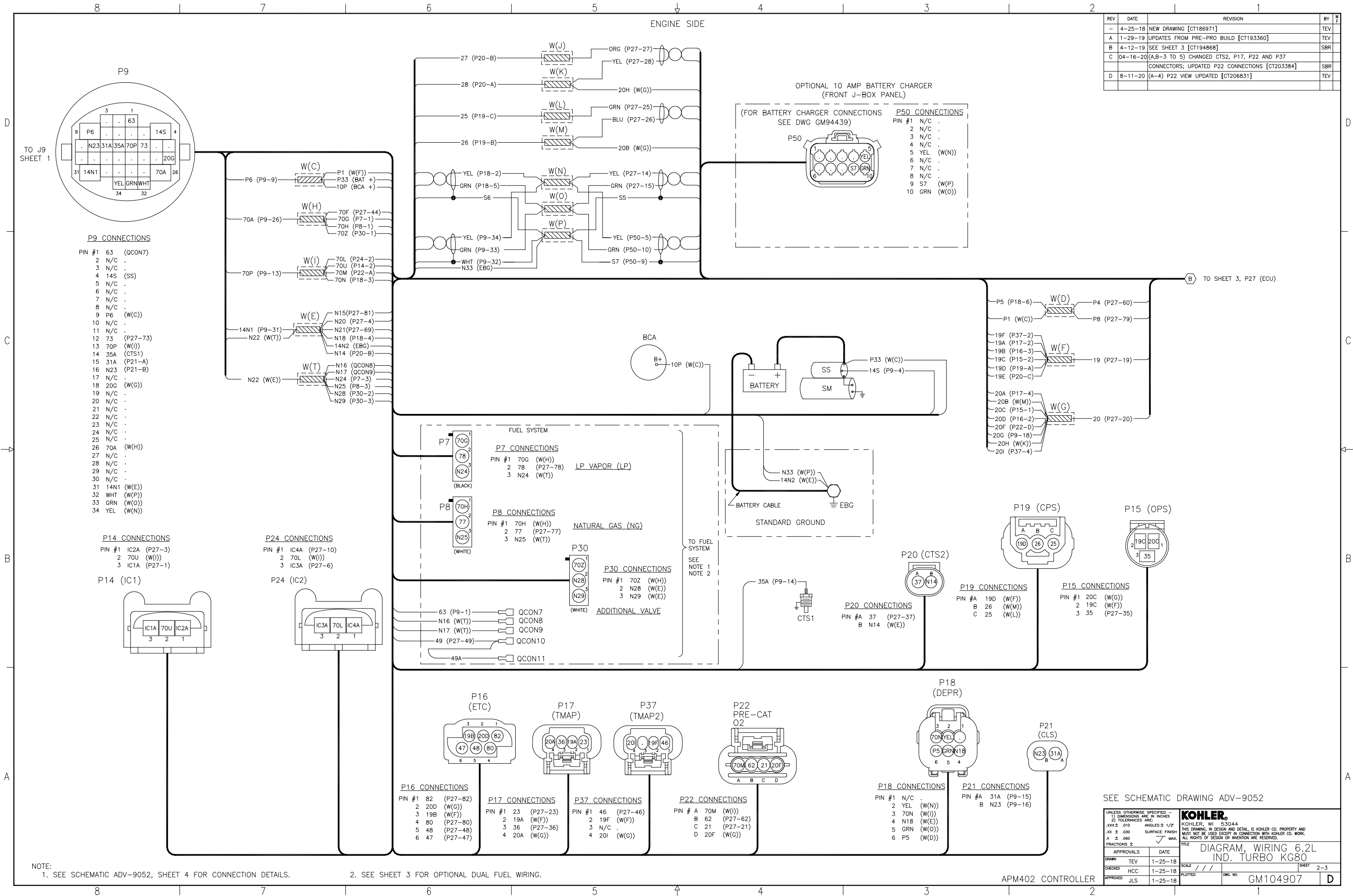
BCA - BATTERY CHARGING ALTERNATOR
BTCS - BATTERY TEMPERATURE COMPENSATION SENSOR
CAS(##) - CAM POSITION SENSOR
CB(##) - CIRCUIT BREAKER
CLS - COOLANT LEVEL SENSOR
CPS - CRANK POSITION SENSOR
CT(##) - CURRENT TRANSFORMER
CTS - COOLANT TEMP SENSOR
D(##) - DIODE
EBG(##) - ENGINE BLOCK GROUND
ECM - ENGINE CONTROL MODULE
ETC - ELECTRONIC THROTTLE CONTROL
FV(##) - FUEL VALVE
INSUL(##) - INSULINK
MAT/MAP - MANIFOLD AIR TEMP/PRESSURE
O2S - OXYGEN SENSOR
OPS - OIL PRESSURE SENSOR
P(##) - CONNECTOR
QCON(##) - QUICK CONNECT
R(##) - RESISTANCE
SM - STARTER MOTOR
SS - STARTER SOLENOID
STAT - STATOR
TB(##) - TERMINAL BLOCK
W(##) - SONIC WELD



SEE SCHEMATIC DRAWING ADV-9052

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS DRAWN TEV CHECKED HCC APPROVED JLS		DATE 1-25-18 1-25-18 1-25-18	
TITLE DIAGRAM, WIRING IND. TURBO KG80		SCALE 1-3	
DWG. NO. GM104907		SHEET 1-3	

APM402 CONTROLLER



REV	DATE	REVISION	BY
-	4-25-18	NEW DRAWING [CT186971]	TEV
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV
B	4-12-19	SEE SHEET 3 [CT194868]	SBR
C	04-16-20	(A,B-3 TO 5) CHANGED CTS2, P17, P22 AND P37 CONNECTORS; UPDATED P22 CONNECTIONS [CT203384]	SBR
D	8-11-20	(A-4) P22 VIEW UPDATED [CT206831]	TEV

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: .XX ± .010 ANGLES ± 1/2° .X ± .060 SURFACE FINISH MAX.		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN		1-25-18	
CHECKED		1-25-18	
APPROVED		1-25-18	
SCALE		SHEET 2-3	
TITLE		Dwg. No.	
IND. TURBO KG80		GM104907	

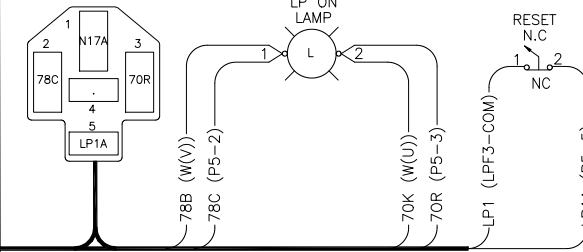
REV	DATE	REVISION	BY	UF
-	4-25-18	NEW DRAWING [CT186971]	TEV	
A	1-29-19	UPDATES FROM PRE-PRO BUILD [CT193360]	TEV	
B	4-12-19	(C,D-5 TO 8) DUAL FUEL WIRING ADDED [CT194868]	SBR	
C	04-16-20	SEE SHEET 2 [CT203384]	SBR	
D	8-11-20	SEE SHEET 2 [CT206831]	TEV	

J7 CONNECTIONS			P7A CONNECTIONS		
PIN #	70G	(W(U))	PIN #	70J	(W(U))
2	78	(W(V))	2	78A	(W(V))
3	N24	(P7A-3)	3	N24	(J7-3)

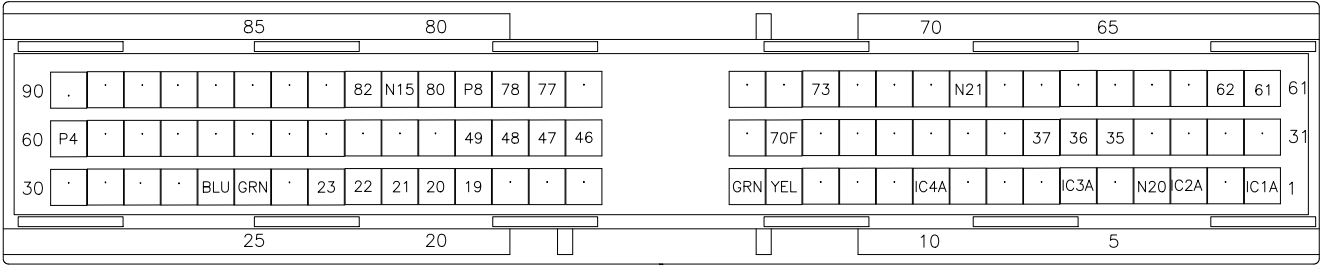
DUAL FUEL RESET BOX

P5 CONNECTIONS		
PIN #	N17A	(LPF2-COM)
2	78C	(LAMP-1)
3	70R	(LAMP-2)
4	N/C	.
5	LP1A	(RESET N.C-2)

P5 (DUAL FUEL)



P27
(ENGINE ECU)



