OPERATION AND MAINTENANCE
MAINTENANCE SUPPORT
1XN FREQUENCY DIVERSITY
DR 6/11-135A
EQUIPMENT IDENTIFICATION
REGENERATOR

This section contains information to help the technician identify equipment contained in the 135A Regenerator Bay. The following line drawings are provided.

- Figure 1—135A Regenerator Bays
- Figure 2—135A Regenerator Bay Labeling
- Figure 3—135A Regenerator Bay Applications
- Figure 4—Installer Interface Panel, Initial Bay
- Figure 5—Installer Interface Panel, Growth Bay
- Figure 6—135A Regenerator Station Control and Service Channel Shelf
- Figure 7—Fan Shelf
- Figure 8—135A Digital Regenerator Shelf, Regular or Protection
- Figure 9—Equalizer Panel, Initial Bay—Optional
- Figure 10—Equalizer Panel, Growth Bay—Optional.

This practice is reissued to update equipment drawings. Change arrows are used. The practice is used in binder 421-101-001.

ISSUING ORGANIZATION

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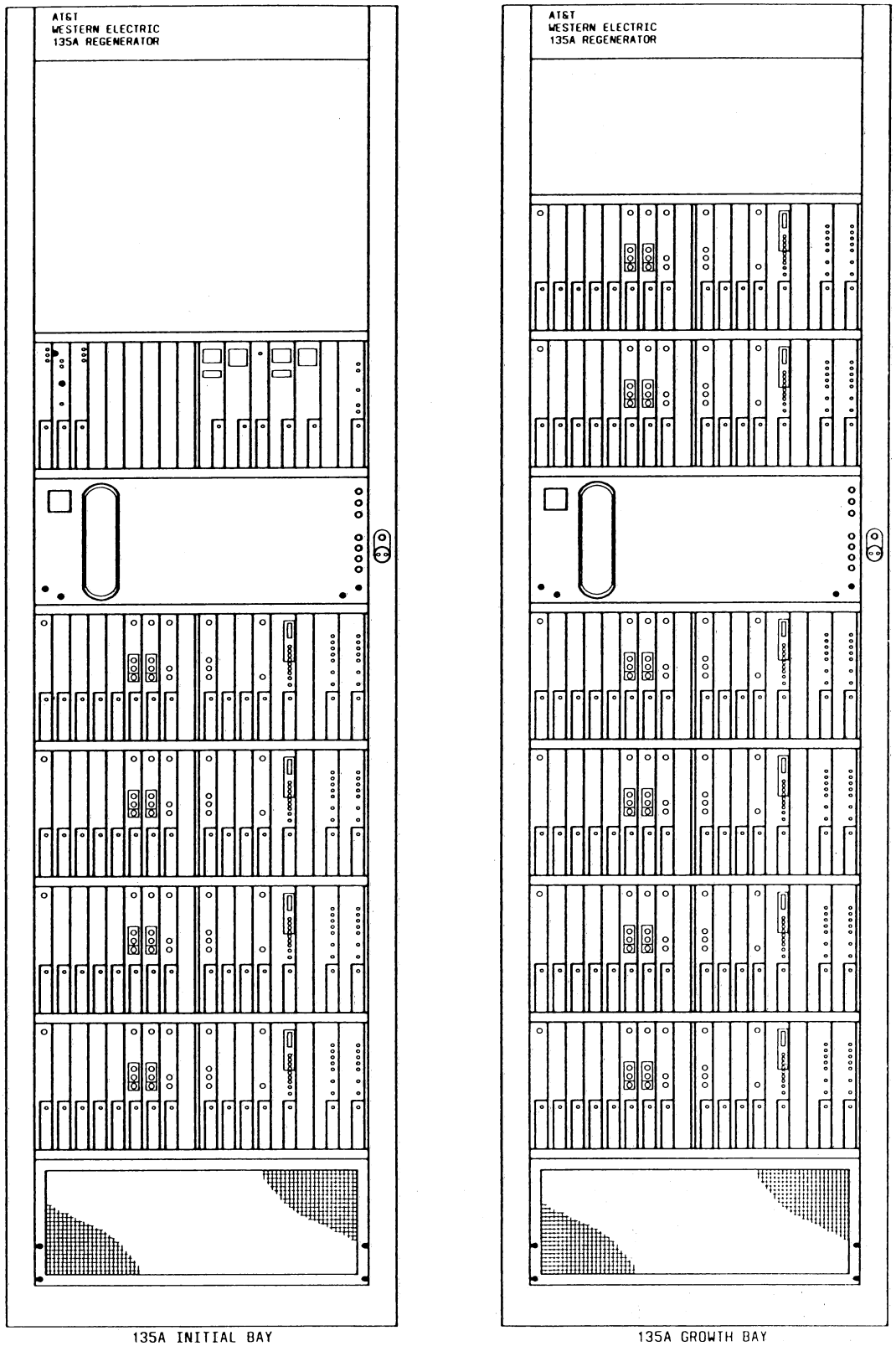


