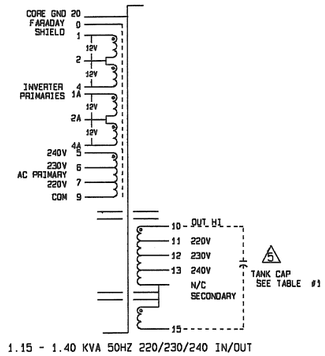
DWG NO.	SH	REV
D5465S01	1	B

REVISIONS

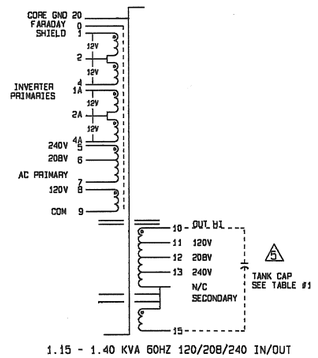
REV	DESCRIPTION	DATE	BY	CHKR	ENGR
A	RELEASE TO PRODUCTION	02/27/95	BJB		
B	CORRECTIONS PER ECN 3643	06/12/95	TW	JJG	K

TRANSFORMER DRAWING #1



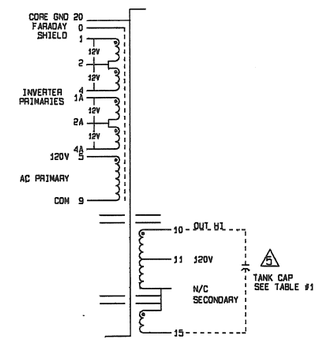
1.15 - 1.40 KVA 50HZ 220/230/240 IN/OUT

TRANSFORMER DRAWING #2



1.15 - 1.40 KVA 60HZ 120/208/240 IN/OUT

TRANSFORMER DRAWING #3



1.15 - 1.40 KVA 60HZ 120 IN/OUT

TABLE 2

60HZ, 120V INPUT 120V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #11
E10	BLUE WIRE TO OUTPUT TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	N.C.
E20	N.C.

60HZ, 208V INPUT 208V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN JUMPER WIRE TO E20
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #12
E10	BLUE WIRE TO OUTPUT TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E20	BROWN JUMPER WIRE E4

60HZ, 208IN 120/240V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BLACK WIRE FROM THE OUTPUT TERMINAL BLOCK (L)
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #11
E10	WHITE/BLACK WIRE TO RECEPTACLE TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	TRANSFORMER WIRE #13
E20	RED WIRE TO OUTPUT TERMINAL BLOCK (L2)

60HZ, 208V IN 120/208 OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BLACK WIRE TO OUTPUT TERMINAL BLOCK (L)
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #11
E10	WHITE/BLACK WIRE TO OUTPUT TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	TRANSFORMER WIRE #12
E20	RED WIRE TO OUTPUT TERMINAL BLOCK (L1)

HOW TO USE THESE VOLTAGE CHARTS

1). SELECT THE PROPER INPUT AND OUTPUT VOLTAGE COMBINATION.

2). THE TOP CHART BELOW THE SELECTION IS THE CONNECTIONS TO BE MADE ON THE MAIN POWER BOARD.

3). THE BOTTOM CHART BELOW THE SELECTION IS THE CONNECTIONS TO BE MADE ON THE AUXILIARY POWER BOARD.

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #5
E7	N.C.
E8	N.C.
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	N.C.
E12	N.C.
E13	WHITE JUMPER WIRE TO POWER BOARD E11
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	N.C.
E16	N.C.

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #5
E7	TRANSFORMER WIRE #13
E8	TRANSFORMER WIRE #5
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #7
E12	N.C.
E13	WHITE JUMPER WIRE TO POWER BOARD E9
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	TRANSFORMER WIRE #8
E16	TRANSFORMER WIRE #11

E1	WHITE JUMPER TO E1 OF MAIN POWER BOARD
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #6
E7	TRANSFORMER WIRE #12
E8	TRANSFORMER WIRE #5
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #7
E12	N.C.
E13	WHITE JUMPER WIRE TO POWER BOARD E9
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	TRANSFORMER WIRE #8
E16	N.C.

