



**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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## AA21-405 Cabin PA System SM34 Installation and Operation Manual Supplement

This supplement contains installation and operation information that is unique to the AA21-405 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.

<b>Prepared By:</b>  Tony Pearson Designer Nov 10, 2016	<b>Checked By:</b>  Loen Clement Designer Nov 17, 2016	 Tom Betzelt Product Support Manager Nov 17, 2016	<b>Approved By:</b>  Todd Blackstock R&D Manager Dec 6/16
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### Section 1.0 Description

The AA21-405 is identical to the AA21-400 with the following exceptions:

- The faceplate is 5V Type IV NVIS Green A.
- The POWER ON LED is not installed.
- Changes to the faceplate text can be found by comparing Figure 1 to Figure 2:

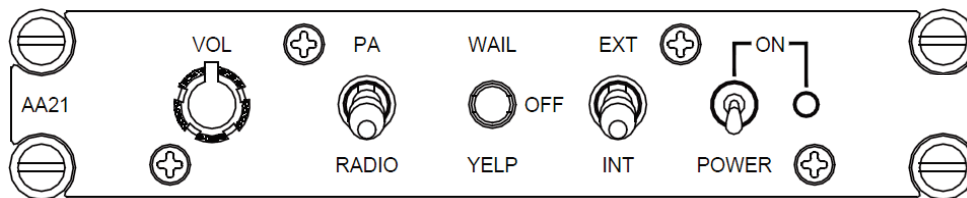


Figure 1: AA21-400 Faceplate.

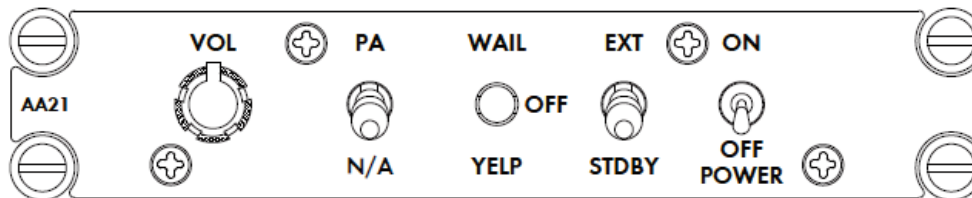


Figure 2: AA21-405 Faceplate.



**AA21-405 Cabin PA System  
SM34 Installation and Operation Manual Supplement**

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**Section 2.0 Installation**

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**2.1 Installation Drawings**

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Select the appropriate revision of the drawing for the serial number of the unit under consideration. The drawings specific to this derivative are listed below, and can be found at the end of this supplement.

<b>DOCUMENT</b>	<b>REV.</b>	<b>DESCRIPTION</b>	<b>TYPE</b>	<b>SERIAL NO.</b>
AA21-405-403-0	1.02	Cabin PA System	Interconnect	1607 and up
AA21-405-405-0	1.01	Cabin PA System	Connector Map	1607 and up
AA21-405-905-0	1.10	Cabin PA System	Faceplate	066274 and up
AA21-405-905-0	1.00	Cabin PA System	Faceplate	1607 to 066273
AA21-405-922-0	1.20	Cabin PA System	Mechanical Installation	066274 and up
AA21-405-922-0	1.10	Cabin PA System	Mechanical Installation	060512 to 066273
AA21-405-922-0	1.00	Cabin PA System	Mechanical Installation	1607 to 060412

