

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

**Visit our website - *Click HERE***

698 8/28/90
ROBERT W. BULL

PERKIN ELMER

SALES AND SERVICE SECTOR
SUPPORT ENGINEERING
761 Main Avenue
Norwalk, CT 06859-0572

# SERVICE DATA BULLETIN

NO: 7195-6

SUBJECT: TAC 7/DX Technical Information

DISTRIBUTION: Worldwide

INTERNAL DIST. ONLY: [X] YES [ ] NO

PREPARED BY: T. Gresik DATE: 07-25-90 PAGE 1 OF 22 PAGES

## PROBLEM:

The field lacks information on the TAC7/dx.

## PURPOSE:

For information only.

## MATERIALS REQUIRED:

N/A

## GENERAL:

This SDB contains information on the new TAC7/DX.

The TAC7/DX has been shipping with all 7series and PCseries systems since approximately April 1990.

The TAC7/DX is currently not compatible with DELTA systems. An inventory of TAC7/3 PCBs will be maintained.

The most obvious difference from the previous TAC7/x is the addition of a second EPROM. The processor pcb now has 2 EPROMS in location U35 and U36. (refer to ASM TEA #111 for firmware part numbers).

The power supply, chassis and rear connector orientation are identical to the previous TAC7/x.

Attached is the TAC 7/X and TAC7/DX Illustrated parts list, schematics, and miscellaneous information.

## PROCEDURE:

N/A

0993-8592

# TAC 7/7 TO TAC 7/DX CONVERSION INSTRUCTIONS
## N519-0737

These instructions describe the installation procedure for the TAC 7/7 to TAC 7/DX Conversion Kit (N519-0737). The following parts are included in the kit:

N519-9407 TAC 7/DX Microprocessor PC Board
Includes:
- N519-1928 TAC 7/DX U35 EPROM
- N519-1929 TAC 7/DX U36 EPROM

N519-1926 CSA Label
N519-1990 TAC 7/DX Nameplate

**NOTES:**

This installation procedure should be performed by a Perkin-Elmer Service Representative. If you elect to perform the procedure, any damage or injury that may occur due to user error or misunderstanding is not the responsibility of the Perkin-Elmer Corporation.

A TAC 7/DX Thermal Analysis Controller and TAS 7 Software V3.0 or higher are required to operate the DMA 7.

Revised February 1990

PERKIN ELMER
NORWALK, CONNECTICUT U.S.A.
Perkin-Elmer is a trademark of The Perkin-Elmer Corporation

Follow the procedure below to convert the TAC 7/7 to a TAC 7/DX:

1. Turn the power off. The power switch is located on the front panel of the TAC 7/7.
2. Remove the AC line cord from the rear panel.
3. Disconnect all cables from the rear connectors.
4. Remove the six screws accessible from the bottom of the TAC that secure the top cover to the chassis. Slide the top cover off.
5. Remove the three screws on the back panel above the rear connectors (Figure 1).
6. Disconnect connectors J1 and J2 (Figure 2).
7. Remove the nine screws securing the TAC 7/7 Microprocessor PC Board (N519-9364) to the chasis (Figure 2) and remove the board.
8. Install the TAC 7/DX Microprocessor PC Board (N519-9407).
9. Replace the nine screws on the PC board.
10. Replace the three screws on the back panel.

