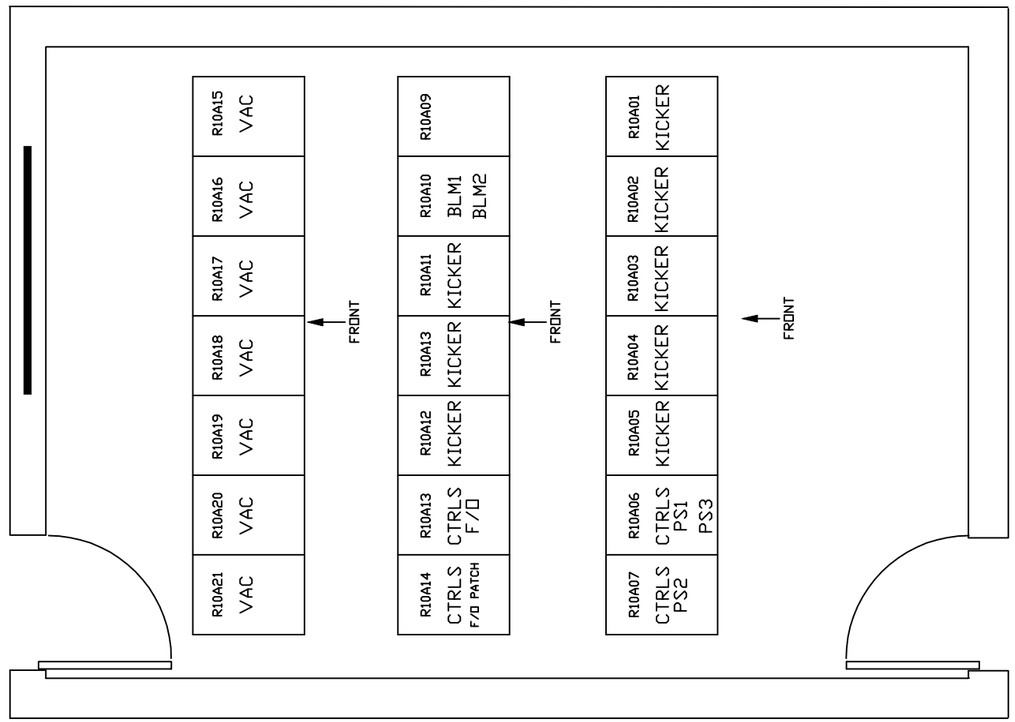
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 9/8/99 8:49 AM 8560.dwg



NOTE

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

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		1	R10A14	5	RACK R10A14 ASSEMBLY	94028561
		1	R10A13	5	RACK R10A13 ASSEMBLY	94028562
		1	R10A06	4	RACK R10A06 ASSEMBLY	94028563
		1	R10A07	3	RACK R10A07 ASSEMBLY	94028564
				2		
		1		1	RHIC CONTROLS BLDG. 1010A WIRING DIAGRAM	94028569

QTY REQD

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

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

Q.A. CATEGORY A-3		DATE	
DRAWN BY	Ed Koropsak	6/16/98	
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL	R. MICHNOFF	6/16/98	
SUPVR. APPROVAL			

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

1010A FLOOR PLAN

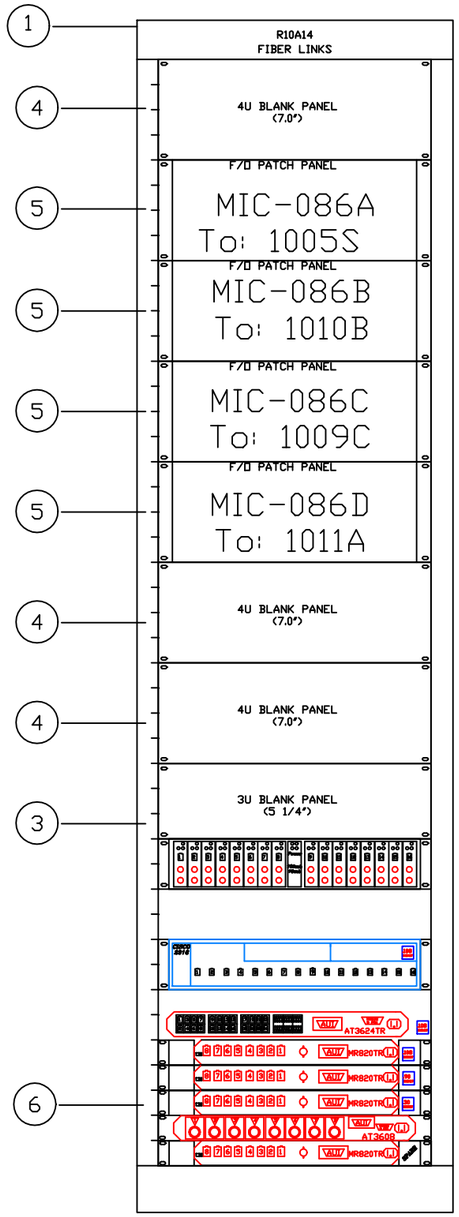
SIZE D | DRAWING NUMBER 94028560 | REV. A

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

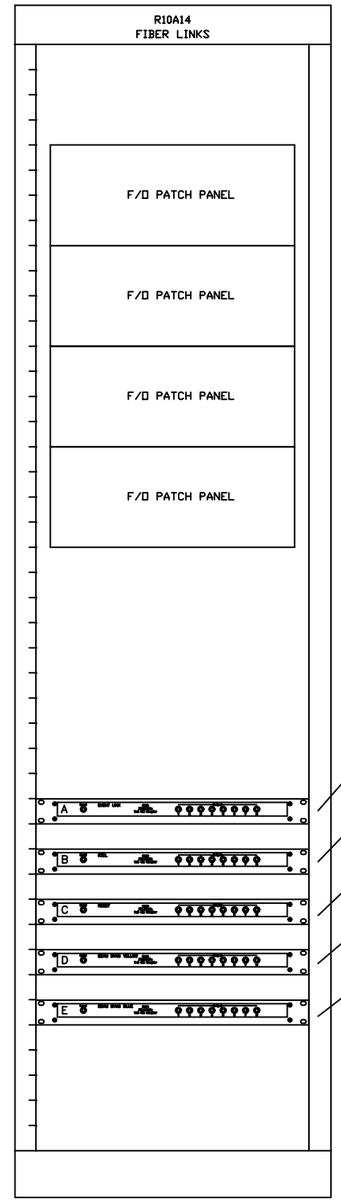
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

