

TECHNICAL BULLETIN

UNIVAC | CUSTOMER SERVICES DIVISION

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1218 (CP-789) COMPUTER

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1218 UNDER VOLTAGE SENSING CIRCUIT ADJUSTMENT

SERIAL 1-22.

This circuit is a detection device to sense both catastrophic voltage failures, and tolerance decreases greater than 10 per cent. Its function is to allow the completion of the memory cycle in process, set the phase step mode which will disable the master clock, and master clear the computer. These functions enable the computer memory to retain data during a power loss or line transient. **This capability is added by MPL-165.**

SUGGESTED PROCEDURE:

- STEP 1: Remove power from the equipment.
- STEP 2: Open memory chassis A3 and remove the cards at locations J09C and J10C.
- STEP 3: Insert a card extender in jack location J10C and close the chassis.
- STEP 4: Insert the 2890 card in the card extender and connect scope probe to test point A3TB3-N8.
- STEP 5: Adjust 400 cycle power source to 100 volts.
- STEP 6: Energize the equipment.
- STEP 7: Adjust R11 on the 2890 card so the signal on the scope is just negative (-0.1V).
- STEP 8: Place the computer in the Run mode.
- STEP 9: Reduce the 400 cycle power source by a slight amount (0.5V). The computer should switch to the Phase-Step mode.
- STEP 10: Re-adjust the power source to 100 volts.
- STEP 11: De-energize the equipment, open memory chassis A3, place the card extender in jack location J09C and close the chassis.
- STEP 12: Insert the 2880 card in the card extender and connect scope probe to test point A3TB3-N8.
- STEP 13: Energize the equipment.
- STEP 14: Adjust R3 and R8 on the 2880 card so that by the proper adjustment of both resistors the signal on the scope is just negative (-0.1V).
- STEP 15: Repeat steps 8, 9, and 10 using the 2880 card.
- STEP 16: De-energize the equipment.

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1218 SHADOW MEMORY AS A BOOTSTRAP VIA THE FIVE STOP INDICATOR

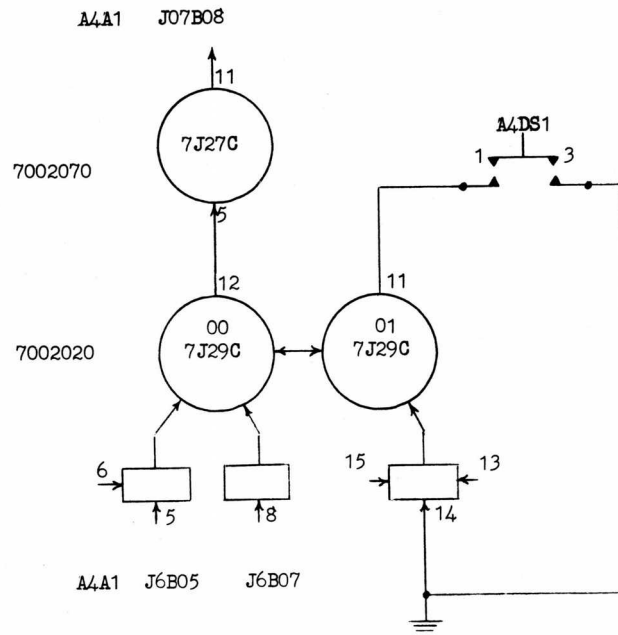
For those sites wishing to make use of the shadow memory (addresses 200 thru 237 of core memory) as an extra bootstrap the following unofficial change is suggested. This change will enable addresses 200 thru 237 in core memory (which lay in the shadow of the bootstrap) to be referenced instead of bootstrap when the 5-Stop indicator switch is depressed and the load mode selected. Once an instruction sequence is executed outside the 200 thru 237 address area (or the computer is master cleared) the selection of shadow memory is released.

