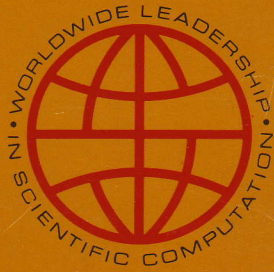


EAI[®] ELECTRONIC ASSOCIATES, INC.

WORLD SCIENCE CENTER



MAINTENANCE POCKET GUIDE

Bulletin No. 952034

This pocket guide has been prepared by the EAI Technical Training Department as an aid to technicians maintaining EAI 680 Computers. Your comments, suggestions and corrections are welcomed by this department and will assist in improving subsequent editions. Please address requests for this publication to EAI Advertising Department.

CONTENTS

	Page
680 Publications	2
Operating Equipment	3, 4
Major Components (Computing Trays 6-8)	5-10
Patch Panel Overlays	11
Special Tools, Accessories, and Parts	12-16
Connector Tools and Repair Parts	17-20
Semiconductor Replacement Guide	21-25

ILLUSTRATIONS

	Page
Console Adjustments	26
Plug-in Component Pin Layouts	27
Integrated Circuit Pin Layouts	28, 29
Bus Layouts	30, 31
Console Layout	32-38
DVM Layout	39
Control Chassis Layout	40
Connector Panel Layout	41
Monitor Input Chassis Layout	42
Monitor Output Chassis Layout	43
Plotter Patching (8850)	44
Recorder Patching (8875)	45
Display Scope Patching (8880)	46
Monitor Scope Patching (8881)	47
Tray Connector Layouts	48
Trunk and Chassis Connector Layouts	49

Title	Publication Number
Handbook of Analog Computation	00 800.0001-3
680 Computing Components	00 800.2050-2
680 Console Components	00 800.2049-1
680/580 Digital Voltmeter	00 800.2059-2
680 Drawings — Volume 1	00 800.2068-0
680 Drawings — Volume 2	00 800.2069-0
680/8800 Noise Generators	00 800.1169-0
680 Reference Handbook	00 800.2048-2
680 Replaceable Parts Lists	00 800.2051-2
680 Test Station	00 800.2062-0
8850 X-Y Plotter, Volume 1	00 800.1133-1
8850 X-Y Plotter, Volume 2	00 800.1134-1
8875 Recorder, Volume 1	00 800.1150-1
8875 Recorder, Volume 2	00 800.1151-0
8875 Recorder, Volume 3	00 800.1152-0
8880 Display Unit	00 800.1145-1
8881 Monitor Oscilloscope	00 800.1153-1

ANALOG PATCHING EQUIPMENT

Item

Patch Cords

1. Black (6 Inches)	510.0067-4
2. Blue (30 Inches)	510.0067
3. Brown (12 Inches)	510.0067-3
4. Green (24 Inches)	510.0067-1
5. Orange (18 Inches)	510.0067-2
6. Yellow (40 Inches)	510.0067-5

Bottle Plugs

7. Blue (Horizontal)	542.1455-1
8. Yellow (Vertical)	542.1456-1

Miscellaneous

9. Analog Patch Pin	542.1315-1
10. Multiple Connector	542.1112-2
11. Stabilizing Patch Cord Network	5.0294

LOGIC PATCHING EQUIPMENT

Item

Patch Cords

12. Black (6 Inches)	510.0155-1
13. Blue (36 Inches)	510.0155-4
14. Brown (12 Inches)	510.0155-2
15. Gray (3 Inches)	510.0155
16. Orange (18 Inches)	510.0155-3

Miscellaneous

17. Logic Patch Pin	542.1321
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NOTE

The patching equipment on Page 3 (except for Item 11) is available as a kit (EAI Part No. 100.0394) which contains the following quantities of each item:

Quantity	Items
3 Each	9
5 Each	2, 6, 13, 15
10 Each	4, 12, 14, 16
15 Each	7, 17
20 Each	5, 10
35 Each	1, 3
65 Each	8

EXPENDABLE OPERATING SUPPLIES

(See also Page 13, Miscellaneous Parts, Mechanical.)

8850 PLOTTER (Model 99.0656-6)	
Blotter (Package of 12)	955.0019
Ink Cartridges (Packages of 12)	
Green	100.0013-1
Red	100.0013
Paper, Chart, 11 x 16-1/2 Inches (Packages of 100)	
Centimeter Graduations	955.0068-1
Inch Graduations	955.0068
Inch Graduations (Kromekote)	955.0068-2
Pen Cleaning Wires (Bundle of 6)	406.0124
8875 RECORDER (Model 99.0702)	
Ink, Blue (2 Ounces)	10.926.0130-1
Paper	
Gray (850 Feet)	10.955.0130-3
Gray, High Gloss (500 Feet)	10.955.0130-1
Reproducible (850 Feet)	10.955.0130-2
White, High Gloss (500 Feet)	10.955.0130-5

AMPLIFIER BALANCE AND SETUP PANEL

20.1073
42.0329

Balance Pot Network	42.0329
Readout & Audio Overload Network	51.0223

ATTENUATORS

Handset	42.0338
Servo Set	42.0327

COMPUTING TRAYS

ANALOG

(See Notes on Page 8)

Type	Old Series ¹	New Series ²
Combo Tray	70.009 ³	70.0028 ³
Amplifier Card	6.0683	6.0831/ 6.0842
Integrator Network Card	12.1332	12.1332
Summing Resistor Network Card	12.1333	12.1333
Combo Tray (Electronic Hold)		70.0025-1 ⁴
Amplifier Card		6.0842
Integrator Network Card		12.1735
Summing Resistor Network Card		12.1333
Interface Tray	70.0011	70.0029
Amplifier Card	6.0683	6.0831/ 6.0842
Comparator Card	40.0611	40.0611
D/A Switch Card	14.0347	14.0347
Log _e X DFG Tray	76.0013	76.0016
Amplifier Card	6.0683	6.0831/ 6.0842
Encapsulated Amplifiers	6.0757	6.0757
Log _e X DFG Card	16.0351	16.0351
MDFG Readout Tray	76.0010	76.0010
Relay Network	12.1381	12.1381

Type	Old Series ¹	New Series ²
MDFG Readout/Zero Limit Summer Tray ⁵	72.0027	
Amplifier Card	6.0683	
Summing Resistor Network Card	12.1333-1	
Multiplier Tray	77.0006	77.0024
Amplifier Card	6.0683	6.0831/ 6.0842
Multiplier Card	7.0140	7.0140
Multiplier Tray (3 Amplifiers) ⁵		77.0023
Amplifier Card		6.0842
Inverting Amplifier Card		6.0828
Multiplier Card		7.0140
Resolver Tray ⁵	78.0007	78.0010
Amplifier Card	6.0683	6.0831/ 6.0842
Resolver Card	8.0101	8.0101
Sine-Cosine Tray	77.0010	77.0025
Amplifier Card	6.0683	6.0831/ 6.0842
Encapsulated Amplifier	6.0757	6.0757
Sine-Cosine Card	16.0339	16.0339
Track-Store Summer Tray	70.0012	70.0030
Amplifier Card	6.0683	6.0831/ 6.0842
Feedback Limiter Card	16.0340	16.0340
Summing Resistor Network Card	12.1333	12.1333
Track/Store Card	14.0348	14.0348
Zero-Limit Summer Tray	72.0009	72.0035
Amplifier Card	6.0683	6.0831/ 6.0842
Summing Resistor Network Card	12.1333-1	12.1333-1