Fig. 1—135A Regenerator Bays

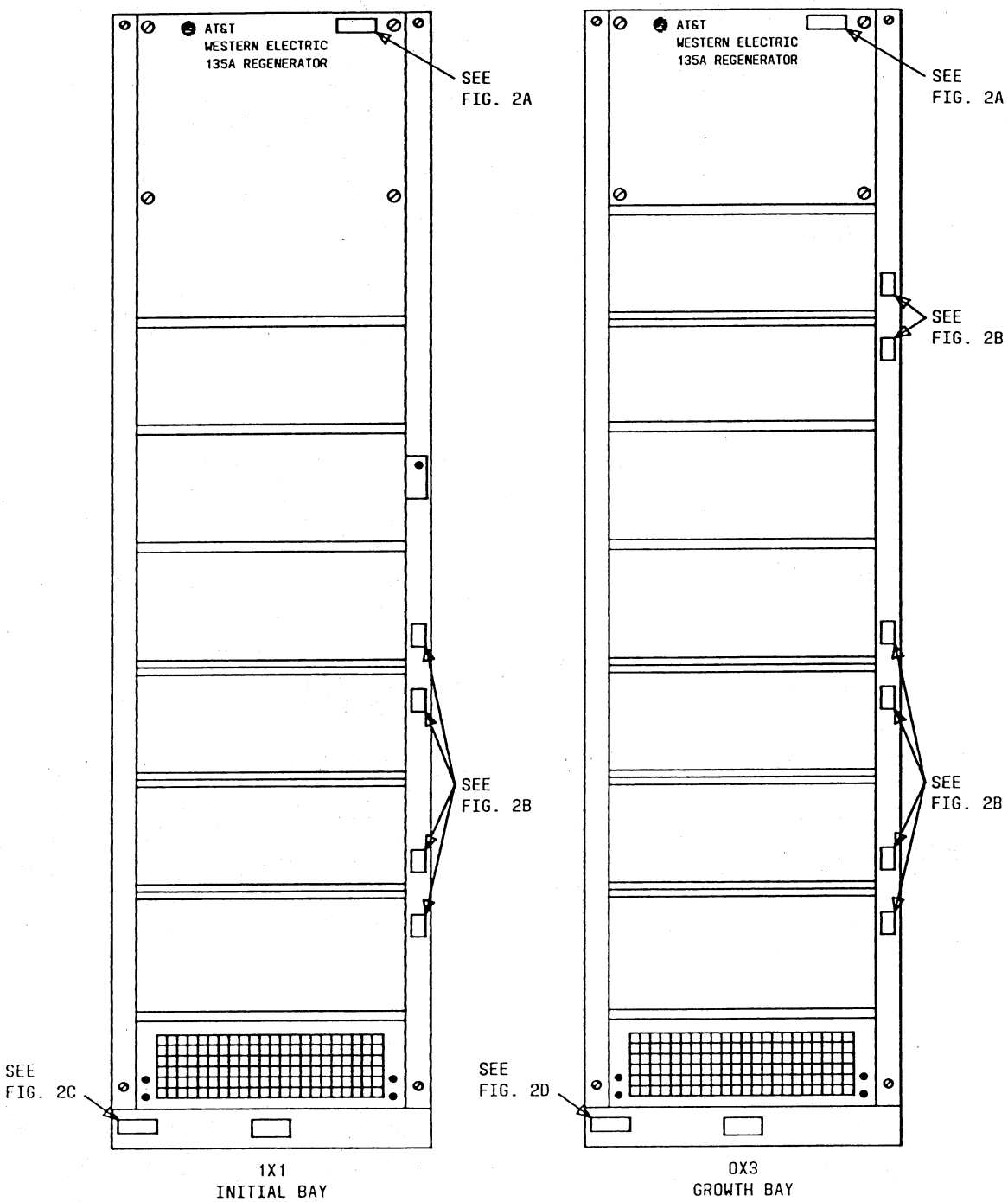


Fig. 2—135A Regenerator Bay Labeling (Sheet 1 of 2)

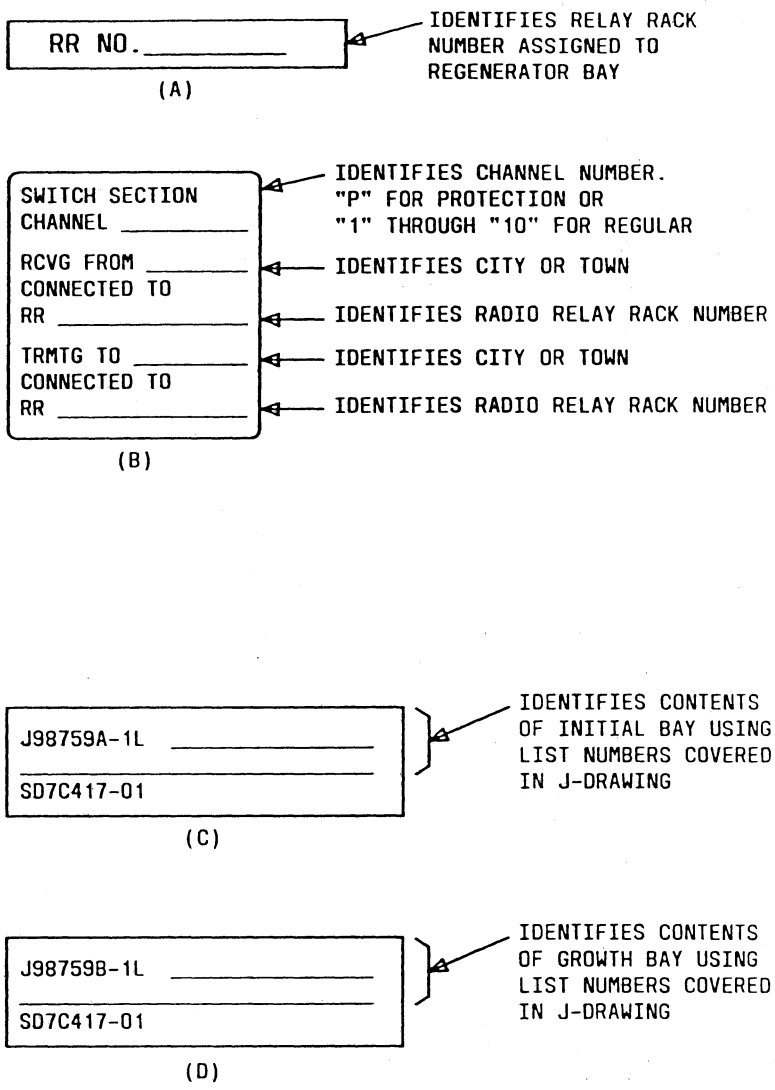


Fig. 2—135A Regenerator Bay Labeling (Sheet 2 of 2)

