



RELIANCE

AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM

SAMPLE L-890 ALCMS DRAWINGS DISTRIBUTED CONTROL ARCHITECTURE

PLANS PREPARED BY:



700 Science Blvd.
Gahanna, Ohio 43230
Telephone: (614) 861-1304
Fax: (614) 864-2069

SEPTEMBER 2024



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
DRAWING PACKAGE COVER SHEET

A	SUBMITTAL RELEASE		19AUG24

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		1 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

COVER SHEET

INDEX OF DRAWINGS & APPENDIX

SHEET #	PAGES	DRAWING #	DESCRIPTION (OPTIONAL)
1	1	COVER SHEET	DRAWING PACKAGE COVER SHEET
2	1	INDEX OF DRAWINGS	INDEX OF DRAWINGS
3	1	ITEMS TO BE SUPPLIED	ADBSG - CONTRACTOR SUPPLIED ITEMS
4-9	6	SYSTEM OVERVIEW & JOB SCOPE	SYSTEM OVERVIEW & JOB SCOPE
10-15	6	ALC-ESD-2401-TWR01	TOWER ASSEMBLY & WIRING
16-21	6	ALC-ESD-2401-VLT01	VAULT ASSEMBLY & WIRING
22	1	CCR & MISC I/O INDEX	CCR & MISCELLANEOUS I/O INDEX
23	1	ACE WIRING	TYPICAL ETHERNET ACE COM WIRING
24-25	2	I/O ACE	I/O ACE ASSEMBLY & WIRING
26-32	7	ALC-ESD.2401-MNT01	MAINTENANCE ASSEMBLY & WIRING
33	1	ALC-ESD-2401-RMC01	ROAMING LAPTOP ASSEMBLY
34	1	ALC-ESD-2401-SPR01	ROAMING LAPTOP ASSEMBLY
35	1	APPENDIX	
36	1	COLOR CODES	CCR & ETHERNET COLOR CODES
37	1	19" TOUCHSCREEN	19" TCHSCREEN INSTALL INSTRUCTIONS

ITEMS SUPPLIED BY ADB SAFEGATE			
GENERAL ASSEMBLIES BILLS OF MATERIAL			
CalloUT	Part Number	DescriptiON	QTY
TWR	ALC-ESD-2401-TWR01	TOWER ASSEMBLY	1
VLT	ALC-ESD-2401-VLT01	VAULT ASSEMBLY	1
ARF	ALC-ESD-2401-ARF01	MAINTENANCE CENTER ASSEMBLY	1
RMC	ALC-ESD-2401-RMC01	ROAMING LAPTOP ASSEMBLY	1
SPR	ALC-ESD-2401-SPR01	SPARE PARTS ASSEMBLY	1
ACEB	ACE3-IA0ND2210001	ACE3 I/O AC TS I2 O2 Wi V1	1

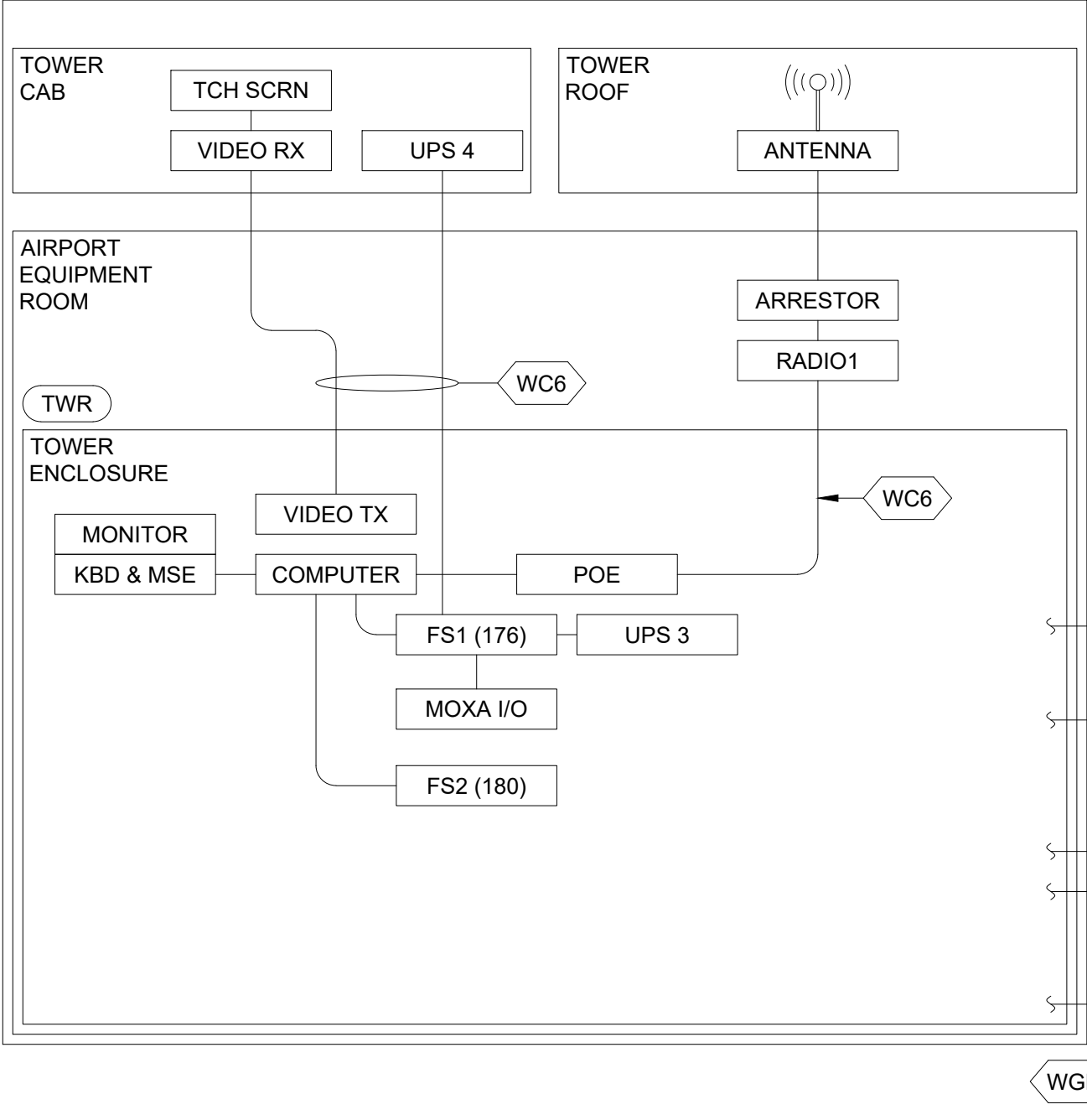
ITEMS SUPPLIED BY INSTALLING CONTRACTOR / AIRPORT		
GENERAL ASSEMBLIES BILLS OF MATERIAL		
CalloUT	Part Number / DescriptiON	QTY
RB2	RECEPTACLE BOX, STRAIGHT BLADE, 2 OUTLET, 2 POLE/3 WIRE 120VAC, 20A	A/R
RB4	RECEPTACLE BOX, STRAIGHT BLADE, 4 OUTLET, 2 POLE/3 WIRE 120VAC, 20A	A/R
FPC	FIBER PATCH CABLE, SINGLE MODE, DUPLEX, 8.5-MICRON, TERMINATED WITH SC STYLE CONNECTORS, 1 PAIR EACH	A/R
FPP	FIBER PATCH PANEL, SURFACE MOUNT ORTRONICS PART NUMBERS: 12 PATCH = OR-61500212LX - 24 PATCH = #OR-61500224	A/R
FSM	FIBER, SINGLE MODE, 8.5-MICRON TERMINATED WITH SC STYLE CONNECTORS, 2 STRANDS REQUIRED PER COMMUNICATION LINK	A/R
MAS	ANTENNA MAST	A/R
WGD	WIRE, GROUND, 8AWG STRANDED, MUST BE CONNECTED TO DIRECTLY TO BUILDINGS LIGHTNING GROUND	A/R
WUP	WIRE, DAISY-CHAINED 120VAC UPS POWER FROM EQUIPMENT CABINET TO EACH ACE™ UNIT, 3 CONDUCTOR, 12AWG, STRANDED	A/R
W18	WIRE, 18AWG, UN-SHEILDED 600V, 8 CONDUCTOR	A/R
WTD	WIRE TO DEDICATED 20A, 120VAC CIRCUIT	A/R
WC6	WIRE, 23AWG, SOLID BARE COPPER, CAT 6, NON-PLENUM, SHIELDED (BELDEN# 7953A OR EQUIVALENT)	A/R

CAUTION:
THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

I. SUBSYSTEMS	II. COMMUNICATIONS	III. UPS BACKUP	IV. NUMBER OF REGULATORS & MONITORING
<u>TOWER</u> TOWER ENCLOSURE ASSEMBLY	TWO (2) Single Mode Fiber Optic Links to VAULT ONE (1) 900MHZ Radio Link to VAULT	ONE (1) 750VA UPS for TOUCHSCREEN Assy ONE (1) 1000VA UPS for PC Assembly	MISCELLANEOUS I/O = BEACON
<u>VAULT</u> VAULT ENCLOSURE ASSEMBLY	TWO (2) Single Mode Fiber Optic Links from TOWER TWO (2) Single Mode Fiber Optic Links to MAINTENANCE CENTER ONE (1) 900MHZ Radio Link to TOWER	ONE (1) 1000VA UPS for PC Assembly ONE (1) 1500VA UPS for ACE Units	RUNWAY = 2 - ACE 3 with LAMPS OUT & IRMS TAXIWAY = 9 - ACE 3 with LAMPS OUT & IRMS SPARE = 4 - ACE 3 with LAMPS OUT & IRMS MISCELLANEOUS I/O = GENERATOR, PCR
<u>MAINTENANCE CENTER</u> MAINTENANCE CENTER ASSEMBLY	TWO (2) Single Mode Fiber Optic Links from VAULT	ONE (1) 750VA UPS for PC Assembly	
<u>ROAMING MAINTENANCE</u> ROAMING LAPTOP ASSEMBLY	AIRPORT Supplied NETWORK CARD		

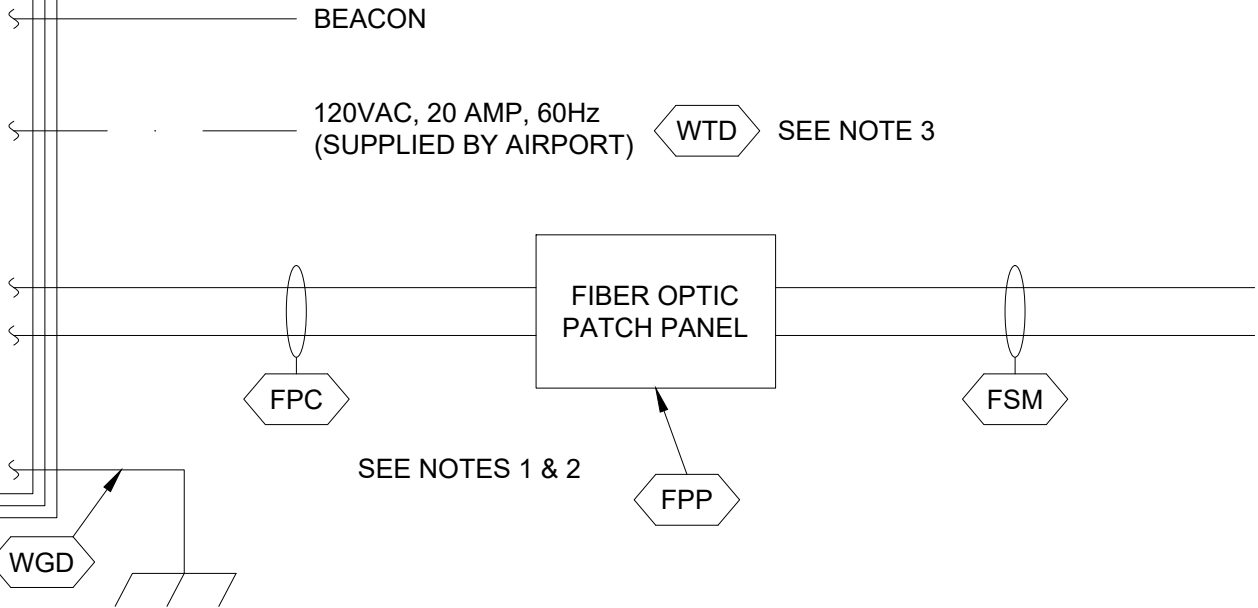
CAUTION:
THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

TOWER



INSTALLATION NOTES:

1. ALL FIBER OPTIC PATCH PANELS AND FIBER PATCH CORDS TO FIBER OPTIC DRIVERS SUPPLIED BY CONTRACTOR.
2. FIBER PATCH CABLES ARE TO BE ENCLOSED IN RIGID CONDUIT FROM THE FIBER PATCH PANEL TO THE VAULT ENCLOSURE. SEE SYSTEM COMMUNICATION LAYOUT FOR NETWORK LAYOUT FOR FIBER OPTIC CONNECTIONS.
3. DEDICATED (3 WIRE) 120VAC ELECTRIC CIRCUIT FOR COMPUTER ENCLOSURE. TO BE ENCLOSED IN RIGID CONDUIT FROM AIRPORT CIRCUIT BREAKER PANEL TO COMPUTER ENCLOSURE. TERMINATED IN 2-GANG ELECTRICAL BOX, WITH DUAL DUPLEX RECEPTACLES. ENSURE ALL LOCAL ELECTRICAL CODES ARE FOLLOWED.



CAUTION:

THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

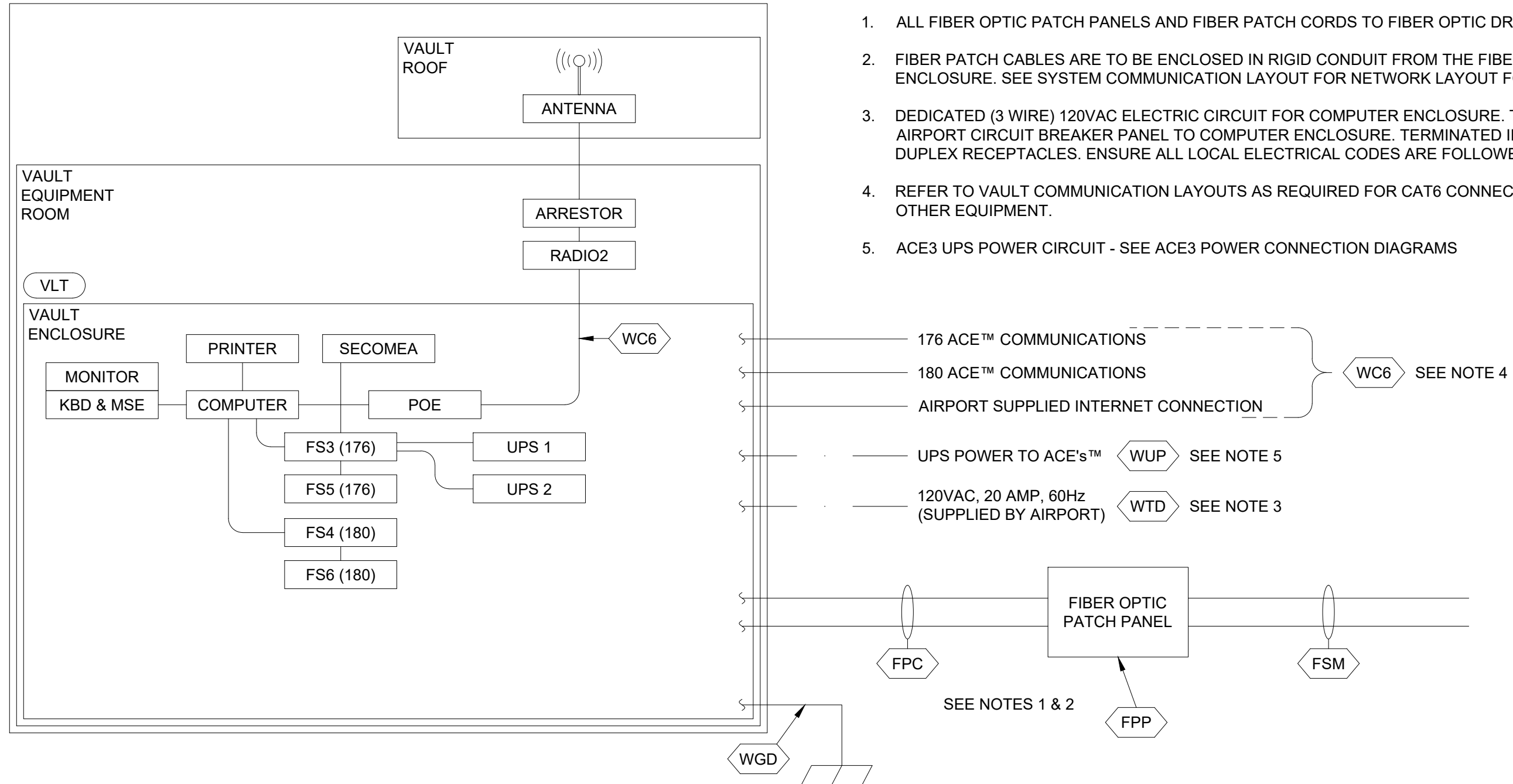
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER NODE OVERVIEW

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		5 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	3 OF 7

TOWER JOB SCOPE

VAULT



INSTALLATION NOTES:

1. ALL FIBER OPTIC PATCH PANELS AND FIBER PATCH CORDS TO FIBER OPTIC DRIVERS SUPPLIED BY CONTRACTOR.
2. FIBER PATCH CABLES ARE TO BE ENCLOSED IN RIGID CONDUIT FROM THE FIBER PATCH PANEL TO THE VAULT ENCLOSURE. SEE SYSTEM COMMUNICATION LAYOUT FOR NETWORK LAYOUT FOR FIBER OPTIC CONNECTIONS.
3. DEDICATED (3 WIRE) 120VAC ELECTRIC CIRCUIT FOR COMPUTER ENCLOSURE. TO BE ENCLOSED IN RIGID CONDUIT FROM AIRPORT CIRCUIT BREAKER PANEL TO COMPUTER ENCLOSURE. TERMINATED IN 2-GANG ELECTRICAL BOX, WITH DUAL DUPLEX RECEPTACLES. ENSURE ALL LOCAL ELECTRICAL CODES ARE FOLLOWED.
4. REFER TO VAULT COMMUNICATION LAYOUTS AS REQUIRED FOR CAT6 CONNECTION DIAGRAMS - INCLUDES ACE UNITS & OTHER EQUIPMENT.
5. ACE3 UPS POWER CIRCUIT - SEE ACE3 POWER CONNECTION DIAGRAMS

CAUTION:

THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

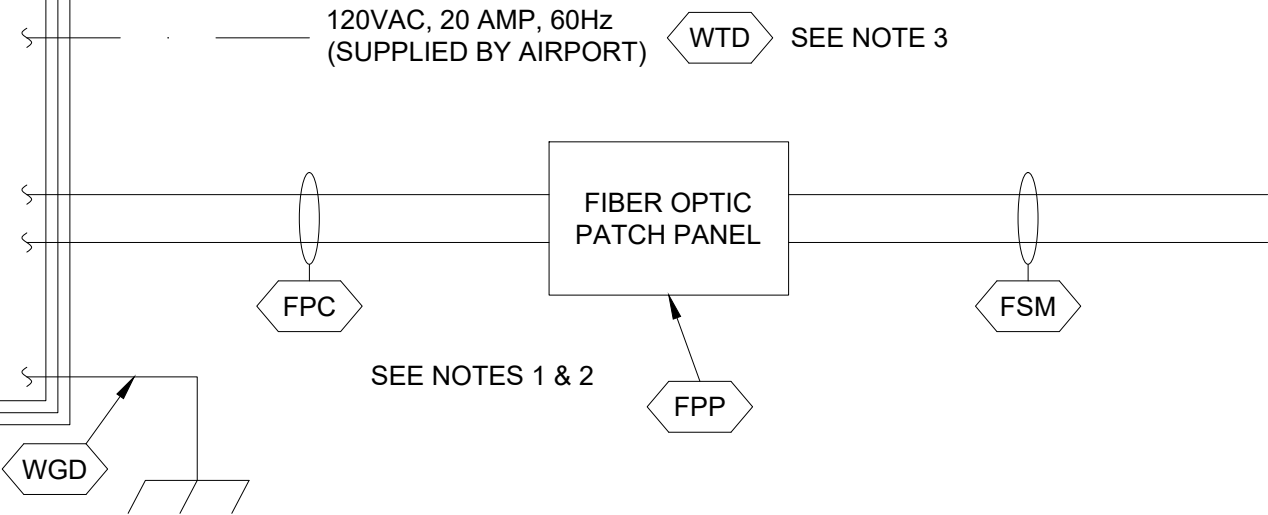
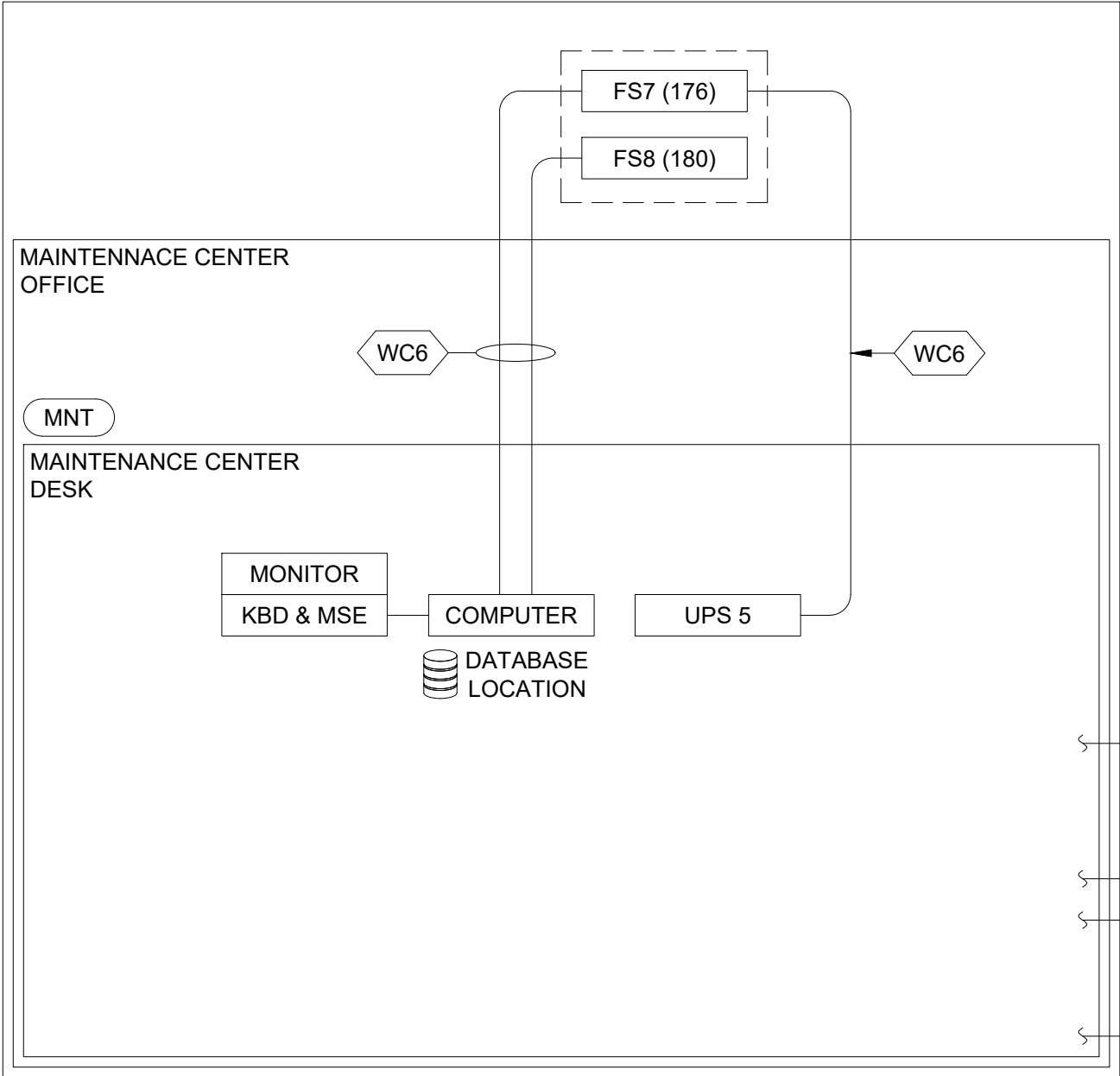
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:

<div>SET REVISION:</div> <div>A</div>	<div>DRAWN BY:</div>	<div>SET SHEET NUMBER:</div> <div>6 OF 37</div>
	<div>DRAWN DATE:</div> <div>19 AUG 24</div>	<div>PAGE NUMBER:</div> <div>4 OF 7</div>

VAULT JOB SCOPE

MAINTENANCE CENTER



INSTALLATION NOTES:

1. ALL FIBER OPTIC PATCH PANELS AND FIBER PATCH CORDS TO FIBER OPTIC DRIVERS SUPPLIED BY CONTRACTOR.
2. FIBER PATCH CABLES ARE TO BE ENCLOSED IN RIGID CONDUIT FROM THE FIBER PATCH PANEL TO THE VAULT ENCLOSURE. SEE SYSTEM COMMUNICATION LAYOUT FOR NETWORK LAYOUT FOR FIBER OPTIC CONNECTIONS.
3. DEDICATED (3 WIRE) 120VAC ELECTRIC CIRCUIT FOR COMPUTER ENCLOSURE. TO BE ENCLOSED IN RIGID CONDUIT FROM AIRPORT CIRCUIT BREAKER PANEL TO COMPUTER ENCLOSURE. TERMINATED IN 2-GANG ELECTRICAL BOX, WITH DUAL DUPLEX RECEPTACLES. ENSURE ALL LOCAL ELECTRICAL CODES ARE FOLLOWED.

CAUTION:

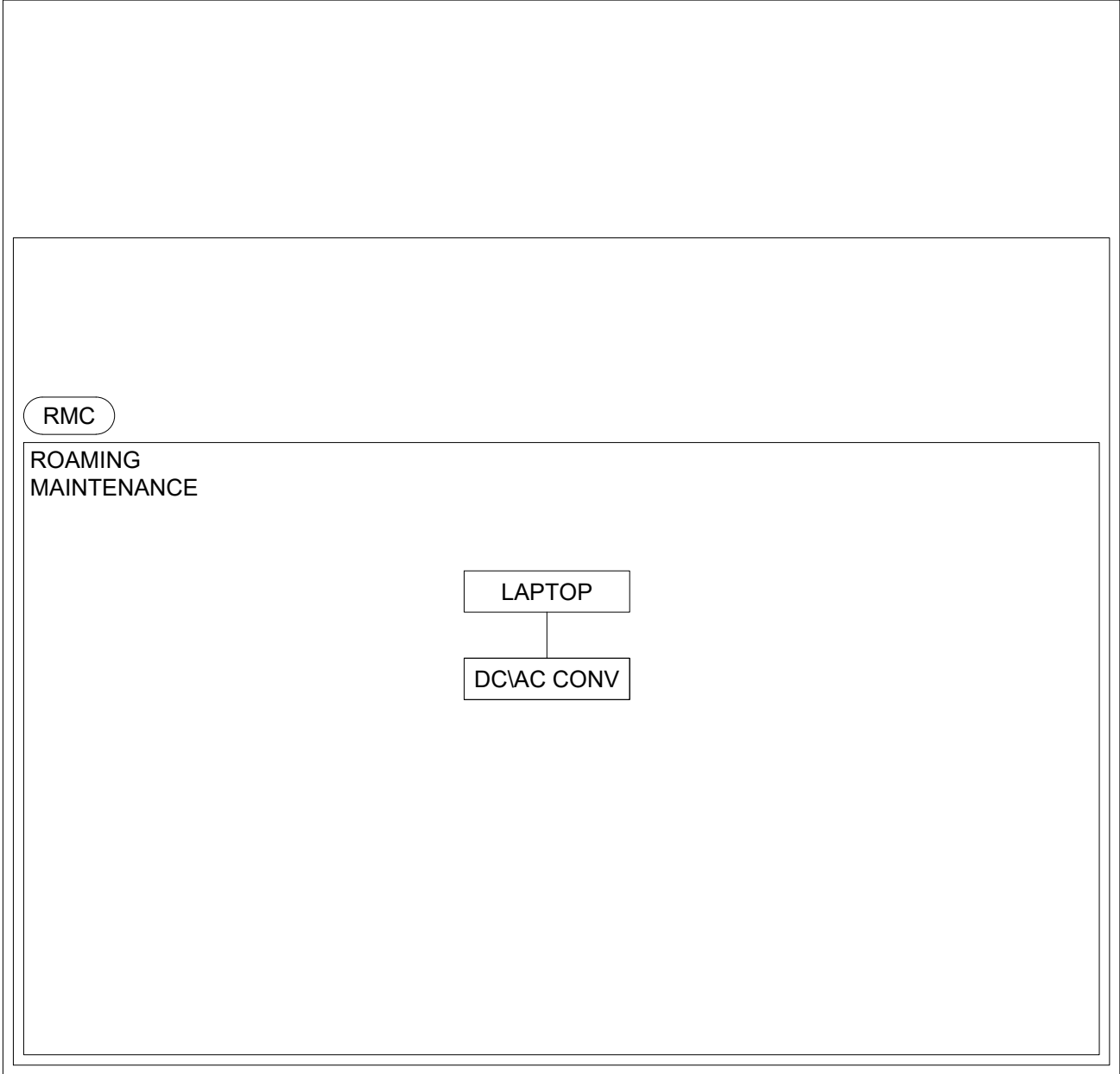
THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
ARFF NODE OVERVIEW

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		7 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	5 OF 7

ROAMING MAINTENANCE



INSTALLATION NOTES:

- 1. AIRPORT TO SUPPLY NETWORK CARD.

CAUTION:
THIS DRAWING IS ONLY INTENDED FOR USE AS GENERAL AIRFIELD SYSTEM DESIGN GUIDANCE. THE DESIGNER MUST VERIFY DESIGN WITH LOCAL CODES AND VARYING CHARACTERISTICS FOR EACH UNIQUE AIRFIELD APPLICATION.

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

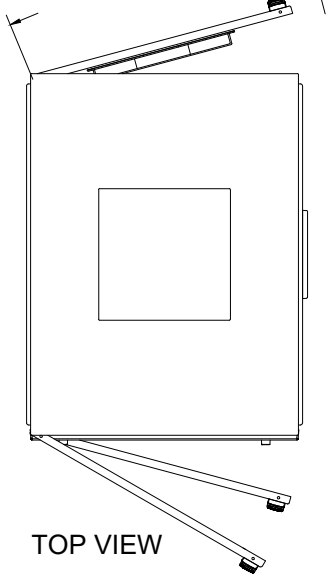
DRAWING INFORMATION:
LAPTOP NODE OVERVIEW

A	SET REVISION:	DRAWN BY:	SET SHEET NUMBER: 8 OF 37
		DRAWN DATE: 19 AUG 24	PAGE NUMBER: 6 OF 7

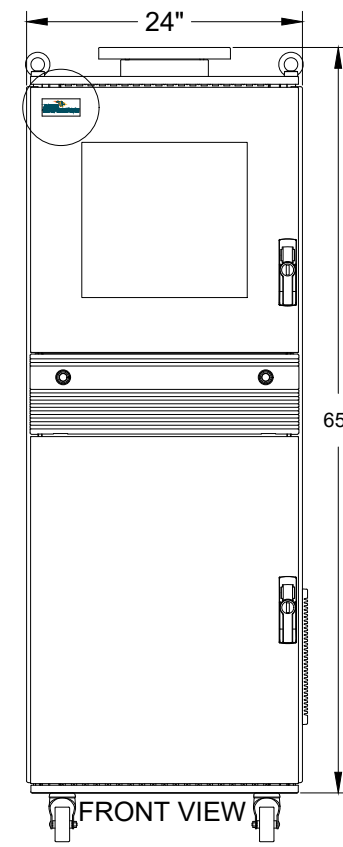
LAPTOP JOBE SCOPE

TO OPEN DOOR FULLY &
HAVE ROOM TO WORK
REQUIRES A MINIMUM 26"
OF CLEARANCE

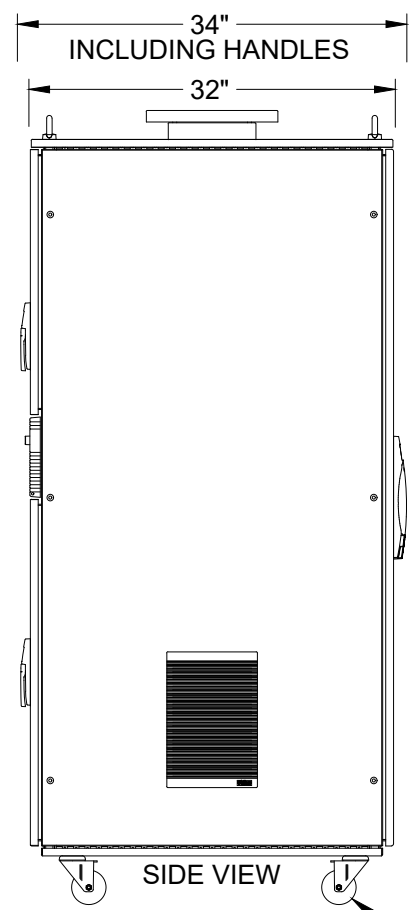
FRONT & BACK DOORS



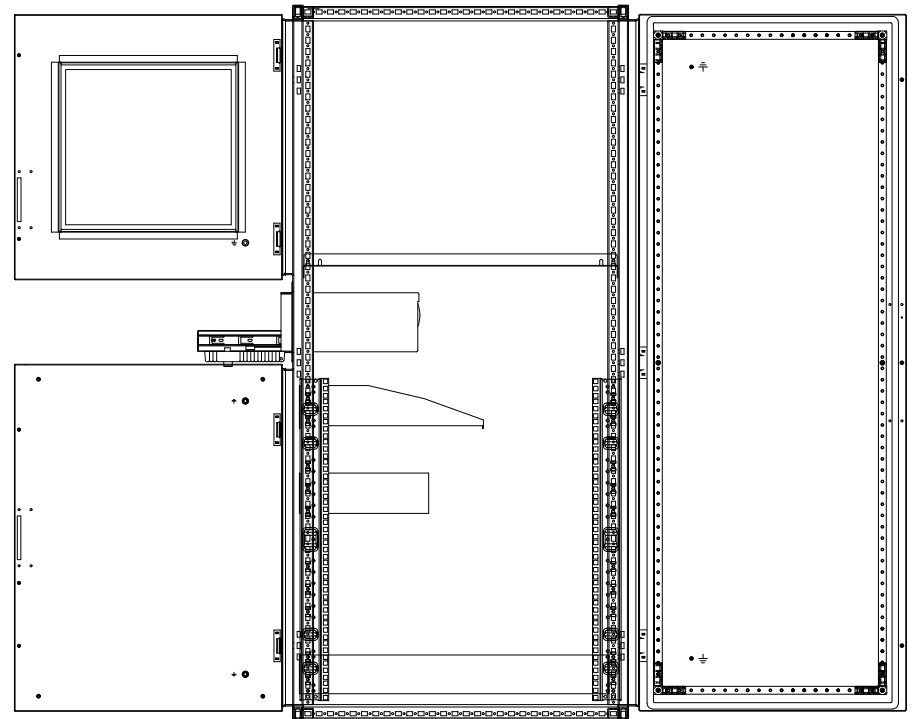
TOP VIEW



FRONT VIEW

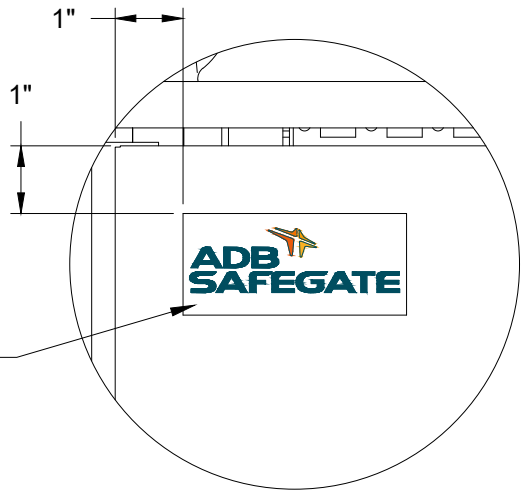


SIDE VIEW



SIDE VIEW - DOORS OPEN
& SIDE PANELS REMOVED

42A0513	ADB LABEL 1.5 X 3.3" PMS298 7 Cool Gray
---------	---



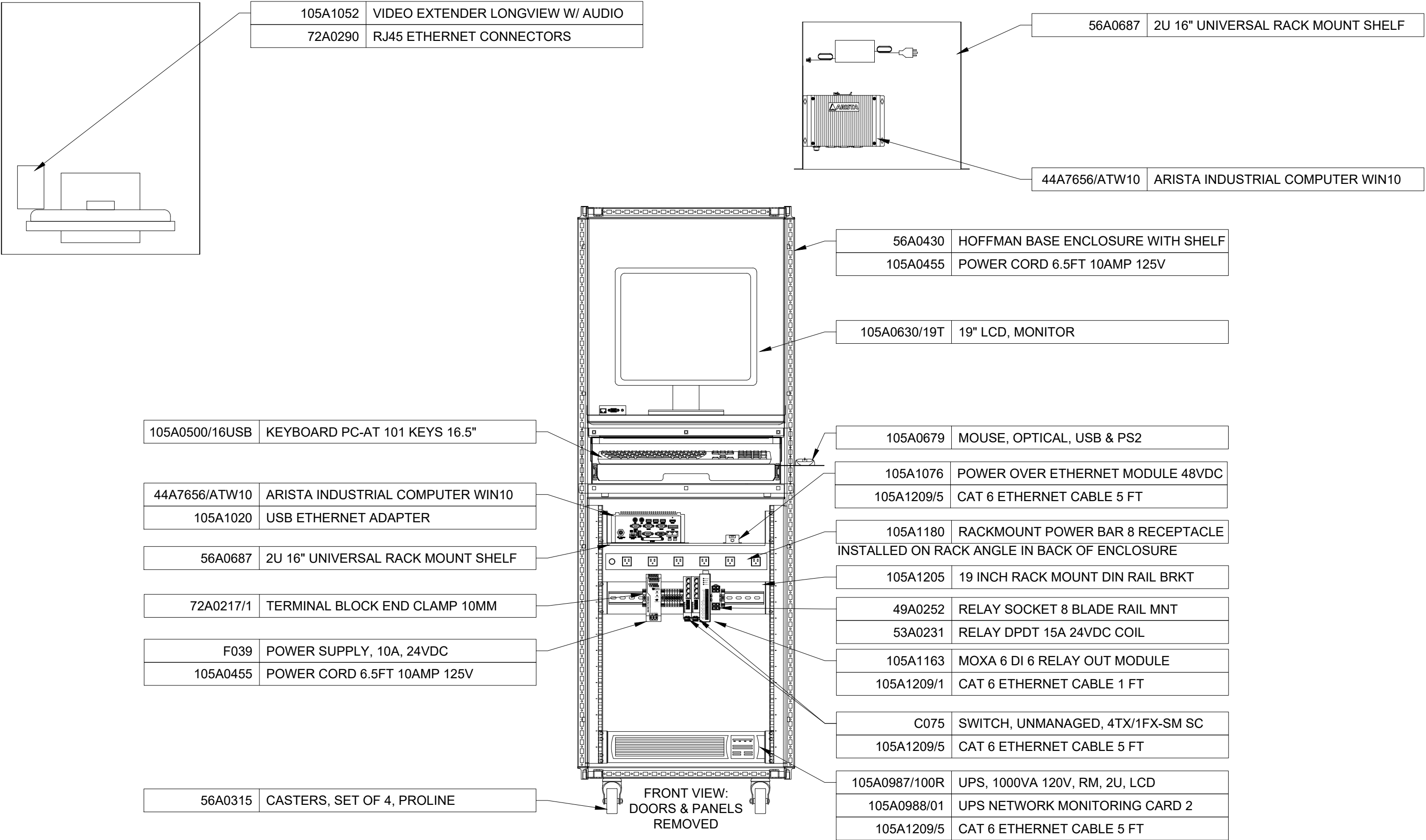
56A0315	CASTERS, SET OF 4, PROLINE
---------	----------------------------