CONTROL

(See Notes on Page 8)

Type	Old Series	New Series
Combo/Track Store	77.0008 ⁶	77.0026
Mode Control Card	14.0344	14.0456
Track/Store Control Card	12.1382	12.1382
Interface	70.0010	70.0010
Interface Control Card	14.0346	14.0346
Master Control	63.0203	63.0223 ⁷
Central Control Card	14.0369	14.0369
Clock and Digital Control Card	36.0185	36.0185

LOGIC

Type	Part Number
AND Gate Tray	63.0200
AND Gate Card	22.0619
BCD Counter Tray	63.0206
BCD Counter Card	38.0035
GPR Tray	62.0202
GPR Card	38.0034
Mono-Diff Tray	63.0201
Mono-Diff Card	44.0324

NOTES

1. *These trays contain 6.0683 Amplifier Cards. Field modification kits are available (2.1450; one per tray) that add over-voltage limiters to the 6.0683 Amplifiers; the modified amplifiers are designated 6.0831, and the modified trays are then designated with the New Series number.*
2. *These trays are identical with their equivalents in the Old Series column except that 6.0831 or 6.0842 Amplifier Cards are supplied (the 6.0842 Amplifier Card has the over-voltage limiter built on the main circuit board; the 6.0831 is electrically identical, but the over-voltage limiter is on a small outboard circuit card). The 70.0025-1 and 77.0023 trays have no Old Series equivalents.*
3. *These trays should not be used in a computer supplied with a 63.0223 Master Control Tray.*
4. *These trays should be located in positions controlled by 77.0026 Combo/ Track-Store Control Trays.*
5. *Require overlays. See Page 11.*
6. *These trays should be used to control 70.0009 or 70.0028 Combo Trays only.*
7. *This tray should be used only if all Combo Trays in the computer are type 70.0025-1.*

CONTROL CHASSIS (See Page 40)

DFG — See MDFG Group

DVM — (See Page 39)

KEYBOARD	9.0045
Buffer Card	6.0814
Keyboard Card	9.0046

LIMITER GROUP

Limiter Drawer	16.0349
Limiter Control Card	16.0350

MDFG GROUP

(See Also Page 38)

Component	Part Number
Control Panels	
2nd Drawer	20.1089
3rd — 6th Drawers	20.1090
Dual Amplifier Network (1 Per 2 MDFG's)	12.1345
Amplifier Network Card	12.1346
Encapsulated Amplifiers (2 Per MDFG)	6.0681-1
+MDFG Unit	16.0338
Resistor/Diode Card	12.1347
Switch Card	51.0246
-MDFG Unit	16.0338-1
Resistor/Diode Card	12.1347-1
Switch Card	51.0246
Setup Network	6.0752
Amplifier Card	6.0683
Setup Amplifier Network Card	6.0753

MONITOR INPUT CHASSIS (See Page 42)

MONITOR OUTPUT CHASSIS (See Page 43)

OVERLOAD INDICATORS

Amplifier Indicators	20.1018
MDFG/Multiplier Indicators	20.1018-1
Reference Regulator Indicator	20.1018-2

POT MODE RELAY 11.0196

POTS — SEE ATTENUATORS

POWER SUPPLIES

Analog Power Supply	10.0288
Regulator Unit	10.0282
Input Network Card	12.1240
+30, ± 15 , Rly. Voltage Reg. Card	43.0151
Reference Regulator	43.0152

Transformer — Rectifier Unit 10.0281

Digital Power Supply (Old Systems) 10.0300
Regulator Network 43.0164

Digital Power Supply (New Systems) 10.0350
Regulator Network 43.0182

PUSHBUTTON — INDICATORS

AND Gate/GPR	51.0270
BCD Counter	51.0302
Comparator/Function Relay	51.0251
Control Card	51.0239
Digital Pushbuttons	51.0284
Logic Card	51.0286
Switch Card	51.0285
Engage — Disengage	51.0247-1
Manual — Keyboard	51.0247-2
On-Off	51.0247

REFERENCE RELAY PANEL 11.0200

SLAVE PANEL 2.1198

TRUNK SELECT ASSEMBLY 12.1504

Tens Trunk Select Cards 12.1330

Part

Number Function

342.1434	To install 77.006 or 77.0024 Multipliers in non-standard positions.
342.1497	To install 72.0009 or 72.0035 Zero-Limit Summer Trays in non-standard positions.
342.1498*	To install 70.0012 or 70.0030 Track-Store Summer Trays in non-standard positions.
342.1499*	To install 70.0009 or 70.0028 Combo Trays in non-standard positions.
342.1500*	Same as 342.1499 except without attenuator terminal areas.
342.1517	To permit installation of 78.0007 or 78.0010 Resolver Trays.
342.1519	To install 77.0010 or 77.0025 Sine-Cosine Trays in non-standard positions.
342.1520	To install 44.0325 Noise Generator in patch bay.
342.1529	To install 76.0013 or 76.0016 Log X DFG Trays in non-standard positions.
342.1589	To permit installation of 72.0027 MDFG Readout/Zero-Limit Summer Trays.
342.1662	To permit installation of 77.0023 3-Amplifier Multiplier Trays.

**These part numbers are included for replacement purposes only; extensive computer re-wiring is necessary to position these trays in non-standard areas.*

SPECIAL TOOLS, ACCESSORIES AND PARTS

GENERAL

Bristol Wrench (For Handset Pot Knobs) 777.0240
 Capacitor Adjustment Tool (JFD 5284) 777.0211

Extenders, Card

8880 Display Control Unit 51.0273
 Analog Control Chassis 51.0229
 DVM 5 051.0160

Extenders, Tray (With Cables)

Analog Trays 51.0278-3
 Logic Trays* 51.0278
 Master Control and Interface Control* 51.0278-2

Extractors

Connector Pin (See Page 18, Connector Tools and Repair Parts)
 Control Chassis Card 777.0177
 Tray 777.0174
 Gram Gage (for 8875 Recorder) 10 777.0130-1
 Silicon Heat Sink Compound (Dow Corning 340 or equal) 942.0025
 Solder Removal Tool 777.0210
 Test Patch Block 102.0046
 Wrench, Pen Pressure Adj. (8875 Recorder) 10.777.0130-3
 Wrench, Pen Replacement (8875 Recorder) 10.777.0130-2

**Cannot be used in Test Position.*

SPECIAL TOOLS, ACCESSORIES AND PARTS

MISCELLANEOUS PARTS, MECHANICAL

(See also Page 20, Miscellaneous Connector Repair Parts.)