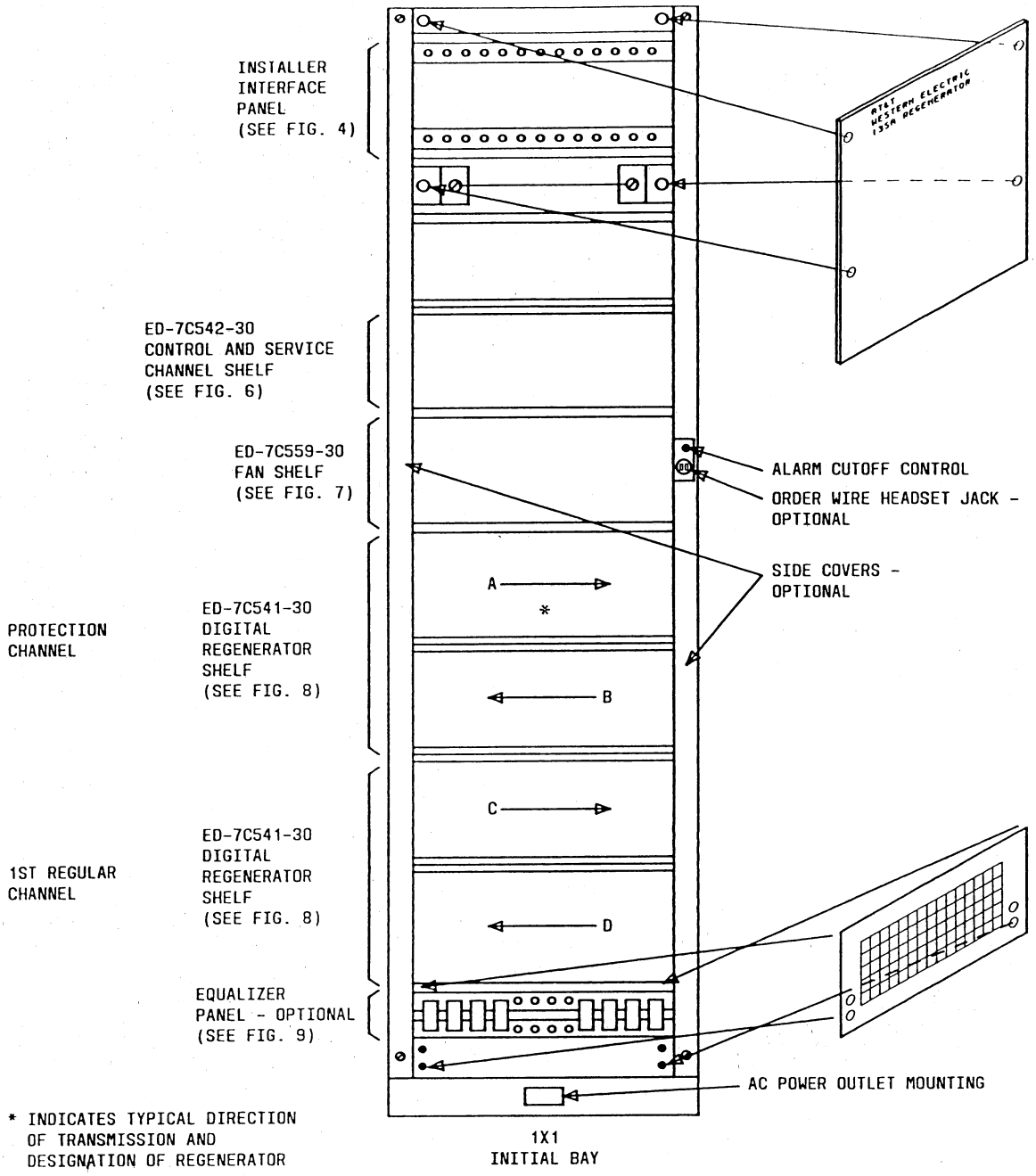


Fig. 3—135A Regenerator Bay Applications (Sheet 1 of 2)

