
A6 CHANNEL BANK—J68929() BAYS
EQUIPPING AND FUSING THE BAY
COMMON EQUIPMENT
ANALOG MULTIPLEX TERMINAL EQUIPMENT

This section provides procedures for equipping and fusing the A6 channel bank bay prior to its being placed in service and for adding channels, channel banks, or carrier failure alarm (CFA) protection to partially-equipped in-service bays.

Note 1: The fuses and their associated circuitry used in the A6 channel bank bay are listed in Table A; those used in the A6 auxiliary carrier supply are listed in Table C.

◆**Note 2:** Some J68929 plug-in units for the A6 channel bank have been rated MD and may be replaced by corresponding J68954 units.◆

Note 3: If any of the requirements in the following charts are not met after completing the recommended corrective steps, check the bay wiring.

Caution: *The steps in the following charts should be performed in the given order.*

This section is reissued to change the title, add a note and applicable J codes for J68954 plug-in units, and provide a safer method of testing fuse alarms. Arrows are used to indicate significant changes.

Caution: *The J68929AH, AM, and AW -12 volt regulators and the J68929AL carrier supply generator may be damaged if inserted or removed while connected to the -24 volt supply. Always remove the applicable fuse before inserting or removing the regulator or generator units.*

NOTICE

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CHART 1

INITIAL INSTALLATION
CHANNEL BANK BAY

STEP

PROCEDURE

At the regular first and second bays:

Note 1: The A6 channel bank bay layout consists of four bays arranged in mutually-protected pairs arbitrarily designated regular and alternate; neither pair has priority. Each pair of bays is served by a carrier supply and a primary distribution panel (List 1 and 2) located in bay No. 1 of each pair. A secondary distribution panel (List 1 and 3) is located in bay No. 2 of each pair. This arrangement provides protection for both pairs of bays in the event the carrier supply in one pair fails. Provision is also made for an auxiliary carrier supply (Chart 2) to protect the regular supply where this mutual protective arrangement is not provided.

Note 2: Similarly, each frame (or set of frames) is served (on an optional basis) by a CFA carrier supply and associated primary and secondary distribution circuits, and may be protected on a regular-and-alternate or regular-and-auxiliary basis.

- 1 Ensure that no fuses or plug-in units are installed.
- 2 Inspect the connectors in the mounting shelves, from both front and rear, to ensure that no contacts are bent or misaligned.
- 3 ♦At the J68929AC, AT, or AY filter and fuse panels (Fig. 1), insert a blown fuse in each fuse holder (one at a time) as designated in Table A.

Requirement: The ALM lamp on the J68929() filter and fuse panel lights.

- 4 If the requirement of Step 3 is **not** met, check for trouble in the fuse alarm circuit.
- 5 Insert all required fuses in the filter and fuse panels. (See Table A.)

Requirements:(a) No fuses blow.

- (b) The CARR FAIL and REG GEN FAIL lamps on the J68929AE (L1 and L2) panel (Fig. 2) are lighted.

Note: Blown-fuse indications are:

- (a) A lighted ALM lamp on the J68929() filter and fuse panel
 - (b) A colored tip protruding through the center of the applicable fuse holder cap.
- 6 If the requirement of Step 5 is **not** met,
 - (a) Correct any trouble in the wiring or connectors associated with the blown fuse.

CHART 1 (Contd)

STEP

PROCEDURE

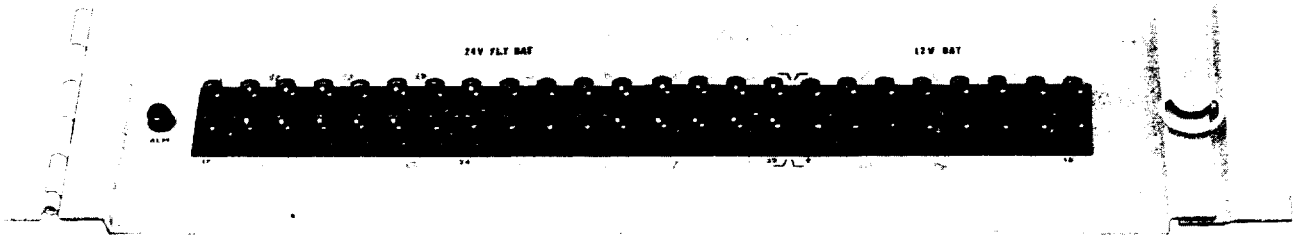


Fig. 1—J68929AC, AT, or AY Filter and Fuse Panel

Note: Use Table A as a guide.

(b) Replace the blown fuse with a spare.♦

- 7 Remove fuses F2 to F6, F11 to F16, F18 to F22, and F28 to F32 from the filter and fuse panels.
- 8 Insert fuse FP1 in the J68929AE (L1 and L2) carrier distribution panel (Fig. 2).

Requirement: Fuse FP1 does *not* blow.

Notes: Blown fuse FP1 indications are:

- (a) A lighted FUSE ALM lamp on the J68929AE (L1 and L2) panel
- (b) A colored tip protruding through the center of the FP1 fuse holder cap.

- 9 If the requirement of Step 8 is *not* met,
 - (a) Correct any trouble in the wiring associated with the blown fuse FP1.
 - (b) Replace the blown fuse FP1 with a spare.
- 10 Remove fuse FP1 from the J68929AE (L1 and L2) carrier distribution panel and F10 from the filter and fuse panel.

At the regular first bay,

- 11 (a) Insert the J68929AL carrier supply generator unit (Fig. 2).

♦TABLE A♦

FUSE APPLICATION IN THE A6 CHANNEL BANK BAY

FUSE					PROVIDES PROTECTION FOR
DESIGNATION	TYPE	COLOR CODE	VALUE	CIRCUIT	
F1 F2-6	70H 70A	Brown White	3/4A 1 1/3A	24V 24V	Carrier Distribution Panel (L1 and L2) Channel Bank — 12 Volt Regulators No. 1 to 5
F7 F8	70G 70A	Red White	1/2A 1 1/3A	24V 24V	Transfer & Logic and Channel Bank Carrier Amplifier Transfer & Logic and Channel Carrier Amplifiers No. 1 to 12
F9 F10	70D 70G	Green Red	5A 1/2A	24V 24V	Filter Capacitors in Filter and Fuse Panel Carrier Supply Generator
F11 F12-16	70B 70A	Orange White	2A 1 1/3A	24V 24V	Regular Carrier Supply —12 Volt Regulator Channel Bank —12 Volt Regulators No. 6 to 10
F17 F18-22	72A 70A	— White	— 1 1/3A	24V 24V	NOT USED Channel Bank —12 Volt Regulators No. 11 to 15
F23 F24	70G 70G	Red Red	1/2A 1/2A	24V 24V	VF Test, Monitor, and Talk Panel CFA Carrier Switch
F25 F26	70D 70A	Green White	5A 1 1/3A	24V 24V	Filter Capacitors in Filter and Fuse Panel CFA Pilot, Carrier, and 392 KHZ Generators
F27 F28-32	70G 70A	Red White	1/2A 1 1/3A	24V 24V	CFA Pilot/Carrier Switch Channel Bank —12 Volt Regulators No. 16 to 20
FP1	70H	Brown	3/4A	12V	Alternate Carrier Supply —12 Volt Regulator
FR1-6 FR7	70H 70H	Brown Brown	3/4A 3/4A	12V 12V	Channel Carrier Amplifiers No. 1 to 6 Channel Bank Carrier Amplifier and Carrier Supply Generator
FR8 FR9-14	72A 70H	— Brown	— 3/4A	12V 12V	NOT USED Channel Carrier Amplifiers No. 7 to 12
FR15 FR16	72A 72A	— —	— —	12V 12V	NOT USED NOT USED

Note: 72A is a dummy fuse.