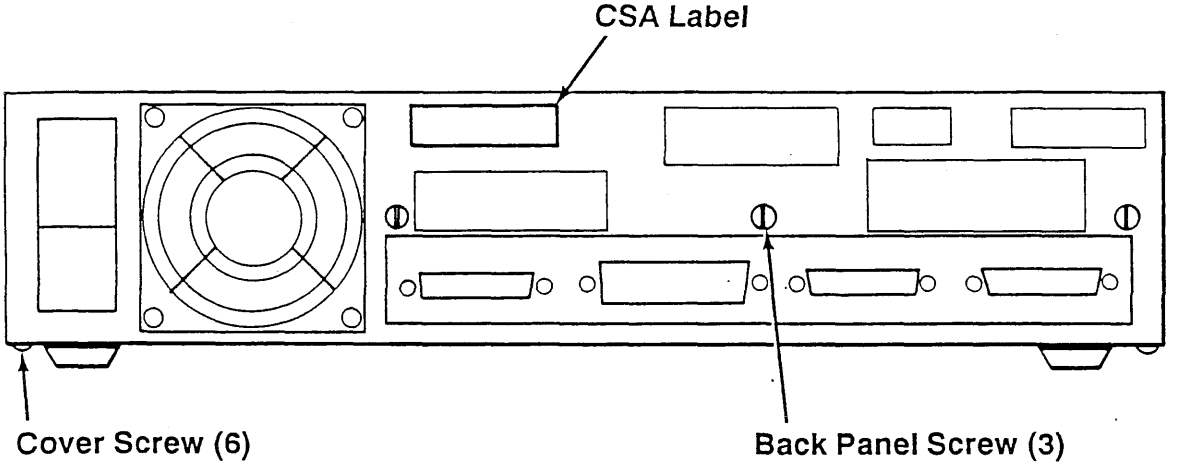



Figure 1. Back Panel

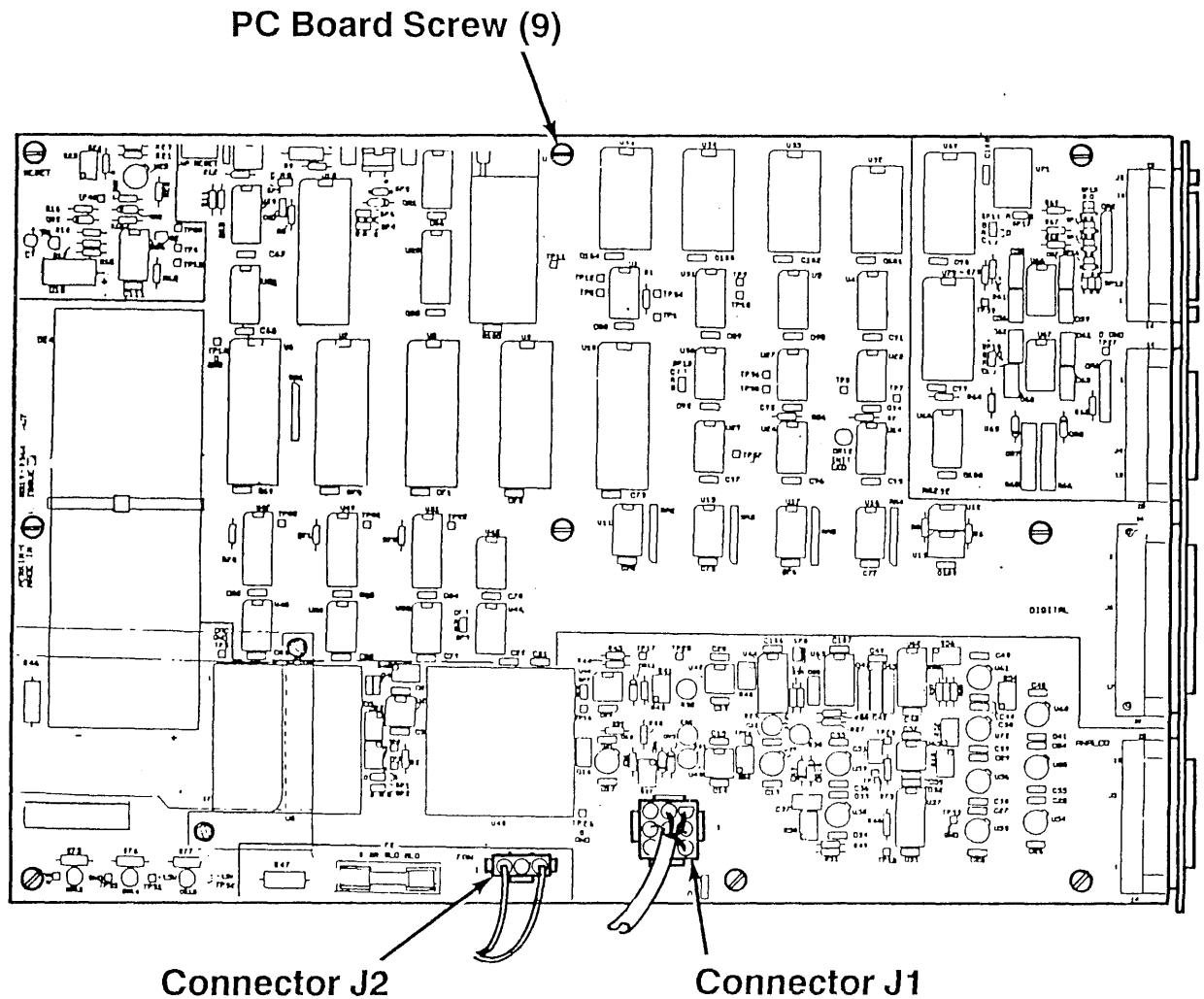



Figure 2. TAC 7/7 Microprocessor PC Board

11. Reconnect connectors J1 and J2.

12. Check that EPROMs U35 (N519-1928) and U36 (N519-1929) are oriented properly and the levers are secured (Figure 3).

13. Install the new CSA label (N519-1926) on the back panel over the original label (Figure 1).

14. Install the TAC 7/DX nameplate (N519-1990) on the front panel.

15. Slide the top cover back on and replace the six screws.

16. Reconnect all cables and the AC line cord.

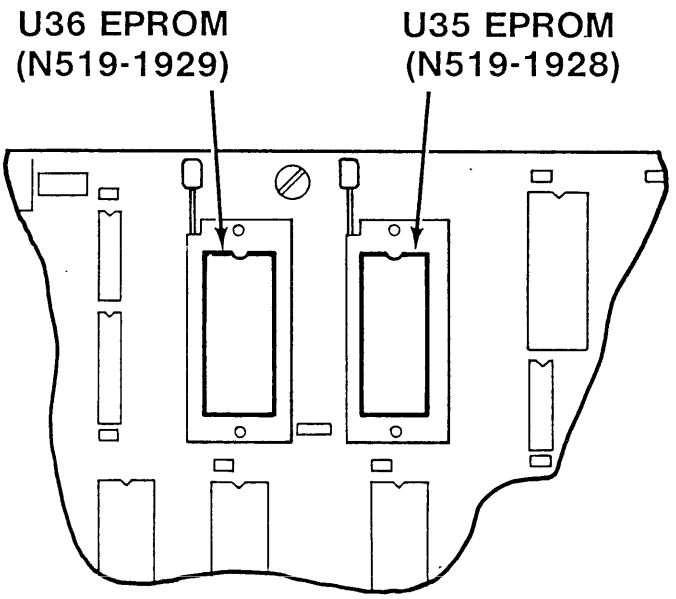
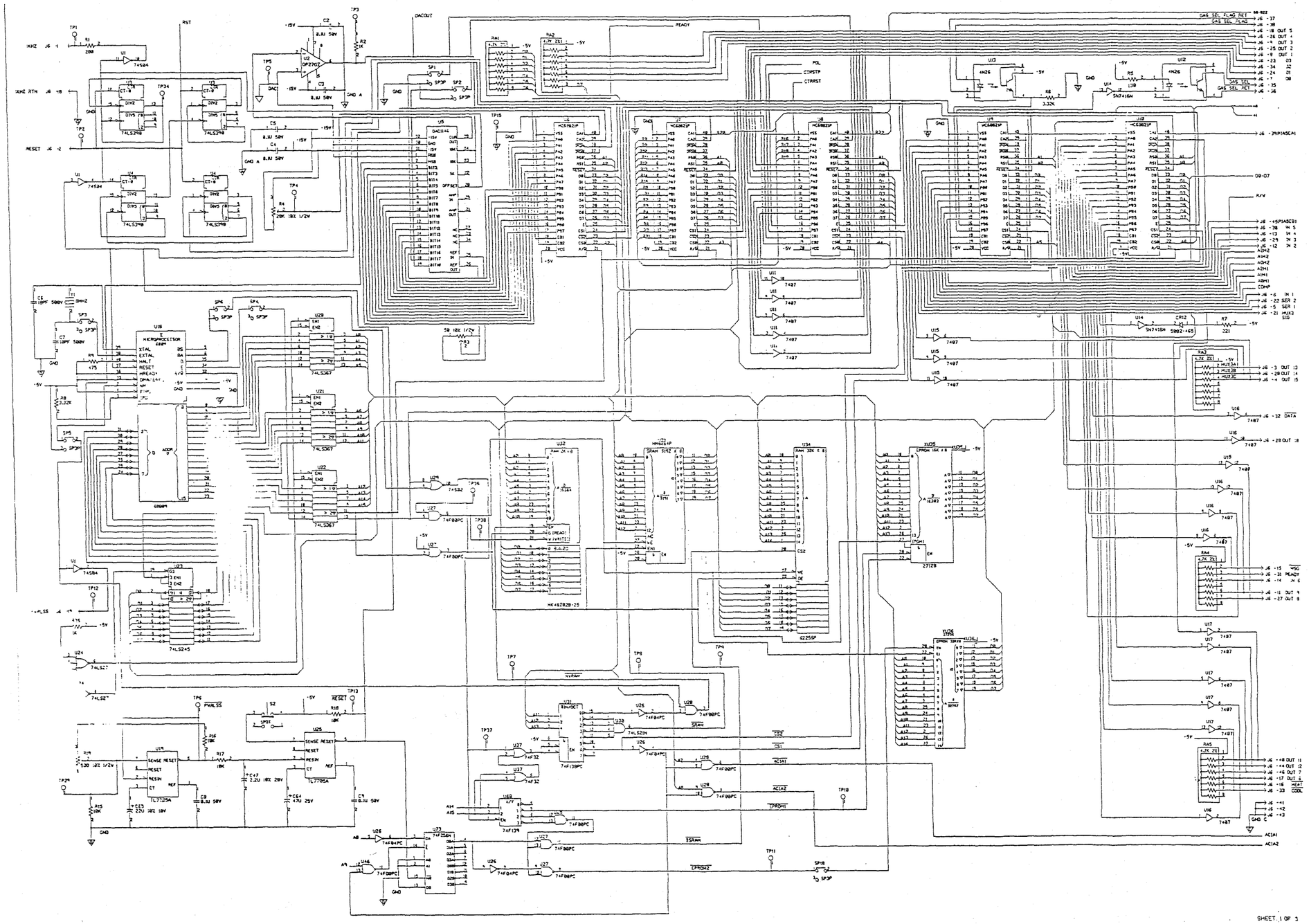



Figure 3. U35 and U36 EPROMs on the TAC 7/DX Microprocessor PC Board




| | | |
|---|---|---|
| A | DR+ 20321 | 5-8-84 |
| 5 | 5TH ISSUE | 13-12-89 |
| 4 | 4TH ISSUE | 12-13-89 |
| 3 | 3RD ISSUE | 11-21-89 |
| 2 | 2ND ISSUE | 11-10-89 |
| 1 | 1ST ISSUE | 10-19-89 |

| DWG | DESCRIPTION | DATE |
|---|---|---|

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE PERKIN-ELMER CORPORATION, ARE ISSUED IN STRICT CONFIDENCE, AND SHALL NOT BE REPRODUCED, OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PRIOR WRITTEN PERMISSION.

SHEET 1 OF 3

REF DRAWING

DO NOT SCALE DRAWING

COMPUTER GENERATED DRAWING

PERKIN ELMER

MATERIAL N/A

FINISH N/A

DRAWN J. VASS. DATE 8-8-88

CHECKED DATE

PROJ ENGR DATE

APPROVED DATE

SCALE NONE

SCHEMATIC - TAC7/DX

E IN519-9400 A

| DWG | DESCRIPTION | DATE |
|---|---|---|
| 6 | OR# 28321 | 11-8-89 |
| 5 | 6TH ISSUE | 9-22-89 |
| 5 | 5TH ISSUE | 3-14-89 |
| 4 | 4TH ISSUE | 12-15-88 |
| 3 | 3RD ISSUE | 1-31-88 |
| 2 | 2ND ISSUE | 1-18-88 |
| 1 | 1ST ISSUE | 12-11-86 |

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE PERKIN-ELMER CORPORATION, ARE ISSUED IN STRICT CONFIDENCE, AND SHALL NOT BE REPRODUCED OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PRIOR WRITTEN PERMISSION.

SHEET 2 OF 3

COMPUTER GENERATED DRAWING

REF DRAWING

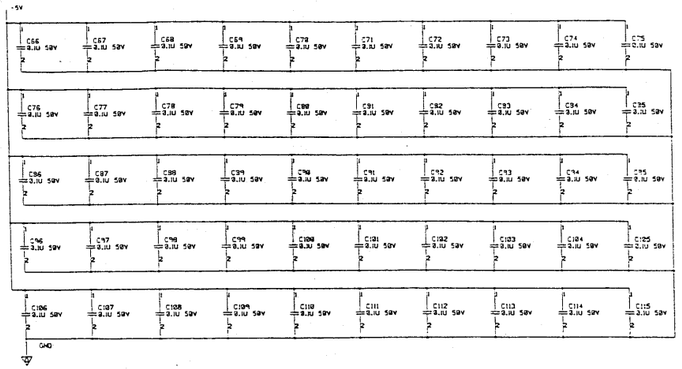
DO NOT SCALE DRAWING

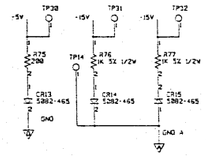
PERKIN ELMER

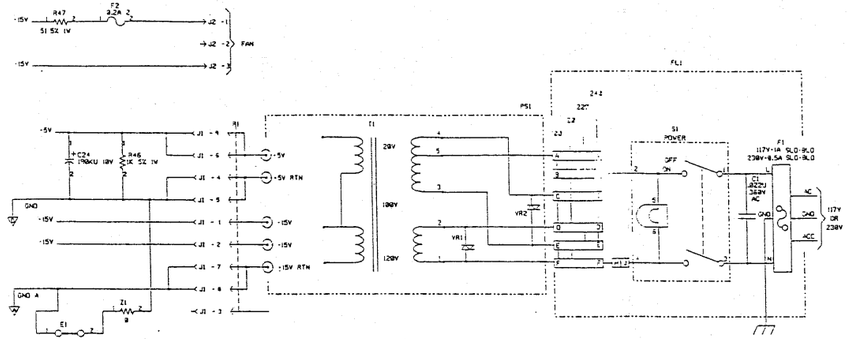
| | |
|---|---|
| MATERIAL | N/A |
| FINISH | N/A |
| NEXT ASSY | N519-9402 |
| QTY | USED ON |
| DRAWN & PASS. | DATE 9-18-89 |
| CHECKED | DATE |
| PROJ. ENGR | DATE |
| IC | 00012-16-90 |
| APPROVED | DATE |
| SCALE NONE | |

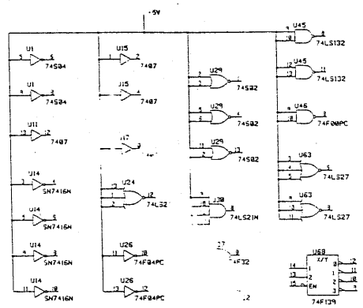
SCHEMATIC - TAC7/DX

E N519-9400 A



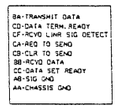



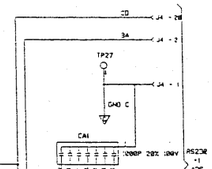



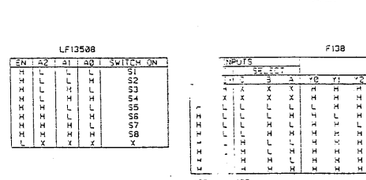




ADDRESS SCHEME

| DEVICE | A15 | A14 | A13 | A12 | A11 | A10 | A9 | A8 | A7 | A6 | A5 | A4 | A3 | A2 | A1 | A0 | ADDRESS RANGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NVRAM | 0 | 0 | 0 | 0 | 0 | X | X | X | X | X | X | X | X | X | X | X | 0000-07FF 2K |
| SRAM | 0 | 0 | 0 | 0 | 1 | X | X | X | X | X | X | X | X | X | X | X | 0800-0FFF 2K |
| | /CS2 | CS1 | | | | | | | | | | | | | RS2 | RS1 | RS0 | |
| PIA 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3004-3007 |
| PIA 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3008-300B |
| PIA 3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 3010-3013 |
| PIA 4 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3020-3023 |
| PIA 5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 3040-3043 |
| ACIA1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3080-3083 |
| ACIA2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3100-3103 |
| SELECT SSRAM | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3200 |
| DESELECT SSRAM | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 3201 |
| SSRAM 2 | 1 | 0 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4000-7FFF 16K |
| SRAM 3 | 1 | 1 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 8000-FFFF 32K |
| SSRAM | 1 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 8000-FFFF 32K |







| | | |
|---|---|---|
| A1 | DR* 38321 | 15-8-89 |
| 5 1 | 6TH ISSUE | 3-22-89 |
| 5 1 | 5TH ISSUE | 3-14-89 |
| 4 1 | 4TH ISSUE | 2-15-89 |
| 3 1 | 3RD ISSUE | 1-31-89 |
| 2 1 | 2ND ISSUE | 11-18-88 |
| 1 1 | 1ST ISSUE | 10-15-88 |

| NO. | DESCRIPTION | DATE |
|---|---|---|

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE PERKIN-ELMER CORPORATION AND SHALL NOT BE REPRODUCED, OR COPIED, OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PRIOR WRITTEN PERMISSION.

