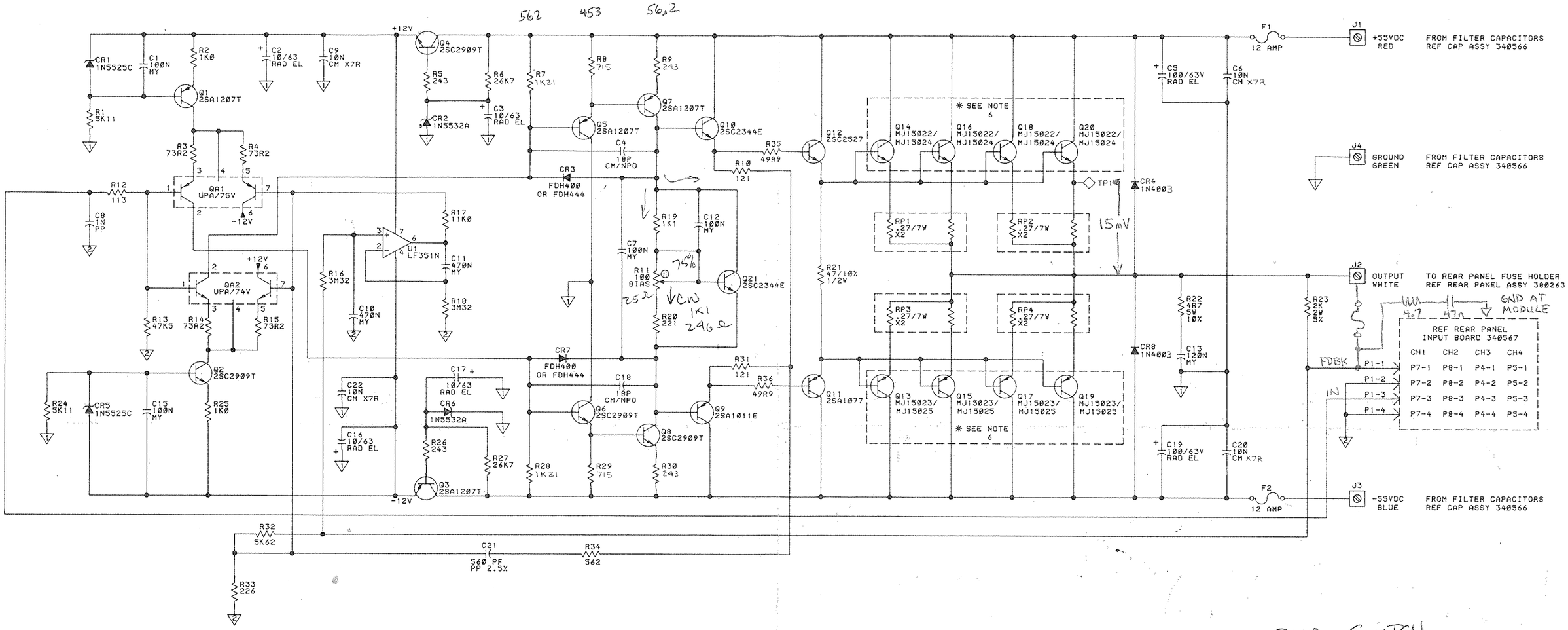


PWR SWITCH
220nF & 470Ω 1/4W

NOTES:

UNLESS OTHERWISE SPECIFIED;

1. ALL RESISTORS ARE EXPRESSED IN OHMS AND ARE 1/4W, 1%.
2. ALL CAPACITORS ARE EXPRESSED IN MICROFARADS.
3. ALL MYLAR CAPACITORS ARE +/-5%.
4. ALL RAD EL CAPACITORS ARE +80%/-10%.
5. ALL CM X7R CAPACITORS ARE +/-10%.
6. Q13 THRU Q20 ARE MOUNTED TO THE HEATSINK. THE BASE AND EMITTER LEADS ARE SOCKETED TO THE PCB. THE COLLECTORS ARE THE TRANSISTOR CASES AND ARE SCREWED TO THE SPACERS. REF HEATSINK ASSY, DWG #380264.
7. REF SYSTEM WIRING DIAGRAM, #340639, FOR CABLING INFORMATION.
8. ▽ DESIGNATES POWER GROUND.
   ▽ DESIGNATES SIGNAL GROUND.

| REFERENCE DESIGNATION | |
|---|---|
| LAST USED | NOT USED |
| C22 | C14 |
| CR8 | - |
| F2 | - |
| J4 | - |
| P1 | - |
| Q21 | - |
| QA2 | - |
| R36 | - |
| RP4 | - |
| U1 | - |
| TP1 | - |

| REV | DESCRIPTION | DR APP | DATE |
|---|---|---|---|
| | R303 | | |

REVISIONS

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| APPROVAL | | | |
|---|---|---|---|
| PRELIM | DATE | FINAL | DATE |
| DRAWN REH | 8/31/87 | | |
| CHECKED | 9/14/87 | CHECKED | |
| PROJ ENG | 9/14/87 | PROJ ENG | |
| CH ENG | 9/14/87 | CH ENG | |
| DFT MGR PT | 9/14/87 | RELEASED | |