Add the following wires:

FROM		TO	
A4DS1	Pin 1	A4A1	J29C11
A4DS1	Pin 3	A4A1	J28C01
A4A1	J29C14	A4A1	J29C01
A4A1	J06B05	A4A1	J29C05
A4A1	J06B07	A4A1	J29C08
A4A1	J29C12	A4A1	J27C05
A4A1	J27C11	A4A1	J07B08

Add a 7002020 P.C. Card at J29C in chassis A4A1.

Make the schematic addition:



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1218 MISCELLANEOUS NOTES

COOLING FANS

There have been several reports of inoperative cooling fans in the 1218 System equipments. Inspection of these fans has shown that the failure was caused by a loose nut on the fan motor assembly. Tightening these nuts will correct the problem, and replacement is not necessary. The nut should be secured with Loc-Tite Grade "C". The compound is available from St. Paul; request Part No. 934096.

INDIRECT RETURN JUMP INSTRUCTION

There is a programming consideration that must be made in using the Indirect Return Jump ("55" instruction) on both the 1218 and 1219 Computer. An Indirect Return Jump can not be used in the last address of any bank of memory. When executing a "55" instruction at the end of the bank (ie. address X7777) the + 1 to P operation puts the wrong bank number in S and the wrong address is read up. The programming consideration is mentioned in the 1219 Computer Programming Repertoire of Instructions but is not in the 1218.

CORE MEMORY STACK PART NUMBERS

It is recommended that all memory stacks within a given 1218 be of the same part number for proper operation. This is particularly true in the case of 1218 serial numbers 1 thru 22. The following information may be of some help.

MEMORY STACK P/N	CORE		VENDOR	REMARKS
	UNIVAC P/N	VENDOR P/N		
7005375-00	7903006	MC231	Indiana General	Originally was Ind. Gen. MC179 on UNIVAC Drawing 7900138-00. MC179 type discontinued by Ind. Gen. and replaced by MC231 on 5/22/68 by UNIVAC Drawing 7903006.
7005375-01	7900138-01	5094	UNIVAC - Blue Bell	UNIVAC Drawing 7900138-01 references UNIVAC Drawing 910300-00.
7005375-02	7900283-00	MC219	Indiana General	

MEMORY CHASSIS CABLE EXTENDERS

On all wire wrap units the part number of the cable required to extend the memory chassis is 7024748-00. Two such cables are required.

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UNIVAC EQUIPMENT MANUALS

HARDWARE

<u>PRODUCT</u>	<u>NAME</u>	<u>S/N</u>	<u>PX NO.</u>
1218	1218 Diagnostics		3348-0-1
	1218 Diagnostics	1-114	3349-0-1
	1218 Computer, Volume I	1-114	3639-0-2
	1218 Computer, Volume II	1-114	3639-2-2
	1218 Computer, Volume I	115 & up	3639-1-2
	1218 Computer, Volume II	115 & up	3639-2-2
	1218 Programming Study Guide		3818-0-2
	1218 Maintenance Study Guide		3942-0-1
	1218 Diagnostics, Volume I		3929-1-1
	1218 Diagnostics, Volume II		3929-2-1

SOFTWARE

<u>PRODUCT</u>	<u>NAME</u>	<u>S/N</u>	<u>PX NO.</u>
1218	1218, Programmers Reference Manual		2910C
	1218, Programmers Study Guide		3818-0-2
	SYCOL for 1218		4171
	FORTTRAN for 1218		4165

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1.4.5

UNIVAC 1218 (CP-789) COMPUTER BOOTSTRAP ASSEMBLIES
 (Note: Some superceded assemblies still exist in field)