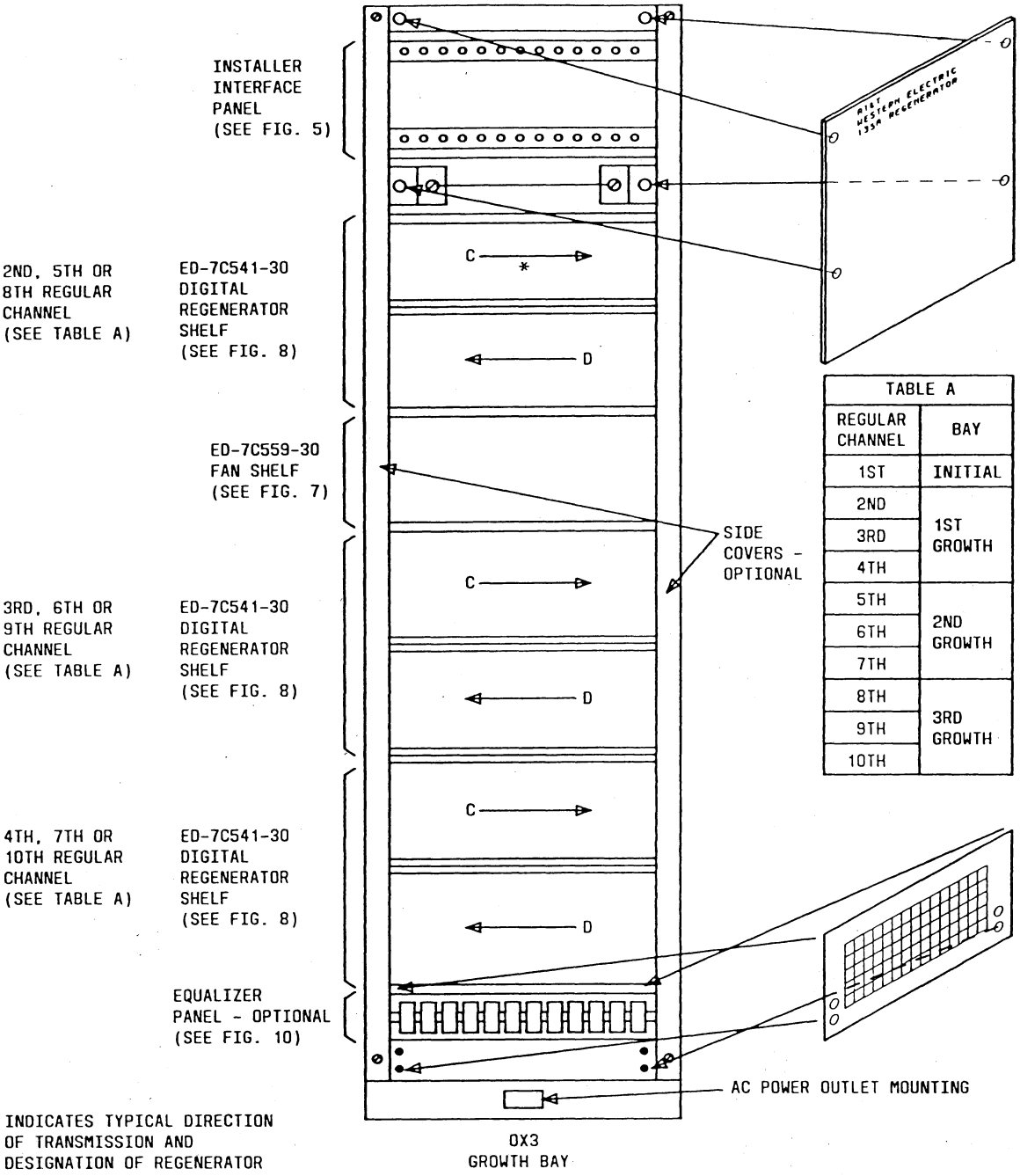


TABLE A	
REGULAR CHANNEL	BAY
1ST	INITIAL
2ND	1ST GROWTH
3RD	
4TH	
5TH	2ND GROWTH
6TH	
7TH	
8TH	3RD GROWTH
9TH	
10TH	

Fig. 3—135A Regenerator Bay Applications (Sheet 2 of 2)

TABLE A
UNIT APPLICATIONS
INSTALLER INTERFACE PANEL - REGENERATOR INITIAL BAY

POSITION NUMBER	APPLICATION (NOTE)
1	TSA (Terminal Strip A)–Service Channel X Access (Optional)
1	TSB (Terminal Strip B)–Service Channel Y Access (Optional)
2	TSC (Terminal Strip C)–Service Channel Z Access (Optional)
2	TSD (Terminal Strip D)–User or Discrete Telemetry Access (Optional)
3	TBA (Terminal Block A)–Standard
4	ED-8C517-30-G() Alarm Cutoff/Call Relay (Optional)
5	TSE (Terminal Strip E)–Service Channel W Access (Optional)
5	TSF (Terminal Strip F)–Standard

NOTE: See CAD figures in SD-7C417-01 for terminal strip, block, and connector applications.

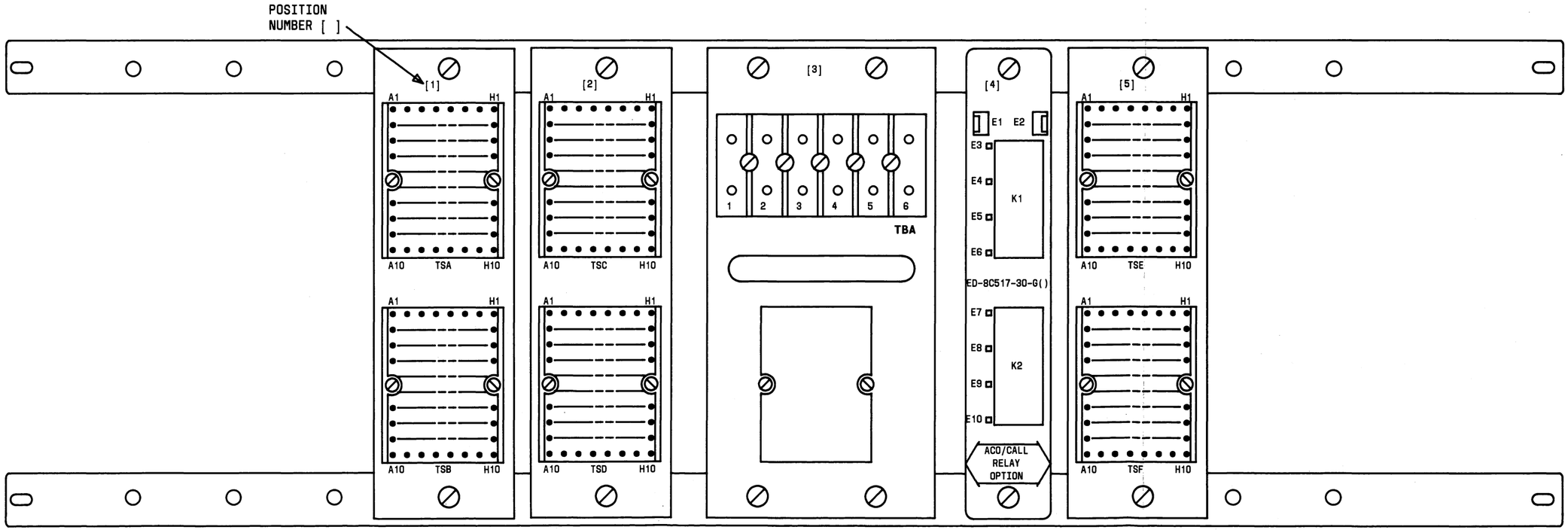
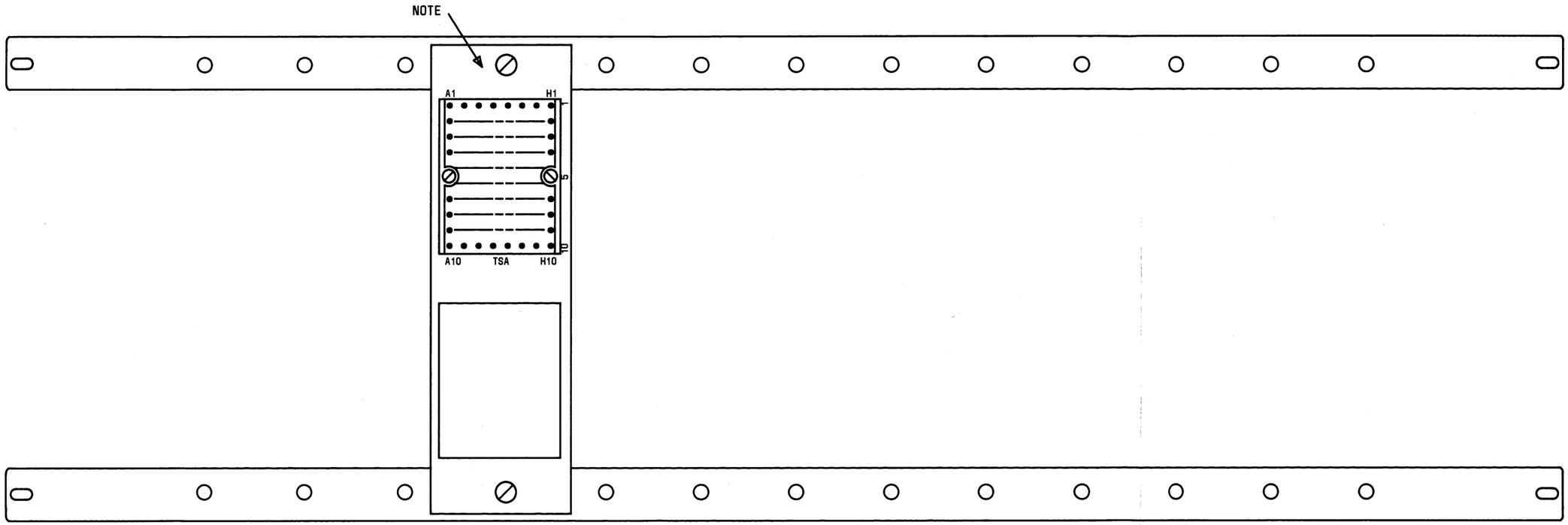


