



**ANODYNE
ELECTRONICS
MANUFACTURING CORP.**

SPECIAL NOTICE

This product is now licensed to Anodyne Electronics Manufacturing (AEM) from Northern Airborne Technology (NAT)/Cobham Aerospace Communications (CAC). AEM is responsible for all matters related to this product, including sales, support and repair services.

Please note the transition to convert product manuals and supporting documentation is an ongoing process and is being addressed on an 'as needed' basis.

All references to NAT product part numbers (and associated images) are equivalent to AEM product part numbers.

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AA21-407 Cabin PA System SM34 Installation and Operation Manual Supplement

This supplement contains installation and operation information that is unique to the AA21-407 Remote Mount Cabin PA system. Installation and operation information common to the AA21-400 base unit can be found in the **SM34** Installation and Operation Manual.

Prepared By:  Tony Pearson Designer Nov 14, 2016	Checked By:  Loen Clement Designer Nov 17, 2016	Approved By:  Todd Blackstock R&D Manager Dec 7/16
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Section 1.0 Description

The AA21-407 is identical to the AA21-400 with the following exceptions:

- a) Changes to the faceplate text can be seen by comparing Figure 1 to Figure 2.

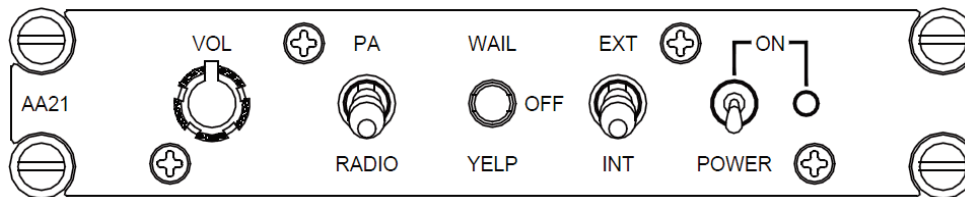


Figure 1: AA21-400

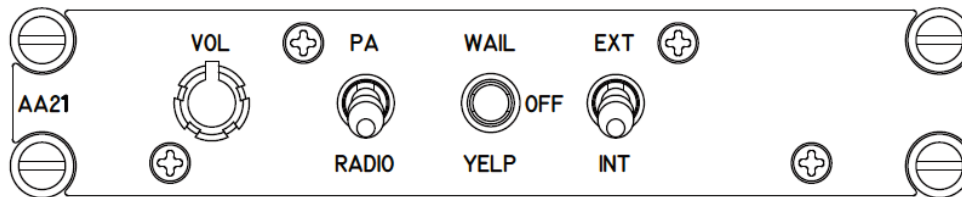


Figure 2: AA21-407

- b) The speaker output is replaced with a CABIN PA MIC output.
c) An INT/EXT discrete function is added.
d) The POWER switch and POWER ON indicator are not installed and the unit is hardwired on.
e) The faceplate backlighting is 5 Vdc NVIS Green A compliant.



**AA21-407 Cabin PA System
SM34 Installation and Operation Manual Supplement**

Section 2.0 Installation

For installation information and drawings, see **SM34** Section 2. Select the appropriate revision of the drawing for the serial number of the unit. The drawings specific to this derivative are listed below and can be found at the end of this supplement.

2.1 Installation Drawings

DOCUMENT	REV.	DESCRIPTION	TYPE	SERIAL NO.
AA21-407-403-0	1.01	PA Controller	Interconnect	1588 and up
AA21-407-405-0	1.01	PA Controller	Connector Map	1588 and up
AA21-407-905-0	1.10	PA Controller	Faceplate	066274 and up
AA21-407-905-0	1.00	PA Controller	Faceplate	1588 to 066273
AA21-407-922-0	1.20	PA Controller	Mech. Installation	066274 and up
AA21-407-922-0	1.10	PA Controller	Mech. Installation	060512 to 066273
AA21-407-922-0	1.00	PA Controller	Mech. Installation	1588 to 060412

