

AMARS
NO. 1A AUTOMATIC MESSAGE ACCOUNTING RECORDING CENTER
SECOND SUPPLEMENTARY PROCESSOR INTERFACE CABINET INSTALLATION
(J1P040V-1, LIST 2)
(INITIAL NO. 1A AMARC INSTALLATIONS ONLY)

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1. GENERAL INFORMATION

- 1.1 The Second Supplementary Processor Interface Cabinet contains an Asynchronous Interface Unit (2 ASYN) (SD-5P014-01) (J1P040DC), an ACU Interface Unit (1 ACU) (SD-5P015-01) (J1P040DD), a Power Transfer and Static Filter Unit (2 PWR/FLT) (J1P040DG) and power supply.
- 1.2 Refer to ED5P285 for cable dress information.
- 1.3 Refer to SD-5P014-01, Note 302 for connector to backplane pin number conversions.
- 1.4 The installation and tests of this cabinet should be completed before proceeding to Section 204G.
- 1.5 Disregard the lighting of LEDs on circuit packs unless specified in this handbook section. Handbook 59, Section 204H will be used to verify proper illuminations of all untested LEDs.
- 1.6 Ends of cables going to the DN11's will not be connected in the CPU's, at this time. These cable ends will temporarily be run to the J1P040J-1, List 1 cabinet for ACU interface testing in a later handbook section.
- 1.7 This handbook section is not to be used for installing a J1P040V-1, List 2 cabinet to an existing live billing No. 1A AMARC. For system expansion to

existing systems use Handbook 59, Section 204I. For Generic 2 to Generic 3 retrofit installations use the Generic 2 to Generic 3 Retrofit Procedure Handbook sections.

2. RECORDS AND REQUIREMENTS

- 2.1 The Test Trouble Record forms (SD-97-1313 and SD-97-1315) should be used to record all troubles which are encountered when running the tests in this handbook section.

3. TEST EQUIPMENT

- 3.1 One ITE-5632 Digital Multimeter (or equivalent).
- 3.2 SPP-832 Spare Packs Package

4. INSTALLATION OF THE CABINET

- 4.1 The Second Supplementary Processor Interface Cabinet should be positioned in accordance with floor plan data requirements (FPD 824-100-105-1).
- 4.2 The uninterruptable power supplies (UPS) should have been installed and tested. Each UPS provides power to one complete side of AMARC. Verify that the output voltage at each outlet for each phase is 120VAC. Measure voltage between phase and neutral leads.

4.3 The data sets associated with the No. 1A AMARC are housed in their own separate cabinet. The 202T data sets are housed by 40B1 mountings. The 202S and 212A data sets and the 801C automatic dialing units are housed in a 40A2 mounting. The 829A data auxiliary data sets are housed by 46A1 data mountings. These are installed and maintained by the telephone company.

5. CABLING

NOTE: In connecting the ED-5P284-31 cables to the male connector on a DEC circuit board, the triangle on the cables (female) connector should be inserted to mate with the "A" designation on the circuit board. When connecting to the isolation backplane, the triangle should always be on the bottom.

5.1 Remove power by turning the ON/OFF switch on both programmer's console to OFF position.

5.2 Connect the following interframe cables from Table 1 (ED-5P284-31) between the Second Supplementary Processor Interface Cabinet and Processor 0. (See Cabling Note under Paragraph 5.)

5.3 Connect the following interframe cables from Table 2 (ED-5P284-31) between the Second Supplementary Processor Interface Cabinet and Processor 1. (See Cabling Note under Paragraph 5.)

5.4 Restore power by turning the ON/OFF switch on both processor's console to the ON position.

6. FUSE AND POWER

6.1 Power Transfer Unit

6.101 Power for the Second Supplementary Processor Interface Cabinet is supplied by the Power Transfer Unit. The Power Transfer Unit obtains power from a single phase receptacle at the power distribution circuit. J0 and J1 receptacles on the unit receive plugs from the power strip within the cabinet. Do not connect power to the Power Transfer Unit until specified in the following paragraphs.

6.102 Remove all plugs from outlets on both sides of the Second Supplementary Processor Interface Cabinet.

6.103 Disengage all circuit packs in the Asynchronous Interface Unit (2 ASYN) (J1P040DC), the ACU Interface Unit (1 ACU) (J1P040DD) and the Power Transfer and Static Filter Unit (2 PWR/FLT) (J1P040DG).

6.104 Verify the 'PWR CORD 0' is connected from the receptacle 1 on the side 0 power strip to the J0 outlet on the Power Transfer Unit.