Fig. 4—Installer Interface Panel, Initial Bay



NOTE: STANDARD UNIT. SEE CAD FIGURES IN SD-7C417-01 FOR TERMINAL STRIP, BLOCK, AND CONNECTOR APPLICATIONS

Fig. 5—Installer Interface Panel, Growth Bay

TABLE A
PLUG-IN UNIT APPLICATIONS
135A REGENERATOR STATION CONTROL AND SERVICE CHANNEL SHELF

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
CONTROL			
1, 3	AMR127	REGEN I/O	Standard unit
2	MC45017A1	REGEN CONTR	TBOS telemetry option
2	MC45026A1	REGEN CONTR	TABS telemetry option
2	MC45027A1	REGEN CONTR	TABS with FMAS telemetry option
2	MC45051A1	REGEN CONTR	Discrete telemetry option
4-9	155C Blank	–	Standard
SERVICE CHANNEL			
10, 13	ANB1	SC MULDM	Basic service channel signaling option
10, 13	155E Blank	–	Standard
11, 14	AMR94	SC EXPN	Provides additional service channels (X, Y, and Z)
11, 14	155E Blank	–	Standard
12	AMR95	REGEN OW	Provides order-wire and/or DDD option
12	155C Blank	–	Standard
15	155C Blank	–	Standard
POWER			
16	471BA	POWER UNIT	Standard for −24 V input power applications
16	474BA	POWER UNIT	Standard for −48 V input power applications

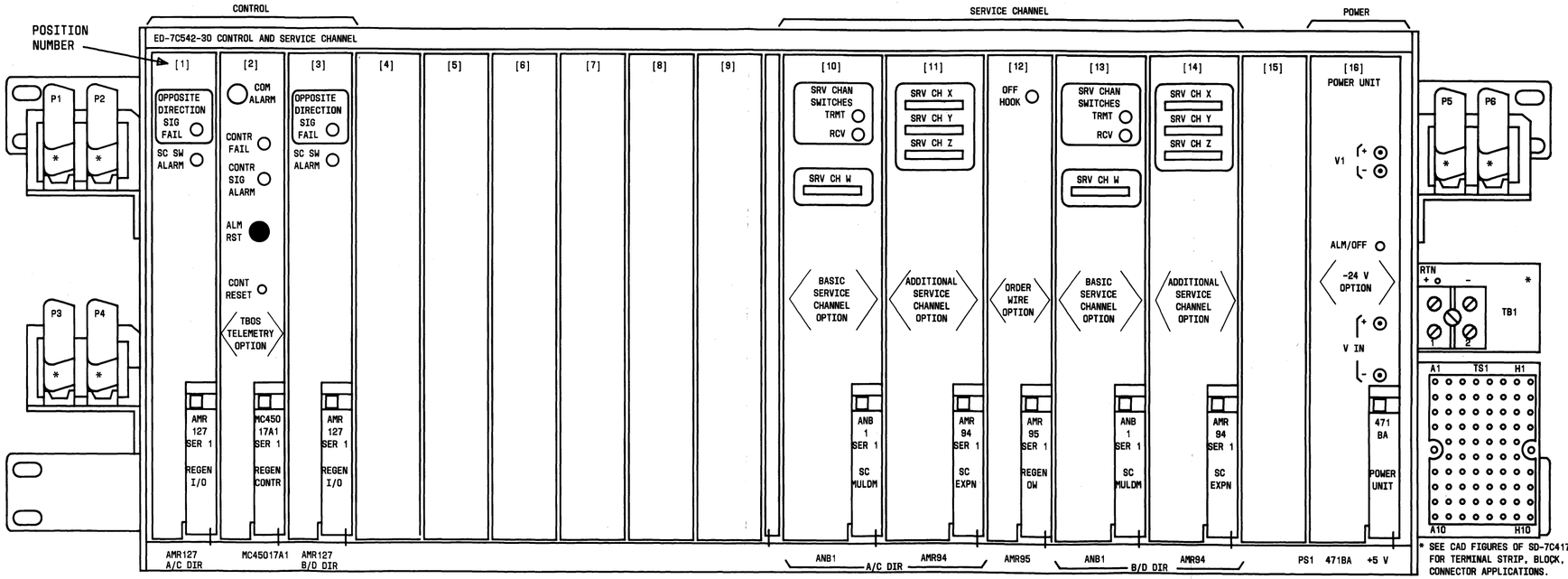
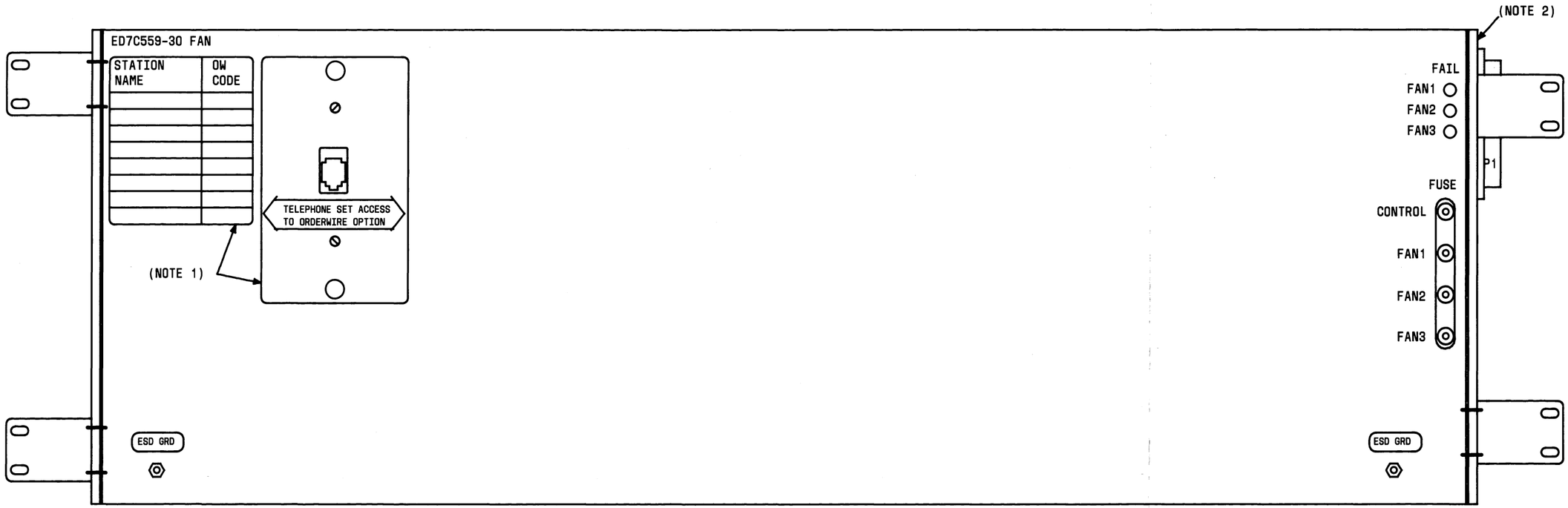