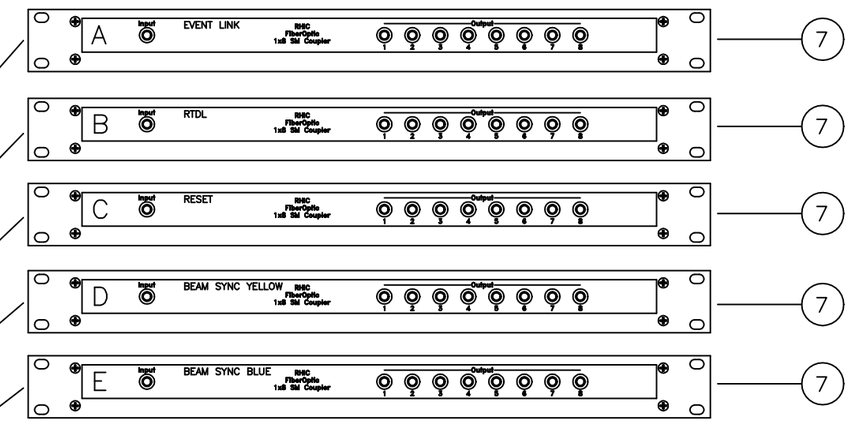
ACS, BNL 9/8/99 9:04 AM8561.dwg



FRONT VIEW



REAR VIEW



		AR	PANELS	8	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		5	A-E	7	1x8 FIBER OPTIC COUPLER	58030006
		3	NA	6	ETHERNET NETWORK REPEATERS	X
		4	NA	5	FIBER OPTIC PATCH PANEL (FONS RIC 72P)	X
		3	NA	4	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		1	NA	3	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
				2		
		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

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	6/16/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/16/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

SERVICE BLDG. 1010A

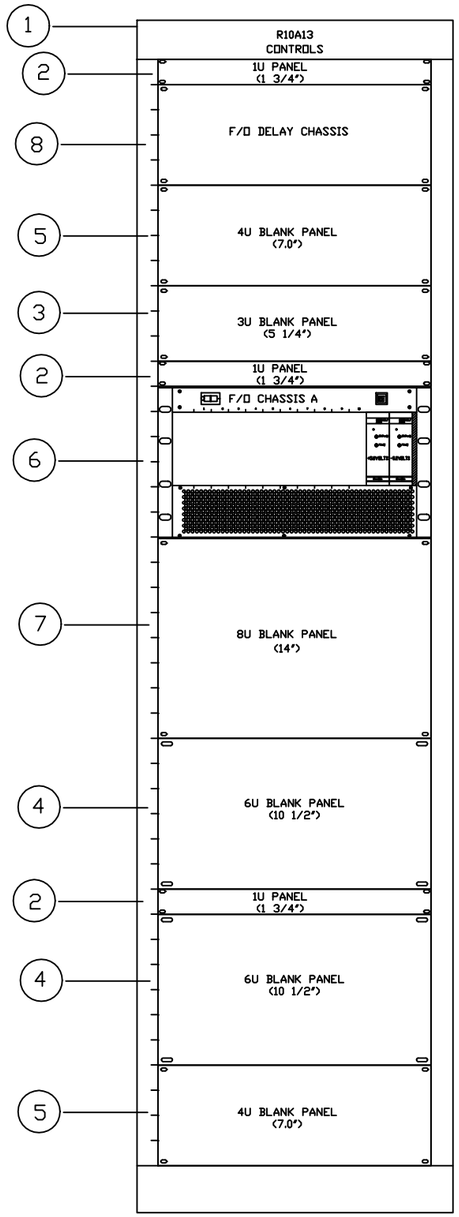
RACK R10A14 ASSEMBLY

SIZE D | DRAWING NUMBER 94028561 | REV. A

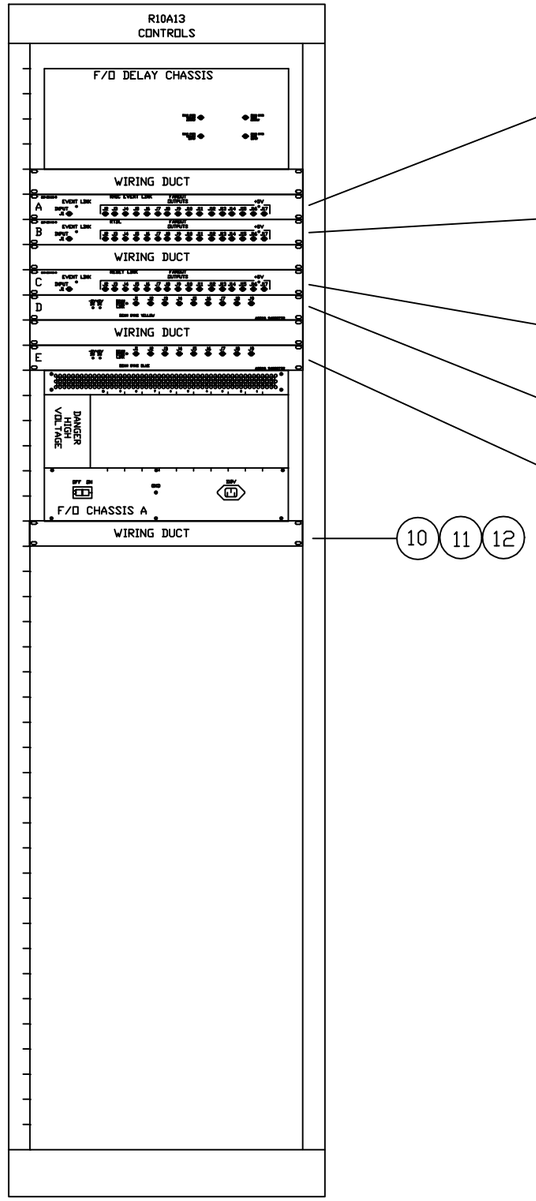
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

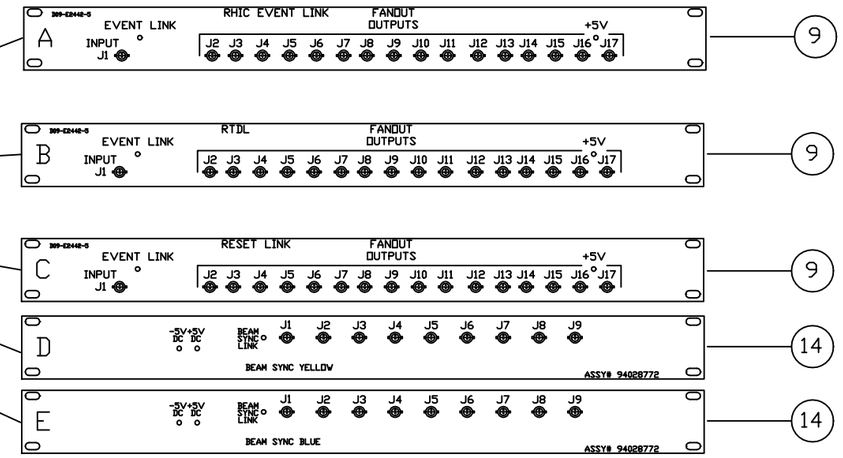
ACS, BNL 9/8/99 9:27 AM8562.dwg



FRONT VIEW



REAR VIEW



-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		2	D,E	14	ECL FANOUTS	94028772
		AR	PANELS	13	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		8	NA	12	WIRING DUCT SPRING CLIPS 1.5"W (PANDUIT S1.5-C)	X
		4	NA	11	WIRING DUCT COVER 1.5"w (PANDUIT C1.5LG6)	X
		4	NA	10	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		3	A,B,C	9	FANOUT ASSEMBLY	D09-E2442
		1	NA	8	FIBER OPTIC DELAY CHASSIS ASSY.	94028277
		1	NA	7	8U x 19" BLANK PANEL (PREMIER METAL ARP-1419-553)	X
		1	NA	6	F/O CHASSIS A	94028535
		2	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