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
ENCLOSURE DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		10 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 6

ALC-ESD-2401-TWR01

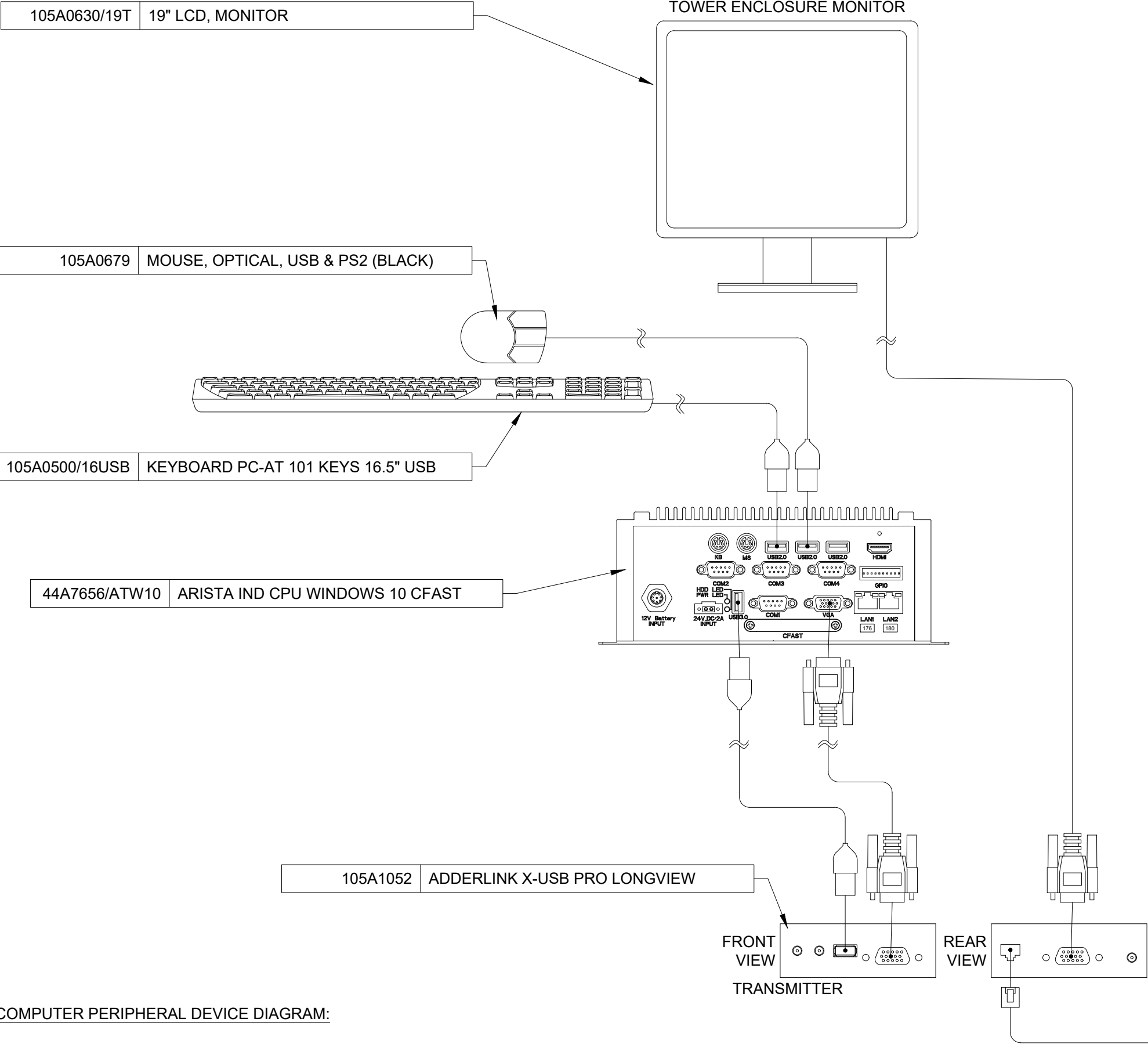


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
ENCLOSURE HARDWARE LAYOUT

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		11 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	2 OF 6

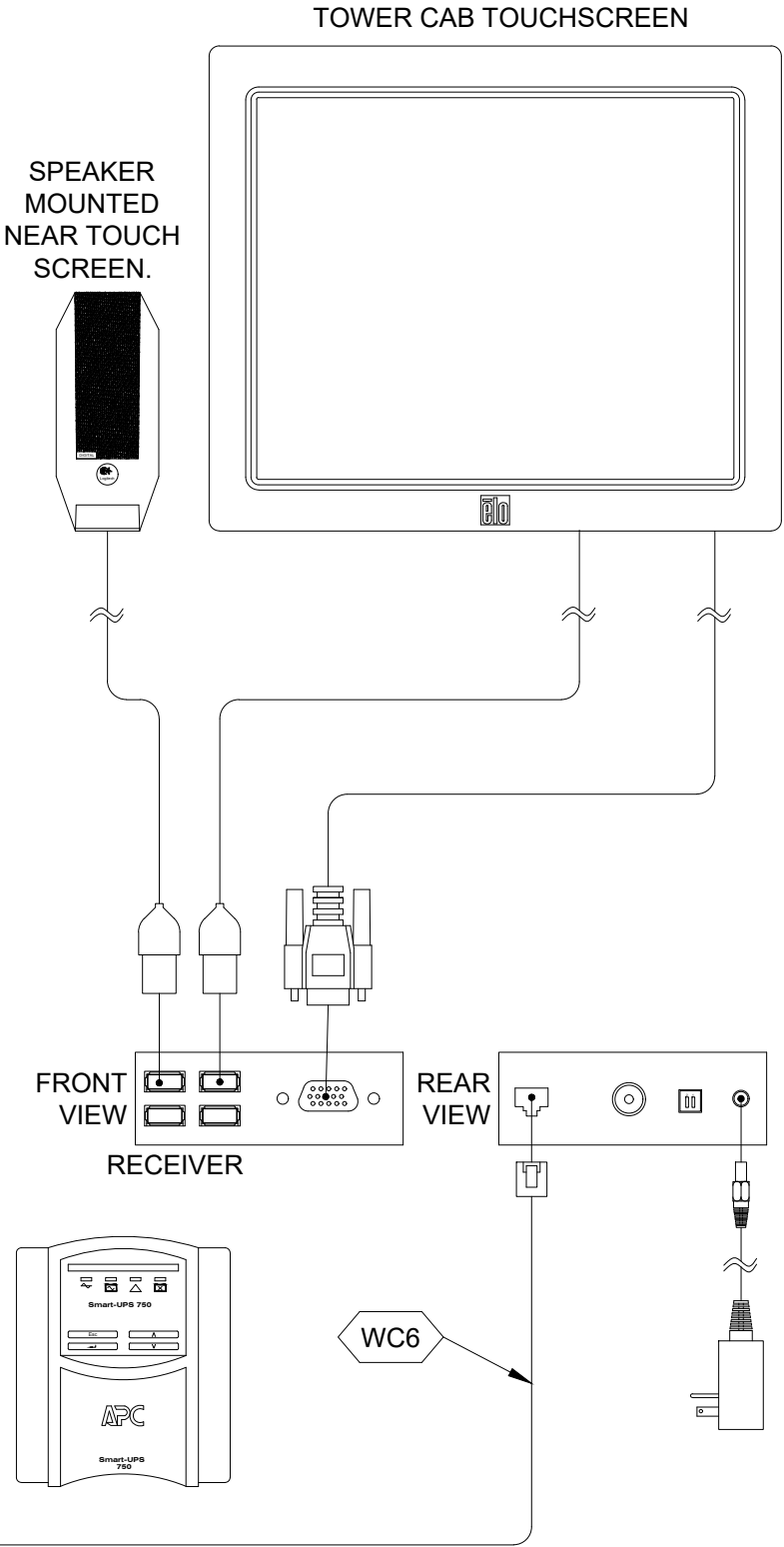
ALC-ESD-2401-TWR01



COMPUTER PERIPHERAL DEVICE DIAGRAM:

TOUCHSCREEN, KEYBOARD & MOUSE CONNECTIONS TO COMPUTER

105A0915	TOUCH SCREEN LCD 19"
105A0916	FRONT MOUNT BEZEL FOR 105A0915
105A1206	LOGITECH S150 USB SPEAKERS
105A0987/075S	APC SMART-UPS 750VA LCD 120V
105A0988/01	UPS NETWORK MONITORING CARD 2
42A0578	ADB LABEL - BLK BACK .5 INCH TALL

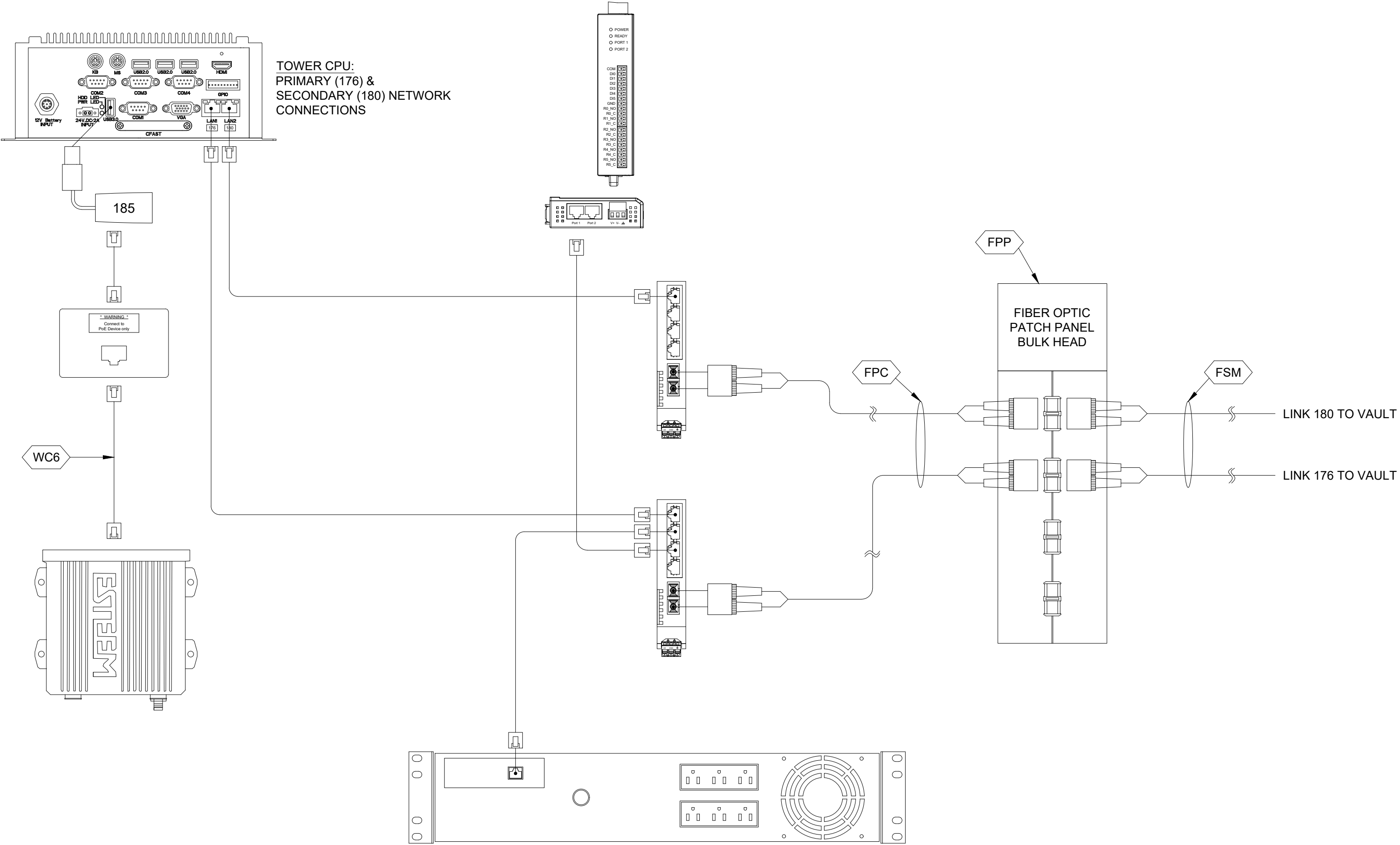


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
PERIPHERAL DEVICE &
VIDEO EXTENSION CONNECTION DIAGRAM

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		12 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	3 OF 6

ALC-ESD-2401-TWR01



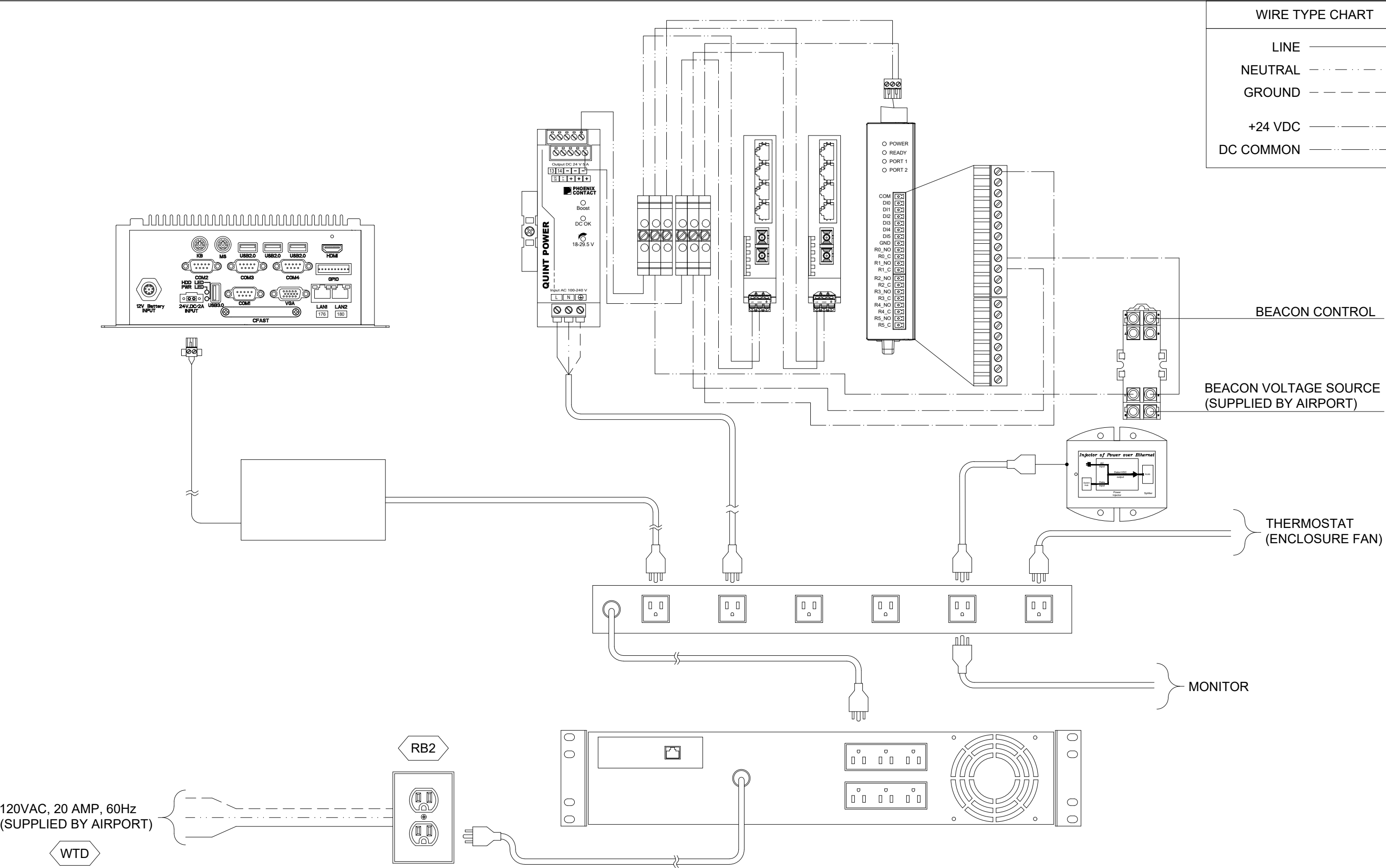
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
COMMUNICATION LINK DIAGRAM
& NETWORK CONNECTIONS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		13 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	4 OF 6

ALC-ESD-2401-TWR01

WIRE TYPE CHART	
LINE	—————
NEUTRAL	- - - - -
GROUND	- - - - -
+24 VDC	—————
DC COMMON	- - - - -

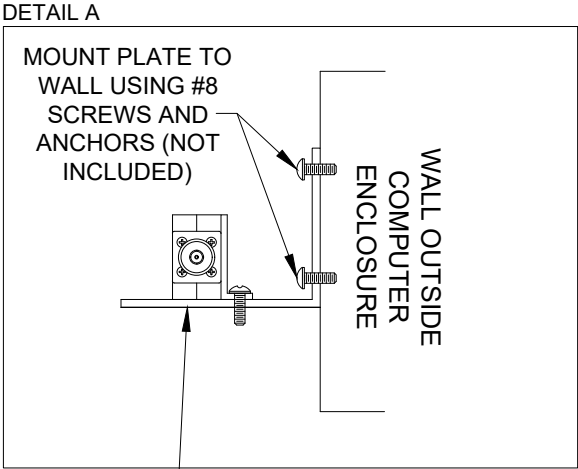


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
COMPONENT POWER WIRING DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		14 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	5 OF 6

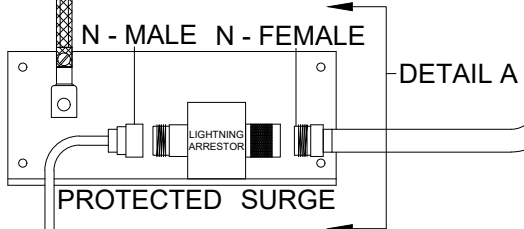
ALC-ESD-2401-TWR01



105A0489/900	LIGHTNING ARREST ANT 900MHz
60A3189	COPPER GRND PLT 900MHz LIGHTNING AR

89A0251	WIRE, COPPER BRAID, 13/64", TUBULAR
72A0010	ALUM GROUND LUG, FOR AL or CU COND

INSERT BRAIDED SLEEVE INTO GROUND LUG



DISTANCE NOT TO EXCEED 2'

RP - TNC

MOUNT TO BUILDING GROUND SYSTEM

105A0920/900	ESTEEM 900MHz GHZ ETHERNET RADIO
--------------	----------------------------------

BUILDING INTERIOR

EXTERIOR

SBC
MAS
(IF REQUIRED)

SBC
CLP
SEE NOTE 4

N - FEMALE
N - MALE

105A0451	ANTENNA 900MHz OMNI DIRECTIONAL
----------	---------------------------------

105A0489/W	ANTENNA CABLE WATERPROOFING KIT
------------	---------------------------------

105A0474/60	CABLE ANT LMR-400 SNM-SNF 60'
-------------	-------------------------------

SEE NOTE 2

8"-10" DRIP LOOP

105A0479/02	CABLE ANT LMR-400 SNM-RP-TNC 2'
-------------	---------------------------------

SBC
WGD

EARTH GROUND

NOTES:

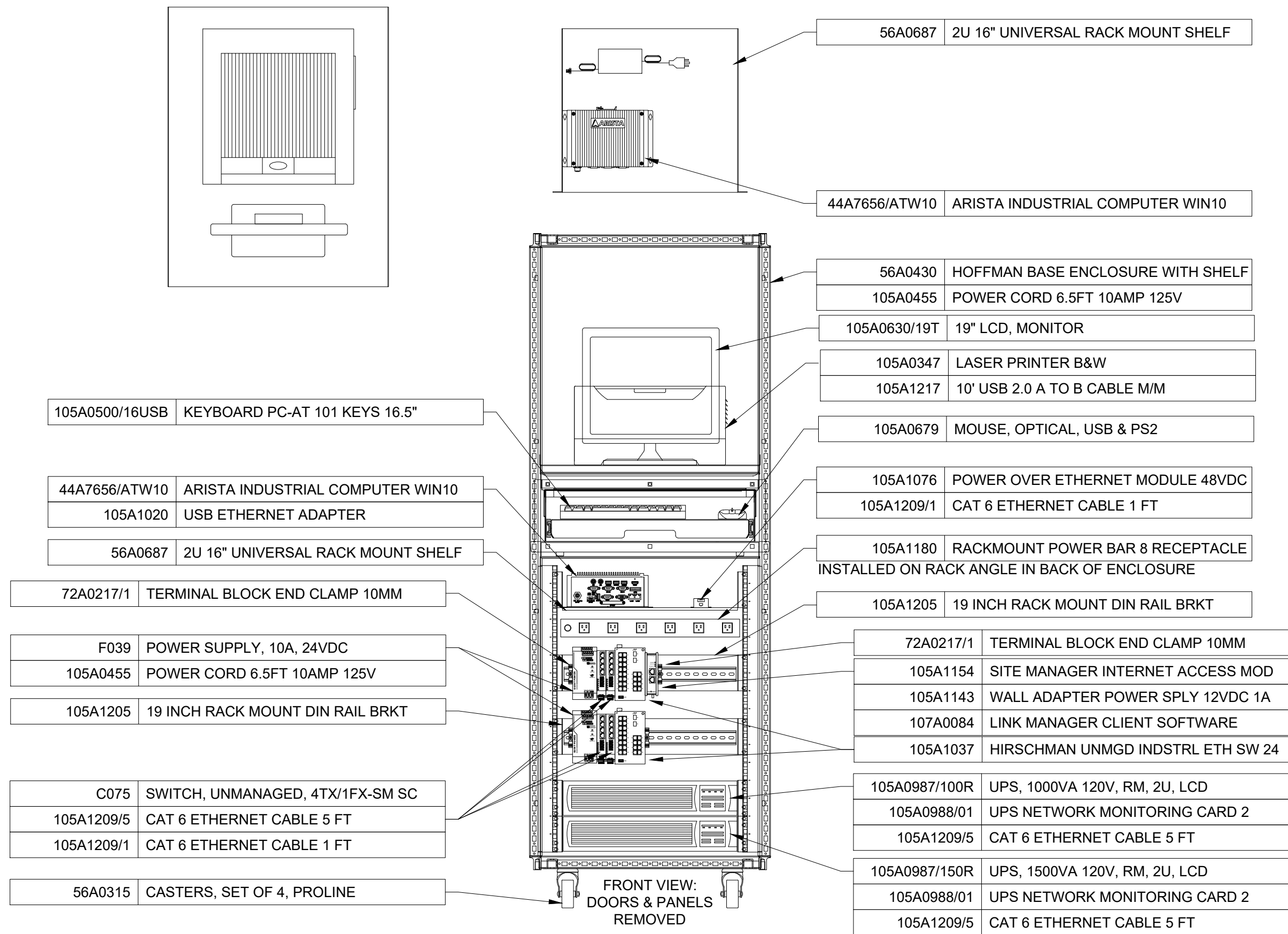
1. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL REQUIRED TO MOUNT ANTENNA INCLUDING MAST, CABLES AND CONNECTORS. CONTRACTOR TO REFERENCE INSTALLATION INSTRUCTION MANUAL.
2. CONTRACTOR TO DETERMINE THE LENGTH OF ANTENNA CABLE (CABLE DISTANCE BETWEEN MOUNTING OF LIGHTNING ARRESTOR AND ANTENNA). ADB REQUIRES WRITTEN NOTIFICATION OF LENGTHS.
3. THE TOTAL COMBINED LENGTH OF ANTENNA NOT TO EXCEED 75FT.
4. IF ANTENNA IS MOUNTED TO A MAST, GROUND MAST USING A PIPE GROUND CLAMP.

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TOWER ASSEMBLY
RADIO ASSEMBLY INSTALLATION DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		15 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	6 OF 6

ALC-ESD-2401-TWR01



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

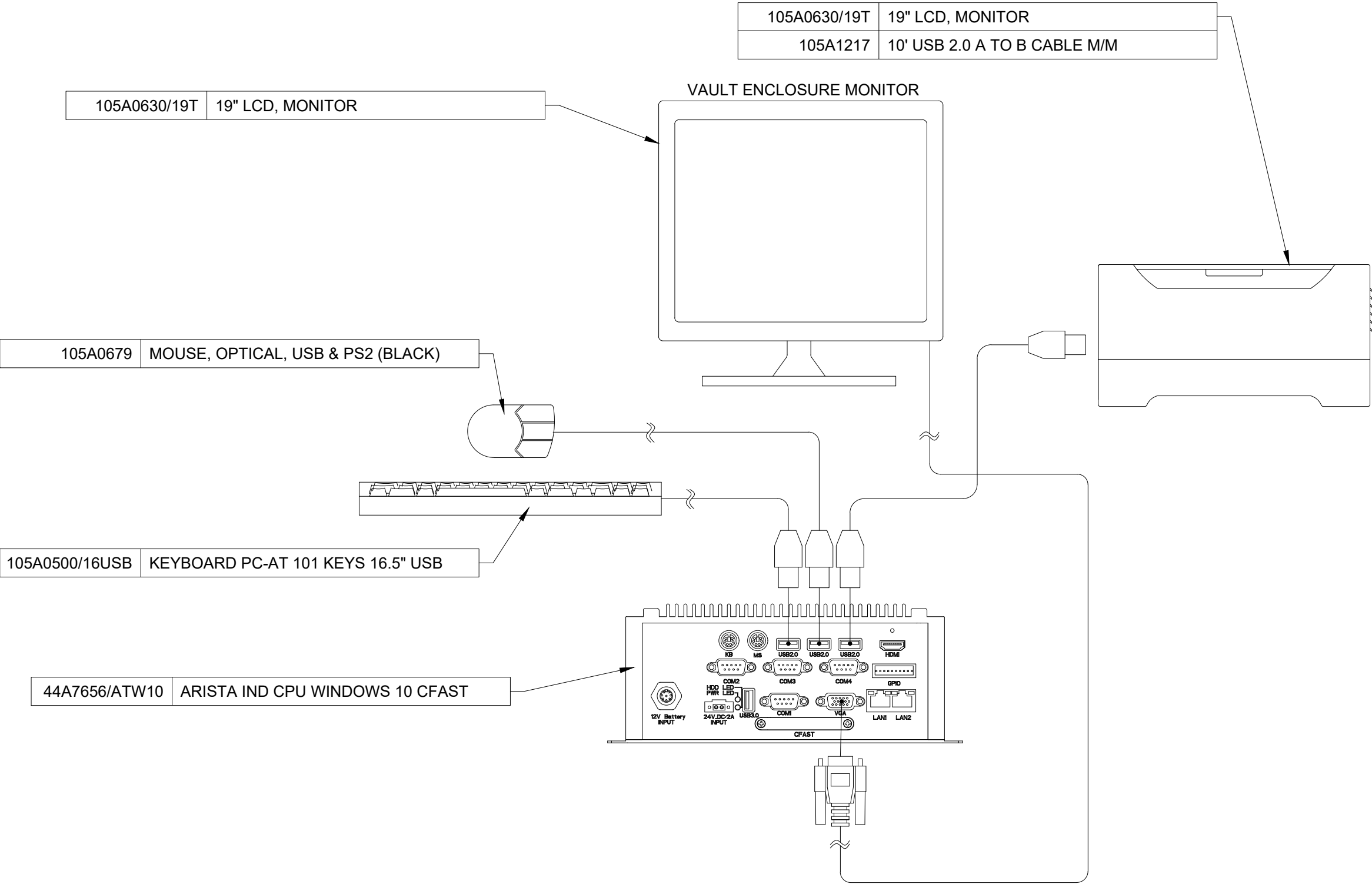
DRAWING INFORMATION:
VAULT ASSEMBLY
ENCLOSURE HARDWARE LAYOUT

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		16 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 6

ALC-ESD-2401-VLT01

COMPUTER PERIPHERAL DEVICE DIAGRAM:

TOUCHSCREEN, KEYBOARD & MOUSE CONNECTIONS TO COMPUTER

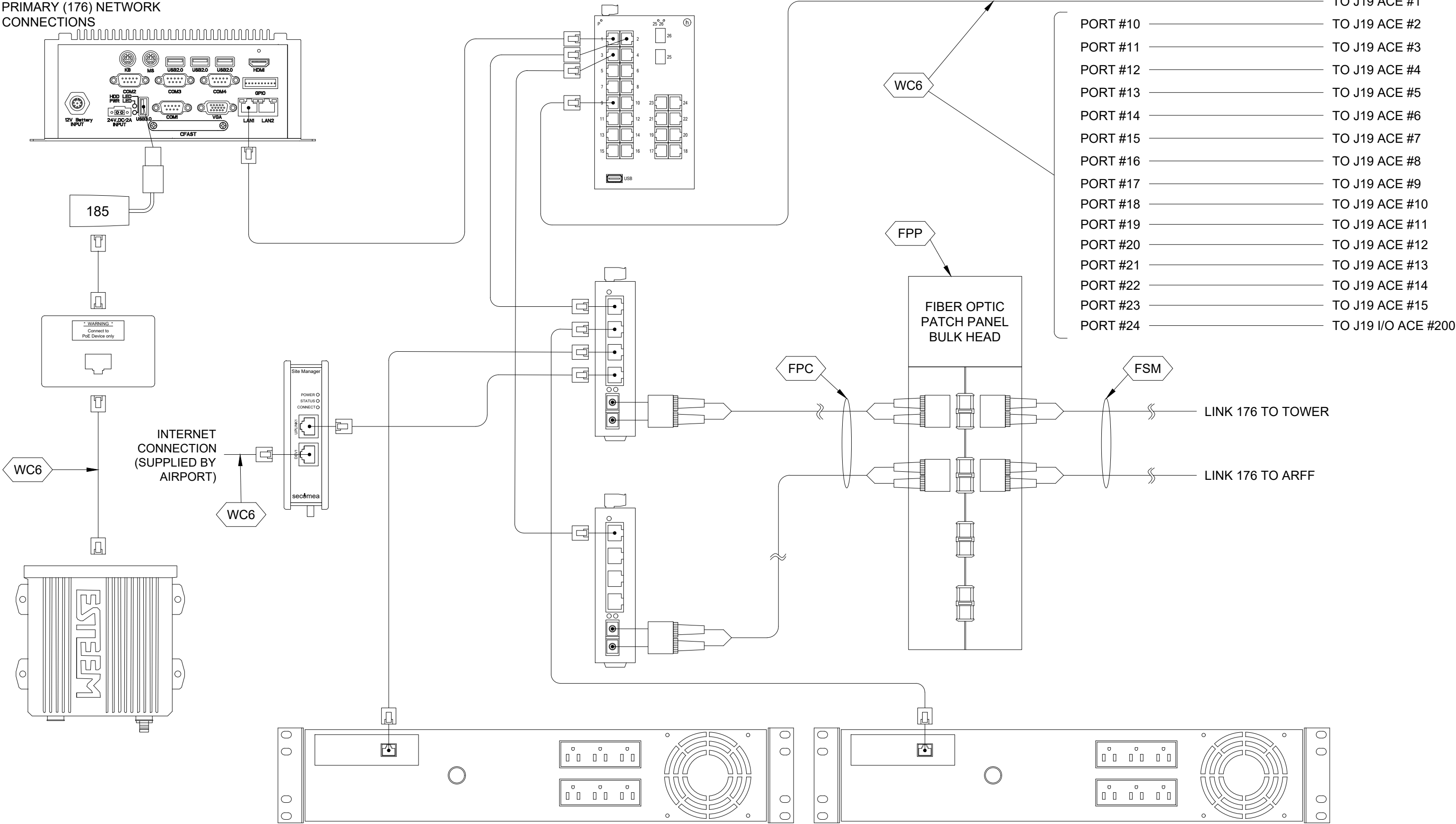


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
VAULT ASSEMBLY
PERIPHERAL DEVICE CONNECTION DIAGRAM

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		17 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	2 OF 6

VAULT CPU:
PRIMARY (176) NETWORK
CONNECTIONS



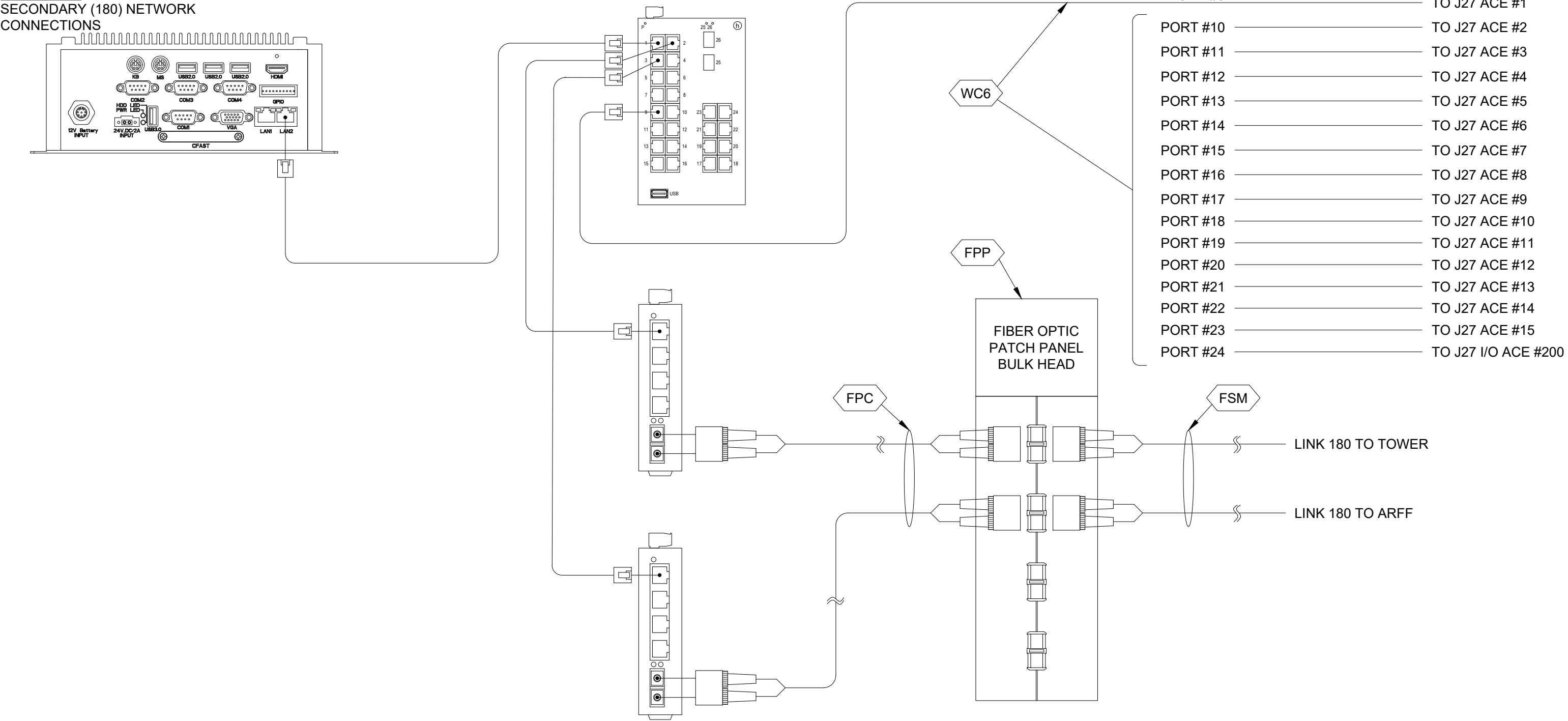
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
VAULT ASSEMBLY
COMMUNICATION LINK DIAGRAM
& NETWORK CONNECTIONS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		18 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	3 OF 6

ALC-ESD-2401-VLT01

VAULT CPU:
SECONDARY (180) NETWORK
CONNECTIONS

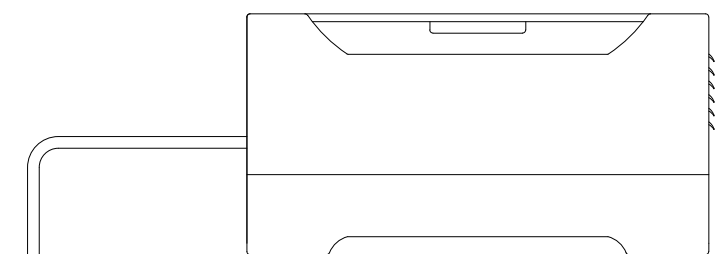
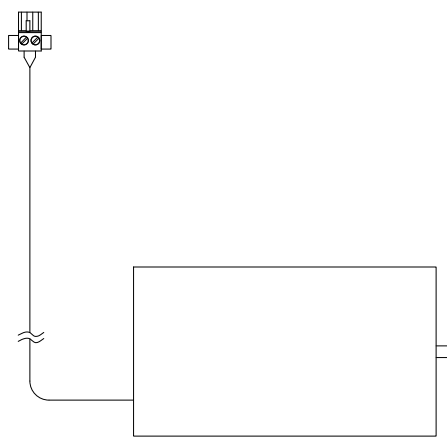
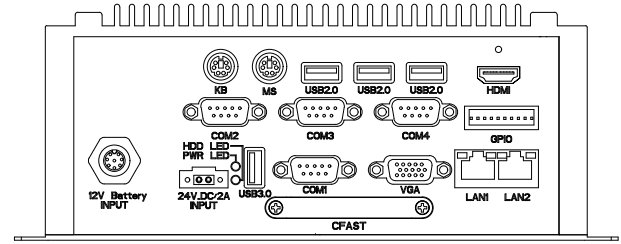


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
VAULT ASSEMBLY
COMMUNICATION LINK DIAGRAM
& NETWORK CONNECTIONS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		19 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	4 OF 6