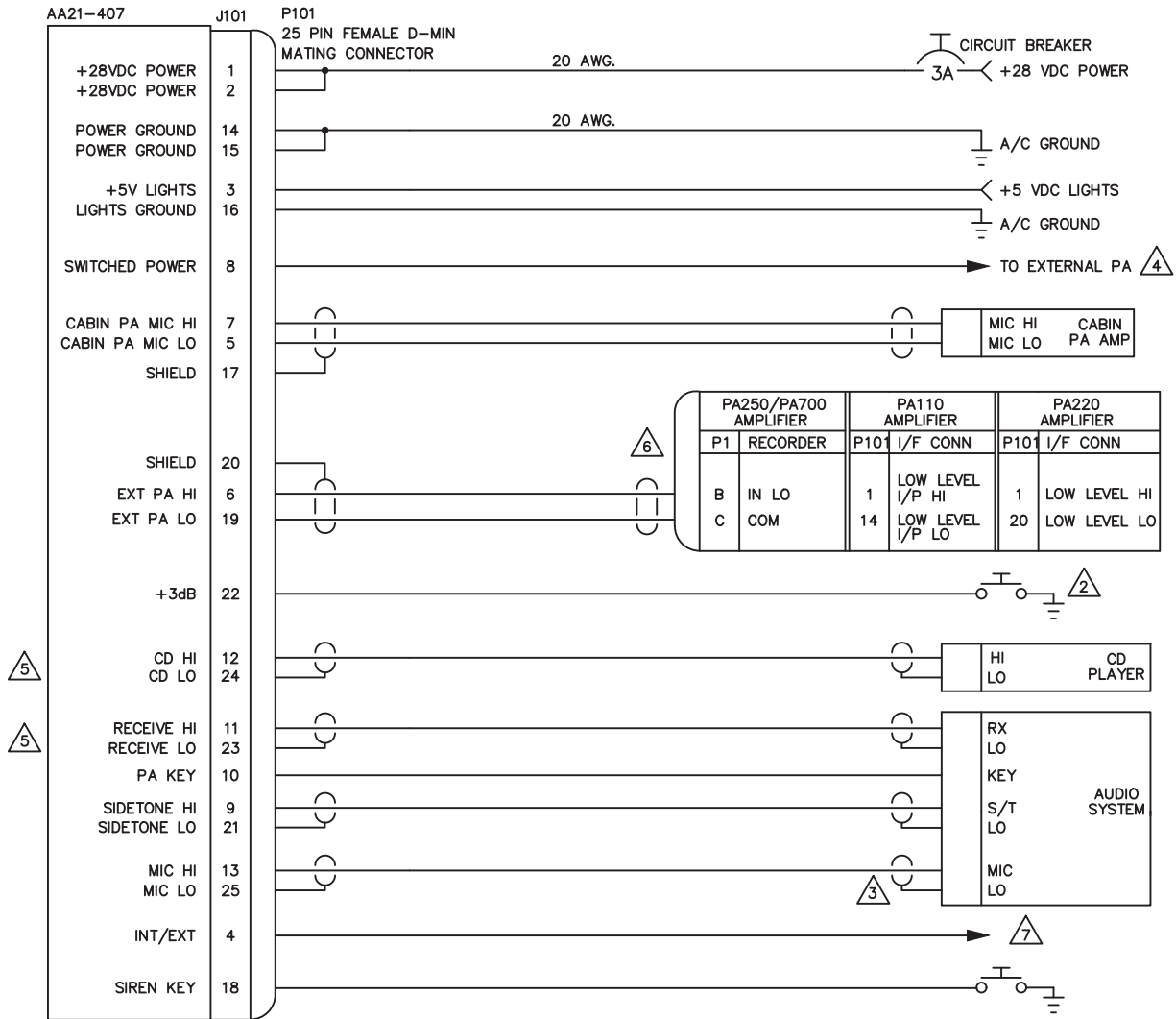
Section 3.0 Operation

For operation information, see **SM34** Section 3, with the following exception.

End of Supplement

REVISIONS

REV	DESCRIPTION	DATE	BY
1.10	ECO1054 - UPDATED TO AEM TITLEBLOCK.	OCT 14/16	LAC






NOTES:

- ALL WIRES SHOULD BE 22 AWG UNLESS OTHERWISE SPECIFIED. ALL UNSHIELDED WIRE SHALL BE SELECTED IN ACCORDANCE WITH AC43.13-1B CHANGE 1, PARAGRAPHS 11-76 THROUGH 11-78. WIRE TYPES SHOULD BE TO MIL-W-22759 AS SPECIFIED IN AC43.13-1B CHANGE 1, PARAGRAPHS 11-85, 11-86 AND LISTED IN TABLE 11-11. ALL SHIELDED WIRE/CABLE SHOULD BE IN ACCORDANCE WITH MIL-C-27500.

- 2. GROUND TO REDUCE OUTPUT BY 3dB.
- 3. MIC LO MUST BE GROUNDED AT AUDIO PANEL.
- 4. +28VDC @ 400mA MAX.
- 5. JUMPER CONFIGURED. ONLY RECEIVE OR CD MAY BE USED AT ONE TIME.
- 6. REFER TO AA21 INSTALLATION AND OPERATION MANUAL FOR CORRESPONDING AA21 JUMPER SETTING.
- 7. PROVIDES GROUND IN EXT POSITION.