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°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	6/16/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/16/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

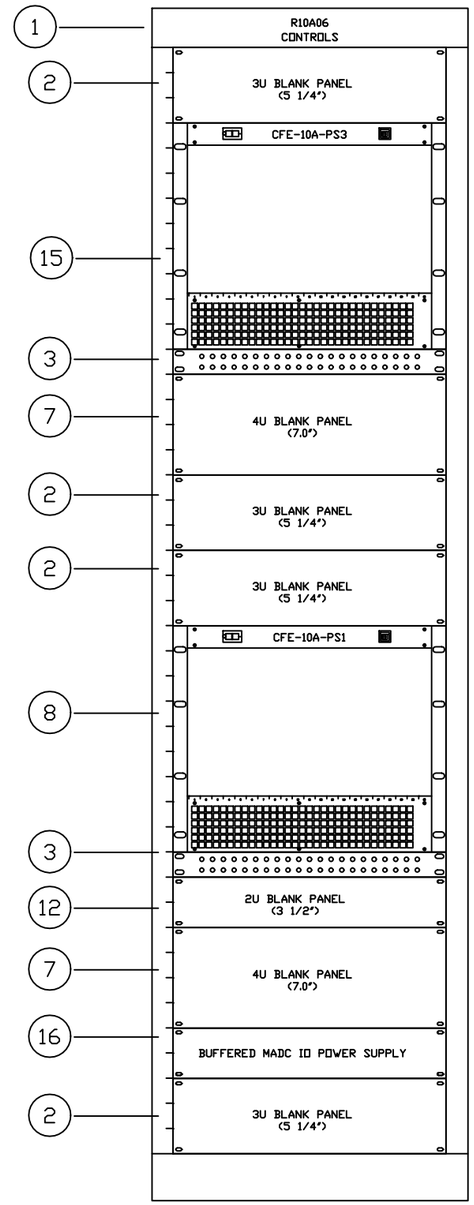
RHIC CONTROLS
SERVICE BLDG. 1010A

RACK R10A13 ASSEMBLY

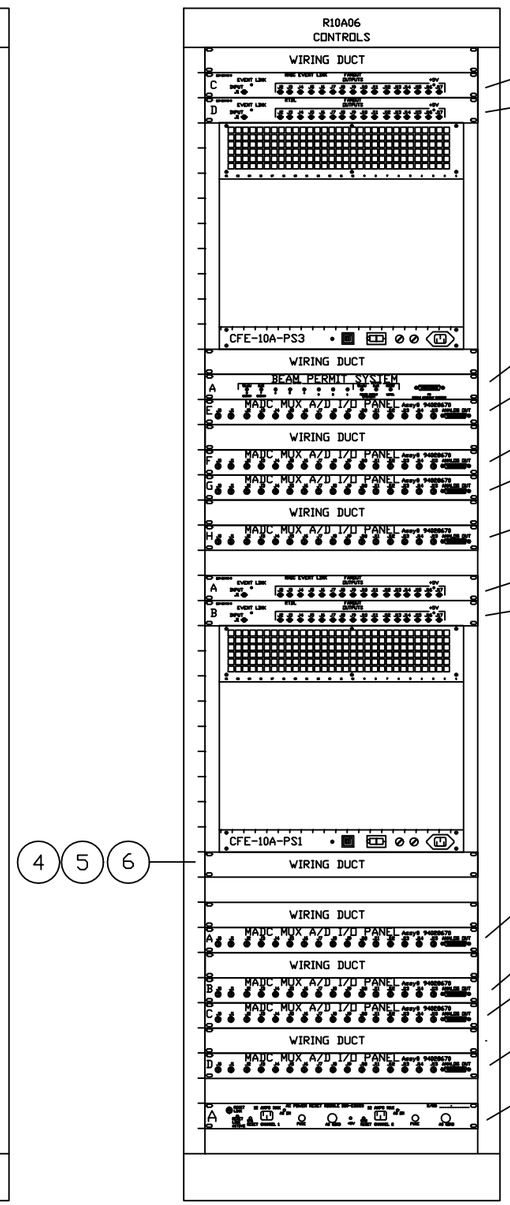
SIZE D
94028562
DRAWING NUMBER
REV. A

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

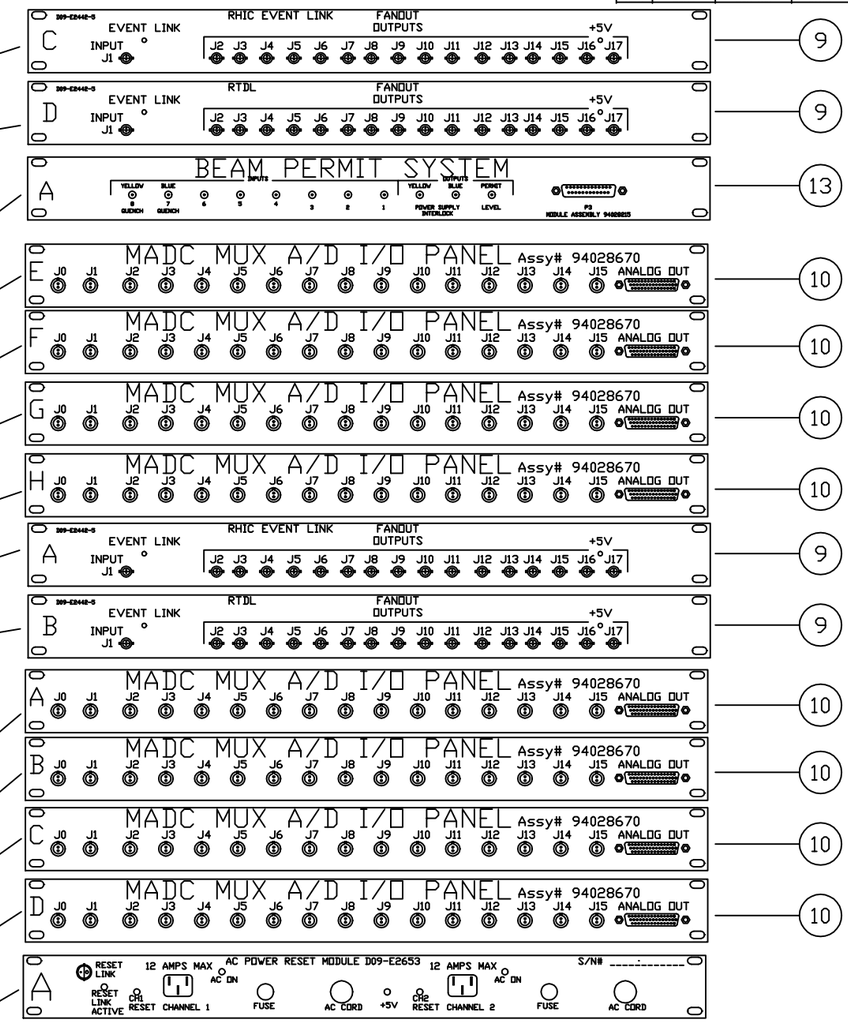
*AUTOCAD



FRONT VIEW



REAR VIEW



QTY REQD			REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		1	A	16	BUFFERED MADC I/O POWER SUPPLY	94028808
		1	NA	15	VME CHASSIS CFE-10A-PS3 ASSY.	94028567
		AR	PANELS	14	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		1	NA	13	BEAM PERMIT SYSTEM INTERFACE PANEL	94028215
		1	NA	12	2U x 19" BLANK PANEL (PREMIER METAL ARP-319-553)	X
		1	A	11	AC POWER RESET MODULE	D09-2653
		8	A-H	10	BUFFERED MADC A/D I/O PANEL	94028670