**Section 3.0 Operation**

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

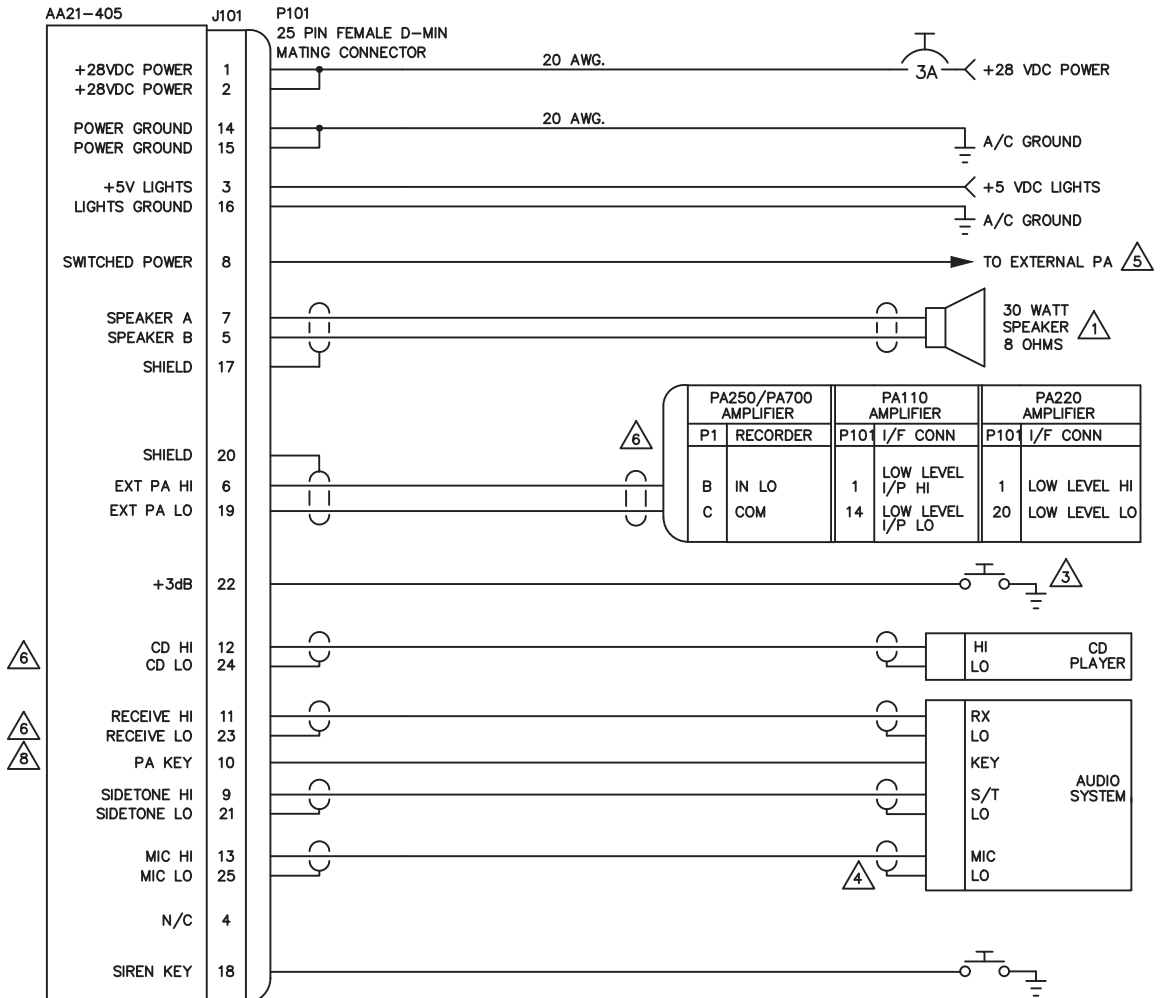
To activate the AA21-405 Cabin PA system, flip the POWER toggle switch up to the ON position. There is no indicator LED adjacent to the switch.