BX1 | USED ON

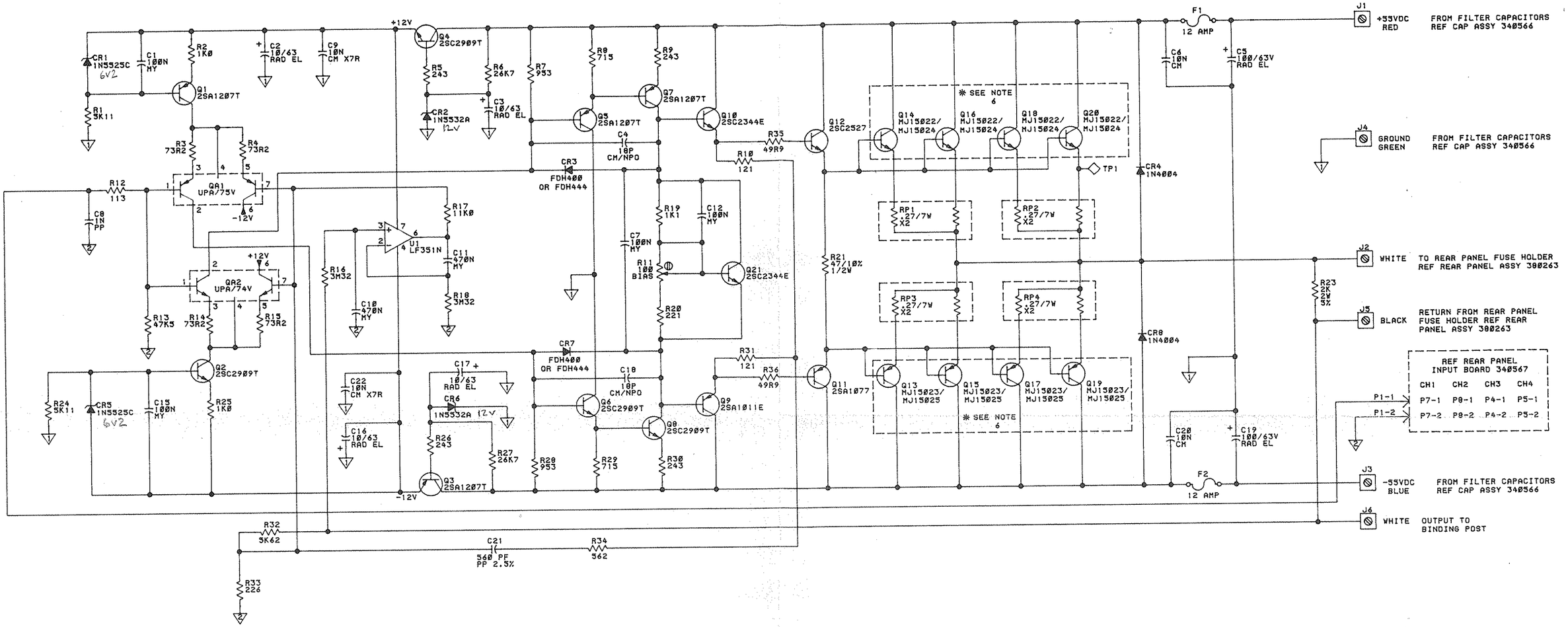
dbx NEWTON, MA. Ø2195

# SCHEMATIC BX1 POWER AMPLIFIER MODULE BOARD

| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | C | 340565 | ØØ |

546-574

S-BX1-MOD-B(PCB,BX1)




| REFERENCE DESIGNATION | |
|---|---|
| LAST USED | NOT USED |
| C22 | C13, C14 |
| CR8 | - |
| F2 | - |
| J6 | - |
| P1 | - |
| Q21 | - |
| QA2 | - |
| R36 | R22 |
| RP4 | - |
| U1 | - |
| TP1 | - |

NOTES:

UNLESS OTHERWISE SPECIFIED;

1. ALL RESISTORS ARE EXPRESSED IN OHMS AND ARE 1/4W, 1%.
2. ALL CAPACITORS ARE EXPRESSED IN MICROFARADS.
3. ALL MYLAR CAPACITORS ARE +/-5%.
4. ALL RAD EL CAPACITORS ARE +80%/-10%.
5. ALL CM X7R CAPACITORS ARE +/-10%.
6. Q13 THRU Q20 ARE MOUNTED TO THE HEATSINK. THE BASE AND EMITTER LEADS ARE SOCKETED TO THE PCB. THE COLLECTORS ARE THE TRANSISTOR CASES AND ARE SCREWED TO THE SPACERS. REF HEATSINK ASSY, DWG #380264.
7. REF SYSTEM WIRING DIAGRAM, #340639, FOR CABLING INFORMATION.
8. ▽ DESIGNATES POWER GROUND.
   ▽ DESIGNATES SIGNAL GROUND.