		4	A,B,C,D	9	FANOUT ASSEMBLY	D09-E2442
		1	NA	8	VME CHASSIS CFE-10A-PS1 ASSY.	94028566
		2	NA	7	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		16	NA	6	WIRING DUCT SNAP CLIPS 1.5"W (PANDUIT S1.5-C)	X
		8	NA	5	WIRING DUCT COVER 1.5"W (PANDUIT C1.5LG6)	X
		8	NA	4	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		2	NA	3	GROMMET PANEL	94028410
		4	NA	2	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		1	NA	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°

OUTSTANDING ECN

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	6/16/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/16/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS
SERVICE BLDG. 1010A

RACK R10A06 ASSEMBLY

SIZE D | DRAWING NUMBER 94028563 | REV. A

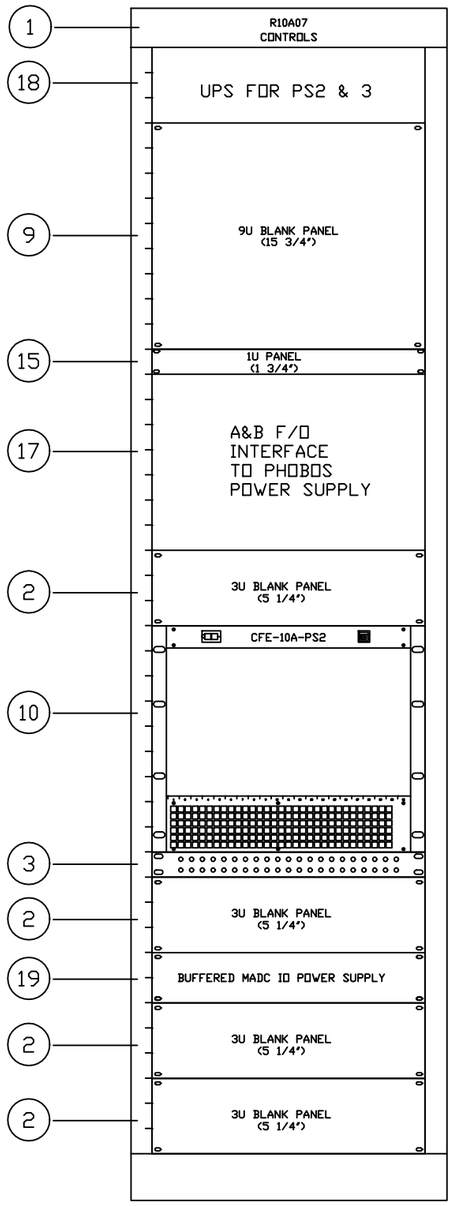
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

ACS, BNL 9/11/00 1:14 PM 8563.dwg

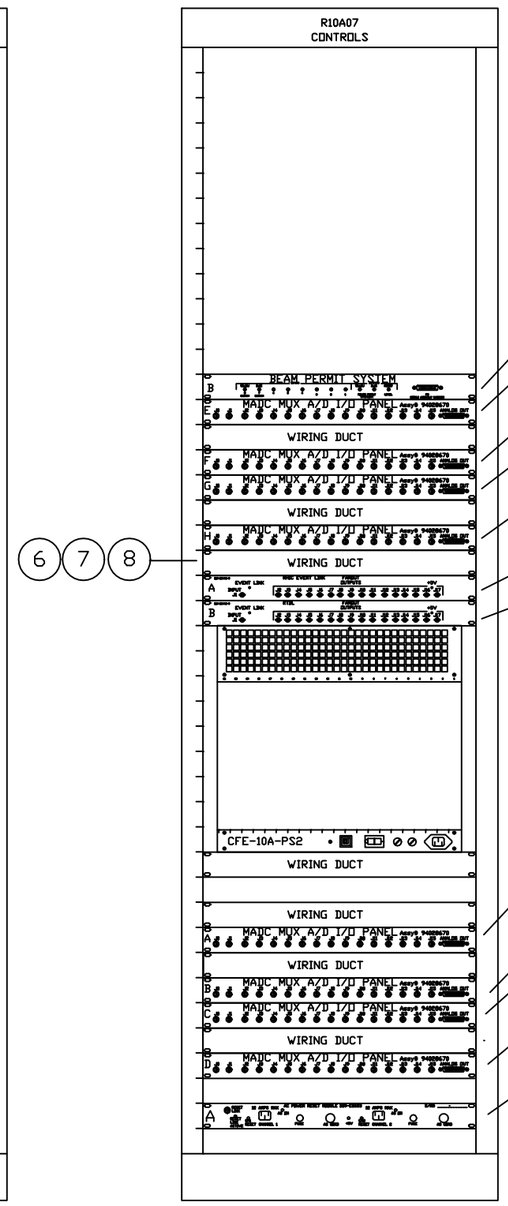
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