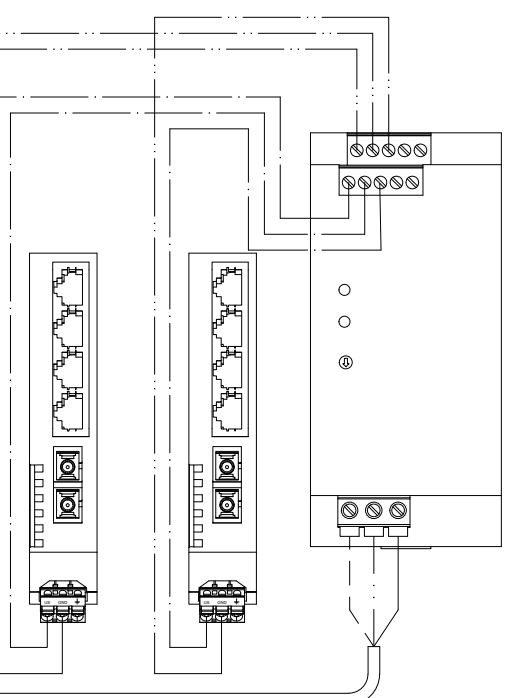
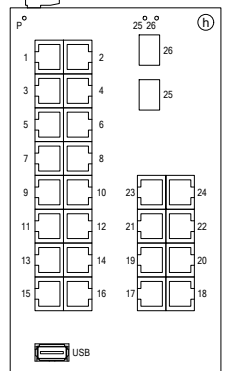
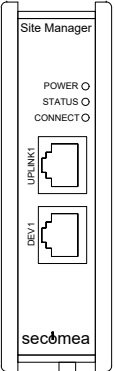
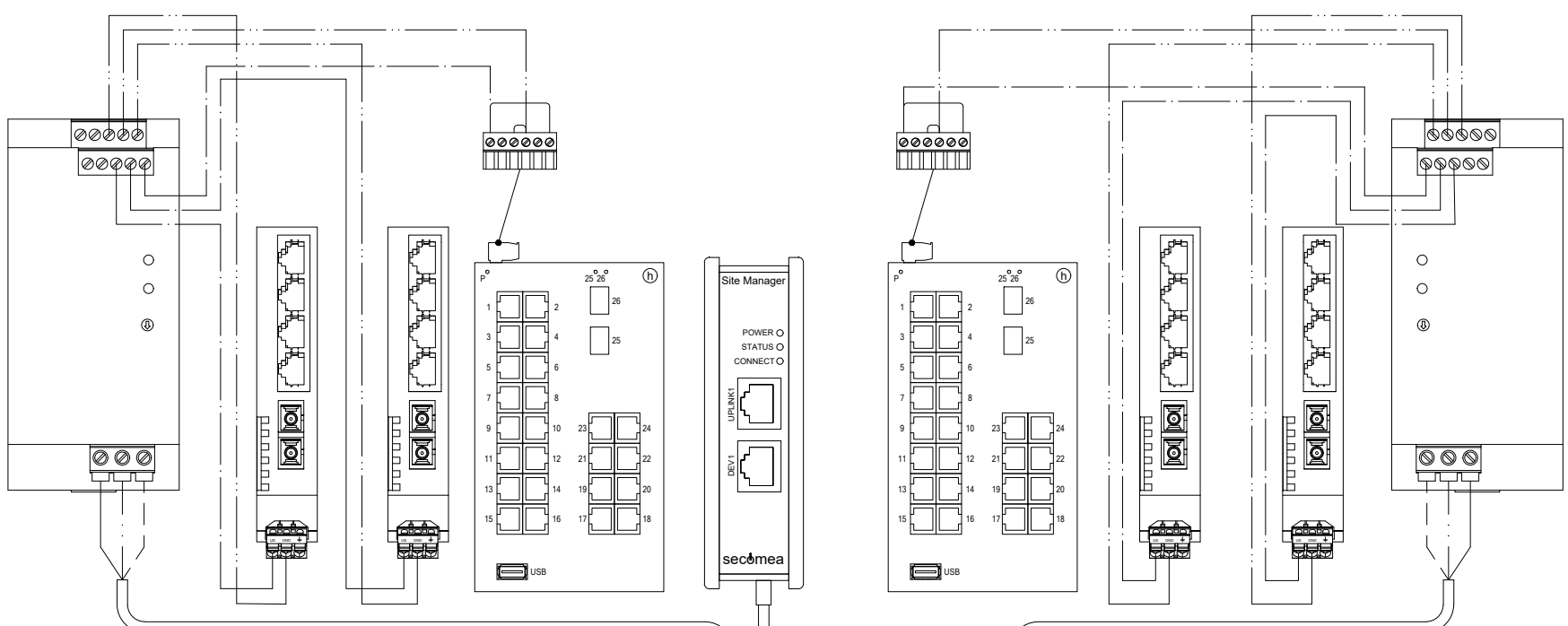
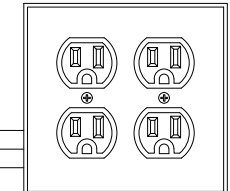
ALC-ESD-2401-VLT01



120VAC, 20 AMP, 60Hz
(SUPPLIED BY AIRPORT)

WTD

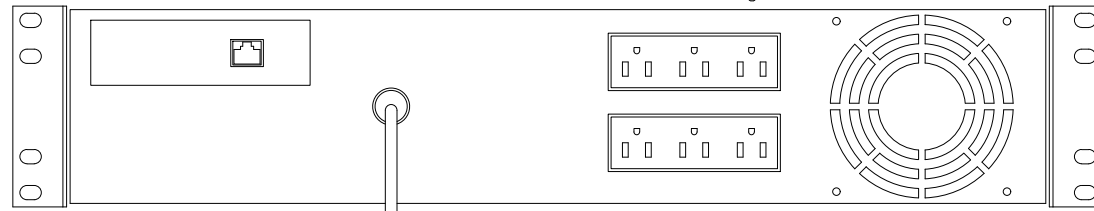
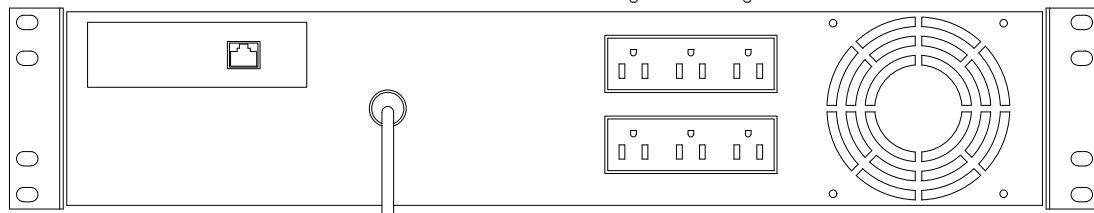
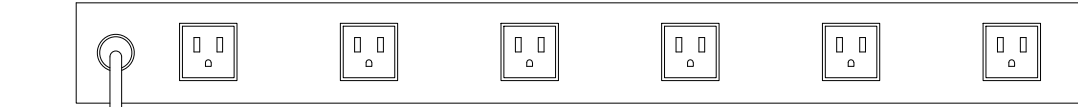
RB4



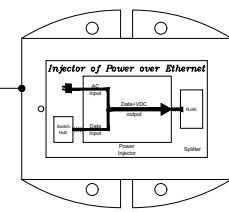
WIRE TYPE CHART	
LINE	—————
NEUTRAL	- - - - -
GROUND	- - - - -
+24 VDC	—————
DC COMMON	- - - - -

TO MONITOR

THERMOSTAT
(ENCLOSURE FAN)



120VAC, UPS
(FOR ACE UNITS)



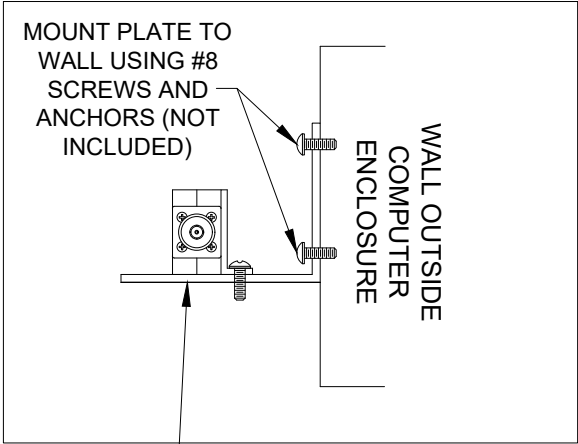
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
VAULT ASSEMBLY
COMPONENT POWER WIRING DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		20 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	5 OF 6

ALC-ESD-2401-VLT01

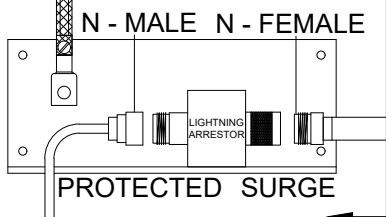
DETAIL A



105A0489/900	LIGHTNING ARREST ANT 900MHz
60A3189	COPPER GRND PLT 900MHz LIGHTNING AR

89A0251	WIRE, COPPER BRAID, 13/64", TUBULAR
72A0010	ALUM GROUND LUG, FOR AL or CU COND

INSERT BRAIDED SLEEVE INTO GROUND LUG



DETAIL A

DISTANCE NOT TO EXCEED 2'

RP - TNC

MOUNT TO BUILDING GROUND SYSTEM

105A0920/900	ESTEEM 900MHZ GHZ ETHERNET RADIO
--------------	----------------------------------

BUILDING INTERIOR

EXTERIOR

SBC
MAS
(IF REQUIRED)

SBC
CLP
SEE NOTE 4

N - FEMALE
N - MALE

105A0489/W ANTENNA CABLE WATERPROOFING KIT

105A0445 ANTENNA 900MHZ YAGI

105A0474/60 CABLE ANT LMR-400 SNM-SNF 60'
SEE NOTE 2

105A0479/02 CABLE ANT LMR-400 SNM-RP-TNC 2'

8"-10" DRIP LOOP

SBC
WGD

EARTH GROUND

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL REQUIRED TO MOUNT ANTENNA INCLUDING MAST, CABLES AND CONNECTORS. CONTRACTOR TO REFERENCE INSTALLATION INSTRUCTION MANUAL.
2. CONTRACTOR TO DETERMINE THE LENGTH OF ANTENNA CABLE (CABLE DISTANCE BETWEEN MOUNTING OF LIGHTNING ARRESTOR AND ANTENNA). ADB REQUIRES WRITTEN NOTIFICATION OF LENGTHS.
3. THE TOTAL COMBINED LENGTH OF ANTENNA NOT TO EXCEED 75FT.
4. IF ANTENNA IS MOUNTED TO A MAST, GROUND MAST USING A PIPE GROUND CLAMP.

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
VAULT ASSEMBLY
RADIO ASSEMBLY INSTALLATION DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		21 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	6 OF 6

ALC-ESD-2401-VLT01

CCR INDEX

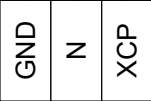
CCR NUMBER	ACE™ NUMBER	ACE™ CONFIGURATION	COM CH. A	COM CH. B	CIRCUIT NAME / DESCRIPTION	CCR STEPS	CCR SIZE (KW)	CONTROL VOLTAGE	OUTPUT CURRENT	INPUT MONITORING	OUTPUT MONITORING	INPUT VOLTAGE
1	1	ACE™ 3 Combobox	10.176.50.1	10.180.50.1	TWY C	3	15	120VAC	6.6		CVM / IRMS	480 V
2	2	ACE™ 3 Integrated	10.176.50.2	10.180.50.2	APRON E	3	7.5	120VAC	6.6		CVM / IRMS	480 V
3	3	ACE™ 3 Combobox	10.176.50.3	10.180.50.3	SPARE	3	20	120VAC	6.6		CVM / IRMS	480 V
4	4	ACE™ 3 Integrated	10.176.50.4	10.180.50.4	TWY MN	3	15	120VAC	6.6		CVM / IRMS	480 V
5	5	ACE™ 3 Combobox	10.176.50.5	10.180.50.5	SPARE	3	7.5	120VAC	6.6		CVM / IRMS	480 V
6	6	ACE™ 3 Combobox	10.176.50.6	10.180.50.6	TWY DC	3	7.5	120VAC	6.6		CVM / IRMS	480 V
7	7	ACE™ 3 Combobox	10.176.50.7	10.180.50.7	TWY DE	3	20	120VAC	6.6		CVM / IRMS	480 V
8	8	ACE™ 3 Integrated	10.176.50.8	10.180.50.8	APRON W	3	7.5	120VAC	6.6		CVM / IRMS	480 V
9	9	ACE™ 3 Integrated	10.176.50.9	10.180.50.9	TWY J	3	10	120VAC	6.6		CVM / IRMS	480 V
10	10	ACE™ 3 Integrated	10.176.50.10	10.180.50.10	TWY MS	3	20	120VAC	6.6		CVM / IRMS	480 V
11	11	ACE™ 3 Integrated	10.176.50.12	10.180.50.12	RWY 6 24	5	30	120VAC	6.6		CVM / IRMS	480 V
12	12	ACE™ 3 Integrated	10.176.50.13	10.180.50.13	RWY 18 36	5	30	120VAC	6.6		CVM / IRMS	480 V
13	13	ACE™ 3 Combobox	10.176.50.14	10.180.50.14	SPARE	5	30	120VAC	6.6		CVM / IRMS	480 V
14	14	ACE™ 3 Combobox	10.176.50.15	10.180.50.15	TWY DW	3	7.5	120VAC	6.6		CVM / IRMS	480 V

MISCELLANEOUS CONTROL & MONITORING INDEX

ACE™ NUMBER	ACE™ CONFIGURATION	IP0 ADDRESS	IP1 ADDRESS	CONTROL POINT NAME / DESCRIPTION	ACE™ SLOT	I/O CHANNEL	I/O TYPE	I/O DESCRIPTION & RATING	COMMENTS & NOTES
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	PRC-3 CLICKS	0	0	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	PRC-5 CLICKS	0	1	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	PRC-7 CLICKS	0	2	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
200	ACE 3 Combobox	10.176.50.100	10.180.50.100	GENERATOR ON/OFF	0	0	OUTPUT	ACE DRY CONTACT CLOSURE ; 250VAC ; MAX 1A	
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	UTILITY ONLINE	1	8	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	GENERATOR ONLINE	1	9	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
200	ACE™ 3 Wall Mount	10.176.50.200	10.180.50.200	GENERATOR ALARM	1	10	INPUT	OPTO-ISOLATED ; DIGITAL INPUT ; 120VAC / 24VDC	
-	MOXA I/O	10.176.0.101	-	BEACON CONTROL	-	00	OUTPUT	MOXA; DRY CONTACT CLOSURE; 24VDC; MAX 1A	VIA TOWER
-	MOXA I/O	10.176.0.101	-	BEACON MONITOR	-	I0	INPUT	MOXA; DIGITAL INPUT; 24VDC; 2.5mA	VIA TOWER

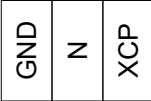
UPS POWER DAISY
CHAIN TO ACE UNITS

TERMINALS
INSIDE CCR



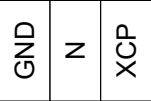
WUP

TERMINALS
INSIDE CCR

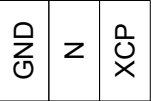


WUP

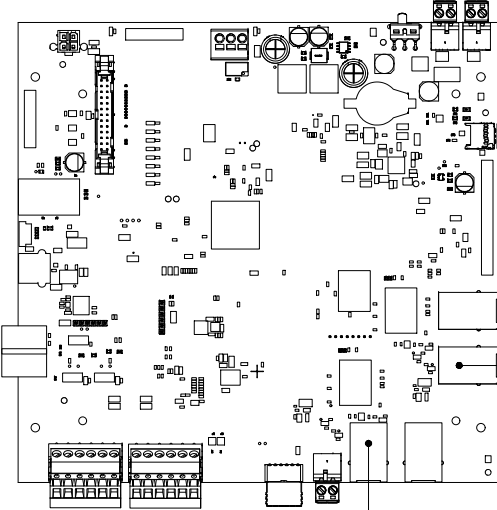
TERMINALS
INSIDE CCR



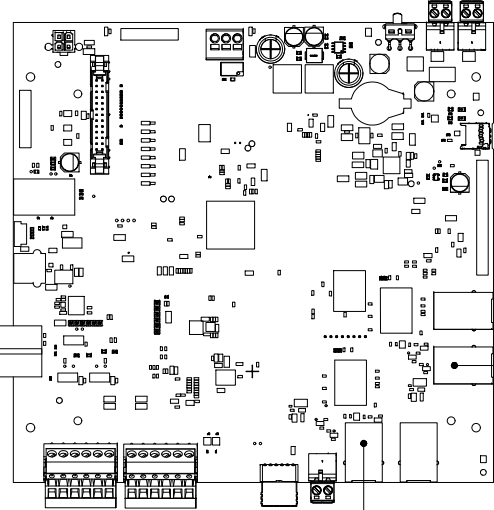
TERMINALS
INSIDE CCR



ACE 3 COMBO BOX CCR #10

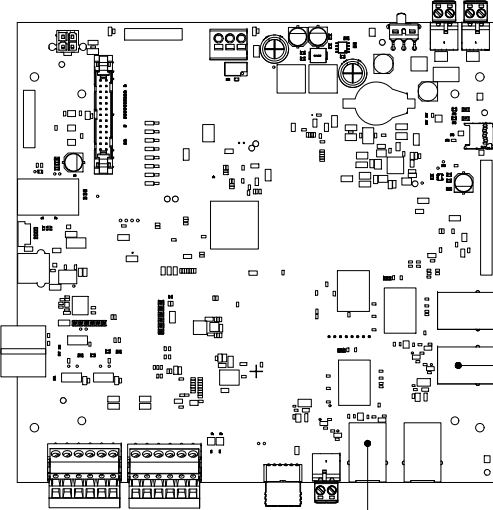


ACE 3 COMBO BOX CCR #11

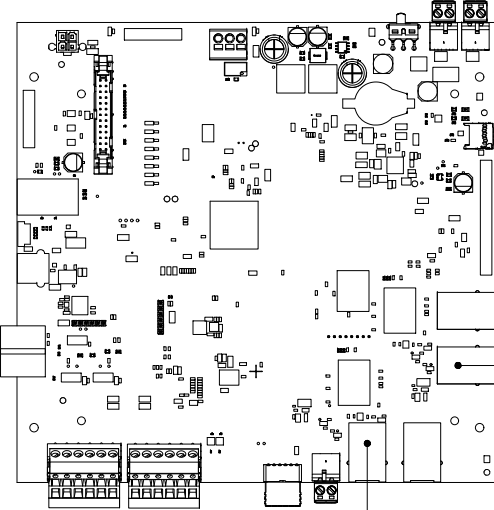


...

ACE 3 COMBO BOX CCR #20



I/O ACE 3 #201



FROM 176 SWITCH / HUB
FROM 180 SWITCH / HUB

FROM 176 SWITCH / HUB
FROM 180 SWITCH / HUB

...