EXPERIMENTAL MODULES ONLY

| REVISIONS | DESCRIPTION | DR | APP | DATE |
|---|---|---|---|---|
| | | | | |

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| APPROVAL | | | |
|---|---|---|---|
| PRELIM | DATE | FINAL | DATE |
| DRAWN REH | 8/31/87 | JH | 12/24/87 |
| CHECKED JN | 9/16/87 | CHECKED | |
| PROJ ENG JRA | 9/16/87 | PROJ ENG | |
| CH ENG GKH | 9/16/87 | CH ENG | |
| DFT MGR PT | 9/16/87 | RELEASED | |

BX1 | USED ON

dbx NEWTON, MA. Ø2195

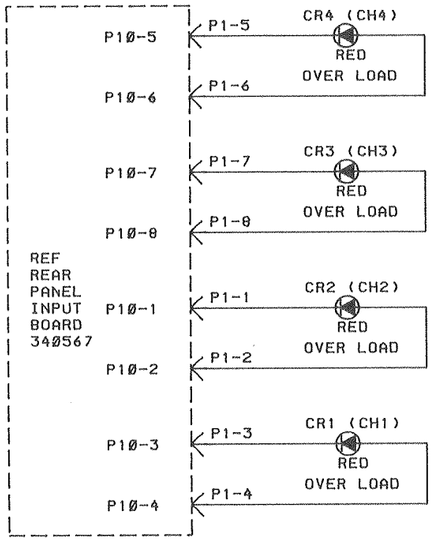
# SCHEMATIC BX1 POWER AMPLIFIER MODULE BOARD

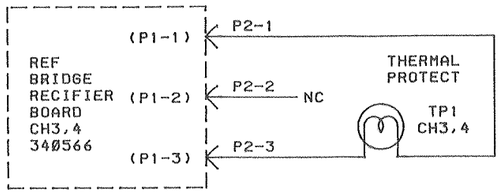
| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | C | 340565 | ØØ |

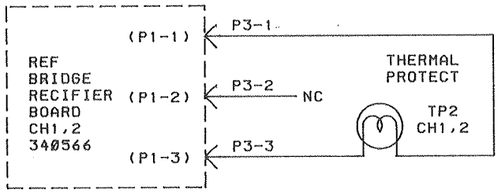
S-BX1-MOD-D(PCB, BX1)

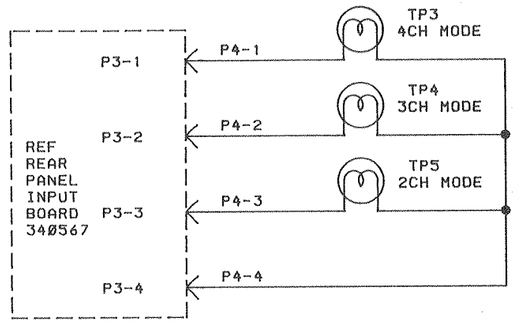
NOTE:

1. REF SYSTEM WIRING DIAGRAM, #340639, FOR CABLING INFORMATION.




| REFERENCE DESIGNATION | |
|---|---|
| LAST USED | NOT USED |
| P4 | - |
| TP5 | - |
| CR4 | - |

| REV | DESCRIPTION | DR | APP | DATE |
|---|---|---|---|---|
| | | | | |

REVISIONS

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| APPROVAL | | | |
|---|---|---|---|
| PRELIM | DATE | FINAL | DATE |
| DRAWN REH | 8-31-87 | | 9/11/87 |
| CHECKED | 9/14/87 | CHECKED | |
| PROJ ENG | 9/14/87 | PROJ ENG | |
| CH ENG | 9/14/87 | CH ENG | |
| DFT MGR | 9/14/87 | RELEASED | |