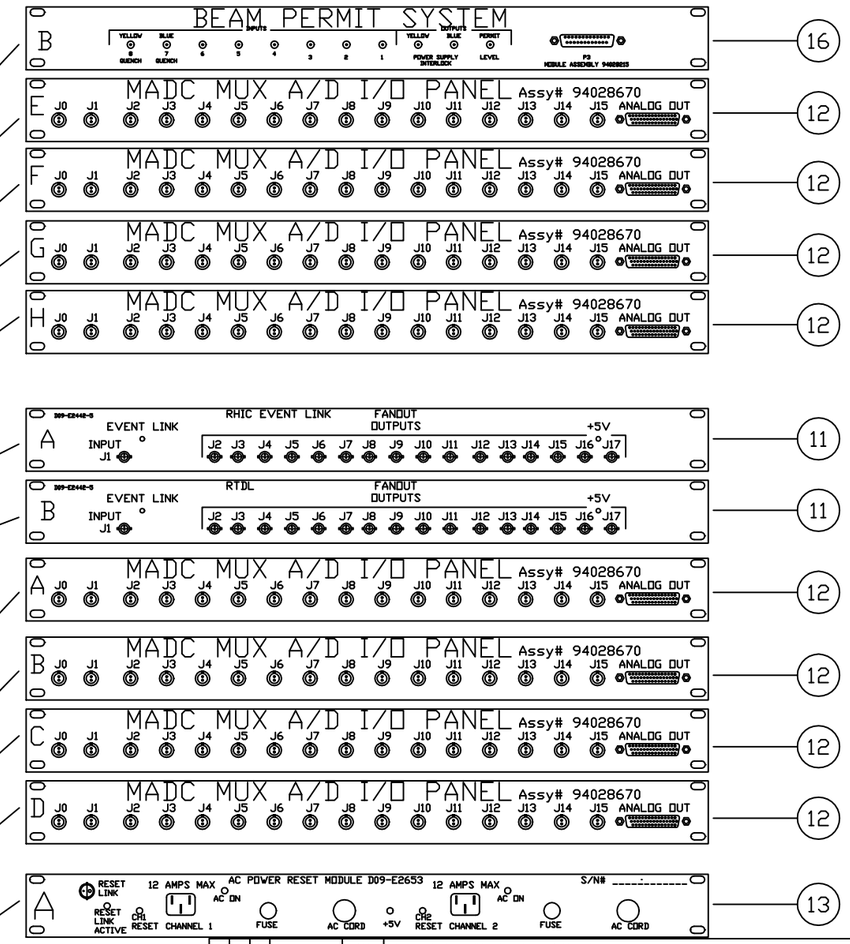
CONTROLS- 3/16/01 2:02 PM 8564.dwg



FRONT VIEW



REAR VIEW



QTY REQD -3	QTY REQD -2	QTY REQD -1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		1	NA	19	BUFFERED MADC I/O POWER SUPPLY	94028808
		1	NA	18	UPS	
		1	NA	17	ALLEN BRADLEY INTERFACE	
		1	B	16	BEAM PERMIT SYSTEM INTERFACE PANEL	94028215
		1	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	AC POWER RESET MODULE	D09-E2653
		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-10A-PS2 ASSY.	94028568
		1	NA	9	9U X 19" BLANK PANEL (PREMIER METAL APR-1519-553)	X
		14	NA	8	WIRING DUCT SNAP CLIPS 1.5"W (PANDUIT S1.5-C)	X
		7	NA	7	WIRING DUCT COVER 1.5"W (PANDUIT C1.5LG6)	X
		6	NA	6	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		0	NA	5	4U x 19" BLANK PANEL (PREMIER METAL APR-719-553)	
		0	NA	4	2U x 19" BLANK PANEL (PREMIER METAL APR-319-553)	
		1	NA	3	GROMMET PANEL	94028410
		4	NA	2	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		1	NA	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°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	6/16/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/16/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