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #6
E7	TRANSFORMER WIRE #5
E8	TRANSFORMER WIRE #7
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #11
E12	TRANSFORMER WIRE #12
E13	WHITE JUMPER WIRE TO POWER BOARD E11
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	N.C.
E16	N.C.

60HZ, 240V IN 120/240 OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BLACK WIRE TO OUTPUT TERMINAL BLOCK (L)
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #11
E10	WHITE/BLACK WIRE TO OUTPUT TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	TRANSFORMER WIRE #13
E20	RED WIRE TO OUTPUT TERMINAL BLOCK (L2)

60HZ, 240V INPUT 240V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN JUMPER WIRE TO E20
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #13
E10	BLUE WIRE TO RECEPTACLE TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E20	BROWN JUMPER WIRE TO E4

50HZ, 220V INPUT 220V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN JUMPER WIRE TO E20
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #11
E10	BLUE WIRE TO RECEPTACLE TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTEY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E20	BROWN JUMPER WIRE TO E4

50HZ, 230V INPUT 230V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN JUMPER WIRE TO E20
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #12
E10	BLUE WIRE TO OUTPUT TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E20	BROWN JUMPER WIRE TO E4

50HZ, 240V INPUT 240V OUTPUT

E1	WHITE JUMPER WIRE FROM AUXILIARY BOARD E1
E4	BROWN JUMPER WIRE TO E20
E5	BLACK WIRE FROM THE CAPACITOR
E6	TRANSFORMER WIRE #10
E7	N.C.
E8	N.C.
E9	TRANSFORMER WIRE #13
E10	BLUE WIRE TO RECEPTACLE TERMINAL BLOCK (N)
E11	WHITE JUMPER WIRE FROM AUXILIARY BOARD E13
E12	TRANSFORMER WIRE #9
E13	WHITE JUMPER WIRE FROM AUXILIARY BOARD E9
E14	N.C.
E15	RED WIRE TO FUSE HOLDER STUD
E16	TRANSFORMER WIRE #4A
E17	NEG BATTERY CABLE & WHT/BLK JUMPER TO E4 AUX. BD
E18	TRANSFORMER WIRE #1A
E19	BROWN WIRE TO OUTPUT TERMINAL BLOCK (L)
E20	BROWN JUMPER WIRE TO E4

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #5
E7	TRANSFORMER WIRE #12
E8	TRANSFORMER WIRE #6
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #7
E12	N.C.
E13	WHITE JUMPER WIRE TO POWER BOARD E9
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	TRANSFORMER WIRE #8
E16	TRANSFORMER WIRE #11

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #7
E7	TRANSFORMER WIRE #5
E8	TRANSFORMER WIRE #6
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #12
E12	TRANSFORMER WIRE #13
E13	WHITE JUMPER WIRE TO POWER BOARD E11
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	N.C.
E16	N.C.

E1	WHITE JUMPER WIRE TO MAIN POWER BOARD E1
E2	GREEN GROUND WIRE
E3	TRANSFORMER WIRE #1
E4	NEG BATTERY CABLE & WHT/BLK JUMPER TO E17 PWR. BD
E5	TRANSFORMER WIRE #4
E6	TRANSFORMER WIRE #6
E7	TRANSFORMER WIRE #5
E8	TRANSFORMER WIRE #7
E9	WHITE JUMPER WIRE TO THE POWER BOARD E13
E10	BROWN WIRE TO #4 TERMINAL ON RELAY
E11	TRANSFORMER WIRE #11
E12	TRANSFORMER WIRE #12
E13	WHITE JUMPER WIRE TO POWER BOARD E11
E14	BLUE WIRE TO #6 TERMINAL ON RELAY
E15	N.C.
E16	N.C.