Etched-Circuit Mounting Clips (for trays) 174.0219
 Logic Area Patch Panel Inserts 306.0439

Pens

8850 Plotter 378.0049
 8875 Recorder (Analog) 10 378.0130-1
 8875 Recorder (Event Marker) 10 378.0076
 Pushbutton Actuator, Blank (680 Control Panels) 110.0077
 Snap-in Fastener (for Cable Clamps in Trays) 198.1405

MISCELLANEOUS PARTS, ELECTRICAL

Battery, 8850 Plotter (Mallory RM-42R) 502.0009

Choppers

680 DVM Reference Amp. (James 4501 or equal) 530.0003
 680 DVM Unloading Amp. and 8850 Plotter 530.0042
 680 Op. Amps. and Reference Amp. 530.0055
 680 Servo Amp. 530.0072
 8880 Display Control Unit 530.0057

MISCELLANEOUS PARTS, ELECTRICAL (Cont)

Fuses: 680 Console Components

DVM

3/4A, 125V, SB (Littlefuse 313.750)	570.0109
1/8A, 125V, FA (Littlefuse 318.125)	570.0149

10.0300 Power Supply

3A, 125V SB (Bussman MDX3)	570.0053
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Fuses, 680 Peripheral Equipment

8850 Plotter

2A, 125V, FA (Bussman AGX2)	570.0013
2A, 125V, SB (Bussman MDL2)	570.0035
1/32A, 250V, FA (Bussman AGX1/32)	570.0004

8875 Recorder

10A, 250V, MA (Littlefuse 314.010)	570.0121
5A, 125V, SB (Littlefuse 313.005)	570.0115
3A, 250V, FA (Littlefuse 312.003)	570.0088
1-1/2A, 125V, SB (Bussman MDL 1-1/2)	570.0033
1A, 250V, FA (Littlefuse 312.001)	570.0085
1/8A, 250V, FA (Littlefuse 312.125)	570.0076
1/8A, 250V, SB (Littlefuse 313.125)	570.0097

MISCELLANEOUS PARTS, ELECTRICAL (Cont)

8880 Display Unit

3A, 125V, SB (Bussman MDL3)	570.0038
2A, 125V, SB (Bussman MDL2)	570.0035
1/8A, 125V, FA (Littlefuse 275.125)	570.0168

8880 Display Control Unit

4A, 125V, SB (Bussman MDX4)	570.0055
2A, 250V, FA (Littlefuse 312.002)	570.0087
1A, 250V, FA (Littlefuse 312.001)	570.0085

8881 Monitor Oscilloscope

3A, 125V SB (Bussman MDX3)	570.0053
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Lamps, 680 Console Components

Address Display 14V (GE 1909)	
Console POWER Switch, 6V, 0.04A (Silver Base)	578.0047-1
Console Pushbuttons Except POWER Switch, 18V, 0.04A (Dark Green Base)	578.0063
DVM Display, 6-8V, 0.15A (Type 47)	578.0003
Overload Indicators, 6.3V, 0.075A (Red Base)	578.0077

MISCELLANEOUS PARTS, ELECTRICAL (Cont)

Lamps, 680 Peripheral Equipment

8850 Plotter

Lever Switches, 28V, 0.04A
(Type 335) 578.0049

8875 Recorder

Fluorescent 578.0052

Indicator Lamps 10.578.0030-2

8880 Display Unit

Power Indicator 578.0020-1

8880 Display Control Unit

Pushbuttons, 14V, 0.08A (Type 330) 578.0020

Trace Indicators 14V, 0.08A 578.0047

8881 Monitor Oscilloscope

Graticule and Power Lamps,
6.3V, 0.25A (Type 44) 578.0002

Pushbuttons, 14V, 0.08A (Type 330) 578.0020

Non-Linear Resistors, 680 and Peripheral Equipment

Amplifiers and Pots 646.0062

NOTE

The following kits contain extractors, crimping tools, and contact replacements as listed. These tools and parts may also be purchased separately; however, the tool complements are the minimum necessary to service computer connectors. Failure to use the proper tool will damage the connector block or contact.

COAXICON AND PATCH CONTACT REPAIR KIT

(EAI Part Number 100.0198)

Item	Description	EAI Number
1	15 Ea. Ferrule (Min. Coax)	250.0010
2	15 Ea. Ferrule (Lo C & Lo R Coax)	250.0013
3	10 Ea. Insulators (Tray Patch Block)	306.0450-2
4	25 Ea. Retention Spring (Coax)	434.1015
5	25 Ea. Retention Spring (Patch Contacts)	434.0113
6	5 Ea. Pin, Coaxicon (Min. Coax)	674.0137
7	5 Ea. Socket, Coaxicon (Min. Coax)	674.0138
8	10 Ea. Patch Contact (Min. Coax)	674.0141
9	10 Ea. Patch Contact (Low C & Lo R Coax)	674.0151
10	5 Ea. Pin, Coaxicon (Low C & Lo R Coax)	674.0154

COAXICON AND PATCH CONTACT REPAIR KIT (Cont)

Item	Description	EAI Number
11	5 Ea. Socket, Coaxicon (Low C & Lo R Coax)	674.0156
12	20 Ea. Patch Switching Contact (Norm. Closed)	674.0184
13	20 Ea. Patch Contact (Shorted)	674.0185-1
14	1 Ea. Extraction Tool (Coaxicon)	777.0135
15	1 Ea. Extraction Tool (Patch Contact)	777.0136
16	1 Ea. Hand Crimp Tool (Universal Frame)	777.0140
17	1 Ea. Die, Model 69440 (Low C & Lo R Coax)	777.0151
18	1 Ea. Die, Model 69227-2 (Min. Coax)	777.0157

NOTE

EAI Number shown is for 1 part only; when ordering please specify quantity desired.

CONNECTOR REPAIR KIT WITH SOLDERABLE CONTACTS

(EAI Part Number 100.0200)

Item	Description	EAI Number
1	10 Ea. AMP. Leaf Contact (Solder Type) (Attenuator sockets)	674.0112
2	25 Ea. Pin, AMP. Type III Plus (Solder Type) (22 Cavity Blocks)	674.0163
3	25 Ea. Socket, AMP. Type III Plus (Solder Type) (22 Cavity Blocks)	674.0164
4	10 Ea. AMP. Blade Contacts (Solder Type) (MDFG Drawer Connectors)	674.0193
5	1 Ea. Extraction Tool (AMP. Type II & III)	777.0092
6	1 Ea. Extraction Tool (AMP. Leaf)	777.0093
7	1 Ea. Extraction Tool (AMP. Type I) (5 Cavity Blocks)	777.0134
8	1 Ea. Extraction Tool (AMP. Blade)	777.0137

NOTE

EAI Number shown is for 1 part only; when ordering please specify quantity desired.

MISCELLANEOUS CONNECTOR REPAIR PARTS

The following parts may be useful in addition to the parts in the previously listed kits.

Bar Area Patch Bay Insulator	306.0465
Bus Bar Edge Contact (22-26 Wire)	674.0172
Bus Bar Edge Contact (16-20 Wire)	674.0173
Capacitor Jack (for 8.991 μ F Capacitors)	542.0787
Connector Block, 5 Pin (Power Connector)	542.1245-1
Connector Block, 5 Socket (Power Connector)	542.1246-1
Connector Block, 8 Pin (Coaxicon)	542.1247
Connector Block, 8 Socket (Coaxicon)	542.1248
Pin, Type I, 8-12 Wire (Power Connector)	674.0178
Socket, Type I, 8-12 Wire (Power Connector)	674.0174

DIODES

Table 1. Direct Replacements (Category A)

(Purchase locally if possible.)

