C-A Controls Section
Bldg. H10 Wiring Diagrams
BNL Drawing Number

Brookhaven National Laboratory, Upton, New York 11973

Created By: Jason Ortiz
Last Updated 5/19/00

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NOTE:

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/12/00 11:27 AM SPREMADCH10.dwg

MADC MUX A/D ID PANEL

BLDG #: H10
RACK #: CONTROLS
PANEL #: MADC A/D ID PANEL E

FR SHEET XX

J10	CHAN A SPARE I RDBK XXXX
J11	CHAN B SPARE I RDBK XXXX
J12	CHAN C SPARE I RDBK XXXX
J13	CHAN D SPARE I RDBK XXXX
J14	CHAN E SPARE I RDBK XXXX
J15	CHAN F SPARE I RDBK XXXX

TO SHEET XX

MADC MUX A/D ID PANEL

BLDG #: H10
RACK #: CONTROLS
PANEL #: MADC A/D ID PANEL F

FR SHEET XX

J0	CHAN A SPARE I RDBK XXXX
J1	CHAN B SPARE I RDBK XXXX
J2	CHAN C SPARE I RDBK XXXX
J3	CHAN D SPARE I RDBK XXXX
J4	CHAN E SPARE I RDBK XXXX
J5	CHAN F SPARE I RDBK XXXX
J6	CHAN E SPARE I RDBK XXXX
J7	CHAN F SPARE I RDBK XXXX
J8	SPARE I RDBK XXXX
J9	CHAN B SPARE I RDBK XXXX
J10	CHAN C SPARE I RDBK XXXX
J11	CHAN D SPARE I RDBK XXXX
J12	CHAN E SPARE I RDBK XXXX
J13	CHAN F SPARE I RDBK XXXX
J14	CHAN E SPARE IRDBK XXXX
J15	CHAN F SPARE I RDBK XXXX

TO SHEET XX

MADC MUX A/D ID PANEL

BLDG #: H10
RACK #: CONTROLS
PANEL #: MADC A/D ID PANEL G

FR SHEET XX

J10	CHAN A SPARE IREF XXXX
J11	CHAN B SPARE I REF XXXX
J12	CHAN C SPARE I REF XXXX
J13	CHAN D SPARE I REF XXXX
J14	CHAN E SPARE I REF XXXX
J15	CHAN F SPARE I REF XXXX

TO SHEET XX

MADC MUX A/D ID PANEL

BLDG #: H10
RACK #: CONTROLS
PANEL #: MADC A/D ID PANEL H

FR SHEET XX

J0	CHAN A SPARE I RDBK XXXX
J1	CHAN B SPARE I RDBK XXXX
J2	CHAN C SPARE I RDBK XXXX
J3	CHAN D SPARE I RDBK XXXX
J4	CHAN E SPARE I RDBK XXXX
J5	CHAN F SPARE I RDBK XXXX
J6	CHAN E SPARE I RDBK XXXX
J7	CHAN F SPARE I RDBK XXXX
J8	SPARE I RDBK XXXX
J9	CHAN B SPARE I RDBK XXXX
J10	CHAN C SPARE I RDBK XXXX
J11	CHAN D SPARE I RDBK XXXX
J12	CHAN E SPARE I RDBK XXXX
J13	CHAN F SPARE I RDBK XXXX
J14	CHAN E SPARE IRDBK XXXX
J15	CHAN F SPARE I RDBK XXXX

TO SHEET XX

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

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	JASON ORTIZ	5/12/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		
NEXT ASSEMBLY		

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM

SPARE MADC H10

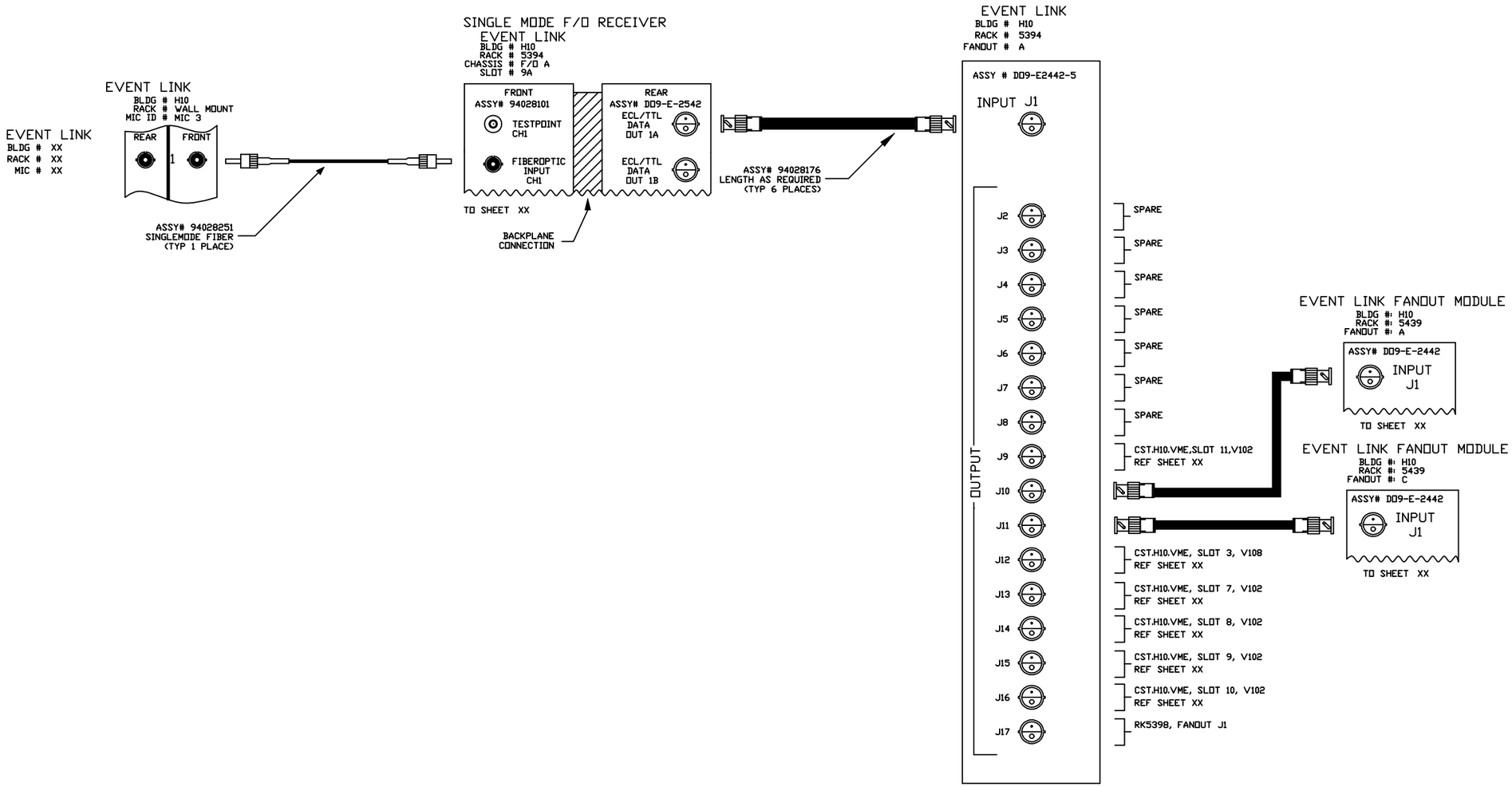
SIZE D | Drawing Number | REV. A
DRAWING NUMBER

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 1 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 11:32 AM evntf_oH10.dwg



-3 / -2 / -1 QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO./BNL NO.

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M–1989	Q.A. CATEGORY A–3	DATE	BROOKHAVEN NATIONAL LABORATORY	
	DRAWN BY: JASON ORTIZ	5/15/00	UPTON, N.Y. 11973	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CHECKED BY		C–A CONTROLS WIRING DIAGRAM	
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	DESIGN APPROVAL		H10	
	ENGINEER APPROVAL		EVENT LINK	
	SUPVR. APPROVAL		SIZE: 94028821	REV. A
OUTSTANDING ECN	NA FINISH	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY	DRAWING NUMBER
			MATERIAL: ——	SCALE: NA / WEIGHT: – / SHEET 2 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 8:54 AM EVNTLKH10.dwg

EVENT LINK FANOUT MODULE

BLDG # H10
RACK # 5439
FANOUT # A

FROM SHEET X
ASSY # DD9-E2442-5

OUTPUT

J2	TO CST-H10-CORR1, SLOT 17, VII5 REF SHEET XX
J3	TO CST-H10-CORR1, SLOT 16 VII5 REF SHEET XX
J4	TO CST-H10-CORR1, SLOT 15, VII5 REF SHEET XX
J5	TO CST-H10-CORR1, SLOT 14, VII5 REF SHEET XX
J6	TO CST-H10-CORR1, SLOT 13, VII5 REF SHEET XX
J7	TO CST-A10-CORR1, SLOT 12, VII5 REF SHEET XX
J8	TO CST-H10-CORR1, SLOT 11, VII5 REF SHEET XX
J9	TO CST-A10-CORR1, SLOT 10, VII5 REF SHEET XX
J10	TO CST-H10-CORR1, SLOT 9, VII5 REF SHEET XX
J11	TO CST-H10-CORR1, SLOT 3, V108 REF SHEET XX
J12	TO CST-H10-CORR1, SLOT 5, V113 REF SHEET XX
J13	SPARE
J14	SPARE
J15	SPARE
J16	SPARE
J17	SPARE

EVENT LINK FANOUT MODULE

BLDG # H10
RACK # 5439
FANOUT # C

FROM SHEET XX
ASSY # DD9-E2442-5

OUTPUT

J2	TO CST-H10-CORR2, SLOT 18, VII5 REF SHEET XX
J3	TO CST-H10-CORR2, SLOT 17, VII5 REF SHEET XX
J4	TO CST-H10-CORR2, SLOT 16, VII5 REF SHEET
J5	TO CST-H10-CORR2, SLOT 15, VII5 REF SHEET
J6	TO CST-H10-CORR2, SLOT 14, VII5 REF SHEET XX
J7	TO CST-H10-CORR2, SLOT 13, VII5 REF SHEET
J8	TO CST-H10-CORR2, SLOT 12, VII5 REF SHEET
J9	TO CST-H10-CORR2, SLOT 11, VII5 REF SHEET
J10	TO CST-H10-CORR2, SLOT 10, VII5 REF SHEET
J11	TO CST-H10-CORR2, SLOT 9, VII5 REF SHEET
J12	TO CST-H10-CORR2, SLOT 8, VII5 REF SHEET
J13	TO CST-H10-CORR2, SLOT 7, VII5 REF SHEET
J14	TO CST-H10-CORR2, SLOT 5, VII3 REF SHEET
J15	TO CST-H10-CORR2, SLOT 3, VI08 REF SHEET
J16	SPARE
J17	SPARE

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

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	JASON ORTIZ	5/15/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM
H10
EVENT LINK

SIZE 94028821 REV. A
DRAWING NUMBER

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 3 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 1:22 PM RTDLF_□H10.dwg

RTDL
BLDG # XX
RACK # XX
MIC # XX

RTDL
BLDG # H10
RACK # WALL MOUNT
MIC ID # MIC 03
REAR FRONT
2

ASSY# 94028251
SINGLEMODE FIBER
(TYP 1 PLACE)

SINGLE MODE F/O RECEIVER
REAL TIME DATA LINK
BLDG # H10
RACK # 5394
CHASSIS # F/O A
SLOT # 9

FROM SHEET 4

TESTPOINT CH2
FIBEROPTIC INPUT CH2
ECL/TTL DATA OUT 2A
ECL/TTL DATA OUT 2B

BACKPLANE CONNECTION

ASSY# 94028176
LENGTH AS REQUIRED
(TYP 4 PLACES)

RTDL FANOUT MODULE
BLDG # H10
RACK # 5394
FANOUT # B

ASSY # DD9-E2442-5

INPUT J1

OUTPUT
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
J14
J15
J16
J17

SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE
SPARE

RTDL FANOUT MODULE
BLDG #: H10
RACK #: 5439
FANOUT #: B

ASSY# DD9-E-2442
INPUT J1
TO SHEET XX

RTDL FANOUT MODULE
BLDG #: H10
RACK #: 5439
FANOUT #: D

ASSY# DD9-E-2442
INPUT J1
TO SHEET XX

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

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	JASON ORTIZ	5/15/00	
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL			
SUPVR. APPROVAL			
NEXT ASSEMBLY			

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10
REAL TIME DATA LINK

SIZE 94028821 REV. A
DRAWING NUMBER
MATERIAL: —— SCALE: NA WEIGHT: — SHEET 4 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 9:41 AM RTDLH10.dwg

RTDL FANOUT MODULE

BLDG # H10
RACK # 5439
FANOUT # B

FROM SHEET XX
ASSY # DD9-E2442-5

OUTPUT

J2	TO CST-H10-CORR1, SLOT 17, V115 REF SHEET XX
J3	TO CST-H10-CORR1, SLOT 16, V115 REF SHEET XX
J4	TO CST-H10-CORR1, SLOT 15, V115 REF SHEET XX
J5	TO CST-H10-CORR1, SLOT 14, V115 REF SHEET XX
J6	TO CST-H10-CORR1, SLOT 13, V115 REF SHEET XX
J7	TO CST-H10-CORR1, SLOT 12, V115 REF SHEET XX
J8	TO CST-H10-CORR1, SLOT 11, V115 REF SHEET XX
J9	TO CST-H10-CORR1, SLOT 10, V115 REF SHEET XX
J10	TO CST-H10-CORR1, SLOT 9, V115 REF SHEET XX
J11	TO CST-H10-CORR1, SLOT 3, V108
J12	SPARE
J13	SPARE
J14	SPARE
J15	SPARE
J16	SPARE
J17	SPARE

RTDL FANOUT MODULE

BLDG # H10
RACK # 5439
FANOUT # D

FROM SHEET XX
ASSY # DD9-E2442-5

OUTPUT

J2	TO CST-H10-CORR2, SLOT 18, V115 REF SHEET XX
J3	TO CST-H10-CORR2, SLOT 17, V115 REF SHEET XX
J4	TO CST-H10-CORR2, SLOT 16, V115 REF SHEET XX
J5	TO CST-H10-CORR2, SLOT 15, V115 REF SHEET XX
J6	TO CST-H10-CORR2, SLOT 14, V115 REF SHEET XX
J7	TO CST-H10-CORR2, SLOT 13, V115 REF SHEET XX
J8	TO CST-H10-CORR2, SLOT 12, V115 REF SHEET XX
J9	TO CST-H10-CORR2, SLOT 11, V115 REF SHEET XX
J10	TO CST-H10-CORR2, SLOT 10, V115 REF SHEET XX
J11	TO CST-H10-CORR2, SLOT 9, V115 REF SHEET XX
J12	TO CST-H10-CORR2, SLOT 8, V115 REF SHEET XXREF SHEET 25
J13	TO CST-H10-CORR2, SLOT 7, V115 REF SHEET XX
J14	SPARE
J15	TO CST-H10-CORR2, SLOT 3, V108 REF SHEET XX
J16	SPARE
J17	SPARE