FROM 176 SWITCH / HUB
FROM 180 SWITCH / HUB

FROM 176 SWITCH / HUB
FROM 180 SWITCH / HUB

WC6 QTY 2 - FOR EACH ACE UNIT

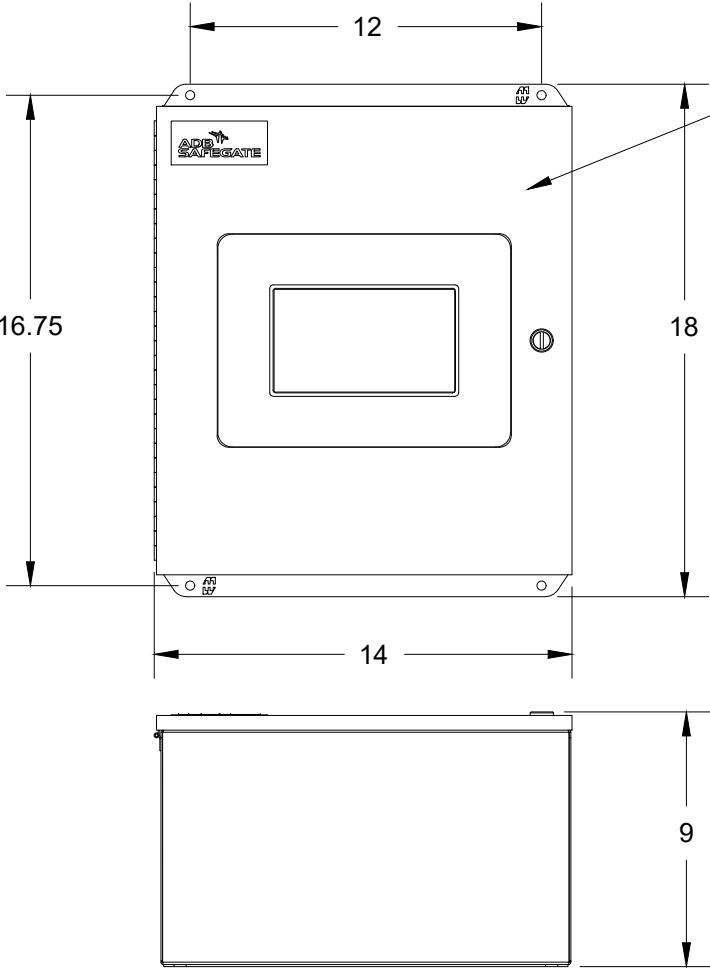
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
TYPICAL ETHERNET ACE COMMUNICATION WIRING

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		23 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

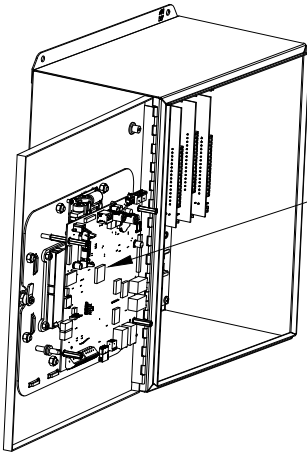
ACE WIRING

I/O ACE3:
ENCLOSURE & MOUNTING DIMENSIONS



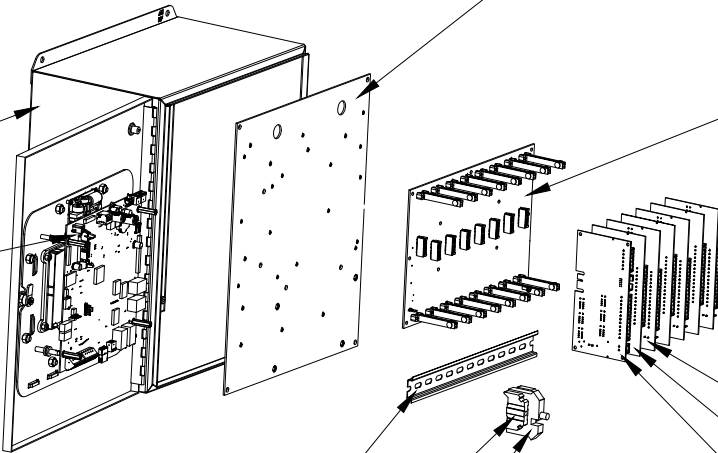
ACE3-CA6BD0010001	ACE3 COMBO AC 66A C+I
-------------------	-----------------------

I/O ACE3 DOOR OPEN



44A7733	ACE3 DOOR MOUNT ASSEMBLY
< OR >	
44A7733/DC	ACE3 DOOR MOUNT ASSEMBLY DC PWR

I/O ACE3 EXPLODED VIEW



56A0691	ACE3 STAND ALONE ENCLOSURE
---------	----------------------------

44A7694	PCB ASSY, ACE3 Control PCB
---------	----------------------------

60A4738	ACE3 STAND ALONE BACKPLATE
---------	----------------------------

44A7742	ACE3 I/O BACKPLACE PCBA
---------	-------------------------

NOTE: BOTH THE NUMBER AND ORDER OF INPUT & OUTPUT CARDS MAY VARY.

AS SHOWN - 3 INPUT AND 3 OUTPUT CARDS
ORDER: INPUT, OUTPUT, INPUT, OUTPUT, INPUT, OUTPUT
INPUT CARDS ARE YELLOW
OUTPUT CARDS ARE RED

RM0251	MTG RAIL 7.5MM U-SHAPE
--------	------------------------

72A0217/1	TERMINAL BLOCK END CLAMP 10MM
-----------	-------------------------------

47A0159/2	FUSE HOLDER RAIL MOUNT W/NEON
-----------	-------------------------------

47A0181	FUSE 3.2A 250V SB 1/4 X 1-1/4
---------	-------------------------------

44A7705	ACE3 I/O CAGE OUPUT CARD PCBA
---------	-------------------------------

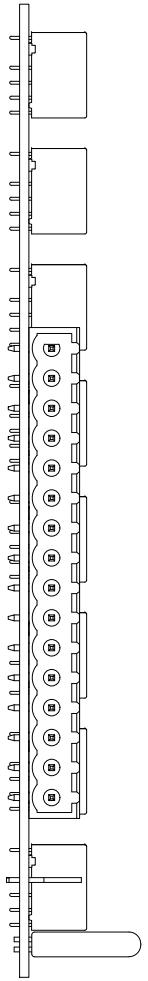
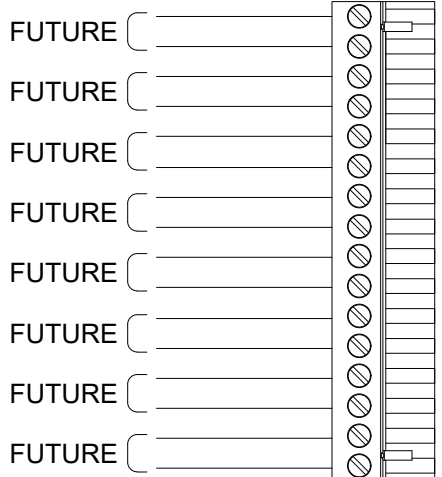
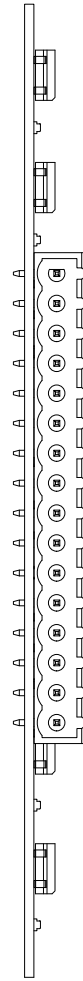
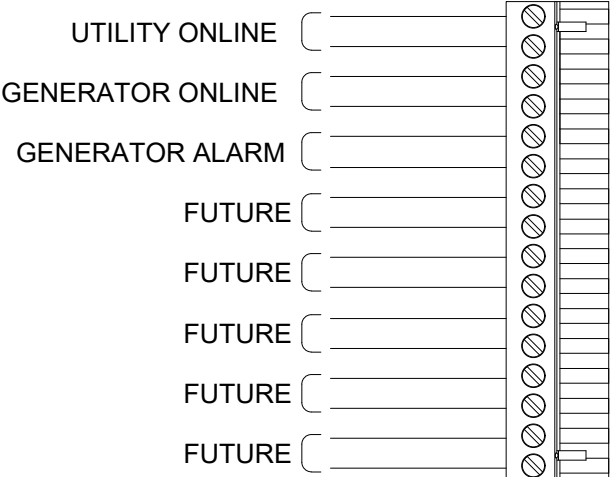
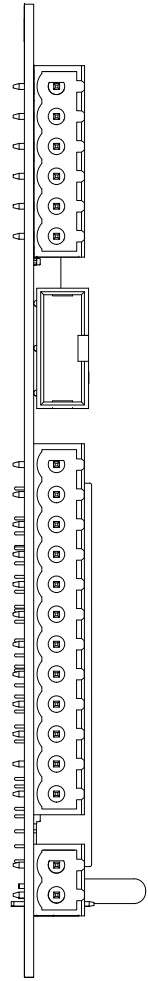
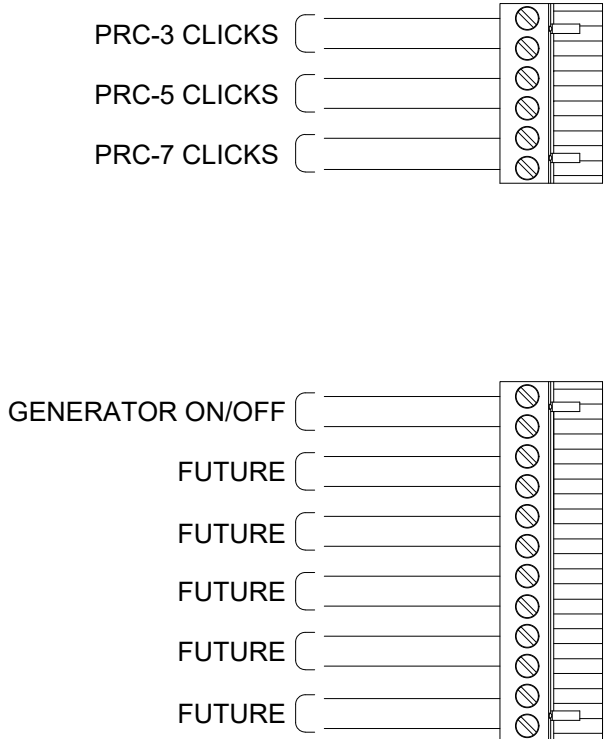
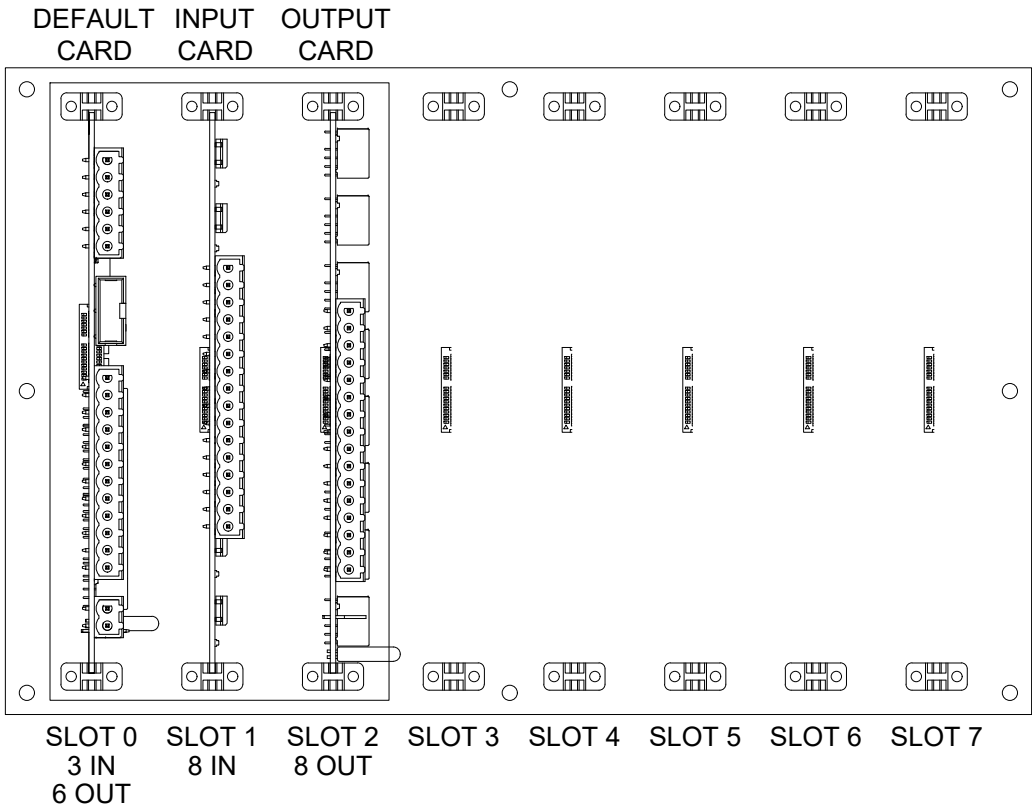
44A7704	ACE3 I/O CAGE INPUT CARD PCBA
---------	-------------------------------

44A7753	PCB ASSY, DEFAULT EXPANSION CARD
---------	----------------------------------

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
I/O ACE ASSEMBLY DETAILS

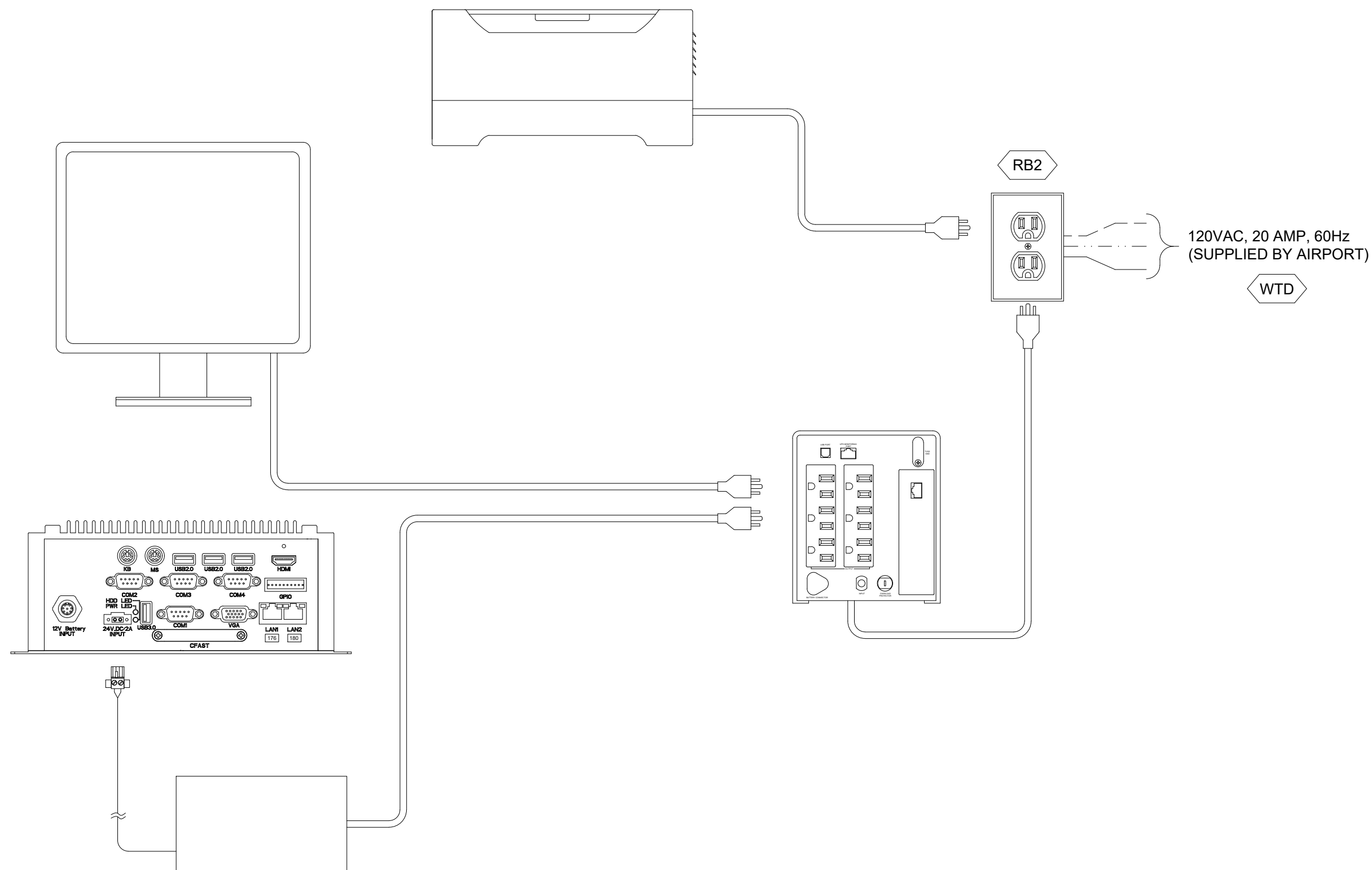
SET REVISION: A	DRAWN BY:	SET SHEET NUMBER: 24 OF 37
	DRAWN DATE: 19 AUG 24	PAGE NUMBER: 1 OF 2



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
I/O ACE WIRING DIAGRAM

SET REVISION: A	DRAWN BY:	SET SHEET NUMBER: 25 OF 37
	DRAWN DATE: 19 AUG 24	PAGE NUMBER: 2 OF 2

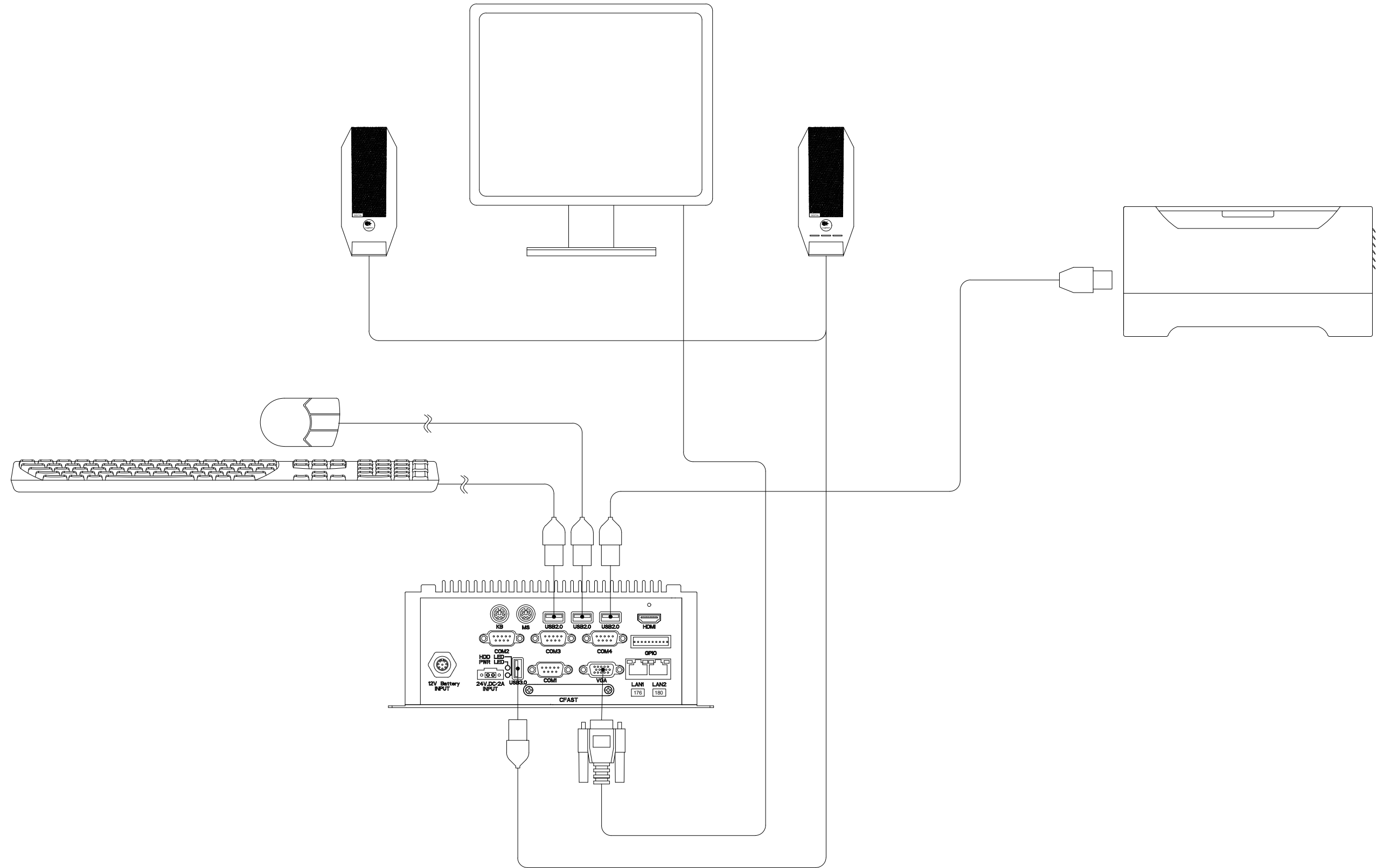


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
COMPONENT POWER WIRING DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		27 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	2 OF 7

ALC-ESD-2401-MNT01



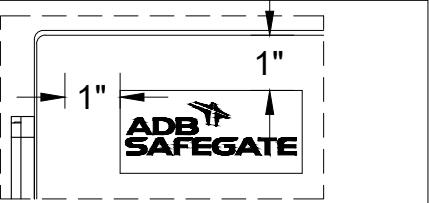
Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
PERIPHERAL DEVICE CONNECTION DIAGRAM

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		28 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	3 OF 7