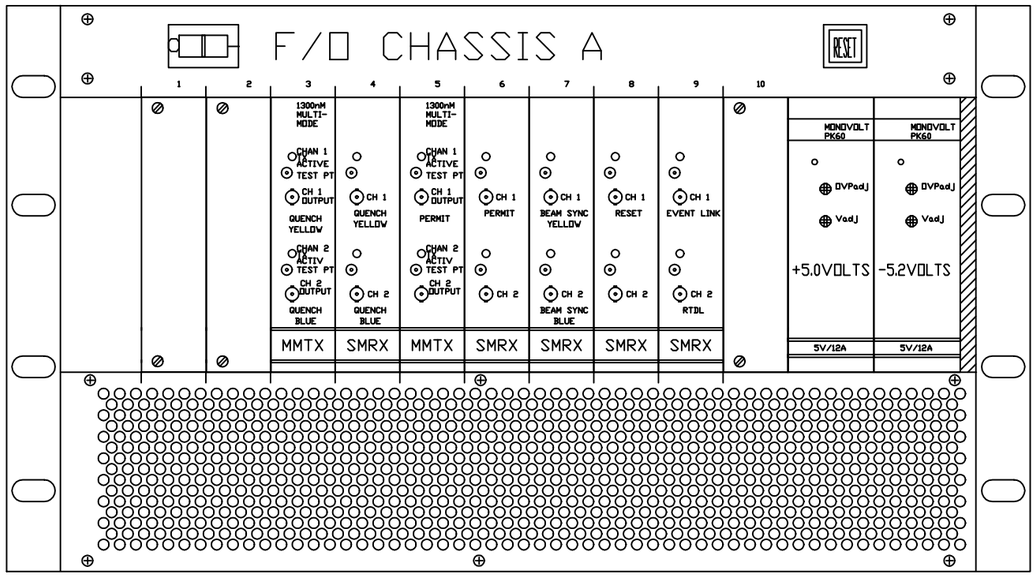
RHIC CONTROLS
SERVICE BLDG. 1010A

RACK R10A07 ASSEMBLY

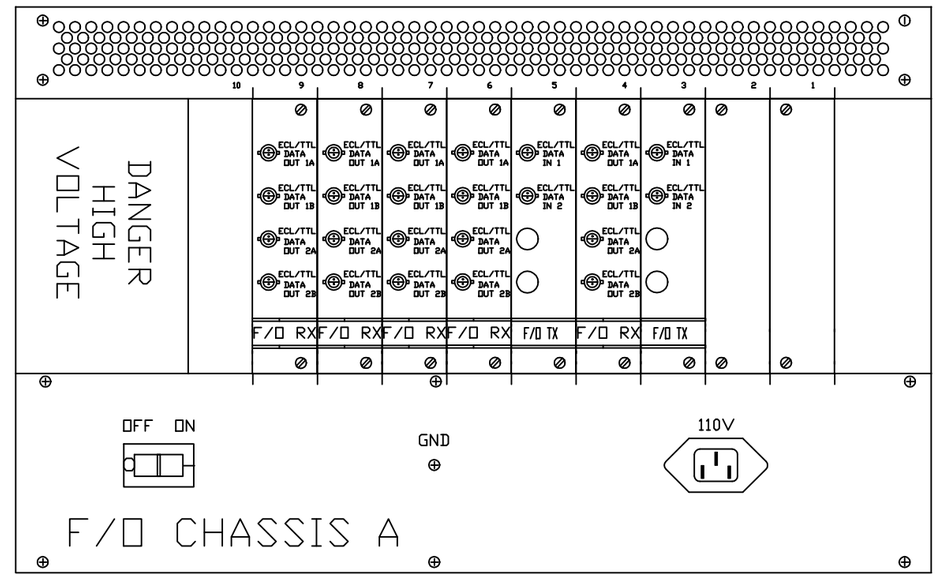
SIZE D
94028564
DRAWING NUMBER
REV. A

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

*AUTOCAD



FRONT VIEW

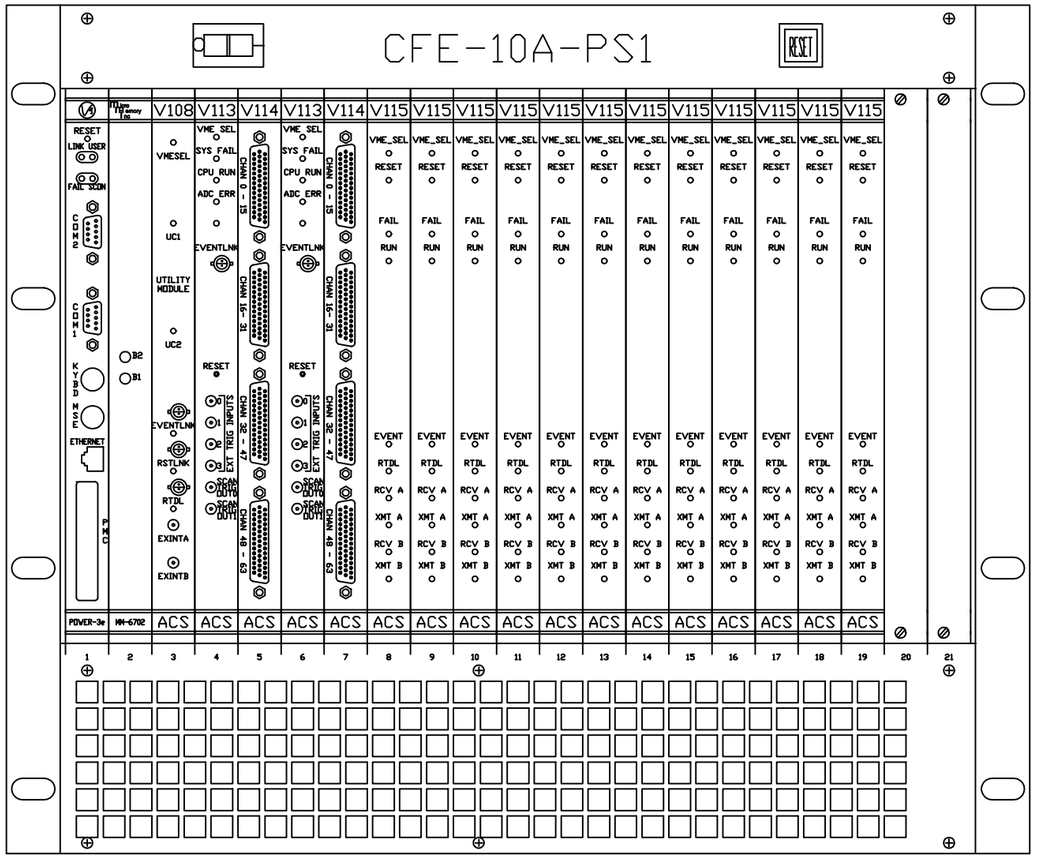


REAR VIEW

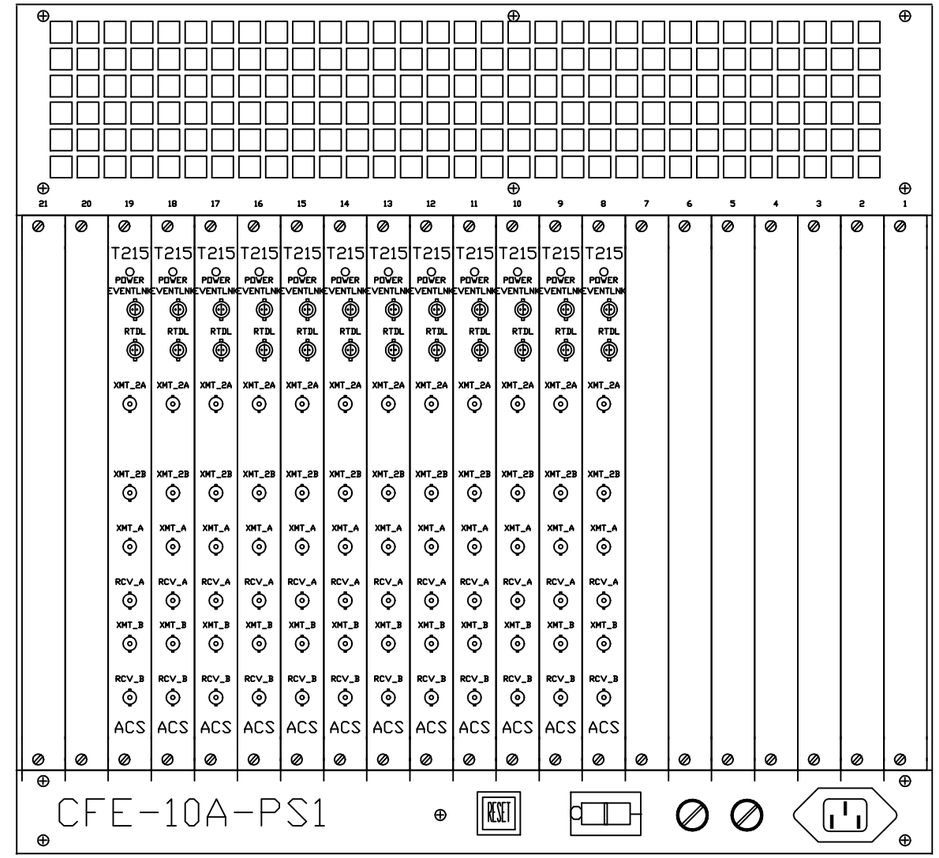
	1	SLOT 7	7	3U FIBER OPTIC RECEIVER TRANSISTION MODULE, ECL	D09-E2541-3
	6	ALL UNUSED	6	3U x 6HP BLANK PANEL (ELECTRO-SPACE ESFE-3032)	X
	4	SLOT4,6,8,9	5	3U FIBER OPTIC RECEIVER TRANSITION MODULE, TTL	D09-E2542-3
	5	SLOT4,6,7-9	4	3U FIBER OPTIC RECEIVER MODULE, MULTIMODE/SINGLEMODE	94028101
	2	SLOT 5,6	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
-3 -2 -1 QTY REQD		REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,SPEC NO.