SHEET 3 OF 3

REF DRAWING

DO NOT SCALE DRAWING

COMPUTER GENERATED DRAWING

PERKIN ELMER

| | | | |
|---|---|---|---|
| MATERIAL | N/A | DRAWN J. YAMS. | DATE 8-8-88 |
| | | CHECKED | DATE |
| | | PROJ. ENGR. | DATE |
| FINISH | N/A | APPROVED | DATE |
| SCALE: NONE | | | |

SCHEMATIC-
TAC7/DX

E N519-9400 A

| UNLESS OTHERWISE SPECIFIED | | | | | |
|---|---|---|---|---|---|
| DECIMALS | | FRACTIONS | ANGLES | SURFACE ROUGHNESS | DIMENSIONS ARE IN INCHES |
| 2 PLACE | 3 PLACE | ± 1/32 | ± / | | ALL DIAS ON SAME AXIS CONC WITHIN .006 T I R |
| ± / | ± / | | | √ AA MAX | BREAK SHARP EDGES .01R OR .01 x 45° MAX |
| | | | | | ALL DIMENSIONS AND TOL APPLY BEFORE FINISH |

## MATERIALS LIST

| ITEM | DWG SIZE | P-E NO. | DESCRIPTION | QTY |
|---|---|---|---|---|
| 1 | D | N519-0724 | CABLE ASSY-TAC7/7-3 MAIN POWER | 1 |
| 2 | C | N519-0727 | CABLE ASSY-TAC7/7-3 LOW VOLTAGE | 1 |
| 3 | | | | |
| 4 | VR1,2 | 0997-2956 | LIMIT-VCLT VP130A10 | 2 |
| 5 | | 0998-5382 | SLEEVING-SHRINK | .300 |
| 6 | | 0998-5513 | TUBING-SUL .040 FEB BLK | .300 |
| 7 | PS1 | 0999-8013 | POWER SUPPLY | 1 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

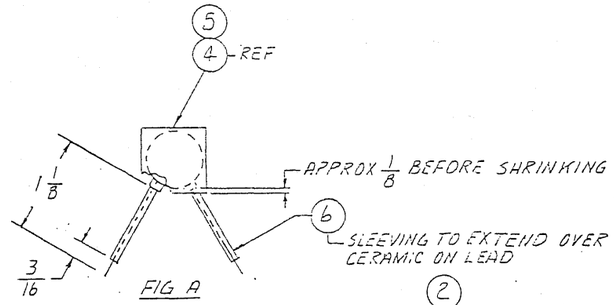
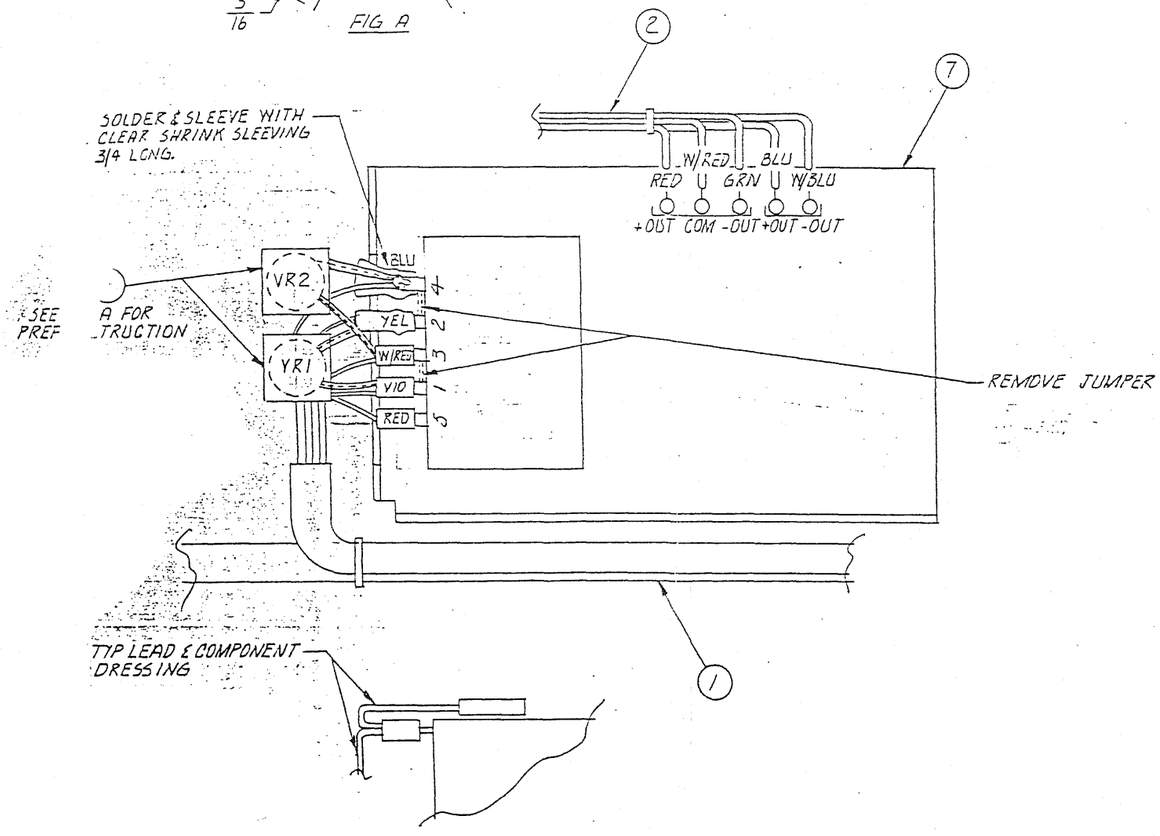
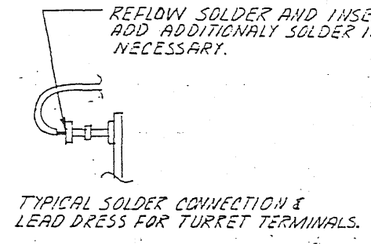



FIG A




TYPICAL SOLDER CONNECTION & LEAD DRESS FOR TURRET TERMINALS.

| CHG | DESCRIPTION | DATE |
|---|---|---|
| A | DR# 18437 | 7/15/84 |

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE PERKIN-ELMER CORPORATION, ARE ISSUED IN STRICT CONFIDENCE, AND SHALL NOT BE REPRODUCED, OR COPIED, OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PRIOR WRITTEN PERMISSION.

| QTY | USED ON |
|---|---|
| 1 | N519-0719 |
| 1 | N519-0718 |
| 1 | N519-0717 |
| 1 | N519-0120 |
| 1 | N519-0113 |
| 1 | N519-0112 |

MATERIAL: SEE M/L

FINISH: —

DO NOT SCALE DRAWING

DRAWN J.W. DATE 3-11-84

CHECKED: W.E. GOLDEN DATE 7/16/84

PROJ ENGR: S.P. DALY, JR. DATE 7-15-84

APPROVED DATE

SCALE 1:1

PERKIN-ELMER
CONNECTICUT INSTRUMENT OPERATIONS

POWER SUPPLY ASSY-TAC7/7-3

C N519-0723 A CHG

# TAC 7/7 - 7/3, TAC 7/DX ILLUSTRATED PARTS LIST

## TABLE OF CONTENTS


| Description | Page |
|---|---|
| TAC 7/7 FINAL ASSEMBLY<br>N519-0112, 120 VAC Version<br>N519-0113, 240 VAC Version<br>N519-0120, 100 VAC Version | 4-1 |
| TAC 7/3 FINAL ASSEMBLY<br>N519-0717, 100 VAC Version<br>N519-0718, 120 VAC Version<br>N519-0719, 240 VAC Version | 4-1 |
| TAC 7/7-3 POWER SUPPLY ASSEMBLY, N519-0723 | 4-2 |
| TAC 7/7-3 MAIN POWER CABLE ASSEMBLY, N519-0724 | 4-3 |
| TAC 7/7-3 LOW VOLTAGE CABLE ASSEMBLY, N519-0727 | 4-4 |
| CONTROL P.C. BD. ASSEMBLY, N519-9364 | 4-5 |
| 7 SERIES SYSTEM CABLE ASSEMBLY, N519-0310 | 4-6 |
| RS232/COMM CABLE ASSEMBLY, 0419-0226 | 4-8 |
| TAC 7/7 TO TAC 7/3 UPGRADE KIT, N519-9373 | 4-9 |
| TAC 7/3 TO TAC 7/7 UPGRADE KIT, N519-9374 | 4-9 |
| TAC 7/3 Recommended Spare Parts Kit (Spark)<br>N519-0849 | 4-9 |
| TAC 7/DX P.C. BD. ASSEMBLY, N519-9404 | 4-10 |
| TAC 7/DX CONVERSION KIT, N519-0737 | 4-12 |
| TAC 7/DX SPARK KIT, N519-0849 | 4-12 |

## TAC 7/7 FINAL ASSEMBLY
## N519-0112, 120 VAC VERSION
## N519-0113, 240 VAC VERSION
## N519-0120, 100 VAC VERSION

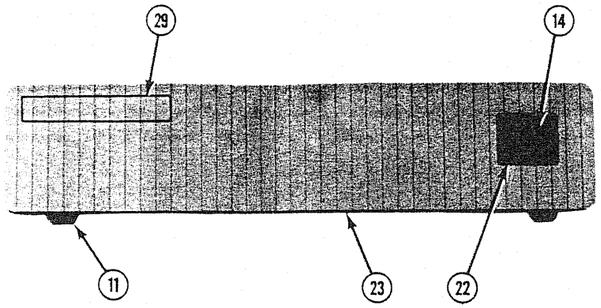
## TAC 7/3 FINAL ASSEMBLY
## N519-0717, 100 VAC VERSION
## N519-0718, 120 VAC VERSION
## N519-0719, 240 VAC VERSION

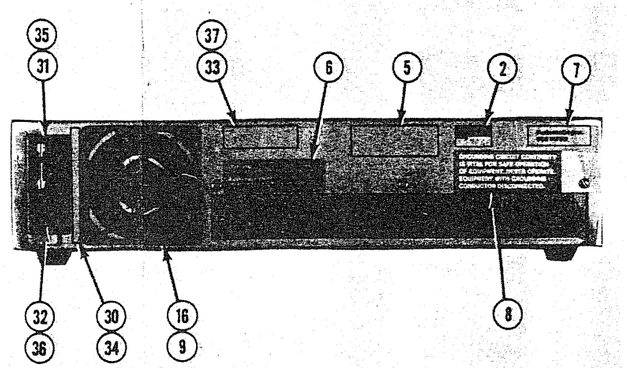
| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | 0009-2041 | Danger High Voltage Label | 1 |
| 2 | 0211-1988 | Serial Number Tag | 1 |
| 3 | 0211-2893 | Safety GND Label | 1 |
| 4 | 0211-3039 | Fuse Warning Label | 1 |
| 5 | 0211-3045 | FCC Peripheral Label | 1 |
| 6 | 0211-3094 | Power Disconnect Warning Label | 1 |
| 7 | 0211-3135 | VDE 0871 Label | 1 |
| 8 | 0330-2241 | Circuit Ground Label | 1 |
| 9 | 0994-0429 | Fan Guard | 1 |
| 10 | 0998-0793 | Rocker DPDT ILL15A240 Switch | 1 |
| 11 | 0998-4835 | Rubber Foot | 4 |
| 12 | 0998-7106 | Cable 3/4 DIA Tie | 5 |
| 13 | 0998-7474 | Cable Tie (Adhesive Back) Mount | 5 |
| 14 | 0999-4037 | Rocker Switch (Power) Operator | 1 |
| 15 | N519-0723 | TAC 7 Power Supply Assembly | 1 |
| 16 | N519-0725 | TAC 7 Fan Assembly | 1 |
| 17 | N519-0726 | TAC 7 P.C. Bd. Ground Wire Assembly | 1 |
| 18 | N519-0728 | TAC 7 Line Filter Assembly | 1 |
| 19 | N519-1012 | TA 5 Cover | 1 |
| 20 | N519-1078 | DSC 5 Front Panel Clamp | 2 |
| 21 | N519-1091 | TA 5 Front Panel Plate | 1 |
| 22 | N519-1092 | TA 5 Front Panel Laminate | 1 |
| 23 | N519-1163 | TA 5 Front (Finished) Panel | 1 |
| 24 | N519-1680 | TAC 7 7/3 Chassis | 1 |
| 25 | N519-9364 | TAC 7 Control (PCB (B/T) | 1 |
| *25 | N519-9367 | (System Tested) TAC 7 Control PCB | 1 |
| 26 | N519-1728 | TAC 7/3 3700 Compatible EPROM | 1 |
| 26 | N519-1729 | TAC 7/7 7700 Compatible EPROM | 1 |
| 27 | N519-0310 | DMA 7 Cable Assembly | 1 |
| 28 | 0419-0226 | RS232/Comm Cable Assembly | 1 |
| 29 | N519-1735 | TAC 7/7 Nameplate | 1 |
| 30 | 0211-3148[1] | 100/120 VAC 50/60 Hz 0.5A Decal | 1 |
| 31 | 0998-1610[1] | 0.5A 250V 3A Slow Fuse | 1 |
| 32 | 0999-1330[1] | Line Shielded 10A 125V Cord | 1 |
| 33 | N519-1737[3] | TAC 7/7 CSA Label | 1 |
| 34 | 0211-3149[2] | 220/240 VAC 50 Hz 0.25 A Decal | 1 |
| 35 | 0998-1609[2] | 0.25A 250V 3A Slow Fuse | 1 |
| 36 | 0999-1329[2] | Line Shielded 6A 250V Cord | 1 |
| 37 | 0519-1736[3] | TAC 7/3 CSA | 1 |