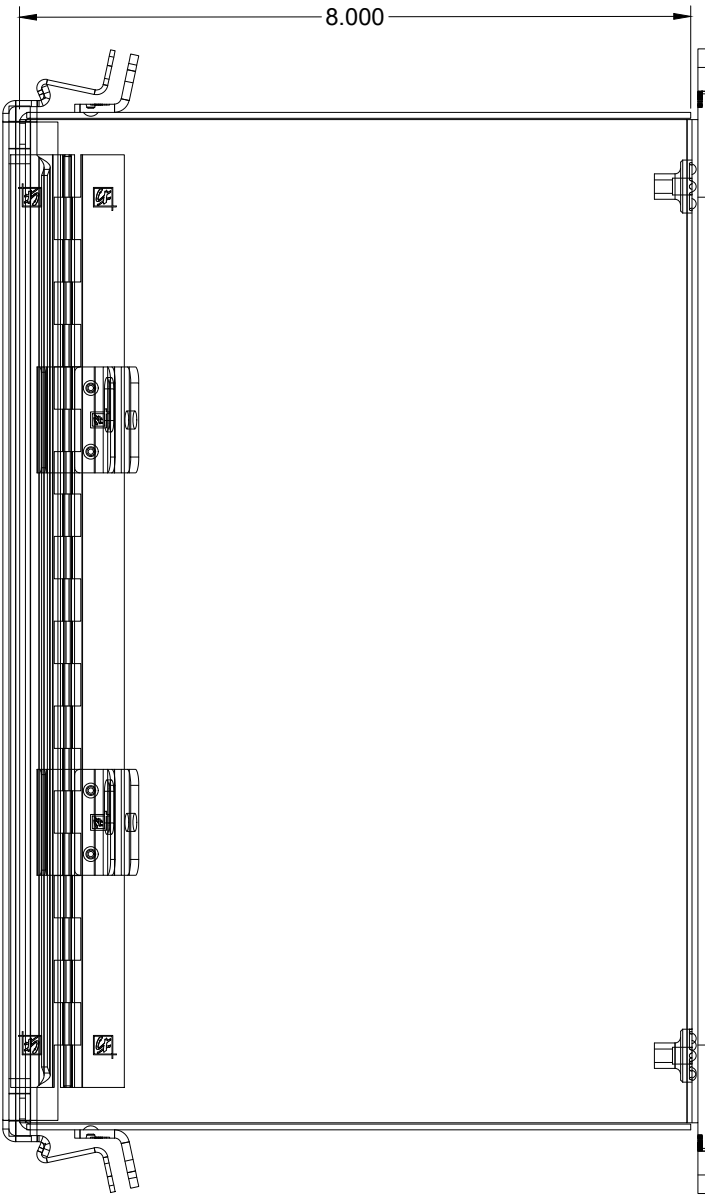
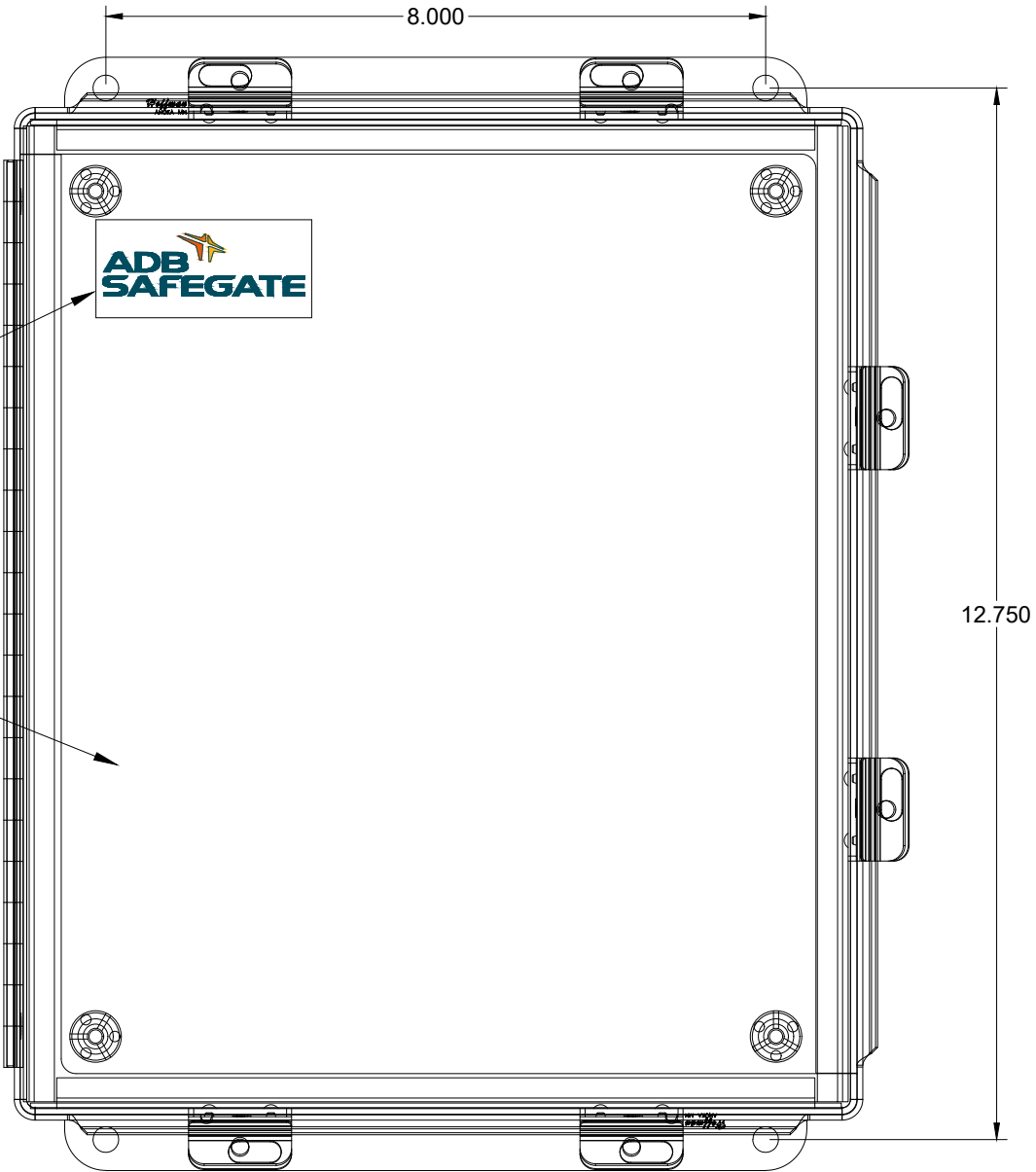
ALC-ESD-2401-MNT01

DETAIL:
LABEL PLACEMENT



42A0513 ADB LABEL 1.5 X 3.3" PMS298 7 Cool Gray

MB00132-000-01 ENCLOSURE 12H X 10W X 8D

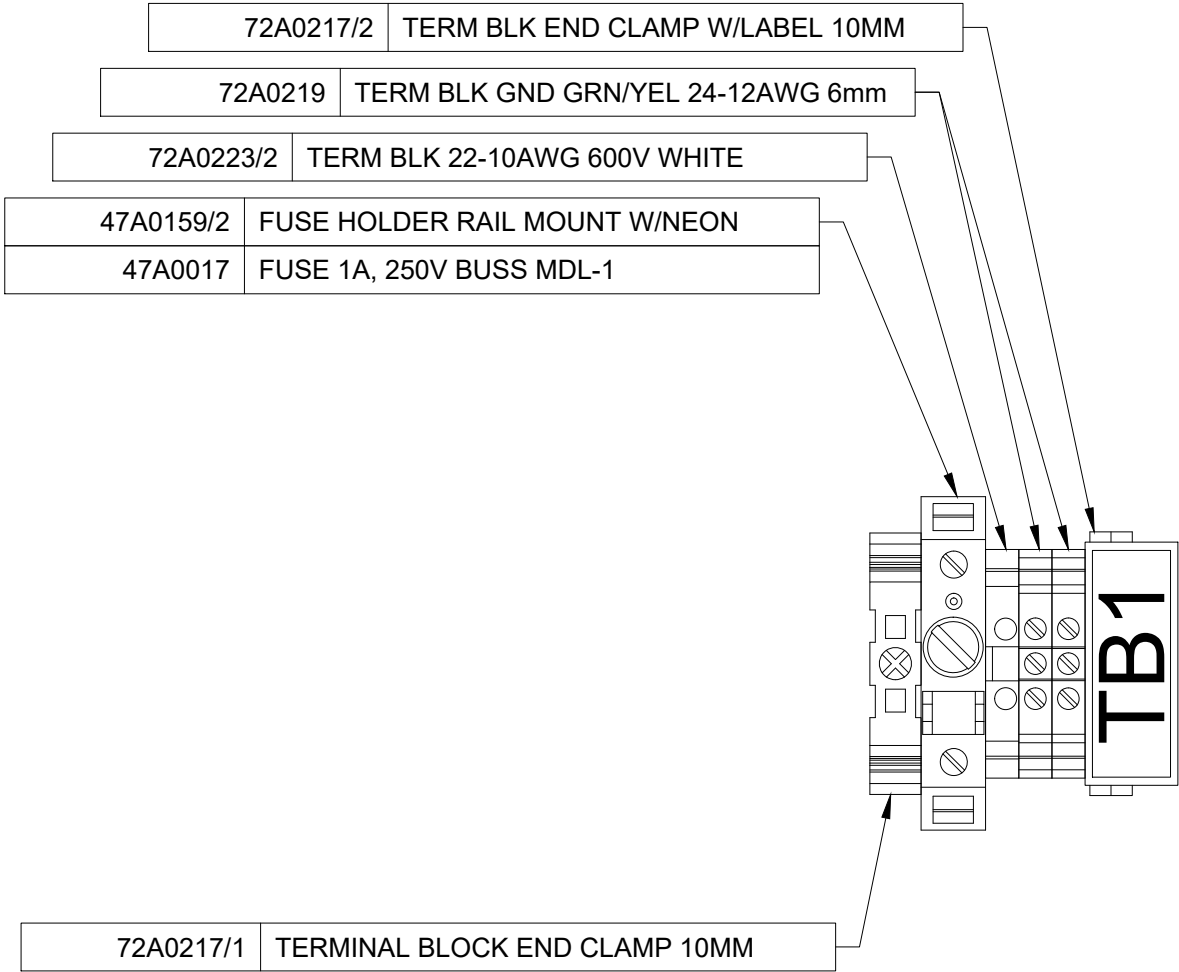
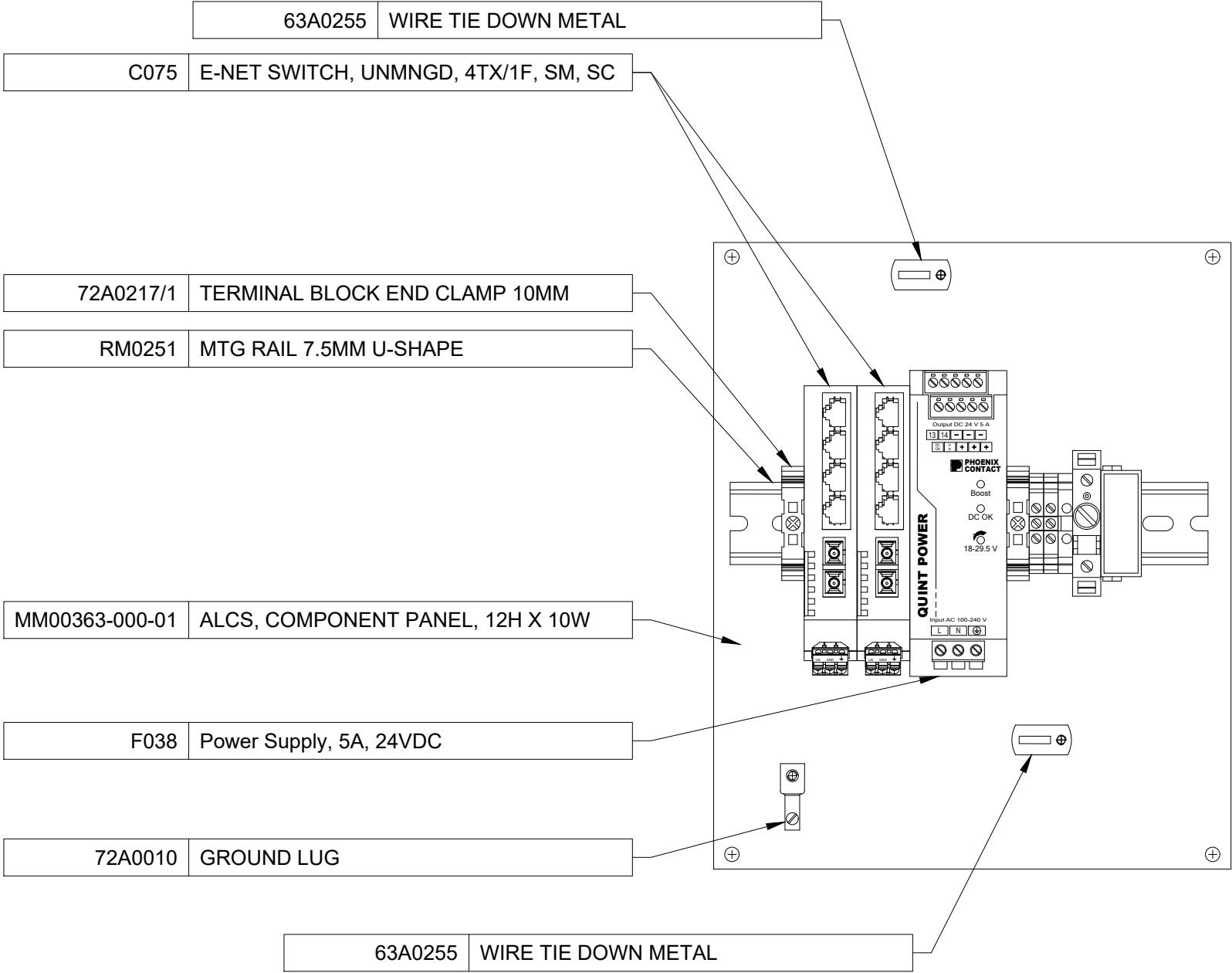


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
COMMUNICATION ENCLOSURE DETAILS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		29 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	4 OF 7

ALC-ESD-2401-MNT01

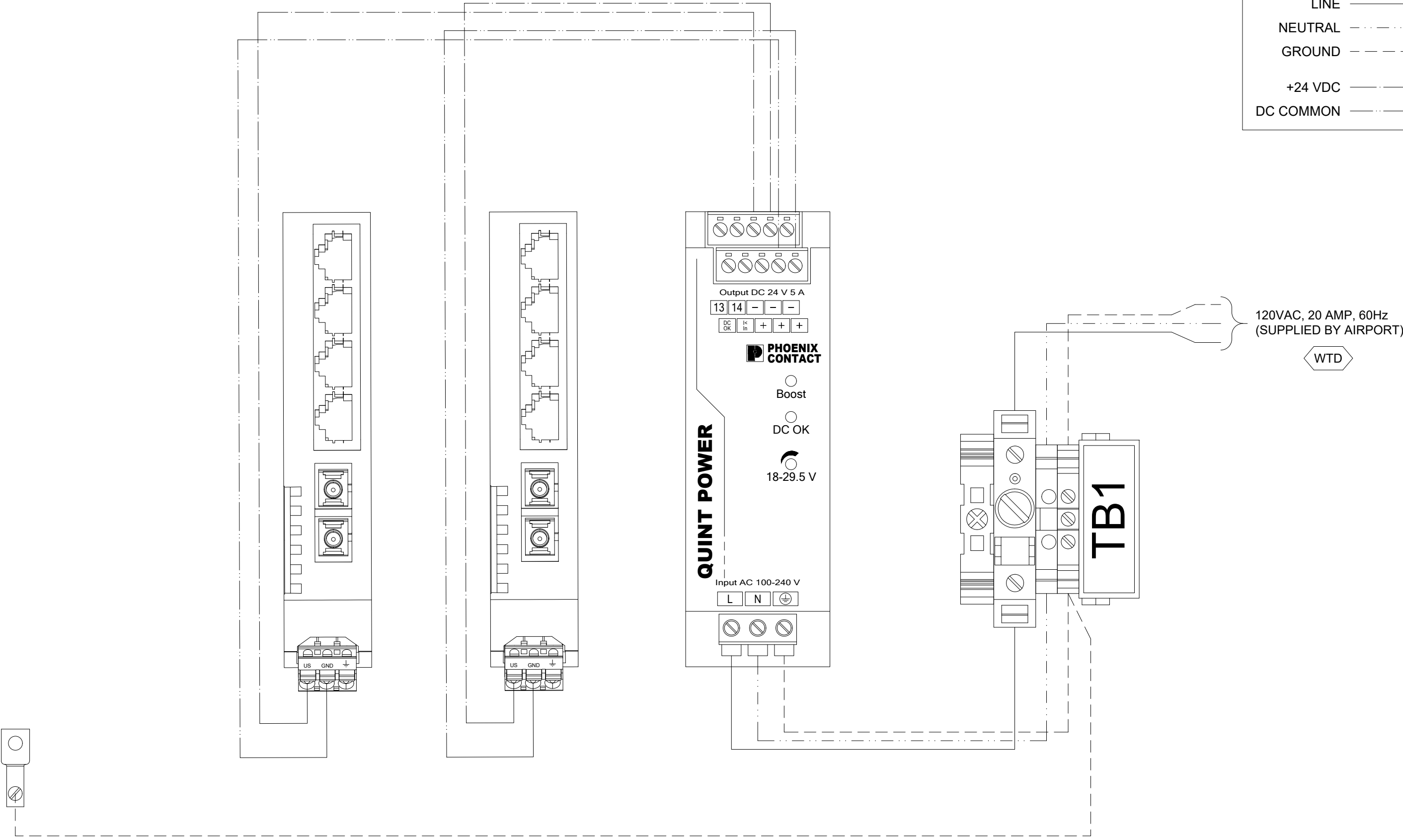


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
COMMUNICATION ENCLOSURE
PANEL LAYOUT

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		30 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	5 OF 1

ALC-ESD-2401-MNT01

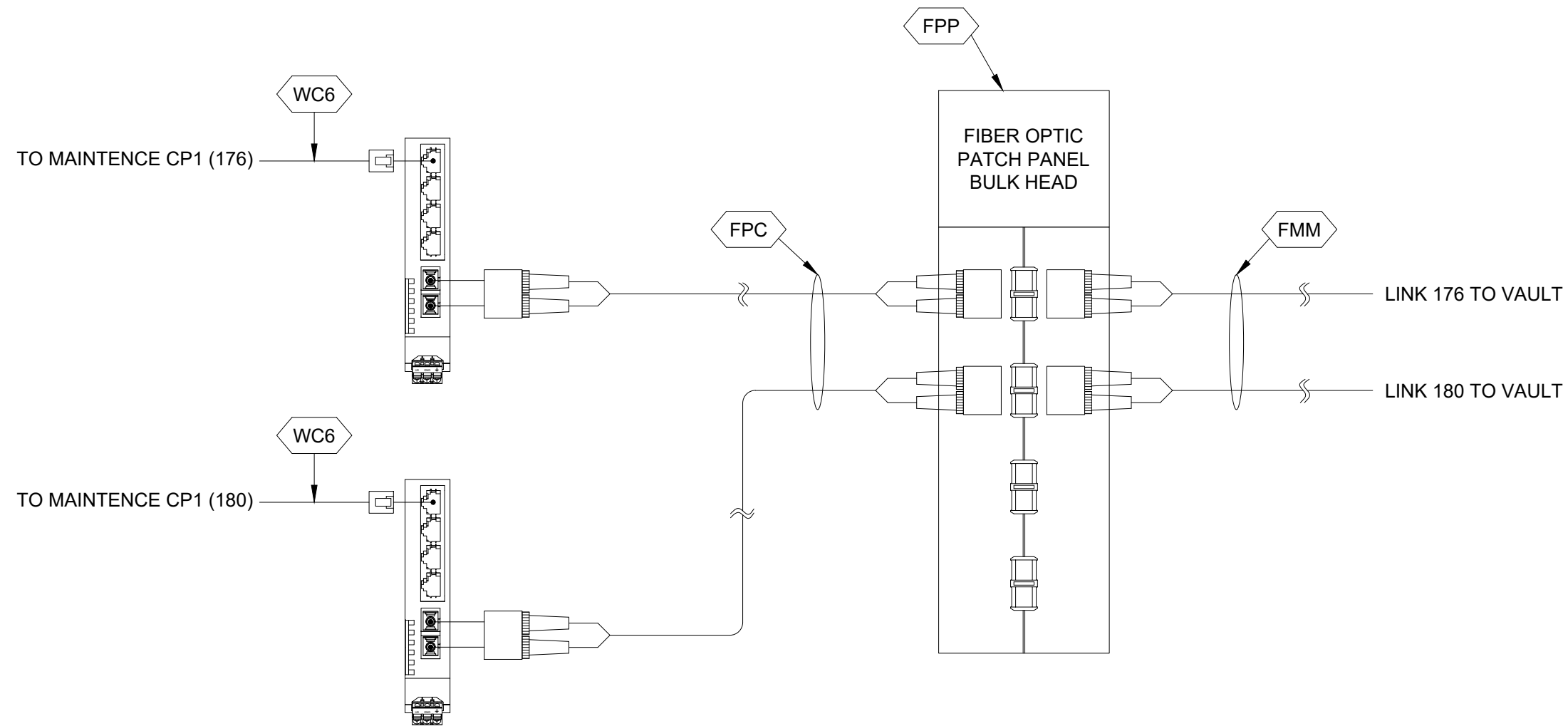


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
COMMUNICATION ENCLOSURE
POWER WIRING DIAGRAM

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		31 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	6 OF 1