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY Ed Koropsak	6/16/98	RHIC CONTROLS
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	CHECKED BY		1010A RACK R10A13
	DESIGN APPROVAL		F/O CHASSIS A ASSY.
	ENGINEER APPROVAL R. MICHNOFF	6/16/98	
	SUPVR. APPROVAL		SIZE D — 94028565 — 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

*AUTOCAD



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,SPEC. NO.
		1	SLOT 2	12	MEMORY BOARD	MM-6702
		–		11		
		–		10		
		x	SEE NOTE 1	9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		6	SL 12,15-19	8	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-1
		6	8-11,13,14	7	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		12	SLOT 8-19	6	V115 WAVEFORM GENERATOR MODULE	94028108
		2	SLOT 5,7	5	V114 MADC A/D CONVERTER MODULE	94028226
		2	SLOT 4,6	4	V113 MADC CONTROLLER MODULE	94028140
		1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	SLOT 1	2	FRONT END COMPUTER	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°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	6/16/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/16/98
SUPVR. APPROVAL		
NEXT ASSEMBLY		

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
SERVICE BLDG 1010A
VME CHASSIS CFE-10A-PS1

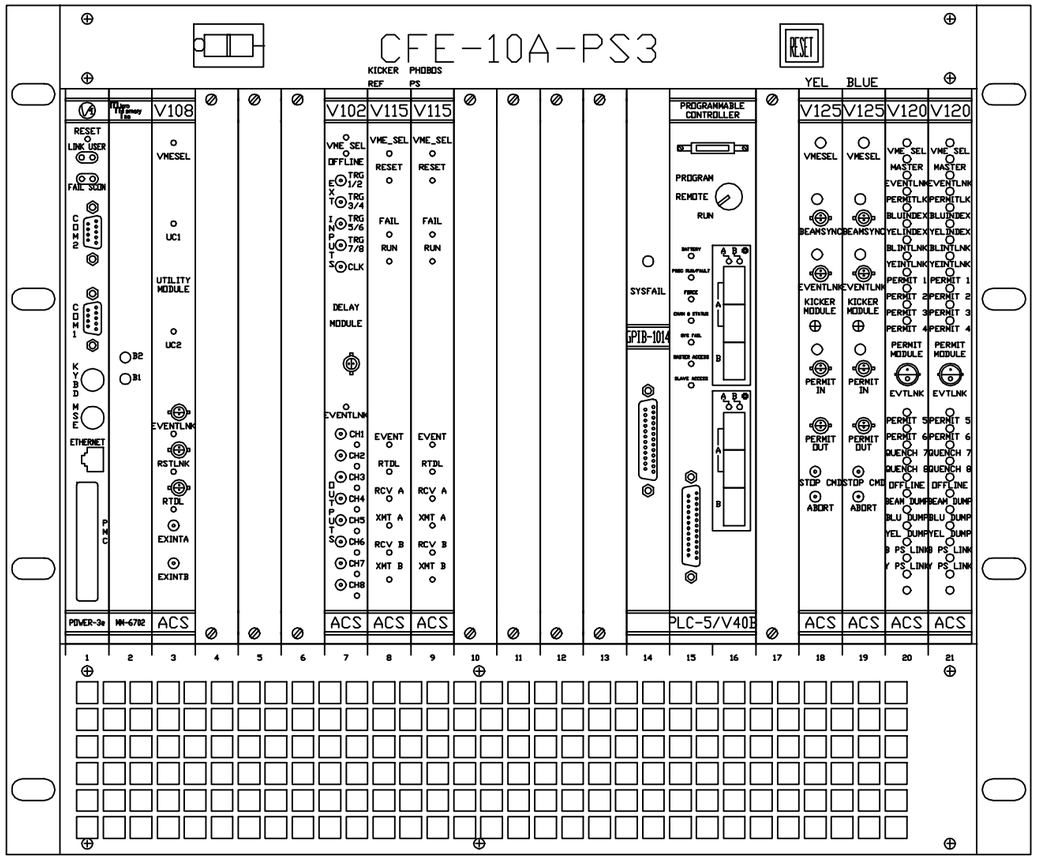
SIZE D | DRAWING NUMBER 94028566 | REV. A

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

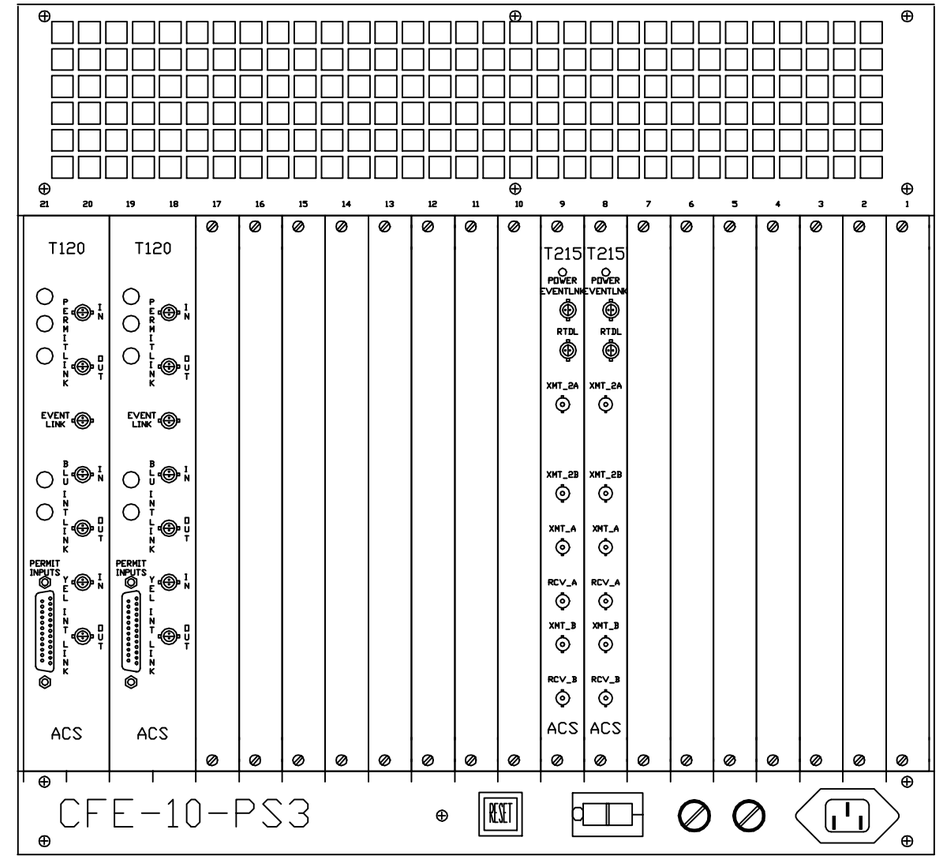
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

CONTROLS- 3/16/01 11:27 AM 8567.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.,DWG NO.
		2	SLOT 18,19	13	V125 ABORT KICKER MODULE	94028657
		2	SLOT 8,9	12	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		2	SLOT 8,9	11	V115 WAVEFORM GENERATOR MODULE	94028108
		1	SLOT 15,16	10	VME PLC PROCESSOR MODULE (ALLEN-BRADLEY PLC-5/40B)	X
		1	SLOT 14	9	GPIB MODULE (GPIB-1014)	X
		x	SEE NOTE 1	8	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		1	SLOT 7	7	V102 DELAY MODULE	94028072
				6		
		2	SLOT 18-21	5	T120 PERMIT SYSTEM TRANSITION MODULE	94028199-2
		2	SLOT 20,21	4	V120 PERMIT SYSTEM MODULE	94028077
		1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	SLOT 1	2	FRONT END COMPUTER	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	10/13/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	10/13/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
SERVICE BLDG 1010A