DEFINITIONS:

- N/C: NO CONNECTION. THE PIN IS NOT CONNECTED TO ANYTHING INTERNALLY, AND THEREFORE SHALL HAVE NO CONNECTION EXTERNALLY.
- RESERVED: MAY BE CONNECTED AND USED IN THE FUTURE. THE CIRCUITRY MAY BE PRESENT OR ADDED TO ACTIVATE THE FUNCTION. THE PIN MAY BE USED FOR TEST PURPOSES. THERE IS NO EXTERNAL CONNECTION.

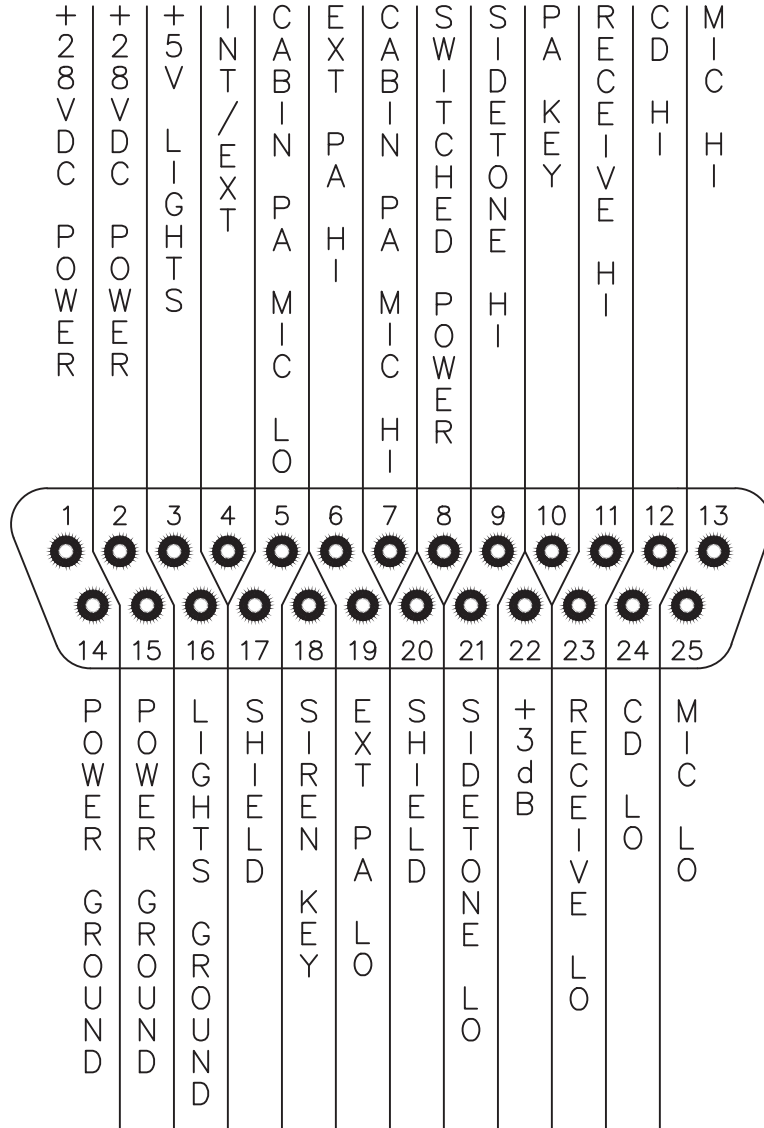
NAME	DATE	UNLESS OTHERWISE SPECIFIED:	 ANODYNE ELECTRONICS MANUFACTURING CORP.		KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM
DRAWN	MWS	NOV 16/06	DIMENSIONS ARE IN INCHES [MM] TOLERANCES: FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"		
CHECKED		Oct 21, 2016	TITLE:		
APPROVED		Oct 27/16	PA CONTROLLER INTERCONNECT		
CONFIDENTIAL AND PROPRIETARY THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ANODYNE ELECTRONICS MANUFACTURING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ANODYNE ELECTRONICS MANUFACTURING IS PROHIBITED.			MATERIAL:	N/A	
			FINISH:	N/A	
PAPER SIZE:		CAGE CODE	PART No.:		REVISION
A		L9015	AA21-407		1.01
SCALE:N/A		DO NOT SCALE DRAWING		DRAWING No.: 403-0	SHEET:1 of 1

