DWG NO.	D4819	SH 1	REV B

REVISIONS

REV	CHG.NO.	ZONE	DESCRIPTION	DATE	BY	CHKR	ENGR
A			RELEASE TO PRODUCTION	5-09-94	BJB	BKB	G.K.
B	3574		REVISED PER ECN	06-27-95	BJB	JTS	TK

INVERTER HEATSINK ASSEMBLY

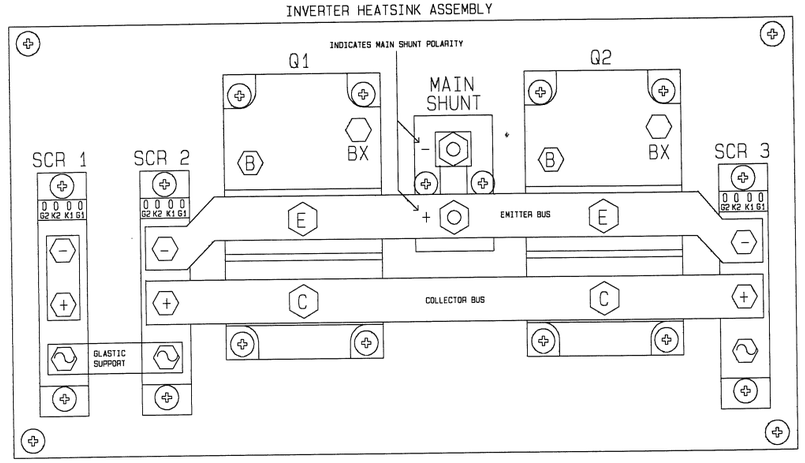
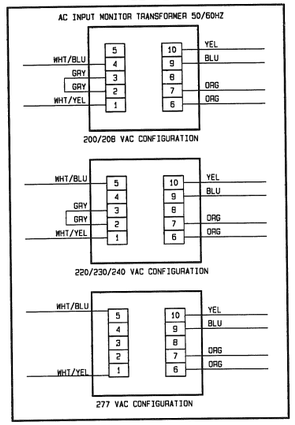


TABLE #2



10 AND 20 AMP CHARGER - OPTIONAL

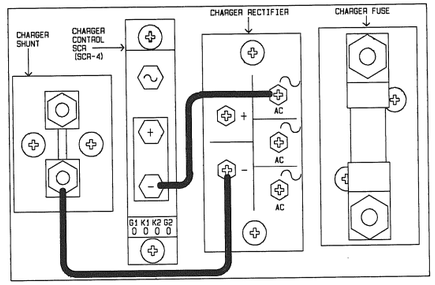
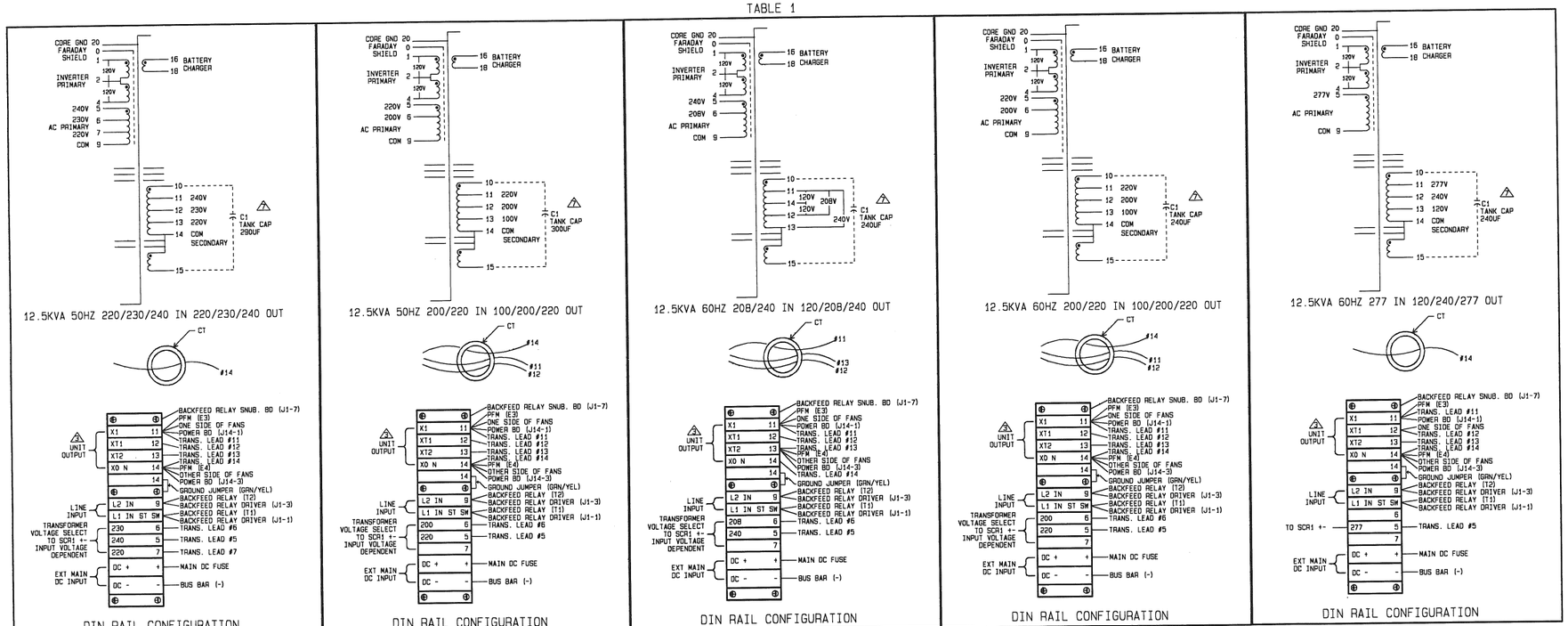