TABLE #1

UNIT SIZE	220/230/240 50HZ	120/208/240 60HZ	120 60HZ
1.15 KVA	30 uF	25 uF	25 uF
1.40 KVA	40 uF	30 uF	35 uF

NOTES:

1. WIRE COLORS WILL VARY FOR INPUT AND OUTPUT WIRING. 50 HZ USES BLK AND RED FOR HOTS, WHT FOR NEUTRAL, AND GRN/YEL FOR GND. 50 HZ USES BRN FOR HOTS, BLU FOR NEUTRAL, AND GRN/YEL FOR GND.
2. BECAUSE OF THE NUMEROUS RECEPTICAL OUTPUT WIRING OPTIONS OF THIS UNIT THEY WILL NOT BE SHOWN ON THIS SYSTEM SCHEMATIC. SEE THE TECHNICAL REFERENCE MANUAL.
3. NUMBERS IN BOXES REPRESENT TRANSFORMER LEAD NUMBERS WHICH DO NOT CHANGE. SOME TRANSFORMERS DO NOT USE ALL LEADS.
4. ONLY ONE (1) OF THESE OPTIONS ARE USED.
5. IF A TANK CAPACITOR SHOULD NEED REPLACING OBSERVE THE CAPACITOR CASE TO SEE IF THERE IS A COLORED TOLERANCE DOT INDICATOR. REPLACE THE CAPACITOR WITH ONE OF THE SAME VALUE AND COLORED TOLERANCE DOT INDICATOR. IF TANK CAPACITORS ARE AVAILABLE BUT WITHOUT THE TOLERANCE DOT, MEASURE THE TANK CAPACITORS THAT ARE AVAILABLE AND INSTALL THE TANK CAPACITOR THAT BEST MATCHES THE ONE REMOVED. IF THE TANK CAPACITOR REMOVED HAS A RED DOT ADD 6% TO THE VALUE OF THE CAPACITOR AND THIS WILL BE THE NEW VALUE OF THE ONE THAT REPLACES IT. IF IT HAS A YELLOW DOT ADD 3%. A WHITE DOT SUBTRACT 3% AND IF IT HAS A BLACK DOT SUBTRACT 6%. THE MAIN GOAL TRYING TO BE ACHIEVED IS TO COME AS CLOSE TO THE REQUIRED CAPACITANCE FOR THE FERRO TRANSFORMER AS POSSIBLE.

DUAL DIMENSION TOLERANCE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

DECIMALS
.XX = +/- .02
.XXX = +/- .010

ANGLES
+/- 2°

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN ( ) ARE MILLIMETERS. TOLERANCES ARE:

MILLIMETERS
.X = +/- .5
.XX = +/- .25

ANGLES
+/- 2°

DO NOT SCALE DRAWING

APPROVED

		DATE
DRAWN BY:	BRIAN J. BALTUS	02/27/95
CHECKED BY:	JTS	03/14/95
ENGINEER:	G.K.	03/14/95
STANDARDS ENGINEER:	BB	03/16/95
MANUFACTURING ENGINEER:	SM	03/16/95
QUALITY ASSURANCE:	GAK	03/16/95
PART NO.		

BEST POWER TECHNOLOGY, INC.
BOX 280 NECEDAH, WI 54646
(608) 565-7200

TITLE:
SYSTEM SCHEMATIC
FE 1.15-1.4 KVA
RACKMOUNT

SIZE	DWG NO.	REV
D	D5465S01	B

SCALE: NONE SHEET 1 OF 2

DWG NO. D5465S01 | SH 2 | REV B

HARDWIRE TERMINAL BLOCK (OPTION)

TERMINAL BLOCK

CAPACITOR — L OUTPUT D
CAPACITOR — N OUTPUT C
L INPUT B
CAPACITOR — N INPUT A

BRN
BLU
BRN (BLK)
BLU (WHT)