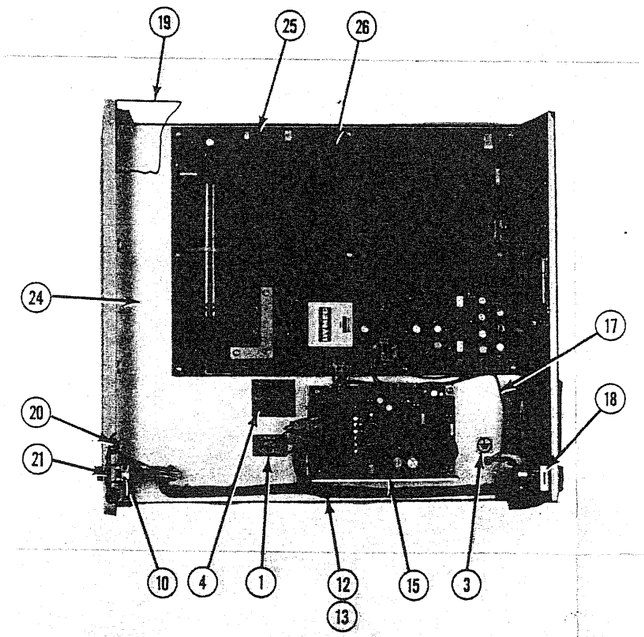
*Recommended Field replacement.

Notes:

1) Used on 100V and 120V instruments.
2) Used on 240V instruments only.
3) Used on 120V instruments only.

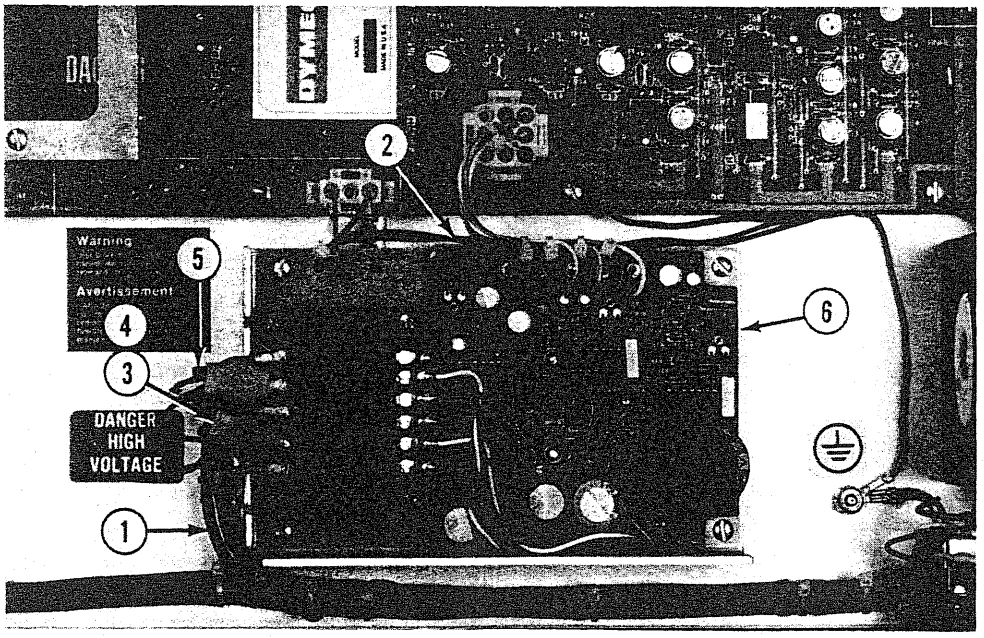


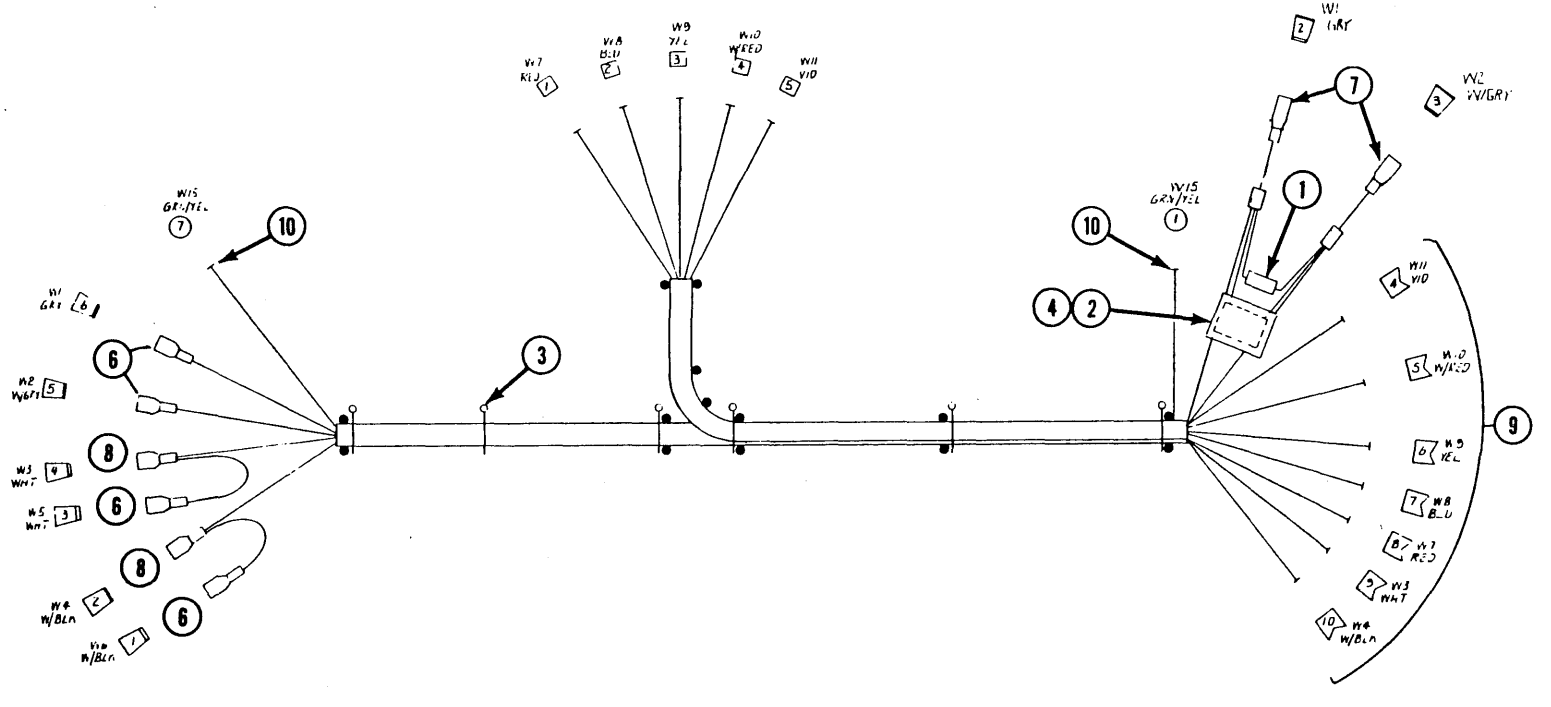
## TAC 7/7-3 POWER SUPPLY ASSEMBLY
## N519-0723

| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | N519-0724 | TAC 7/7-3 Main Power Cable Assembly | 1 |
| 2 | N519-0727 | TAC 7/7-3 Low Voltage Cable Assembly | 1 |
| 3 | 0997-2956 | Limiter VCLT VP130A10 (VR1,2) | 2 |
| 4 | 0998-5382 | Shrink Sleeving | 3 |
| 5 | 0998-5513 | Tubing Insulation,.040 FBG,Black | 3 |
| 6 | 0999-8013 | Power Supply | 1 |



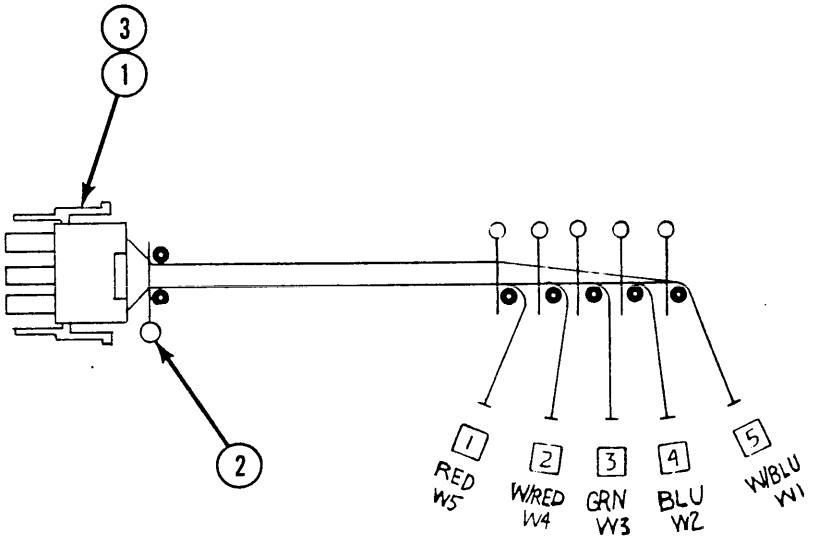
## CABLE ASSEMBLY - TAC 7/7-3 MAIN POWER
## N519-0724

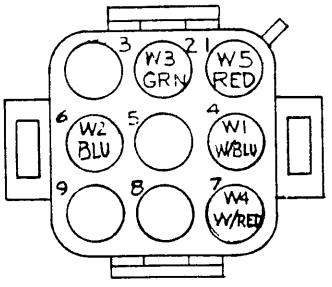
| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | 0995-0496 | Resistor - 100K 5% 1W Comp. | 1 |
| 2 | 0996-2778 | Cap. - 0.22M 10% 360V Polye | 1 |
| 3 | 0998-7106 | Tie - Cable 3/4 DIA | 4 |
| 4 | 0998-5387 | Tubing - Shrink 0.75D PDF CLR | .120 |
| 5 | 0998-5513 | Tubing - Insul .04D FBG BLK | .300 |
| 6 | 0098-9406 | Insul Faston .187 22-18 | 4 |
| 7 | 0998-9423 | Faston - .110 | 2 |
| 8 | 0998-9427 | Faston - Fully Insul 3/16 | 2 |
| 9 | 0998-9430 | Contact - Female (Wrap Post) | 7 |
| 10 | 0998-9432 | Lug - Ring #6 | 2 |