Fig. 6—135A Regenerator Station Control and Service Channel Shelf



NOTES:
1. Required for telephone set jack option
2. ED-7C559-G2 for –24 volt application.
   ED-7C559-G3 for –48 volt application.
   (Stamped on right side of shelf).

Fig. 7—Fan Shelf

TABLE A
PLUG-IN UNIT APPLICATIONS
135A 64QAM REGENERATOR

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
1, 18	AMR30	64QAM DEMOD	50 ft Or Less IF Cable Option
1, 18	AMR230	64QAM DEMOD	With Robust Receiver Feature
1, 18	AMR29	64QAM DEMOD	Greater Than 50 ft IF Cable Option
1, 18	AMR229	64QAM DEMOD	With Robust Receiver Feature
2, 3, 19, 20	AMR32	TRNSV FLT	Transversal Equalizer Option
2, 3, 19, 20	AMR47	TRNSV PATCH	Standard Unit
4, 21	AMR34B	CRLTR	Standard Unit
4, 21	AMR234	CRLTR	Required For Robust Receiver Feature
5, 22	AMR37	RCV FLT	Standard Unit
6, 7, 23, 24	AMR43	64QAM DECSN	Standard Unit
6, 7, 23, 24	AMR243	64QAM DECSN	Required For Robust Receiver Feature
6, 7, 23, 24	AMR43B	64QAM DECSN	Phase Plane Monitoring Option
8, 25	AMR59	REGEN FRMR	Both Required For Frame Resupply Option
10, 27	AMR16 or AMR16B†	FRAME RSPLY	
8, 25	AMR59	REGEN FRMR	Required For Framer Only Option
10, 27	155C Blank	–	
8, 25	155C Blank	–	Neither Frame Resupply Nor Frame Only Option
10, 27	155C Blank	–	
11, 28	AMR 20	D/A CONVR	Standard Unit
12, 29	AMR23	TRMT FLT	Standard Unit
13, 30	AMR27	64QAM MOD	50 ft Or Less IF Cable Option
13, 30	AMR28	64QAM MOD	Greater Than 50 ft IF Cable Option
9, 26	155C Blank	–	Standard Unit
14, 31	MC45018A()	CHAN CONTR	Standard Unit
14, 31	MC45028A1	CHAN CONTR	FMAS Option
15, 32	155C Blank	–	Standard

TABLE B
PLUG-IN UNIT APPLICATIONS
135A POWER DISTRIBUTION

POSITION NUMBER	UNIT CODE	LABEL DESIGNATION	APPLICATION
16 (PS1)	471EA	+5 V ±15 V	Standard For –24 V Input Power Applications Without Transversal Equalizer Option
33 (PS2)	471EA	–5 V ±15 V	
17	155E Blank	–	
34	155E Blank	–	
16 (PS1)	471EA	+5 V ±15 V	Standard For –24 V Input Power Applications With Transversal Equalizer Option
33 (PS2)	471EA	+5 V ±15 V	
17 (PS3)	471EA	–5 V ±15 V	
34 (PS4)	471EA	–5 V ±15 V	
16 (PS1)	474EA	+5 V ±15 V	Standard For –48 V Input Power Applications Without Transversal Equalizer Option
33 (PS2)	474EA	+5 V ±15 V	
17	155E Blank	–	
34	155E Blank	–	
16 (PS1)	474EA	+5 V ±15 V	Standard For –48 V Input Power Applications With Transversal Equalizer Option
33 (PS2)	474EA	+5 V ±15 V	
17 (PS3)	474EA	–5 V ±15 V	
34 (PS4)	474EA	–5 V ±15 V	