REVISIONS




REV	DESCRIPTION	DATE	BY
1.01	ECO1054 - UPDATED TO AEM TITLEBLOCK.	OCT 14/16	LAC

P101

25 PIN FEMALE D-MIN
MATING CONNECTOR

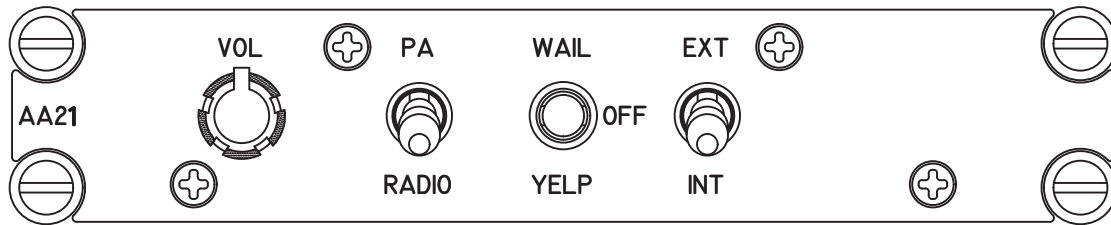





VIEW IS FROM REAR OF AIRFRAME CONNECTOR

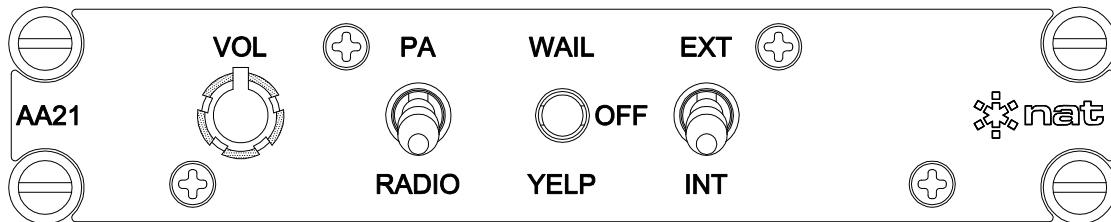
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DRAWN	MWS	NOV 16/06	DIMENSIONS ARE IN INCHES [MM] TOLERANCES:	
CHECKED		Oct 21, 2016	FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010° THREE DECIMAL PLACE _____ ±0.005"	
APPROVED		Oct 26/16	TITLE:	PA CONTROLLER CONNECTOR MAP
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			FINISH:	

REVISIONS



REV	DESCRIPTION	DATE	BY
1.10	ECO1054 - UPDATED TO AEM FORMAT AND REMOVED NAT LOGO.	OCT 20/16	LAC



	NAME	DATE	UNLESS OTHERWISE SPECIFIED:	 ANODYNE ELECTRONICS MANUFACTURING CORP.		KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM			
DRAWN	MWS	NOV 16/06	DIMENSIONS ARE IN INCHES [MM] TOLERANCES: FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"						
CHECKED		21-Oct-16		TITLE: PA CONTROLLER FACEPLATE					
APPROVED		26-Oct-2016							
CONFIDENTIAL AND PROPRIETARY THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ANODYNE ELECTRONICS MANUFACTURING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ANODYNE ELECTRONICS MANUFACTURING IS PROHIBITED.			MATERIAL:	N/A		PAPER SIZE:	CAGE CODE	PART No.:	REVISION
			FINISH:	N/A		A	L9015	AA21-407	1.10
					SCALE:1:1	DO NOT SCALE DRAWING		DRAWING No.: 905-0	SHEET:1 of 1