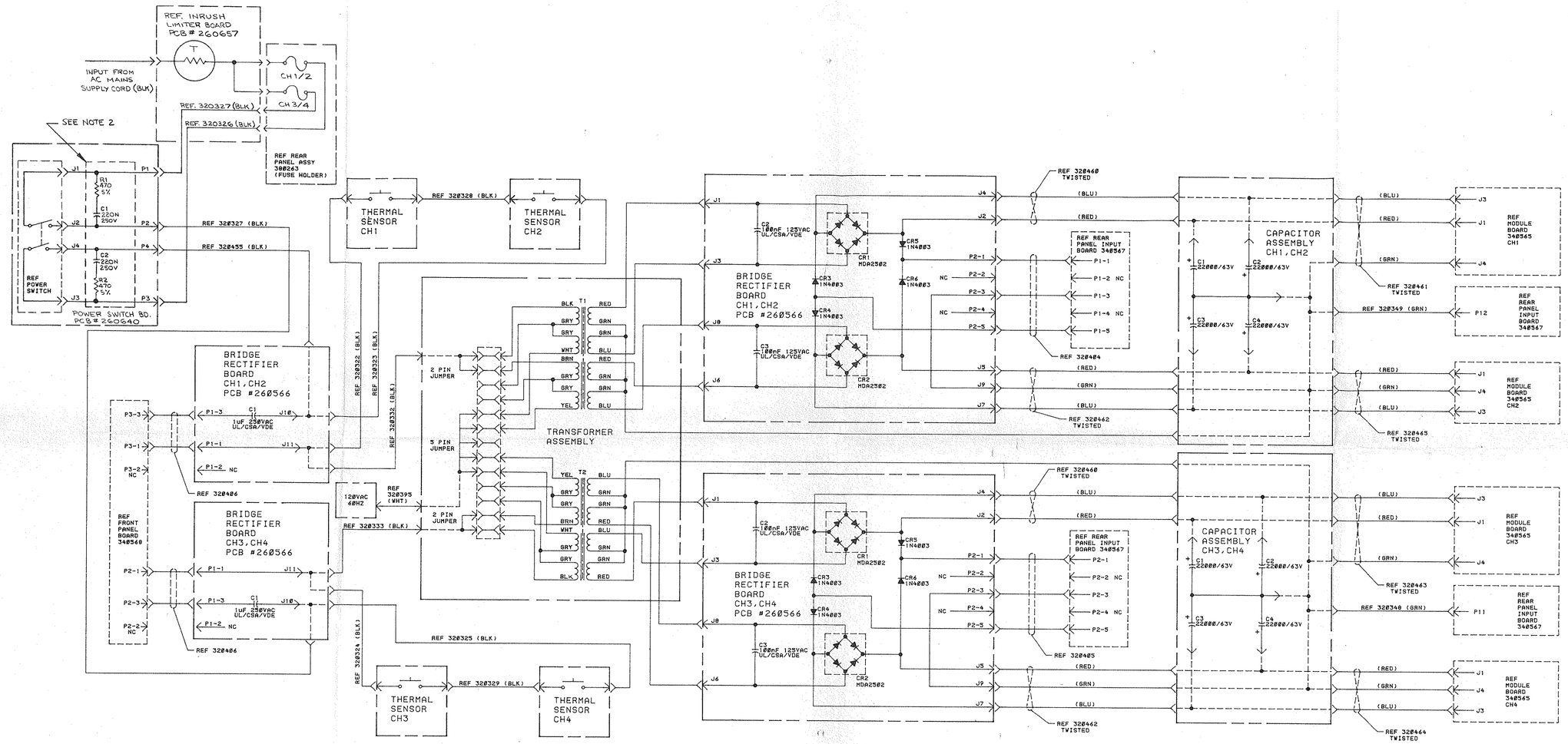
BX1 | USED ON

dbx NEWTON, MA. 02195

# SCHEMATIC
# BX1
# FRONT PANEL BOARD

| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | B | 340568 | ØØ |

S-BX1-FP-A(PCB,BX1)




| BRIDGE RECTIFIER | | POWER SWITCH | | XFMR ASSY | | CAP ASSY | |
|---|---|---|---|---|---|---|---|
| LAST USED | NOT USED | LAST USED | NOT USED | LAST USED | NOT USED | LAST USED | NOT USED |
| J11 | - | J4 | - | T2 | - | C4 | - |
| C3 | - | C2 | - | | | | |
| CR6 | - | P4 | - | | | | |
| P2 | - | R2 | | | | | |

NOTES;

1. REF SYSTEM WIRING DIAGRAM, #340639, FOR CABLING INFORMATION.
2. FOR ALTERNATE PART SEE dbx PART NO. 380288 (CAP./RESISTOR ASSEMBLY).

| REV | DESCRIPTION | DR | APP | DATE |
|---|---|---|---|---|
| | REVISIONS | | | |

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dbx

| APPROVAL | | | |
|---|---|---|---|
| PRELIM | DATE | FINAL | DATE |
| DRAWN 8.27.87 | 8.27.87 | | |
| CHECKED 11/10/87 | 11/10/87 | CHECKED | |
| PROJ ENG 11/16/87 | 11/16/87 | PROJ ENG | |
| CH ENG 11/19/87 | 11/19/87 | CH ENG | |
| DFT MGR 11/20/87 | 11/20/87 | RELEASED | |