End of Supplement

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REVISIONS

REV	DESCRIPTION	DATE	BY
1.01	DOCCR02739 - ADDED NOTE 8.	FEB 5/09	TAT
1.02	ECO1054 - UPDATED TO AEM TITLEBLOCK.	OCT 14/16	LAC



NOTES:

- 1 EQUIVALENT SERIES/PARALLEL SPEAKERS MAY BE USED.
- 2 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.
- 3 GROUND TO REDUCE OUTPUT BY 3dB.
- 4 MIC LO MUST BE GROUNDED AT AUDIO PANEL.
- 5 +28VDC @ 400mA MAX.
- 6 JUMPER CONFIGURED. ONLY RECEIVE OR CD MAY BE USED AT ONE TIME.
- 7 REFER TO AA21 INSTALLATION AND OPERATION MANUAL FOR CORRESPONDING AA21 JUMPER SETTING.
- 8 WHEN CONNECTED TO AN AUDIO SYSTEM WITHOUT A PA KEY OUTPUT, CONNECT PIN 10 TO GROUND. WHEN CONNECTED TO AN AUDIO SYSTEM WITH A PA KEY OUTPUT, CONNECT AS SHOWN




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.

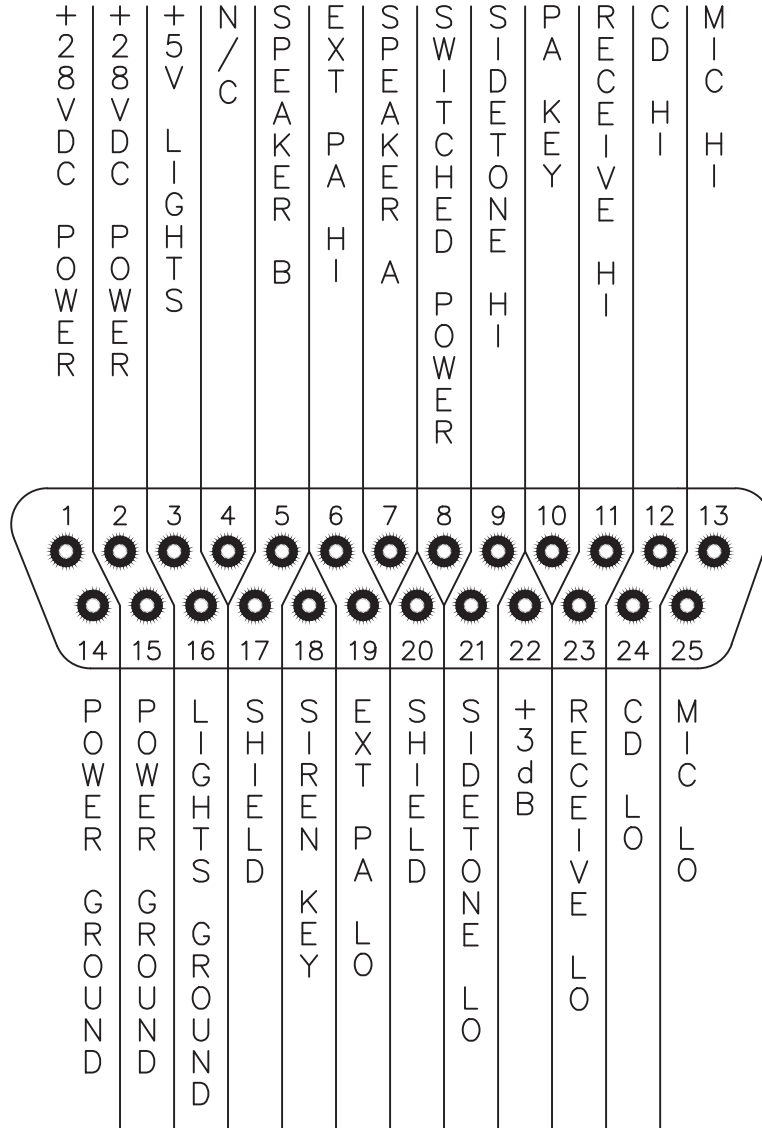
NAME	DATE	UNLESS OTHERWISE SPECIFIED:	 <b>ANODYNE ELECTRONICS MANUFACTURING CORP.</b>		KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM
DRAWN	MWS	APR 10/07	DIMENSIONS ARE IN INCHES [MM] TOLERANCES: FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"		
CHECKED		Oct 21, 2016	TITLE:		
APPROVED		Oct 27/16	CABIN PA SYSTEM 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	AA21-405		1.02
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