LINE CORD (OPTION) ⚠1

LINE — BRN (BLK)
GRN/YEL
NEU — BLU (WHT)

GRN

WHT/GRN
WHT/GRN

FAN

BLU
BRN

LINE RELAY
N
L

BACKFEED RELAY DRIVER BOARD PCF-XXXX

J1
1
3
5
7

BRN
BLU
WHT/BRN
WHT/BLU

BRN
BLU
GRN/YEL

RECEPTACLE OPTIONS
SEE NOTE ⚠1 ⚠2

REFER TO DWG# D5465S01 SHEET #1 TABLE #2 FOR WIRING OPTIONS

WHT
BLU
RED
BLK

E3 E4 E2 E5

PFM BOARD PCP-XXXX
E1 E6

PFM CAP
- +

WHT/BLU
WHT/BLU

PFM RESISTOR

TANK CAPS

ON/OFF
UNIT POWER SWITCH

E10 E14

BLK E12
BLK E5
BLK E6
E14 N/C

E10

REFER TO DWG# D5465S01 SHEET #1 TABLE #2 FOR WIRING OPTIONS

BLK E9
(BRN) BLK E19
E8 N/C
E7 N/C

POWER BOARD/ INVERTER HEATSINK ASSEMBLY PCP-XXXX

J2
WHT/BLU
WHT/BLU

J3
1 2 3 4 5

WHT E11
WHT E13
WHT E1

E11 WHT E13
E13 WHT E9
E1 WHT E1

AUX POWER BOARD ASSEMBLY PCP-XXXX

BLK E6
BLK E7
BLK E8
BLK E11
BLK E12

E10 E14

E15 BLK
E16 BLK
E2 BLK

REFER TO DWG D5465S01 SHT 1 TABLE 2 FOR WIRE OPTIONS

EXTERNAL BATTERY (OPTIONAL) ⚠4

BLK BLK BLK BLK BLK

ANDERSON CONNECTOR

CAP + -

MAIN FERRO TRANSFORMER

BLK 5
BLK 6
BLK 7 — AC INPUT WINDING LEADS (IF APPLICABLE)
BLK 8
BLK 9

TRN-XXXX

GRN/YEL 20 FARADAY SHIELD

BLK 10
BLK 11
BLK 12 — AC OUTPUT WINDING LEADS (IF APPLICABLE) ⚠3
BLK 13
BLK 15
GRN/YEL 0 XFMR GND

INVERTER WINDING LEADS 1 2 4

1A
2A
4A

(GND STUD IN UNIT)

J14 J7 J13

1 26 EXPANSION PORT N/C

J12 ME/FD JUMPER — ME FD

J17 AUX N/C

J6 RDM JUMPER 512 256

J5 RAM BATTERY JUMPER

J8 BOARD FREQ.

J15 PHONE JACK (REMOTE) N/C

J10 LED BOARD N/C

J9 BACK PANEL ALARM SWITCH
RED
RED

J3
1
26

J1
1
26

J16
1
26

J20

REAR PANEL

LOGIC BOARD PCL-XXXX

J1 XFMR. TEMP (MOUNTED ON XFMR STUD)
J4 AMB. TEMP
J11 PFM/AVR TEMP (MOUNTED ON PFM RESISTOR)

J2 AUX POWER N/C

REFER TO DWG D5465S01 SHT 1 TABLE 2 FOR WIRE OPTIONS

E4 E20

E15 RED
E17
N/C E8

E18 E16 E3 E5

1A 4A 1 4

BLK BLK BLK BLK

WHT/BLK

E4 BLK

FUSE ⚠2 2A

BLK BLK

BATTERY - +

BLK

⚠4 INTERNAL BATTERY (STANDARD)

SIZE	DWG NO.	REV
D	D5465S01	B
SCALE: NONE		SHEET 2 OF 2