

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

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

- Figure 1—135A Line Terminal Bays
- Figure 2—135A Line Terminal Bay Labeling
- Figure 3—135A Line Terminal Bay Applications
- Figure 4—Installer Interface Panel—Initial Bay
- Figure 5—Installer Interface Panel—Growth Bay
- Figure 6—135A Growth Shelf—1X10
- Figure 7—135A Terminal Station Control and Service Channel Shelf
- Figure 8—Fan Shelf
- Figure 9—135A Protection Digital Terminal Shelf
- Figure 10—135A Regular Digital Terminal Shelf
- Figure 11—Equalizer Panel, Initial Bay—Optional
- Figure 12—Equalizer Panel, Growth Bay—Optional.

*This practice is reissued to update equipment drawings. Revision arrows have been used to identify the drawings with significant changes. The practice is used in binder 421-101-001.*

**ISSUING ORGANIZATION**

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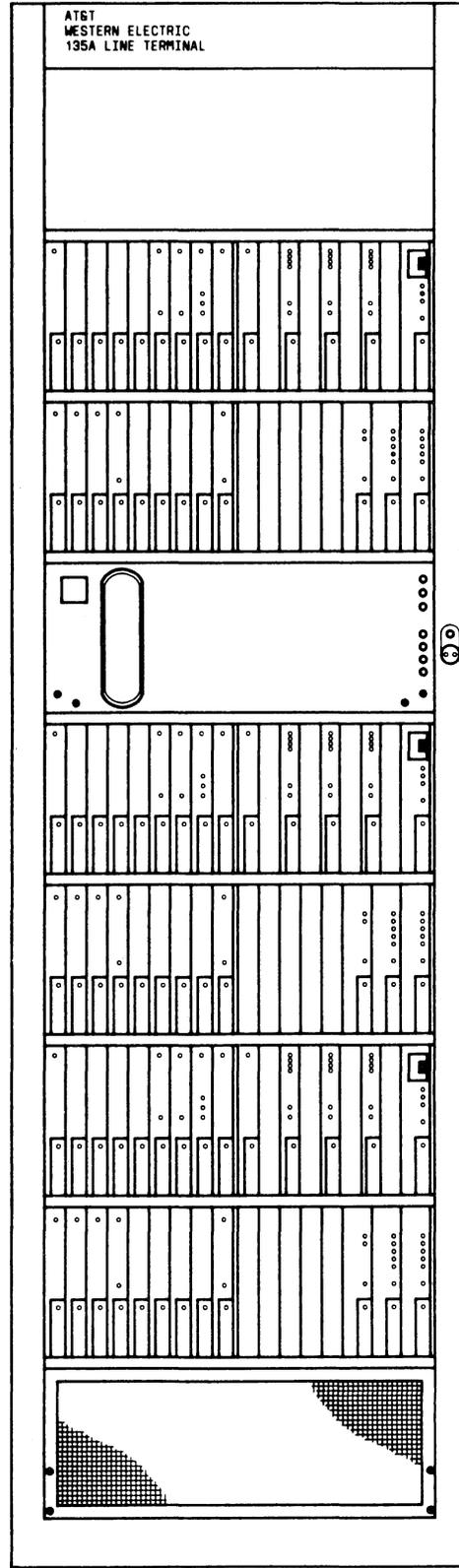
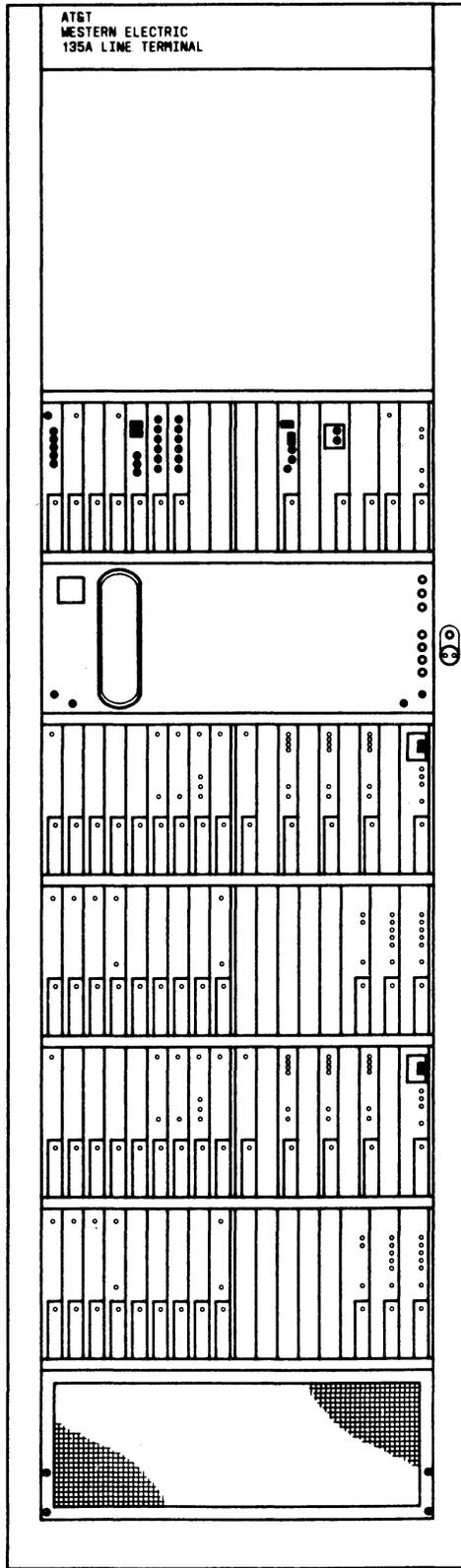


Fig. 1—135A Line Terminal Bays

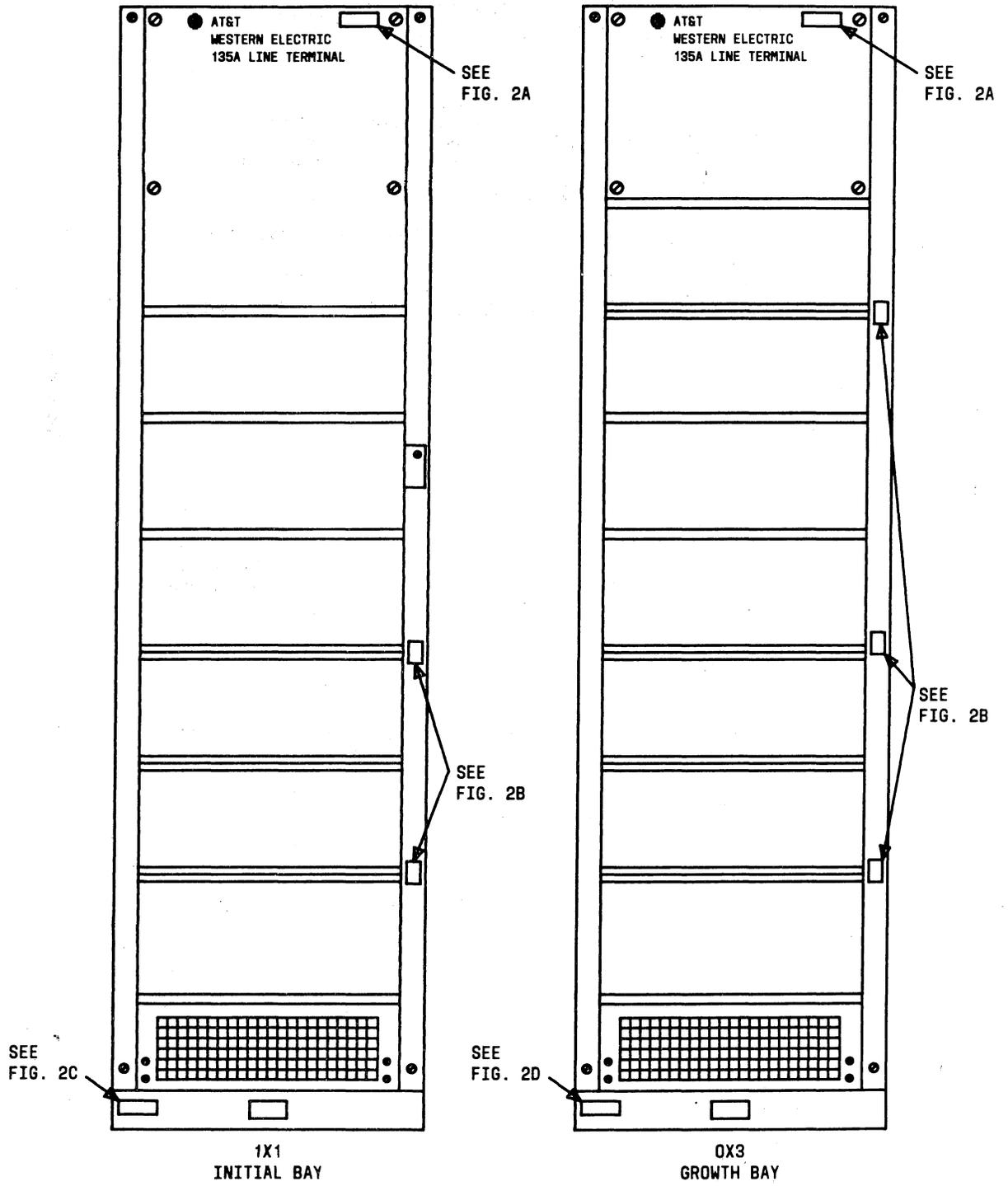


Fig. 2—135A Line Terminal Bay Labeling (Sheet 1 of 2)

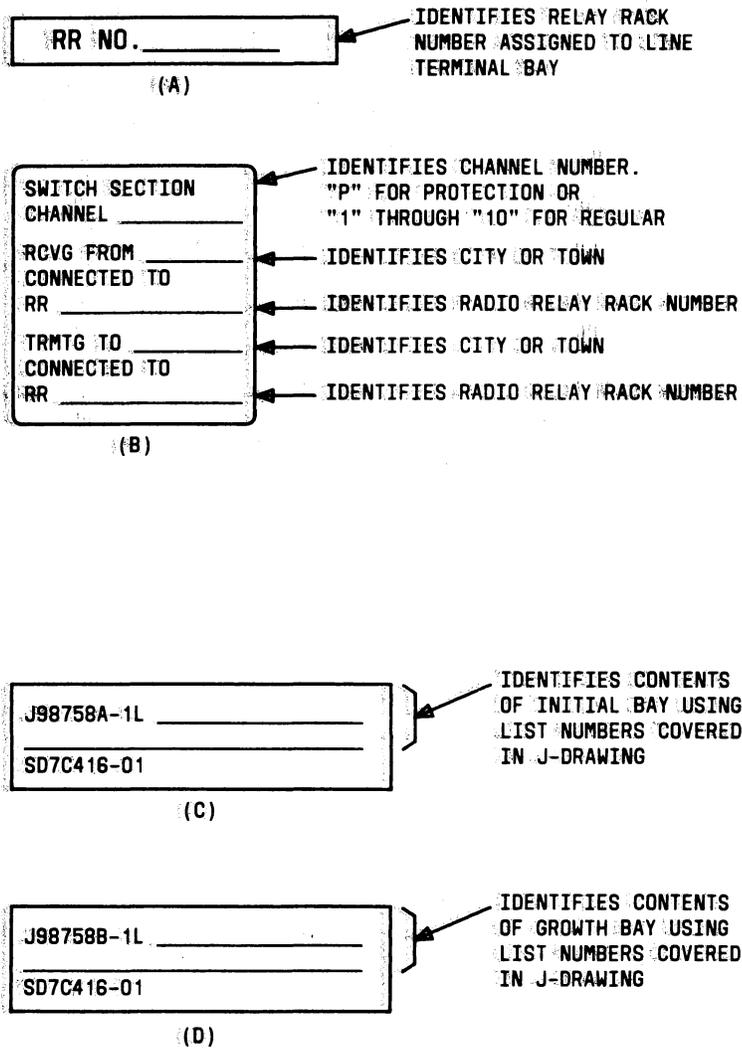


Fig. 2—135A Line Terminal Bay Labeling (Sheet 2 of 2)

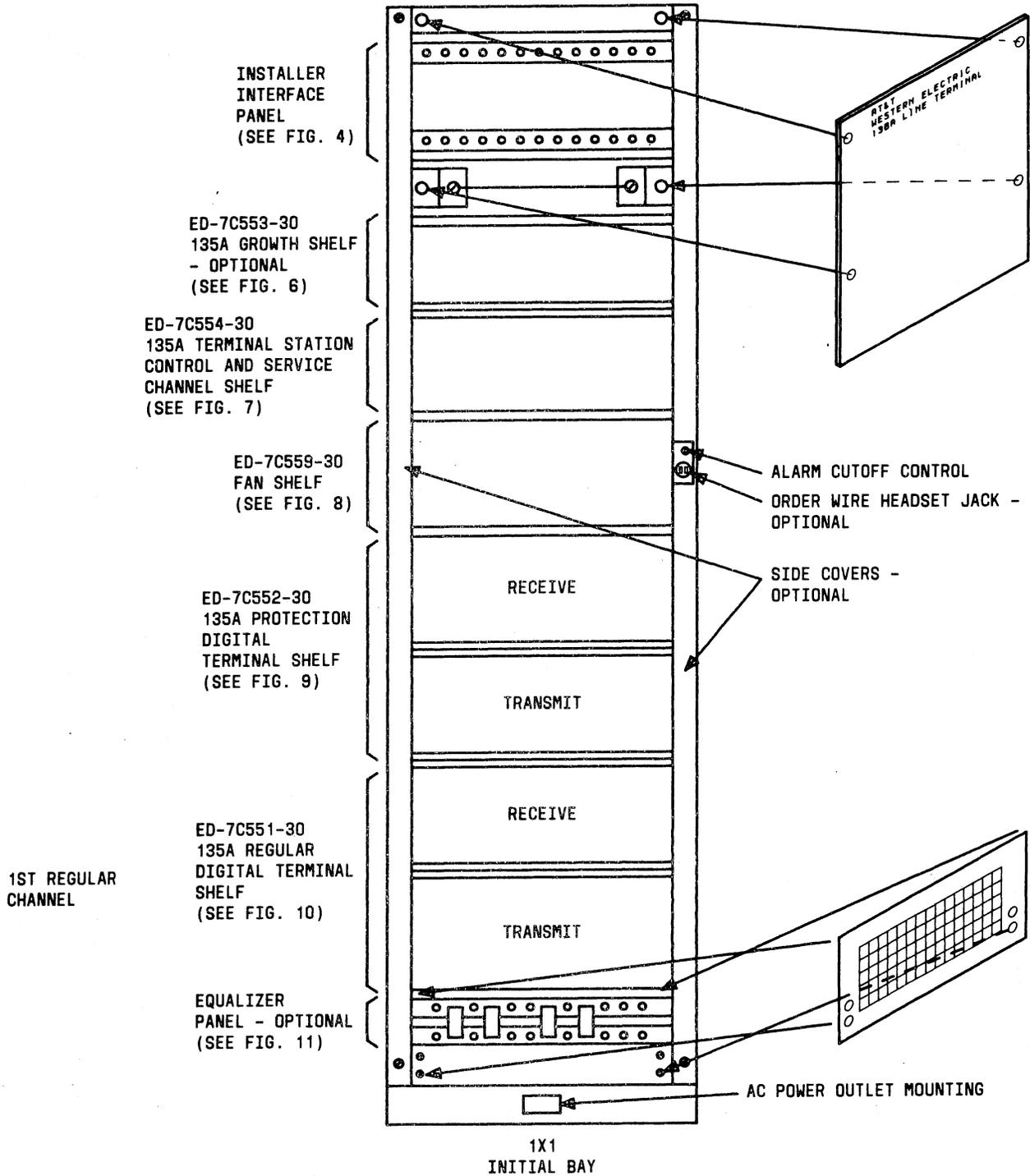


Fig. 3—135A Line Terminal Bay Applications (Sheet 1 of 2)

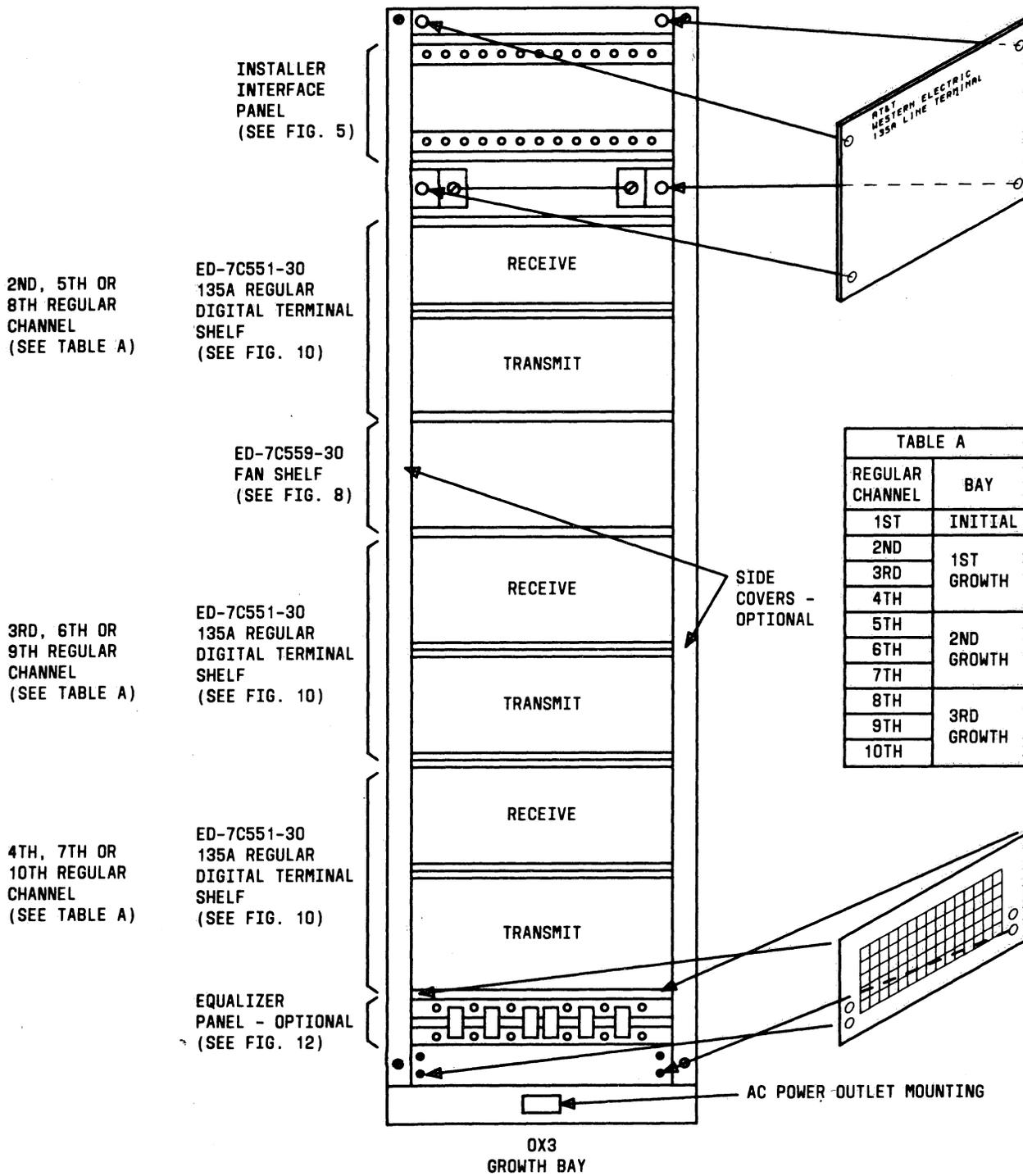


Fig. 3—135A Line Terminal Bay Applications (Sheet 2 of 2)

**TABLE A  
UNIT APPLICATIONS  
INSTALLER INTERFACE PANEL - TERMINAL INITIAL BAY**

POSITION NUMBER	APPLICATION
1	Required for access option, ED-7C560, GRP 2
2	Standard unit (CH 1), ED-7C560, GRP 2
3	Terminal Strip A - Standard Terminal Strip B - User or discrete remote telemetry interface (optional)
4	Required for alarm cutoff call relay option, ED-8C517-30
5	Required when growth bay(s) is, equipped, ED-8C575-30
6	Terminal Block A - Standard Terminal Strip C - Required for additional service channel options (W, X, Y, or Z)
7	Standard unit (CH 1), ED-7C560, GRP 5
8	Required for access option, ED-7C560, GRP 5

See CAD figures in SD-7C416-01 for terminal strip, block, and connector applications

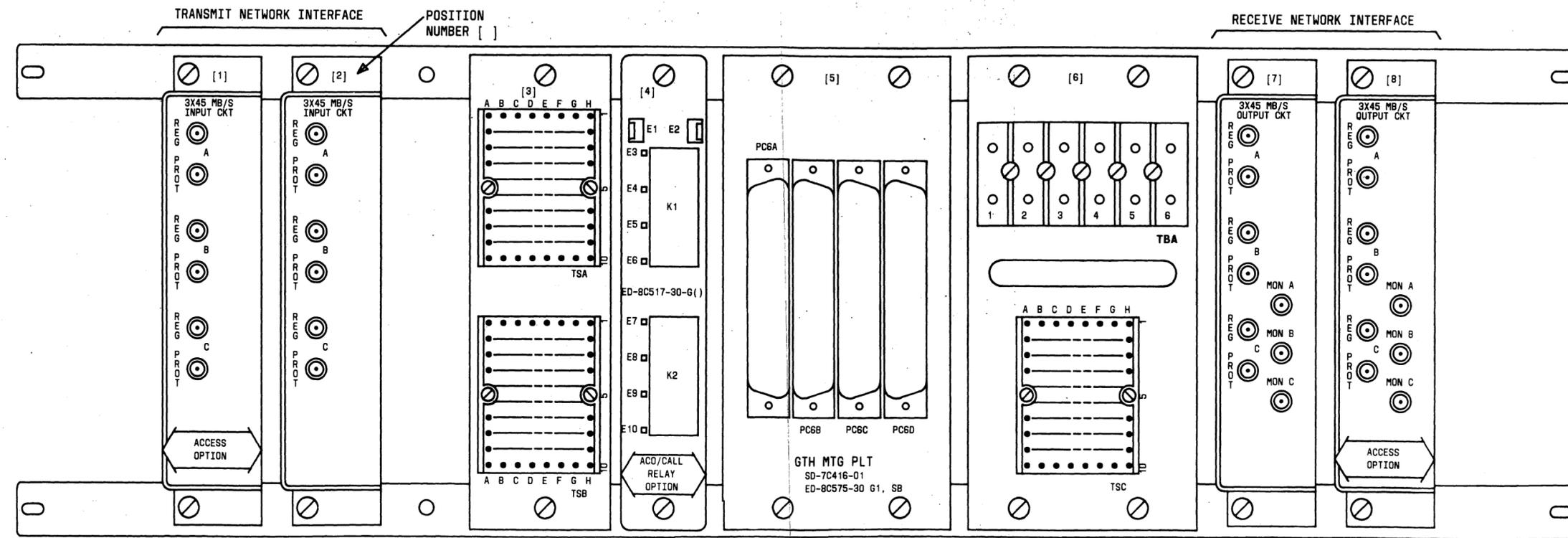


Fig. 4—Installer Interface Panel—Initial Bay

TABLE A  
UNIT APPLICATION(S)  
INSTALLER INTERFACE PANEL - TERMINAL GROWTH BAY

POSITION NUMBER	APPLICATION(S)
1	REQUIRED FOR CH.2 OF THE FIRST GROWTH BAY, CH. 5 OF THE SECOND, OR CH. 8 OF THE THIRD. ED-7C560, GRP.2
2	REQUIRED FOR CH. 3 OF THE FIRST GROWTH BAY, CH. 6 OF THE SECOND, OR CH. 9 OF THE THIRD. ED-7C560, GRP.2
3	REQUIRED FOR CH. 4 OF THE FIRST GROWTH BAY, CH. 7 OF THE SECOND, OR CH. 10 OF THE THIRD. ED-7C560, GRP.2
4	TERMINAL BLOCK A, TERMINAL STRIP A - STANDARD
5	REQUIRED FOR CH.2 OF THE FIRST GROWTH BAY, CH. 5 OF THE SECOND, OR CH. 8 OF THE THIRD. ED-7C560, GRP.5
6	REQUIRED FOR CH. 3 OF THE FIRST GROWTH BAY, CH. 6 OF THE SECOND, OR CH. 9 OF THE THIRD. ED-7C560, GRP.5
7	REQUIRED FOR CH. 4 OF THE FIRST GROWTH BAY, CH. 7 OF THE SECOND, OR CH. 10 OF THE THIRD. ED-7C560, GRP.5

SEE CAD FIGURES IN SD-7C416-01 FOR TERMINAL STRIP, BLOCK, AND CONNECTOR APPLICATIONS

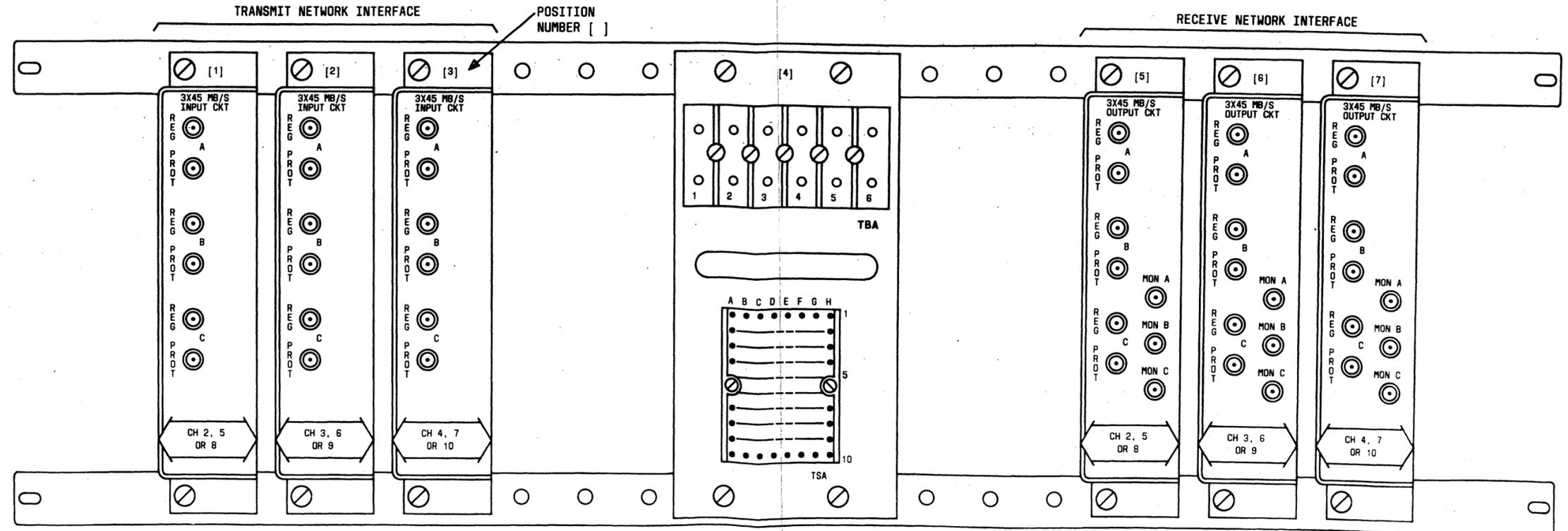


Fig. 5—Installer Interface Panel—Growth Bay

**TABLE A  
PLUG-IN UNIT APPLICATIONS  
135A GROWTH SHELF**

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
1, 13	AMR1	SPAN DIR	Required for Tributary A on regular channels 1 through 7, as equipped, and/or protection channel access option
2, 14	AMR3	SPAN DIR	Required for Tributary A on regular channels 8 through 10, as equipped
3, 15	AMR1	SPAN DIR	Required for Tributary B on regular channels 1 through 7, as equipped, and/or protection channel access option
4, 16	AMR3	SPAN DIR	Required for Tributary B on regular channels 8 through 10, as equipped
5, 17	AMR1	SPAN DIR	Required for Tributary C on regular channels 1 through 7, as equipped, and/or protection channel access option
6, 18	AMR3	SPAN DIR	Required for Tributary C on regular channels 8 through 10, as equipped
7	AMR13	GR LN SELR	Required for channels 2 through 4, as equipped
10	AMR61	GR LN DISTN	Required for channels 5 through 7, as equipped
8	AMR13	GR LN SELR	Required for channels 8 through 10, as equipped
11	AMR61	GR LN DISTN	Required for channels 8 through 10, as equipped
12	AMR61	GR LN DISTN	Required for channels 8 through 10, as equipped
19	-	-	-
20	471BA	POWER UNIT	Standard for -24 V input power applications
20	474BA	POWER UNIT	Standard for -48 V input power applications

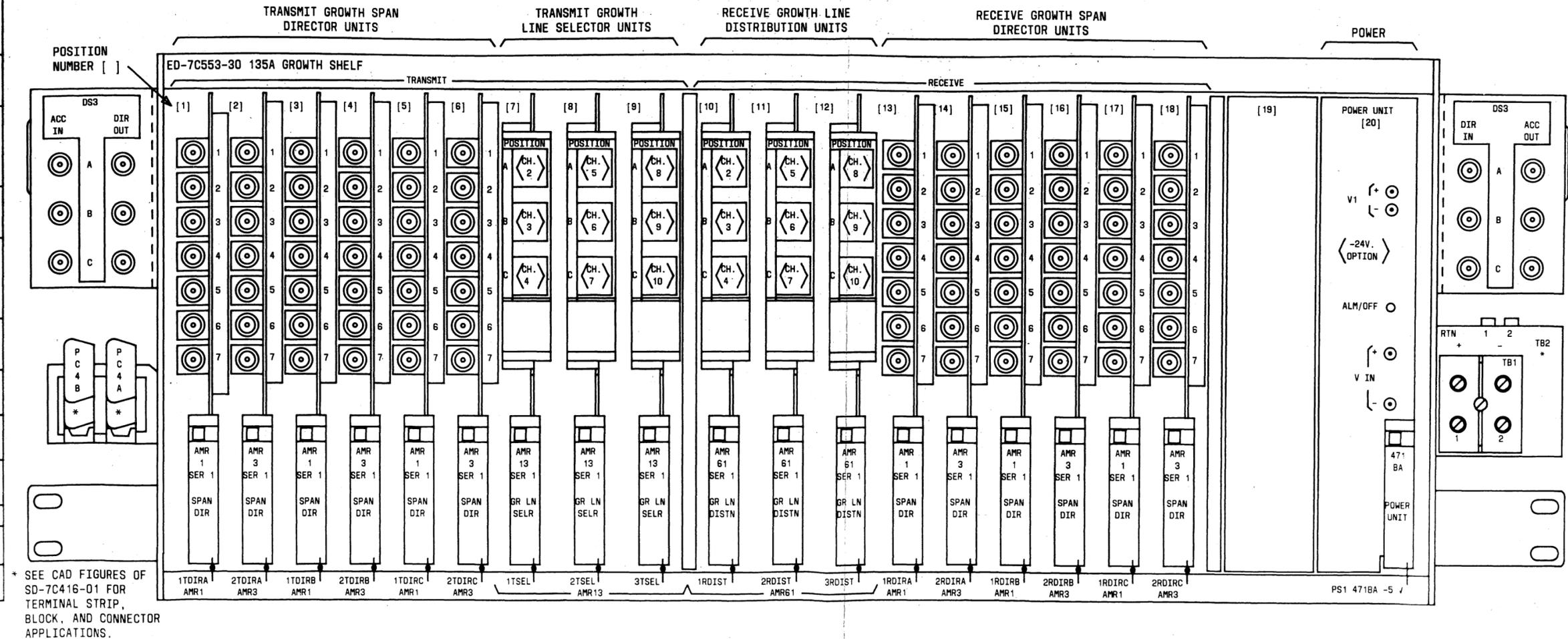
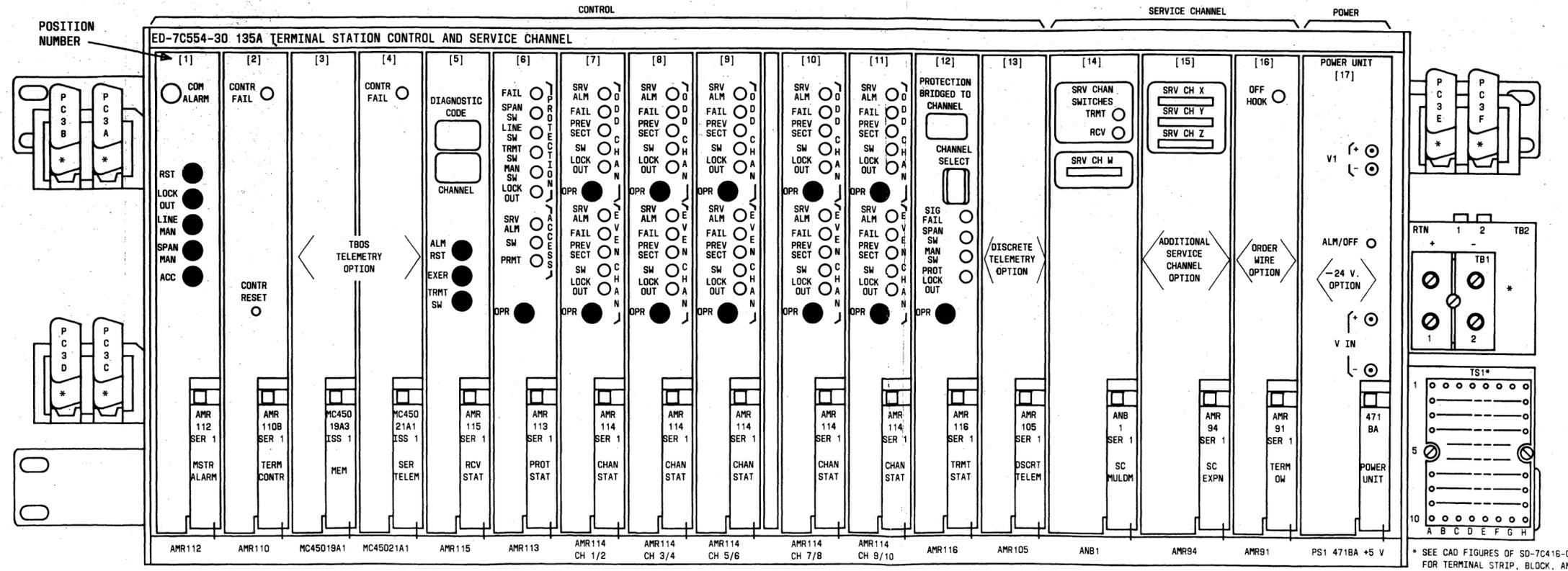


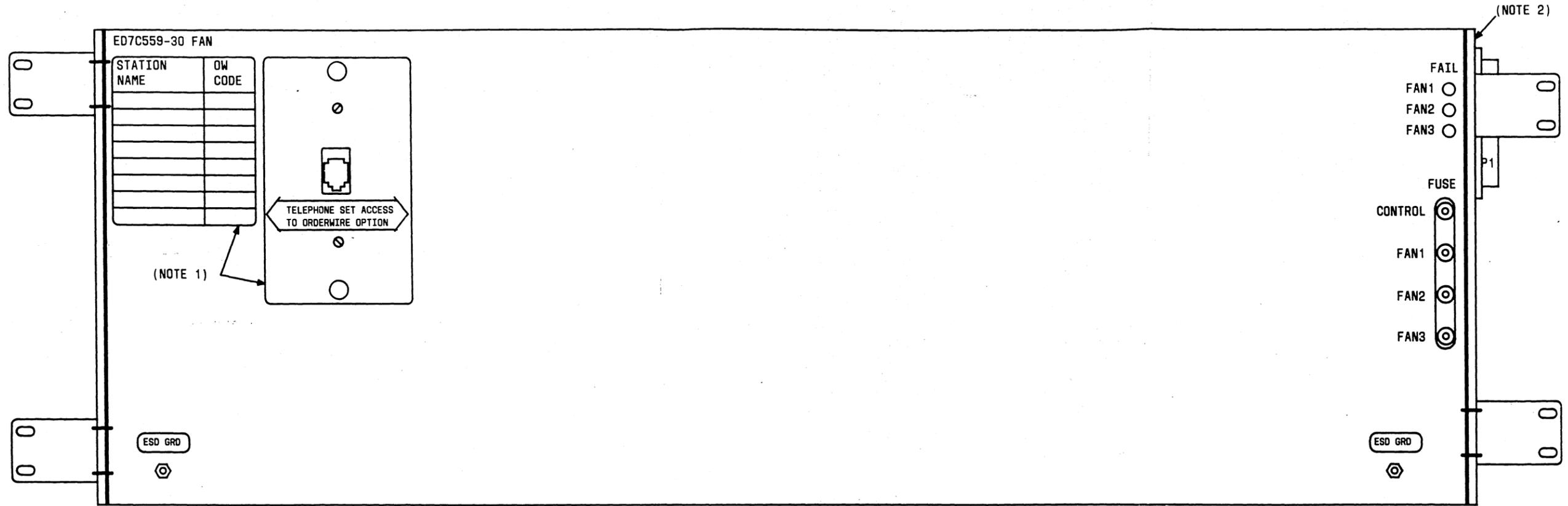
Fig. 6—135A Growth Shelf—1X10

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

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
<b>CONTROL</b>			
1	AMR112	MSTR ALARM	Standard unit
2	AMR110B	TERM CONTR	Standard unit
3	MC45089A1	MEM	TABS telemetry option
3	MC45019A3	MEM	TBOS telemetry option
3	MC45020A1	MEM	TABS with FMAS telemetry option
3	MC45045A1	MEM	Discrete telemetry option
4	MC45021A1	SER TELEM	TBOS telemetry option
4	MC45022A1	FMAS TELEM	TABS with FMAS telemetry option
4	MC45090A1	TERM TELEM	TABS telemetry option
4	155C Blank	-	Standard
5	AMR115	RCV STAT	Standard unit
6	AMR113	PROT STAT	Standard unit
7	AMR114	CHAN STAT	Standard unit
8-11	AMR114	CHAN STAT	Provided as required for channels 3-10
8-11	155C Blank	-	Required for nonequipped channels
12	AMR116	TRMT STAT	Standard unit
13	AMR105	DSCRT TELEM	Discrete telemetry option
13	155C Blank	-	Standard unit
<b>SERVICE CHANNEL</b>			
14	ANB1	SC MULDM	Standard unit
15	AMR94	SC EXPN	Provides additional service channels (X, Y, and Z)
15	155E Blank	-	Standard
16	AMR91	TERM OW	Provides order-wire and/or DDD option
16	155C Blank	-	Standard
<b>POWER</b>			
17	471BA	POWER UNIT	Standard for -24 V input power applications
17	474BA	POWER UNIT	Standard for -48 V input power applications



**Fig. 7—135A Terminal 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. 8—Fan Shelf

**TABLE A  
PLUG-IN UNIT APPLICATIONS  
135A PROTECTION DIGITAL TERMINAL RECEIVER**

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
1	AMR30	64QAM DEMOD	50 ft Or Less IF Cable Option
1	AMR230	64QAM DEMOD	50 ft Or Less IF Cable Option With Robust Receiver Feature
1	AMR29	64QAM DEMOD	Greater Than 50 ft IF Cable Option
1	AMR229	64QAM DEMOD	Greater Than 50 ft IF Cable Option With Robust Receiver Feature
2, 3	AMR32	TRNSV FLT	Transveral Equalizer Option
2, 3	AMR47	TRNSV PATCH	Standard Unit
4	AMR34B	CRLTR	Standard Unit
4	AMR234	CRLTR	Required For Robust Receiver Feature
5	AMR37	RCV FLT	Standard Unit
6, 7	AMR43	64QAM DECSN	Standard Unit
6, 7	AMR243	64QAM DECSN	Required For Robust Receiver Feature
6, 7	AMR43B	64QAM DECSN	Phase Plane Monitoring Option
8	AMR60	TERM FRMR	Standard Unit
9	AMR55	LINE ALNMT	Standard Unit
10	AMR75	FRAME RMVR	Standard Unit
11	155C Blank	-	Standard
12	AMR72B	VMR & CODERT†	Standard Unit - Tributary A
13	155C Blank	-	Standard
14	AMR72B	VMR & CODERT†	Standard Unit When Tributary B Is Equipped
14	155C Blank	-	Standard Unit When Tributary B Is Not Equipped
15	155C Blank	-	Standard
16	AMR72B	VMR & CODERT†	Standard Unit When Tributary C Is Equipped
16	155C Blank	-	Standard When Tributary C Is Not Equipped
17	155C Blank	-	Standard
18	MC45024A( )	CHAN CONTR	Standard Unit
18	MC45025A1	CHAN CONTR	FMAS Performance Monitoring Option

† The AMR72B and connector PC1E are required to provide external DS3 performance monitoring capability via RS422 interface.

**TABLE B  
PLUG-IN UNIT APPLICATIONS  
135A PROTECTION DIGITAL TERMINAL TRANSMITTER**

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
19	AMR2	B3ZS DCOBR	Standard Unit - Tributary A
20	AMR2	B3ZS DCOBR	Standard Unit When Tributary B Is Equipped
20	155C Blank	-	Standard Unit When Tributary B Is Not Equipped
21	AMR2	B3ZS DCOBR	Standard Unit When Tributary C Is Equipped
21	155C Blank	-	Standard Unit When Tributary C Is Not Equipped
22	AMR155	FRAME GEN	Standard Unit
23	AMR12	LINE SELR	Standard Unit
24	AMR11	CRC CODER	Standard Unit
25	AMR20	D/A CONVR	Standard Unit
26	AMR23	TRMT FLT	Standard Unit
27	AMR27	64QAM MOD	50 ft Or Less IF Cable Option
27	AMR28	64QAM MOD	Greater Than 50 ft IF Cable Option
28-32	155C Blank	-	Standard

**TABLE C  
PLUG-IN UNIT APPLICATIONS  
135A PROTECTION DIGITAL TERMINAL POWER**

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
33	471BA	POWER UNIT	Standard For -24 V Power Applications
33	473BA	POWER UNIT	Standard for -48 V Power Applications
34, 35	471EA	POWER UNIT	Standard For -24 V Power Applications
34, 35	474EA	POWER UNIT	Standard For -48 V Power Applications

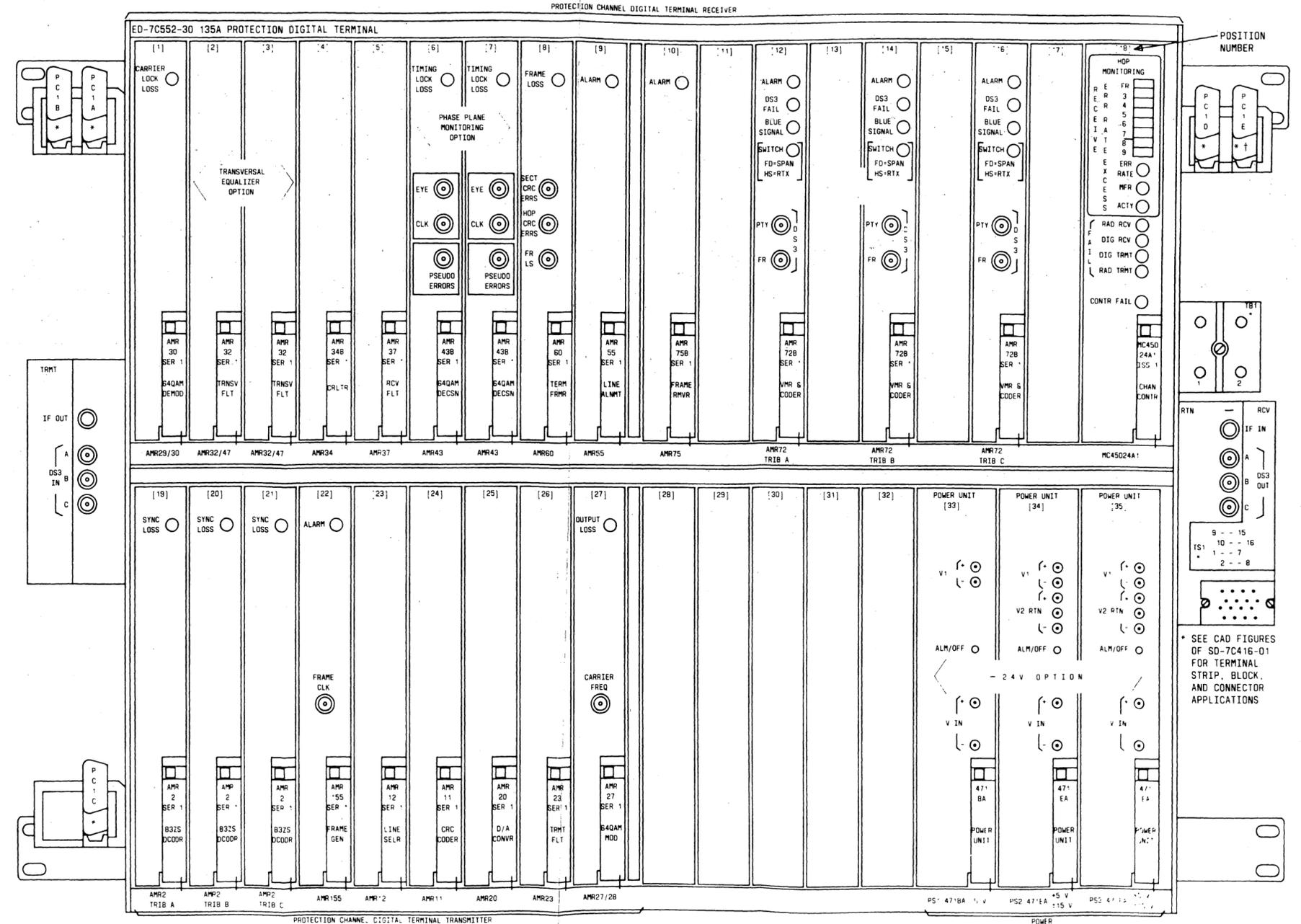


Fig. 9—135A Protection Digital Terminal Shelf

**TABLE A**  
PLUG-IN UNIT APPLICATIONS  
135A REGULAR DIGITAL TERMINAL RECEIVER

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
1	AMR30	64QAM DEMOD	50 ft Or Less IF Cable Option
1	AMR230	64QAM DEMOD	50 ft Or Less IF Cable Option With Robust Receiver Feature
1	AMR29	64QAM DEMOD	Greater Than 50 ft IF Cable Option
1	AMR229	64QAM DEMOD	Greater Than 50 ft IF Cable Option With Robust Receiver Feature
2, 3	AMR32	TRNSV FLT	Transversal Equalizer Option
2, 3	AMR47	TRNSV PATCH	Standard Unit
1	AMR34B	CRLTR	Standard Unit
1	AM234	CRLTR	Required For Robust Receiver Feature
5	AMR37	RCV FLT	Standard Unit
6, 7	AMR43	64QAM DECSN	Standard Unit
6, 7	AMR243	64QAM DECSN	Required For Robust Receiver Feature
6, 7	AMR43B	64QAM DECSN	Phase Plane Monitoring Option
8	AMR60	TERM FRMR	Standard Unit
9	AMR65	LINE SW	Standard Unit
10	AMR75	FRAME RMVR	Standard Unit
11	155C Blank	-	Standard
12	AMR72B	VNR & CODERT	Standard Unit - Tributary A
13	155C Blank	-	Standard
14	AMR72B	VNR & CODERT	Standard Unit When Tributary B Is Equipped
14	155C Blank	-	Standard When Tributary B Is Not Equipped
15	155C Blank	-	Standard
16	AMR72B	VNR & CODERT	Standard Unit When Tributary C Is Equipped
16	155C Blank	-	Standard When Tributary C Is Not Equipped
16	155C Blank	-	Standard
17	MC15024A( )	CHAN CONTR	Standard Unit
18	MC15025A1	CHAN CONTR	FMAS Performance Monitoring Option

The AMR72B and connector PC2D are required to provide external DS3 performance monitoring.

**TABLE B**  
PLUG-IN UNIT APPLICATIONS  
135A REGULAR DIGITAL TERMINAL TRANSMITTER

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
19	AMR2	B3ZS DCOOP	Standard Unit - Tributary A
20	AMP2	B3ZS DCOOP	Standard Unit When Tributary B Is Equipped
20	155C Blank	-	Standard When Tributary B Is Not Equipped
21	AMP2	B3ZS DCOOP	Standard Unit When Tributary C Is Equipped
21	155C Blank	-	Standard When Tributary C Is Not Equipped
22	AMR5	FRAME GEN	Standard Unit
23	155C Blank	-	Standard Unit
24	AMP11	CRC CODER	Standard Unit
25	AMP20	D/A CONVR	Standard Unit
26	AMP23	TRMT FLT	Standard Unit
27	AMP27	64QAM MOD	50 ft Or Less IF Cable Option
27	AMP28	64QAM MOD	Greater Than 50 ft IF Cable Option
28-32	155C Blank	-	Standard

**TABLE C**  
PLUG-IN UNIT APPLICATIONS  
135A REGULAR DIGITAL TERMINAL POWER

POSITION NUMBER	UNIT CODE	FACEPLATE DESIGNATION	APPLICATION
33	4711A	POWER UNIT	Standard For -24 V Power Applications
33	4711A	POWER UNIT	Standard For -48 V Power Applications
34, 35	4711A	POWER UNIT	STANDARD FOR -24 V Power Applications
34, 35	4711A	POWER UNIT	STANDARD FOR -48 V Power Applications

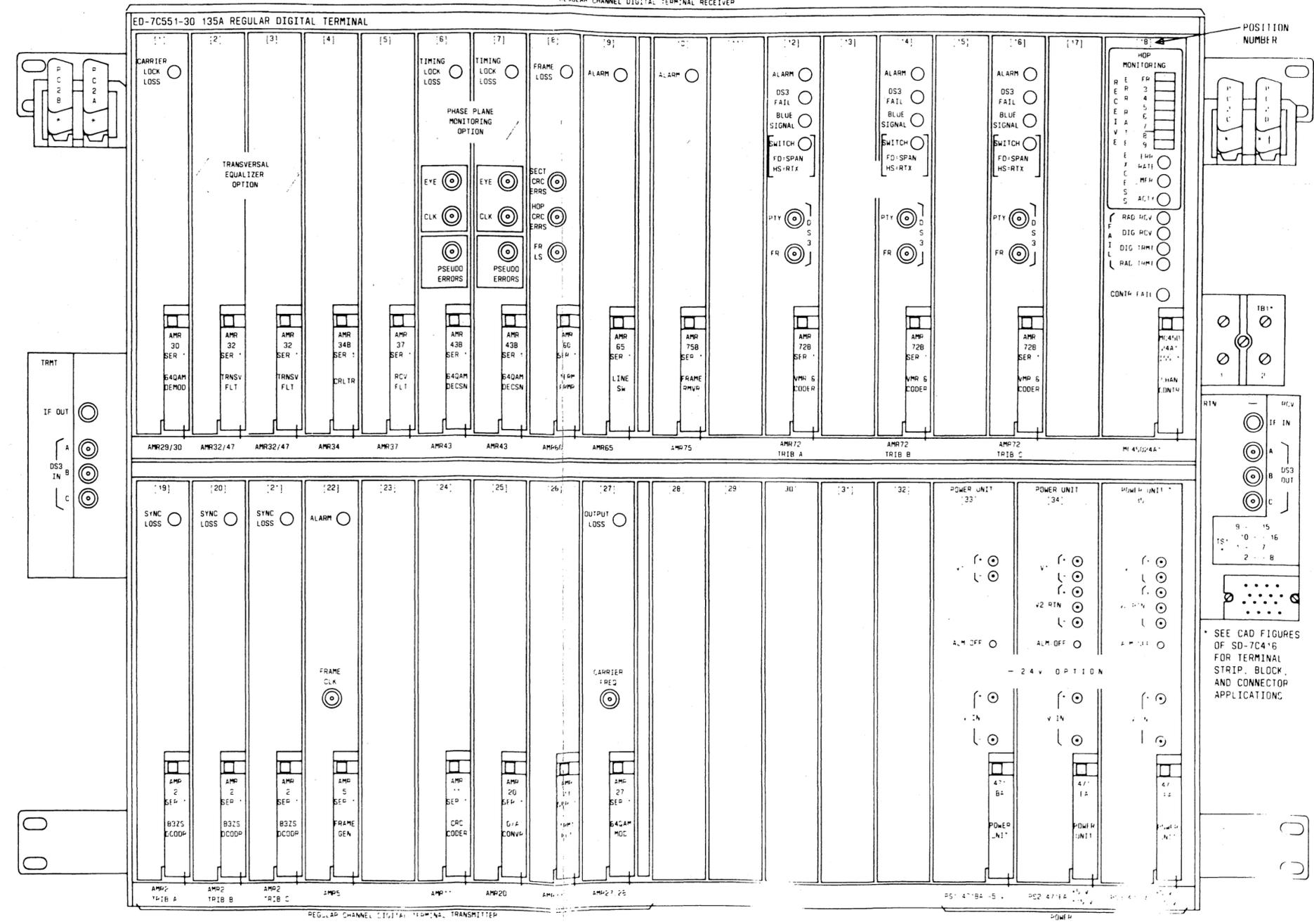


Fig. 10—135A Regular Digital Terminal Shell

TABLE A	
UNIT APPLICATIONS EQUALIZER PANEL	
POSITION NUMBER	APPLICATION(S)
1	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE TO THE PROTECTION CHANNEL RADIO TRANSMITTER IS GREATER THAN 50 FEET
2	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE TO THE REGULAR CHANNEL RADIO TRANSMITTER IS GREATER THAN 50 FEET
3	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE FROM THE PROTECTION CHANNEL RADIO RECEIVER IS GREATER THAN 50 FEET
4	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE FROM THE REGULAR CHANNEL RADIO RECEIVER 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

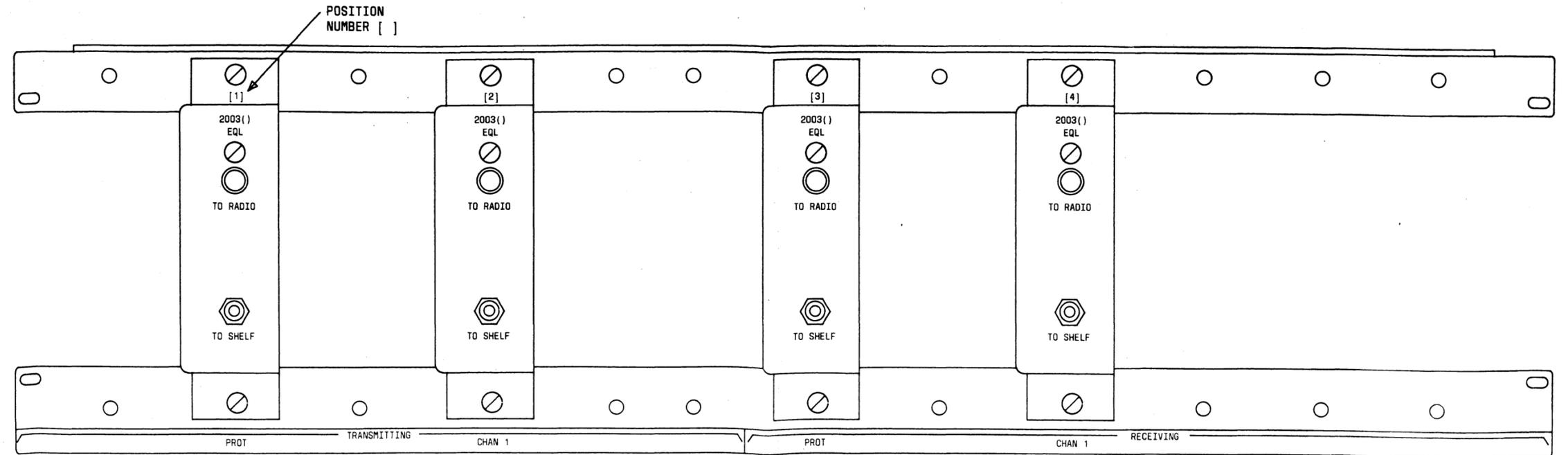


Fig. 11—Equalizer Panel, Initial Bay—Optional

TABLE A	
UNIT APPLICATIONS EQUALIZER PANEL	
POSITION NUMBER	APPLICATION(S)
1,2,3	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE TO THE REGULAR CHANNEL RADIO TRANSMITTER IS GREATER THAN 50 FEET
4,5,6	REQUIRED ONLY WHEN I.F. INTERCONNECT CABLE FROM THE REGULAR CHANNEL RADIO RECEIVER 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

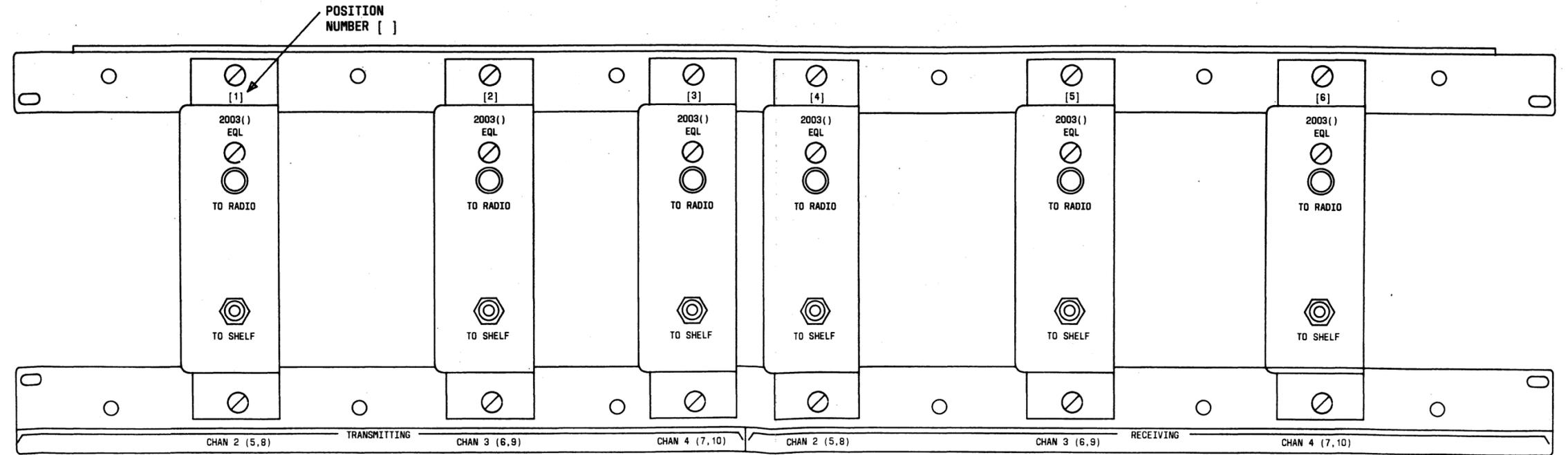


Fig. 12—Equalizer Panel, Growth Bay—Optional