## TAC 7/7-3 LOW VOLTAGE CABLE ASSEMBLY N519-0727

| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | 0998-3176 | Male 9-Position Connector | 1 |
| 2 | 0998-7106 | Cable Tie 3/4-in. Diameter | 6 |
| 3 | 0999-6833 | Male 18 - 24 AWG Contact | 5 |

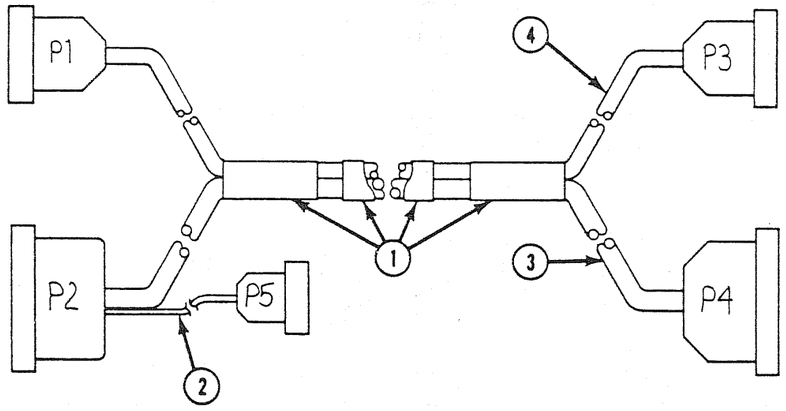


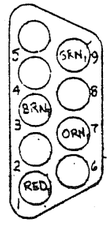




WIRING VIEW

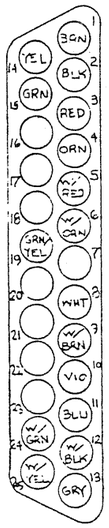
## 7 SERIES SYSTEM CABLE ASSEMBLY
## N519-0310

| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | N519-1186 | Cable Band Marker | 4 |
| P1 | 0998-8803 | 25-Pin Recep Connector | 1 |
| P2 | 0998-8820 | 50-Pin Plug Connector | 1 |
| P3 | 0998-8800 | 25-Pin Plug Connector | 1 |
| P4 | 0998-8802 | 37-Pin Plug Connector | 1 |
| P5 | 0998-3067 | 9-Pin Recep Connector | 1 |
| P1,P3 | 0998-9218 | Hood, 25-Pin Connector | 2 |
| P2 | 0998-9312 | Hood, 50-Pin Connector | 1 |
| P4 | 0998-9219 | Hood, 37-Pin Connector | 1 |
| P5 | 0998-9320 | Hood, 9-Pin Connector | 1 |
| 2 | 0998-4054 | Cable, 4-Cond Shld #22 (Ft) | .5 Ft. |
| 3 | 0999-1352 | Cable, 37-Cond Shld #24 (Ft) | 8 Ft. |
| 4 | 0999-1310 | Cable, 20-Cond Shld #24 (Ft) | 8 Ft. |
| 5 | 0998-9216 | Contact, Pin | 96 |
| 6 | 0998-9217 | Contact, Socket | 21 |
| 7 | 0998-9221 | Jackscrew Set (P1-P5) | 5 |




WIRING VIEW P5

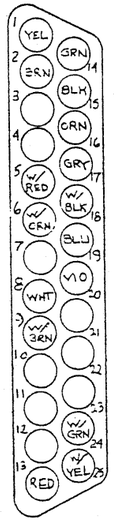


WIRING VIEW P1



WIRING VIEW P2

WIRING VIEW P3





WIRING VIEW P4

### WIRING TABLE

| WIRE # | FROM | COLOR | TO | WIRE # | FROM | COLOR | TO |
|---|---|---|---|---|---|---|---|
| 1 | P2-1 | BLK | P4-34 | 39 | P1-2 | BLK | P3-15 |
| 2 | P2-2 | WHT | P4-14 | 40 | P1-1 | BRN | P3-2 |
| 3 | P2-3 | RED | P4-32 | 41 | P1-3 | RED | P3-13 |
| 4 | P2-4 | GRN | P4-36 | 42 | P1-4 | ORN | P3-16 |
| 5 | P2-5 | ORN | P4-3 | 43 | P1-14 | YEL | P3-1 |
| 6 | P2-6 | BLU | P4-1 | 44 | P1-15 | GRN | P3-14 |
| 7 | P2-7 | WHT/BLK | P4-23 | 45 | P1-11 | BLU | P3-19 |
| 8 | P2-8 | RED/BLK | P4-26 | 46 | P1-10 | VIO | P3-20 |
| 9 | P2-9 | GRN/BLK | P4-37 | 47 | P1-13 | GRY | P3-17 |
| 10 | P2-10 | ORN/BLK | P4-8 | 48 | P1-8 | WHT | P3-8 |
| 11 | P2-12 | BLU/BLK | P4-12 | 49 | P1-12 | WHT/BLK | P3-18 |
| 12 | P2-13 | BLK/WHT | P4-13 | 50 | P1-9 | WHT/BRN | P3-9 |
| 13 | P2-15 | RED/WHT | P4-28 | 51 | P1-5 | WHT/RED | P3-5 |
| 14 | P2-16 | GRN/WHT | P4-29 | 52 | P1-6 | WHT/ORN | P3-6 |
| 15 | P2-17 | BLU/WHT | P4-16 | 53 | P1-25 | WHT/YEL | P3-25 |
| 16 | P2-18 | BLK/RED | P4-4 | 54 | P1-24 | WHT/GRN | P3-24 |
| 17 | P2-19 | WHT/RED | P4-19 | | | | |
| 18 | P2-20 | ORN/RED | P4-33 | 59 | P1-9 | GRN/YEL | SHLD |
| 19 | P2-21 | BLU/RED | P4-31 | | | | |
| 20 | P2-22 | RED/GRN | P4-22 | 60 | P2-38 | RED | P5-1 |
| 21 | P2-23 | ORN/GRN | P4-6 | 61 | P2-37 | BRN | P5-3 |
| 22 | P2-24 | BLK/WHT/RED | P4-24 | 62 | P2-35 | ORN | P5-7 |
| 23 | P2-25 | WHT/BLK/RED | P4-17 | 63 | P2-36 | GRN | P5-9 |
| 24 | P2-26 | RED/BLK/WHT | P4-25 | | | | |
| 25 | P2-28 | GRN/BLK/WHT | P4-30 | 64 | P2-43 | GRN/YEL | SHLD |
| 26 | P2-31 | ORN/BLK/WHT | P4-9 | | | | |
| 27 | P2-33 | BLU/BLK/WHT | P4-11 | | | | |
| 28 | P2-34 | BLK/RED/GRN | P4-5 | | | | |
| 29 | P2-32 | WHT/RED/GRN | P4-10 | | | | |
| 30 | P2-46 | RED/BLK/GRN | P4-35 | | | | |
| 31 | P2-27 | GRN/BLK/ORN | P4-2 | | | | |
| 32 | P2-11 | ORN/BLK/GRN | P4-7 | | | | |
| 33 | P2-40 | BLU/WHT/ORN | P4-15 | | | | |
| 34 | P2-44 | BLK/WHT/ORN | P4-18 | | | | |
| 35 | P2-29 | WHT/RED/ORN | P4-20 | | | | |
| 36 | P2-30 | ORN/WHT/BLU | P4-21 | | | | |
| 37 | P2-14 | WHT/RED/BLU | P4-27 | | | | |
| 38 | P2-41 | GRN/YEL | SHLD | | | | |