P27 CONNECTIONS

PIN #	IC1A	(P14-1)	PIN #	46	(P37-1)
2	N/C	.	47	47	(P16-6)
3	IC2A	(P14-3)	48	48	(P16-5)
4	N20	(W(E))	49	49	(QCON10)
5	N/C	.	50	N/C	.
6	IC3A	(P24-1)	51	N/C	.
7	N/C	.	52	N/C	.
8	N/C	.	53	N/C	.
9	N/C	.	54	N/C	.
10	IC4A	(P24-3)	55	N/C	.
11	N/C	.	56	N/C	.
12	N/C	.	57	N/C	.
13	N/C	.	58	N/C	.
14	YEL	(W(N))	59	N/C	.
15	GRN	(W(O))	60	P4	(W(D))
16	N/C	.	61	N/C	.
17	N/C	.	62	62	(P22-B)
18	N/C	.	63	N/C	.
19	19	(W(F))	64	N/C	.
20	20	(W(G))	65	N/C	.
21	21	(P22-C)	66	N/C	.
22	N/C	.	67	N/C	.
23	23	(P17-1)	68	N/C	.
24	N/C	.	69	N21	(W(E))
25	GRN	(W(L))	70	N/C	.
26	BLU	(W(M))	71	N/C	.
27	N/C	.	72	N/C	.
28	N/C	.	73	73	(P9-12)
29	N/C	.	74	N/C	.
30	N/C	.	75	N/C	.
31	N/C	.	76	N/C	.
32	N/C	.	77	77	(P8-2)
33	N/C	.	78	78	(P7-2)
34	N/C	.	79	P8	(W(D))
35	35	(P15-3)	80	80	(P16-4)
36	36	(P17-3)	81	N15	(W(E))
37	37	(P20-A)	82	82	(P16-1)
38	N/C	.	83	N/C	.
39	N/C	.	84	N/C	.
40	N/C	.	85	N/C	.
41	N/C	.	86	N/C	.
42	N/C	.	87	N/C	.
43	N/C	.	88	N/C	.
44	70F	(W(H))	89	N/C	.
45	N/C	.	90	N/C	.