-3	-2	-1 QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

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
NEXT ASSEMBLY

Q.A. CATEGORY	A–3	DATE	
DRAWN BY	JASON ORTIZ	5/15/00	
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL			
SUPVR. APPROVAL			

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C–A CONTROLS WIRING DIAGRAM
H10
REAL TIME DATA LINK

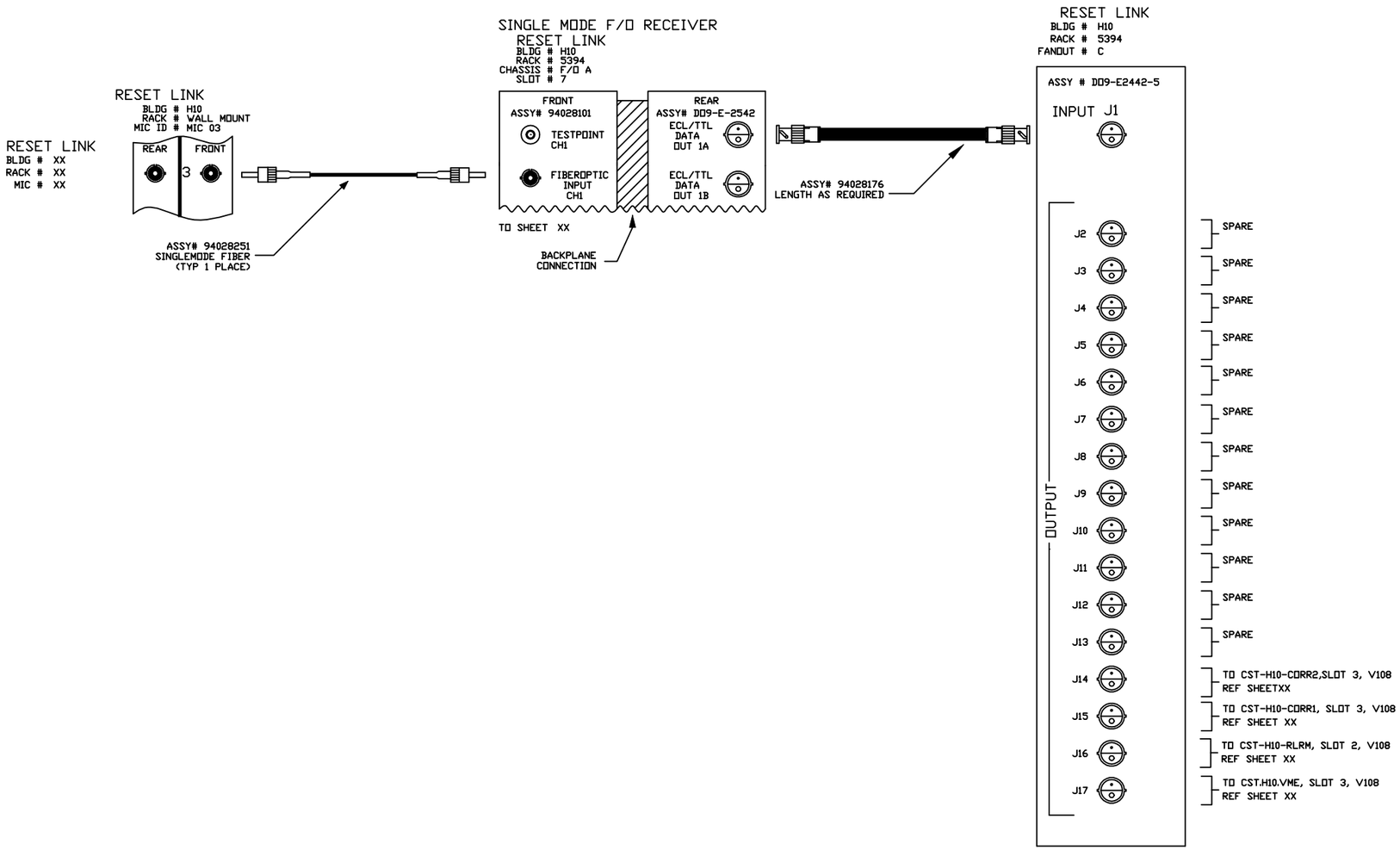
SIZE
94028821
DRAWING NUMBER
REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 5 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 12:00 PM RESETH10.dwg



-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.

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	BROOKHAVEN NATIONAL LABORATORY
DRAWN BY JASON ORTIZ	5/15/00	UPTON, N.Y. 11973
CHECKED BY		C-A CONTROLS WIRING DIAGRAM
DESIGN APPROVAL		H10
ENGINEER APPROVAL		RESET LINK
SUPVR. APPROVAL		SIZE 94028821 REV. A
NEXT ASSEMBLY		DRAWING NUMBER
MATERIAL: ———	SCALE: NA	WEIGHT: – SHEET 6 OF 32

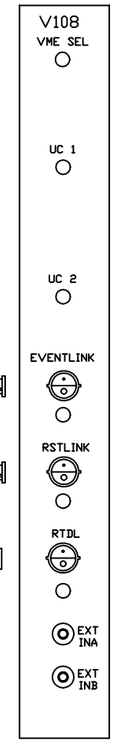
1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/12/00 3:42 PM FENDH10.dwg

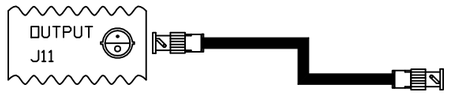
FRONT END COMPUTER
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR1
SLOT#: 1
FEC NAME: CST-H10-CORR1

V108 UTILITY MODULE
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR1
SLOT #: 3
A24 BASE ADDRESS: X



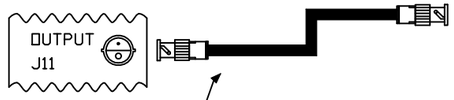
ASSY# 94028094

EVENT LINK
BLDG #: H10
RACK #: 5439
FANOUT #: A

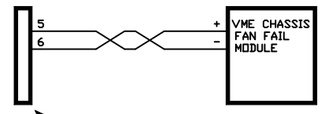


RESET LINK
BLDG #: H10
RACK #: 5394
FANOUT #: C

REAL TIME DATA LINK
BLDG #: H10
RACK #: 5439
FANOUT #: B



ASSY# 94028176
LENGTH AS REQUIRED
(TYP 3 PLACES)



CONNECT TO P2 PINS
ON REAR OF VME CHASSIS
CABLE & CONNECTOR SUPPLIED
WITH VME CHASSIS

JUMPER LIST

E25 Through E50 are configured for remote reset address
at the time of board acceptance test.
DO NOT MODIFY!

Remote reset pulls VME SYS Reset.
E58-E60, E59-E61

A24 BASE ADDRESS= 4000h
E57-E13, E2-E14, E3-E15, E4-E16, E5-E17, E6-E18
E7-E19, E8-E20, E9-E21, E10-E22, E11-E24, E57-E23
SW1=OPEN
SW2=CLOSED
SW3=OPEN
SW4=OPEN

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNK NO.

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
NEXT ASSEMBLY

Q.A. CATEGORY A-3
DRAWN BY JASON ORTIZ 5/12/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
DATE

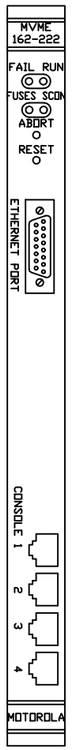
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
CONTROLS WIRING DIAGRAM
BLDG. H10, VME CHASSIS CST-H10-CORR1
FT END COMP/V108 UTIL MODULE
SIZE D
DRAWING NUMBER
REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 7 OF 32

*AUTOCAD

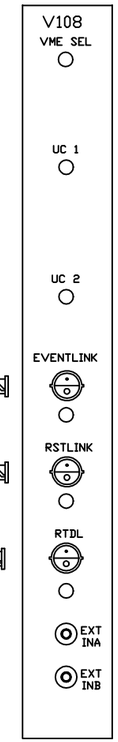
REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/12/00 3:39 PM FENDH10B.dwg

FRONT END COMPUTER
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT#: 1
FEC NAME: CST-H10-CORR2



V108 UTILITY MODULE
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT #: 3
A24 BASE ADDRESS: X



ASSY# 94028094

EVENT LINK
BLDG #: H10
RACK #: 5439
FANOUT #: C

OUTPUT J15

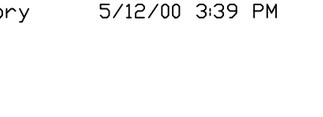
RESET LINK
BLDG #: H10
RACK #: 5394
FANOUT #: C

OUTPUT J14

REAL TIME DATA LINK
BLDG #: H10
RACK #: 5439
FANOUT #: D

OUTPUT J15

ASSY# 94028176
LENGTH AS REQUIRED
(TYP 3 PLACES)



CONNECT TO P2 PINS
ON REAR OF VME CHASSIS
CABLE & CONNECTOR SUPPLIED
WITH VME CHASSIS

JUMPER LIST

E25 Through E50 are configured for remote reset address
at the time of board acceptance test.
DO NOT MODIFY!

Remote reset pulls VME SYS Reset.
E58-E60, E59-E61

A24 BASE ADDRESS= 4000h
E57-E13, E2-E14, E3-E15, E4-E16, E5-E17, E6-E18
E7-E19, E8-E20, E9-E21, E10-E22, E11-E24, E57-E23
SW1=OPEN
SW2=CLOSED
SW3=OPEN
SW4=OPEN

-3	-2	-1 QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

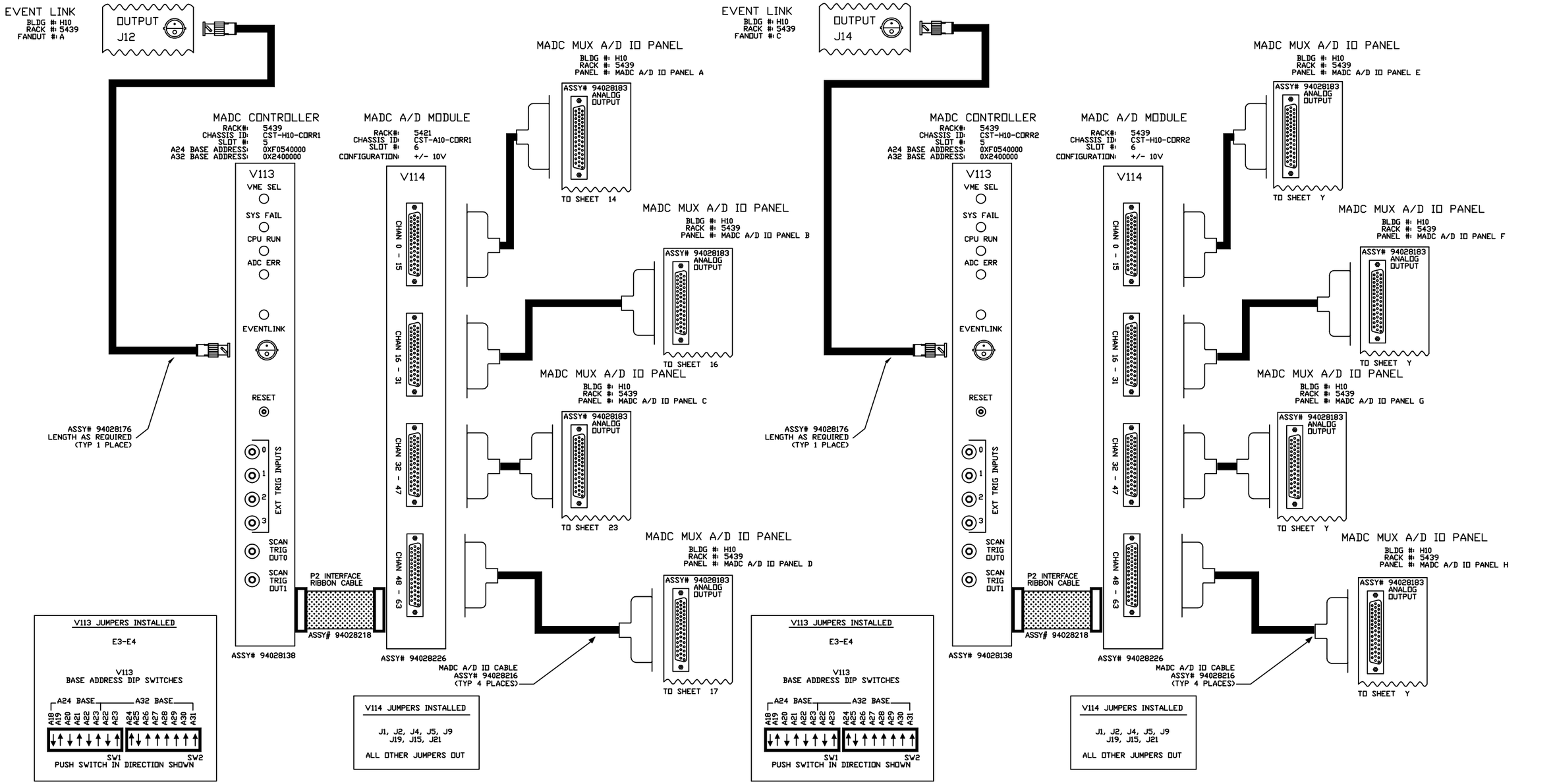
INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005
ANGULAR TOLERANCE ± .5°
NA FINISH
BREAK SHARP EDGES MAX. XX MIN. XX
OUTSTANDING ECN

Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
DRAWN BY JASON ORTIZ	5/12/00	UPTON, N.Y. 11973
CHECKED BY		CONTROLS WIRING DIAGRAM
DESIGN APPROVAL		BLDG. H10, VME CHASSIS CST-H10-CORR2
ENGINEER APPROVAL		FT END COMP/V108 UTIL MODULE
SUPVR. APPROVAL		SIZE D / DRAWING NUMBER / REV. A
NEXT ASSEMBLY		MATERIAL: —— SCALE: NA WEIGHT: — SHEET 8 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/15/00 2:42 PM madcH10.dwg