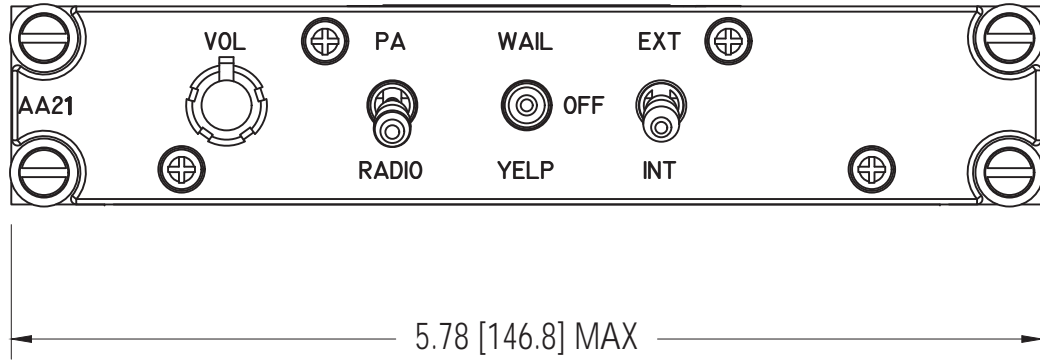
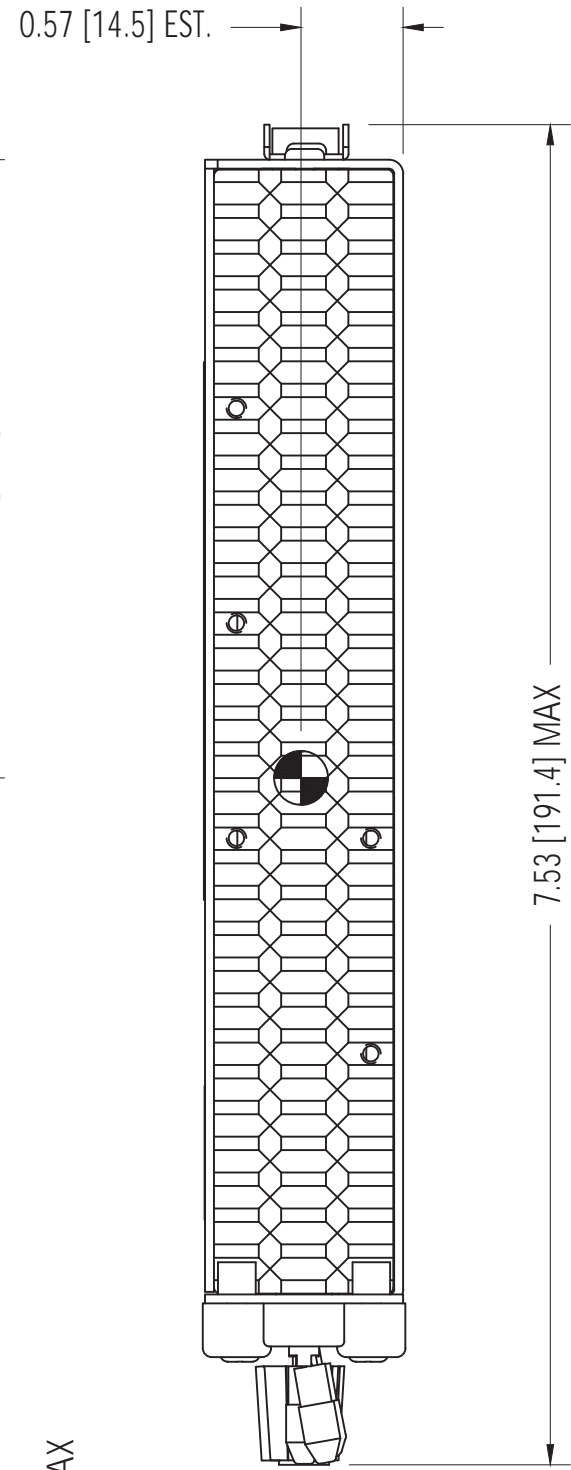