## TAC 7/7-3 CONTROL P.C. BD. ASSEMBLY
## N519-9364
## N519-9367, System Tested

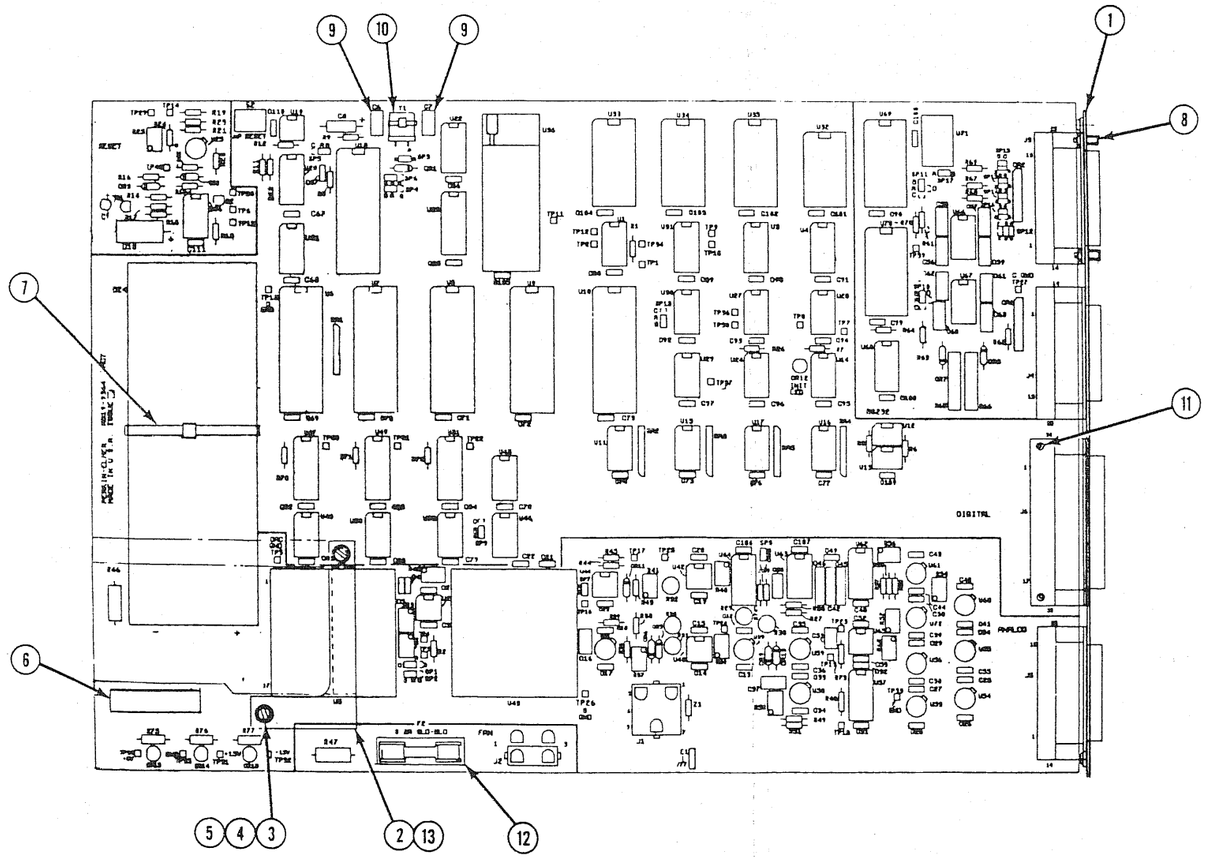
| Item | Part No. | Description | Quantity |
|---|---|---|---|
| 1 | N519-1681 | Plate - TAC 7 Connector (Slkscrn) | 1 |
| 2 | N519-1710 | Brace - TAC 7 Component | 1 |
| 3 | 0991-0023 | Screw - Bdhm 6-32 x 5/16 STL CAD | 2 |
| 4 | 0991-1276 | Washer - SPL LK 6 STL CAD | 2 |
| 5 | 0994-0140 | Standoff - 1/4 RD 7/8L 632T SW BR | 2 |
| 6 | 0994-0243 | Label - Bar Code (P.C. Bds.) | 1 |
| 7 | 0994-0294 | Tie - Cable 3-in. Diameter | 1 |
| R76,77 | 0995-0048 | Resistor, 1K, 5%, 1/2W, Comp | 2 |
| R47 | 0995-0417 | Resistor, 51, 5%, 1W, Comp | 1 |
| R46 | 0995-0448 | Resistor, 1K, 5%, 1W, Comp | 1 |
| R12 | 0995-1284 | Resistor, 10, 5%, 1/4W, Comp | 1 |
| R11,22 | 0995-1308 | Resistor, 100, 5%, 1/4W, Comp | 2 |
| R5 | 0995-1311 | Resistor, 130, 5%, 1/4W, Comp | 1 |
| R1,75 | 0995-1315 | Resistor, 200, 5%, 1/4W, Comp | 2 |
| R7,70,71,72 | 0995-1316 | Resistor, 220, 5%, 1/4W, Comp | 4 |
| R9,16 | 0995-1324 | Resistor, 470, 5%, 1/4W, Comp | 2 |
| R44 | 0995-1326 | Resistor, 560, 5%, 1/4W, Comp | 1 |
| R43 | 0995-1327 | Resistor, 620, 5%, 1/4W, Comp | 1 |
| R58 | 0995-1330 | Resistor, 820, 5%, 1/4W, Comp | 1 |
| (A) | 0995-1332 | Resistor, 1K, 5%, 1/4W, Comp | 13 |
| R24 | 0995-1338 | Resistor, 1.8K, 5%, 1/4W, Comp | 1 |
| R53,55, 57 | 0995-1339 | Resistor, 2K, 5%, 1/4W, Comp | 3 |
| R13,20,23 | 0995-1340 | Resistor, 2.2K, 5%, 1/4W, Comp | 3 |
| R38 | 0995-1343 | Resistor, 3K, 5%, 1/4W, Comp | 1 |
| R6,8 | 0995-1344 | Resistor, 3.3K, 5%, 1/4W, Comp | 2 |
| R27, 64 | 0995-1348 | Resistor, 4.7K, 5%, 1/4W, Comp | 2 |
| R49,51 | 0995-1352 | Resistor, 6.8K, 5%, 1/4W, Comp | 2 |
| R14,17,18,36 | 0095-1356 | Resistor, 10K, 5%, 1/4W, Comp | 4 |
| R10 | 0995-1363 | Resistor, 20K, 5%, 1/4W, Comp | 1 |
| R15 | 0995-1296 | Resistor, 33K, 1/4W, 5% | 1 |
| R21 | 0995-1380 | Resistor, 100K, 5%, 1/4W, Comp | 1 |
| R59 | 0995-1387 | Resistor, 200K, 5%, 1/4W, Comp | 1 |
| R41 | 0995-4174 | Resistor Var, 200 Lin, 1/2W, WW | 1 |
| R37 | 0995-4178 | Resistor Var, 5K Lin, 1/2W, Cermet | 1 |
| R52,54,56 | 0995-4179 | Resistor Var, 10K Lin, 1/2W, Cermet | 3 |
| R42 | 0995-4181 | Resistor Var, 100K Lin, 1/2W, Cermet | 1 |
| R4,34,40 | 0995-4183 | Resistor Var, 20K Lin, 1/2W, Cermet | 3 |
| R50 | 0995-4185 | Resistor Var, 2K Lin, 1/2W, Cermet | 1 |
| R25 | 0995-4191 | Resistor Var, 1K Lin, 1/2W, WW | 1 |
| R60 | 0995-4269 | Resistor Var, 25K Lin, 1/2W, Cermet | 1 |
| R3 | 0995-4303 | Resistor Var, 50 Lin, 1/2W, Cermet | 1 |
| Z1 | 0995-6909 | Resistor, 0 Ohms, 1/4W, Carbon Film | 1 |
| R35 | 0995-7519 | Resistor, 5K, .01%, 1/4W, WW | 1 |
| R29,30,31,32 | 0995-7520 | Resistor, 10K, .01%, 0.25W, WW | 4 |
| R65,66 | 0995-7717 | Resistor, 62, 5%, 5W, WW | 2 |
| RA1,2,3,4,5 | 0995-8023 | Resistor Assembly, 4.7K, 2%, 1.1W | 5 |
| R48,73 | 0995-8850 | Resistor, 4.02K, 1%, 1/4W, MF | 2 |
| C6,7 | 0996-1987 | Capacitor, 22P, 5%, 100V, Mica | 2 |
| C16 | 0996-1991 | Capacitor, 300P, 5%, 300V, Glass | 1 |
| C37 | 0996-1996 | Capacitor, 100P, 5%, 500V, Mica | 1 |
| C56 thru 63 | 0996-2427 | Capacitor, 300P, 10%, 500V, Mica | 8 |
| C50 | 0996-2521 | Capacitor, .22U, 50V, Ceramic | 1 |
| C51 | 0996-2666 | Capacitor, 2200P, 5%, 50V, Paper | 1 |
| C42,45,46 | 0996-2716 | Capacitor, 0.22U, 5%, 50V, (Mylar) | 3 |
| (B) | 0996-2880 | Capacitor, 0.1U, 50V, Cermet | 82 |
| C23 | 0996-2881 | Capacitor, .01U, 50V, Cermet | 1 |
| C8 | 0996-3262 | Capacitor, 10U, 10%, 20V, Tant | 1 |
| C10 | 0996-3290 | Capacitor, 47U, 10%, 35V, Tant | 1 |
| C24 | 0996-5062 | Capacitor, 190KU, 10V, Electro (P.C.) | 1 |
| CA1,2 | 0996-6010 | Capacitor Assembly, 1000 PF, 20%, 100V, CE | 2 |
| C9 | 0996-6226 | Capacitor, 15U, 10V, Electro | 1 |
| CR5,6 | 0997-2432 | Diode, Silicon, IN482B | 2 |
| CR1 | 0997-2496 | Diode, Silicon, 1N4004 | 1 |

(Continued)

## TAC 7/7-3 CONTROL P.C. BD. ASSEMBLY
## N519-9364

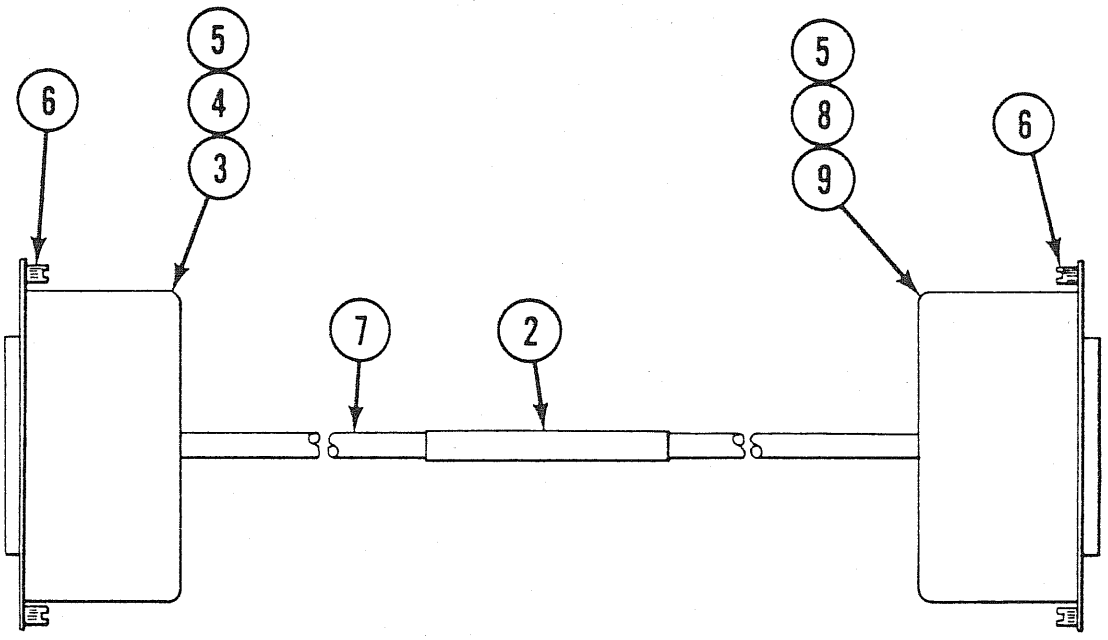
| Item | Part No. | Description | Quantity |
|---|---|---|---|
| Q1,2 | 0997-2563 | Transistor, 2N5088 | 2 |
| CR2 | 0997-2872 | Diode, Zener 2.4V, 5%, IN5221B | 1 |
| CR3,9,10 | 0997-2874 | Diode, Silicon, 1N914A | 3 |
| CR11 | 0997-2897 | Diode, Zener, 5.1V, 5%, IN5231B | 1 |
| CR7,8 | 0997-2902 | Diode, Zener, 12V, 5%, IN4742A | 2 |
| XU32 | 0997-3154 | Socket, I.C. Dip 24 Pin | 1 |
| (C) | 0997-3155 | Socket, I.C. Dip 28 Pin | 5 |
| XU6-10,18 | 0997-3156 | Socket, I.C. Dip 40 Pin | 6 |
| CR12 | 0997-3220 | Diode, Led 5082-4655 (H-P) | 4 |
| XU36 | 0997-3762 | Socket, I.C. Dip 28 Pin | 1 |
| XU5 | 0997-3772 | Socket Strip 17-Pos P.C. | 2 |
| U60,61,72 | 0997-4027 | I.C., Op Amp M310H (NS) | 3 |
| U58 | 0997-4054 | I.C., Op Amp LM321H (NS) | 1 |
| (D) | 0997-4060 | I.C., Op Amp 3627AM (Burr-Brown) | 5 |
| U65 | 0997-4085 | I.C., Op Amp LF 356-BN (NS) | 1 |
| U2,40,42 | 0997-4091 | I.C., Op Amp OP-07CP (PMI) | 3 |
| U27,28,46 | 0997-4277 | I.C., Nand Gate 74LS00 | 3 |
| U29 | 0997-4286 | I.C., Nor Gate SN74LS02N (TI) | 1 |
| U30 | 0997-4288 | I.C., And Gate SN74LS21N (TI) | 1 |
| U24,63 | 0997-4295 | I.C., Nor Gate SN74LS27N (TI) | 2 |
| U4 | 0997-4336 | I.C., Dec Counter SN74LS390N (TI) | 1 |
| U48,50,52 | 0997-4348 | I.C., Counter SN74LS393N (TI) | 3 |
| U3 | 0997-4349 | I.C., Dec Counter SN74LS193N (TI) | 1 |
| U26 | 0997-4408 | I.C., Hex Inverter SN74S04N (TI) | 1 |
| U20,21,22 | 0997-4509 | I.C., Hex Buffer 74LS367 (FS) | 3 |
| U67 | 0997-4810 | I.C., Line Driver 75188N | 1 |
| U11,15-17 | 0997-4813 | I.C., Buffer Driver SN7407N | 4 |
| U14 | 0997-4829 | I.C., Driver SN7416N-10 (TI) | 1 |
| U47,49,51 | 0997-4839 | I.C., Line Driver SN 74LS244N (TI) | 3 |
| U19 | 0997-4842 | I.C., And Driver SN75461N (TI) | 1 |
| U64 | 0997-5108 | I.C., Multivib SN 74LS123N (TI) | 1 |
| U43 | 0997-5261 | Converter, V/F 8612 (DMC) | 1 |
| U5 | 0997-5262 | I.C., D/A Converter DAC 1146 (AD) | 1 |
| U31 | 0997-5606 | I.C., Decoder SN74LS138N-10 (TI) | 1 |
| U66 | 0997-5801 | I.C., Line Receiver SN75189AN-10 (TI) | 1 |
| U25,41,59 | 0997-5908 | I.C., Volt Comparator LM311H (NS) | 3 |
| U1 | 0997-6207 | I.C., Trigger SN74LS14 (TI) | 1 |
| U45 | 0997-6208 | I.C., Nand Trigger SN74LS132N (TI) | 1 |
| U57,62 | 0997-6312 | I.C., Multiplexer LF13508 (NS) | 2 |
| U71 | 0997-7405 | I.C., Oscillator MXO-50-3 | 1 |
| U12,13 | 0997-7701 | I.C., Opto Coupler 4N26 | 2 |
| U44 | 0997-7708 | I.C., Opto Iso Gate 6N137 (H-P) | 1 |
| U6-10 | 0997-7872 | I.C., LSI PIA MC68A21 (MOT) | 5 |
| U68 | 0997-8005 | I.C., Decod/Demult SN74LS139N (TI) | 1 |
| U23 | 0997-8902 | I.C., Transceiver SN74LS245 (TI) | 1 |
| U69,70 | 0997-9008 | I.C., EPCI SCN2661C (SIG) | 2 |
| U18 | 0997-9528 | I.C., MPU MC68A09 (MOT) | 1 |
| U33-35 | 0997-9533 | I.C., LSI Ram HM6264P (HIT J) | 3 |
| U32 | 0997-9577 | I.C., Ram MK48Z02-25 | 1 |
| F2 | 0998-1608 | Fuse, 0.2A, 250V, 3AG, Slow | 1 |
| XF2 | 0998-1679 | Clip, Fuse, 3AG, 15A, P.C. | 2 |
| J1 | 0998-3175 | Connector, Female 9 Pos P.C. | 1 |
| S2 | 0998-6696 | Switch, PB, 1PDT, 0.25A, MOM P.C. | 1 |
| J6 | 0998-8827 | Connector, Male 50 Pos (P.C. Mtg) | 1 |
| SP1-18 | 0998-9104 | Jumper, P.C. Bd., .025 SOC, 0.100 Space | 22 |
| 8 | 0998-9222 | Connector Retainer (Female) | 4 |
| (E) | 0998-9305 | Test Pin Berg 75401-001 | 96 |
| E1 | 0998-9456 | Tab, Disconnect, 1/4W, .032T P.C. | 1 |
| Y1 | 0998-9940 | Crystal, 6.00 MHZ L015% | 1 |
| J3,5 | 0999-2193 | Connector, Male 25 Pos. P.C. Mtg. | 2 |
| J4 | 0999-2198 | Connector, Female 25 Pos., R/A (P.C.) | 1 |
| J2 | 0999-7244 | Connector, Male 3 Pos. P.C. | 1 |
| 9 | 0997-3178 | Component Pad, 2 Lead | 2 |
| 10 | 0998-7106 | Cable Tie 3/4-in. Diameter | 1 |
| 11 | 0991-1876 | Pop Rivet 3/32-in. Diameter | 2 |
| 12 | 0994-0431 | Fuse Cover 3AG | 1 |
| 13 | 0250-6374 | Neoprene, 1/8 x 3/8 | 2-in. |