Note: Before inserting any plug-in unit in a slot, ensure that it is the unit specified for that slot. Then remove the connector protection cap from the plug-in unit and inspect the connector for bent or misaligned contacts.

(b) Reinsert fuse F10.

CHART 1 (Contd)

STEP

PROCEDURE

J68929AE (L1 AND L2) CARRIER DISTRIBUTION PANEL

NOTE: THE J68929AE (L1 AND L3) CARRIER DISTRIBUTION PANEL IS IN THE SECOND BAY.

THE J68929AN TRANSFER, LOGIC, AND CHANNEL BANK CARRIER ALARM UNIT IS BEHIND THIS SECTION OF THIS DISTRIBUTION PANEL.

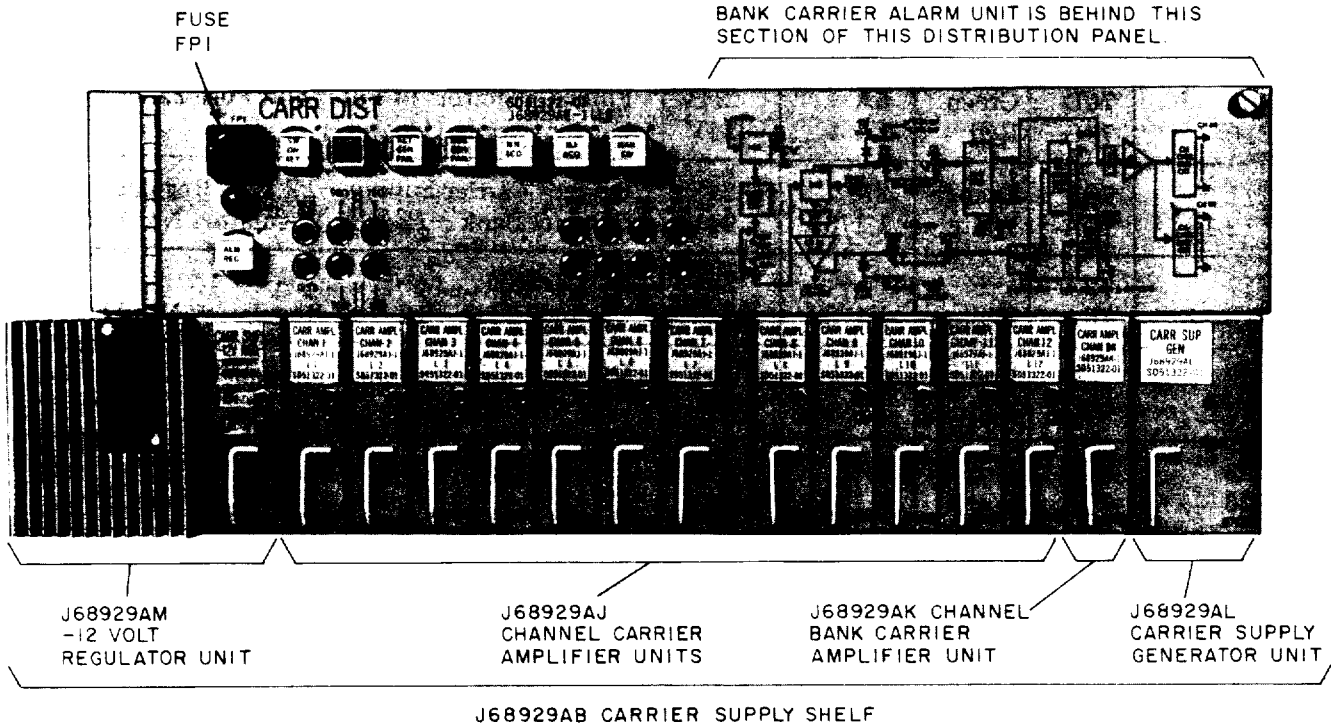


Fig. 2—A6 Carrier Supply and Distribution Panel—First Bay

Requirement: No fuses blow.

- 12 If the requirement of Step 11 is *not* met,
- (a) Remove fuse F10 from the filter and fuse panel.
 - (b) Replace the J68929AL carrier supply generator with a spare unit.
 - (c) Reinsert fuse F10.
 - (d) Replace the blown fuse with a spare.

CHART 1 (Contd)

STEP	PROCEDURE
13	Insert the J68929AM carrier supply -12 volt regulator (Fig. 2).
14	Insert fuse F11 in the filter and fuse panel. Requirement: No fuses blow.
15	If the requirement of Step 14 is not met, (a) Remove fuse F10 from the filter and fuse panel. (b) Replace the J68929AL carrier supply generator with a spare unit. (c) Reinsert fuse F10. (d) Replace the blown fuse with a spare.
16	If the requirement of Step 14 cannot be met, (a) Remove fuse F10 from the filter and fuse panel. (b) Reinsert the carrier supply generator removed in Step 15(b). (c) Reinsert fuse F10. (d) Replace the J68929AM -12 volt regulator with a spare unit. (e) Replace the blown fuse with a spare.
17	Insert, one at a time, the twelve J68929AJ channel carrier amplifier units and the one J68929AK channel bank carrier amplifier unit (Fig. 2). Requirement: No fuses blow.
18	If the requirement of Step 17 is not met, (a) Replace the plug-in unit that, when inserted, caused a fuse to blow. (b) Replace the blown fuse with a spare.
19	Insert fuse FP1 in the J68929AE (L1 and L2) carrier distribution panel.
20	If the A6 channel bank bay is not equipped with the J68929BA CFA carrier supply shelf, proceed to Step 21. If it is equipped for CFA, proceed to Step 38.

CHART 1 (Contd)

STEP

PROCEDURE

BAY NOT EQUIPPED FOR CFA

21 Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel.

Requirements:(a) The ALM REG lamp is lighted.
(b) The ALT GEN FAIL lamp is lighted.

Note: If the MAN SW lamp is lighted or the office alarms are activated, press the corresponding switches.

22 Press the ALM REG switch.

Requirement: The ALM REG lamp is extinguished.

At the alternate first and second bays,

23 Perform Steps 1 through 19.

24 Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel.

Requirements:(a) The ALM REG lamp is lighted.
(b) The ALT GEN FAIL lamp is extinguished.

Note: If the MAN SW lamp is lighted or the office alarms are activated, press the corresponding switches.

25 Press the ALM REG switch.

Requirement: The ALM REG lamp is extinguished.

At the regular first bay,

26 Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel.

Requirement: The ALT GEN FAIL lamp is extinguished.