ALC-ESD-2401-MNT01



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

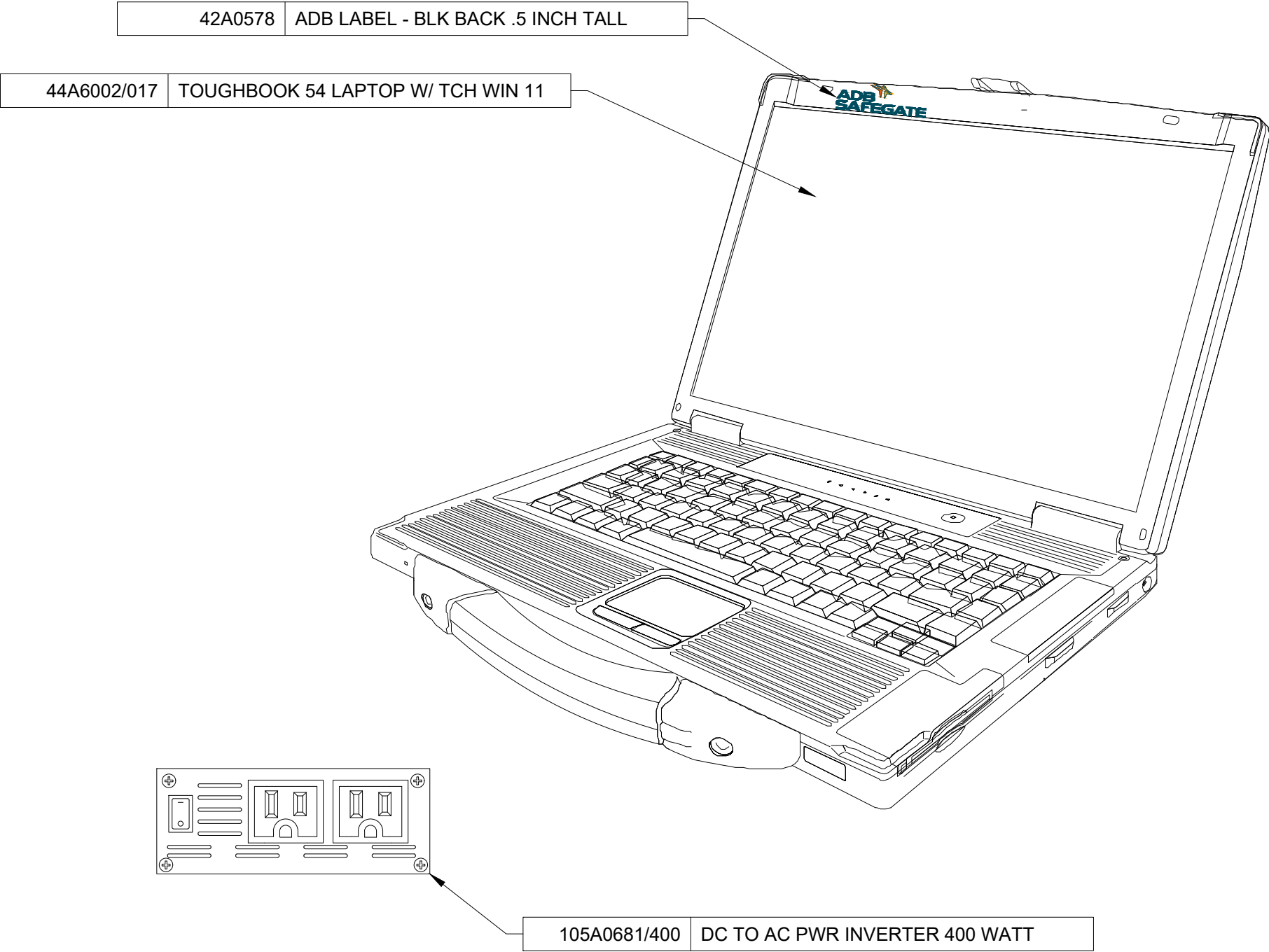
DRAWING INFORMATION:
MAINTENANCE CENTER ASSEMBLY
COMMUNICATION ENCLOSURE
COMMUNICATION LINK DIAGRAM
& NETWORK CONNECTIONS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		32 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	7 OF 1

ALC-ESD-2401-MNT01

ITEMS INCLUDED BUT NOT SHOWN:

105A1142	PANASONIC TOUGHBOOK 54 DOCK
105A0941	AC ADAPTER (3 PIN) FOR TOUGHBOOK
105A0846	AC ADAPTER 1' EXTENSION CORD
83A0023	LAPTOP CASE FOR RUGGED LAPTOP



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
ROAMING LAPTOP ASSEMBLY

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		33 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

ALC-ESD-2401-RMC01

SPARE PARTS ASSEMBLY

PART NUMBER	DESCRIPTION	QTY.
44A7656/ATW10	ARISTA INDUSTRIAL COMPUTER WINDOWS 10	1
EP00095-001-01	PCB ASSY, ACE3 Control PCB	1
44A7755	TOUCH SCREEN - BEZEL ASSEMBLY	2
44A6397	PCB ASSY, IRMS-LI (LOW IMPEDANCE)	2
44A7772/00	CURRENT/VOLTAGE MODULE 2 (CVM2) 6.6A 4'	2
C075	Ethernet Switch, Unmngd, 4TX-1FX, SM, SC	2
105A1037	HIRSCHMANN UNMGD INDSTRL ETH SW 24 PORT	2

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
SPARE PARTS ASSEMBLY

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		34 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

ALC-ESD-2401-SPR01

APPENDIX

DRAWINGS THAT FOLLOW THIS SHEET
ARE GENERAL ITEMS SUPPLIED BY ADB
SAFEGATE THAT MAY INCLUDE:
STANDARD PRODUCT ASSEMBLIES
MISCELLANEOUS INFORMATION
WIRING RECOMENDATIONS
MOUNTING RECOMMENDATIONS

Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:









SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		35 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

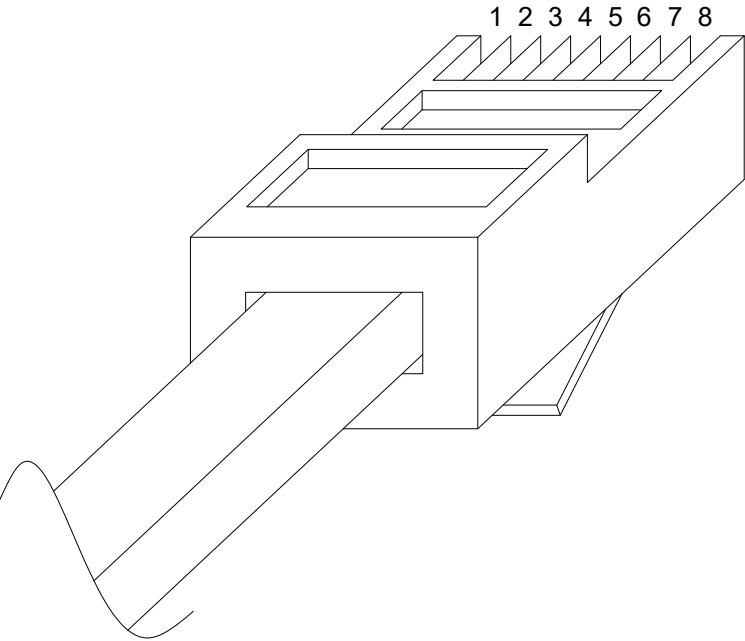
APPENDIX

120 VAC POWER WIRE(S)	
WIRE DEFINITION	WIRE COLOR
120VAC	BLACK
NEUTRAL	WHITE
GROUND	GREEN

CONTROL WIRE(S)	
WIRE DEFINITION	WIRE COLOR
CCI	WHITE
CC/B1/B10	BLACK
B2/B30	RED
B3/B100	BLUE
B4	ORANGE
B5	BROWN

MONITORING WIRE(S)	
WIRE DEFINITION	WIRE COLOR
NEUTRAL	PURPLE
PRIMARY POWER	GREY
REMOTE/LOCAL	REMOTE/LOCAL

CAT6 WIRING LAYOUT & SIGNAL DESCRIPTIONS				
RJ45 PIN #	WIRE COLOR		10/100 BASE	1000 BASE
1	WHITE/ORANGE		TRANSMIT +	BI_DA+
2	ORANGE		TRANSMIT -	BI_DA-
3	WHITE/GREEN		RECEIVE +	BI_DB+
4	BLUE		UNUSED	BI_DC+
5	WHITE/BLUE		UNUSED	BI_DC-
6	GREEN		RECEIVE -	BI_DB-
7	WHITE/BROWN		UNUSED	BI_DD+
8	BROWN		UNUSED	BI_DD-

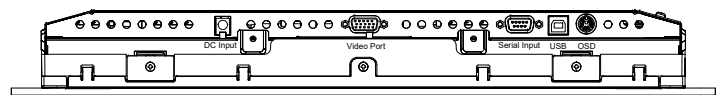
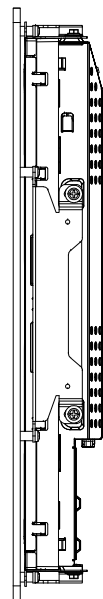
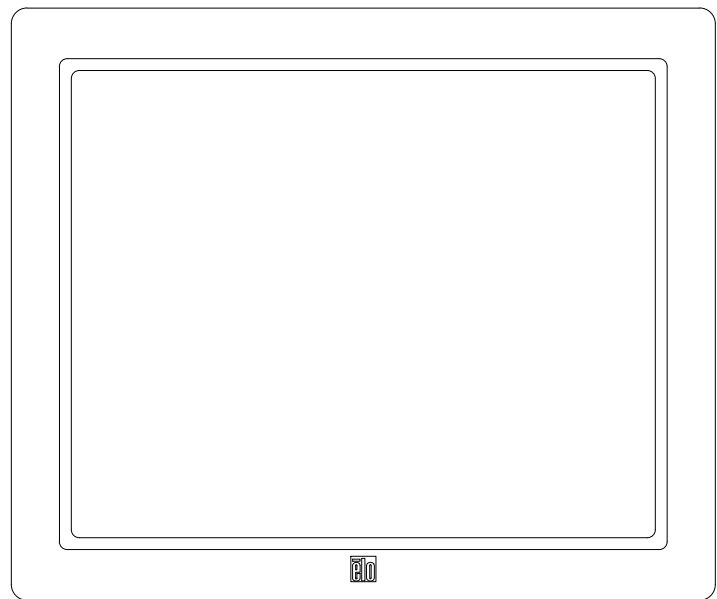


Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
CCR & ETHERNET COLOR CODES

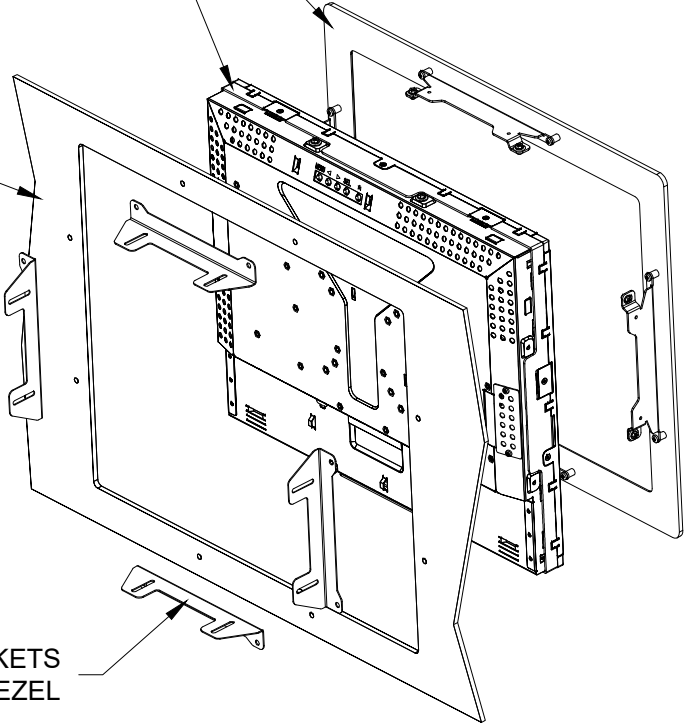
SET REVISION: A	DRAWN BY:	SET SHEET NUMBER: 36 OF 37
	DRAWN DATE: 19 AUG 24	PAGE NUMBER: 1 OF 1

COLOR CODES



105A0916	FRONT MOUNT BEZEL FOR 105A0915
105A0915	TOUCH SCREEN LCD 19"

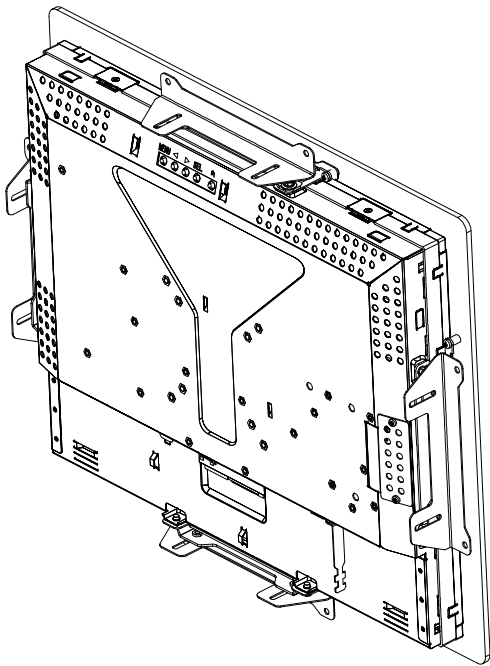
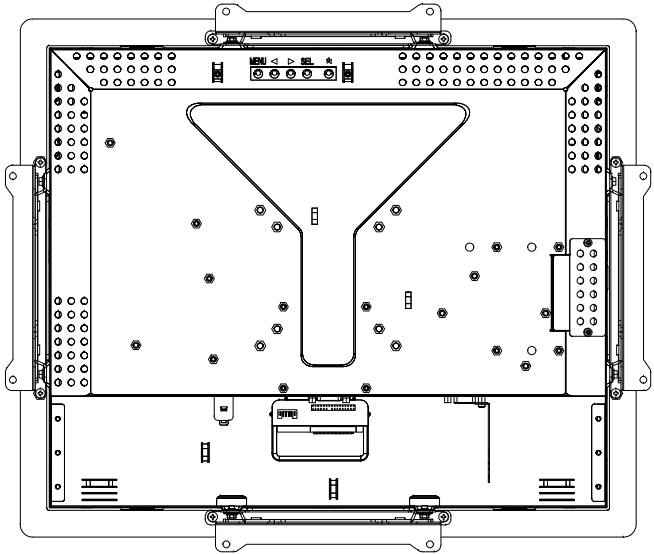
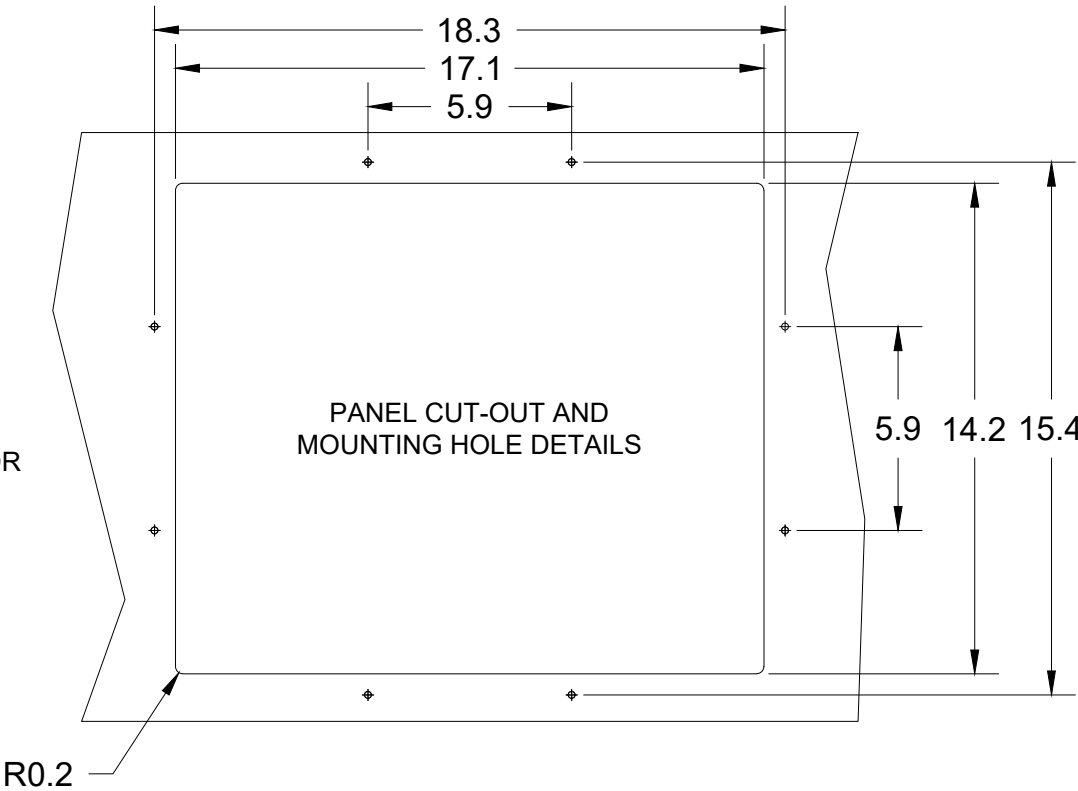
CUSTOMER SUPPLIED:
PANEL / CONSOLE / DESK



UNDER PANEL MOUNTING BRACKETS
QTY 4 - SUPPLIED WITH BEZEL

DRILL HOLES WITH #29 DRILL FOR
8-32 HARDWARE (M4)

IF MOUNTING WITH DIFFERENT
HARDWARE - ENSURE PROPER
SIZE PILOT HOLE IS USED.



Information contained on this drawing set is to be used expressly in accordance with the purpose for which it was designed & submitted. Any disclosure of this information is strictly prohibited except as ADB SAFEGATE may otherwise agree to in writing. Copyright © 2020 ADB SAFEGATE.

DRAWING INFORMATION:
19" TOUCHSCREEN INSTALLATION INSTRUCTIONS

SET REVISION:	DRAWN BY:	SET SHEET NUMBER:
A		37 OF 37
	DRAWN DATE:	PAGE NUMBER:
	19 AUG 24	1 OF 1

19" TOUCHSCREEN