6.105 Verify that 'PWR CORD 1' is connected from the receptacle 1 on the side 1 power strip to the J1 outlet on the Power Transfer Unit.

6.106 Connect the power cord P0 from the Power Transfer Unit to the receptacle for the Second Supplementary Processor Interface Cabinet associated with CPU0. Verify that the pilot lamp at the top of both power strips is illuminated. If the pilot lamps are not illuminated, depress the circuit breaker button on the top of the associated power strip. Verify that 120VAC is obtained at all outlets on both sides of the Second Supplementary Processor Interface Cabinet.

6.107 Remove the ACO fuse. Verify that 120VAC has been removed from all outlets on side 0 of the Second Supplementary Processor Interface Cabinet. Side 1 should still retain power.

6.108 Remove power cord P0 from the receptacle.

6.109 Restore the ACO fuse.

6.110 Connect power cord P1 to the receptacle for the Second Supplementary Processor Interface Cabinet associated with CPU1. Verify that 120VAC is obtained at all outlets on both sides of the Second Supplementary Processor Interface Cabinet.

6.111 Remove the AC1 fuse. Verify that 120VAC has been removed from all outlets on side 1 of the Second Supplementary Processor Interface Cabinet. Side 0 should still retain power.

6.112 Restore the AC1 fuse.

6.113 Restore power cord P0 to the receptacle for the Second Supplementary Processor Interface Cabinet associated with CPU0.

6.2 Fuse and DC Power

- 6.201 Remove the D0, F0, D1 and F1 fuses.
- 6.202 Verify that all the fuses for the 2 PWR SUPP at the top of the frame are in place.
- 6.203 Connect the plug for the 2 PWR SUPP for side 0 to outlet 16 on side 0.
- 6.204 Connect the plug for the 2 PWR SUPP for side 1 to outlet 16 on side 1.
- 6.205 Operate both power switches on the 2 PWR SUPP power supply to the ON position.
- 6.206 Verify that no power or ground conditions exist on any of the +12v or -12v terminals on TB1 or TB3. Refer to SD-5P016-01, FS3, if necessary.
- 6.207 Insert an operated fuse, one at a time, into the fuse holder, listed in Table A, and observe that the associated LED indicator listed in Table A illuminates.

TABLE A

SIDE 0		SIDE 1	
FUSE HOLDER	LED	FUSE HOLDER	LED
D0	+12V0	D1	+12V1
F0	-12V0	F1	-12V1

- 6.208 Restore all fuses that were removed in Paragraph 6.201.
- 6.209 Verify the voltages at the terminals given in Table B. Refer to SD-5P012-01, FS3, if necessary.

TABLE B

VOLTAGE	RANGE	SIDE	LOC.	TERMINAL
+12v	+11.4v to +12.6v	0	TB1	7
+12v	+11.4v to +12.6v	1	TB3	7
-12v	-11.4v to -12.6v	0	TB1	10
-12v	-11.4v to -12.6v	1	TB3	10

NOTE: The output voltage must be within the range indicated. There is an adjustment potentiometer on the 2 PWR SUPP that can be used for adjustment.

6.210 Verify that power is supplied to both sides of all units within the Second Supplementary Processor Interface Cabinet. Refer to Table C for available voltages on the specified units. Verify between the voltage bug and the GND bug.

TABLE C

UNIT	VOLTAGE	LOCATION
2ASYN	+12v	+12v BUG
2ASYN	-12v	-12v BUG
1ACU	+12v	+12v BUG
1ACU	-12v	-12v BUG

6.211 Turn the two power switches on the 2 PWR SUPP power supply to the OFF position. Insert all circuit packs in the Asynchronous Interface Units (2 ASYN) (J1P040DC), ACU Interface Unit (1ACU) (J1P040DD) and the Power Transfer and Static Filter Unit (2PWR/FLT) (J1P040DG). Restore power using the two switches on the 2 PWR SUPP power supply.

7. POWER TRANSFER TEST

- 7.1 Remove power cord P0 from the receptacle for the Second Supplementary Processor Interface Cabinet associated with CPU0.
- 7.2 Observe that the TRNSFRO LED illuminate on the SH9 circuit pack located in the 2 PWR/FLT unit.
- 7.3 Restore power cord P0. The TRNSFRO LED should extinguish.
- 7.4 Remove power cord P1 from the receptacle for the Second Supplementary Processor Interface Cabinet associated with CPU1.
- 7.5 Observe that the TRNSFR1 LED illuminate on the SH9 circuit pack located in the 2 PWR/FLT unit.
- 7.6 Restore power cord P1. The TRNSFR1 LED should extinguish.