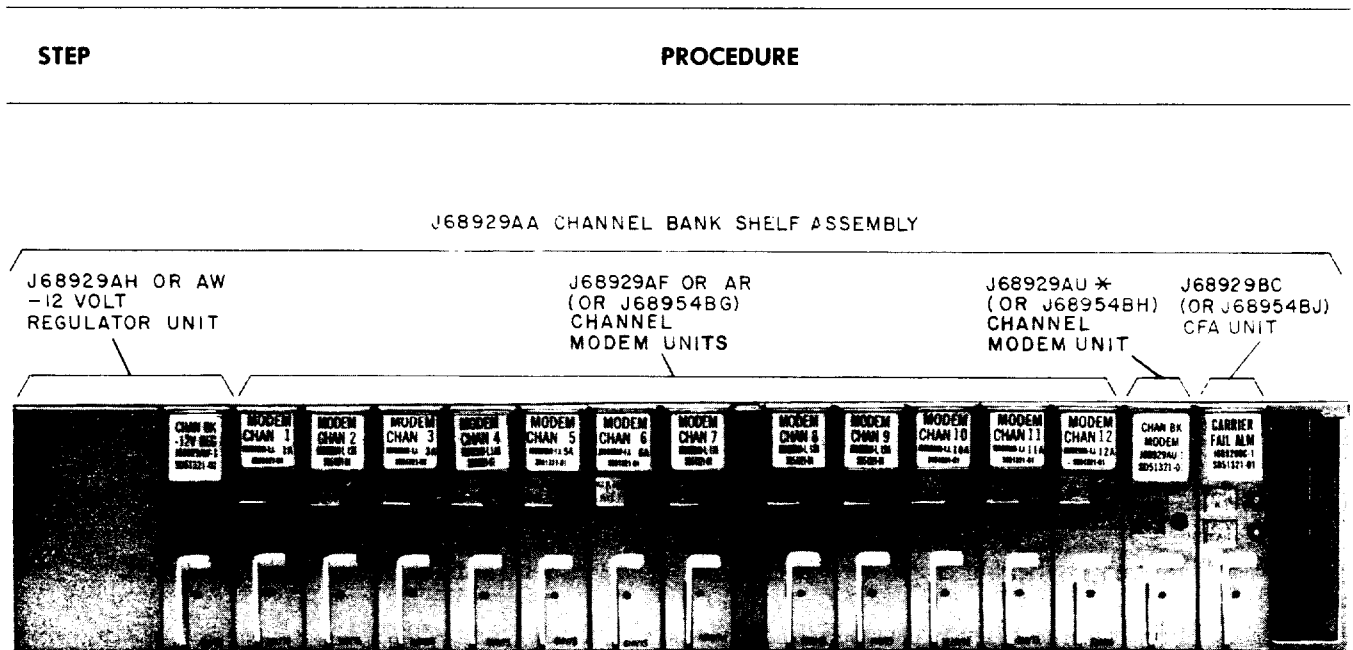
27 If the requirements of Steps 21, 22, 24, 25, and 26 are **not** met, refer to Section 356-016-504.

At the regular and alternate bays,

28 Ensure that the -24 volt fuses associated with the channel banks being equipped are **not** installed.

29 Insert the J68929AG or AU ♦(or J68954BH)♦ channel bank modem and the J68929AH or AW channel bank -12 volt regulator in the first channel bank (Fig. 3) to be equipped.

CHART 1 (Contd)



* IF THE SHELF DOES NOT PROVIDE FOR CFA, THE J68929AG CHANNEL BANK MODEM MAY BE USED.

Fig. 3—A6 Channel Bank

- 30 Insert the applicable fuse (F2 to F6, F12 to F16, F18 to F22, F28 to F32) in the filter and fuse panel (Fig. 1) for the channel bank being equipped. (See Table A.)
- Requirement:** The inserted fuse does *not* blow.
- 31 If the requirement of Step 30 is *not* met,
- (a) Replace the J68929AG or AU (or J68954BH) channel bank modem with a spare unit.
 - (b) Replace the blown fuse with a spare.
- 32 If the requirement of Step 30 *cannot* be met,
- (a) Reinsert the channel bank modem removed in Step 31(a).
 - (b) Replace the J68929AH or AW -12 volt regulator with a spare unit.
 - (c) Replace the blown fuse with a spare.
- 33 Insert, one at a time, the twelve J68929AF or AR (or J68954BG) channel modems (Fig. 3) in the channel bank being equipped.

CHART 1 (Contd)

STEP

PROCEDURE

Note: For a partially-equipped channel bank, only the channel modems for the channels being equipped need to be inserted.

Requirement: No fuses blow.

34 If the requirement of Step 33 is **not** met, replace the blown fuse with a spare.

35 If the requirement of Step 33 **cannot** be met,

(a) Replace the channel modem that, when inserted, caused a fuse to blow.

(b) Replace the blown fuse with a spare.

36 Repeat applicable Steps 28 through 35 for all other channel banks to be equipped.

37 Perform the tests prescribed in Sections 356-016-501 and -502.

Note: Some tests in Section 356-016-502 cannot be performed completely in a partially-equipped bank.

BAY EQUIPPED FOR CFA

38 Insert, one at a time, plug-in units in the J68929BA and BB CFA carrier supply shelves (Fig. 4) according to the type of CFA operation (1-way or 2-way) to be used. See Table B.

Note 1: The same type of CFA operation must be used in the regular and alternate supplies.

Note 2: Write-on labels are provided on the front panel of CFA units that can be used for either 1-way or 2-way operation. The appropriate designation (1W or 2W) should be written in this space before the unit is inserted in the CFA carrier supply shelf. If the unit is later used in a different J-code-compatible location, the designation can be changed as required.

Note 3: If it is desired to equip and fuse the A6 channel banks before the CFA carrier supply, the J68929BN CFA CONNs must be installed in the J68929BA shelf to extinguish the carrier supply alarm lamps.

39 Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel.

Requirements: After 25 seconds,

(a) The ALM REG lamp is lighted.

(b) The ALT GEN FAIL lamp is lighted.

Note: If the MAN SW lamp is lighted or the office alarms are activated, press the corresponding switches.