(A) R2,19,26,39,45,61,62,63,67,68,78, R69,74
(B) C2,3,4,5,12 thru 15,17 thru 22,25 thru 36,38,39,40,41,43,44,48,49,52,53,54,55,67 thru 114
(C) XU33,34,35,69,70
(D) U39,53,54,55,56
(E) TP1-40,SP1-18



## RS232/COMMUNICATIONS CABLE ASSEMBLY 0419-0226

| Item | Part No. | Description | Quantity |
|---|---|---|---|
| (1) | 0419-0226 | Wire Prep Sheet | A/R |
| (2) | 0419-1456 | Cable Band Marker, RS232/Comm. | 1 |
| (3) | 0998-8800 | Connector, 25-Pin, Plug, (J1) | 1 |
| (4) | 0998-9216 | Contact, Male | 9 |
| (5) | 0998-9218 | Hood, 25-Pin | 2 |
| (6) | 0998-9221 | Jackscrew Set | 2 |
| (7) | 0999-1023 | Cable, 9-Cond., Shielded | 8-ft. |
| (8) | 0998-9217 | Contact, Female | 9 |
| (9) | 0998-8803 | Connector, 25-Pin, Female, (J2) | 1 |




WIRING TABLE

| WIRE # | FROM | COLOR | TO |
|---|---|---|---|
| 1 | J1-2 | WHT | J2-2 |
| 2 | J1-3 | RED | J2-3 |
| 3 | J1-4 | GRN | J2-4 |
| 4 | J1-5 | ORN | J2-5 |
| 5 | J1-6 | BLU | J2-6 |
| 6 | J1-7 | BLK | J2-7 |
| 7 | J1-8 | YEL | J2-8 |
| 8 | J1-20 | VIO | J2-20 |
| 9 | J1-1 | BRN | J2-1 |
| 10 | J1-1 | GRN/YEL | SHIELD |

## TAC 7/7 to TAC 7/3 UPGRADE KIT
## N519-0845

| Part No. | Description | Quantity |
|---|---|---|
| N519-1810 | EPROM, TAC 7/3 Compatible | 1 |
| N519-1734 | TAC 7/3 Nameplate | 1 |
| 0993-7228 | Instruction Sheet | 1 |
| 0990-8545 | Plastic Box | 1 |
| 0998-9898 | Antistatic Label | 1 |
| 0330-2330 | Antistatic Foam | 2 |

## TAC 7/3 to TAC 7/7 UPGRADE KIT
## N519-0846

| Part No. | Description | Quantity |
|---|---|---|
| N519-1811 | EPROM, TAC 7/7 Compatible | 1 |
| N519-1735 | TAC 7/7 Nameplate | 1 |
| 0993-7227 | Instruction Sheet | 1 |
| 0990-8545 | Plastic Box | 1 |
| 0998-9898 | Antistatic Label | 1 |
| 0330-2330 | Antistatic Foam | 2 |

## TAC 7/7-3 SPARK KIT
## N519-0849
## (Recommended Spare Parts Kit)

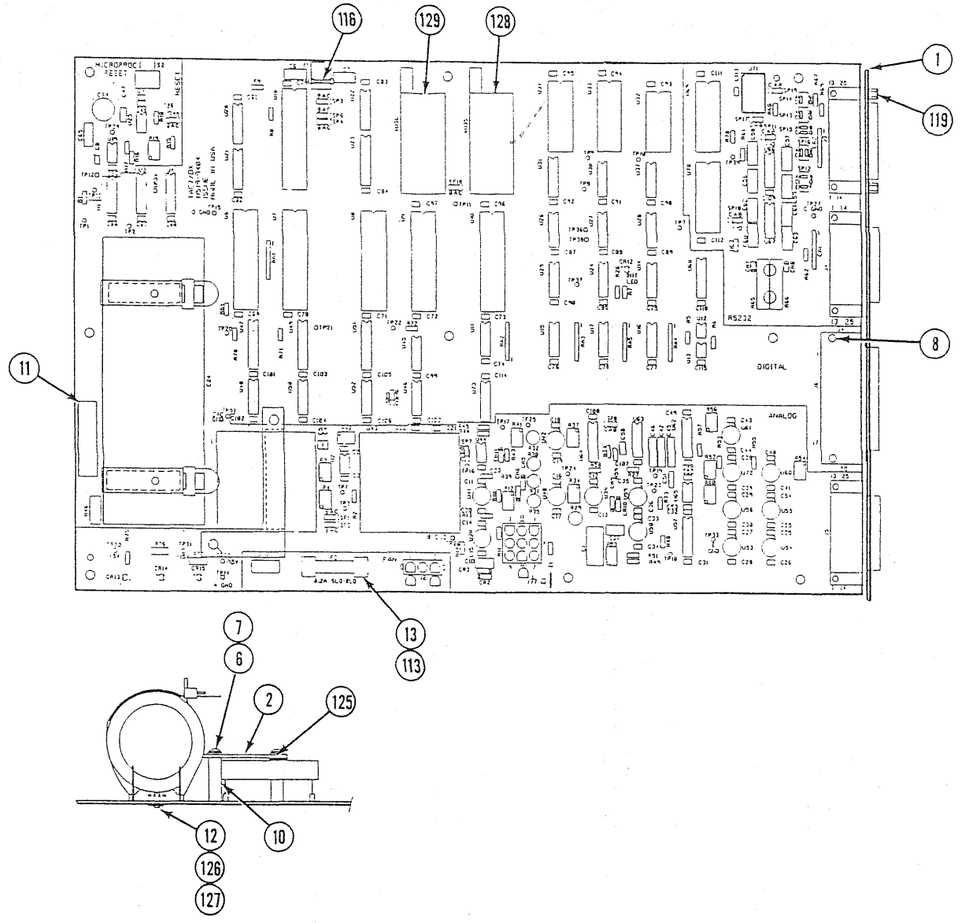
| Part No. | Description | Quantity |
|---|---|---|
| N519-9364 | TAC 7/7-3 Control P.C. Bd. | 1 |
| N519-0723 | TAC 7/7-3 Power Supply Assembly | 1 |
| N519-1810 | EPROM, TAC 7/3 Compatible | 1 |
| N519-1811 | EPROM, TAC 7/7 Compatible | 1 |