8. POWER SUPPLY FAILURE TEST

8.1 Verify that the ACFL0 and ACFL1 LEDs on the SH9 circuit pack in the 2PWR/FLT unit are extinguished.

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| 8.2 Operate the power switch on the 2 PWR SUPP associated with side 0 to the 'OFF' position. | 8.5 Operate the power switch on the 2 PWR SUPP associated with side 1 to the 'OFF' position. |
| 8.3 Verify that the ACFL0 LED on the SH9 circuit pack in the 2 PWR/FLT unit illuminates. | 8.6 Verify that the ACFL1 LED on the SH9 circuit pack in the 2 PWR/FLT unit illuminates. |
| 8.4 Restore the power switch on the 2 PWR SUPP to the 'ON' position. The ACFL0 LED should extinguish. | 8.7 Restore the power switch on the 2 PWR SUPP to the 'ON' position. the ACFL1 LED should extinguish. |

ATTACHMENTSTABLE 1
TABLE 2Manager, Product Engineering
Control CenterReason for Reissue
To include UIS information.

TABLE 1

DESIG.	GROUP	STAMPED	CONNECTED FROM		CONNECTED TO	STAMPED
			LOC.	UNIT		
CB48-0	73	1ACU 06-017	06-017	1ACU	NOTE 1	CPUO 10DN11DA
CB49-0	73	1ACU 10-017	10-017	1ACU	NOTE 1	CPUO 11DN11DA
CB50-0	73	1ACU 06-049	06-049	1ACU	NOTE 1	CPUO 12DN11DA
CB51-0	73	1ACU 10-049	10-049	1ACU	NOTE 1	CPUO 13DN11DA
CB52-0	73	1ACU 06-085	06-085	1ACU	NOTE 1	CPUO 14DN11DA
CB53-0	73	1ACU 10-085	10-085	1ACU	NOTE 1	CPUO 15DN11DA
CB54-0	73	1ACU 06-117	06-117	1ACU	NOTE 1	CPUO 16DN11DA
CB55-0	73	1ACU 10-117	10-117	1ACU	NOTE 1	CPUO 17DN11DA
CB78-0	69	2ASYN 06-017	06-017	2ASYN	10DZ11B	CPUO 10DZ11B
CB79-0	69	2ASYN 06-049	06-049	2ASYN	11DZ11B	CPUO 11DZ11B
CB80-0	69	2ASYN 06-085	06-085	2ASYN	12DZ11B	CPUO 12DZ11B
CB81-0	69	2ASYN 06-117	06-117	2ASYN	13DZ11B	CPUO 13DZ11B

NOTE 1: Temporarily run these cable ends to the J1P040V-1, List 1 cabinet. They will be used for ACU interface testing in a later handbook section.

TABLE 2

DESIG.	GROUP	STAMPED	CONNECTED FROM		CONNECTED TO	STAMPED
			LOC.	UNIT		
CB48-1	72	1ACU 06-033	06-033	1ACU	NOTE 1	CPU1 10DN11DA
CB49-1	72	1ACU 10-033	10-033	1ACU	NOTE 1	CPU1 11DN11DA
CB50-1	72	1ACU 06-065	06-065	1ACU	NOTE 1	CPU1 12DN11DA
CB51-1	72	1ACU 10-065	10-065	1ACU	NOTE 1	CPU1 13DN11DA
CB52-1	72	1ACU 06-101	06-101	1ACU	NOTE 1	CPU1 14DN11DA
CB53-1	72	1ACU 10-101	10-101	1ACU	NOTE 1	CPU1 15DN11DA
CB54-1	72	1ACU 06-133	06-133	1ACU	NOTE 1	CPU1 16DN11DA
CB55-1	72	1ACU 10-133	10-133	1ACU	NOTE 1	CPU1 17DN11DA
CB78-1	70	2ASYN 10-033	10-033	2ASYN	10DZ11B	CPU1 10DZ11B
CB79-1	70	2ASYN 10-065	10-065	2ASYN	11DZ11B	CPU1 11DZ11B
CB80-1	70	2ASYN 10-101	10-101	2ASYN	12DZ11B	CPU1 12DZ11B
CB81-1	70	2ASYN 10-133	10-133	2ASYN	13DZ11B	CPU1 13DZ11B

NOTE 1: Temporarily run these cable ends to the J1P040V-1, List 1 cabinet. They will be used for ACU interface testing in a later handbook section.