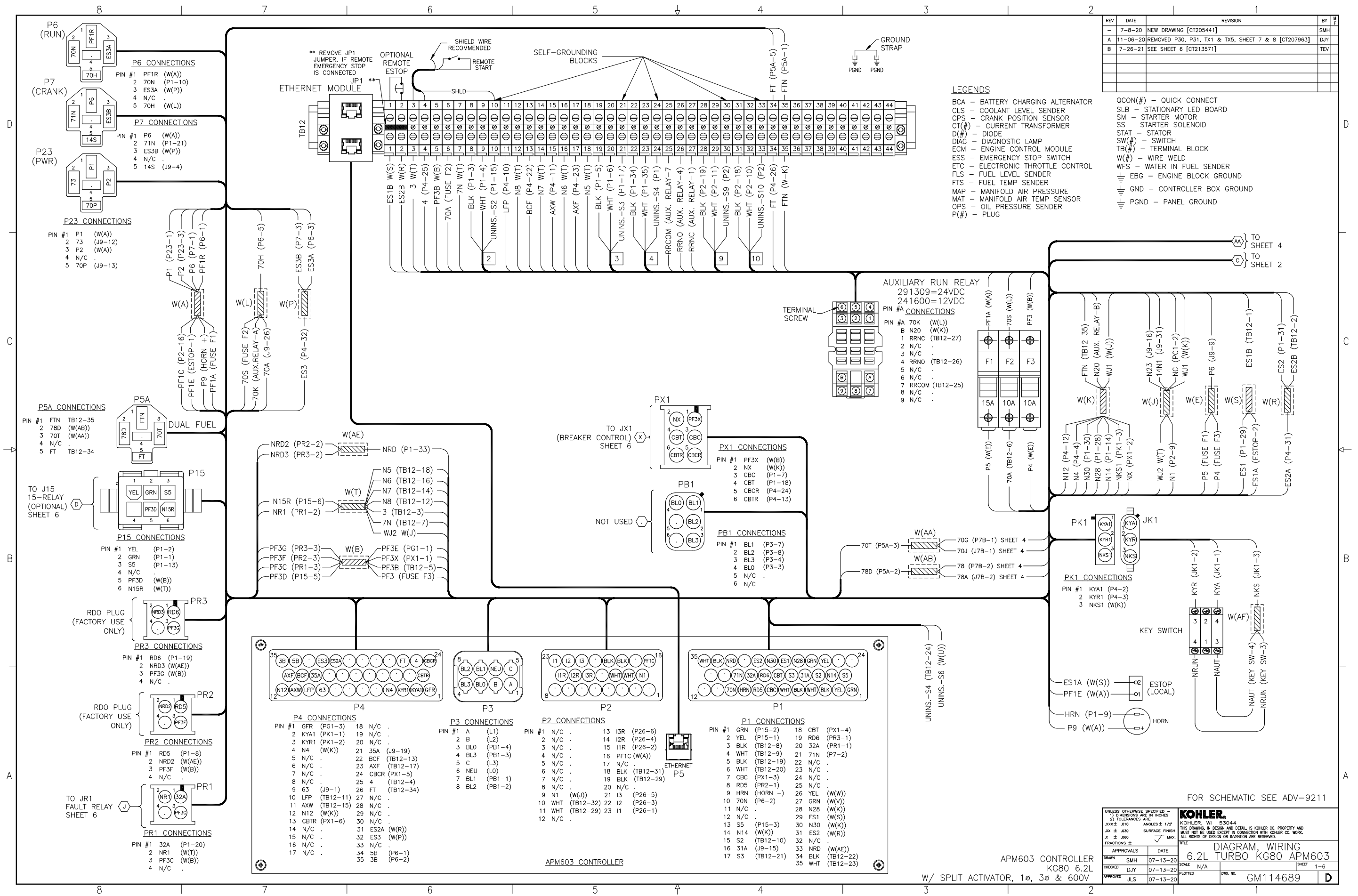
TO SHEET 2

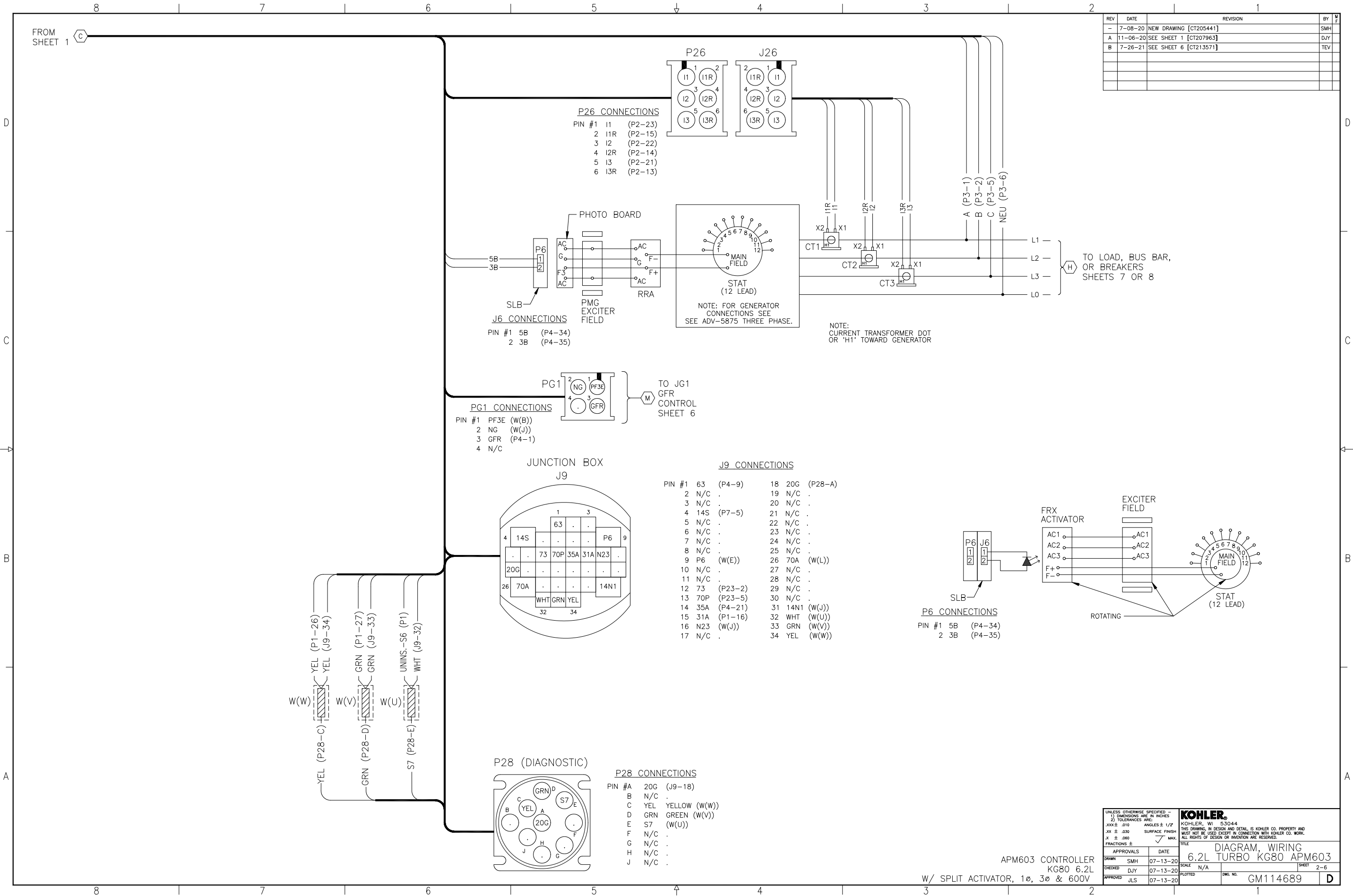
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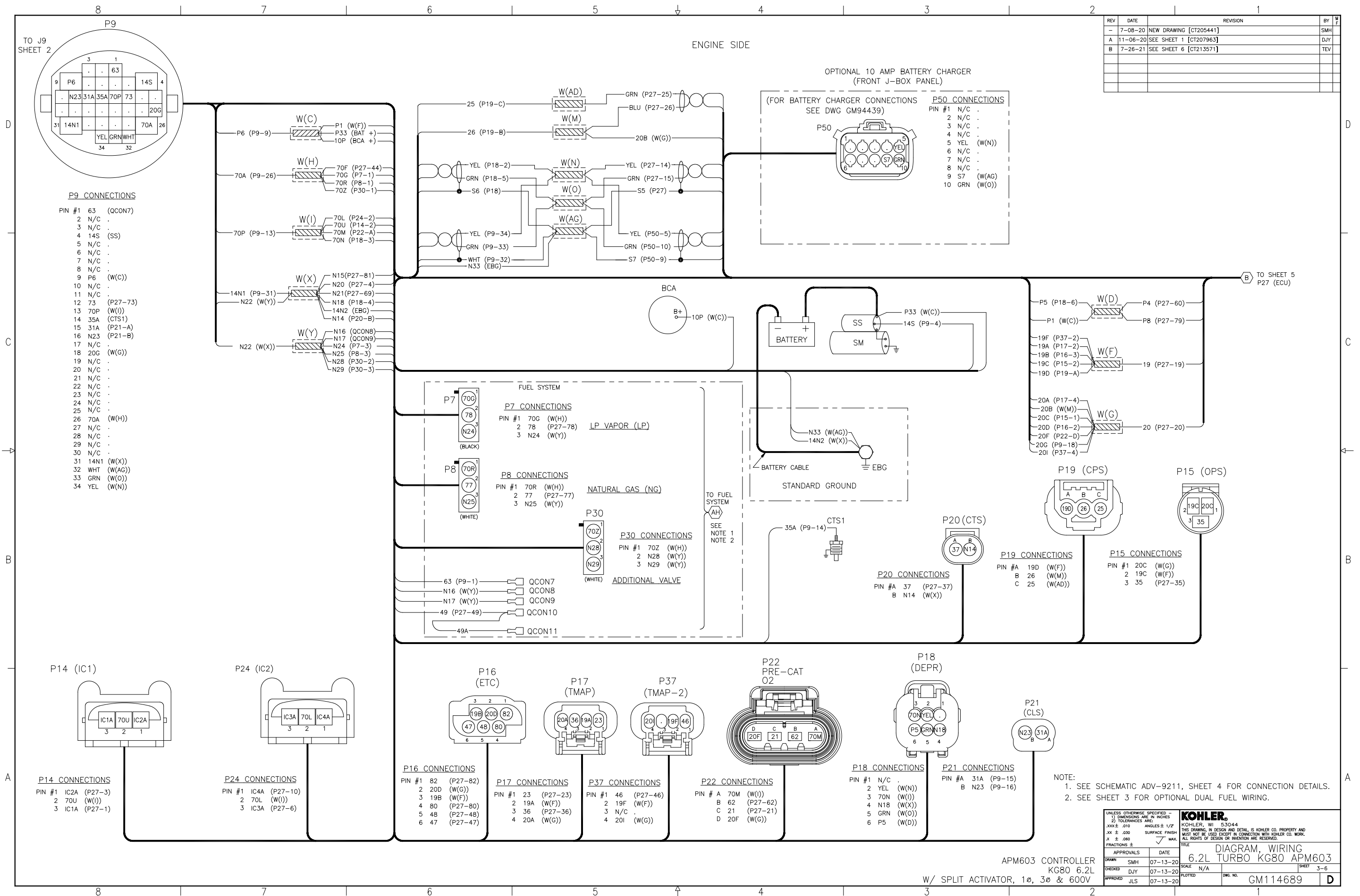
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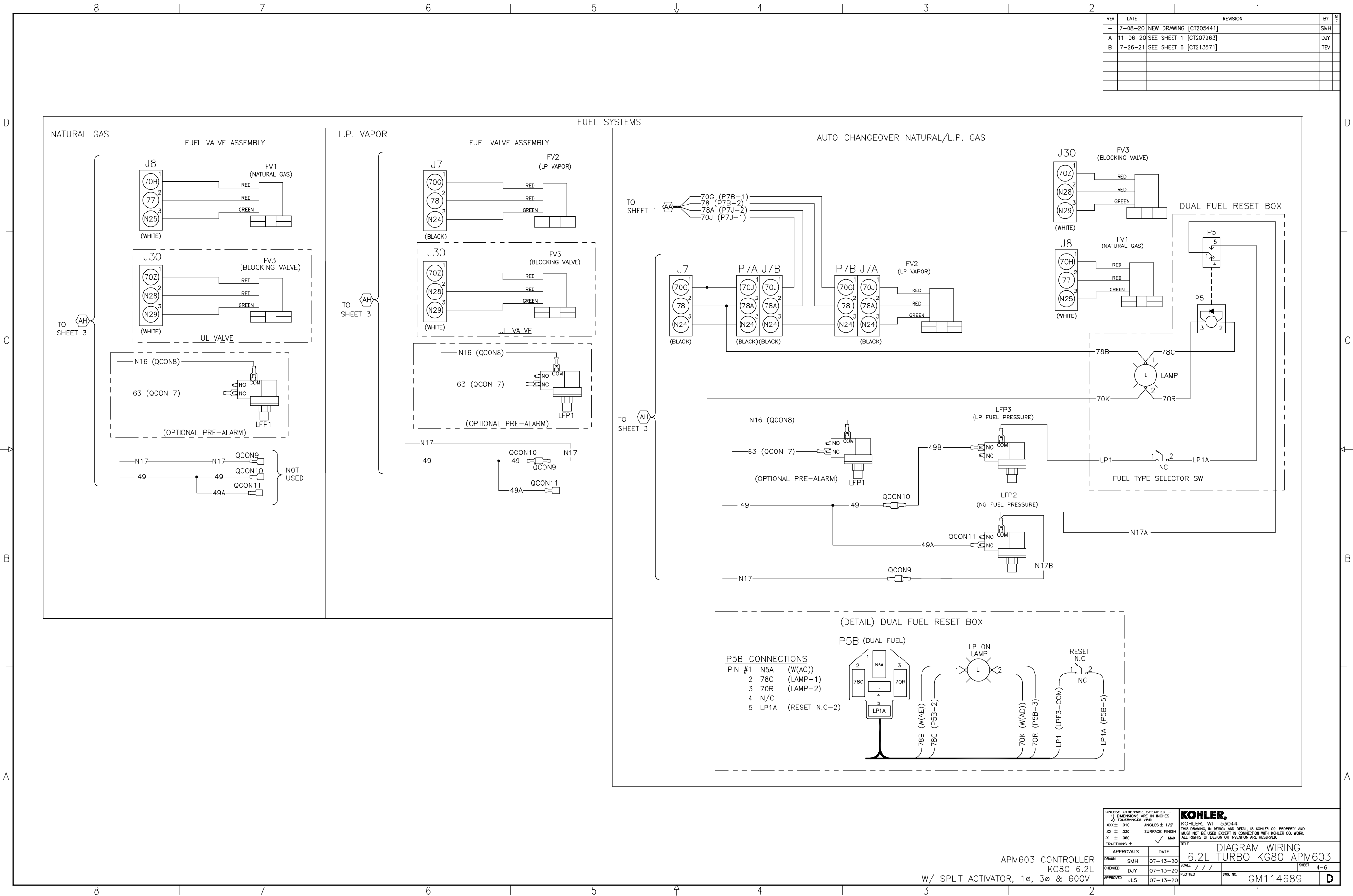
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN INCHES 2) TOLERANCES ARE: XXX ± .010 ANGLES ± 1/2° XX ± .030 SURFACE FINISH X ± .060 MAX. FRACTIONS ±		KOHLER. KOHLER, WI 53044 THIS DRAWING, IN DESIGN AND DETAIL, IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
APPROVALS		DATE	
DRAWN		TEV	
CHECKED		HCC	
APPROVED		JLS	
SCALE		1-25-18	
PLOTTED		1-25-18	
DWG. NO.		GM104907	
SHEET		3-3	