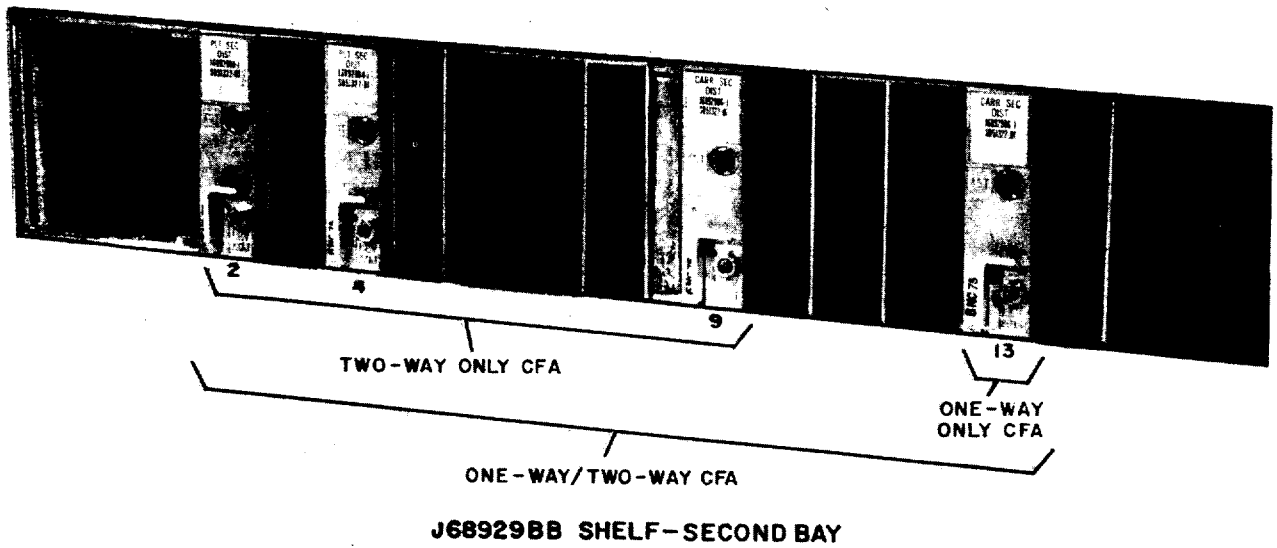
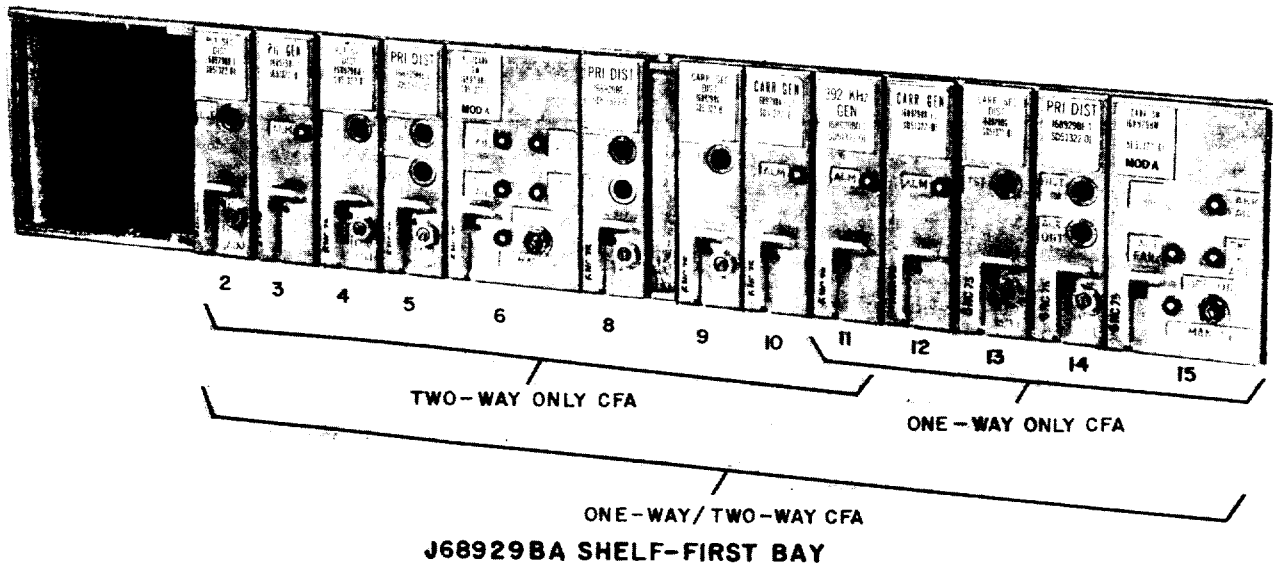


Fig. 4—A6 CFA Carrier Supply Arrangement in First and Second Bays

TABLE B

LOCATION OF CFA PLUG-IN UNITS IN J68929BA AND BB SHELVES
J68929() BAYS

CFA OPERATION	SHELF NO. J68929(-)	CONN SLOT NO. J (-)	PLUG-IN UNIT	
			J68929(-)	DESIGNATION
NONE	BA	6	BN	CFA CONN
	BA	15	BN	CFA CONN
ONE-WAY	BA	6	BN	CFA CONN
	BA	11	BD	392 KHZ GEN
	BA	12	BK, L1	CARR GEN ()
	BA	13	BG	CARR SEC DIST ()
	BA	14	BE	PRI DIST ()
	BA	15	BM	CARR SW
	BB	13	BG	CARR SEC DIST ()
TWO-WAY	BA	2	BH	PIL SEC DIST
	BA	3	BJ	PIL GEN (CFA)
	BA	4	BH	PIL SEC DIST
	BA	5	BE	PRI DIST (PIL)
	BA	6	BL	PIL/CARR SW
	BA	8	BE	PRI DIST ()
	BA	9	BG	CARR SEC DIST ()
	BA	10	BK, L2	CARR GEN ()
	BA	11	BD	392 KHZ GEN
	BA	15	BN	CFA CONN
	BB	2	BH	PIL SEC DIST
	BB	4	BH	PIL SEC DIST
	BB	9	BG	CARR SEC DIST ()
	ONE-WAY/ TWO-WAY	BA	2	BH
BA		3	BJ	PIL GEN (CFA)
BA		4	BH	PIL SEC DIST
BA		5	BE	PRI DIST (PIL)
BA		6	BL	PIL/CARR SW
BA		8	BE	PRI DIST ()
BA		9	BG	CARR SEC DIST ()
BA		10	BK, L2	CARR GEN ()
BA		11	BD	392 KHZ GEN
BA		12	BK, L1	CARR GEN ()
BA		13	BG	CARR SEC DIST ()
BA		14	BE	PRI DIST ()
BA		15	BM	CARR SW ()
BB		2	BH	PIL SEC DIST
BB	4	BH	PIL SEC DIST	
BB	9	BG	CARR SEC DIST ()	
BB	13	BG	CARR SEC DIST ()	

Note: Parentheses () without enclosed information indicates that the designation "1-way" (1W) or "2-way" (2W) (as applicable) will be inserted locally according to the type of operation for the applicable shelf slot.

CHART 1 (Contd)

STEP	PROCEDURE
40	Scan the lamps on the J68929BA CFA carrier supply shelf. Requirements: As equipped, (a) The ALT FAIL lamp on the J68929BL PIL/CARR SW is lighted. (b) The ALT FAIL lamp on the J68929BM CARR SW() is lighted. Note: If the MAN SW lamp on either the J68929BL or BM units is lighted, operate the corresponding MAN SW key.
41	Requirement: The ALM REG lamp is extinguished. At the alternate first and second bays,
42	Perform Steps 1 through 19.
43	Requirements: After 25 seconds, (a) The ALM REG lamp is lighted. (b) The ALT GEN FAIL lamp is extinguished. Note: If the MAN SW lamp is lighted or the office alarms are activated, press the corresponding switches.
44	Requirements: As equipped, (a) The ALT FAIL lamp on the J68929BL PIL/CARR SW is extinguished. (b) The ALT FAIL lamp on the J68929BM CARR SW() is extinguished. Note: If the MAN SW lamp on either the J68929BL or BM units is lighted, operate the corresponding MAN SW key.
45	Requirement: The ALM REG lamp is extinguished. At the regular first bay,
46	Requirement: The ALT GEN FAIL lamp is extinguished.
47	Scan the lamps on the J68929BA CFA carrier supply shelf.

CHART 1 (Contd)

STEP

PROCEDURE

Requirements: As equipped,

- (a) The ALT FAIL lamp on the J68929BL PIL/CARR SW is extinguished.
- (b) The ALT FAIL lamp on the J68929BM CARR SW() is extinguished.

48 If the requirements of Steps 39 through 47 are **not** met, refer to Section 356-016-504.

At the regular and alternate bays,

49 Ensure that the -24 volt fuses associated with the channel banks being equipped are **not** installed.

50 Insert the J68929AU ♦(or J68954BH)♦ channel bank modem and the J68929AH or AW channel bank -12 volt regulator in the first channel bank (Fig. 3) to be equipped.

51 Insert the applicable fuse (F2 to F6, F12 to F16, F18 to F22, or F28 to F32) in the filter and fuse panel (Fig. 1) for the channel bank being equipped. (See Table A.)