-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

NEXT ASSEMBLY

Q.A. CATEGORY	A-3	DATE	
DRAWN BY	JASON ORTIZ		5/15/00
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL			
SUPVR. APPROVAL			

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM

1000P, VME CHASSIS CST-H10-CORR1/CORR2

MADC SYSTEM

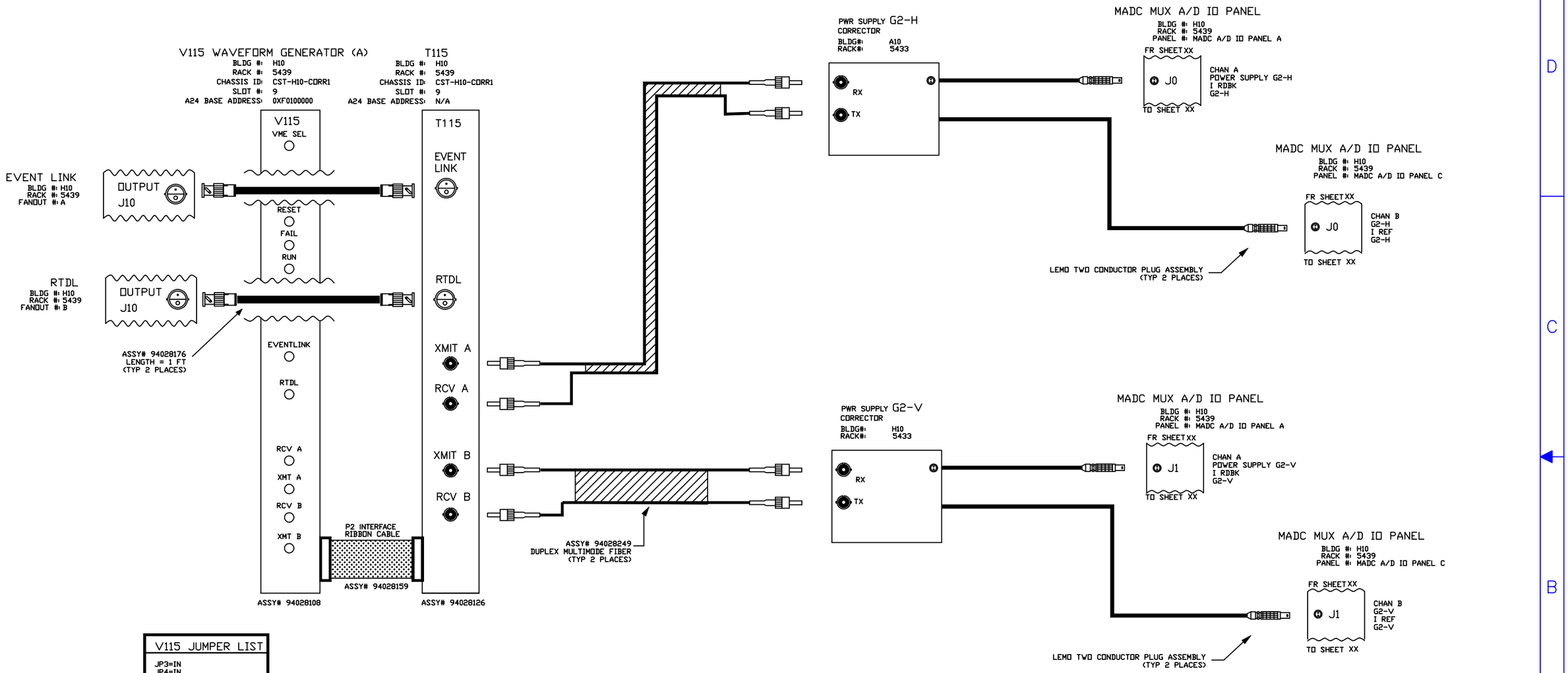
SIZE | DRAWING NUMBER | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 9 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 2:40 PM H10wfg1A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=IN JB1-A18=IN

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.

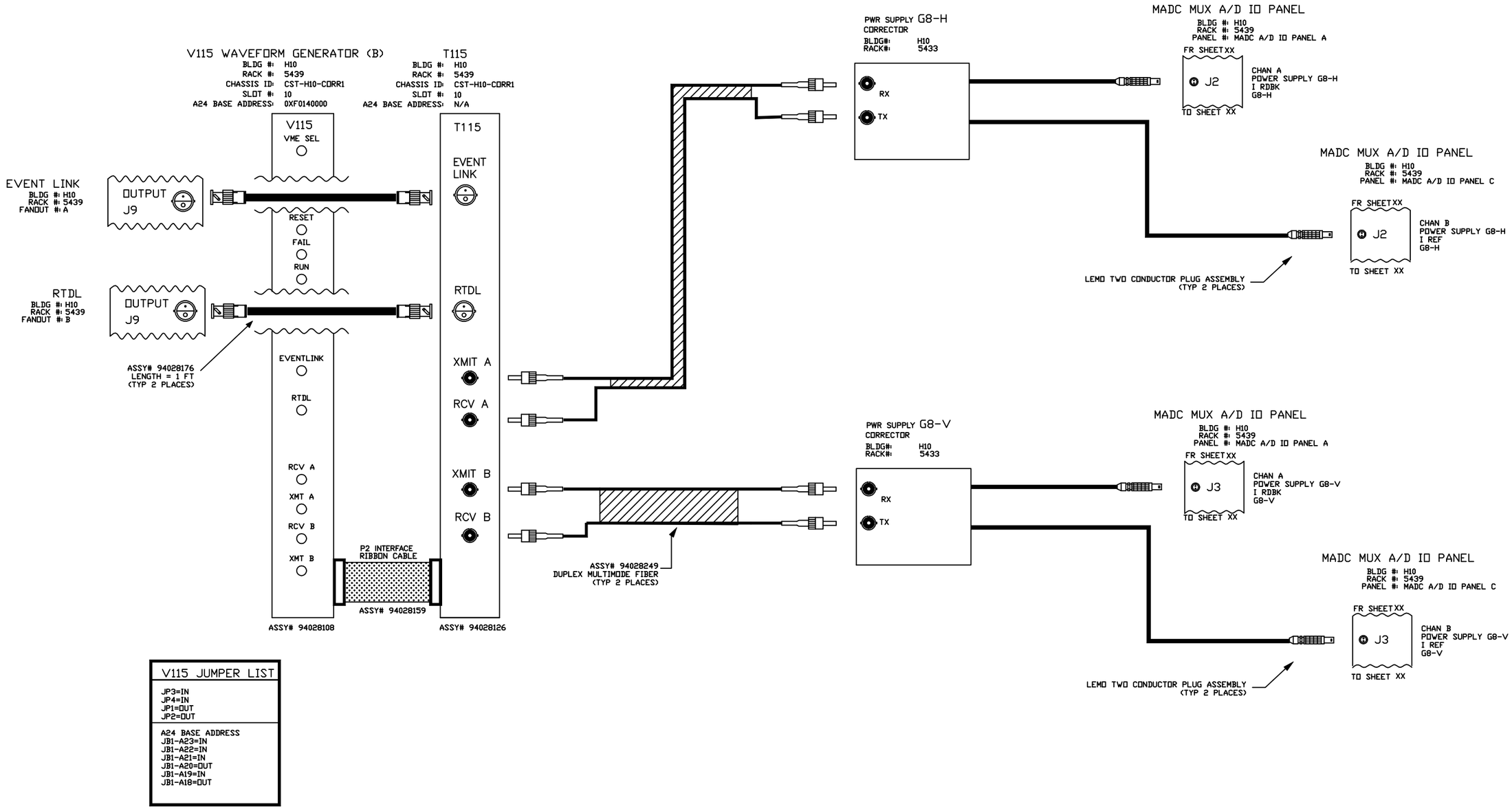
INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°
NA FINISH
BREAK SHARP EDGES MAX. XX MIN. XX
OUTSTANDING ECN

Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
DRAWN BY JASON ORTIZ	5/16/00	UPTON, N.Y. 11973
CHECKED BY		C-A CONTROLS WIRING DIAGRAM
DESIGN APPROVAL		H10 CST-H10-CORR1
ENGINEER APPROVAL		POWER SUPPLY G2-H/G2-V
SUPVR. APPROVAL		SIZE D / DRAWING NUMBER / REV. A
NEXT ASSEMBLY		MATERIAL: —— SCALE: NA WEIGHT: — SHEET 10 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 3:26 PM H10wfg2A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=IN JB1-A18=OUT

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./PNL 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	Jason Ortiz	5/16/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM
H10, CST-H10-CORR1
POWER SUPPLY G8-H/G8-V

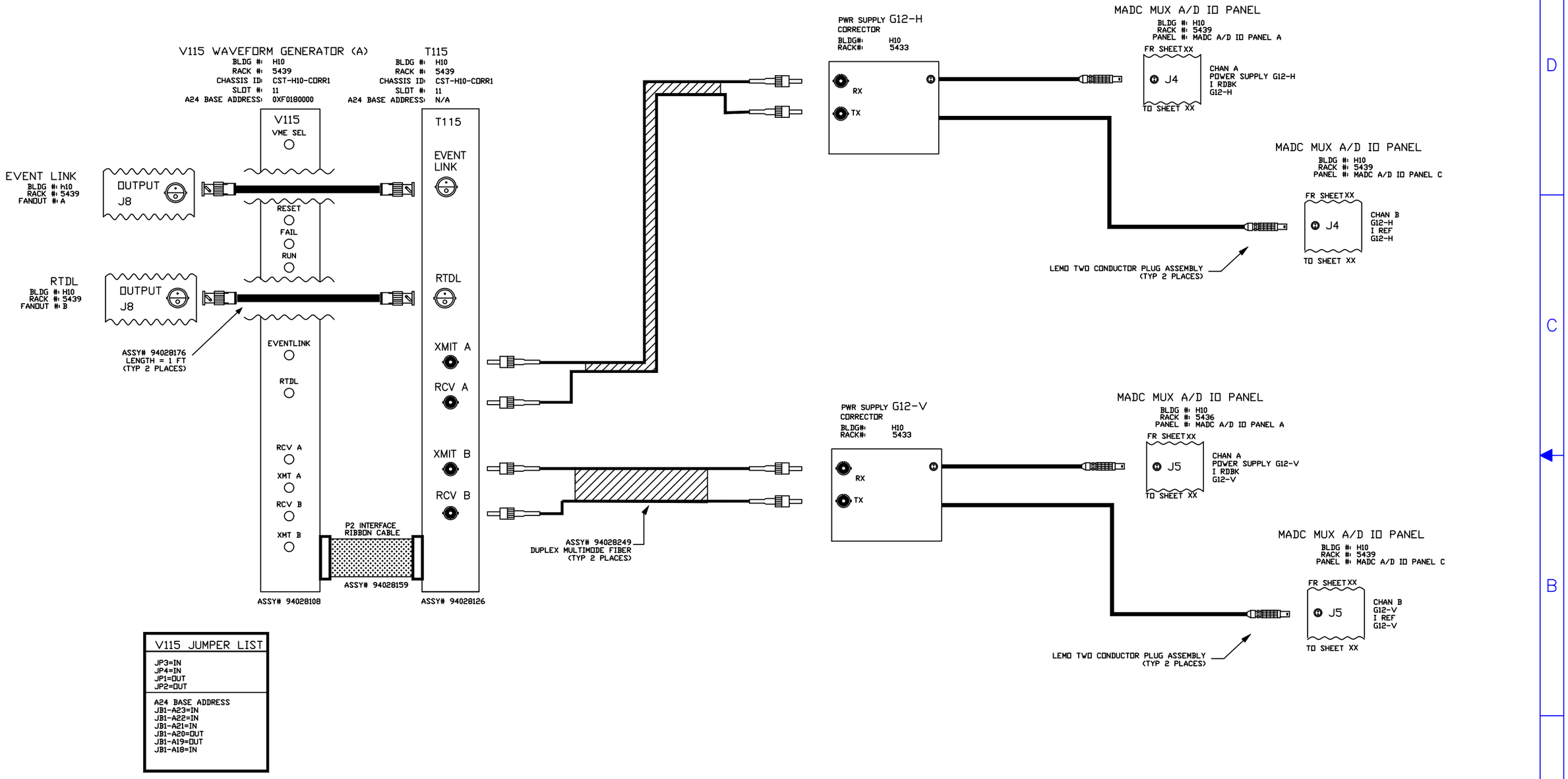
SIZE D | DRAWING NUMBER | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 11 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 4:07 PM H10wfg3A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=OUT JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./ENG 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	JASON ORTIZ	5/10/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