† Required with robust receiver feature if frame resupply option is equipped

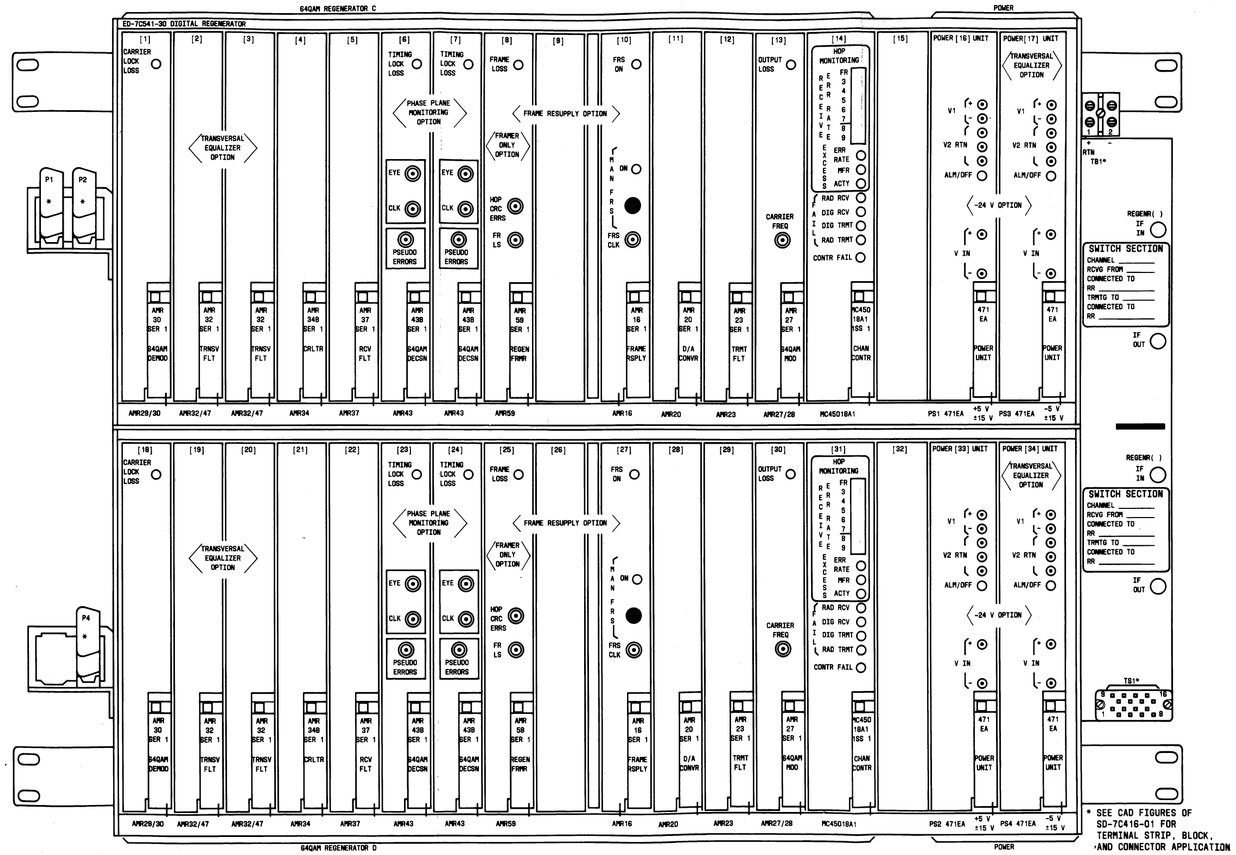


Fig. 8—135A Digital Regenerator Shelf, Regular or Protection

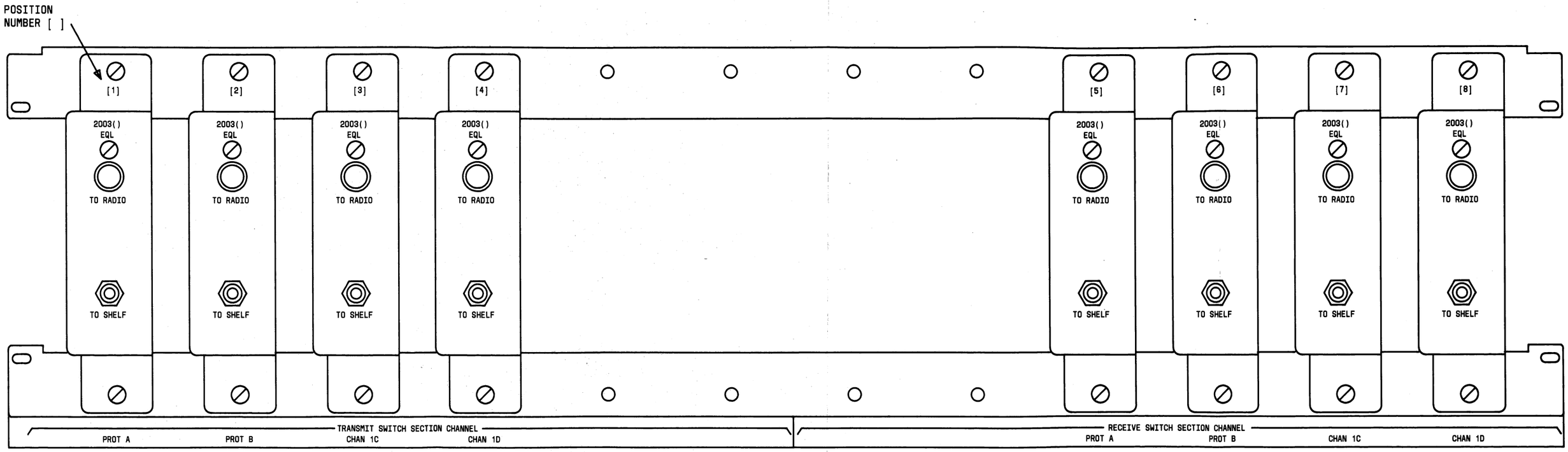
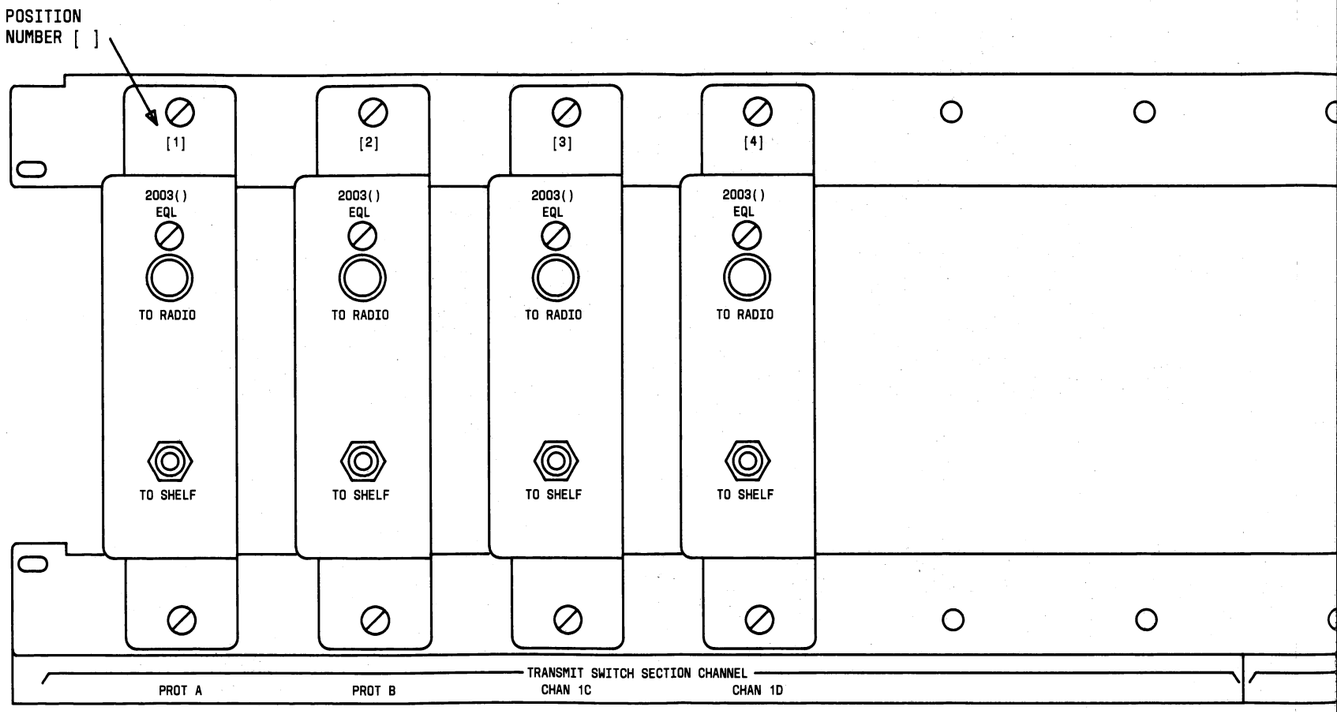