<u>FINAL ASSEMBLY</u>	<u>PROGRAM ASSEMBLY</u>	<u>DESCRIPTION</u>
7005381-00	7046679-00	1231-1232-1532 Paper Tape, Channel 7, Program A, 6 Level, Superceded by 7046679-28
7005381-01	7046679-01	1240 Mag Tape, Channel 7, Program B Superceded by 7046679-04
7005381-02	7046679-02	1240 Mag Tape, Channel 1, Program B, Mod 6, 556 FPI, Octal, Odd Parity
7005381-03	7046679-03	1240 Mag Tape, Channel 3, Program B, Mod 6, 556 FPI, Octal, Odd Parity
7005381-04	7046679-04	1240 Mag Tape, Channel 7, Program B, Mod 6, 556 FPI, Octal, Odd Parity
7005381-05	7046679-05	1259 TTY, Program C, Channel 0
7005381-06	7046679-06	1259 TTY, Program C, Channel 7
7005381-07	7046679-07	Paper Tape, Program D, Special on Channel 0 for Westinghouse
7005381-08	7046679-08	1240 Mag Tape, Channel 1, Program B, Mod 3, 200 FPI, Octal, Odd Parity
7005381-09	7046679-09	1231-1232-1532, Paper Tape, Channel 0, Program A, 6 Level
7005381-10	7046679-10	1231-1232-1532 Paper Tape, Channel 2, Program A, 6 Level, Superceded by 7046679-23
7005381-11	7046679-11	1243 (RD 243) Mag Tape, Channel 7, Program B, NTDS Format, Superceded by 7046679-30
7005381-12	7046679-12	1240 Mag Tape, Channel 7, Program B, Mod 3, 200 FPI, Octal, Odd Parity
7005381-13	7046679-13	1231-1232-1532, Paper Tape, Channel 4, Program A, 6 Level, Superceded by 7046679-25
7005381-14	7046679-14	1231-1232-1532, Paper Tape, Channel 1, Program A, 6 Level, Superceded by 7046679-22
7005381-15	7046679-15	1231-1232-1532, Paper Tape, Channel 3, Program A, 6 Level, Superceded by 7046679-24
7005381-16	7046679-16	1231-1232-1532, Paper Tape, Channel 5, Program A, 6 Level, Superceded by 7046679-26

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UNIVAC 1218 (CP-789) COMPUTER BOOTSTRAP ASSEMBLIES
 (Note: Some superceded assemblies still exist in field)

<u>FINAL ASSEMBLY</u>	<u>PROGRAM ASSEMBLY</u>	<u>DESCRIPTION</u>
7005381-17	7046679-17	1231-1232-1532, Paper Tape, Channel 6, Program A, 6 Level, Superceded by 7046679-27
7005381-18	7046679-18	1240 Mag Tape, Channel 5, Program B, Mod 3, 200 FPI, Octal, Odd Parity
7005381-19	7046679-19	Intercomputer, Program E, Special Channel 7, Dual
7005381-20	7046679-20	1243 (RD 243), Mag Tape, Channel 1, Program B, NTDS Format, Superceded by 7046679-30
7005381-21	7046679-21	1231-1232-1532, Paper Tape, Channel 0, 6 Level
7005381-22	7046679-22	1231-1232-1532, Paper Tape, Channel 1, 6 Level
7005381-23	7046679-23	1231-1232-1532, Paper Tape, Channel 2, 6 Level
7005381-24	7046679-24	1231-1232-1532, Paper Tape, Channel 3, 6 Level
7005381-25	7046679-25	1231-1232-1532, Paper Tape, Channel 4, 6 Level
7005381-26	7046679-26	1231-1232-1532, Paper Tape, Channel 5, 6 Level
7005381-27	7046679-27	1231-1232-1532, Paper Tape, Channel 6, 6 Level
7005381-28	7046679-28	1231-1232-1532, Paper Tape, Channel 7, 6 Level
7005381-29	7046679-29	1240 Mag Tape, Channel 7, Mod 3, 200 FPI, Bi-Octal, Odd Parity
7005381-30	7046679-30	1243 (RD 243) Mag Tape, Channel 1, Special Application, NTDS Format 12 and 13
7005381-31	7046679-31	Intercomputer, Channel 6, Single
7005381-32	7046679-32	1240 Mag Tape, Channel 6, Mod 3, 200 FPI, Octal, Odd Parity
7005381-33	7046679-33	RD-358 Mag Tape, Channel 1, Octal, Odd, 200 BPI, Mod 5, TTI
7005381-34	7046679-34	1540 Mag Tape, Channel 7, Special, NASA
7005381-35	7046679-35	1240-1540, Mag Tape, Channel 3, Mod 3, 556 FPI, Odd Parity