EAI Number	JEDEC or Manufacturer No.
614.0019	1N91
614.0043	G187 (ITT)
614.0091	1N759 12V Z
614.0106	1N944 12,28V Ref
614.0110	1N4002
614.0118	1/4 M 17Z5 (Mot)
614.0131	1N766A (14,5V) Z
614.0137	1N2071
614.0138	3/4 M 47Z10 (Mot)
614.0148	1N916
614.0152	UZ810 (Unitrode)
614.0193	1N4002
614.0207	BR-81A (Diodes, Inc.)
614.0214	1/4 M 6.2Z10 (Mot)
614.0215	1N3024B 15V Z
614.0224	MDA 942-2 (Mot)
614.0242	FD300 (Fairchild)
614.0255	MR 1032A (Mot)
614.0269	1N752A 5,6V
614.0271	UT-262 (Unitrode)
614.0276	1N941A 12,28V
614.0282	SR EA 4-05 (US Semcor)
614.0283	UZ718 (Unitrode)
614.0289	1N748A 3,9V
614.0299	MDA952-2 (Mot)
615.2110	1N4741A 44V Z

DIODES (Cont)

Table 2. Substitute Diodes (Category B)

(The following substitute diodes may be used temporarily if necessary; however, EAI does not guarantee specified accuracy unless the EAI part is used.)

EAI Number	JEDEC or Manufacturer No.
614.0007	1N459
614.0034	1N459
614.0117	CD1282 (Cont. Dev. Corp.)
614.0142	G572 (ITT)
614.0219	1N1200A
614.0293	CTP462 (Clevite)

Table 3. Special Diodes (Category B)

(The following diodes have no replacement or substitutes; spares may be stocked if desired.)

EAI Number	JEDEC or Manufacturer No.
614.0199	614.0287
614.0199-1	through
614.0238	614.0287-5
	615.2110-1

TRANSISTORS

Table 1. Direct Replacements (Category A)

(Purchase locally if possible.)

EAI Number	JEDEC or Manufacturer No.
686.0004	2N467
	2N321
686.0017	2N345
	2N377
686.0022	2N495
	2N1008B
686.0045	2N235A
	2N1039 (2N2139)
686.0077	2N1305
686.0084	2N3906
	2N652
686.0101	2N1308
686.0102	2N1309
686.0169	2N1905
	12A8 (GE)
686.0172	2N2160
686.0185	2N651
686.0210	40250/36467 (RCA)
686.0230	2N1183
	2N3646
686.0236	2N2924
	2N3567 (MPS 6530)
686.0254	2N3566
	2N3789
686.0258	2N3640
	2N3569
686.0305	2N3638A
	2N1502
686.0310	2N3740
	2N3791
686.0368	2N4221
	2N4853
	2N4852

Table 2. Substitute Transistors (Category B)

(The following substitute transistors may be used temporarily if necessary; however, EAI does not guarantee specified accuracy unless the EAI part is used.)

EAI Number	JEDEC or Manufacturer No.
686.0032	2N324S
686.0096	2N324S
686.0107	2N2219
686.0108	2N1132
686.0112	2N697
686.0165 113	2N458A
	2N2270 (2N2219)
686.0229	2N3569 (6MPS 6531)
686.0241	2N3638
686.0242	2N2904
686.0243 250	2N3055
686.0255	2N3638A
	2N930
686.0257	2N3565 (6MPS 6514)

Table 3. Special Transistors (Category B)

(The following transistors have no replacements or substitutes; spares may be stocked if desired.)

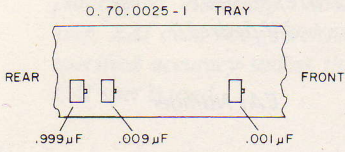
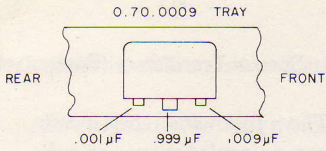
EAI Number

686.0209	686.0311
686.0239	686.0312
686.0240	686.0330 2N3904
686.0245	686.0331
686.0245-1	686.0350
686.0246	686.0374
686.0270	686.0381
	686.0399

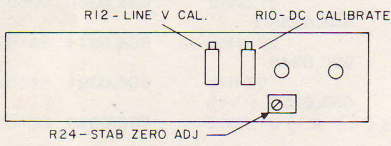
2N4890

SPECIAL SEMICONDUCTORS

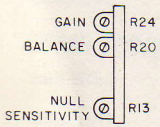
EAI Number	Description	JEDEC/Mfr. No.
648.0004	Stabistor	-
684.0014	SCS	4JX-13AS65 (GE)
648.0036	SCS	3N84(GE)



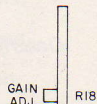
COMBO TRAY CAPACITOR ADJUSTMENT (SEE COMBO & CONT'L CHAPTER OF COMPUTING COMPONENTS MANUAL)



0.20.1073 AMPL. BAL & SETUP PANEL (SEE MISCELLANEOUS COMPUTER CONTROLS CHAPTER OF CONSOLE COMPONENTS MANUAL)



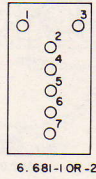
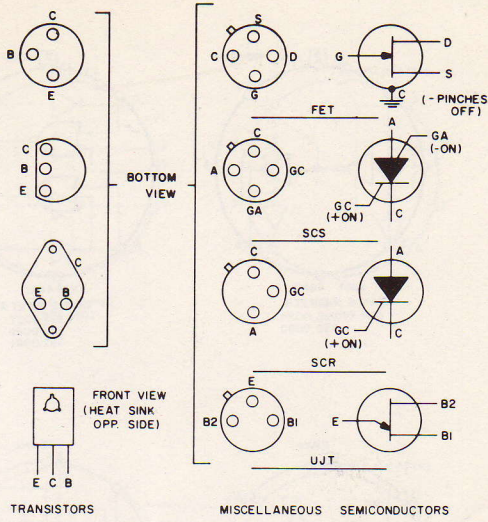
J2
0.6.0677 SERVO AMP
(SEE SERVO AND HANDSET ATTENUATORS CHAPTER OF CONSOLE COMPONENTS MANUAL.)



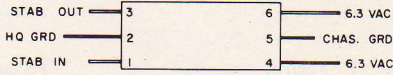
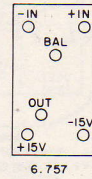
J4
0.4Q0605 RCVD
(SET FOR OUTPUT OF 8.000V WHEN 8.000 IS LOADED IN RCVD REGISTER)

CONTROL CHASSIS CARD ADJUSTMENTS

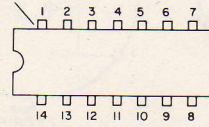
CONSOLE ADJUSTMENTS



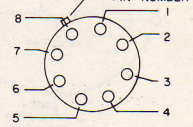
- 1 = + IN
- 2 = BALANCE
- 3 = - IN (INVERTS)
- 4 = +15V
- 5 = ± GRD
- 6 = -15V
- 7 = OUT