DATE

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM

A10 CST-A10-CORR1

POWER SUPPLY G12-H/G12-V

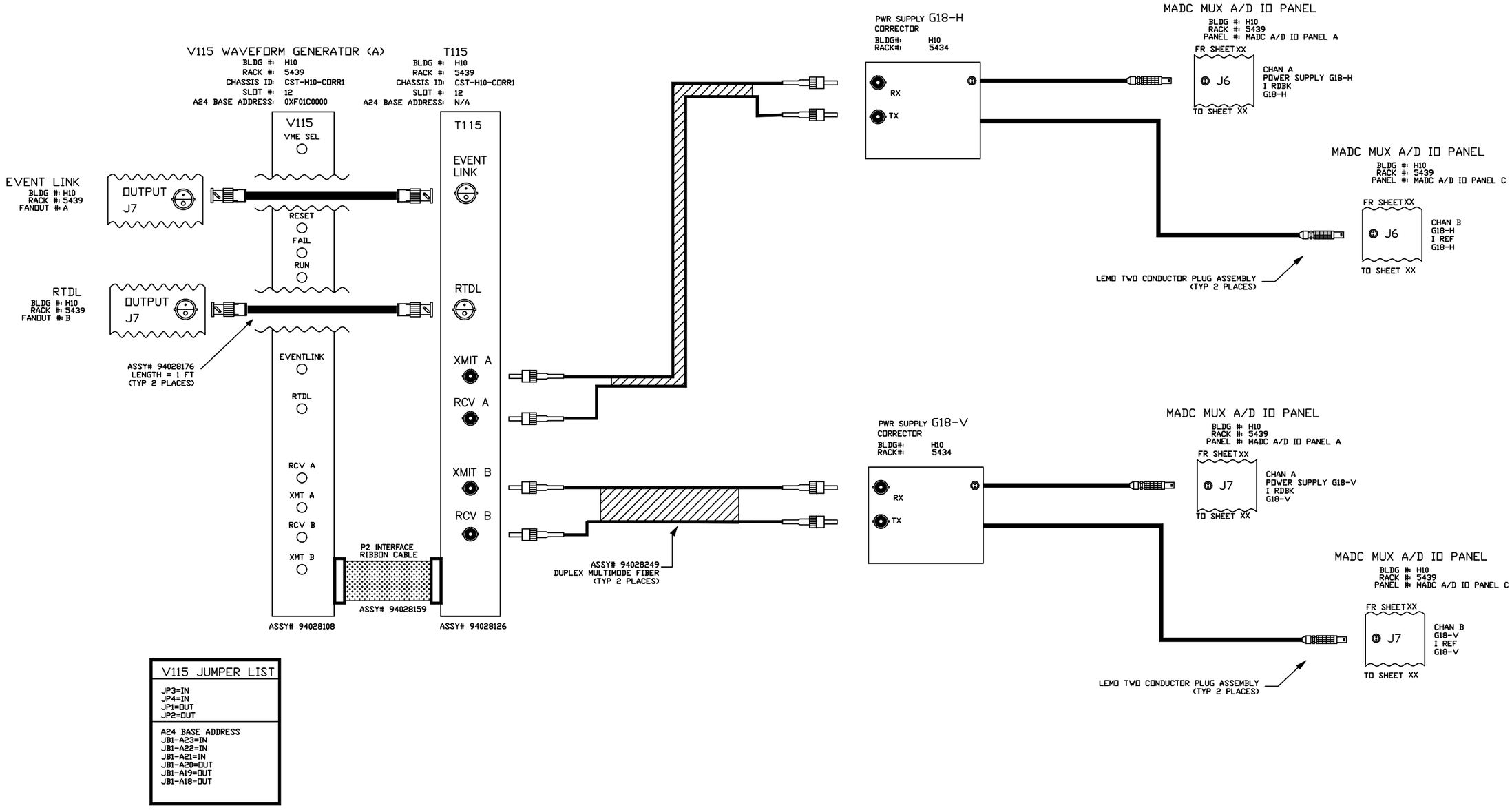
SIZE D | DRAWING NUMBER | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 12 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 4:11 PM H10wfg4A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=OUT JB1-A18=OUT

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./ENG. 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	JASON ORTIZ	5/16/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM
A10 CST-A10-CORR1

POWER SUPPLY G18-H/G18-V

SIZE D | DRAWING NUMBER | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 13 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 4:20 PM H10wfg5A.dwg

V115 WAVEFORM GENERATOR (A)
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR1
SLOT #: 13
A24 BASE ADDRESS: 0XF0200000

T115
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR1
SLOT #: 13
A24 BASE ADDRESS: N/A

V115
VME SEL
RESET
FAIL
RUN
EVENTLINK
RTDL
RCV A
XMT A
RCV B
XMT B

T115
EVENT LINK
RTDL
XMIT A
RCV A
XMIT B
RCV B

EVENT LINK
BLDG #: H10
RACK #: 5439
FANOUT #: A
OUTPUT J6

RTDL
BLDG #: H10
RACK #: 5439
FANOUT #: B
OUTPUT J6

ASSY# 94028176
LENGTH = 1 FT
(TYP 2 PLACES)

P2 INTERFACE RIBBON CABLE

ASSY# 94028159

ASSY# 94028108

ASSY# 94028126

ASSY# 94028249
DUPLEX MULTIMODE FIBER
(TYP 2 PLACES)

PWR SUPPLY H2-H CORRECTOR
BLDG#: H10
RACK#: 5434
RX
TX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL A
FR SHEET XX
J8
CHAN A
POWER SUPPLY H2-H
I RDBK
H2-H
TO SHEET XX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL C
FR SHEET XX
J8
CHAN B
H2-H
I REF
H2-H
TO SHEET XX

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

PWR SUPPLY H2-V CORRECTOR
BLDG#: H10
RACK#: 5434
RX
TX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL A
FR SHEET XX
J9
CHAN A
POWER SUPPLY H2-V
I RDBK
H2-V
TO SHEET XX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL C
FR SHEET XX
J9
CHAN B
H2-V
I REF
H2-V
TO SHEET XX

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=IN JB1-A18=IN

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./ENG NO.

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'

Q.A. CATEGORY A-3 DATE

DRAWN BY	JASON ORTIZ	5/10/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

NA FINISH
BREAK SHARP EDGES
MAX. XX MIN. XX
OUTSTANDING ECN

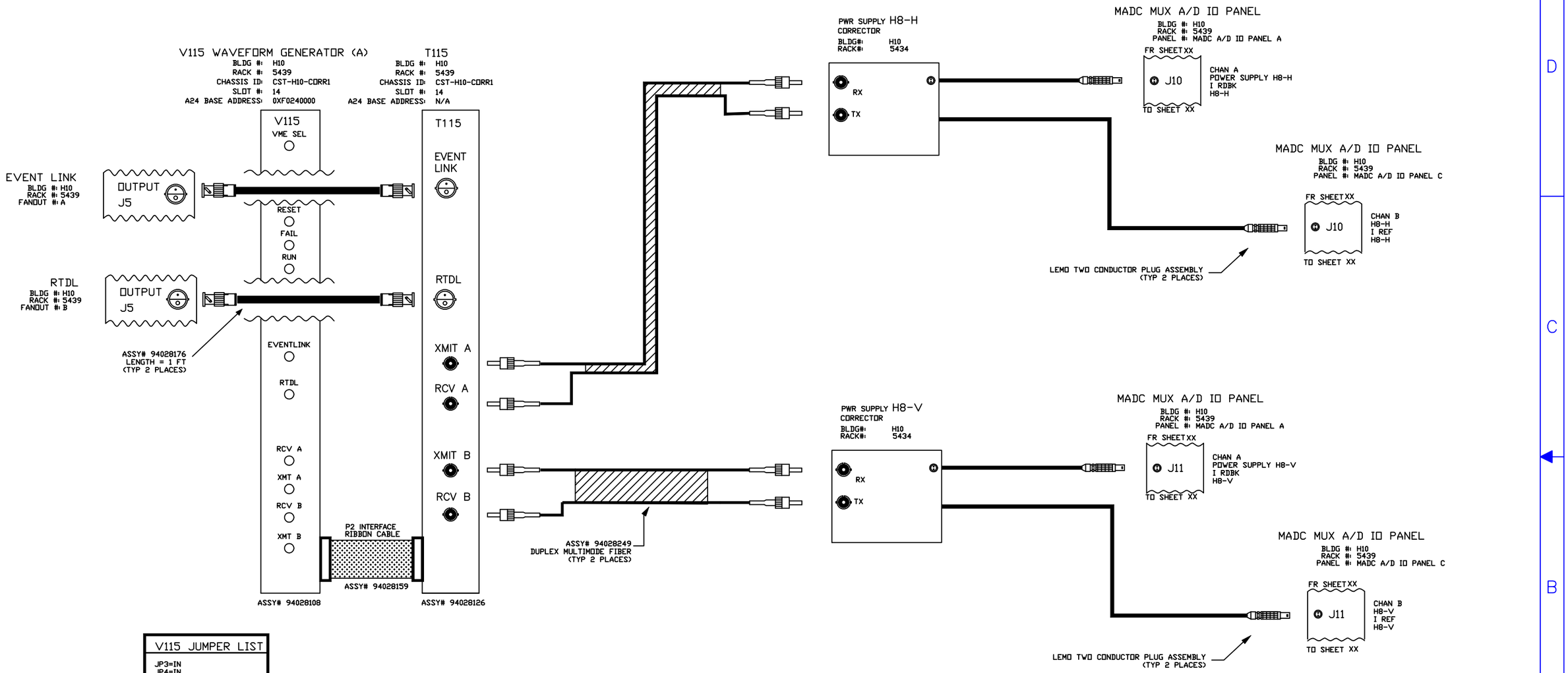
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
A10 CST-A10-CORR1
POWER SUPPLY H2-H/H2-V

SIZE D
DRAWING NUMBER
REV. A
MATERIAL: ———
SCALE: NA
WEIGHT: –
SHEET 14 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 4:25 PM H10wfg6A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=IN JB1-A18=OUT

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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°
FINISH NA
BREAK SHARP EDGES MAX. XX MIN. XX
OUTSTANDING ECN
NEXT ASSEMBLY

Q.A. CATEGORY A-3 DATE
DRAWN BY JASON ORTIZ 5/16/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL

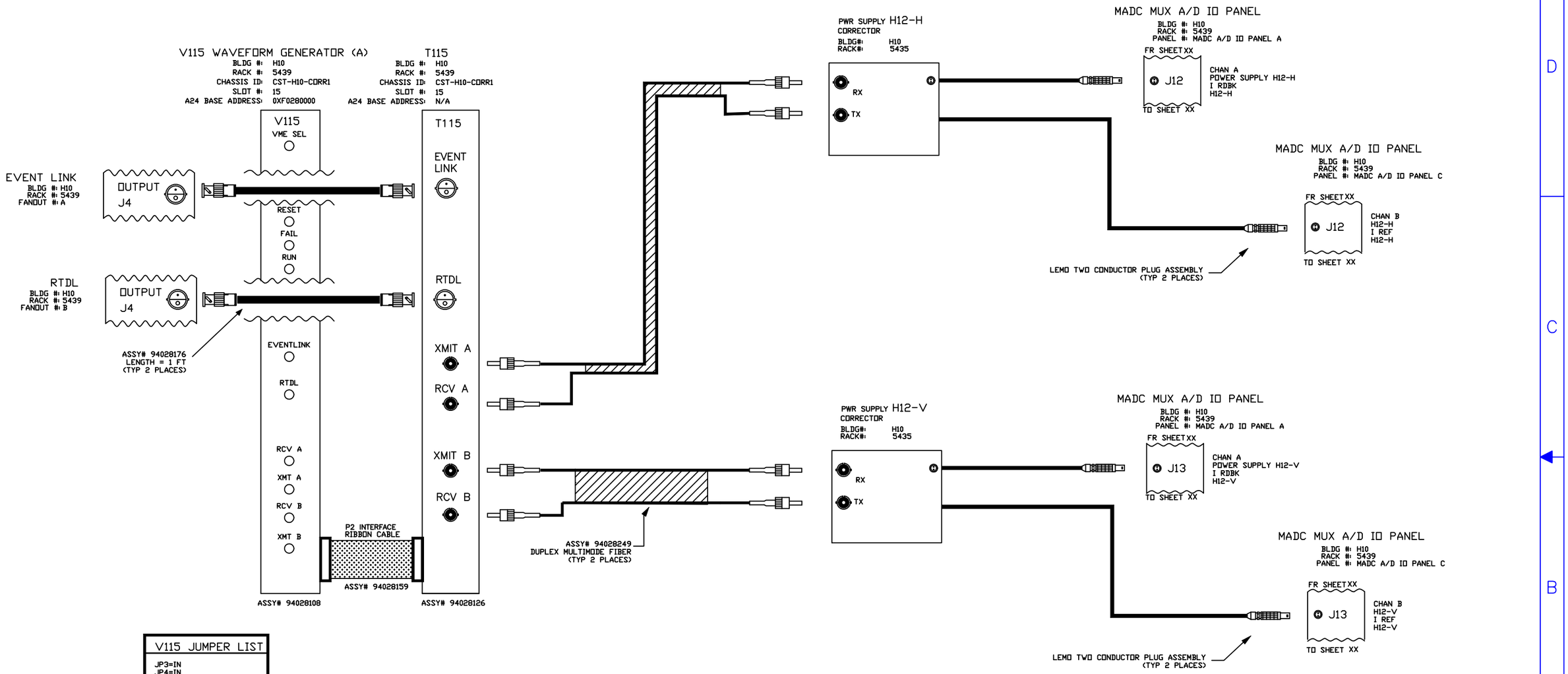
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR1
POWER SUPPLY H8-H/H8-V

SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 15 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:16 AM H10wfg7A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=OUT JB1-A18=IN

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.

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
NEXT ASSEMBLY

Q.A. CATEGORY	A-3	DATE	
DRAWN BY	JASON ORTIZ	5/17/00	
CHECKED BY			
DESIGN APPROVAL			
ENGINEER APPROVAL			
SUPVR. APPROVAL			

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
A10 CST-H10-CORR1
POWER SUPPLY H12-H/H12-V

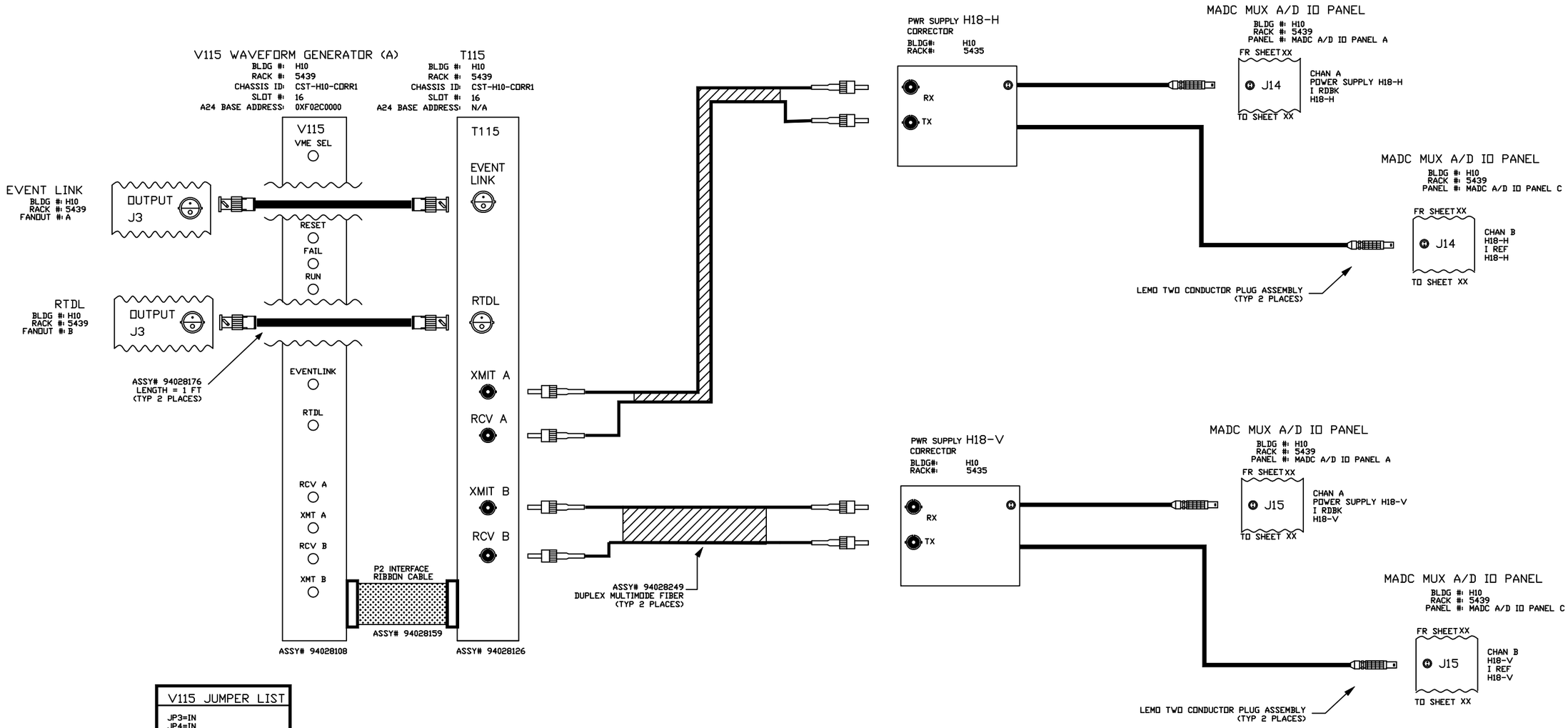
SIZE	DRAWING NUMBER	REV.
A		A

MATERIAL: —— SCALE: NA WEIGHT: — SHEET 16 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:19 AM H10wfg8A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=OUT JB1-A18=OUT