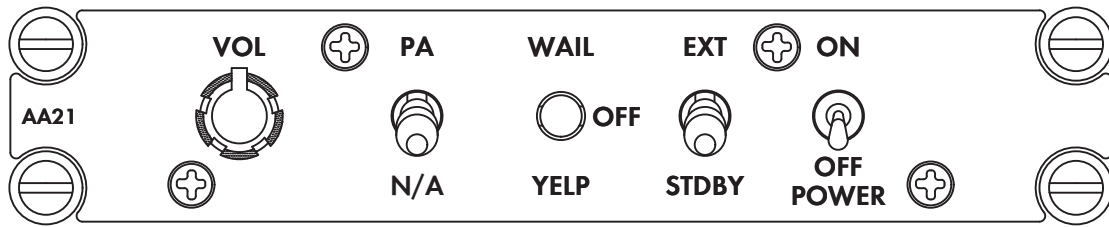





VIEW IS FROM REAR OF AIRFRAME CONNECTOR

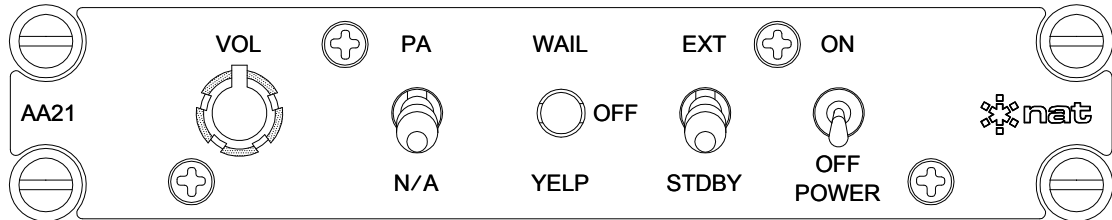
NAME	DATE	UNLESS OTHERWISE SPECIFIED:	 <b>ANODYNE ELECTRONICS MANUFACTURING CORP.</b> KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM		
DRAWN	MWS MAR 13/07	DIMENSIONS ARE IN INCHES [MM] TOLERANCES: FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"			
CHECKED	 Oct 21, 2016	MATERIAL: N/A	TITLE: <h2 style="text-align: center;">CABIN PA SYSTEM CONNECTOR MAP</h2>		
APPROVED	 Oct 27/16	FINISH: N/A			
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.		PAPER SIZE: A CAGE CODE: L9015 SCALE: N/A	PART No.: AA21-405 DO NOT SCALE DRAWING	REVISION: 1.01 DRAWING No.: 405-0	SHEET: 1 of 1

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:			KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM			
DRAWN	MWS	MAR 13/07	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: <h2 style="text-align: center;">CABIN PA SYSTEM FACEPLATE</h2>					
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	AA21-405	1.10
					SCALE:1:1	DO NOT SCALE DRAWING		DRAWING No.: 905-0	SHEET:1 of 1