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1218 BOOTSTRAPS (PAPER TAPE)

<u>ASSEMBLY</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>DESCRIPTION</u>
7046679-00	1231, 1232, 1532, Ch. 7, Program A, 6 Level	7046679-07	Program D, Special on Channel 0 for Westing- house, Ref. File U-8287

Address	Instruction	Address	Instruction
200	50-3400	00200	50-3400
201	50-7310	00201	50-7300
202	50-7201	00202	36-0000
203	50-1307	00203	50-1300
204	00-0235	00204	00-0225
205	00-0234	00205	00-0224
206	36-0000	00206	37-0001
207	42-0003	00207	24-0211
210	70-0002	00210	50-1100
211	44-0004	00211	00-0000
212	70-0000	00212	00-0000
213	50-1107	00213	50-2100
214	00-0002	00214	34-0213
215	00-0002	00215	50-4706
216	50-2107	00216	51-0000
217	34-0216	00217	60-0210
220	50-4606	00220	50-4102
221	51-0002	00221	45-0000
222	63-0225	00222	60-0206
223	10-0003	00223	35-0000
224	60-0213	00224	00-0050
225	57-0004	00225	00-0000
226	34-0213	00226	00-0000
227	45-0236	00227	00-0000
230	56-0233	00230	00-0000
231	34-0207	00231	00-0000
232	34-0240	00232	00-0000
233	00-0147	00233	00-0000
234	00-0151	00234	00-0000
235	77-7777	00235	00-0000
236	77-7777	00236	00-0000
237	77-7777	00237	00-0000

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1218 BOOTSTRAPS (PAPER TAPE)

<u>ASSEMBLY</u>	<u>CHANNEL</u> (k)	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>CHANNEL</u> (k)	<u>DESCRIPTION</u>
7046679-09	0	1231, 1232,	7046679-21	0	1231, 1232,
-10	2	1532, Program	-22	1	1532, 6 Level
-13	4	A, 6 Level,	-23	2	Ref. File U-
-14	1	Ref. File U-	-24	3	8160
-15	3	7107	-25	4	
-16	5		-26	5	
-17	6		-27	6	
			-28	7	

<u>Address</u>	<u>Instruction</u>	<u>Address</u>	<u>Instruction</u>
200	50-3400	00200	50-3400
201	50-7310	00201	50-7310
202	50-7201	00202	50-7201
203	50-1300 + k	00203	40-0020 + 2k
204	00-0235	00204	70-0235
205	00-0234	00205	44-0021 + 2k
206	36-0000	00206	50-2700 + k
207	42-0003	00207	36-0000
210	70-0002	00210	42-0003
211	44-0004	00211	70-0002
212	70-0000	00212	44-0004
213	50-1100 + k	00213	70-0000
214	00-0002	00214	50-1100 + k
215	00-0002	00215	00-0002
216	50-2100 + k	00216	00-0002
217	34-0216	00217	50-2100 + k
220	50-4606	00220	34-0217
221	51-0002	00221	50-4606
222	63-0225	00222	51-0002
223	10-0003	00223	63-0226
224	60-0213	00224	10-0003
225	57-0004	00225	60-0214
226	34-0213	00226	57-0004
227	45-0236	00227	34-0214
230	56-0233	00230	45-0236
231	34-0207	00231	56-0234
232	34-0240	00232	34-0210
233	00-0147	00233	34-0240
234	00-0151	00234	00-0147
235	00-0000	00235	00-0151
236	00-0000	00236	00-0000
237	00-0000	00237	00-0000