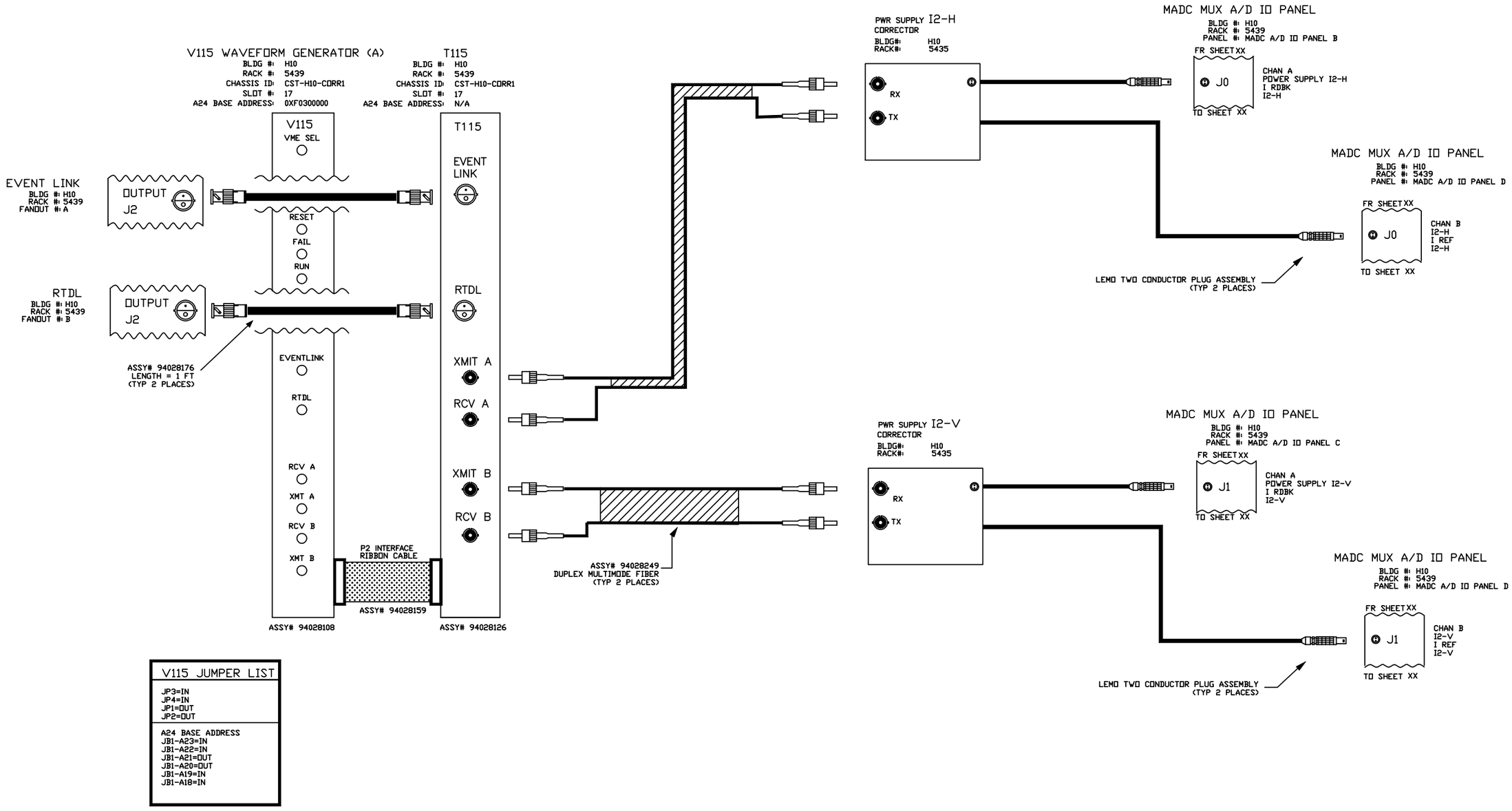
-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
	DRAWN BY JASON ORTIZ	5/17/00	UPTON, N.Y. 11973
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CHECKED BY		C-A CONTROLS WIRING DIAGRAM
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	DESIGN APPROVAL		H10 CST-H10-CORR1
	ENGINEER APPROVAL		POWER SUPPLY H18-H/H18-V
	SUPVR. APPROVAL		SIZE A / DRAWING NUMBER / REV. A
NA FINISH BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY		MATERIAL: — SCALE: NA WEIGHT: — SHEET 17 OF 32
OUTSTANDING ECN			

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:23 AM H10wfg9A.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=IN JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
QTY REQD						

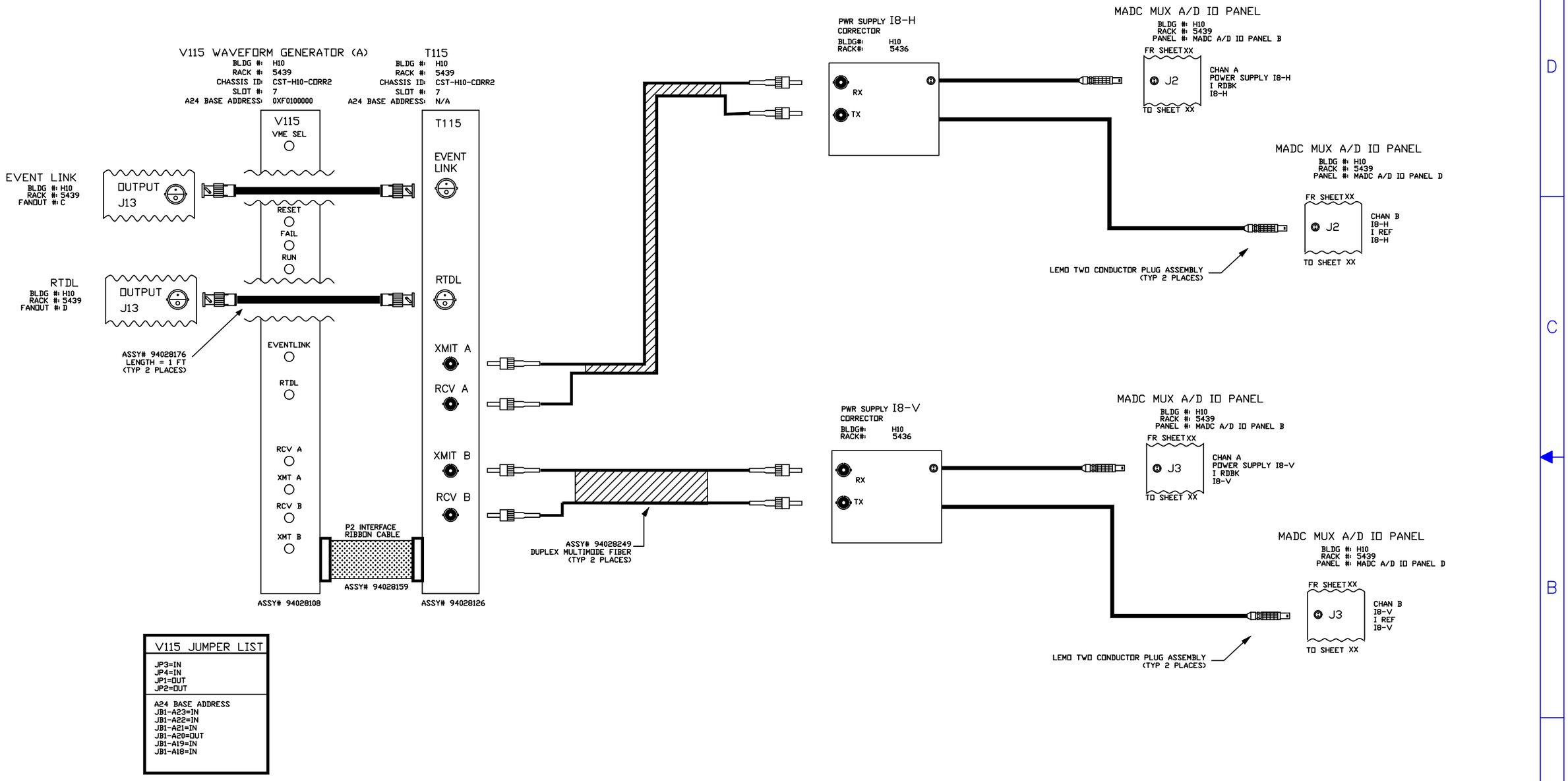
INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°
NA FINISH
BREAK SHARP EDGES MAX. XX MIN. XX
OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE	BROOKHAVEN NATIONAL LABORATORY
DRAWN BY	JASON ORTIZ	5/17/00	UPTON, N.Y. 11973
CHECKED BY			C-A CONTROLS WIRING DIAGRAM
DESIGN APPROVAL			A10 CST-A10-CORR1
ENGINEER APPROVAL			POWER SUPPLY I2-H/I2-V
SUPVR. APPROVAL			SIZE A — DRAWING NUMBER — REV. A
NEXT ASSEMBLY			MATERIAL: —— SCALE: NA WEIGHT: — SHEET 18 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/16/00 3:22 PM H10wfg1B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=IN JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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°
FINISH NA
BREAK SHARP EDGES MAX. XX MIN. XX
OUTSTANDING ECN

Q.A. CATEGORY A-3 DATE

DRAWN BY	JASON ORTIZ	5/10/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

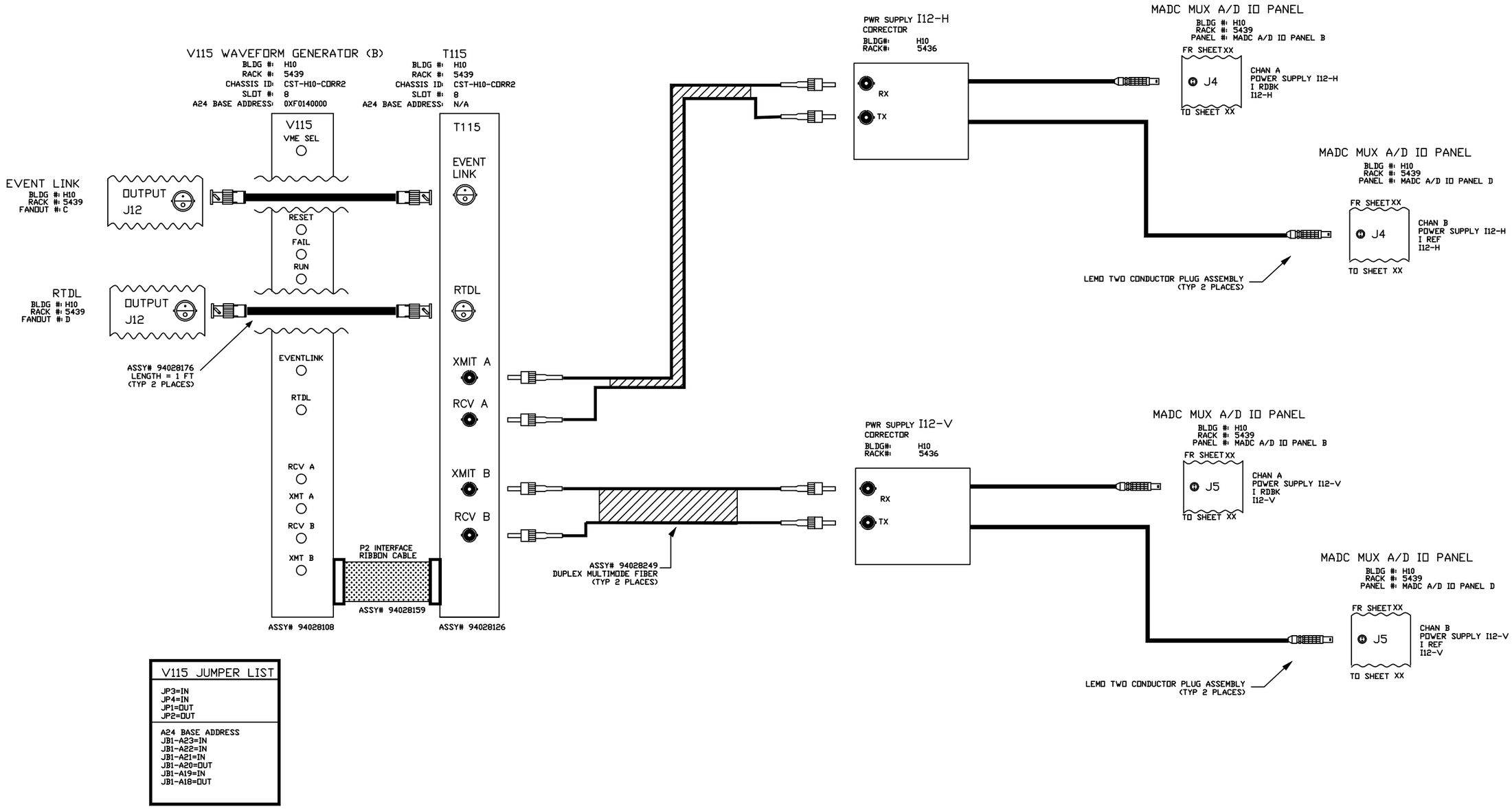
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
A10 CST-A10-CORR2
POWER SUPPLY I8-H/I8-V