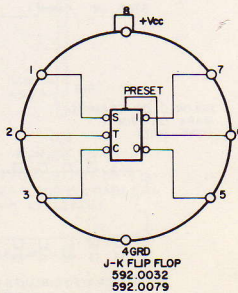
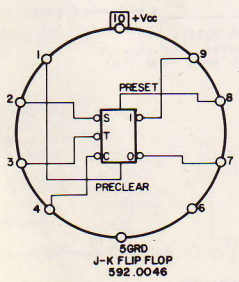
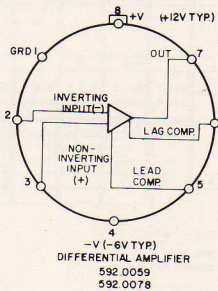
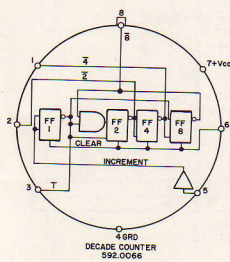
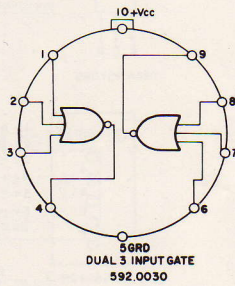
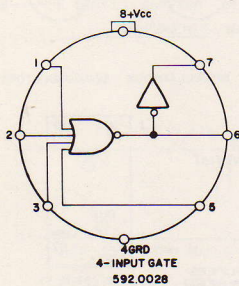
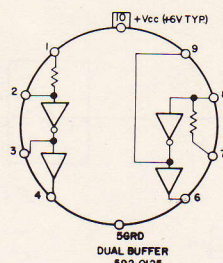
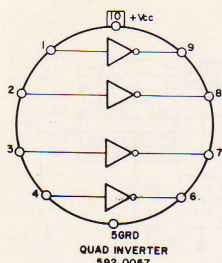
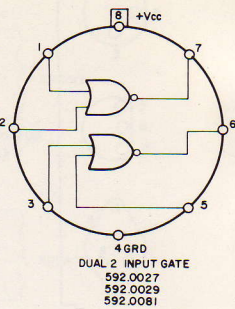
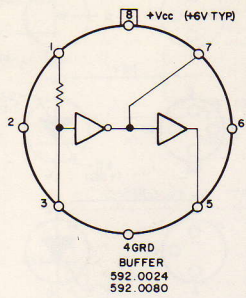
COLORED OR STAMPED MARK ON PIN 1 (OPP. SIDE)



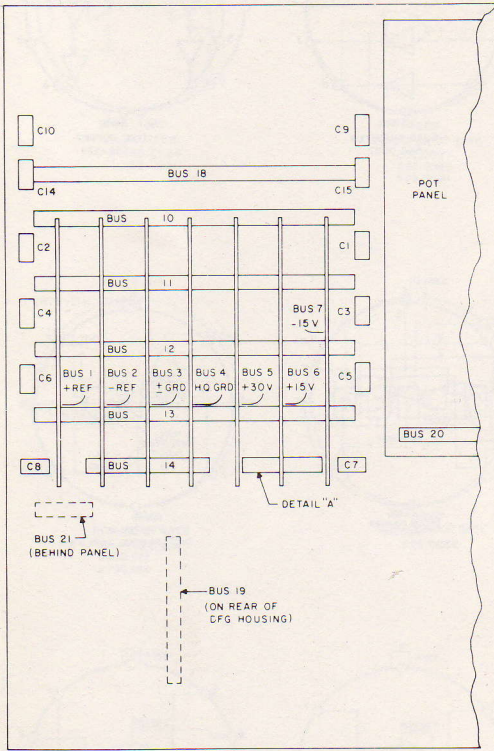
TAB OR FLAT IND. HIGHEST PIN NUMBER



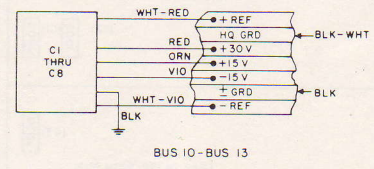
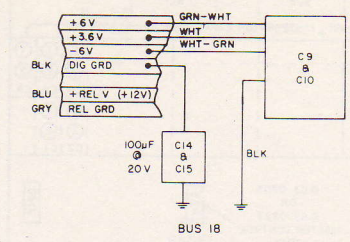
PLUG-IN COMPONENT PIN INFORMATION



INTEGRATED CIRCUIT
PIN LAYOUTS
(TOP VIEW)

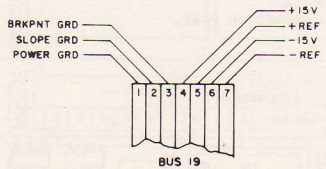
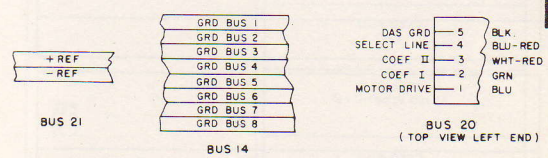


680 BUS LAYOUTS
(COMPUTER REAR VIEW)

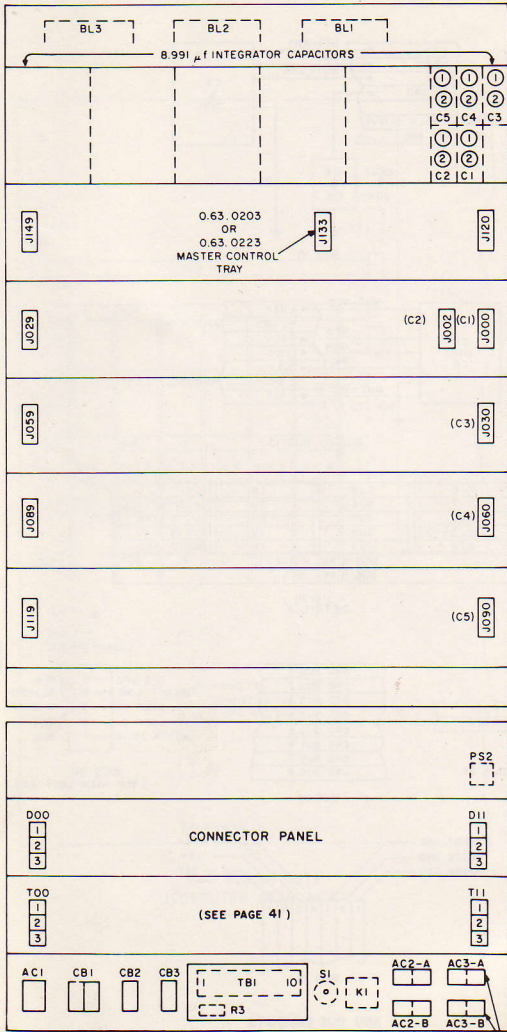


SU 0	SU 5	SA	SCG
SU 1	SU 6	SS	SX (SPARF)
SU 2	SU 7	SD	BUS 15 +14V
SU 3	SU 8	SV	BUS 16 -14V
SU 4	SU 9	SP	BUS 17 GRD
BUS 8 REL V (+12V)			
BUS 9 REL GRD			

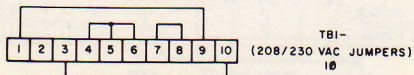
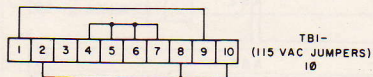
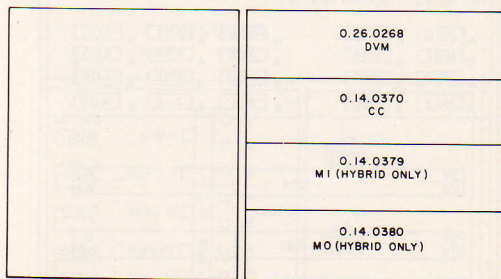
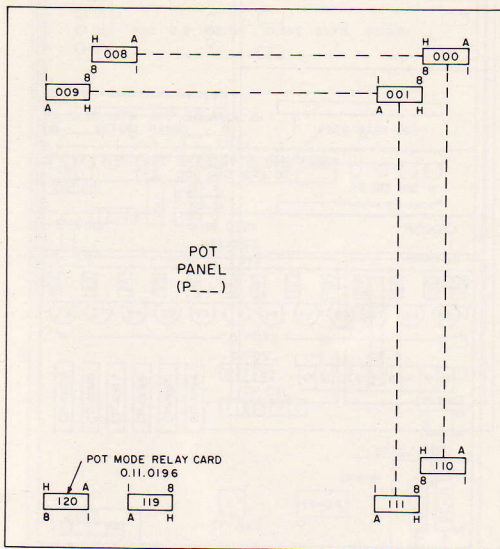
DETAIL "A"