BX1 | USED ON

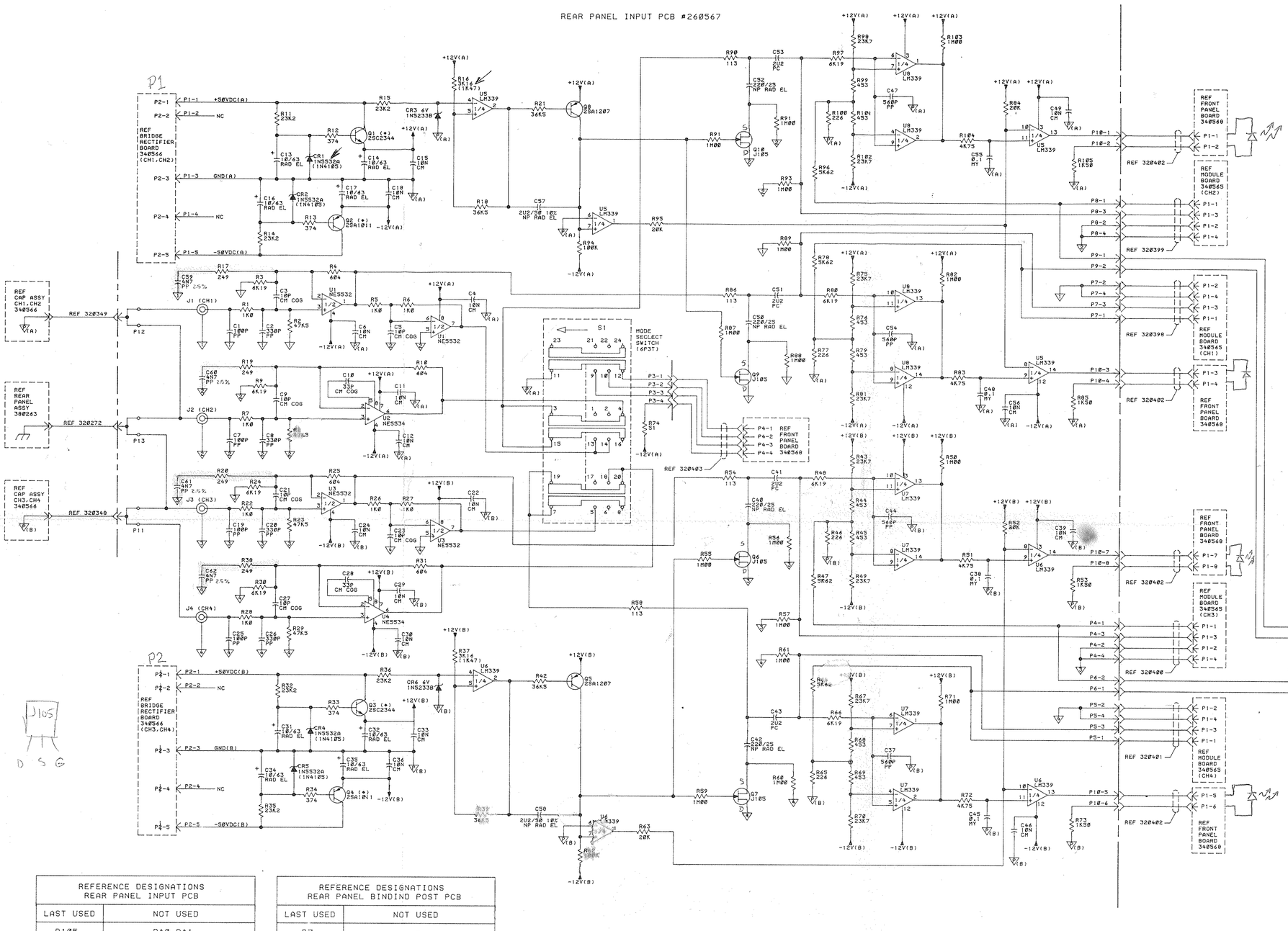
dbx NEWTON, MA. 02195

SCHEMATIC
BX1
POWER SUPPLY

| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | D | 340566 | ØØ |

S-BX1-PWRSPLY-A(PCB,BX1)

REAR PANEL INPUT PCB #260567




NOTES:

UNLESS OTHERWISE SPECIFIED:

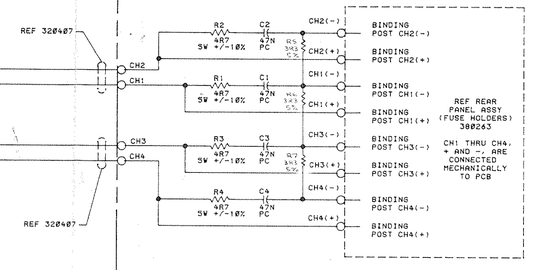
1. ALL RESISTORS ARE EXPRESSED IN OHMS AND ARE 1/4W, 1%.
2. ALL CAPACITORS ARE EXPRESSED IN MICROFARADS.
3. ALL MYLAR CAPACITORS ARE +/-5%
4. ALL RAD EL CAPACITORS ARE +80%/-10%.
5. ALL COG CERAMIC DISC CAPACITORS ARE +/-5%.
6. (*) DENOTES HEATSINK IS ATTACHED TO DEVICE.
7. REF SYSTEM WIRING DIAGRAM, #340639, FOR CABLING INFORMATION.
8. (SYMBOL) DENOTES ALTERNATE DEVICE TYPE. ALTERNATE VALUES ARE GIVEN WITHIN THE PARENTHESIS FOR USE WITH SPECIFIED DEVICE TYPE.

ALTERNATE TYPE AUTHORIZATION

1N4105, 11.0V ZENER DIODE IN PLACE OF 1N5532A 12.0V ZENER DIODE. THIS AFFECTS R16 AND R37 WHICH SHOULD BE 1K47 WHEN 1N4105'S ARE USED.

9. ▽(A) DENOTES POWER GROUND CH1 AND 2
   ▽(B) DENOTES POWER GROUND CH3 AND 4
   ▽ DENOTES CH1 SIGINAL GROUND PLANE
   ▽ DENOTES CH2 SIGINAL GROUND PLANE
   ▽ DENOTES CH3 SIGINAL GROUND PLANE
   ▽ DENOTES CH4 SIGINAL GROUND PLANE
10. ALL POLYCARBONATE CAPACITORS ARE +/-5%.