SIZE D | DRAWING NUMBER | REV. A
MATERIAL: ——— | SCALE: NA | WEIGHT: — | SHEET 19 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:31 AM H10wfg2B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=IN JB1-A18=OUT

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./PNL 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 DATE

DRAWN BY Jason Ortiz 5/17/00

CHECKED BY

DESIGN APPROVAL

ENGINEER APPROVAL

SUPVR. APPROVAL

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM

H10, CST-H10-CORR2

POWER SUPPLY I12-H/I12-V

SIZE D DRAWING NUMBER REV. A

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 20 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:37 AM H10wfg3B.dwg

V115 WAVEFORM GENERATOR (A)
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT #: 9
A24 BASE ADDRESS: 0XF0180000

T115
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT #: 9
A24 BASE ADDRESS: N/A

V115
VME SEL
RESET
FAIL
RUN
EVENTLINK
RTDL
RCV A
XMT A
RCV B
XMT B

T115
EVENT LINK
RTDL
XMIT A
RCV A
XMIT B
RCV B

EVENT LINK
BLDG #: H10
RACK #: 5439
FANOUT #: C

RTDL
BLDG #: H10
RACK #: 5439
FANOUT #: D

OUTPUT J11

ASSY# 94028176
LENGTH = 1 FT
(TYP 2 PLACES)

P2 INTERFACE RIBBON CABLE

ASSY# 94028159

ASSY# 94028108

ASSY# 94028126

ASSY# 94028249
DUPLEX MULTIMODE FIBER
(TYP 2 PLACES)

PWR SUPPLY I18-H
CORRECTOR
BLDG#: H10
RACK#: 5417

PWR SUPPLY I18-V
CORRECTOR
BLDG#: H10
RACK#: 5436

RX
TX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL B
FR SHEET XX
J6
CHAN A
POWER SUPPLY I18-H
I RDBK
I18-H
TO SHEET XX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL D
FR SHEET XX
J6
CHAN B
I18-H
I REF
I18-H
TO SHEET XX

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL B
FR SHEET XX
J7
CHAN A
POWER SUPPLY I18-V
I RDBK
I18-V
TO SHEET XX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL D
FR SHEET XX
J7
CHAN B
I18-V
I REF
I18-V
TO SHEET XX

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=OUT JB1-A18=IN

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.

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
NEXT ASSEMBLY

Q.A. CATEGORY A-3 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL

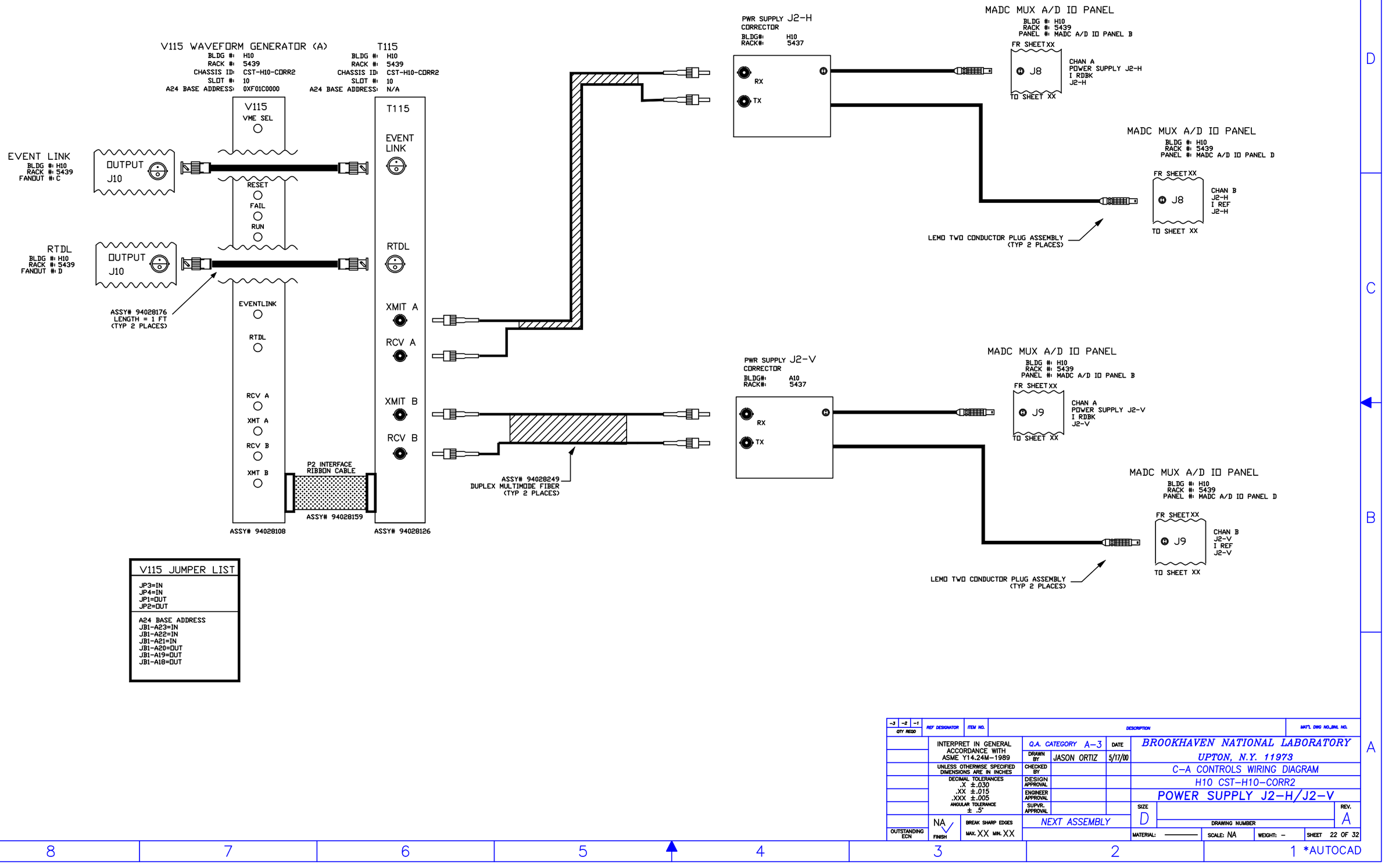
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY I18-H/I18-V

SIZE D
DRAWING NUMBER
REV. A
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 21 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 8:42 AM H10wfg4B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=IN JB1-A20=OUT JB1-A19=OUT JB1-A18=OUT

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.

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	JASON ORTIZ	5/17/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM

H10 CST-H10-CORR2

POWER SUPPLY J2-H/J2-V

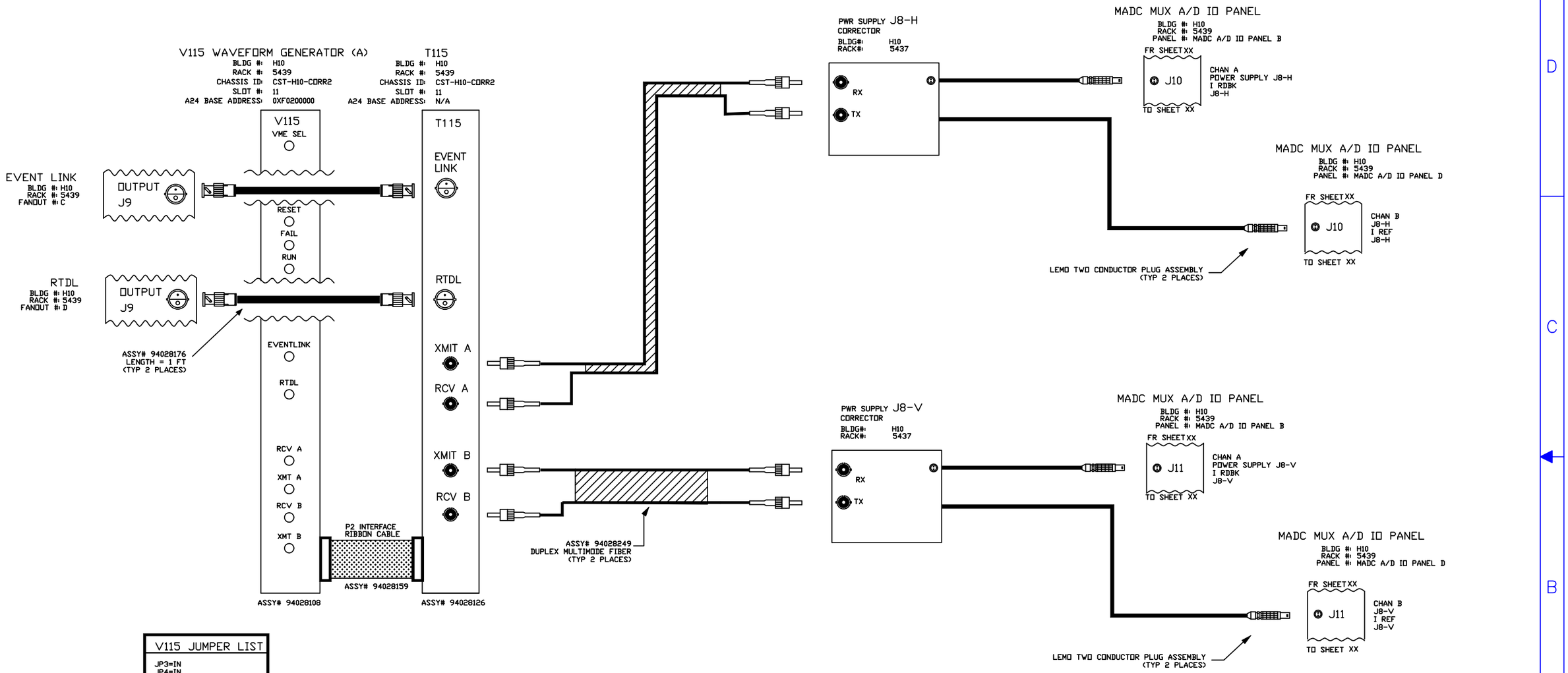
SIZE D | DRAWING NUMBER | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 22 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:07 AM H10wfg5B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=IN JB1-A18=IN

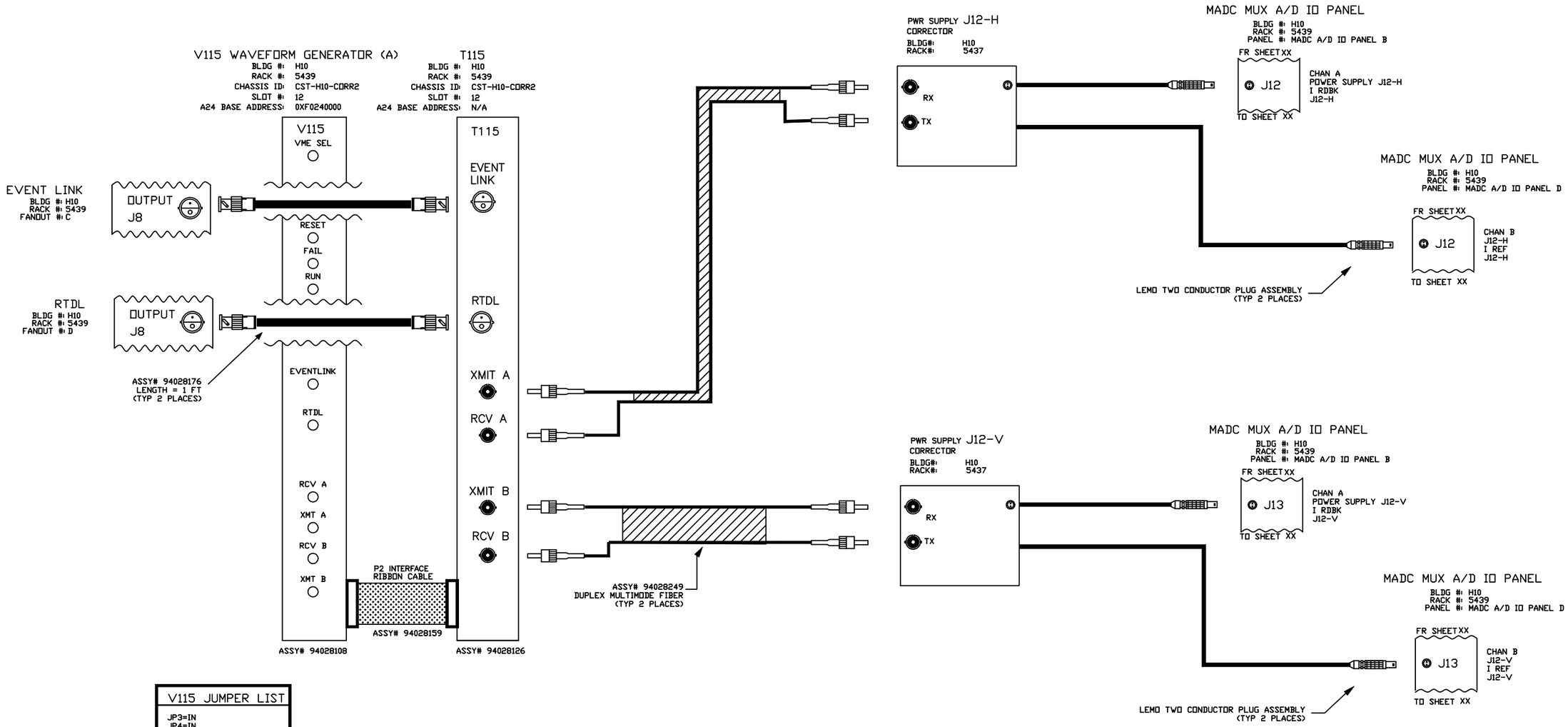
-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
	DRAWN BY JASON ORTIZ	5/17/00	UPTON, N.Y. 11973
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CHECKED BY		C-A CONTROLS WIRING DIAGRAM
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	DESIGN APPROVAL		H10 CST-H10-CORR2
	ENGINEER APPROVAL		POWER SUPPLY J8-H/J8-V
	SUPVR. APPROVAL		SIZE D / DRAWING NUMBER / REV. A
NA FINISH	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY	
OUTSTANDING ECN			MATERIAL: —— SCALE: NA WEIGHT: — SHEET 23 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:11 AM H10wfg6B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=IN JB1-A18=OUT