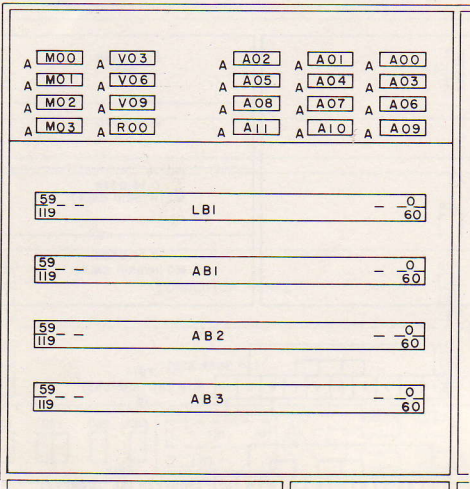
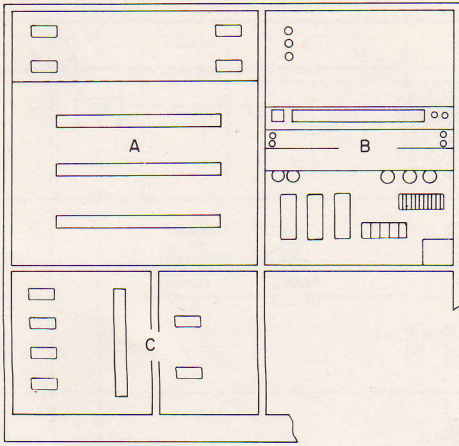
680 BUS LAYOUTS
(DETAIL)



680 LAYOUT - EXTERIOR REAR VIEW
LEFT

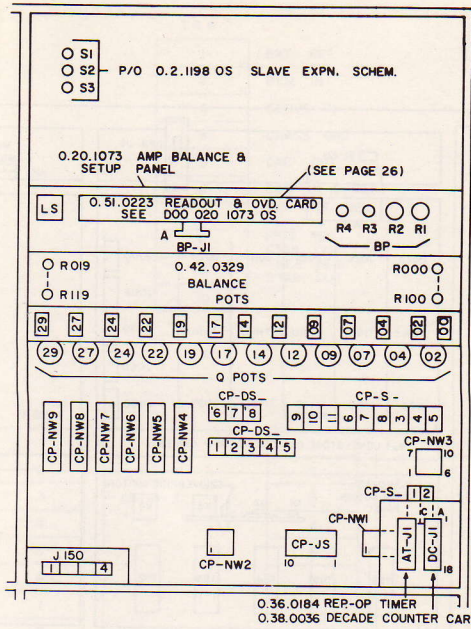


680 LAYOUT - EXTERIOR REAR VIEW
RIGHT

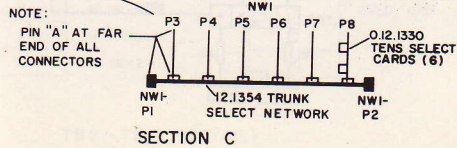
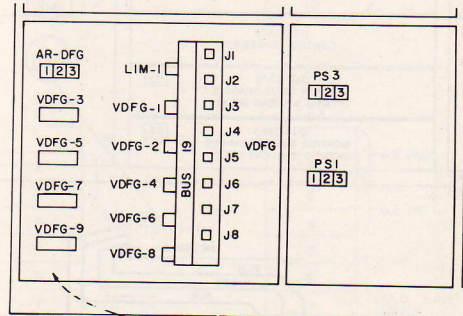


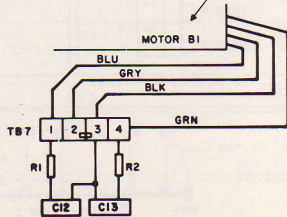
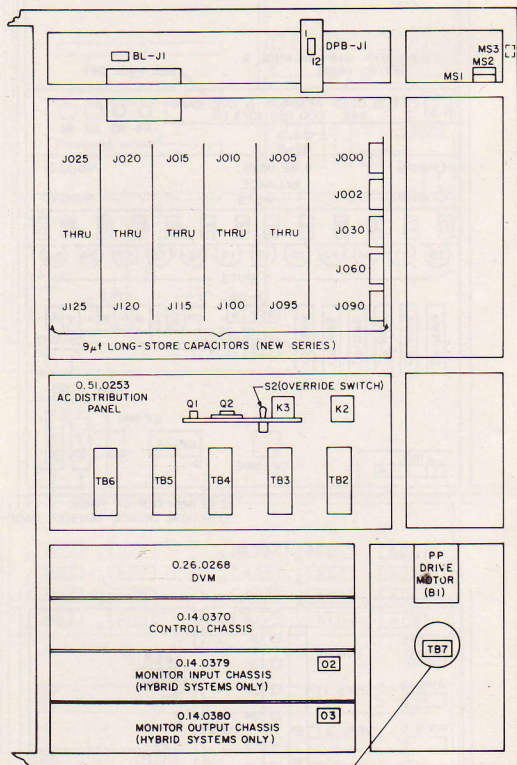
SECTION A

680 LAYOUT - INTERIOR REAR VIEW (1 OF 2)



SECTION B





T B 6

1	EXT. REF.
2	DVM IN
3	SERVO IN
4	CHASS. GRD
5	DAC OUT
6	DAC IN (-REF)
7	EXT. REF. SEL. (REL. V. SW. +REF. REG.)
8	STAB OUT
9	-REF. REG. STAB OUT
10	