REAR PANEL BINDING POST PCB #260641




| REFERENCE DESIGNATIONS REAR PANEL INPUT PCB | |
|---|---|
| LAST USED | NOT USED |
| R105 | R40,R41 |
| C62 | - |
| CR6 | - |
| J4 | - |
| U8 | - |
| Q10 | - |
| S1 | - |
| P13 | - |

| REFERENCE DESIGNATIONS REAR PANEL BINDIND POST PCB | |
|---|---|
| LAST USED | NOT USED |
| R7 | - |
| C4 | - |
| CH4 | - |

| REV | DESCRIPTION | DR | APP | DATE |
|---|---|---|---|---|
| | REVISIONS | | | |
| R32.5 | | | | |

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| APPROVAL | PRELIM | DATE | FINAL | DATE |
|---|---|---|---|---|
| DRAWN | | 9/28/87 | | |
| CHECKED | JN | 11/6/87 | CHECKED | |
| PROJ ENG | JRA | 11/4/87 | PROJ ENG | |
| CH ENG | GKH | 11/4/87 | CH ENG | |
| QFT MGR | PT | 11/6/87 | RELEASED | |

BX1 | USED ON

dbx NEWTON, MA. 02195

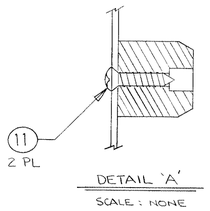
SCHEMATIC
BX1 POWER AMPLIFIER
REAR PANEL, BINDING POST/INPUT BOARDS

| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | D | 340567 | 00 |

S=BX1-IN/BIND-C(PCB.BX1)

| BX1 XFMR LEAD LENGHT CHART | | | | | |
|---|---|---|---|---|---|
| | COLOR | FRONT CH 1/2 XFMR | REAR CH 3/4 XFMR | | |
| PRIMARY | BLK 1 | 7.25 | 1 | 4.00 | BLK |
| | GRY PAIR *2 | ~~8.50~~ 8.0 | 2 | ~~4.75~~ 4.5 | GRY |
| | WHT 3 | 8.75 | 3 | 5.00 | WHT |
| | BRN 4 | 7.50 | 4 | 4.25 | BRN |
| | GRY PAIR *5 | ~~8.00~~ 8.5 | 5 | ~~4.50~~ 4.75 | GRY |
| | YEL 6 | 9.00 | 6 | 5.25 | yel |
| SECONDARY | RED 7 | 18.50 | 7 | 14.75 | RED |
| | GRNS 8&9 | 12.75 | 8&9 | 12.75 | GRN |
| | BLU 10 | 17.25 | 10 | 13.75 | BLU |
| | RED 11 | 15.75 | 11 | 11.75 | Red |
| | GRNS 12&13 | 12.75 | 12&13 | 12.75 | GRN |
| | BLU 14 | 15.00 | 14 | 11.00 | BLU |