Requirement: The inserted fuse does **not** blow.

52 If the requirement of Step 51 is **not** met,

- (a) Replace the J68929AU ♦(or J68954BH)♦ channel bank modem with a spare unit.
- (b) Replace the blown fuse with a spare.

53 If the requirement of Step 51 **cannot** be met,

- (a) Reinsert the channel bank modem removed in Step 52(a).
- (b) Replace the J68929AH or AW -12 volt regulator with a spare unit.
- (c) Replace the blown fuse with a spare.

54 Insert, one at a time, the twelve J68929AF or AR ♦(or J68954BG)♦ channel modems (Fig. 3) in the channel bank being equipped.

Note: For a partially-equipped channel bank, only the channel modems for the channels being equipped need to be inserted.

Requirement: No fuses blow.

55 If the requirement of Step 54 is **not** met, replace the blown fuse with a spare.

56 If the requirement of Step 54 **cannot** be met,

CHART 1 (Contd)

STEP	PROCEDURE
	(a) Replace the channel modem that, when inserted, caused a fuse to blow.
	(b) Replace the blown fuse with a spare.
57	Remove the snap-on cover from the 1W/2W CFA option switch located at the rear of the printed wiring board on the J68929BC (or J68954BJ) CFA unit (Fig. 5).
58	Press the switch actuators down at the numbered (1, 2, 3, 4) end as follows: <ul style="list-style-type: none"> <li data-bbox="459 746 1365 772">1-Way CFA: Press switch actuators 1 and 2 down (up at 3 and 4). <li data-bbox="459 810 1365 836">2-Way CFA: Press switch actuators 3 and 4 down (up at 1 and 2).
59	Replace the snap-on switch cover.
60	Write the applicable option (1W or 2W) in the space provided on the front panel of the J68929BC (or J68954BJ) CFA unit.

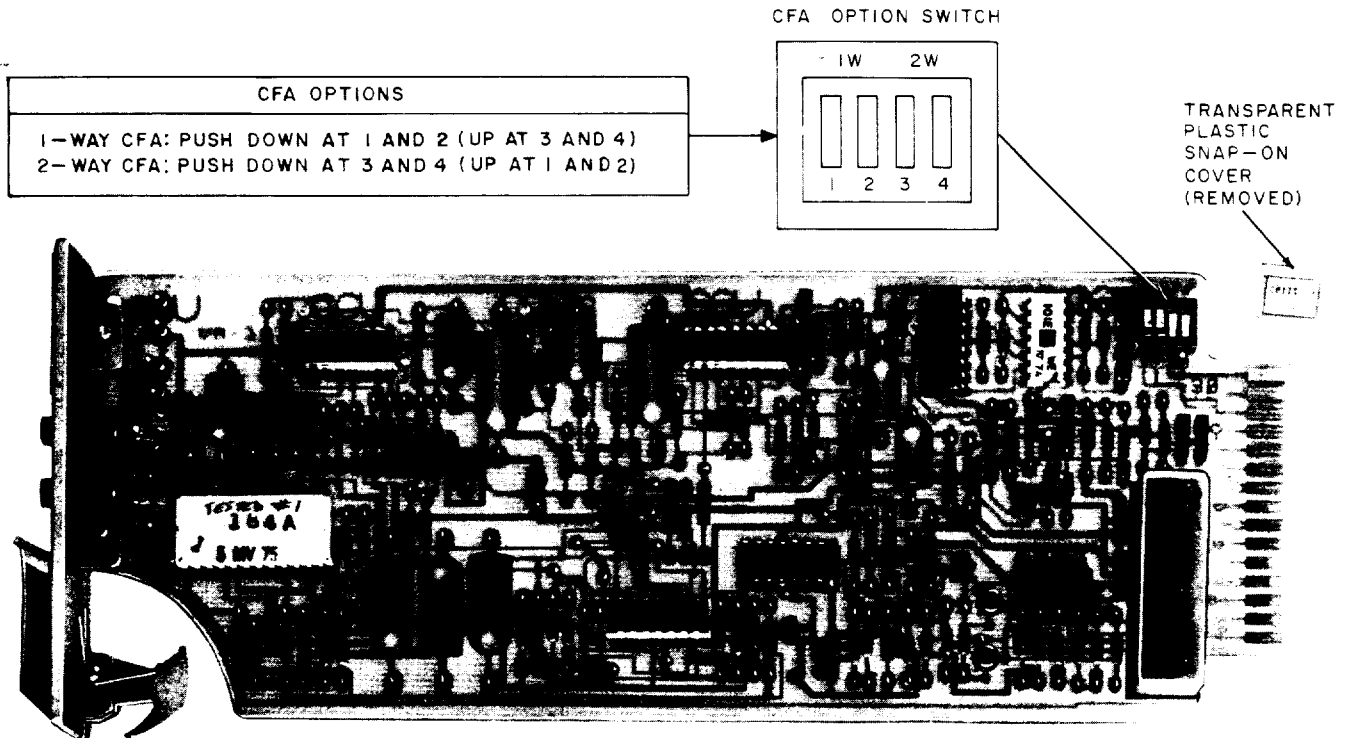


Fig. 5—J68929BC (or J68954BJ) Carrier Failure Alarm Unit

CHART 1 (Contd)

STEP	PROCEDURE
61	Insert the J68929BC ♦(or J68954BJ)♦ CFA unit in the last slot on the right end of the A6 channel bank shelf (to the right of the J68929AU ♦(or J68954BH)♦ channel bank modem) as shown in Fig. 3. Requirement: No fuses blow.
62	If the requirement of Step 61 is not met, replace the blown fuse with a spare.
63	If the requirement of Step 61 cannot be met, (a) Replace the J68929BC ♦(or J68954BJ)♦ CFA unit with a spare. (b) Replace the blown fuse with a spare.
64	Repeat applicable Steps 49 through 63 for all other channel banks to be equipped.
65	Perform the tests prescribed in Sections 356-016-501, -502, and -506. Note: Some tests in Section 356-016-502 cannot be performed completely in a partially-equipped bank.

CHART 2
INITIAL INSTALLATION
A6 AUXILIARY CARRIER SUPPLY

STEP**PROCEDURE**

Note: This chart should be performed after Chart 1, if applicable.

At the J68929AP A6 auxiliary carrier supply,

Note: The A6 auxiliary carrier supply (Fig. 6) is normally mounted in a miscellaneous bay.

- 1 Ensure that no fuses or plug-in units are installed.
- 2 Inspect the connectors in the mounting shelves, from both front and rear, to ensure that no contacts are bent or misaligned.
- 3 ♦Insert a blown fuse in each fuse holder (one at a time) as designated in Table C.

Requirement: The FUSE ALM lamp on the J68929AP panel lights.

- 4 If the requirement of Step 3 is **not** met, check for trouble in the fuse alarm circuit.
- 5 Insert all fuses in the J68929AP auxiliary carrier supply. (See Table C.)

Requirements:(a) No fuses blow.
(b) The AUX GEN FAIL and REG GEN FAIL lamps on the J68929AP panel are lighted.

Notes: Blown-fuse indications are:

- (a) A lighted FUSE ALM lamp on the J68929AP panel
- (b) A colored tip protruding through the center of the applicable fuse holder cap.

- 6 If the requirement of Step 5 is **not** met,
 - (a) Correct any trouble in the wiring or connectors associated with the blown fuse.