TABLE 1



NOTES:

1. FANS ARE WIRED ACROSS THE 240V TRANSFORMER TAPS AT THE DIN RAIL. IF 240V TAPS ARE UNAVAILABLE, THE FANS ARE WIRED ACROSS 220V TAPS. SEE TRANSFORMER OUTLINE INFORMATION ON SHEET 1 FOR PROPER WIRING.
2. NOT ALL DIN RAIL WIRING OPTIONS ARE SHOWN
3. BECAUSE OF THE NUMEROUS OUTPUT WIRING OPTIONS OF THIS UNIT THEY WILL NOT BE SHOWN ON THIS SYSTEM SCHEMATIC. SEE THE TECHNICAL REFERENCE MANUAL.
4. NUMBERS IN BOXES REPRESENT TRANSFORMER LEAD NUMBERS WHICH DO NOT CHANGE.
5. ONLY 50HZ UNITS HAVE THIS SECOND GROUND WIRE.
6. FAN WIRES AND OTHER SMALL WIRES WHICH TERMINATE WITH FASTONS (QUICK CONNECTS) ARE FASTENED TO SMALLER DIN BLOCKS, WHICH ARE ATTACHED TO THEIR ASSOCIATED LARGER NUMBERED DIN BLOCK BY A SHORTING BAR. ONE EXCEPTION TO THIS IS THE BACKFEED RELAY SNUBBER BD J1-3 & J1-7 WHICH ARE CONNECTED IN WITH THE MAIN WIRE.
7. 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.
8. WIRES 1B & 1B OF THE MAIN FERRO-TRANSFORMER HAVE TWO LEADS EACH. IN THE 5 AMP CONFIGURATION ONLY ONE OF EACH IS USED AND THESE ARE THE ONES WITH THE PROPER TERMINATING CONNECTORS FOR THE DESTINATION. THE OTHER TWO ARE INSULATED AND TIE WRAPPED. IN THE 10A & 20A CHARGER BOTH WIRES ARE USED.

PROPRIETARY

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DUAL DIMENSION TOLERANCE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
INCHES +/-
FRAC. DIM. +/- 1/16
DEC. DIM. .XX +/- .02
DEC. DIM. .XXX +/- .010
ANGLES +/- 2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS [ ]
TOLERANCES ARE:
MILLIMETERS +/-
DEC. DIM. .X +/- .5
DEC. DIM. .XX +/- .25
ANGLES +/- 2

DO NOT SCALE DRAWING

APPROVED

	DATE
DRAWN BY: BRIAN J. BALTUS	5-09-94
CHECKED BY: BRUCE K. BENSON	5-13-94
ENGINEER: MIKE HOGAN	5-12-94
STANDARDS ENGINEER: VINCE THOMPSON	5-13-94
MANUFACTURING ENGINEER: KEN PIOTROWICS	5-13-94
QUALITY ASSURANCE: ALAN MANTHE	5-12-94

PART NO.

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

TITLE:
FE 12.5 KVA
SYSTEM SCHEMATIC

SIZE	DWG NO.	REV
D	D4819	B

SCALE:

SHEET 1 OF 2

DWG NO. D4819 SH 2 REV B

MOUNTED IN FRONT OF UNIT
FAN
WHT/GRN
WHT/GRN
WHT/VIO
WHT/VIO
FAN
MOUNTED IN CENTER OF UNIT
DASHED LINES SHOW ADDITIONAL INPUT OPTIONS
DIN RAIL
X1 11
XT1 12
XT2 13
XO N 14
14
L2 IN 9
L1 IN ST SW
230 6
240 5
220 7
DC + +
DC - -
GRN/YEL
GRN/YEL
GRN/YEL
GRN/YEL
MAIN FERRO TRANSFORMER SEE TABLE 1
20
0
16
18
2
10
15
1
4
9
BLK
BLK
BLK
BLK
BLK
WHT
TANK CAPS SEE TABLE 1
MOUNTED ON CHASSIS
INDUCTOR
BLK
BLK
RED
WHT
AC AC + - RECTIFIER
5 AMP CHARGER
MOUNTED ON CHASSIS
OVER VOLTAGE PROTECTION (TUV ONLY) PCV-XXXX
J1
ROUTE RED WIRE THIS WAY FOR 5 AMP CHARGER
WHT/YEL
WHT/YEL
BLK
RED
WHT/YEL
WHT/YEL
ROUTE WIRES THIS WAY FOR 5 AMP CHARGER
ROUTE WIRES THIS WAY FOR 10/20 AMP CHARGER OPTION
ROUTE RED WIRE THIS WAY FOR 10/20A CHARGER
WHT/GRN
J18
E5 E3 E4 E2
J14
BLK
BLK
BACKFEED RELAY SNUBBER BOARD PCS-XXXX
J1 1 3 5 7
WHT
ORN
BLK
GRN
CT SEE TABLE 1
WHT/ORN
WHT/ORN
BLK/WHT
BLK/WHT
T1 T2
COIL
BACKFEED RELAY
L1 L2
INVERTER HEATSINK ASSEMBLY
SCR2
SCR3
SCR1 +-
SCR1
+ SHUNT
- SHUNT
SCR2 K1
SCR2 G1
SCR2 G2
SCR2 K2
SCR2 (+)
G2 (B)
+ SHUNT
+ SHUNT
G1 (B)
SCR1 K1
SCR1 G1
SCR1 G2
SCR1 K2
SCR3 G1
SCR3 K1
SCR2
SCR3
SCR3 K2
SCR3 G2
COLLECTOR BUS
(+ SHUNT) EMITTER BUS
+SHUNT
-SHUNT
HS TEMP
-SHUNT
BLK
ORG
WHT1/ORG
ORG
WHT1/BRN
BRN
WHT1/RED
WHT1/BLK
BLK
BLK
WHT1/BLK
BLU
WHT1/BLU
WHT1/GRN
GRN
WHT1/YEL
WHT1/YEL
WHT
WHT
WHT1/RED
V10
WHT1/V10
BLK
BLK
WHT1/BLU
WHT1/GRN
BLK
BLK
J11
J10
J16
J17
J9
J8
J5
E8
E1
WHT1/BLK
WHT1/RED
BLK
RED
BLK
WHT1/YEL
WHT1/YEL
J15
J12
- CHARGER SHUNT
+ CHARGER SHUNT
10 AND 20 AMP CHARGER HEATSINK
K1
G1
SCR-4
K2
G2
SCR4
FUSE
FUSE (OTHER SIDE)
INDUCTOR
MOUNTED ON CHASSIS
MOUNTED ON CHASSIS
10/20 AMP CHARGER OPTION
SURGE SUPPRESSION BOARD PCS-XXXX (587)
CONNECTED TO CHASSIS
E9
E3 E6
E2
E1
E5
E8
E4
E7
BLK
WHT
WHT/YEL
WHT/BLU
BLK/WHT
BLK/WHT
MOUNTED ON CHASSIS
FUSE
WHT/YEL
WHT/BLU
RESISTOR
CAPACITORS
BLU
BLU
RED
BLK
E2 E6 E1 E5
PFM (AVR) CIRCUIT PCP-XXXX
E3 E4
BLU
WHT
PFM (AVR) MODULE
T4
AC INPUT MONITOR
SEE TABLE 2
MOUNTED ON CHASSIS
FUSE
ORG
ORG
BLU
BLU
ORG
POWER BOARD PCP-XXXX
TO INPUT CURRENT TRANSFORMER (NOT USED)
EXPANSION PORT
J7
J15
EXPANSION
J4
AMBIENT TEMPERATURE PROBE LOCATED IN LOWER FRONT OF UNIT
J11
TEMPERATURE PROBE TO PFM (AVR) RESISTOR LUG
LOGIC BOARD PCL-XXXX
J10
J3
J6
J16
J2
J4
J1
LED BOARD
J1
1
16
E1 E2
RS232 OPTOISOLATOR BOARD
J4
J3
PCZ-XXX
(TUV ONLY)
REMOTE KEYPAD
123456
LOCATED ON FRONT PANEL
KEY SWITCH
MOUNTED IN FRONT OF UNIT
DB25 RS232
MOUNTED ON BACK PANEL OF UNIT
J13
J3
TRANSFORMER TEMPERATURE PROBE
J7
E7
J1
J2
E6
E9
RED
BLK
BLK
BUS BAR
+ DC FILTER CAP -
CATHODE
DIODE
ANODE
MOUNTED ON CHASSIS
BLK
MAIN DC FUSE
BLK
BLK
BLK
BLK

SIZE	DWG NO.	REV
D	D4819	B
SCALE:		SHEET 2 OF 2