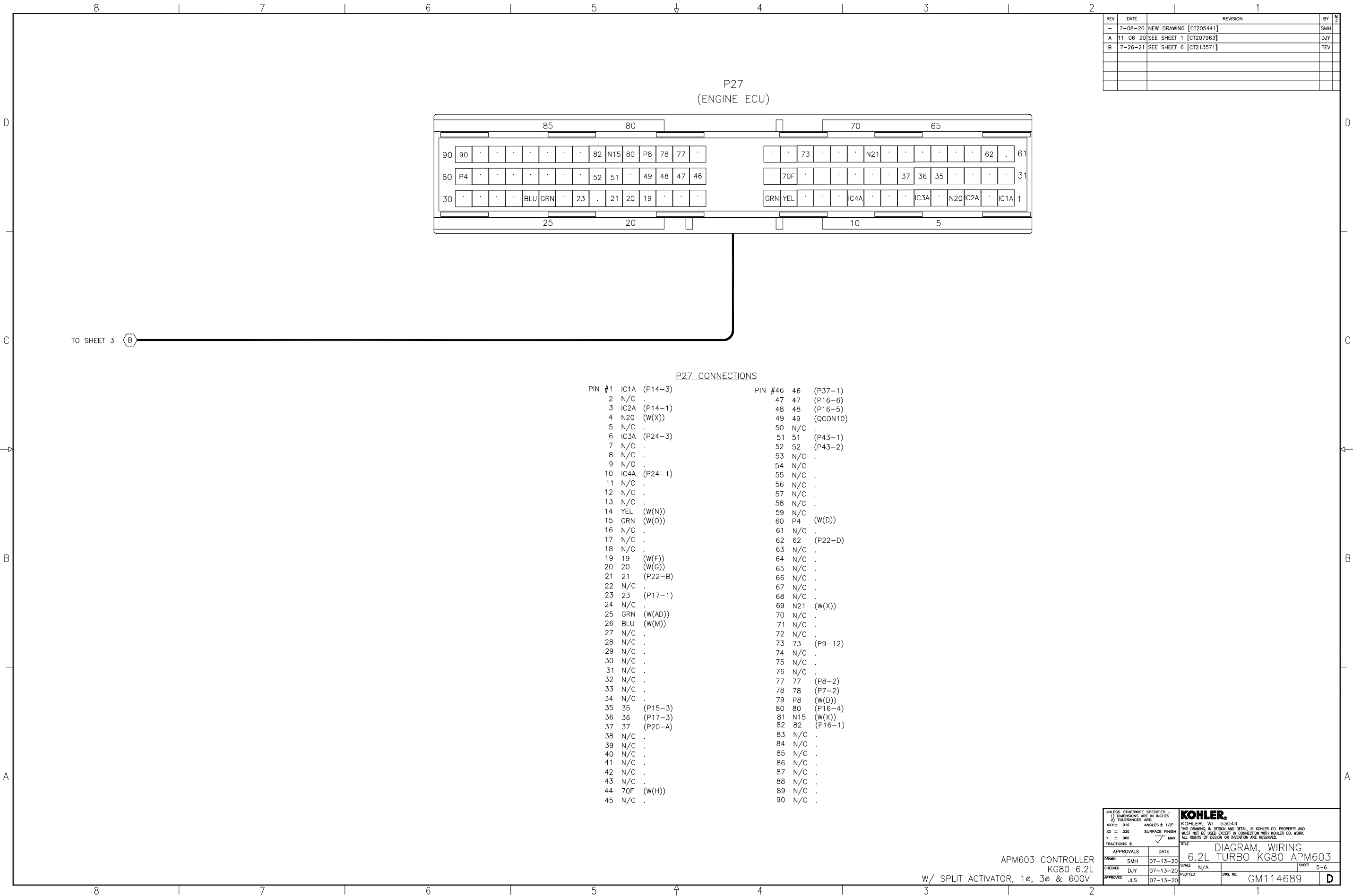
APM402 CONTROLLER



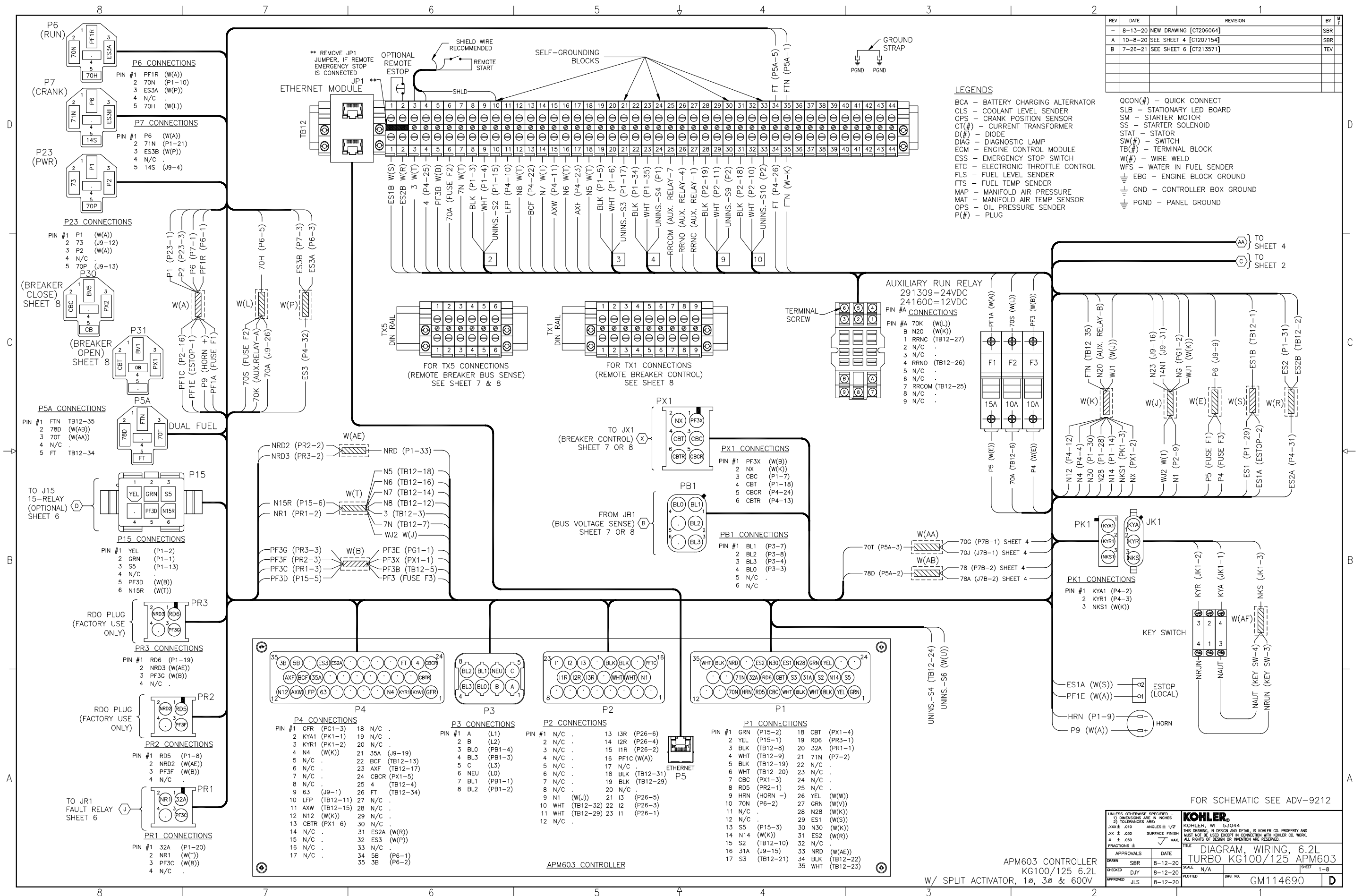


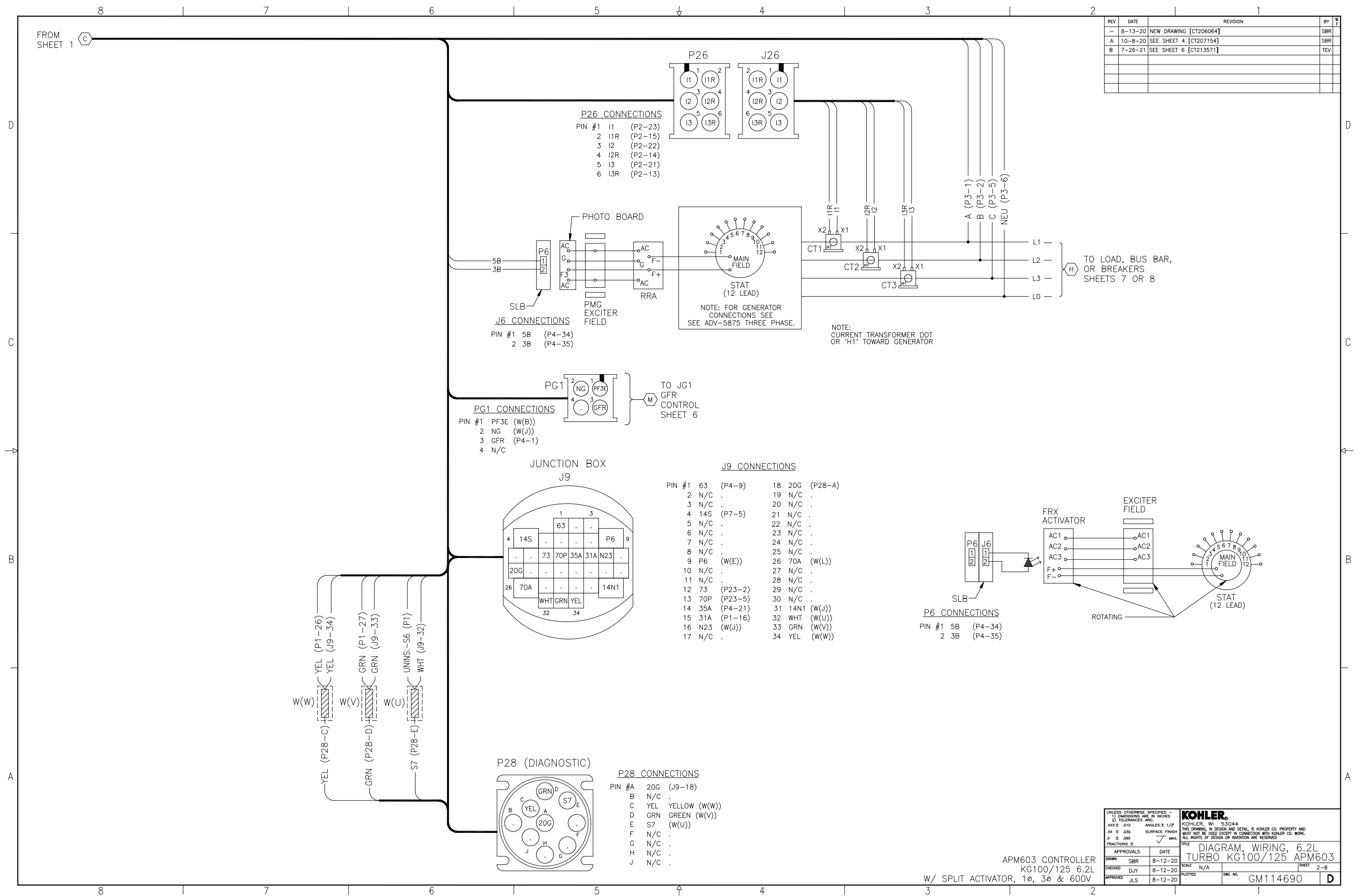


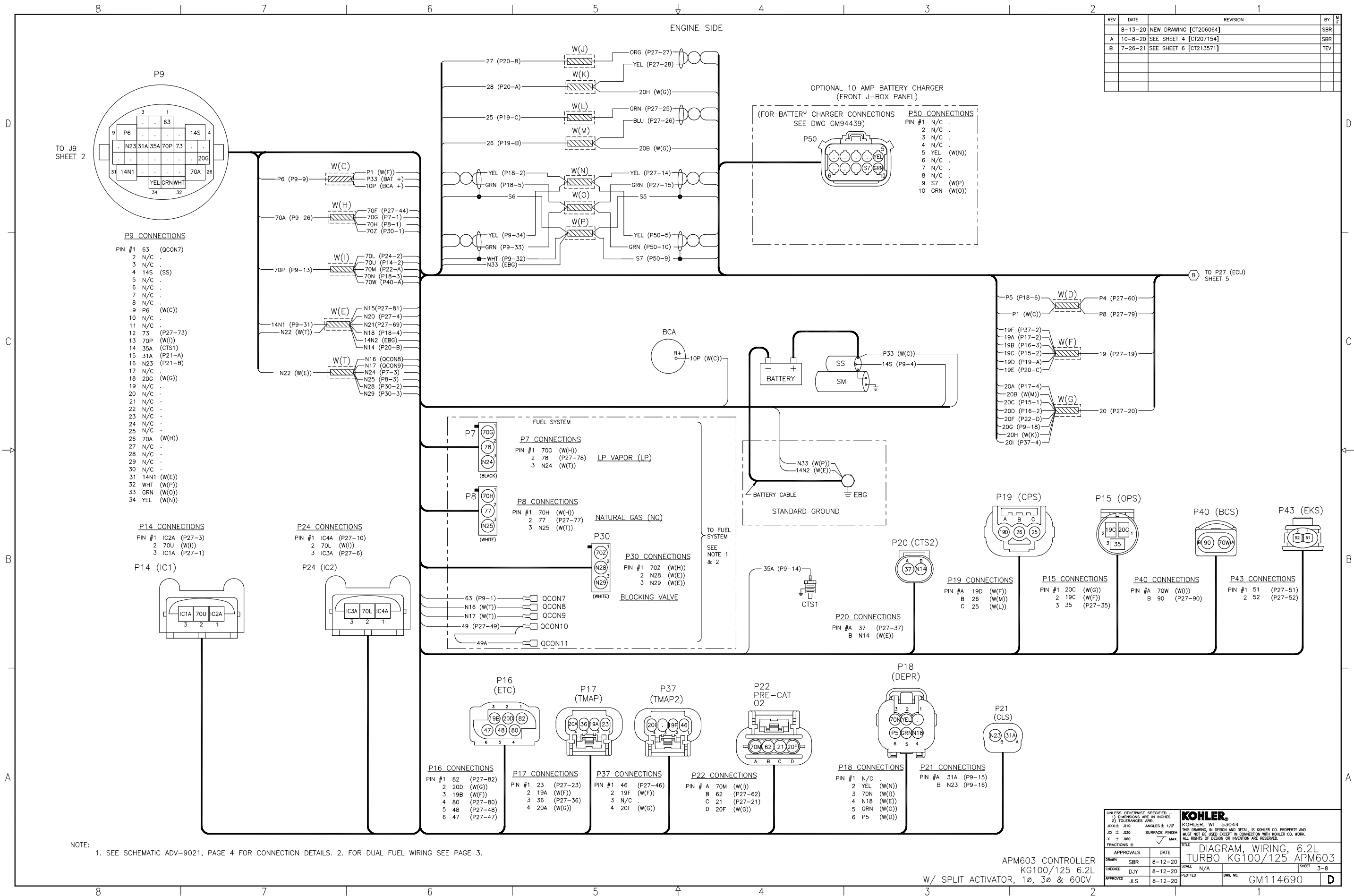


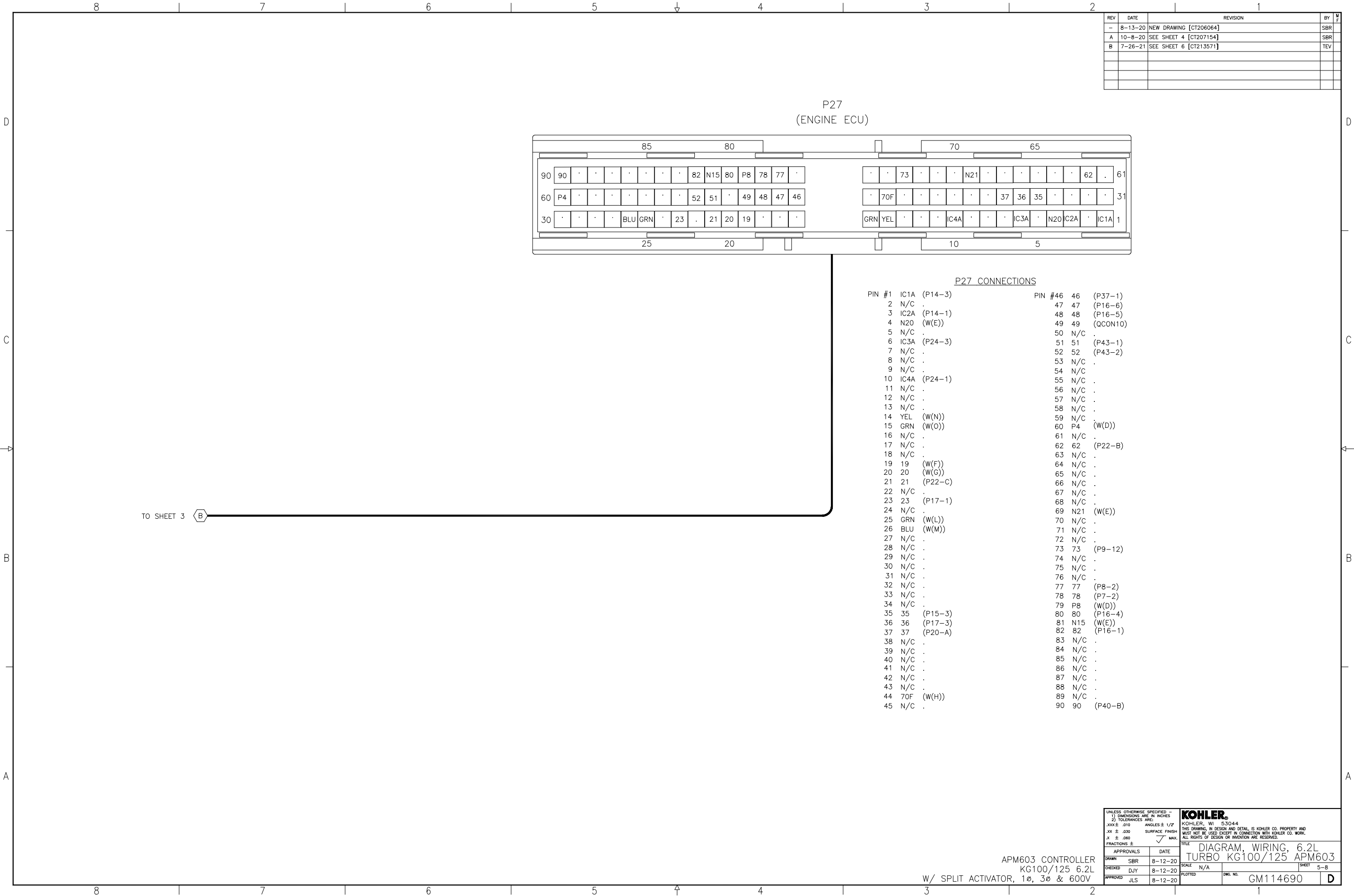


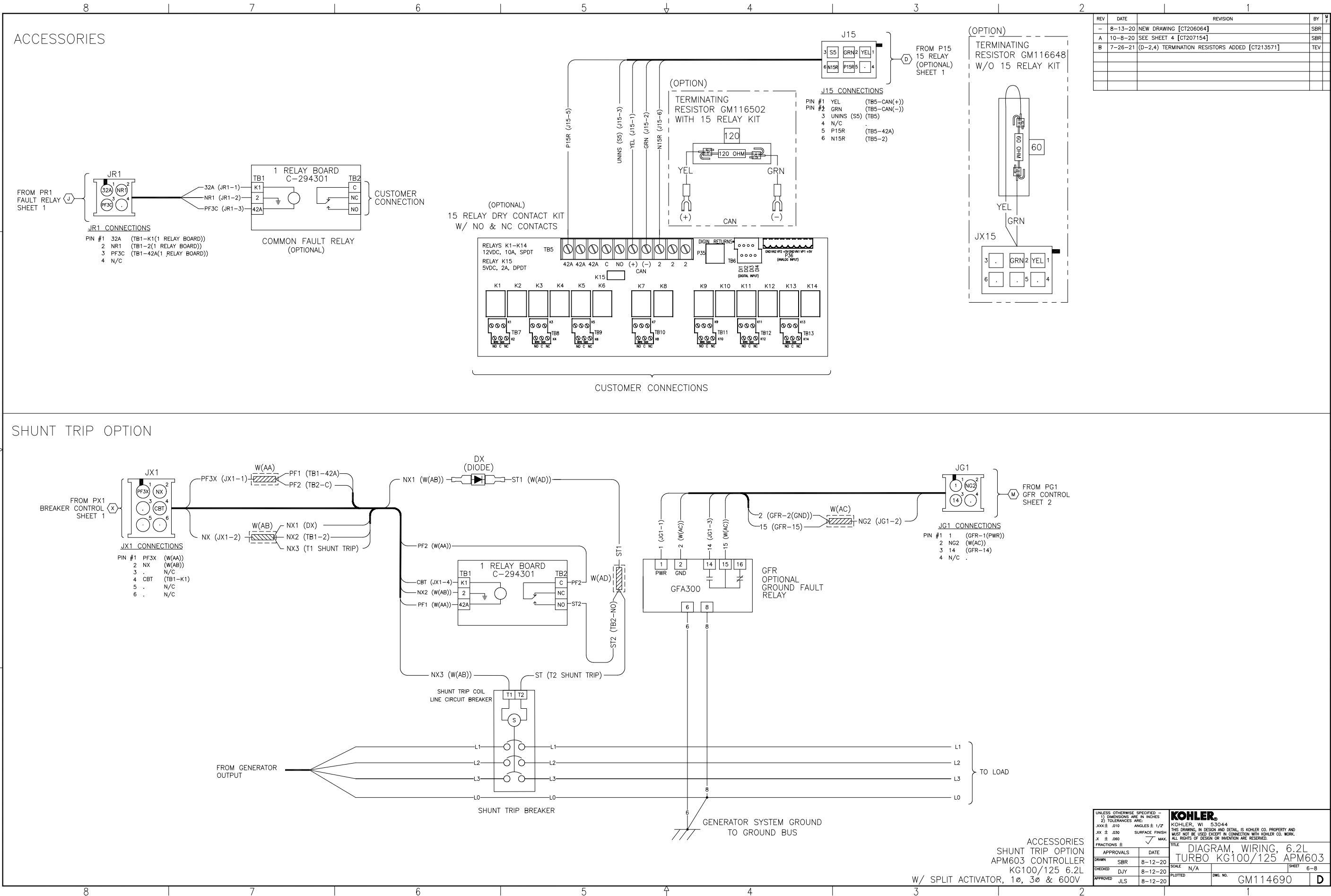
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XXXX ± .030	SPACING, FINISH	ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
± .060	✓ MAX.	TITLE	
FRACTIONS 3/16		DIAGRAM, WIRING	
APPROVALS	DATE	6.2L TURBO KG80 APM603	
DRAWN SMH	07-13-20	SCALE	N/A
CHECKED DJJ	07-13-20	PLOTTED	
APPROVED TUK	07-13-20	DWG. NO.	GM114689
		SHEET	6-6
			D