T B 5

1	AC IN-2
2	
3	
4	AC COM.
5	
6	
7	
8	
9	
10	

T B 4

1	AC IN-1
2	
3	
4	AC COM.
5	
6	
7	
8	
9	
10	

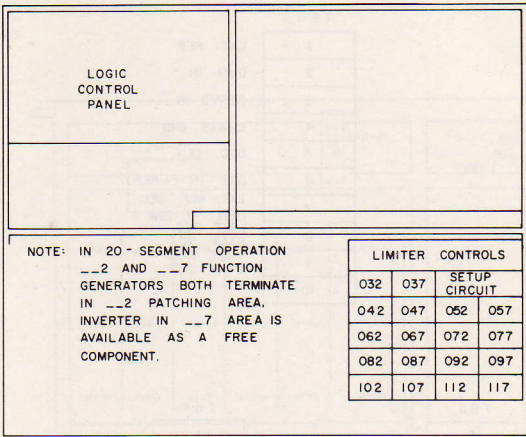
T B 3

1	REL. V (+I2)
2	REL. GRD.
3	
4	SP BUS (+I2 IN SP+PC)
5	
6	
7	PS + PC
8	AC IN-1
9	AC COM.
10	AC IN-2

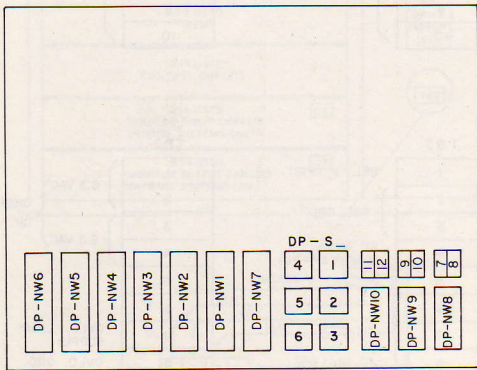
T B 2

1	6.3 VAC } CHOP. DR.
2	
3	
4	
5	
6	
7	OVLD. LAMP SUPPLY
8	OVLD. GRD.
9	
10	

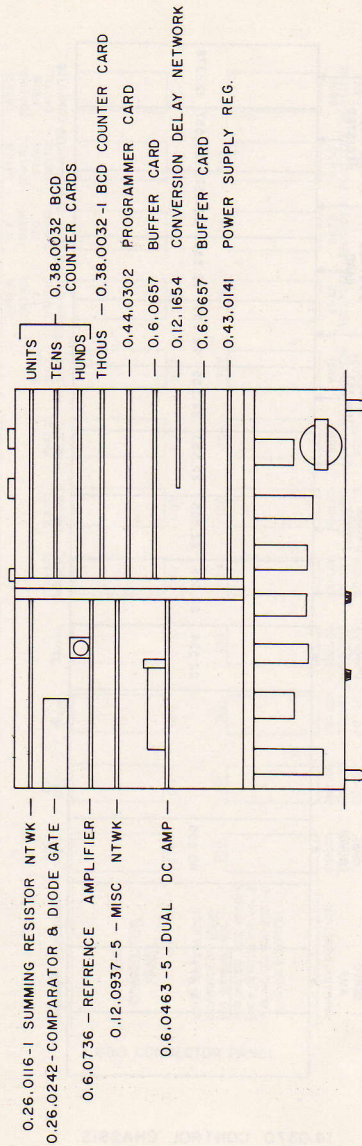
TB2-TB6 (DETAIL)



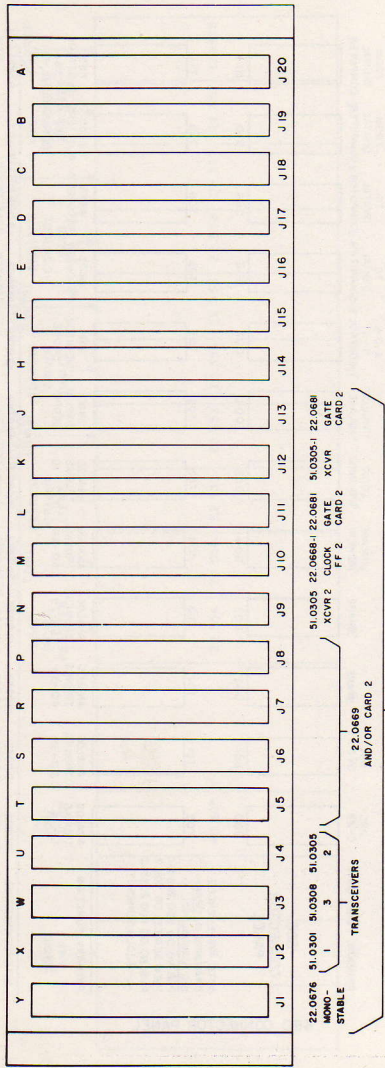
VARIABLE FUNCTION GENERATOR LOCATIONS



LOGIC CONTROL PANEL
 REAR VIEW

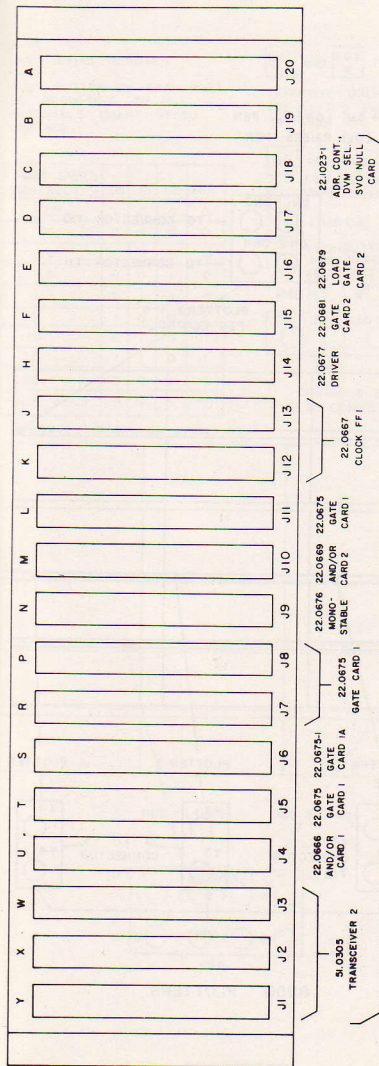


0.26.0268 DIGITAL VOLTMETER CARD LAYOUT



14.0379
MONITOR INPUT
CHASSIS
(02)

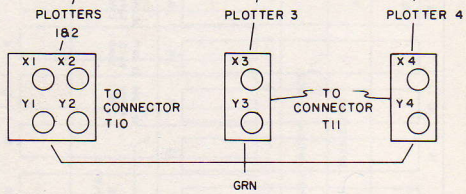
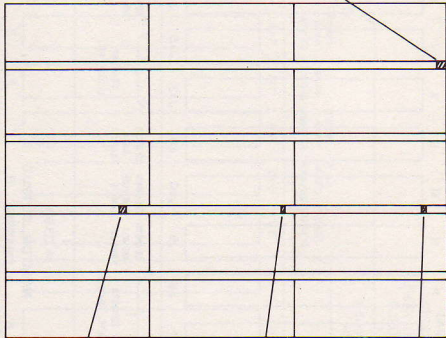
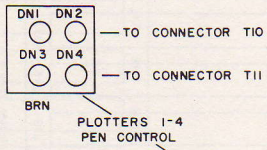
M.I. CHASSIS CARD LAYOUT (REAR VIEW)



14.0380
MONITOR OUTPUT
CHASSIS
(03)

M.O. CHASSIS CARD LAYOUT (REAR VIEW)

LOGIC 1 (+5V) LOWERS PEN
 LOGIC 0 (OV) RAISES PEN



8850 PLOTTERS

FR (FULL REMOTE)

PUSH BUTTON ON 8875 MUST BE DEPRESSED TO USE PATCHABLE CHART SPEED CONTROL.