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1218 BOOTSTRAPS (MAG TAPE)

<u>ASSEMBLY</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>CHANNEL (k)</u>	<u>DESCRIPTION</u>
7046679-01	1240, Ch. 7, Program B	7046679-02	1	1240, Program B,
		-03	3	Mod 6, 556 FPI,
		-04	7	Octal, Odd Parity, Ref File U-7036

<u>Address</u>	<u>Instruction</u>	<u>Address</u>	<u>Instruction</u>
200	50-3500	00200	50-3400
201	50-7310	00201	50-7310
202	50-1307	00202	50-1300 + k
203	00-0245	00203	00-0245
204	00-0235	00204	00-0235
205	50-2707	00205	50-2700 + k
206	57-0037	00206	57-0021 + 2k
207	50-2707	00207	50-2700 + k
210	50-1107	00210	50-1100 + k
211	00-0102	00211	00-0102
212	00-0076	00212	00-0060 + 2k
213	57-0037	00213	57-0021 + 2k
214	50-2707	00214	50-2700 + k
215	36-0077	00215	50-2100 + k
216	12-0234	00216	34-0215
217	45-0100	00217	36-0077
220	73-0217	00220	12-0234
221	12-0232	00221	45-0100
222	44-0012	00222	73-0221
223	50-2117	00223	12-0232
224	34-0223	00224	44-0012
225	12-0077	00225	12-0061 + 2k
226	71-7775	00226	71-7775
227	14-0233	00227	14-0233
230	44-0013	00230	44-0013
231	34-0013	00231	34-0013
232	54-0011	00232	54-0011
233	54-0010	00233	54-0000
234	76-0011	00234	76-0011
235	20-0000	00235	20-0000
236	40-0011	00236	40-0011
237	16-3700	00237	16-3700

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1218 BOOTSTRAPS (MAG TAPE)

<u>ASSEMBLY</u>	<u>CHANNEL (k)</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>CHANNEL (k)</u>	<u>DESCRIPTION</u>
7046679-08	1	1240, Pro-	7046679-11	7	1243, Pro-
-12	7	gram B, Mod	-20	1	gram B, (RD
-18	5	3, 200 FPI,			243/USQ-20-
		Octal, Odd			V), NTDS
		Parity, Ref			Format, Ref
		File U-7036			File U-7244

<u>Address</u>	<u>Instruction</u>	<u>Address</u>	<u>Instruction</u>
00200	50-3400	00200	50-3400
00201	50-7310	00201	50-7310
00202	50-1300 + k	00202	36-0161
00203	00-0245	00203	12-0206
00204	00-0235	00204	45-0016
00205	50-2700 + k	00205	73-0204
00206	40-0000	00206	50-3000
00207	50-2700 + k	00207	50-1300 + k
00210	50-1100 + k	00210	00-0241
00211	00-0102	00211	00-0235
00212	00-0060 + 2k	00212	50-2700 + k
00213	40-0000	00213	50-2700 + k
00214	50-2700 + k	00214	50-2400
00215	50-2100 + k	00215	50-1100 + k
00216	34-0215	00216	00-0102
00217	36-0077	00217	00-0060 + 2k
00220	12-0234	00220	50-2700 + k
00221	45-0100	00221	50-2400
00222	73-0221	00222	32-0060 + 2k
00223	12-0232	00223	37-7775
00224	44-0012	00224	13-0002
00225	12-0061 + 2k	00225	11-0001
00226	71-7775	00226	46-0013
00227	14-0233	00227	33-0000
00230	44-0013	00230	17-0000
00231	34-0013	00231	56-0060 + 2k
00232	54-0011	00232	34-0230
00233	54-0000	00233	15-0000
00234	76-0011	00234	63-0200
00235	20-0000	00235	54-0013
00236	40-0011	00236	01-0100
00237	16-0600	00237	01-4420