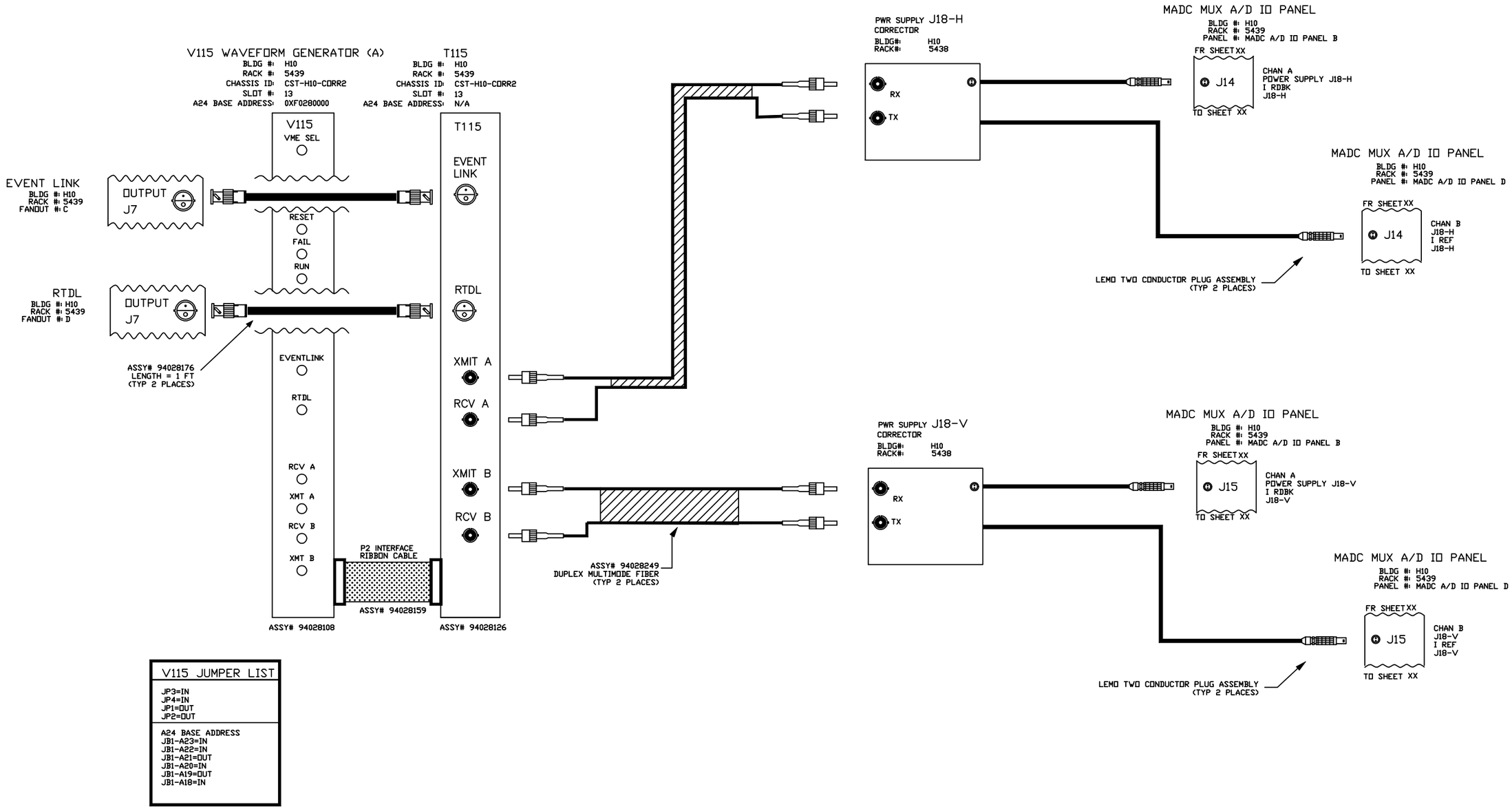
-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY
	DRAWN BY JASON ORTIZ	5/17/00	UPTON, N.Y. 11973
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CHECKED BY		C-A CONTROLS WIRING DIAGRAM
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	DESIGN APPROVAL		H10 CST-H10-CORR2
	ENGINEER APPROVAL		POWER SUPPLY J12-H/J12-V
	SUPVR. APPROVAL		SIZE A / REV. A
NA FINISH / BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY		DRAWING NUMBER
OUTSTANDING ECN			MATERIAL: —— SCALE: NA WEIGHT: — SHEET 24 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:17 AM H10wfg7B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=IN JB1-A19=OUT JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

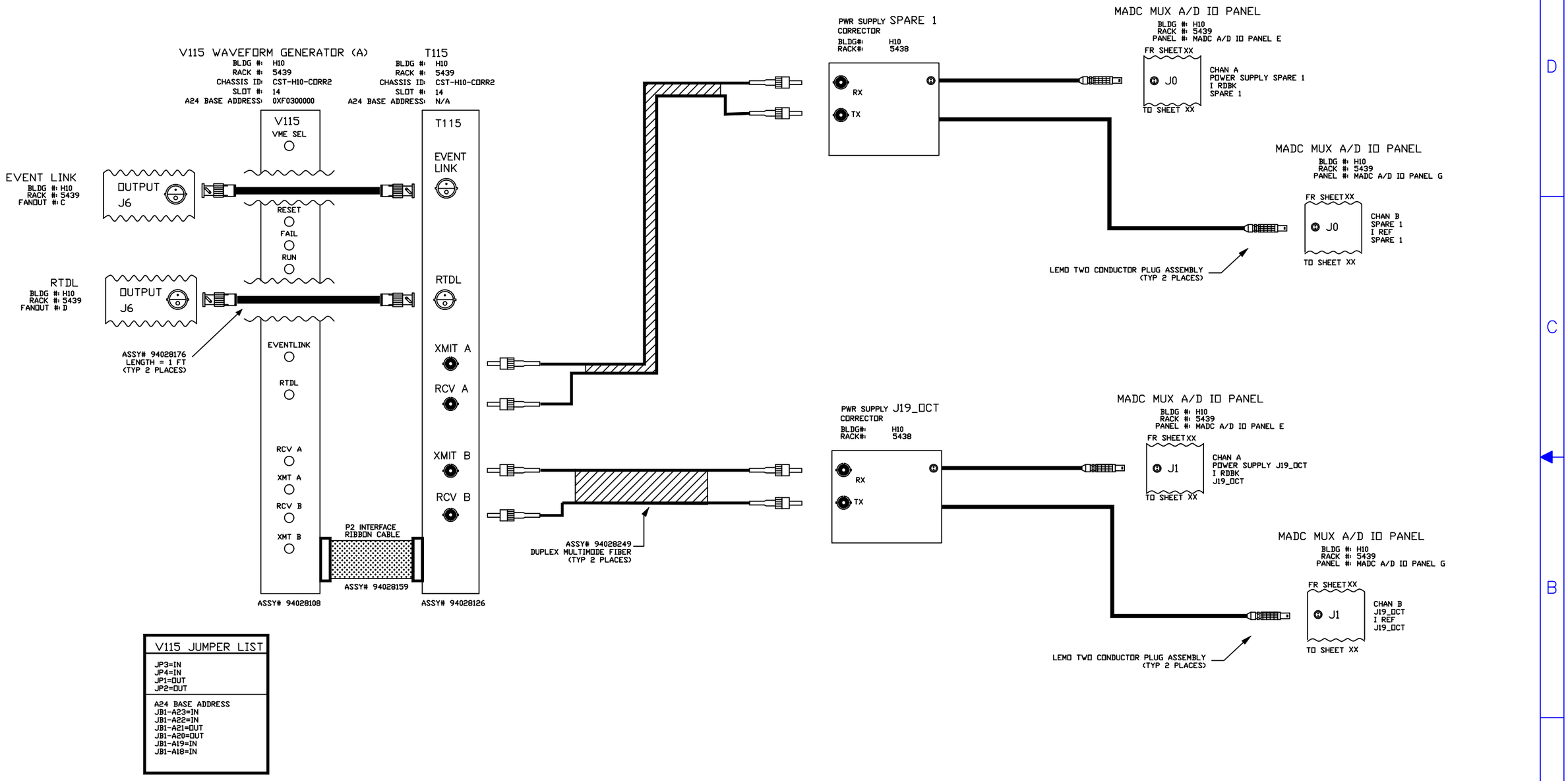
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY J18-H/J18-V

SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 25 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:31 AM H10wfg8B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=IN JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

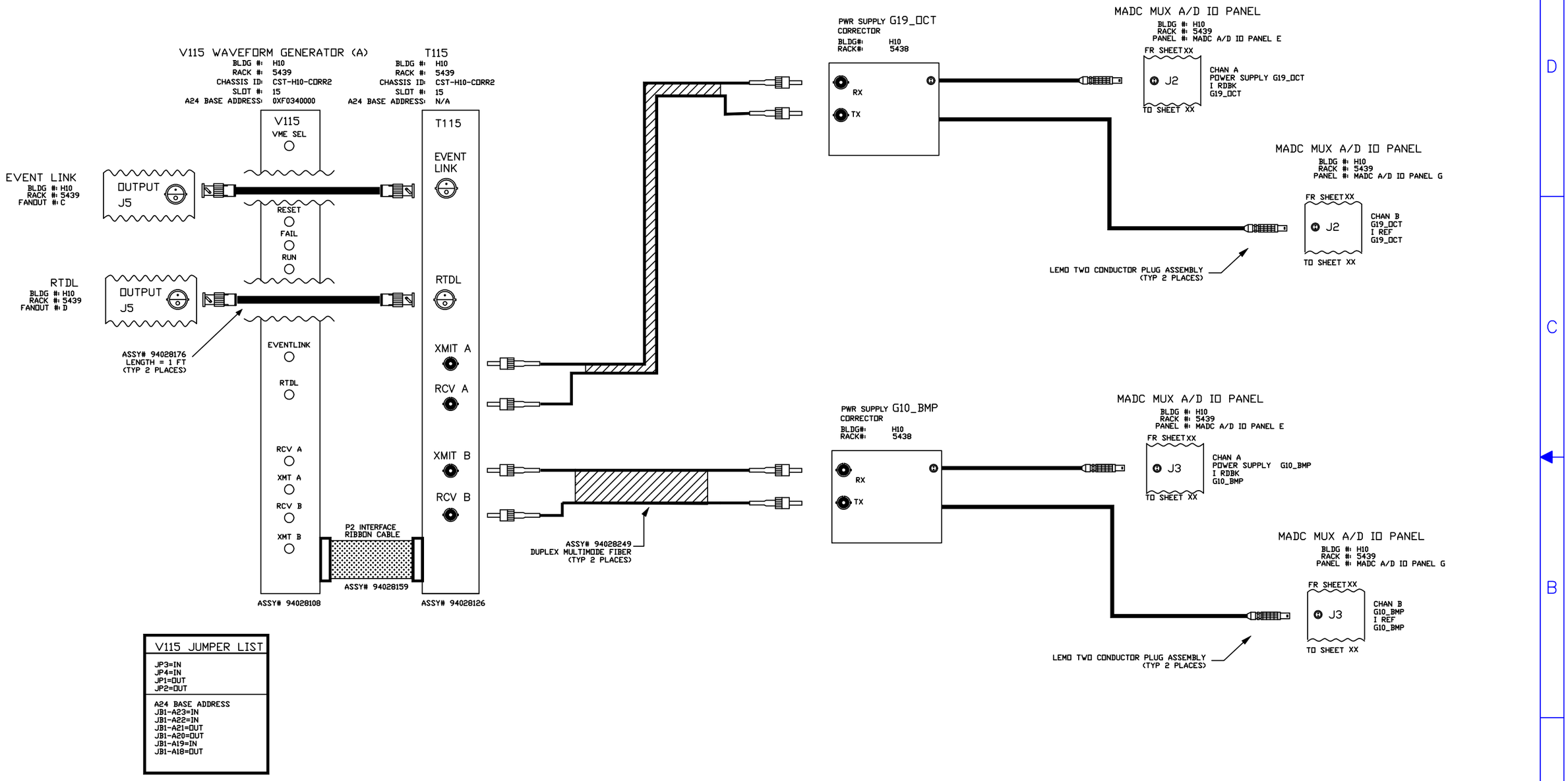
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY J19-OCT

SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 26 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:36 AM H10wfg9B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=IN JB1-A18=OUT

-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

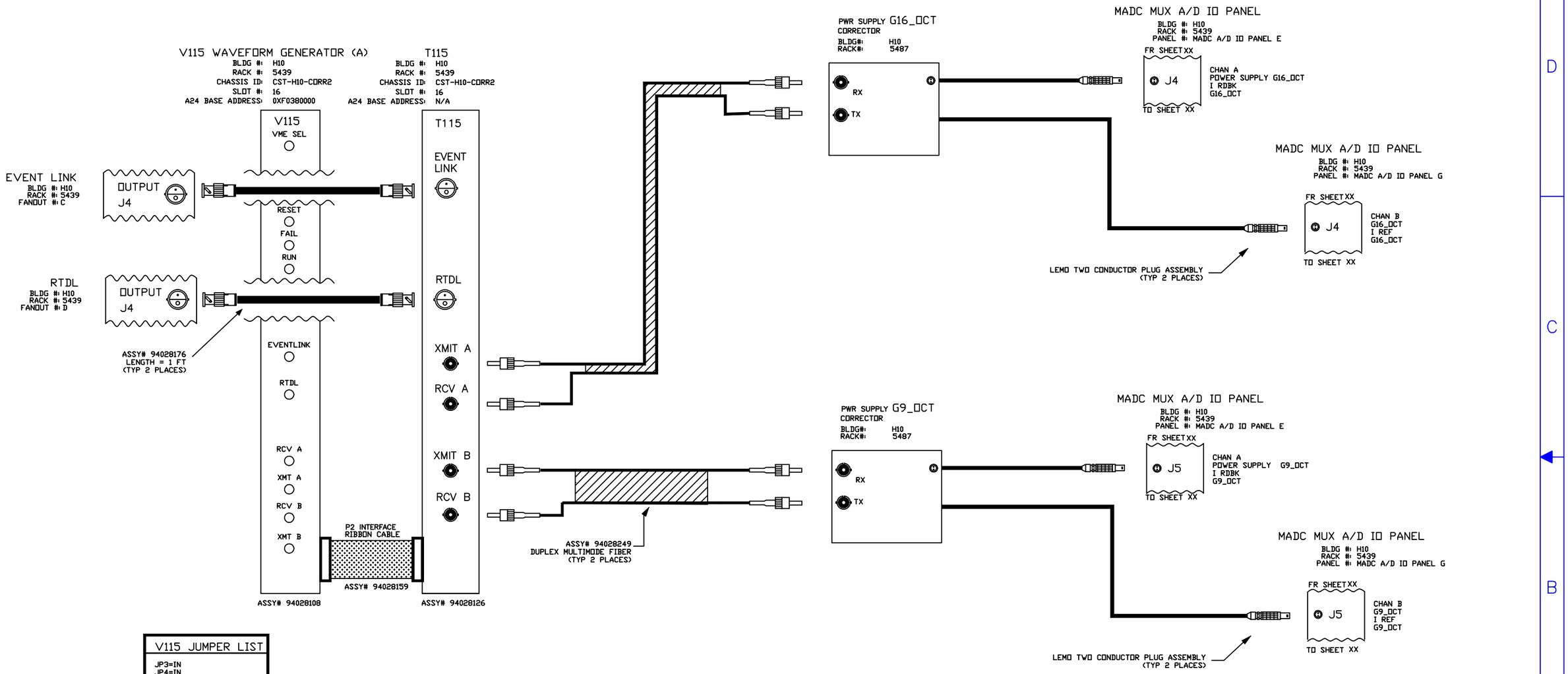
Q.A. CATEGORY A-3 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY G19_OCT/G10BMP
SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 27 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:40 AM H10wfg10B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=OUT JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