Note: Use Table C as a guide.

- (b) Replace the blown fuse with a spare.♦

- 7 Remove fuses F3, F4, and FP1 from the J68929AP auxiliary carrier supply.
- 8 (a) Insert the J68929AL carrier supply generator unit (Fig. 6).

CHART 2 (Contd)

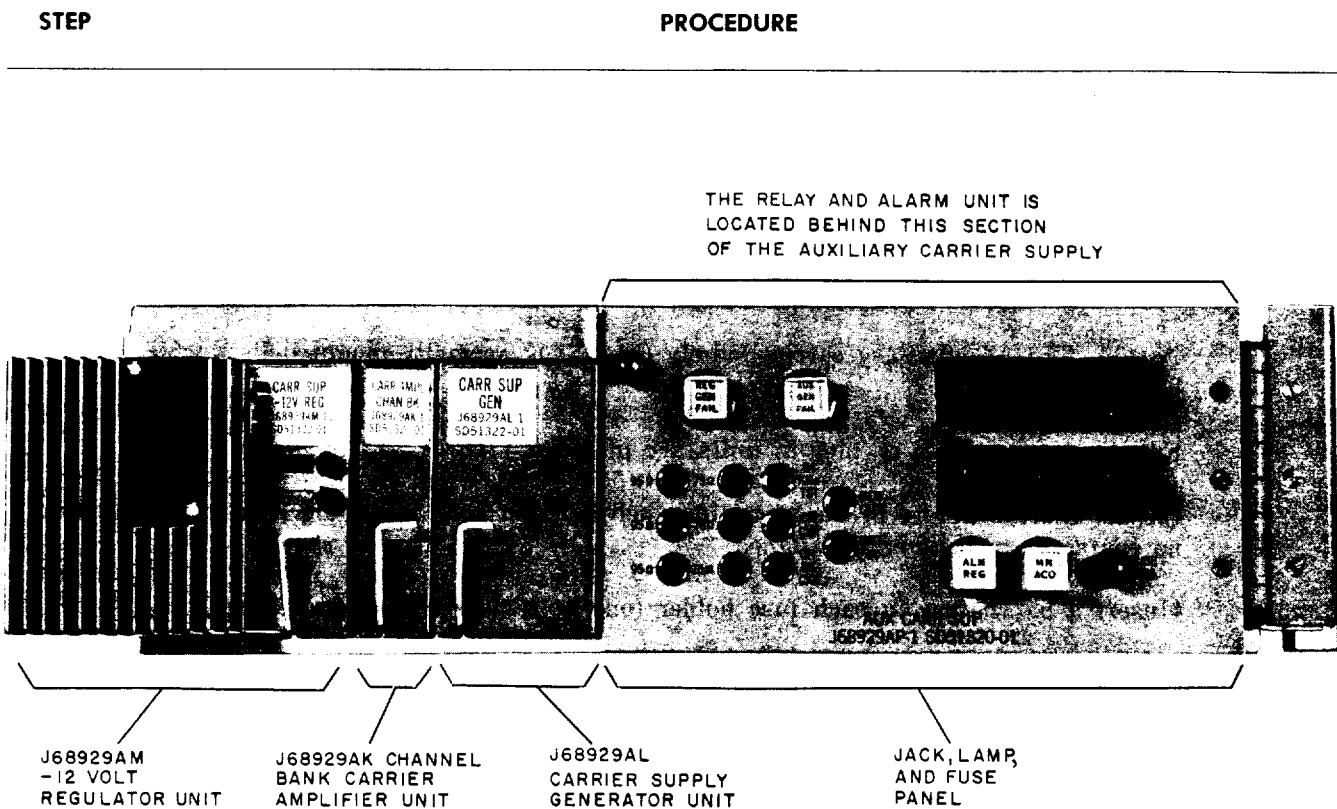


Fig. 6—J68929AP Auxiliary Carrier Supply

Note: Before inserting any plug-in unit in a slot, ensure that it is the unit specified for that slot. Then remove the connector protection cap from the plug-in unit and inspect the connector for bent or misaligned contacts.

(b) Reinsert fuse F3 in the auxiliary carrier supply.

Requirement: No fuses blow.

- 9 If the requirement of Step 8 is **not** met,
- (a) Remove fuse F3 from the auxiliary carrier supply.
 - (b) Replace the J68929AL carrier supply generator with a spare unit.
 - (c) Reinsert fuse F3.
 - (d) Replace the blown fuse with a spare.
- 10 Insert the J68929AM carrier supply -12 volt regulator (Fig. 6).

CHART 2 (Contd)

STEP

PROCEDURE

TABLE C

FUSE APPLICATION IN THE A6 AUXILIARY CARRIER SUPPLY

FUSE					PROVIDES PROTECTION FOR
DESIGNATION	TYPE	COLOR CODE	VALUE	CIRCUIT	
F1	70G	Red	1/2A	24V	Relay and Alarm Circuit of Auxiliary Carrier Supply Transfer and Logic of Regular Carrier Supply
F2	70G	Red	1/2A	24V	Channel Bank Carrier Amplifier
F3	70A	White	1-1/3A	24V	Carrier Supply Generator — When CFA auxiliary carrier supply is provided — Option W
	70G	Red	1/2A	24V	Carrier Supply Generator — When CFA auxiliary carrier supply is not provided — Option X
F4	70B	Orange	2A	24V	Auxiliary Carrier Supply —12 Volt Regulator
FP1	70H	Brown	3/4A	12V	Regular Carrier Supply —12 Volt Regulator
FR1	70H	Brown	3/4A	12V	Channel Bank Carrier Amplifier and Carrier Supply Generator

11 Insert fuse F4 in the J68929AP auxiliary carrier supply panel.

Requirement: No fuses blow.

12 If the requirement of Step 11 is **not** met,

- (a) Remove fuse F3 from the auxiliary carrier supply.
- (b) Replace the J68929AL carrier supply generator with a spare unit.
- (c) Reinsert fuse F3.
- (d) Replace the blown fuse with a spare.

CHART 2 (Contd)

STEP	PROCEDURE
13	If the requirement of Step 11 cannot be met, (a) Remove fuse F3 from the auxiliary carrier supply. (b) Reinsert the carrier supply generator removed in Step 12(b). (c) Reinsert fuse F3. (d) Replace the J68929AM -12 volt regulator with a spare unit. (e) Replace the blown fuse with a spare.
14	Insert the J68929AK channel bank carrier amplifier unit (Fig. 6). Requirement: No fuses blow.
15	If the requirement of Step 14 is not met, (a) Replace the J68929AK channel bank carrier amplifier with a spare unit. (b) Replace the blown fuse with a spare.
16	Insert fuse FP1 in the J68929AP panel.
17	Scan the lamps on the J68929AP panel. Requirements: (a) The ALM REG lamp is lighted. (b) The REG GEN FAIL lamp is extinguished. (c) The AUX GEN FAIL lamp is extinguished.
18	Press the ALM REG switch. Requirement: The ALM REG lamp is extinguished. At the regular first bay,
19	Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel. Requirement: The ALT GEN FAIL lamp is extinguished.
20	If the requirements of Steps 17, 18, and 19 are not met, refer to Section 356-016-504.
21	◆Perform applicable tests prescribed in Section 356-016-501.◆

CHART 3
INITIAL INSTALLATION
CFA AUXILIARY CARRIER SUPPLY

STEP**PROCEDURE**

Note: This chart should be performed after Chart 2, if applicable.