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1218 BOOTSTRAPS (MAG TAPE)

<u>ASSEMBLY</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>DESCRIPTION</u>
7046679-30	1243 (RD 243), Ch. 1, Special Application, NTDS Format 12 & 13, Ref. File U-7344	7046679-29	1240, Ch. 7, Mod 3, 200 FPI. Bi-Octal, Odd Parity, Ref. File U-7036

<u>Address</u>	<u>Instruction</u>	<u>Address</u>	<u>Instruction</u>
200	50-1607	200	50-3400
201	50-1500	201	50-7610
202	50-7310	202	50-1307
203	36-0161	203	00-0245
204	12-0207	204	00-0235
205	45-0016	205	50-2707
206	73-0205	206	50-5600
207	50-3000	207	50-2707
210	70-0235	210	50-1107
211	44-0023	211	00-0102
212	50-2701	212	00-0076
213	50-2701	213	50-5600
214	57-0103	214	50-2707
215	34-0214	215	50-2107
216	50-1101	216	34-0215
217	00-0102	217	36-0077
220	00-0057	220	12-0234
221	50-2701	221	45-0100
222	50-2101	222	73-0221
223	34-0222	223	12-0232
224	32-0057	224	44-0012
225	12-0061	225	12-0077
226	17-0000	226	71-7775
227	56-0062	227	14-0233
230	34-0226	230	44-0013
231	16-0057	231	34-0013
232	16-0060	232	54-0011
233	63-0200	233	54-0000
234	54-0060	234	76-0011
235	00-0013	235	20-0000
236	01-0100	236	40-0011
237	01-4420	237	16-0200

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1218 BOOTSTRAPS

<u>ASSEMBLY</u>	(MAG TAPE) <u>DESCRIPTION</u>	<u>ASSEMBLY</u>	(TTY) <u>CHANNEL (k)</u>	<u>DESCRIPTION</u>
7046679-32	1240, Ch. 7, Mod 3, 200 FPI, Octal, Odd Parity, Ref. File U-9197	7046679-05 -06	0 7	1259, Program C, Ref File U-7105

Address	Instruction	Address	Instruction
200	50-3400	200	50-3400
201	50-7310	201	50-1300 + k
202	50-1307	202	00-0240
203	00-0245	203	00-0237
204	00-0235	204	50-2700 + k
205	50-2707	205	50-7310
206	40-0000	206	50-7201
207	50-2707	207	24-0214
210	50-1107	210	36-0000
211	00-0102	211	70-0005
212	00-0076	212	44-0002
213	40-0000	213	50-1100 + k
214	50-2707	214	00-0000
215	50-2107	215	00-0000
216	34-0215	216	50-2100 + k
217	36-0077	217	34-0216
220	12-0234	220	62-0224
221	45-0100	221	12-0000
222	73-0221	222	71-7740
223	12-0232	223	61-0213
224	44-0012	224	10-0235
225	12-0077	225	50-4603
226	71-7775	226	04-0000
227	14-0233	227	57-0002
230	44-0013	230	34-0213
231	34-0013	231	45-0236
232	54-0011	232	56-0236
233	55-0000	233	34-0211
234	76-0011	234	34-0240
235	20-0000	235	00-0007
236	40-0011	236	00-0177
237	16-0600	237	00-0040

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1218 BOOTSTRAPS (INTERCOMPUTER)

<u>ASSEMBLY</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>DESCRIPTION</u>
7046679-31	Intercomputer Channel 6, Single, Ref. File U-8363	7046679-19	Intercomputer, Program E, Special on Channel 7, Dual, Ref. File U-8167