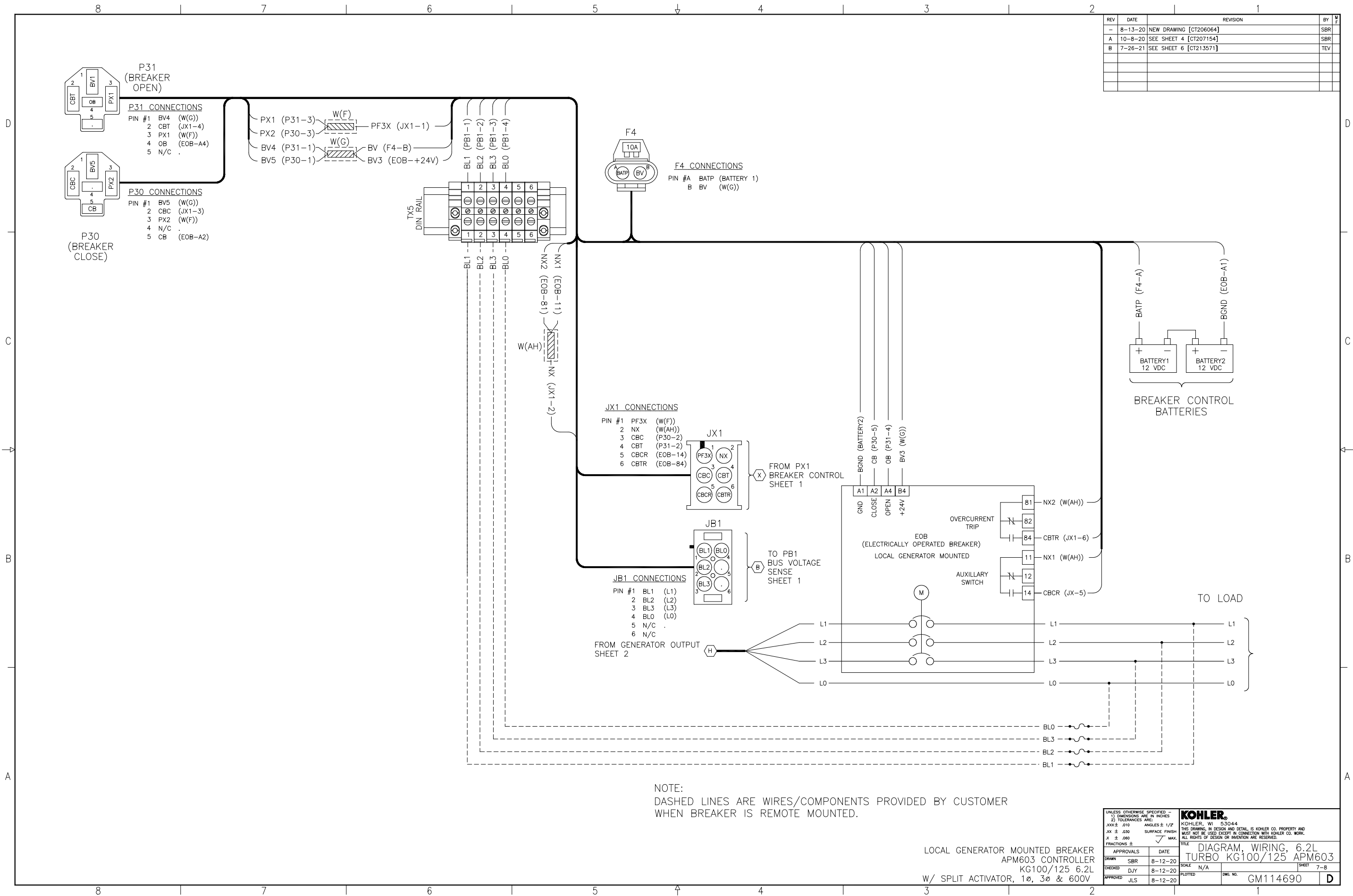


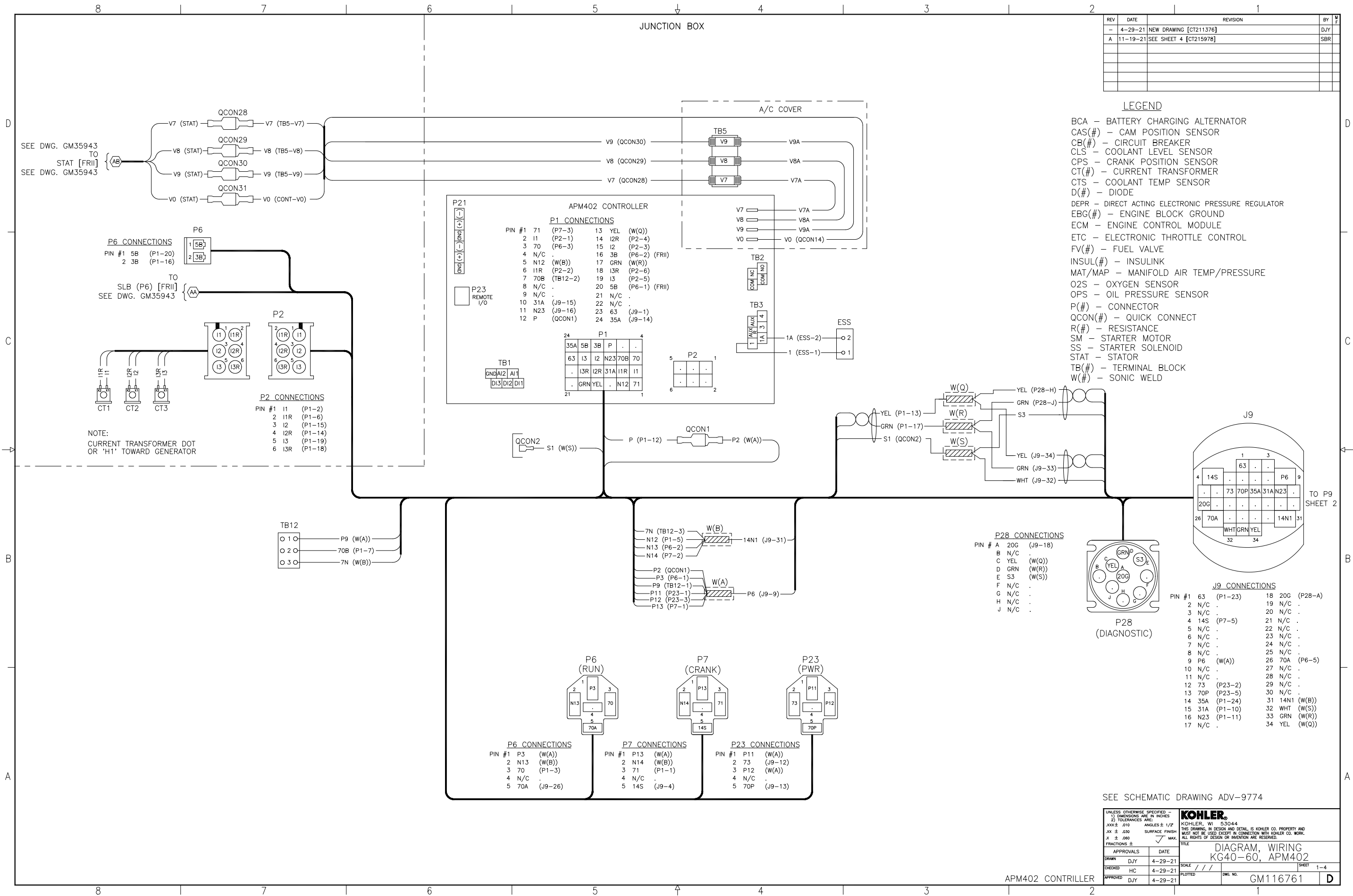


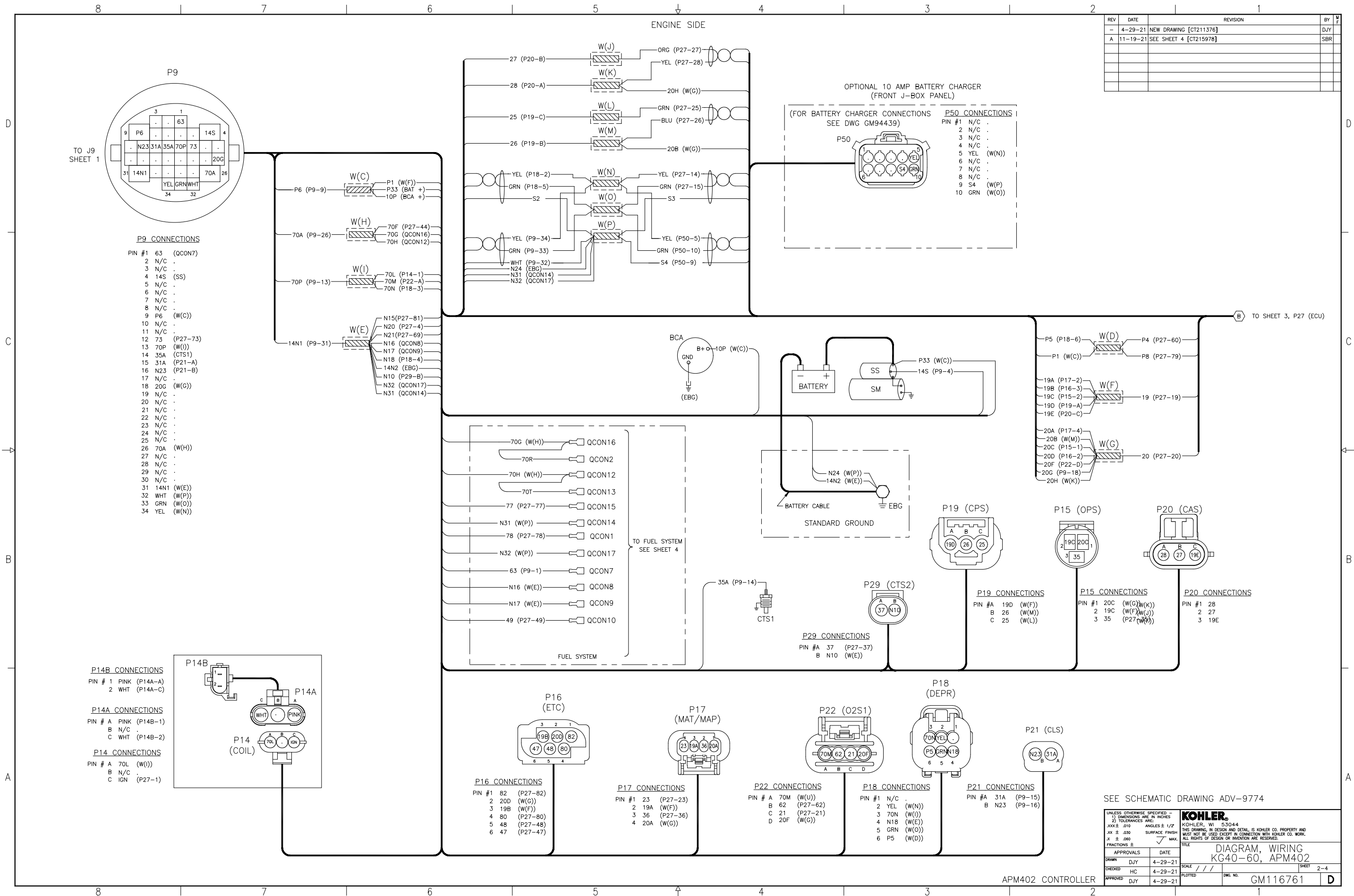








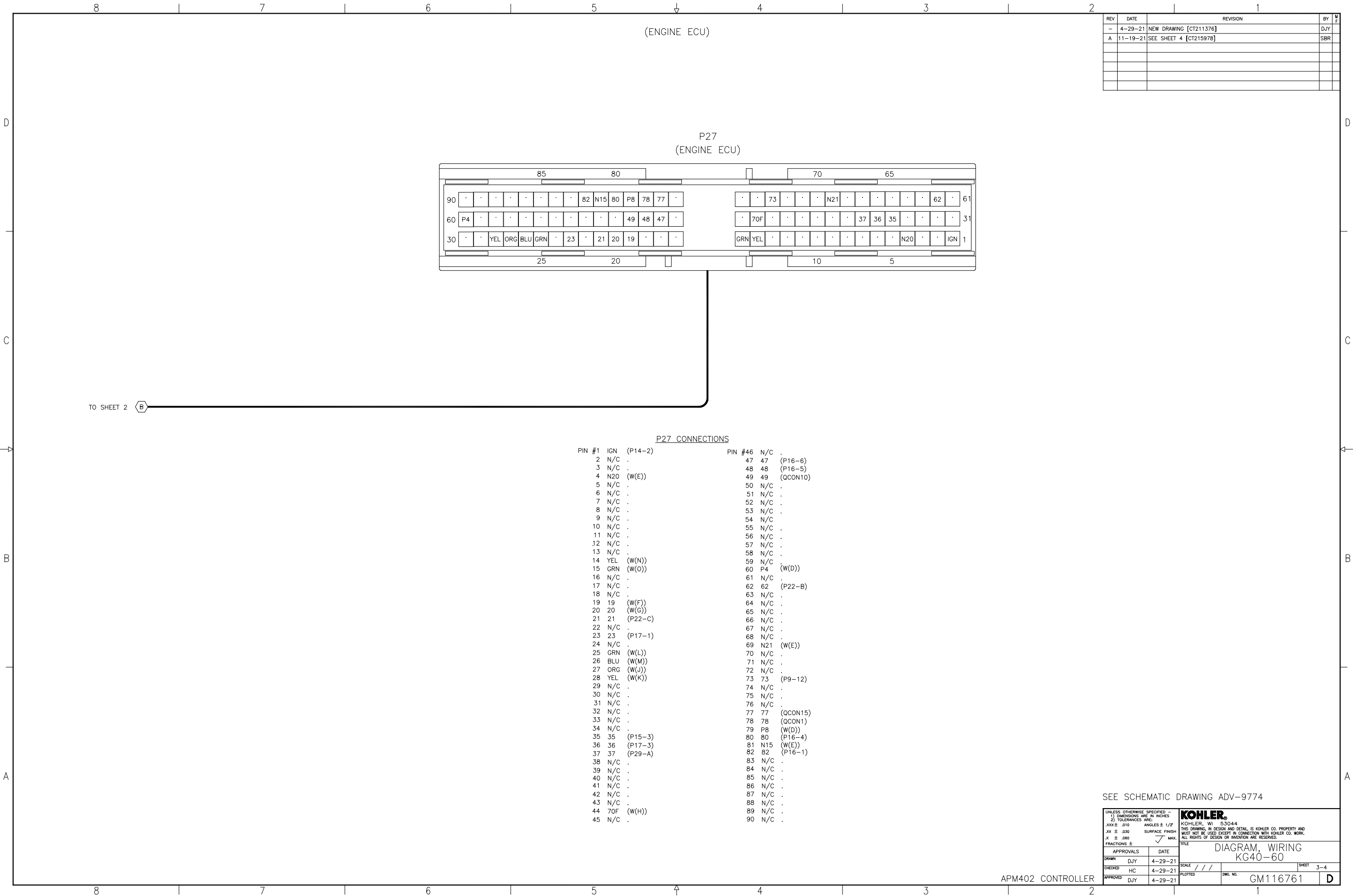


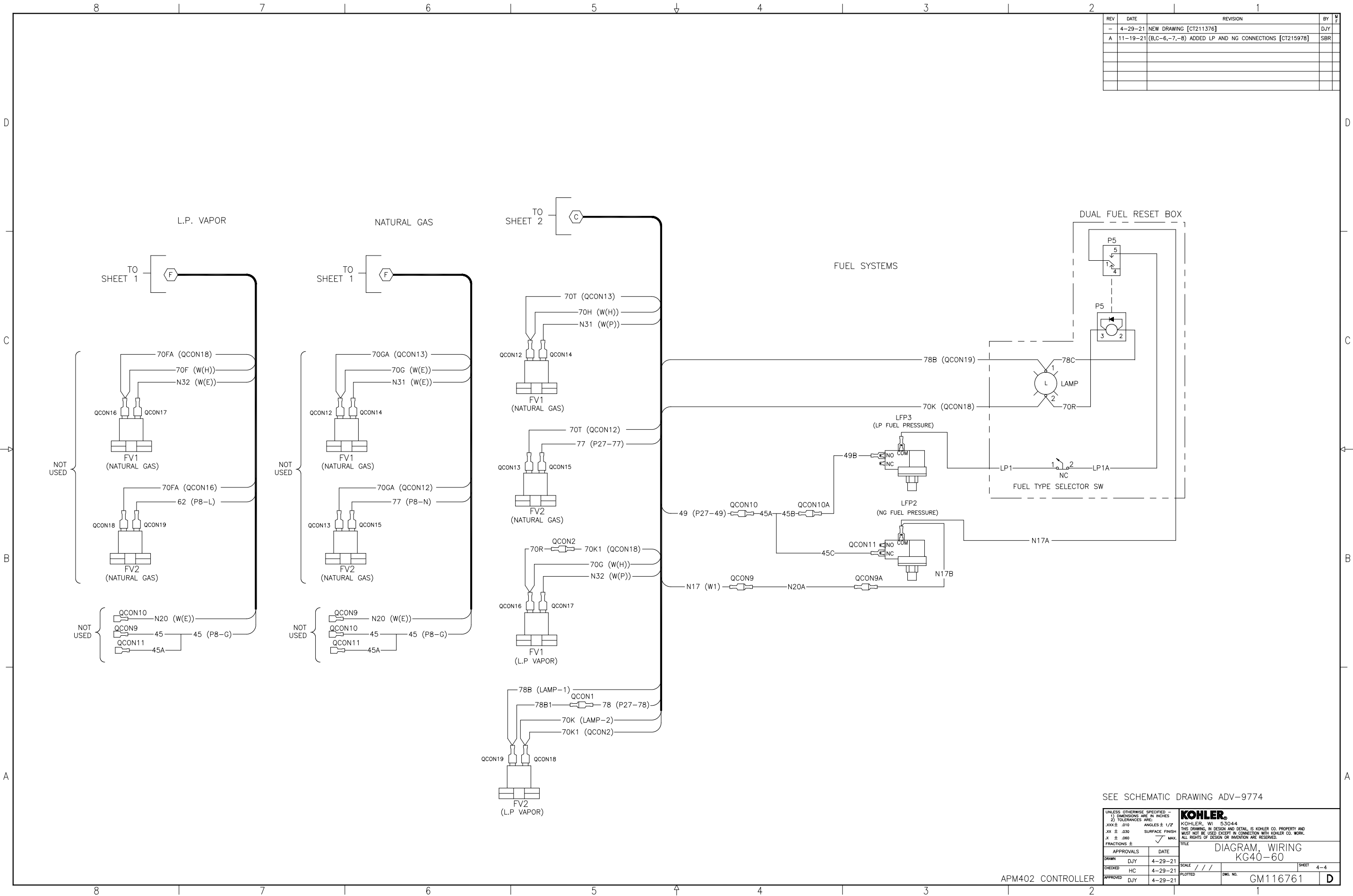


REV	DATE	REVISION	BY
-	4-29-21	NEW DRAWING [CT211376]	DJY
A	11-19-21	SEE SHEET 4 [CT215978]	SBR

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APPROVALS	DATE	TITLE	
DRAWN DJY	4-29-21	DIAGRAM, WIRING KG40-60, APM402	
CHECKED HC	4-29-21	SCALE	SHEET 2-4
APPROVED DJY	4-29-21	PLOTTED	DWG. NO. GM116761

APM402 CONTROLLER





Notes

Notes

Notes

TP-7112 10/22e

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