CHART SPEED (MM/SEC)	.05	.01	.50	X100
.05	1	0	0	0
.1	0	1	0	0
.2	1	1	0	0
.5	0	0	1	0
1.	0	1	1	0
5.	1	0	0	1
10.	0	1	0	1
20.	1	1	0	1
50.	0	0	1	1
100.	0	1	1	1

1= +5V O=GRD OR OPEN

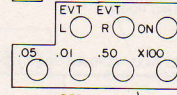
EVT L AND EVT R PATCHING

EFFECTIVE ONLY IF ASSOCIATED EVENT MARKER SWITCHES ARE SET TO EXT

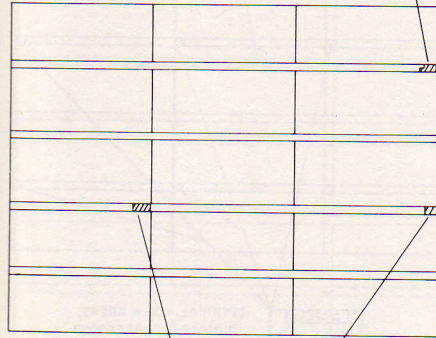
ON PATCHING EFFECTIVE (+5V STARTS CHART, OV STOPS CHART) ONLY IF

PR (PARTIAL REMOTE) OR

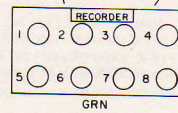
FR PUSHBUTTONS ON 8875 ARE DEPRESSED



CONTROLS BOTH REC. (TO CONN'S T08 & T09)



REC 1 (T08) REC 2 (T09)

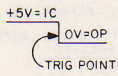


8875 RECORDERS

IN CROSSPLOT I MODE, SELECTED ANALOG INPUT (0 THRU 17) DEFLECTS BEAM HORIZONTALLY. SENSITIVITY:

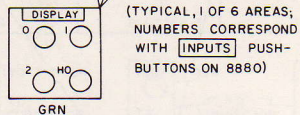
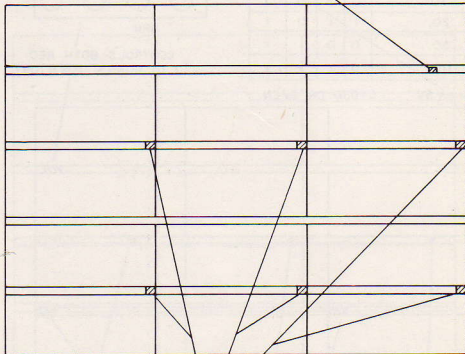
NORMAL $\left\{ \begin{array}{l} -10V = \text{MAX. LEFT} \\ +10V = \text{MAX. RIGHT} \end{array} \right.$

TRACE I
X10 VERTICAL GAIN
DEPRESSED $\left\{ \begin{array}{l} -1V = \text{MAX. LEFT} \\ +1V = \text{MAX. RIGHT} \end{array} \right.$



TRIG RATE:
 $0 < T \leq 100 \text{ KC}$ (NORMAL)
 $0 < T \leq 5 \text{ KC}$ (CROSSPLOT I MODE)

NOTE: ALL CONNECTIONS THRU TO 6.

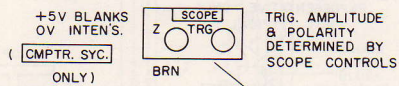


(TYPICAL, 1 OF 6 AREAS; NUMBERS CORRESPOND WITH [INPUTS] PUSH-BUTTONS ON 8880)

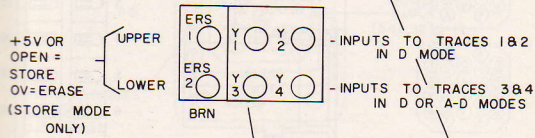
ANALOG INPUT (1 OF 18)
 $-10V \leq \text{INPUT} \leq +10V$ (NORM)
 $-1V \leq \text{INPUT} \leq +1V$ (X10 VERT GAIN)
 $\left\{ \begin{array}{l} \text{HO} = \text{CROSSPLOT X III INPUT} \\ \text{H3} = \text{CROSSPLOT X IV INPUT} \end{array} \right.$
 $\left. \begin{array}{l} \text{OV} = \text{MAX. LEFT DEFLECTION} \\ -10V = \text{MAX. RIGHT DEFLECTION} \end{array} \right\}$

8880 DISPLAY SYSTEM

NOTE: ALL CONNECTIONS THRU TO 7

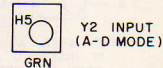
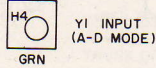
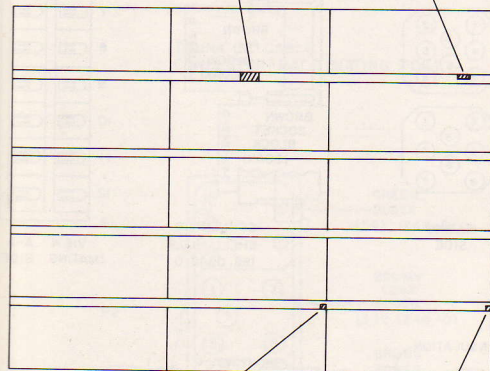


TRIG. AMPLITUDE & POLARITY DETERMINED BY SCOPE CONTROLS

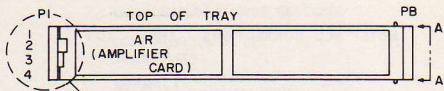


-INPUTS TO TRACES 1 & 2 IN D MODE

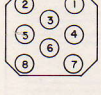
-INPUTS TO TRACES 3 & 4 IN D OR A-D MODES



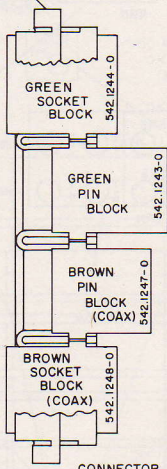
8881 MONITOR SCOPE



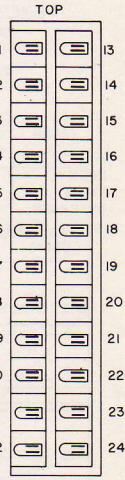
BLOCK LAYOUT REPRESENTATIVE ONLY (NOT TYPICAL)



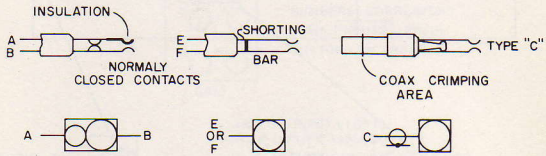
MATING SIDE



CONNECTOR SHELL HALF 198.0942 0

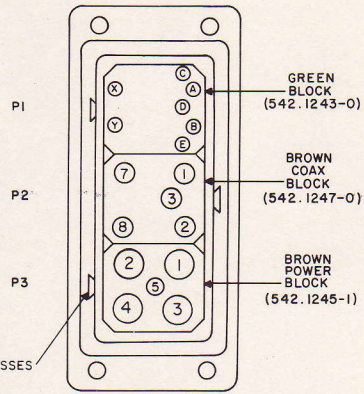


VIEW A-A (MATING SIDE)



NOTE: WHEN A PIN IS INSERTED, A&B OPEN; PATCHED SIGNAL CONNECTS TO B

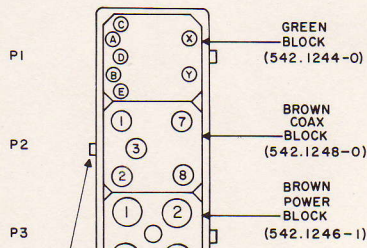
PB CONTACTS TRAY CONNECTORS



NOTE RECESSES IN SHELL (198.0953)

USES PINS ONLY

TRUNK OR CABLE CONNECTOR-MALE (MATING SIDE)



NOTE PROJECTIONS ON SHELL (198.0952)

USES SOCKETS ONLY

TRUNK OR CHASSIS CONNECTOR FEMALE (MATING SIDE)

TRUNK AND CHASSIS CONNECTORS

NOTES

NOTES