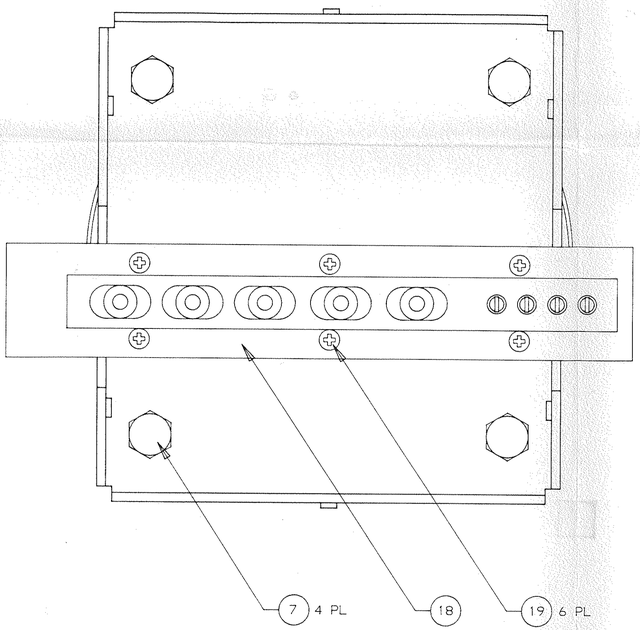
* SEE NOTE 3

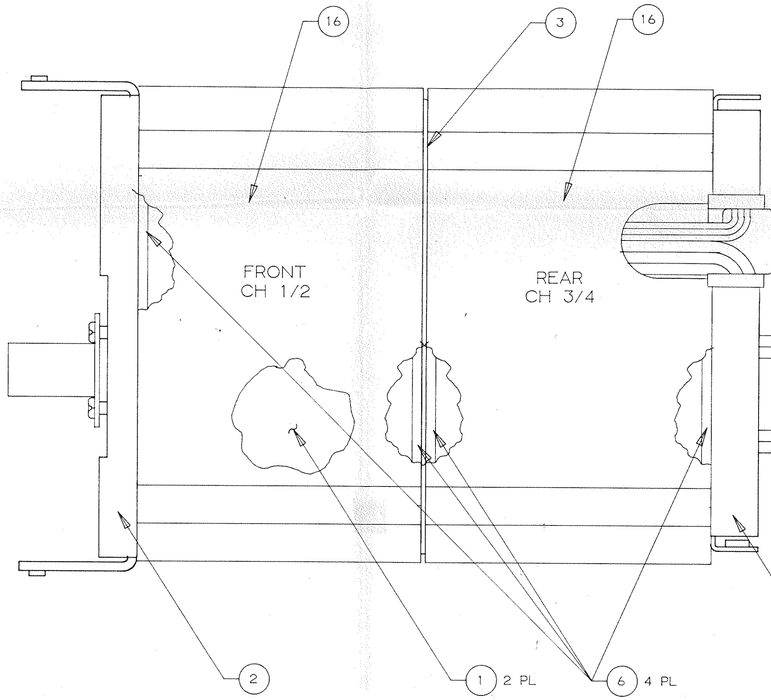


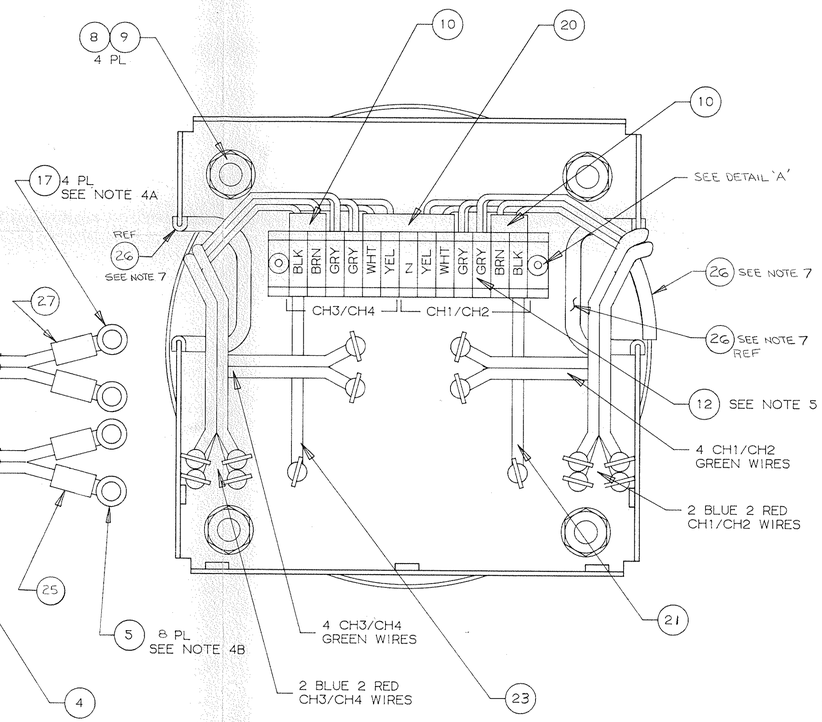

DETAIL 'A'
SCALE : NONE

NOTES:

1. REF PARTS LIST PL380258.
2. CUT XFMR LEADS TO LENGTHS SHOWN IN TABLE, THEN STRIP .30 ± .06.
3. ENDS OF GREY WIRE PAIRS ARE TO BE TWISTED TOGETHER BEFORE INSERTING INTO BARRIER STRIP.
4A. CRIMP ONE RING TERMINAL ITEM 17 ONTO EACH PAIR OF GREEN XFMR LEADS.
B. CRIMP ONE RING TERMINAL ITEM 5 ONTO EACH BLUE, RED XFMR WIRES.
5A. SNAP COLORED TAGS ONTO TERMINAL STRIP ITEM 12 IN THE ORDER SHOWN. TAGS ARE PROVIDED WITH THE TERMINAL STRIP
B. ASSEMBLE TERMINAL STRIP ITEM 12 TO THE REAR OF THE XFMR BRKT ITEM 4 BEFORE BOLTING BRKT TO REST OF ASSY
6. FOR COMPLETE ASSEMBLY INSTRUCTIONS SEE ASSEMBLY PROCEDURE 450002.
7. ATTACH FLEXIBLE GROMMET (ITEM 26) TO ALL EDGES WHERE WIRE MAY CHAFE.




| REV | DESCRIPTION | DIM APP | DATE |
|---|---|---|---|
| | REVISIONS | | |

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UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES AND/OR MILLIMETERS (mm)