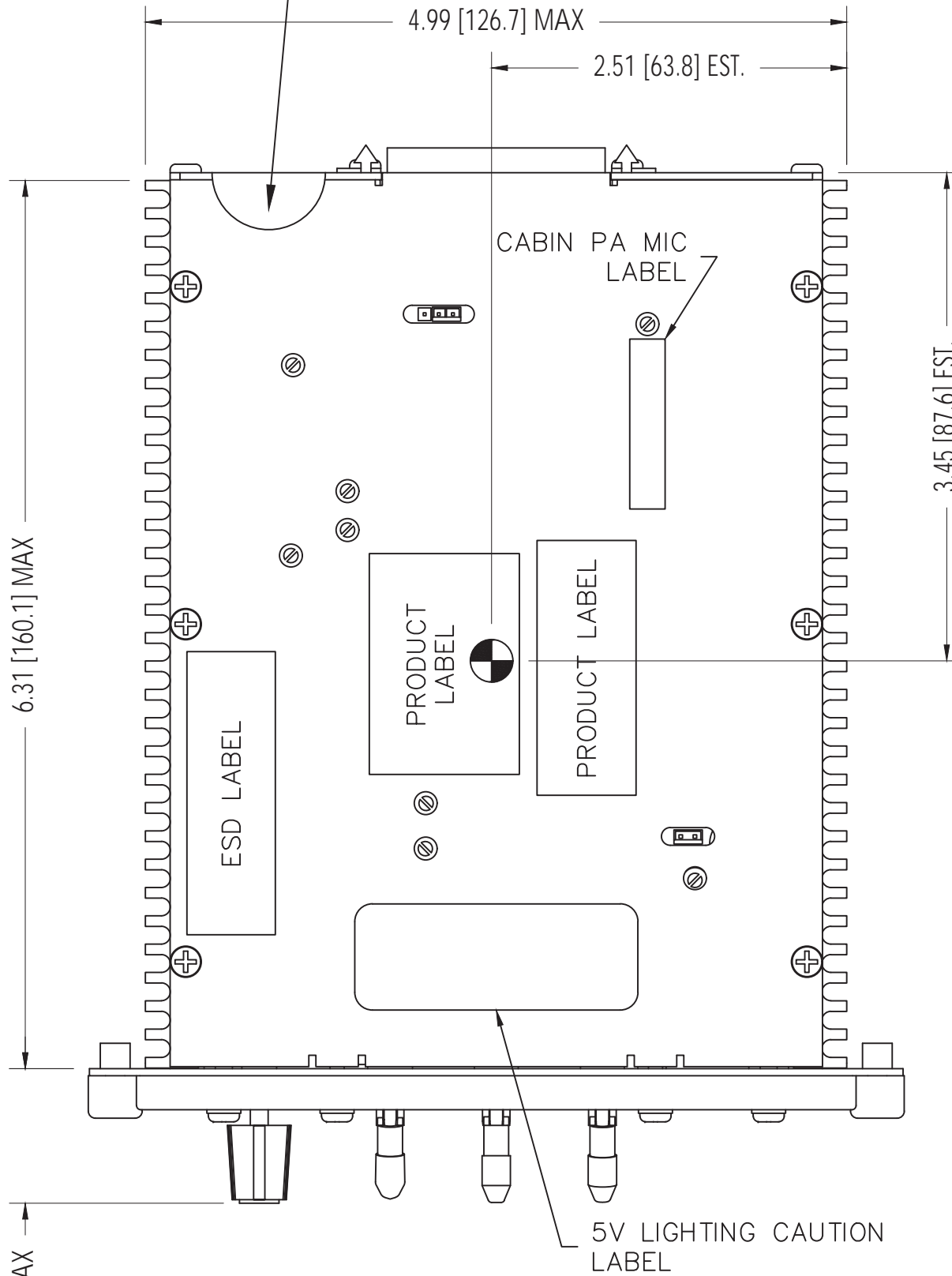