At the CFA auxiliary carrier supply,

Note: The CFA auxiliary carrier supply (Fig. 7) is normally mounted in a miscellaneous bay.

- 1 Ensure that no plug-in units are installed.
- 2 Inspect the connectors in the mounting shelves, from both front and rear, to ensure that no contacts are bent or misaligned.
- 3 Insert, one at a time, plug-in units in the J68929BP CFA auxiliary carrier supply shelf according to the type of CFA operation (1-way or 2-way) to be used. See Table D.

Note 1: The same type of CFA operation must be used in the regular and auxiliary supplies.

Note 2: Write-on labels are provided on the front panel of CFA units that can be used for either 1-way or 2-way operation. The appropriate designation (1W or 2W) should be written in this space before the unit is inserted in the CFA carrier supply shelf. If the unit is later used in a different J-code-compatible location, the designation can be changed as required.

- 4 Scan the lamps on the J68929AE (L1 and L2) carrier distribution panel.

Requirement: After 25 seconds,
The ALM REG lamp is lighted.

- 5 Press the ALM REG switch.

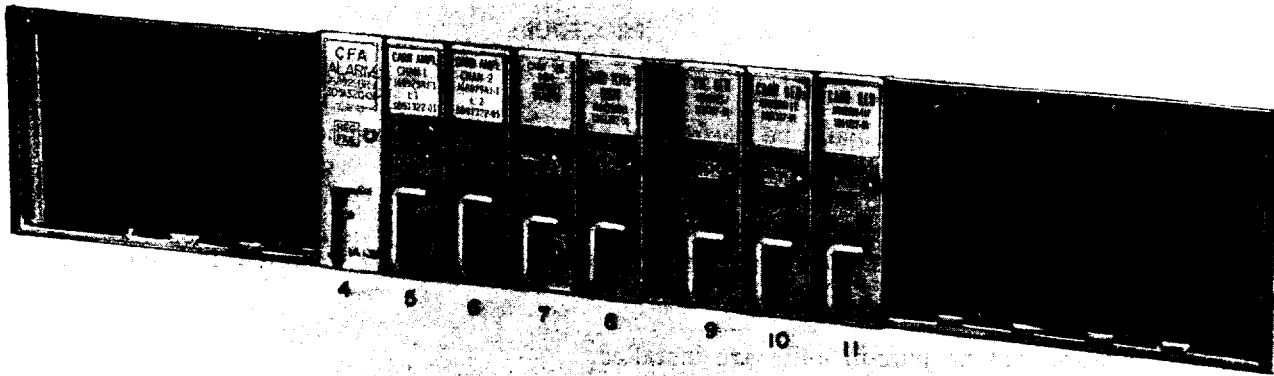
Requirement: The ALM REG lamp is extinguished.

At the CFA regular carrier supply,

- 6 Scan the lamps on the J68929BL pilot/carrier switch and/or J68929BM carrier switch.

Requirement: The ALT FAIL lamp is extinguished.

- 7 ♦If the requirements of Steps 4, 5, and 6 are **not** met, refer to Section 356-016-506.
 - 8 Perform applicable tests prescribed in Section 356-016-506.♦
-



SLOT NO.	4	5	6	7	8	9	10	11
ONE-WAY ONLY CFA	•	•		•	•			•
TWO-WAY ONLY CFA	•		•	•	•	•	•	
ONE WAY/ TWO WAY CFA	•	•	•	•	•	•	•	•

NOTE:

J68929BP CFA AUXILIARY CARRIER SUPPLY SHELF IS MOUNTED BELOW AG AUXILIARY CARRIER SUPPLY SHELF.

Fig. 7—J68929BP CFA Auxiliary Carrier Supply

◆TABLE D◆

LOCATION OF CFA PLUG-IN UNITS IN J68929BP SHELF

CFA OPERATION	SHELF NO. (J68929(-))	CONN SLOT NO. J(-)	PLUG-IN UNIT	
			J68929(-)	DESIGNATION
NONE	BP	4	BN	CFA CONN
	BP	10	BN	CFA CONN
ONE-WAY	BP	4	BR	CFA ALARM
	BP	5	AJ, L1	CARR AMPL CHAN 1
	BP	7	BG	CARR SEC DIST ()
	BP	8	BD	392 KHZ GEN
	BP	9	BN	CFA CONN
	BP	10	BN	CFA CONN
TWO-WAY	BP	11	BK, L1	CARR GEN ()
	BP	4	BR	CFA ALARM
	BP	6	AJ, L2	CARR AMPL CHAN 2
	BP	7	BG	CARR SEC DIST ()
	BP	8	BD	392 KHZ GEN
	BP	9	BJ	PIL GEN (CFA)
ONE-WAY/ TWO-WAY	BP	10	BK, L2	CARR GEN ()
	BP	11	BN	CFA CONN
	BP	4	BR	CFA ALARM
	BP	5	AJ, L1	CARR AMPL CHAN 1
	BP	6	AJ, L2	CARR AMPL CHAN 2
	BP	7	BG	CARR SEC DIST ()
ONE-WAY/ TWO-WAY	BP	8	BD	392 KHZ GEN
	BP	9	BJ	PIL GEN (CFA)
	BP	10	BK, L2	CARR GEN ()
	BP	11	BK, L1	CARR GEN ()

Note: Parentheses () without enclosed information indicates that the designation "1-way" (1W) or "2-way" (2W) (as applicable) will be inserted locally according to the type of operation for the applicable shelf slot.

CHART 4

ADDING CHANNELS TO PARTIALLY-EQUIPPED BANKS

STEP	PROCEDURE
	<p>Caution: <i>When performing this procedure, use extreme care to ensure that service on active channels is not interrupted. If practicable, the channel bank should be placed out of service.</i></p>
1	<p>Insert, one at a time, the required J68929AF or AR (or J68954BG) channel modems in the first partially-equipped channel bank (Fig. 3) to be equipped.</p> <p>Note: Before inserting any plug-in unit in a slot, ensure that it is the unit specified for that slot. Then remove the connector protection cap from the plug-in unit and inspect the connector for bent or misaligned contacts.</p> <p>Requirement: No fuses blow.</p> <p>Notes: Blown fuse indications are:</p> <ul style="list-style-type: none">(a) A lighted ALM lamp on the J68929AC, AT, or AY filter and fuse panel(b) A colored tip protruding through the center of the applicable fuse holder cap.
2	<p>If the requirement of Step 1 is not met,</p> <ul style="list-style-type: none">(a) Replace the channel modem that, when inserted, caused a fuse to blow.(b) Replace the blown fuse with a spare.
3	<p>Repeat Steps 1 and 2 for all other partially-equipped channel banks that are to be equipped.</p>
4	<p>Perform applicable tests prescribed in Section 356-016-502.</p> <p>Note 1: The channel bank must be out of service for some of these tests.</p> <p>Note 2: Some tests in Section 356-016-502 cannot be performed completely in a partially-equipped bank.</p>