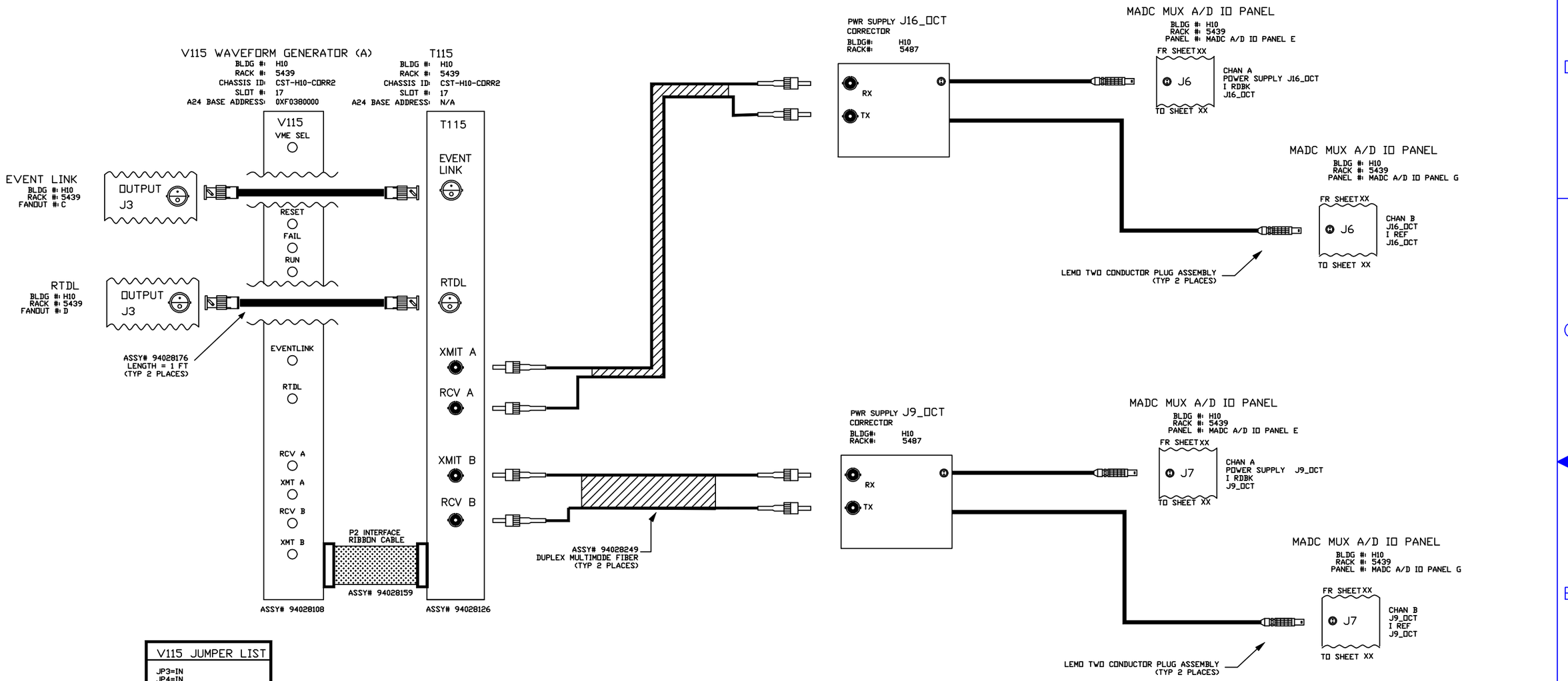
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY G16_OCT &G9_OCT

SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 28 OF 32

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:43 AM H10wfg11B.dwg



V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=OUT JB1-A18=IN

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG 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°
OUTSTANDING ECN
NA FINISH
BREAK SHARP EDGES MAX. XX MIN. XX

Q.A. CATEGORY A-3 DATE
DRAWN BY JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY J16_OCT/J9_OCT

SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 29 OF 32

8 7 6 5 4 3 2 1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/17/00 9:47 AM H10wfg12B.dwg

V115 WAVEFORM GENERATOR (A)
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT #: 18
A24 BASE ADDRESS: 0XF03C0000

T115
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR2
SLOT #: 18
A24 BASE ADDRESS: N/A

V115
VME SEL
RESET
FAIL
RUN
EVENTLINK
RTDL
RCV A
XMT A
RCV B
XMT B

T115
EVENT LINK
RTDL
XMIT A
RCV A
XMIT B
RCV B

EVENT LINK
BLDG #: H10
RACK #: 5439
FANOUT #: C

OUTPUT J2

RTDL
BLDG #: H10
RACK #: 5439
FANOUT #: D

OUTPUT J2

ASSY# 94028176
LENGTH = 1 FT
(TYP 2 PLACES)

P2 INTERFACE RIBBON CABLE

ASSY# 94028159

ASSY# 94028108

ASSY# 94028126

ASSY# 94028249
DUPLEX MULTIMODE FIBER
(TYP 2 PLACES)

PWR SUPPLY CORRECTOR
BLDG#: H10
RACK#: 5487

SPARE OCTUPLE

RX
TX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL E

FR SHEET XX
J8
TO SHEET XX

CHAN A
POWER SUPPLY SPARE OCTUPLE
I RDBK
SPARE OCTUPLE

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL G

FR SHEET XX
J8
TO SHEET XX

CHAN B
SPARE OCTUPLE
I REF
SPARE OCTUPLE

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

PWR SUPPLY CORRECTOR
BLDG#: H10
RACK#: 5487

FUTURE P/S

RX
TX

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL E

FR SHEET XX
J9
TO SHEET XX

CHAN A
POWER SUPPLY FUTURE P/S
I RDBK
FUTURE P/S

MADC MUX A/D IO PANEL
BLDG #: H10
RACK #: 5439
PANEL #: MADC A/D IO PANEL G

FR SHEET XX
J9
TO SHEET XX

CHAN B
FUTURE P/S
I REF
FUTURE P/S

LEMO TWO CONDUCTOR PLUG ASSEMBLY
(TYP 2 PLACES)

V115 JUMPER LIST
JP3=IN JP4=IN JP1=OUT JP2=OUT
A24 BASE ADDRESS JB1-A23=IN JB1-A22=IN JB1-A21=OUT JB1-A20=OUT JB1-A19=OUT JB1-A18=OUT

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./DWG NO.

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 JASON ORTIZ 5/17/00
CHECKED BY
DESIGN APPROVAL
ENGINEER APPROVAL
SUPVR. APPROVAL
NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
C-A CONTROLS WIRING DIAGRAM
H10 CST-H10-CORR2
POWER SUPPLY SPARE OCTUPLE

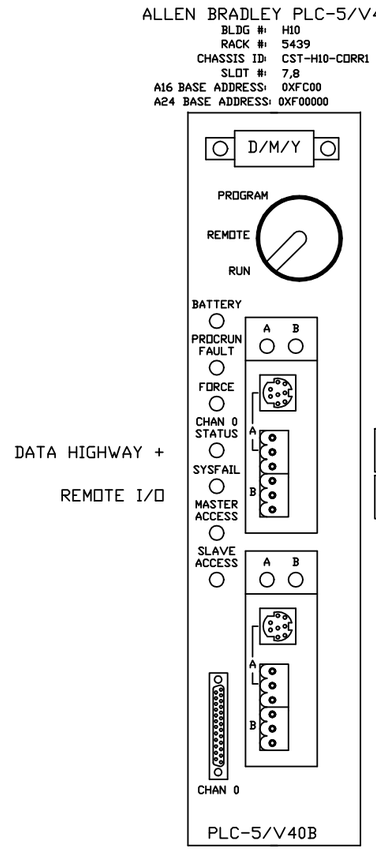
SIZE A DRAWING NUMBER REV. A
MATERIAL: ——— SCALE: NA WEIGHT: — SHEET 30 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

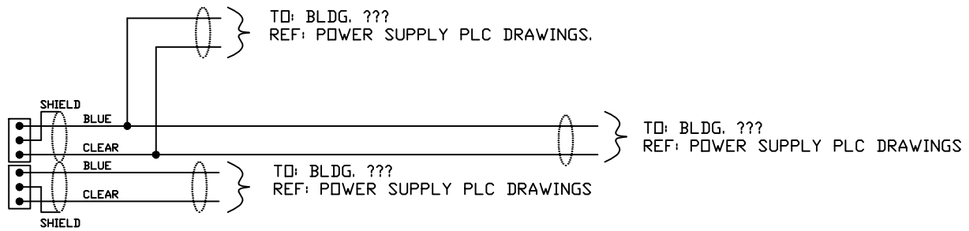
C-A Controls, Brookhaven National Laboratory 5/15/00 3:02 PM AL_BRADH10.dwg

ALLEN BRADLEY PLC-5/V40B
BLDG #: H10
RACK #: 5439
CHASSIS ID: CST-H10-CORR1
SLOT #: 7,8
A16 BASE ADDRESS: 0XFC00
A24 BASE ADDRESS: 0XF00000



DATA HIGHWAY +

REMOTE I/O



UNUSED

-3 / -2 / -1 QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./PRL NO.

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	JASON ORTIZ	5/5/00
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS WIRING DIAGRAM

BLDG. H10, VME CHASSIS CST-H10-CORR1

ALLEN BRADLEY VME PLC-5

SIZE | REV. A

DRAWING NUMBER

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 31 OF 32

1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A Controls, Brookhaven National Laboratory 5/18/00 2:57 PM A10PD.dwg

INCOMING RACK POWER

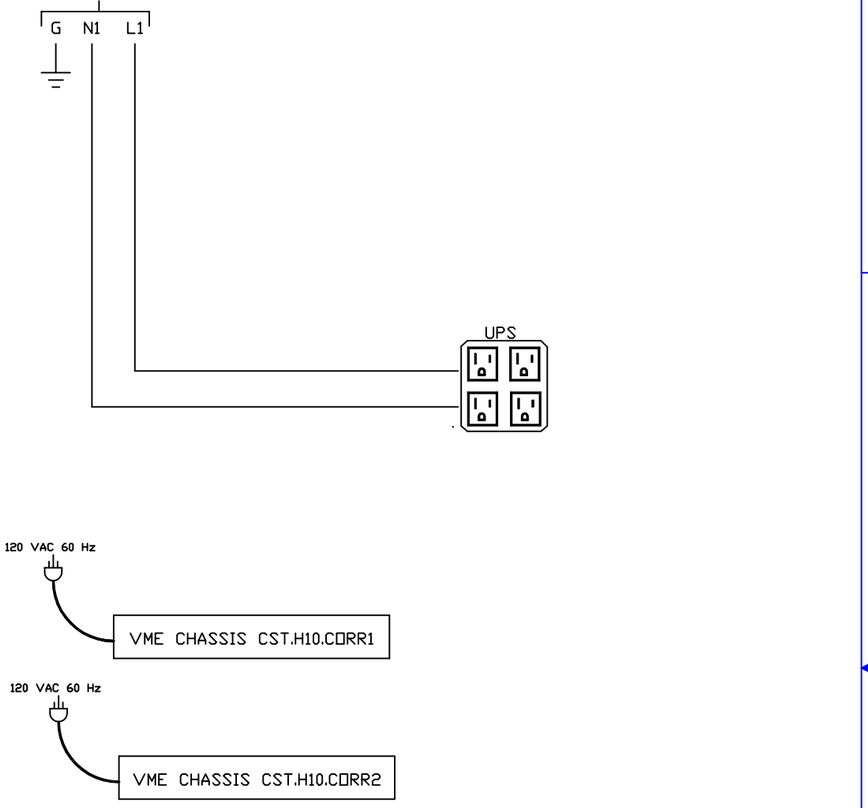
120 VAC, 60 Hz, 20A, FEED FROM PPH10B1-1 CKT 18A

NOTE: ALL 120 VAC, 60 Hz POWER CORDS PLUG INTO POWER STRIP OUTLETS

RACK 5439

INCOMING RACK POWER

120 VAC, 60 Hz, 20A,FEED FROM H10UPS CKT 6-2



NOTE: ALL 120 VAC, 60 Hz POWER CORDS PLUG INTO POWER STRIP OUTLETS

RACK 5431

QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO./BNL NO.
	7	10	CABLE ASSY, LOW RES PS IF MODULE TO POWER SUPPLY	
	-	9		
	30	8	SERIAL LINK TWINAX CABLE, LENGTH AS REQUIRED	94028176
	24	7	SERIAL LINK TWINAX CABLE, 1 FT	94028176
	24	6	DUPLEX MULTIMODE FIBER OPTIC CABLE, T115 TO LOW RES PS INTERFACE MODULE	94028249
	5	5	SINGLE MODE FIBER OPTIC CABLE	94028251
	8	4	MADC A/D I/O CABLE	94028216
	12	3	TRANSITION MODULE P2 RIBBON CABLE, V115, V120	94028159
	2	2	MADC V113 TO V114 P2 INTERFACE RIBBON CABLE	94028218
	3	1	NETWORK CABLE TO FEC	

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 JASON ORTIZ 5/18/00

CHECKED BY

DESIGN APPROVAL

ENGINEER APPROVAL

SUPVR. APPROVAL

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

C-A CONTROLS WIRING DIAGRAM
BLDG. H10, RACK 5431
POWER DISTRIBUTION

SIZE REV. A

DRAWING NUMBER

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 32 OF 32

1 *AUTOCAD