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DESIGNED	KV	 nat NORTHERN AIRBORNE TECHNOLOGY LTD.				
DRAWN	MWS					
DATE	NOV 16/06	TITLE PA CONTROLLER FRONT VIEW				
CHECKED	NAT 105 PROB 255					
APPROVED		SIZE A	CAGE CODE 3AB01	PART NO. AA21-407	REV. 1.00	SHEET 1/1
FILE	905-0.DWG	DWG. TYPE	FACEPLATE	DWG. NO.	AA21\407\905-0	

REVISIONS			
REV	DESCRIPTION	DATE	BY
1.10	SEE PREVIOUS REV FOR DETAILS.	MAY 31/12	KPM
1.20	ECO1054 - UPDATED TO AEM FORMAT AND REMOVED NAT LOGO.	OCT 20/16	LAC

WARRANTY VOID LABEL



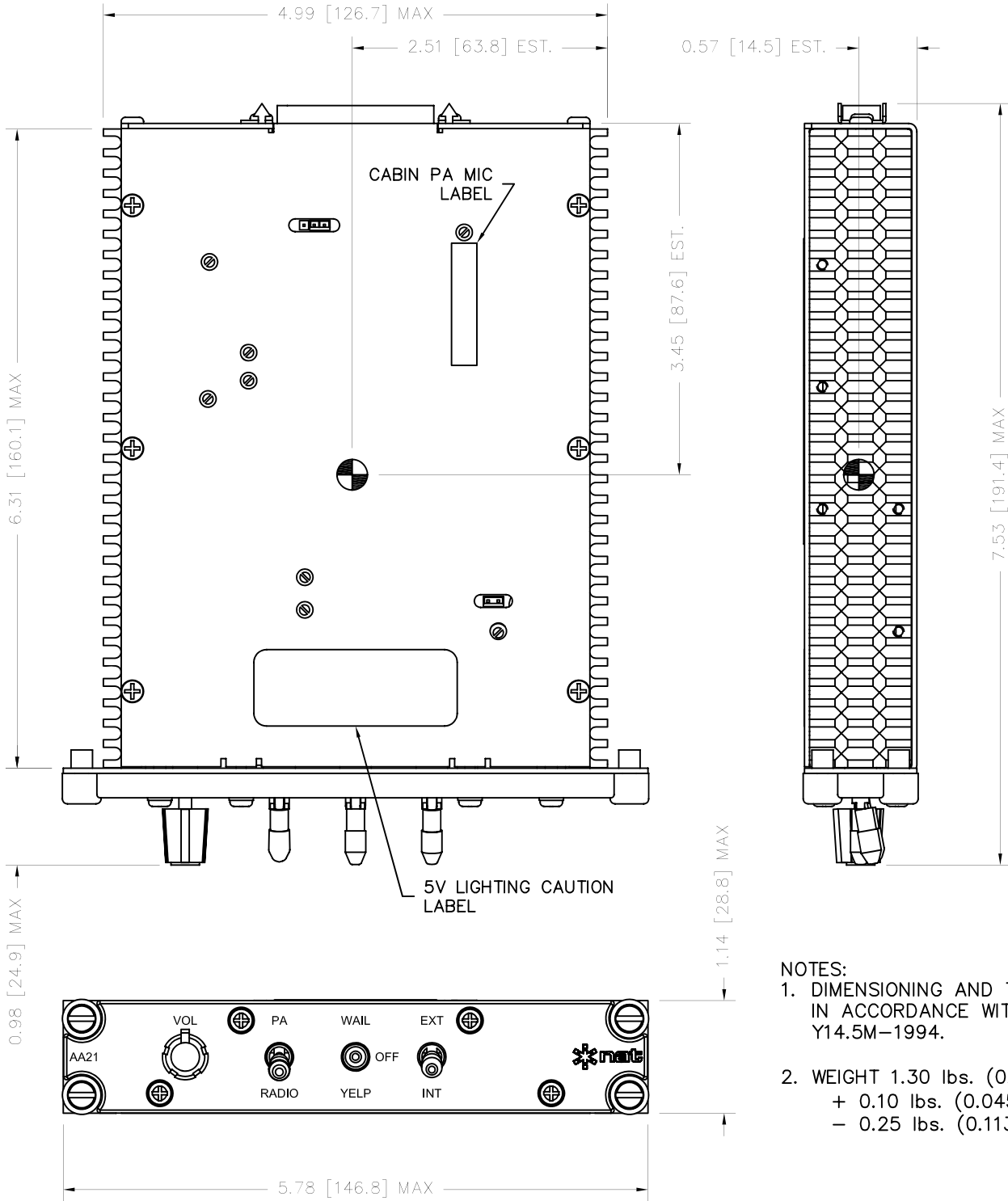
- NOTES:
- DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-1994.
 - WEIGHT 1.30 lbs. (0.59 kg.)
+ 0.10 lbs. (0.045 kg.) MAX
- 0.25 lbs. (0.113 kg.) MIN

NAME	DATE	UNLESS OTHERWISE SPECIFIED:
DRAWN MWS	NOV 16/06	DIMENSIONS ARE IN INCHES [MM]
CHECKED <i>[Signature]</i>	21-Oct-16	TOLERANCES:
APPROVED <i>[Signature]</i>	Oct 21/16	FRACTIONAL ±0.0625"
		ANGULAR ±0.5°
		TWO DECIMAL PLACE ±0.010"
		THREE DECIMAL PLACE ±0.005"
CONFIDENTIAL AND PROPRIETARY THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ANODYNE ELECTRONICS MANUFACTURING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ANODYNE ELECTRONICS MANUFACTURING IS PROHIBITED.		MATERIAL: N/A
		FINISH: N/A