CHART 5

ADDING CHANNEL BANKS TO PARTIALLY-EQUIPPED BAYS

STEP	PROCEDURE
	<p>Caution: When performing this procedure, use extreme care to ensure that service on active channels is not interrupted.</p>
1	Ensure that the -24 volt fuses associated with the channel bank being equipped are <i>not</i> installed.♦
2	Insert the J68929AG or AU ♦(or J68954BH)♦ channel bank modem and the J68929AH or AW channel bank -12 volt regulator in the first channel bank (Fig. 3) to be equipped.
	<p>Note: Before inserting any plug-in unit in a slot, ensure that it is the unit specified for that slot. Then remove the connector protection cap from the plug-in unit and inspect the connector for bent or misaligned contacts.</p>
	<p>Requirement: No fuses blow.</p>
	<p>Notes: Blown fuse indications are:</p>
	<p>(a) A lighted ALM lamp on the J68929AC, AT, or AY filter and fuse panel</p>
	<p>(b) A colored tip protruding through the center of the applicable fuse holder cap.</p>
3	Insert the applicable fuse (F2 to F6, F12 to F16, F18 to F22, or F28 to F32) in the filter and fuse panel (Fig. 1) for the channel bank being equipped. (See Table A.)
	<p>Requirement: The inserted fuse does <i>not</i> blow.</p>
4	If the requirement of Step 3 is <i>not</i> met,
	<p>(a) Replace the J68929AG or AU ♦(or J68954BH)♦ channel bank modem with a spare unit.</p>
	<p>(b) Replace the blown fuse with a spare.</p>
5	If the requirement of Step 3 <i>cannot</i> be met,
	<p>(a) Reinsert the channel bank modem removed in Step 4(a).</p>
	<p>(b) Replace the J68929AH or AW -12 volt regulator with a spare unit.</p>
	<p>(c) Replace the blown fuse with a spare.</p>
6	Insert, one at a time, the twelve J68929AF or AR ♦(or J68954BG)♦ channel modems in the channel bank (Fig. 3) being equipped.

CHART 5 (Contd)

STEP

PROCEDURE

Note: For a partially-equipped channel bank, only the channel modems for the channels being equipped need be inserted.

Requirement: No fuses blow.

7 If the requirement of Step 6 is **not** met,

(a) Replace the channel modem that, when inserted, caused a fuse to blow.

(b) Replace the blown fuse with a spare.

8 Repeat applicable Steps 1 through 7 for all other channel banks to be equipped.

9 Perform the tests prescribed in Section 356-016-502.

Note 1: The channel bank must be out of service for some of these tests.

Note 2: Some tests in Section 356-016-502 cannot be performed completely in a partially-equipped bank.

CHART 6

ADDING A CFA CARRIER SUPPLY TO IN-SERVICE BAYS

STEP	PROCEDURE
	<p>Caution: When performing this procedure, use extreme care to ensure that service on active channels is not interrupted.</p> <p>At the regular CFA carrier supply,</p> <p>1 Remove the J68929BN CFA connector from the section(s) (1-way and/or 2-way) of the CFA carrier supply shelf to be equipped.</p> <p>Requirement: The CARR FAIL lamp on the J68929AE (L1 and L2) panel is lighted.</p> <p>Note: The office alarms will be activated. Press the corresponding MN AC0 or MJ AC0 keys on the J68929AE (L1 and L2) carrier distribution panel.</p> <p>2 Insert, one at a time, plug-in units in the J68929BA and BB CFA carrier supply shelves (Fig. 4) according to the type of CFA operation (1-way or 2-way) to be used. See Table B.</p> <p>Note 1: The same type of CFA operation must be used in the regular and alternate supplies.</p> <p>Note 2: Write-on labels are provided on the front panel of CFA units that can be used for either 1-way or 2-way operation. The appropriate designation (1W or 2W) should be written in this space before the unit is inserted in the CFA carrier supply shelf. If the unit is later used in a different J-code-compatible location, the designation can be changed as required.</p> <p>3 Scan the lamps on the newly-installed J68929BL pilot/carrier switch and/or J68929BM carrier switch.</p> <p>Requirement: After 25 seconds, The ALT FAIL lamp on the newly-installed unit(s) is lighted.</p> <p>Note: If the MAN SW lamp on the newly-installed unit(s) is lighted, operate the corresponding MAN SW key(s).</p> <p>At the alternate CFA carrier supply,</p> <p>4 Repeat Steps 1 and 2.</p> <p>5 Scan the lamps on the newly-installed J68929BL pilot/carrier switch and/or J68929BM carrier switch.</p> <p>Requirement: After 25 seconds, The ALT FAIL lamp on the newly-installed unit(s) is extinguished.</p>

CHART 6 (Contd)

STEP	PROCEDURE
	<p>Note: If the MAN SW lamp on the newly-installed unit(s) is lighted, operate the corresponding MAN SW key(s).</p>
6	<p>Press the ALM REG key.</p> <p>Requirement: The ALM REG lamp is extinguished.</p> <p>At the regular CFA carrier supply,</p>
7	<p>Scan the lamps on the newly-installed J68929BL pilot/carrier switch and/or J68929BM carrier switch.</p> <p>Requirement: The ALT FAIL lamp on the newly-installed unit(s) is extinguished.</p>
8	<p>Press the ALM REG key.</p> <p>Requirement: The ALM REG lamp is extinguished.</p>
9	<p>If the requirements of Steps 3 through 8 are not met, check for lighted lamps on the CFA carrier supply units to help isolate the trouble. ♦See Section 356-016-506.♦</p>
10	<p>If the requirements of Steps 3 through 8 cannot be met,</p> <ul style="list-style-type: none"><li data-bbox="269 1161 602 1188">(a) Check the bay wiring.<li data-bbox="269 1224 992 1251">(b) Replace any CFA units suspected of being defective.
11	<p>Perform applicable tests prescribed in Section 356-016-506.</p>

CHART 7

**ADDING OR CHANGING CFA PROTECTION
TO CHANNEL BANKS**

STEP	PROCEDURE
	<p>Caution: <i>This procedure must be performed only when the channel bank is out of service or when trunk conditioning is disabled. If 2-way CFA is in service, coordination with the far end is necessary. Use extreme care to ensure that service on active channels is not interrupted.</i></p>
1	If CFA operation is being added, proceed to Step 2. If an existing CFA option is being changed, remove the J68929BC ♦(or J68954BJ)♦ CFA unit from the applicable channel bank shelf.
2	Remove the snap-on cover from the 1W/2W CFA option switch located at the rear of the printed wiring board on the J68929BC ♦(or J68954BJ)♦ CFA unit (Fig. 5).
3	Press the switch actuators down at the numbered (1, 2, 3, 4) end as follows: <p style="margin-left: 40px;">1-Way CFA: Press switch actuators 1 and 2 down ♦(up at 3 and 4).♦</p> <p style="margin-left: 40px;">2-Way CFA: Press switch actuators 3 and 4 down ♦(up at 1 and 2).♦</p>
4	Replace the snap-on switch cover.
5	Write the applicable option (1W or 2W) in the space provided on the front panel of the J68929BC ♦(or J68954BJ)♦ CFA unit.
6	Insert the J68929BC ♦(or J68954BJ)♦ CFA unit in the last slot on the right end of the A6 channel bank shelf (to the right of the J68929AU ♦(or J68954BH)♦ channel bank modem) as shown in Fig. 3.
	Requirement: No fuses blow.
7	If the requirement of Step 6 is not met, replace the blown fuse with a spare.
8	If the requirement of Step 6 cannot be met, <p style="margin-left: 40px;">(a) Replace the J68929BC ♦(or J68954BJ)♦ CFA unit with a spare.</p> <p style="margin-left: 40px;">(b) Replace the blown fuse with a spare.</p>
9	Perform applicable tests prescribed in Section 356-016-506.