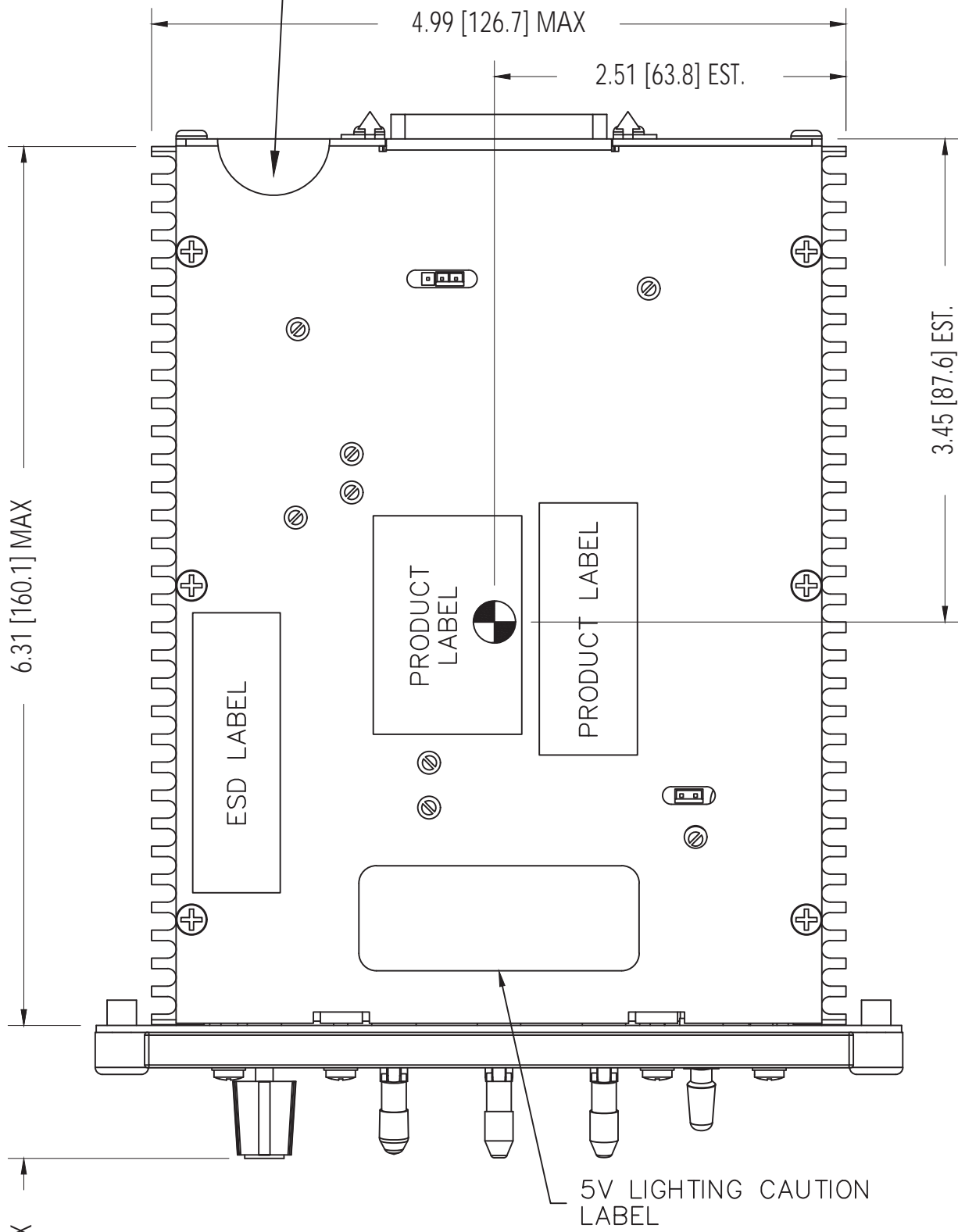


CONFIDENTIAL AND PROPRIETARY TO NAT LTD.