VME CHASSIS CFE-10A-PS3

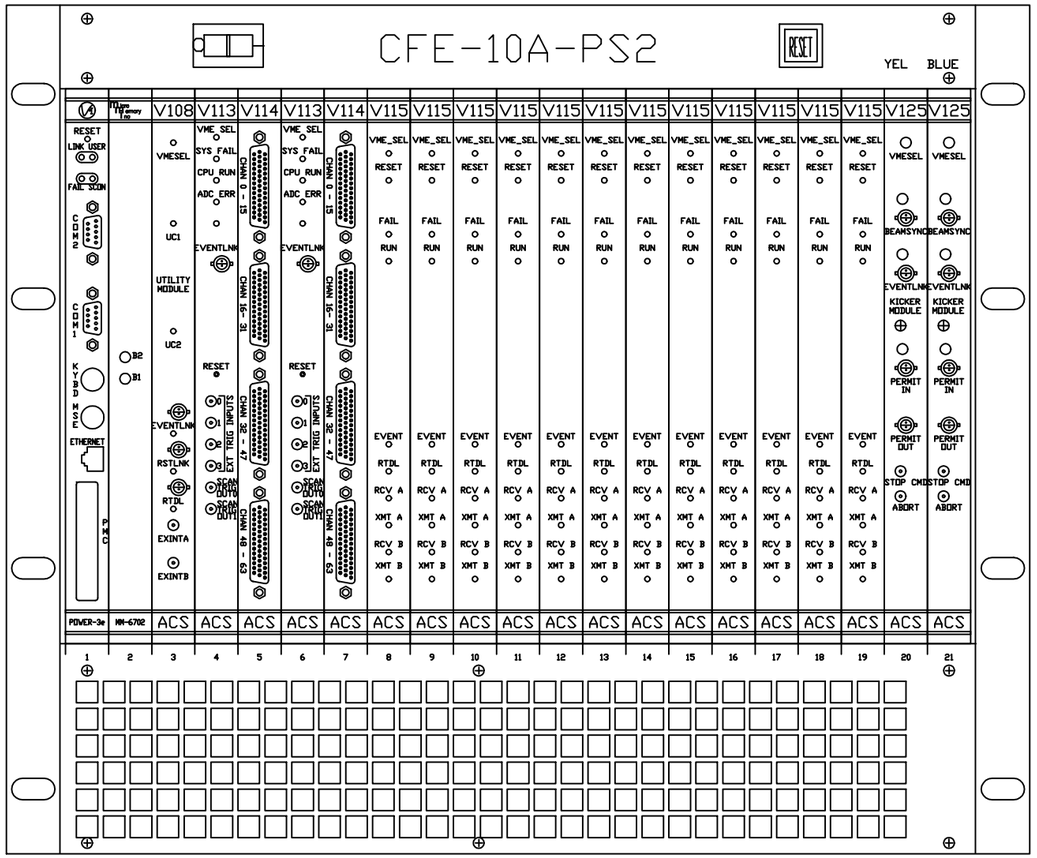
SIZE D | DRAWING NUMBER 94028567 | REV. A

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

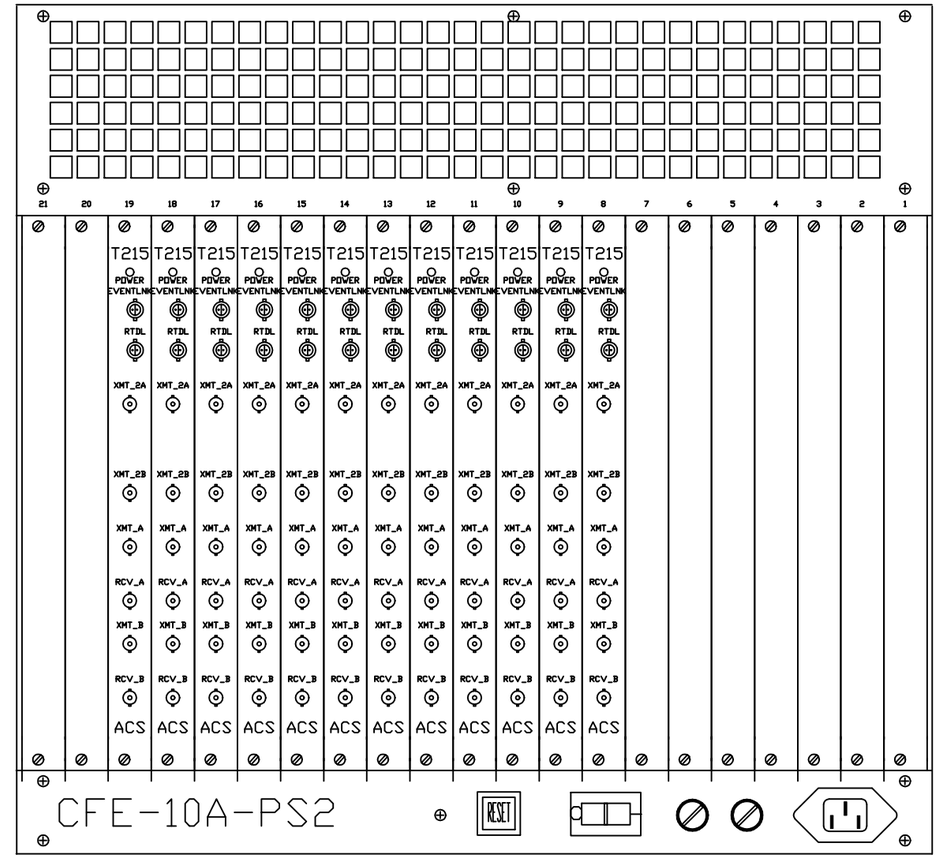
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 9/8/99 11:42 AM 8568.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.,BNL NO.
		1	SLOT 2	12	MEMORY BOARD	MM-6702
		-		11		
		2	SLOT 20,21	10	V125 ABORT KICKER MODULE	94028657
		x	SEE NOTE 1	9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		6	12,15-19	8	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-1
		6	8-11,13,14	7	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		12	SLOT 8-19	6	V115 WAVEFORM GENERATOR MODULE	94028108
		2	SLOT 5,7	5	V114 MADC A/D CONVERTER MODULE	94028226
		2	SLOT 4,6	4	V113 MADC CONTROLLER MODULE	94028140
		1	SLOT 3	3	V108 UTILITY MODULE	94028094
		1	SLOT 1	2	FRONT END COMPUTER	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	6/16/98	
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL	R. MICHNOFF	6/16/98	
SUPVR. APPROVAL			
NEXT ASSEMBLY			

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