TOLERANCES ON INCHES
.XX +/- .015 .XXX +/- .005

TOLERANCES ON MILLIMETERS (mm)
.00 +/- .38mm .000 +/- .13mm

ANGLES +/- 1/2 FRACTIONS +/- 1/32

APPROVED FOR PRODUCTION TOOLING

| APPROVAL | | | | |
|---|---|---|---|---|
| | PRELIM | DATE | FINAL | DATE |
| DRAWN | CWS | 6/4/97 | | |
| CHECKED | DAL | 6/24/97 | CHECKED | |
| PROJ ENG | CHM | 9/15/97 | PROJ ENG | |
| CH ENG | gala | 9/15/97 | CH ENG | |
| APPROVED | | DATE | RELEASED | |
| DFT MGR | DW | 9/15/97 | | |

| BX1 | USED ON |
|---|---|

dbx, NEWTON , MA. 02195

BX1
TRANSFORMER
ASSEMBLY

| SCALE | SIZE | NUMBER | REV |
|---|---|---|---|
| 1/1 | D | 380258 | 00D |
| SHT 1 OF 1 | | | |

320399
320326 (BLK)
320327 (BLK)
320327 (BLK)
AC 1,2
AC 3,4
INRUSH LIMITER PCB# 460657
T
CH3/4
CH1/2
LINE CORD 320395
BLK
(WHT)
(BLK)
320459 TWISTED
WHT
320457 TWISTED
(WHT) BLK
(BLK) WHT
J1
J3
P1
LS2 GND
OUT CH2
MODULE PCB CH2 460565
J4
J2
GND M2
320465 TWISTED
320466
J1
J3
OUT CH4
P1
MODULE PCB CH4 460565
J4
J2
GND M4
(BLU)
(GRN)
(RED)
(RED)
(BLU)
(GRN)
THERMAL SENSOR CH4 250115
AC T4
AC M4
320325 (BLK)
320307
OUT CH4
OUT CH4
CH4
320308
OUT CH3
OUT CH3
CH3
320309
OUT CH2
OUT CH2
CH2
320310
OUT CH1
OUT CH1
CH1
REAR PANEL FUSES 310087 (x 6)
POWER SWITCH 250117
P3
P1
P4
P2
AC 1,2
AC 3,4
AC 1,2
POWER SWITCH PCB 460640
320329 (BLK)
320464 TWISTED
THERMAL SENSOR CH2 250115
AC T2
AC M2
320323 (BLK)
320328 (BLK)
320455 (BLK)
320406
320406
320401
P3
P2
P4
P1
XFMR CH1,CH2 T1
XFMR CH3,CH4 T2
320332 (BLK)
BLK
BRN
GRY (x2)
GRY (x2)
WHT
YEL
YEL
WHT
GRY (x2)
GRY (x2)
BLK
BRN
P1
J1 RED
J2
J3 BLU
J4
J5
J6 RED
J7
J8 BLU
J9 RP SWP
J10
J11
P2
AC 1,2
AC M2
AC XFMR1
AC M1
320460 TWISTED
(RED)
(BLU)
(RED)
(BLU)
(GRN)
320462 TWISTED
BRIDGE RECTIFIER PCB 460566 CH1,CH2
GRN (x4)
CAP ASSY CH1,CH2
GND 4
GND 1
GND 3
GND 2
CAP ASSY CH3,CH4
(GRN)
GND 2
GND 1
GND 3
GND 4
GRN (x4)
320460 TWISTED
BRIDGE RECTIFIER PCB 460566 CH3,CH4
320462 TWISTED
RP SWP
J9
J8
J7
J6
J5
J4
J3,J2
J1
BLU
RED
P2
P1
J11
J10
AC XFMR2
AC M3
AC M4
(BLU)
(RED)
(BLU)
(RED)
320405
320404
REAR PANEL BINDING POST PCB 460641
LS3 GND
LS2 GND
CH4
CH3
CH2
CH1
320407
320407
P2
P1
P4
P6
P5
P11
P13
P12
320 272
RP3
RP1
P10
P7
P9
P8
P3
320348 (GRN)
320349 (GRN)
REAR PANEL INPUT PCB 460567
FRONT PANEL PCB 460568
AC T1
AC M1
THERMAL SENSOR CH1 250115
320322 (BLK)
320333
320402
320403
(GRN)
(BLU)
(RED)
320461 TWISTED
J2
J4
GND M1
P1
OUT CH1
OUT CH2
LS1 GND
J3
J1
MODULE PCB CH1 460565
J2
J4
GND M3
P1
OUT CH3
J3
J1
MODULE PCB CH3 460565
(GRN)
(BLU)
(RED)
320463 TWISTED
(WHT)
(BLK)
AC T3
AC M3
320324 (BLK)
THERMAL SENSOR CH3 250115
320456 TWISTED
320458 TWISTED
320400
320398
(WHT)
(BLK)

| REV | DESCRIPTION | DR APP | DATE |
|---|---|---|---|
| M356 | REVISIONS | | |

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| APPROVAL | | | |
|---|---|---|---|
| PRELIM | DATE | FINAL | DATE |
| DRAWN RPH | 11-8-87 | | 11/16/87 |
| CHECKED | 11/9/87 | CHECKED | |
| PROJ ENG TRA | 11/9/87 | PROJ ENG | |
| CH ENG | 11/9/87 | CH ENG | |
| DFT MGR | 11/9/87 | RELEASED | |

dbx NEWTON, MA. 02195

SCHEMATIC
BX1
SYSTEM WIRING
DIAGRAM

| BX1 | USED ON |
|---|---|

| SCALE: NONE | SIZE | NUMBER | REV |
|---|---|---|---|
| SHEET 1 OF 1 | D | 340639 | 00 |