AEM ANODYNE ELECTRONICS MANUFACTURING CORP.		KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM	
TITLE: PA CONTROLLER MECHANICAL INSTALLATION			
PAPER SIZE: B	CAGE CODE: L9015	PART No.: AA21-407	REVISION: 1.20
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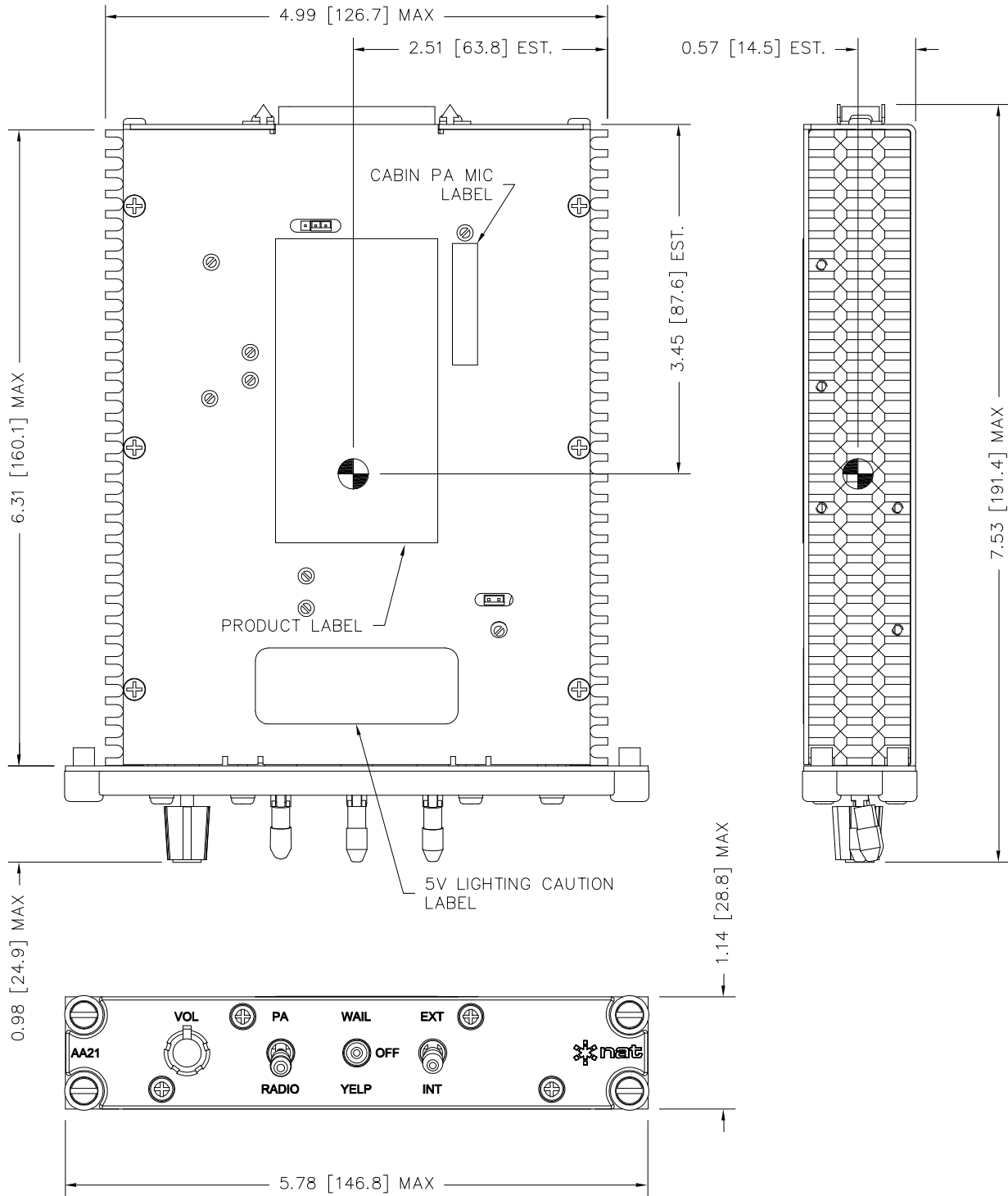
REVISIONS			
REV	DESCRIPTION	DATE	BY
1.10	W12265 - REMOVED PRODUCT LABEL, ADDED WEIGHT TOLERANCES. CHANGED DIMENSION TOLERANCE FROM ±0.010 TO ±0.030.	MAY 31/12	KPM



- NOTES:
1. DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-1994.
 2. WEIGHT 1.30 lbs. (0.59 kg.) + 0.10 lbs. (0.045 kg.) MAX - 0.25 lbs. (0.113 kg.) MIN

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TOLERANCES UNLESS STATED OTHERWISE 0.X=+/-0.030 0.XX=+/-0.030 0.XXX=+/-0.005 0.XXXX=+/-0.002 ANGLE=+/- 0.5 DEG.	DIMENSIONS IN INCHES THIRD ANGLE PROJECTION	DESIGNED	SRK					
		DRAWN	MWS					
		DATE	NOV 16/06	TITLE	PA CONTROLLER Published on June 14, 2012			
		CHECKED		SIZE	CAGE CODE	PART NO.	REV.	SHEET
MASS:		APPROVED		A	3AB01	AA21-407	1.10	1/1
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NOTES:
 1. DIMENSIONING AND TOLERANCING
 IN ACCORDANCE WITH ASME Y14.5M-1994

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TOLERANCES UNLESS STATED OTHERWISE 0.X=+/-0.030 0.XX=+/-0.010 0.XXX=+/-0.005 0.XXXX=+/-0.002 ANGLE=+/- 0.5 DEG.	DIMENSIONS IN INCHES	DESIGNED	SRK	NAT NORTHERN AIRBORNE TECHNOLOGY LTD.				
	THIRD ANGLE PROJECTION	DRAWN	MWS					
		DATE	NOV 16/06	TITLE				
		CHECKED	NAT 284	PA CONTROLLER				
MASS: 1.4 lbs. (0.64 Kg) MAX		APPROVED	NAT 114	SIZE	CAGE CODE	PART NO.	REV.	SHEET
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