Address	Instruction	Address	Instruction
200	50-3400	200	50-3400
201	50-7310	201	50-7310
202	50-7201	202	50-7201
203	36-0175	203	36-0175
204	12-0211	204	12-0211
205	45-0002	205	45-0002
206	73-0205	206	73-0205
207	50-2000	207	50-2000
210	50-1306	210	50-1307
211	50-3000	211	50-3000
212	50-0216	212	50-0216
213	50-2706	213	50-2707
214	50-1106	214	50-1107
215	00-0004	215	00-0007
216	00-0001	216	00-0001
217	50-2106	217	50-2107
220	34-0217	220	34-0217
221	50-1106	221	50-1107
222	00-0010	222	00-0010
223	00-0010	223	00-0010
224	50-2106	224	50-2107
225	34-0224	225	34-0224
226	12-0010	226	12-0010
227	45-0000	227	45-0000
230	56-0002	230	56-0003
231	34-0221	231	34-0221
232	37-7776	232	37-7776
233	17-0000	233	17-0000
234	57-0003	234	57-0005
235	34-0232	235	34-0232
236	63-0200	236	63-0200
237	54-0004	237	54-0007

TECHNICAL BULLETIN
UNIVAC | CUSTOMER SERVICES DIVISION

1.4.5

1218 BOOTSTRAP (MAG TAPE)

<u>ASSEMBLY</u>	<u>DESCRIPTION</u>	<u>ASSEMBLY</u>	<u>DESCRIPTION</u>
7046679-34	1540, Channel 7 Special, NASA	7046679-35	1240/1540 Channel 3, Mod 3, 556 F.P.I., Odd Parity, PX-6133

<u>Address</u>	<u>Instruction</u>	<u>Address</u>	<u>Instruction</u>
00200	50-3400	00200	50-3400
00201	50-7310	00201	50-1601
00202	50-1307	00202	50-1502
00203	00-0245	00203	50-7310
00204	00-0235	00204	36-0161
00205	50-2707	00205	12-0214
00206	50-5600	00206	45-0016
00207	50-2707	00207	73-0206
00210	50-1107	00210	70-0235
00211	00-0102	00211	44-0027
00212	00-0076	00212	50-2703
00213	50-5600	00213	50-2703
00214	50-2707	00214	50-3000
00215	50-2107	00215	50-1103
00216	34-0215	00216	00-0102
00217	36-0077	00217	00-0063
00220	12-0234	00220	50-2703
00221	45-0100	00221	50-2103
00222	73-0221	00222	34-0221
00223	12-0232	00223	32-0063
00224	44-0012	00224	12-0065
00225	32-0077	00225	17-0000
00226	37-7775	00226	56-0066
00227	33-0000	00227	34-0225
00230	42-0013	00230	16-0063
00231	54-0013	00231	16-0064
00232	54-0011	00232	63-0200
00233	54-0000	00233	50-5620
00234	76-0011	00234	54-0064
00235	60-0011	00235	60-0000
00236	40-0011	00236	40-0011
00237	16-0211	00237	16-0711

TECHNICAL BULLETIN
UNIVAC | CUSTOMER SERVICES DIVISION

1.4.5

1218 BOOTSTRAP (MAG TAPE)

<u>FINAL ASSEMBLY</u>	<u>DESCRIPTION</u>
7005381-33	RD-358 Mag Tape, Chan. 1, Octal, Odd, 200 BPI, Mod 5, TT1

<u>Address</u>	<u>Instruction</u>
00200	50 3400
00201	50 1067
00202	50 1500
00203	50 7310
00204	36 0161
00205	12 0214
00206	45 0016
00207	73 0206
00210	70 0235
00211	44 0023
00212	50 2701
00213	50 2701
00214	50 3000
00215	50 1101
00216	00 0102
00217	00 0057
00220	50 2701
00221	50 2101
00222	34 0221
00223	32 0057
00224	12 0061
00225	17 0000
00226	56 0062
00227	34 0225
00230	16 0057
00231	16 0060
00232	63 0200
00233	50 5620
00234	54 0060
00235	60 0000
00236	40 0011
00237	16 2611