## TAC 7/DX P.C. BD. ASSEMBLY
## N519-9404

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| (1) | N519-1681 | Plate, TAC7 Connector (Silkscreen) | 1 |
| (2) | N519-1710 | Brace, TAC7 Component | 1 |
| R30 | 0995-3065 | Resistor, 2K 0.01% 1/4 WW | 1 |
| (6) | 0991-0023 | Screw, BDHM, 6-32x5/16 Stl Cad | 2 |
| (7) | 0991-1276 | Washer, #6, Int Th Lk | 2 |
| (8) | 0991-1876 | Rivet, Pop 3/32 Dia. | 2 |
| Y1 | 0994-0040 | Oscillator, Crystal, 8 MHz | 1 |
| (10) | 0994-0140 | Standoff, Swage, #6-32x7/8L | 2 |
| (11) | 0994-0243 | Label, Bar Code (PC-BDS) | 1 |
| (12) | 0991-1629 | Rivet, Pop, 1/8 Dia x 3/16 LG | 2 |
| (13) | 0994-0431 | Cover, Fuse, 3AG | 1 |
| R76,77 | 0995-0048 | Resistor, 1K, 5%, 1/2 W Comp | 2 |
| R47 | 0995-0417 | Resistor, 51, 5%, 1W Comp | 1 |
| R46 | 0995-0448 | Resistor, 1K, 5%, 1W Comp | 1 |
| R29 | 0995-3027 | Resistor, 40K, 0.1%, 1/4W WW | 1 |
| R41 | 0995-4174 | Resistor, Var, 200 Lin, 1/2W WW | 1 |
| R19 | 0995-4177 | Resistor, Var, 500 Lin, 1/2W Cermet | 1 |
| R52,54,56 | 0995-4179 | Resistor, Var, 10K Lin, 1/2W Cermet | 3 |
| R42 | 0995-4181 | Resistor, Var, 100K Lin, 1/2W Cermet | 1 |
| R4,34,37 | 0995-4183 | Resistor, Var, 20K Lin, 1/2W Cermet | 3 |
| R12,50 | 0995-4185 | Resistor, Var, 2K Lin, 1/2W Cermet | 2 |
| R60 | 0995-4269 | Resistor, Var, 25K Lin, 1/2W Cermet | 1 |
| R3 | 0995-4303 | Resistor, Var, 50 Lin, 1/2W Cermet | 1 |
| Z1 | 0995-6909 | Jumper, Lead (0 Ohm) | 1 |
| R31 | 0995-3066 | Resistor, 1K, 0.01%, 1/4W WW | 1 |
| R32,35 | 0995-7520 | Resistor, 10K, 0.01%, 0.25W WW | 2 |
| R65,66 | 0995-7717 | Resistor, 62, 5%, 5W WW | 2 |
| RA1-5 | 0995-8023 | Resistor Assembly, 4.7K, 2%, 1.1W | 5 |
| R5 | 0995-8707 | Resistor, 130, 1%, 1/4W MF | 1 |
| R1,75 | 0995-8725 | Resistor, 200, 1%, 1/4W MF | 2 |
| R7, R70-72 | 0995-8729 | Resistor, 221, 1%, 1/4W MF | 4 |
| R9 | 0995-8761 | Resistor, 475, 1%, 1/4W MF | 1 |
| R44 | 0995-8768 | Resistor, 562, 1%, 1/4W MF | 1 |
| R43 | 0995-8772 | Resistor, 619, 1%, 1/4W MF | 1 |
| R58 | 0995-8784 | Resistor, 825, 1%, 1/4W MF | 1 |
| (A) | 0995-8792 | Resistor, 1K, 1%, 1/4W MF | 12 |
| R53,55,57 | 0995-8821 | Resistor, 2K, 1, 1/4W MF | 3 |
| R6,8 | 0995-8842 | Resistor, 3.32K, 1%, 1/4W MF | 2 |
| R13,14,48,73 | 0995-8850 | Resistor, 4.02K, 1%, 1/4W MF | 4 |
| R27,64 | 0995-8857 | Resistor, 4.75K, 1%, 1/4W MF | 2 |
| R10,11,49,51 | 0995-8872 | Resistor, 6.81K, 1%, 1/4W MF | 4 |
| R15-18 | 0995-8888 | Resistor, 10K, 1%, 1/4W MF | 4 |
| R59 | 0995-9013 | Resistor, 200K, 1%, 1/4W MF | 1 |
| C10,37 | 0996-1996 | Capacitor, 100P, 5%, 500V Mica | 2 |
| C56-63 | 0996-2427 | Capacitor, 300P, 10%, 500V Mica | 8 |
| C50 | 0996-2521 | Capacitor, 0.22U, 50V Ceramic | 1 |
| C51 | 0996-2666 | Capacitor, 2200P, 5%, 50V Paper | 1 |
| C42,45,46 | 0996-2716 | Capacitor, 0.22U, 5%, 50V Mylar | 3 |
| (B) | 0996-2880 | Capacitor, 0.1U, 50V Ceramic | 92 |
| C23 | 0996-2881 | Capacitor, 0.01, 50V Ceramic | 1 |
| C1 | 0996-3092 | Capacitor, 5U, 35V, 5% | 1 |
| C6,7 | 0096-3094 | Capacitor, 18PF, 500V | 2 |
| C65 | 0996-3217 | Capacitor, 22U, 10%, 10V Tant | 1 |
| C47 | 0996-3260 | Capacitor, 2.2U, 10%, 20V Tant | 1 |
| C24 | 0996-5062 | Capacitor, 190KU, 10V Electrolytic | 1 |
| C64 | 0996-5533 | Capacitor, 47U, 25V Electrolytic | 1 |
| CA1;2 | 0996-6010 | Capacitor Assy, 1000PF, 20%, 100V Ceramic | 2 |
| CR10,2,3,9 | 0997-2874 | Diode-Silicon, 1N914A | 4 |
| CR11 | 0997-2897 | Diode, Zener, 5.1V, 5%, 1N5231B | 1 |
| CR7,8 | 0997-2902 | Diode, Zener, 12V, 5%, 1N4742A | 2 |
| XU32 | 0997-3154 | Socket, IC Dip, 24 PIN | 1 |
| XU33,34,69,70 | 0997-3155 | Socket, IC Dip, 28 PIN | 4 |
| XU6-10,18 | 0997-3156 | Socket,IC Dip, 40 PIN | 6 |
| C12-15 | 0997-3220 | Diode, LED, 5082-4655 | 4 |
| CR5,6 | 0997-2432 | Diode, Silicon 1N482B | 2 |

| Item | Part No. | Description | Qty. |
|---|---|---|---|
| XU35,36 | 0997-3762 | Socket, IC Dip, 18 PIN | 2 |
| XU5 | 0997-3772 | Socket, Strip, 17 POS PC | 2 |
| U60,61,72 | 0997-4027 | IC, OP Amp, LM310H | 3 |
| U38,58 | 0997-4054 | IC, OP Amp, LM321H | 2 |
| U39,53-56 | 0997-4060 | IC, OP Amp, 3627AM (Burr Brown) | 5 |
| U65 | 0997-4085 | IC, OP Amp, LF356BN | 1 |
| U40,42 | 0997-4034 | IC, OP Amp, OP-05CJ | 2 |
| U29 | 0997-4263 | IC, NOR Gate, SN74S02-10 (TI) | 1 |
| U30 | 0997-4288 | IC, AND Gate, SN74LS21N | 1 |
| U24,63 | 0997-4295 | OC, NOR Gate, SN74LS27N (TI) | 2 |
| U3,4 | 0997-4336 | IC, DEC Counter, SN74LS390N (TI) | 2 |
| U48,50,52 | 0997-4348 | IC, DEC Counter 74LS393N | 3 |
| U26 | 0997-4419 | IC, HEX Inverter, 74F04PC | 1 |
| U20,21,22 | 0997-4509 | IC, HEX Buffer, 74LS367 | 3 |
| U67 | 0997-4810 | IC, Line Driver, 75188N | 1 |
| U11,15-17 | 0997-4813 | IC, Buffer Driver, SN7407N (TI) | 4 |
| U14 | 0997-4829 | IC, Driver, SN7416N-10 | 1 |
| U47,49,51 | 0997-4839 | IC, Line Driver, SN74LS244N (TI) | 3 |
| U64 | 0997-5108 | IC, Multivibrator, SN74LS123N (TI) | 1 |
| U43 | 0997-5261 | IC, Converter, V/F 8612 | 1 |
| U5 | 0997-5262 | IC, D/A Converter, DAC1146 | 1 |
| U68 | 0997-5615 | IC, Multiplexer, 74F139 | 1 |
| U66 | 0997-5801 | IC, Line Receiver, SN75189AN-10 (TI) | 1 |
| U41,59 | 0997-5908 | IC, Volt Comparator, LM311H | 2 |
| U1 | 0997-4408 | IC, Trigger, SN74S04 (TI) | 1 |
| U45 | 0997-6208 | IC, NAND Trigger, SN74LS132N | 1 |
| U57,62 | 0997-6312 | IC, Multiplexer, LF13508 | 2 |
| U73 | 0997-7119 | IC, Latch, 74F256N | 1 |
| U71 | 0997-7405 | IC, Oscillator, MX0-50-1 (CTS) | 1 |
| U12,13 | 0997-7701 | IC, Opto Coupler, 4N26 | 2 |
| U44 | 0997-7708 | IC, Opto ISO Gate, 6N137 | 1 |
| U6-10 | 0997-7889 | IC, PIA, MC68B21P (MOT) | 5 |
| U18 | 0997-7892 | IC, MOS MPU, MC68B09P (MOT) | 1 |
| U31 | 0997-8012 | IC, Demultiplexer, 74F138 | 1 |
| U23 | 0997-8902 | IC, Transceiver, SN74LS245 (TI) | 1 |
| U69,70 | 0997-9008 | IC, EPCI, SCN2661C (SIG) | 2 |
| U19,25 | 0997-9155 | IC, LSI Supervisor SV, TL7705ACP | 2 |
| U37 | 0997-9219 | IC, OR Gate, 7432PC (FSC) | 1 |
| U27,28,46 | 0997-9224 | IC, NAND Gate, 74F00PC | 3 |
| U33 | 0997-9533 | IC, LSI RAM, HM6264P (HITJ) | 1 |
| U32 | 0997-9577 | IC, RAM MK 48Z02B-25 (MOS) | 1 |
| U2 | 0997-9700 | IC, OP AMP, OP27GZ (PMI) | 1 |
| U34 | 0997-9871 | IC, LSI RAM, HM62256P-15 (HIT) | 1 |
| F2 | 0998-1608 | Fuse, 0.2A, 250V, 3AG Slow | 1 |
| (113) | 0998-1679 | Clip, Fuse, 3AG-15A PC | 2 |
| J1 | 0998-3175 | Connector, Female, 9 POS | 1 |
| S2 | 0998-6696 | Switch, PB, 1 PDT, 0.25A MOM PC | 1 |
| (116) | 0998-7106 | Tie, Cable, 3/4 Dia. | 1 |
| J6 | 0998-3827 | Connector, Female, 50 POS | 1 |
| SP1-19 | 0998-9104 | Jumper, PCBD 0.025SOC, 0.100 Space | 22 |
| (119) | 0998-9222 | Retainer, Conn. (Female) | 4 Sets |
| (C) | 0998-9305 | Test Pin, Berg 75401-001 | 103 |
| E1 | 0998-9456 | Tab, Disconnect 1/4W, 0.032T (PC) | 1 |
| J3,5 | 0999-2193 | Connector, Male, 25 POS PC MTG | 2 |
| J4 | 0999-2198 | Connector, Female, 25 POS RT/ANG | 1 |
| J2 | 0999-7244 | Connector, Male, 3 POS PC | 1 |
| (125) | 0250-6374 | Neoprene, 1/8 x 3/8 x 2IN | A/R |
| (126) | 0998-6069 | Clamp, Adj., 2" Dia. | 2 |
| (127) | 0991-1268 | Washer, Flat, #6-32 | 4 |
| **(128)** | **N519-1924** | **EPROM, TAC 7/DX (4000-7FFF) U35** | 1 |
| **(129)** | **N519-1925** | **EPROM, TAC 7/DX (8000-FFFF) U36** | 1 |

(A) R2,26,39,45,61,62,63,67,68,69,74,78
(B) C2-5,8,9,11-22,25-36,38-41,43,44,48,49,52-55,66-115
(C) TP1-27,29-34,36-39, SP1-19



## TAC 7/7 to TAC 7/DX CONVERSION KIT
## N519-0737

| Part No. | Description | Qty |
|---|---|---|
| N519-1926 | CSA Label | 1 |
| N519-1990 | TAC 7/DX Nameplate | 1 |
| N519-9407 | TAC 7/DX Microprocessor P.C. Board Assembly | 1 |
| Includes: | | |
| N519-1924 | TAC 7/DX EPROM (U35) | |
| N519-1925 | TAC7/DX EPROM (U36) | |

## TAC 7/DX SPARK KIT
## N519-0849

| Part No. | Description | Qty |
|---|---|---|
| N519-9407 | TAC 7/DX Microprocessor P.C. Board Assembly | 1 |
| N519-0723 | TAC 7/DX Power Supply Assembly | 1 |

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP