REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

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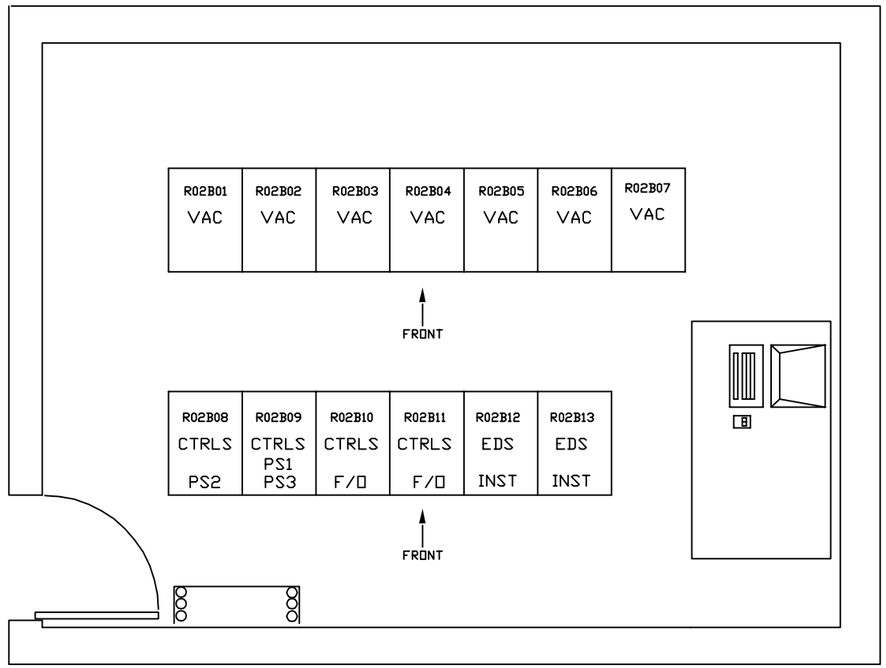

NOTE

M.E. - MAGNET ELECTRICAL
CTRLS - CONTROLS
VAC - VACUUM
B.I. - BEAM INSTRUMENTATION

QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./ITEM NO.
	R02B11	5	RACK R02B11 ASSEMBLY	94028531
	R02B10	5	RACK R02B10 ASSEMBLY	94028532
	R02B09	4	RACK R02B09 ASSEMBLY	94028533
	R02B08	3	RACK R02B08 ASSEMBLY	94028534
		2		
		1	RHIC CONTROLS BLDG. 1002B WIRING DIAGRAM	94028539

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
DECIMAL TOLERANCES .X ±NA .XX ±NA .XXX ±NA
ANGULAR TOLERANCE ± .5'
OUTSTANDING ECN
FINISH: NA
BREAK SHARP EDGES MAX. XX MIN. XX

Q.A. CATEGORY	A-3	DATE
DRAWN BY	Ed Koropsak	1/13/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	1/13/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
1002B FLOOR PLAN
SIZE D | 94028530 | REV. A
DRAWING NUMBER
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

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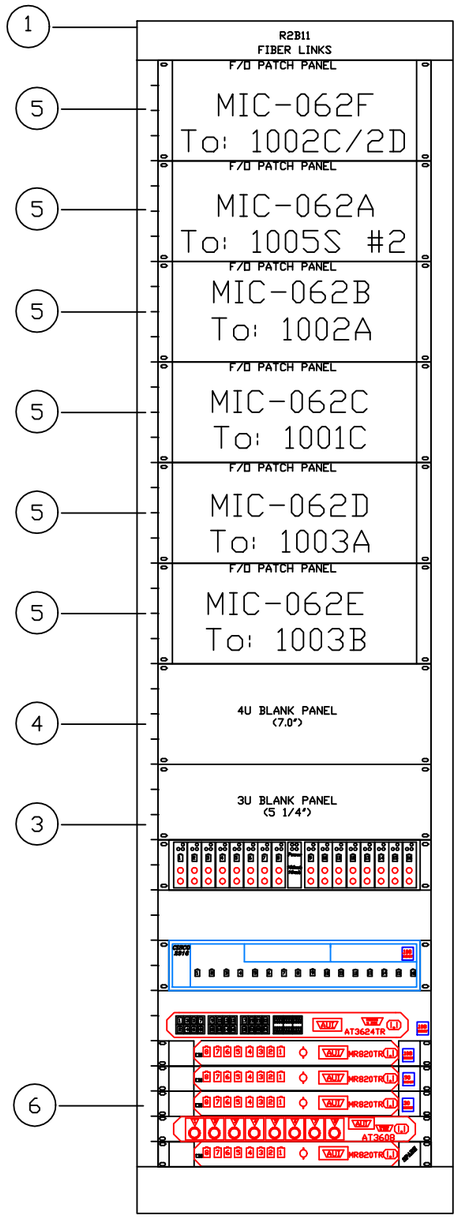
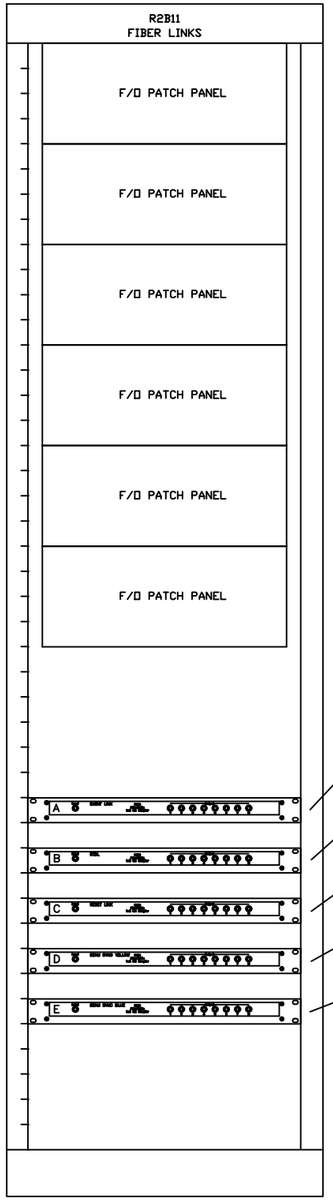
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

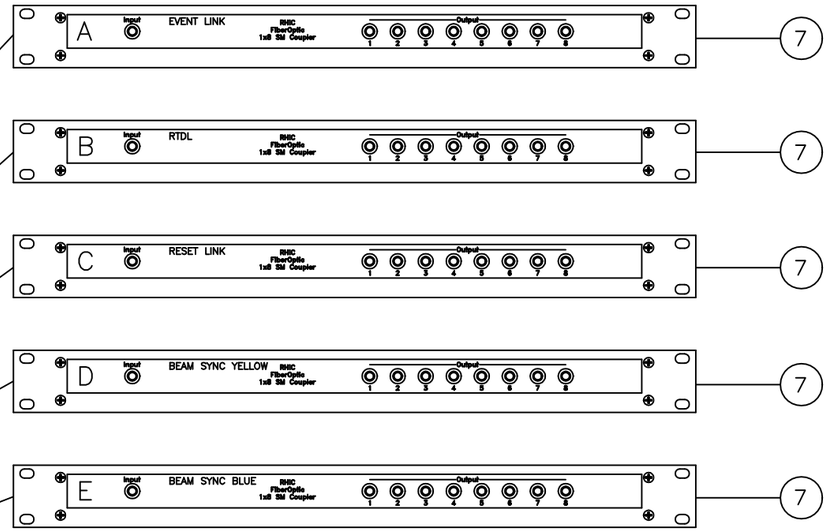
Controls 8/16/99 11:45 AM8531.dwg



FRONT VIEW



REAR VIEW



QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.
	AR	8	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
	5	7	1x8 FIBER OPTIC COUPLER	58030006
	3	6	ETHERNET NETWORK REPEATERS	X
	6	5	FIBER OPTIC PATCH PANEL (FONS RIC 72P)	X
	1	4	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
	1	3	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		2		
	1	1	19" RACK, 77" H RACK SPACE	X

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

FINISH: NA

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY	A-3	DATE
DRAWN BY	Ed Koropsak	6/3/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/3/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
SERVICE BLDG. 1002B

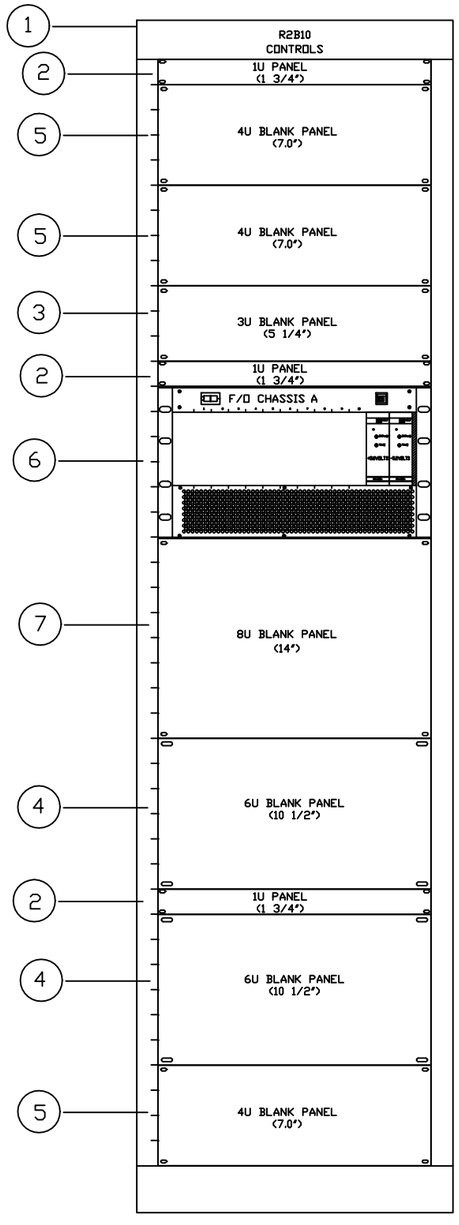
RACK R02B11 ASSEMBLY

SIZE D | 94028531 | REV. A
DRAWING NUMBER

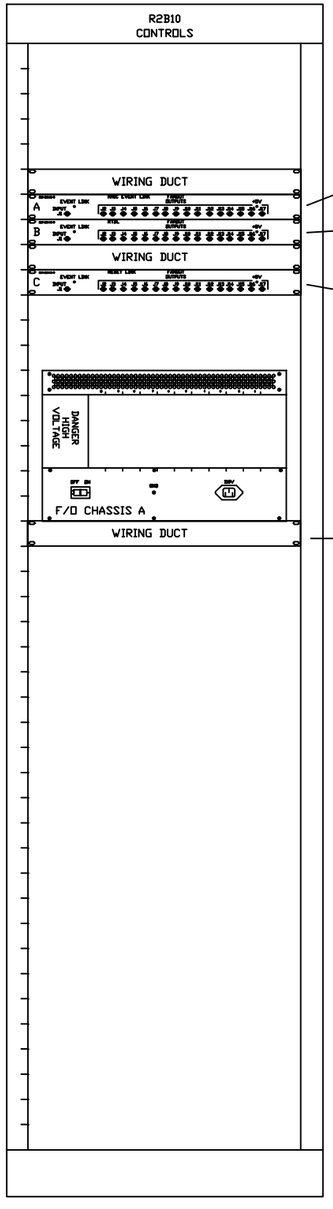
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

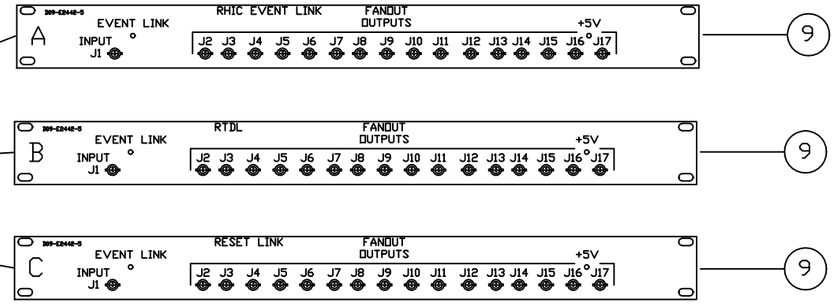
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.



FRONT VIEW



REAR VIEW

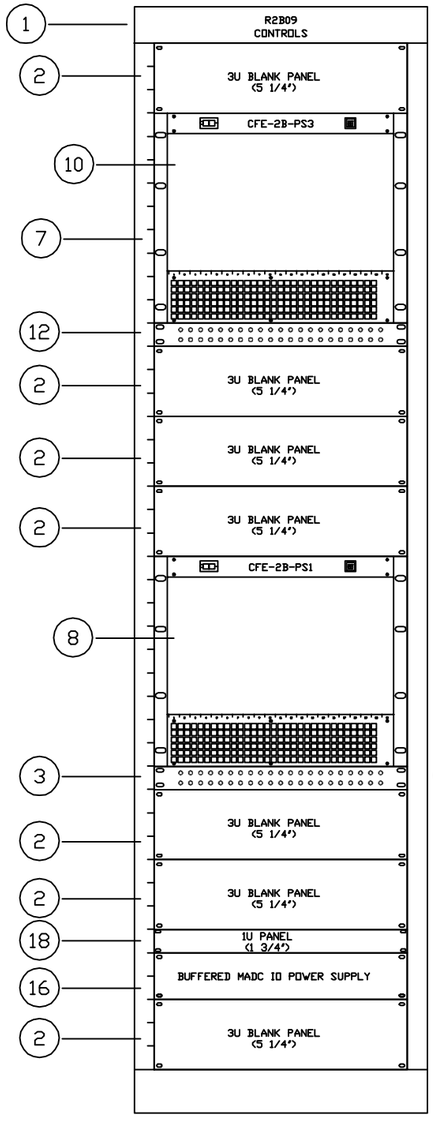


QTY REQD -3	QTY REQD -2	QTY REQD -1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.
		AR	PANELS	13	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		6	NA	12	WIRING DUCT SPRING CLIPS 1.5"W (PANDUIT S1.5-C)	X
		3	NA	11	WIRING DUCT COVER 1.5"w (PANDUIT C1.5LG6)	X
		3	NA	10	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		3	A,B,C	9	FANOUT ASSEMBLY	DD9-E2442
				8		
		1	NA	7	8U x 19" BLANK PANEL (PREMIER METAL ARP-1419-553)	X
		1	NA	6	F/O CHASSIS A	94028535
		3	NA	5	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		2	NA	4	6U x 19" BLANK PANEL (PREMIER METAL ARP-1019-553)	X
		1	NA	3	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		3	NA	2	1U x 19" BLANK PANEL (PREMIER METAL ARP-119-553)	X
		1	NA	1	19" RACK, 77" H RACK SPACE	X

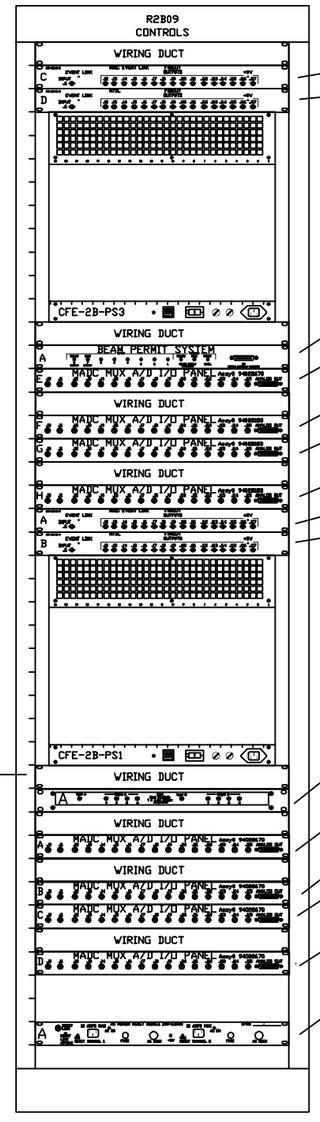
INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY Ed Koropsak	6/3/98	UPTON, N.Y. 11973
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	CHECKED BY		RHIC CONTROLS
	DESIGN APPROVAL		SERVICE BLDG. 1002B
	ENGINEER APPROVAL R. MICHNOFF	6/3/98	RACK R2B10 ASSEMBLY
	SUPVR. APPROVAL		SIZE D — 94028532 — REV. A
OUTSTANDING ECN	NA FINISH	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY — DRAWING NUMBER
			MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

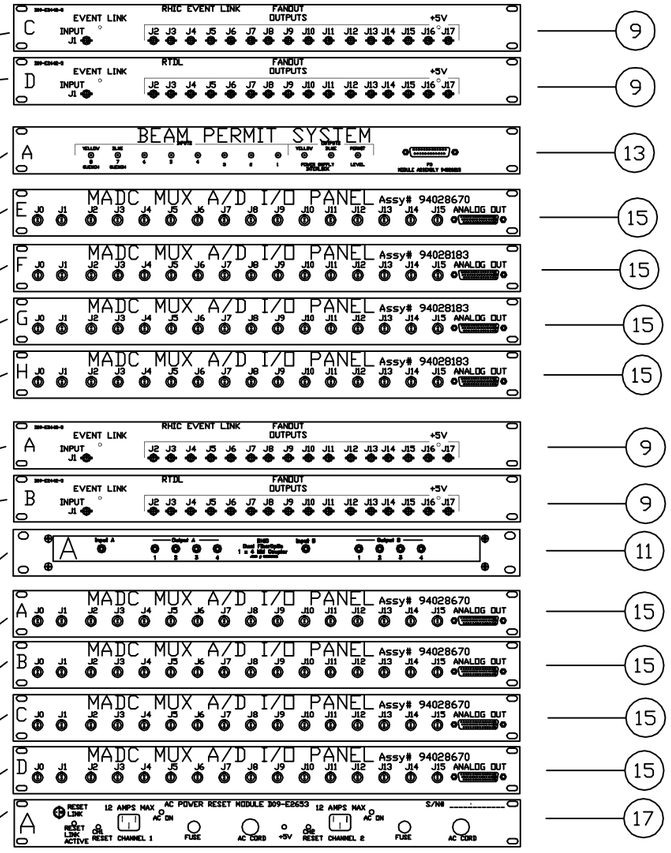
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.



FRONT VIEW



REAR VIEW



		1	NA	18	1U x 19" BLANK PANEL (PREMIER METAL ARP-119-553)	X
		1	A	17	AC RESET CHASSIS	D09-E2653
		1	NA	16	BUFFERED MADC I/O POWER SUPPLY	94028808
		8	A-G	15	BUFFERED MADC A/D I/O PANEL	94028670
		AR	PANELS	14	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		1	NA	13	BEAM PERMIT SYSTEM INTERFACE PANEL	94028215
		0	NA	12	2U x 19" BLANK PANEL (PREMIER METAL ARP-319-553)	X
		1	A	11	DUAL 1 x 4 MM COUPLER	58030008
		1	NA	10	VME CHASSIS CFE-2B-PS3 ASSY.	94028537
		4	A,B,C,D	9	FANOUT ASSEMBLY	D09-E2442
		1	NA	8	VME CHASSIS CFE-2B-PS1 ASSY.	94028536
		1	NA	7	9U x 19" BLANK PANEL (PREMIER METAL ARP-1519-553)	X
		14	NA	6	WIRING DUCT SNAP CLIPS 1.5"W (PANDUIT S1.5-C)	X
		7	NA	5	WIRING DUCT COVER 1.5"W (PANDUIT C1.5LG6)	X
		7	NA	4	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		2	NA	3	GROMMET PANEL	94028410
		7	NA	2	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		1	NA	1	19" RACK, 77" H RACK SPACE	X
-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MATL DWG NO./BNL NO.
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY Ed Koropsak	5/15/98	UPTON, N.Y. 11973	
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	CHECKED BY		RHIC CONTROLS	
	DESIGN APPROVAL		SERVICE BLDG. 1002B	
	ENGINEER APPROVAL R. MICHNOFF	5/15/98	RACK R2B09 ASSEMBLY	
	SUPVR. APPROVAL		SIZE D	94028533 REV. A
NA FINISH BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY		DRAWING NUMBER	
OUTSTANDING ECN			MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 1 OF 1	

Controls, C-AD 6/11/2003 9:09 AM 8533.dwg

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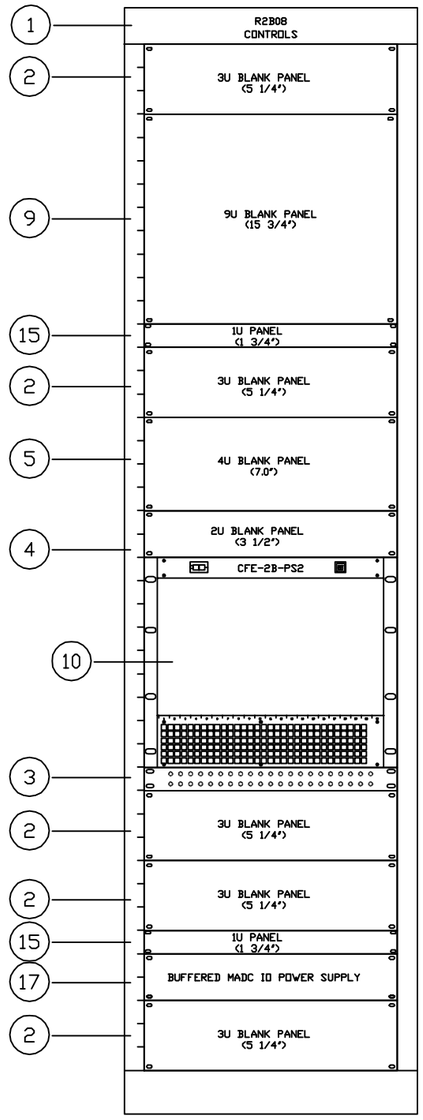
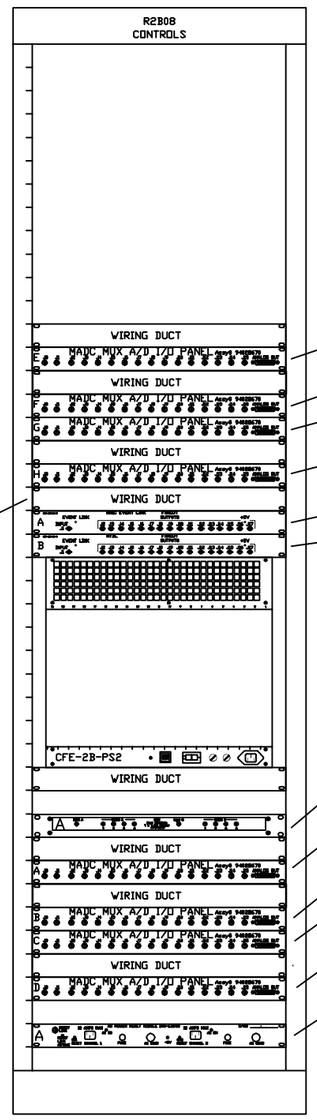
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

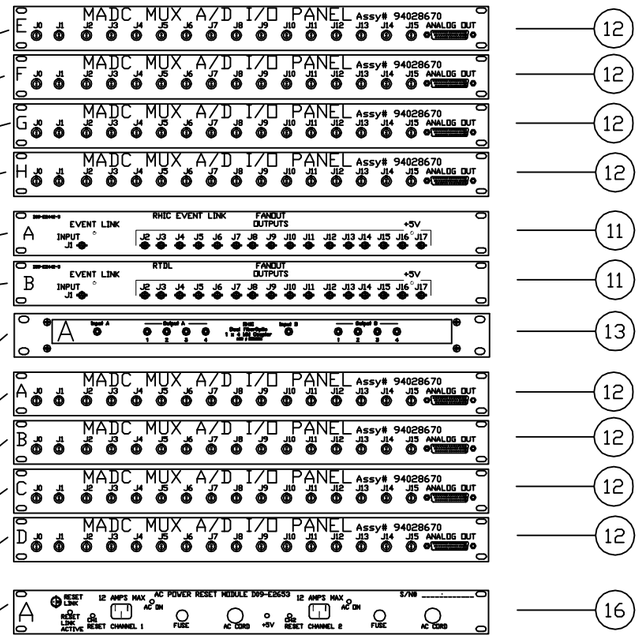
Controls, C-AD 6/11/2003 9:23 AM 8534.dwg



FRONT VIEW



REAR VIEW



		1	NA	17	BUFFERED MADC I/O POWER SUPPLY	94028808
		1	NA	16	AC POWER RESET MODULE	D09-E2653
		2	NA	15	1U x 19" BLANK PANEL (PREMIER METAL ARP-119-553)	X
		AR	PANELS	14	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		1	A	13	DUAL 1 x 4 MM COUPLER	58030008
		8	A - H	12	BUFFERED MADC A/D I/O PANEL	94028670
		2	A,B	11	FANOUT ASSEMBLY	DD9-E2442
		1	NA	10	VME CHASSIS CFE-2B-PS2 ASSY.	94028538
		1	NA	9	9U X 19" BLANK PANEL (PREMIER METAL APR-1519-553)	X
		10	NA	8	WIRING DUCT SNAP CLIPS 1.5"W (PANDUIT S1.5-C)	X
		5	NA	7	WIRING DUCT COVER 1.5"W (PANDUIT C1.5LG6)	X
		5	NA	6	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		1	NA	5	4U x 19" BLANK PANEL (PREMIER METAL APR-719-553)	
		1	NA	4	2U x 19" BLANK PANEL (PREMIER METAL APR-319-553)	
		1	NA	3	GROMMET PANEL	94028410
		5	NA	2	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		1	NA	1	19" RACK, 77" H RACK SPACE	X
-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY Venegas	8/16/99	UPTON, N.Y. 11973
DECIMAL TOLERANCES X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	CHECKED BY		RHIC CONTROLS
	DESIGN APPROVAL		SERVICE BLDG. 1002B
	ENGINEER APPROVAL R. MICHNOFF	1/9/98	RACK R2B08 ASSEMBLY
	SUPVR. APPROVAL		SIZE D — 94028534 — REV. A
OUTSTANDING ECN	FINISH NA	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY — DRAWING NUMBER
			MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

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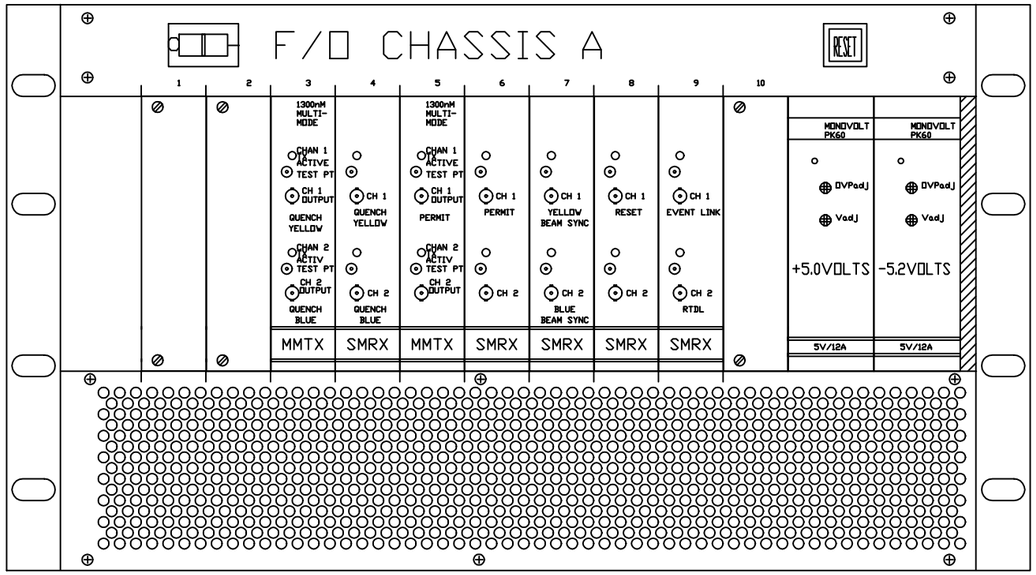
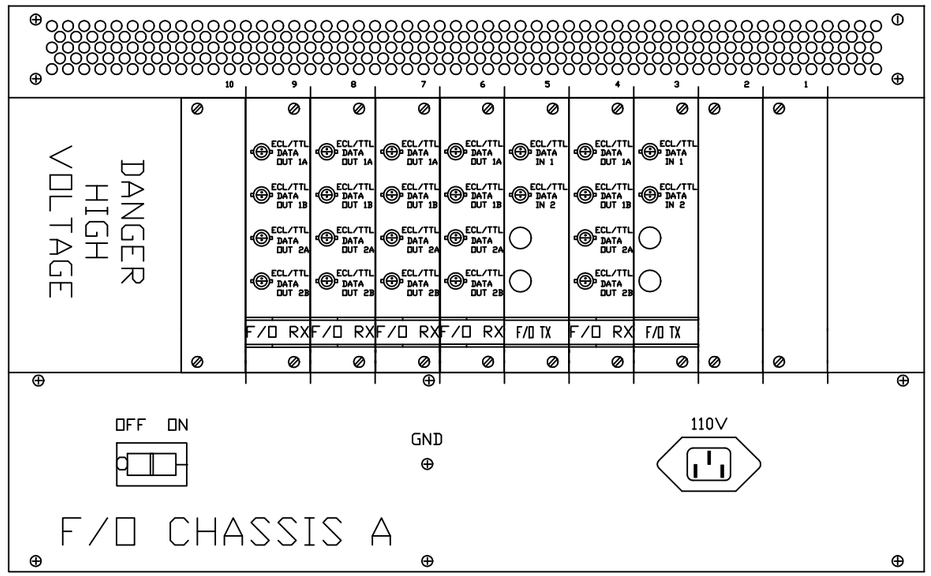
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls 8/16/99 11:55 AM 8535.dwg



FRONT VIEW



REAR VIEW

QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.
1	SLOT 7	7	3U FIBER OPTIC RECEIVER TRANSITION MODULE, ECL	
8	ALL UNUSED	6	3U x 6HP BLANK PANEL (ELECTRO-SPACE ESFE-3032)	X
4	SLOT4,6,8,9	5	3U FIBER OPTIC RECEIVER TRANSITION MODULE, TTL	D09-E2542-3
4	SLOT4,6-9	4	3U FIBER OPTIC RECEIVER MODULE, MULTIMODE/SINGLEMODE	94028101
2	SLOT 5,6	3	3U FIBER OPTIC TRANSMITTER TRANSITION MODULE, TTL	D09-E2495-3
2	SLOT 3,5	2	3U FIBER OPTIC TRANSMITTER MODULE, MULTIMODE	94028168
1	N/A	1	3U FIBER OPTIC CHASSIS	94028261

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5'

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

DRAWN BY	Ed Koropsak	11/14/97
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	1/14/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
1002B RACK R02B10
F/O CHASSIS A ASSY.

SIZE D | 94028535 | REV. A

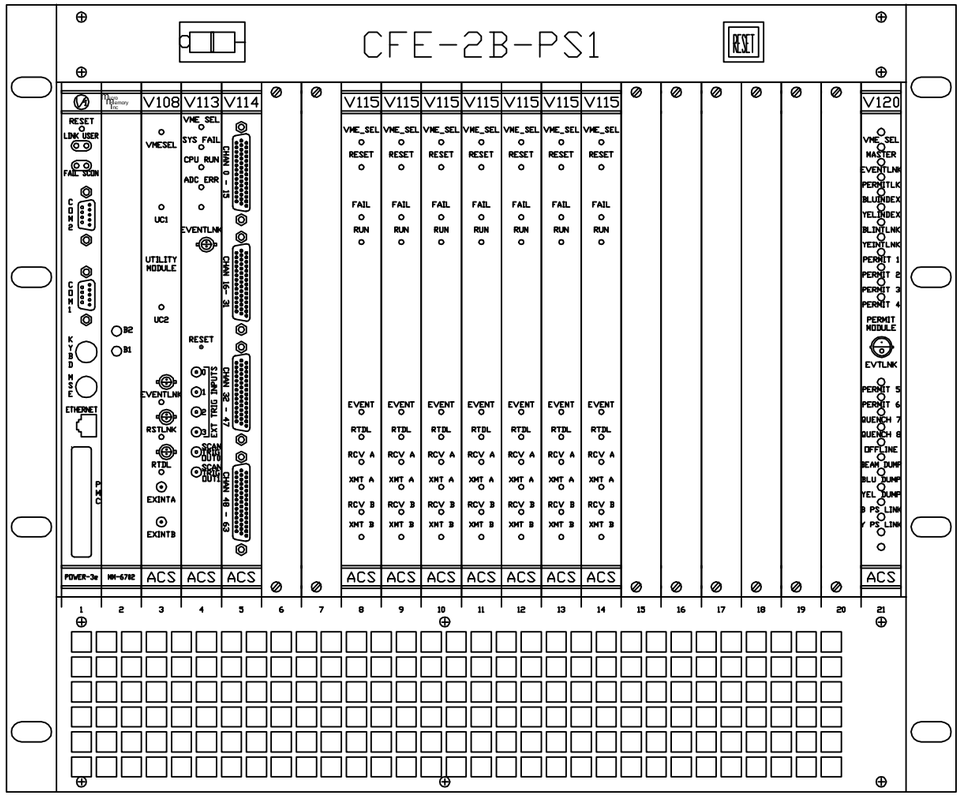
DRAWING NUMBER

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

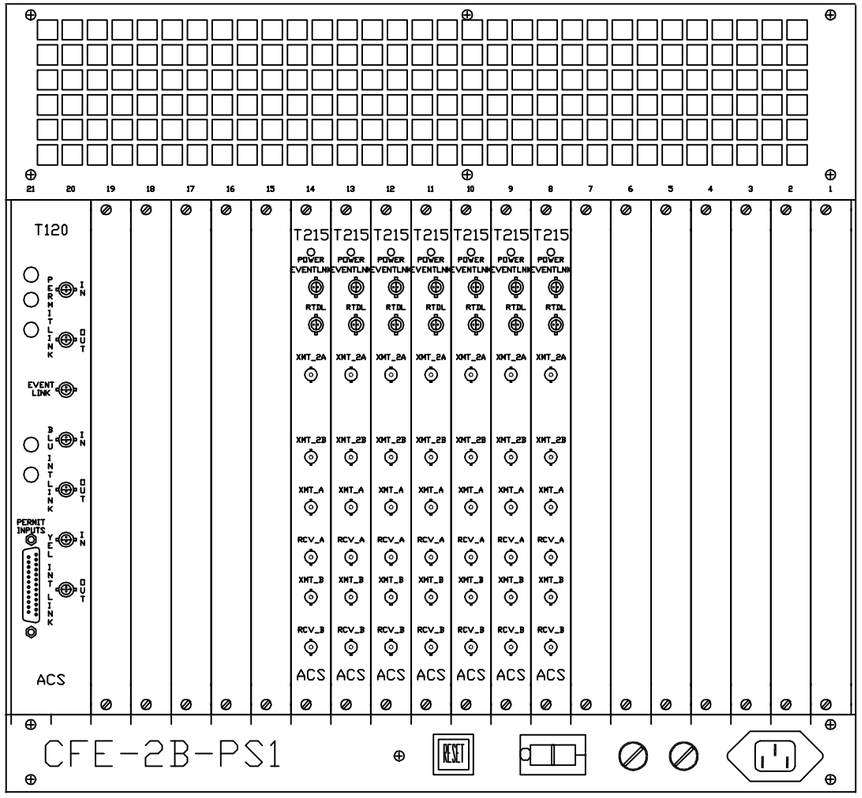
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls, C-AD 6/11/2003 9:40 AM 8536.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
		1	1	SLOT 2	12	MEMORY BOARD	MM-6702
		1	1	SLOT 20,21	11	T120 PERMIT SYSTEM TRANSITION MODULE	94028199-2
		1	1	SLOT 21	10	V120 PERMIT SYSTEM MODULE	94028077
		x	SEE NOTE 1		9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		1	1	SL 13	8	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-1
		6	8-12,14		7	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		7	7	SLOT 8-14	6	V115 WAVEFORM GENERATOR MODULE	94028108
		1	1	SLOT 5	5	V114 MADC A/D CONVERTER MODULE	94028226
		1	1	SLOT 4	4	V113 MADC CONTROLLER MODULE	94028140
		1	1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	1	SLOT 1	2	FRONT END COMPUTER (64 MEG. MEMORY)	POWER-3e
		1	1	N/A	1	VME CHASSIS	RHIC-93008000

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY Ed Koropsak	5/7/98	UPTON, N.Y. 11973			
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	CHECKED BY		RHIC CONTROLS			
	DESIGN APPROVAL		SERVICE BLDG 1002B			
	ENGINEER APPROVAL R. MICHNOFF	5/7/98	VME CHASSIS CFE-2B-PS1			
	SUPVR. APPROVAL			SIZE D	94028536	REV. A
OUTSTANDING ECN	NA FINISH	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY		DRAWING NUMBER	
				MATERIAL: ———	SCALE: NA	WEIGHT: –	SHEET 1 OF 1

1 *AUTOCAD

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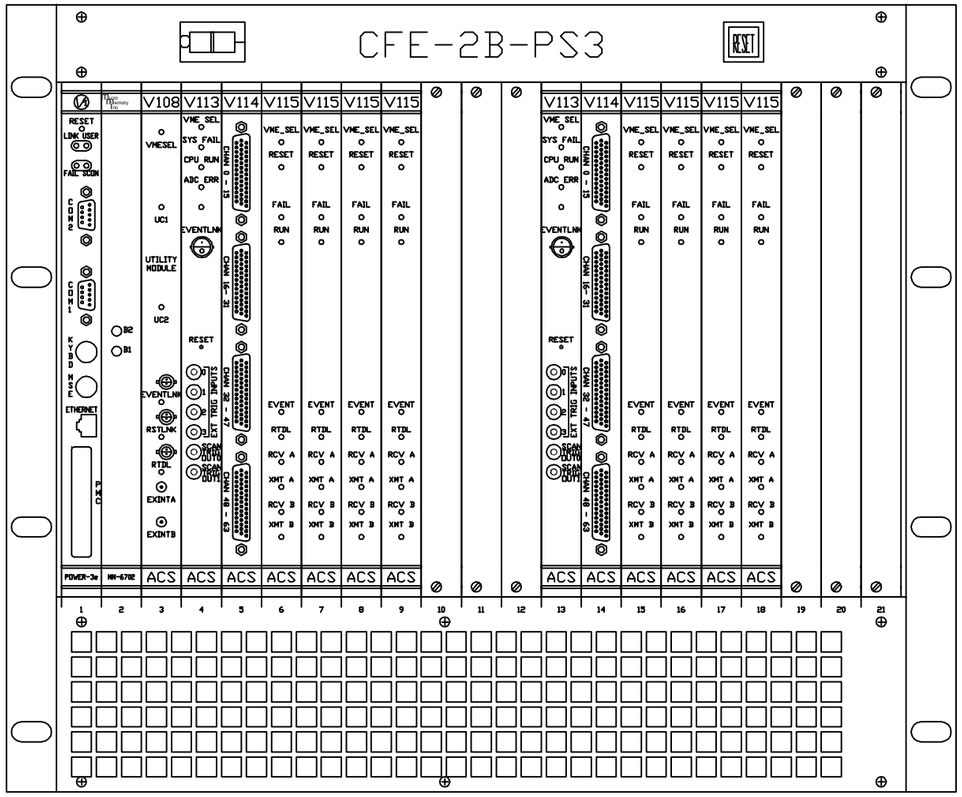
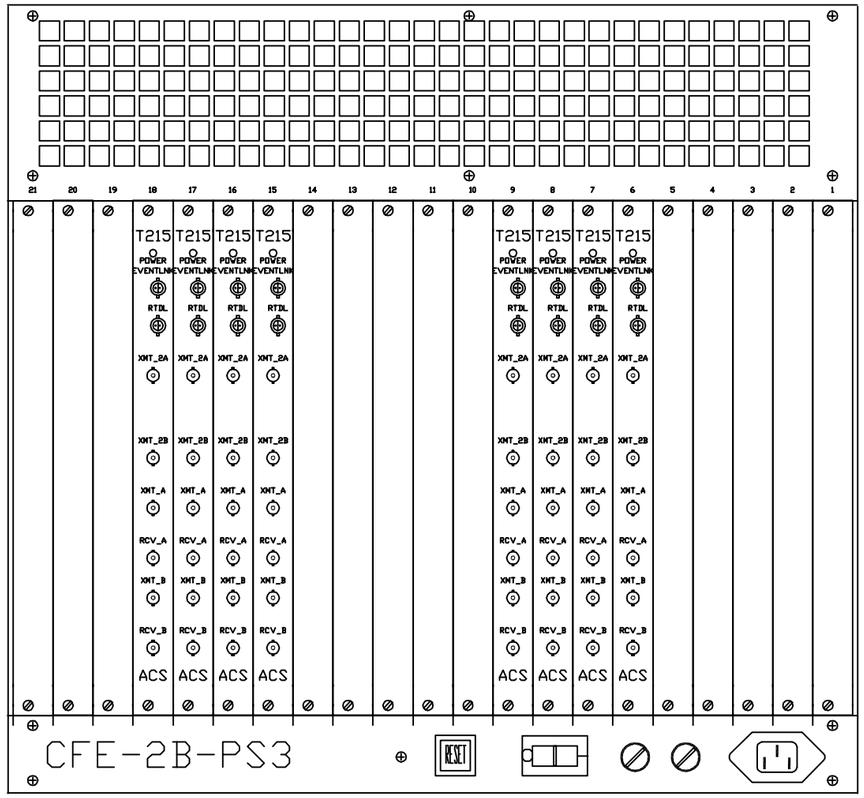
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls, C-AD 6/12/2003 8:27 AM 8537.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3 QTY REQD	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
		6	7-9,16-18	10	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-1
		2	6,15	9	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		x	SEE NOTE 1	8	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		8	6-9, 15-18	7	V115 WAVEFORM GENERATOR MODULE	94028109
		2	SLOT 5,14	6	V114 MADC A/D CONVERTER MODULE	94028226
		2	SLOT 4,13	5	V113 MADC CONTROLLER MODULE	94028140
		1	SLOT 2	4	MEMORY BOARD	MM-6702
		1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	SLOT 1	2	FRONT END COMPUTER (64 MEG. MEMORY)	POWER-3e
		1	N/A	1	VME CHASSIS	RHIC-93008000

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

OUTSTANDING ECN

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

Q.A. CATEGORY A-3

DRAWN BY	Ed Koropsak	1/14/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	1/14/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
SERVICE BLDG 102B
VME CHASSIS CFE-2B-PS3

SIZE D | 94028537 DRAWING NUMBER | REV. A

MATERIAL: —— SCALE: NA WEIGHT: — SHEET 1 OF 1

1 *AUTOCAD

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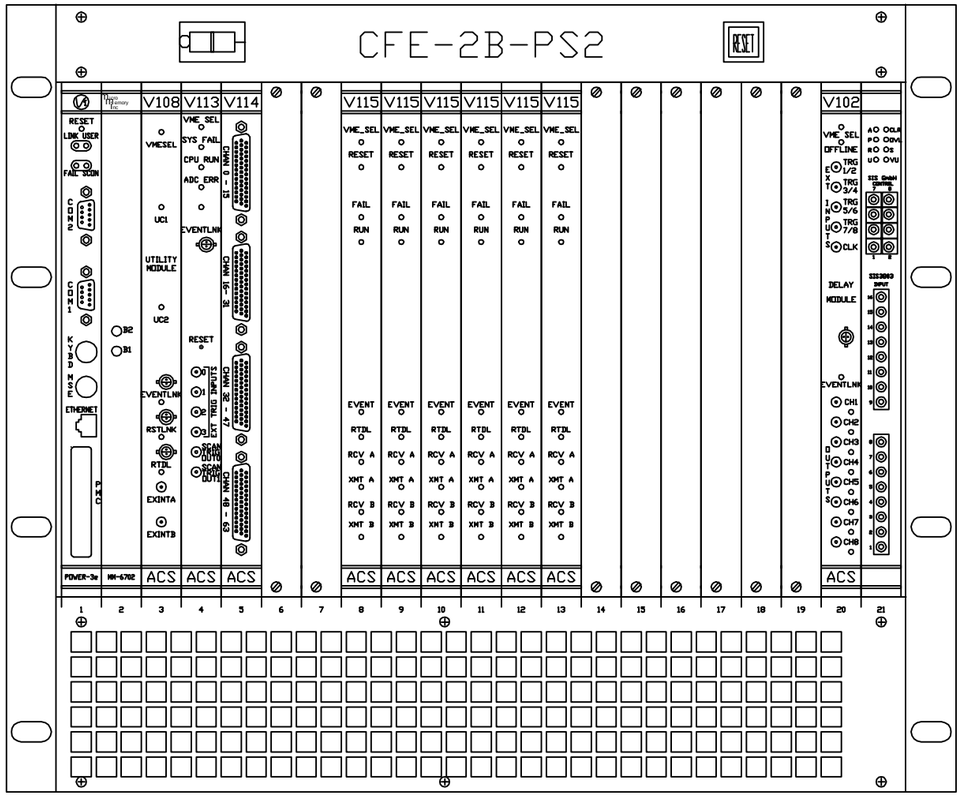
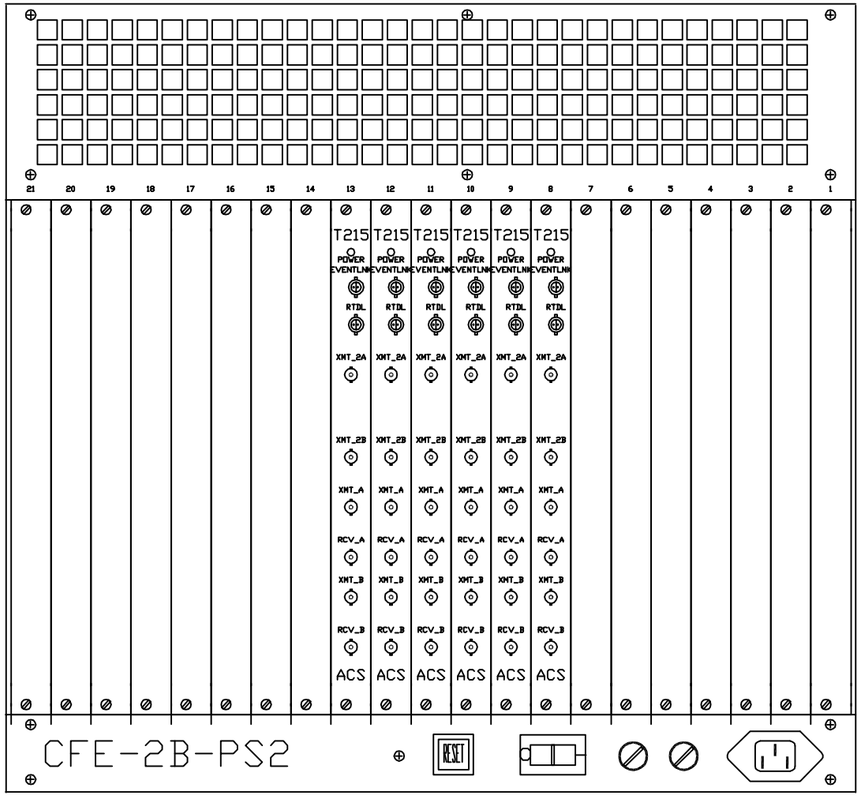
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls, C-AD 6/12/2003 8:32 AM 8538.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./ENG. NO.
		1	SLOT 2	12	MEMORY BOARD	MM-6702
		1	SLOT 21	11	SIS SCALER	SIS 3803-OPT
		1	SLOT 20	10	V102 DELAY MODULE	94028072
		x	SEE NOTE 1	9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		1	13	8	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-1
		5	8-12	7	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		6	SLOT 8-13	6	V115 WAVEFORM GENERATOR MODULE	94028108
		1	SLOT 5	5	V114 MADC A/D CONVERTER MODULE	94028226
		1	SLOT 4	4	V113 MADC CONTROLLER MODULE	94028140
		1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	SLOT 1	2	FRONT END COMPUTER (64 MEG. MEMORY)	POWER-3e
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

OUTSTANDING ECN

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

Q.A. CATEGORY A-3 DATE

DRAWN BY Ed Koropsak 5/7/98

CHECKED BY

DESIGN APPROVAL

ENGINEER APPROVAL R. MICHNOFF 5/7/98

SUPVR. APPROVAL

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