Fig. 9—Equalizer Panel, Initial Bay—Optional

TABLE A	
UNIT APPLICATIONS FOR EQUALIZER PANEL	
POSITION NUMBER	APPLICATION
1, (2)	REQUIRED ONLY WHEN IF INTERCONNECT CABLE TO RADIO TRANSMITTER FOR PROTECTION REGENERATOR A (B) IS GREATER THAN 50 FEET
3, (4)	REQUIRED ONLY WHEN IF INTERCONNECT CABLE TO RADIO TRANSMITTER FOR REGULAR REGENERATOR C (D) IS GREATER THAN 50 FEET
5, (6)	REQUIRED ONLY WHEN IF INTERCONNECT CABLE FROM RADIO RECEIVER FOR PROTECTION REGENERATOR A (B) IS GREATER THAN 50 FEET
7, (8)	REQUIRED ONLY WHEN IF INTERCONNECT CABLE FROM RADIO RECEIVER FOR REGULAR REGENERATOR C (D) IS GREATER THAN 50 FEET

TABLE B	
2003( ) EQUALIZER APPLICATIONS	
EQUALIZER CODE	IF INTERCONNECT CABLE LENGTHS (FT.)
2003W	75
2003Y	125
2003AA	175
2003AB	225
2003AC	275



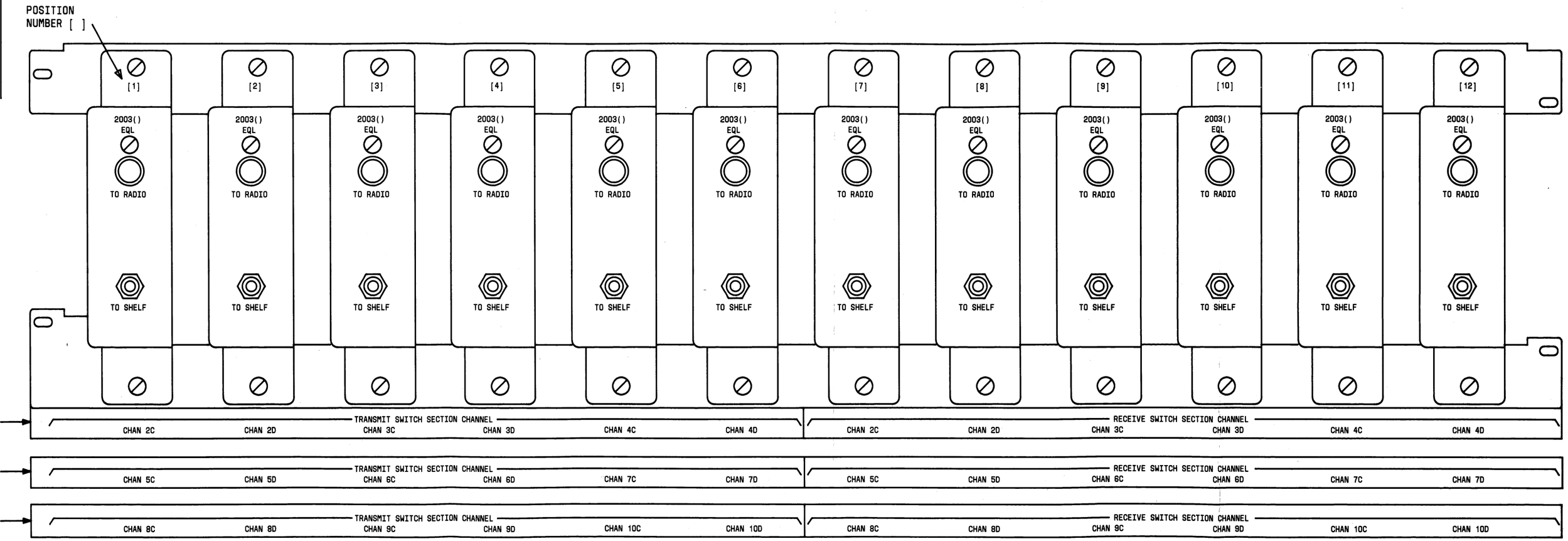


Fig. 10—Equalizer Panel, Growth Bay—Optional

TABLE A UNIT APPLICATIONS FOR EQUALIZER PANEL	
POSITION NUMBER	**APPLICATION**
1 (2) 3 (4) 5 (6)	Required only when IF interconnect cable to radio transmitter for regular regenerator C (D) is greater than 50 feet
7 (8) 9 (10) 11 (12)	Required only when IF interconnect cable from radio receiver for regular regenerator C (D) is greater than 50 feet

TABLE B 2003( ) EQUALIZER APPLICATIONS	
EQUALIZER CODE	**IF INTERCONNECT CABLE LENGTHS (FT)**
2003W	75
2003Y	125
2003AA	175
2003AB	225
2003AC	275