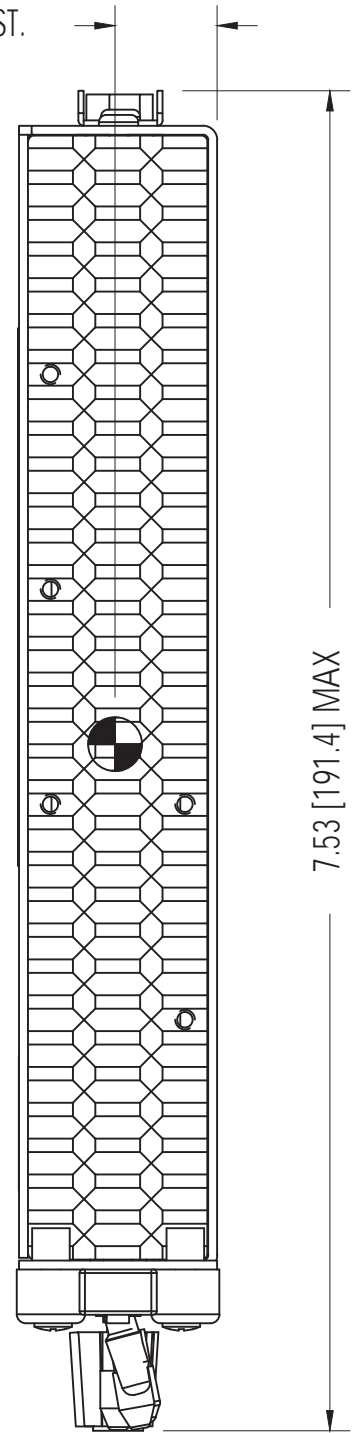
DESIGNED	JH	 <b>nat</b> NORTHERN AIRBORNE TECHNOLOGY LTD.				
DRAWN	MWS					
DATE	MAR 13/07	TITLE				
CHECKED	NAT 105 PROB 255	CABIN PA SYSTEM				
APPROVED		SIZE	CAGE CODE	PART NO.	REV.	SHEET
FILE	905-0.DWG	A	3AB01	AA21-405	1.00	1/1
DWG. TYPE		FACEPLATE		DWG. NO.		AA21\405\905-0


REVISIONS			
REV	DESCRIPTION	DATE	BY
1.10	SEE PREVIOUS REV FOR DETAILS.	MAY 31/12	KPM
1.20	EC01054 - UPDATED TO AEM FORMAT AND REMOVED NAT LOGO.	OCT 20/16	LAC

WARRANTY VOID LABEL



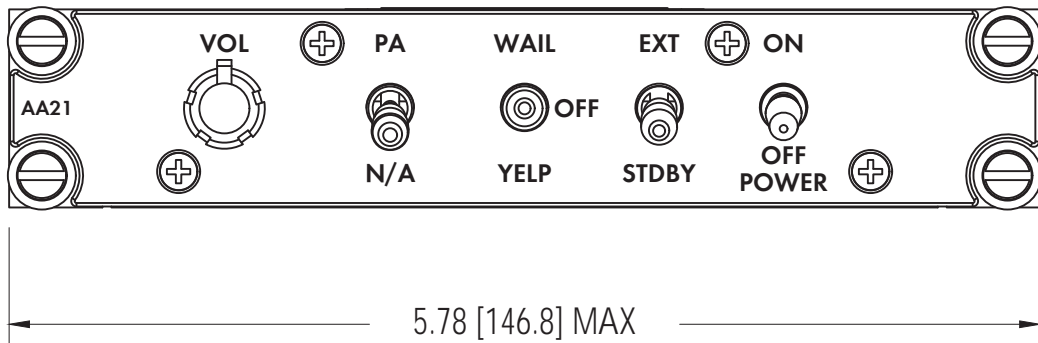
0.57 [14.5] EST.






 CENTER OF GRAVITY

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	JUN 05/12	DIMENSIONS ARE IN INCHES [MM]
CHECKED 	21-Oct-16	TOLERANCES:
APPROVED 	Oct 21/16	FRACTIONAL _____ ±0.0625"
<p><b>CONFIDENTIAL AND PROPRIETARY</b> 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.</p>		ANGULAR _____ ±0.5°
		TWO DECIMAL PLACE _____ ±0.010"
		THREE DECIMAL PLACE _____ ±0.005"
MATERIAL:		N/A
FINISH:		N/A

		ANODYNE ELECTRONICS MANUFACTURING CORP.		KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM	
TITLE: CABIN PA SYSTEM MECHANICAL INSTALLATION					
PAPER SIZE: B	CAGE CODE: L9015	PART No.: AA21-405	REVISION: 1.20		
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING No.: 922-0	SHEET: 1 of 1		

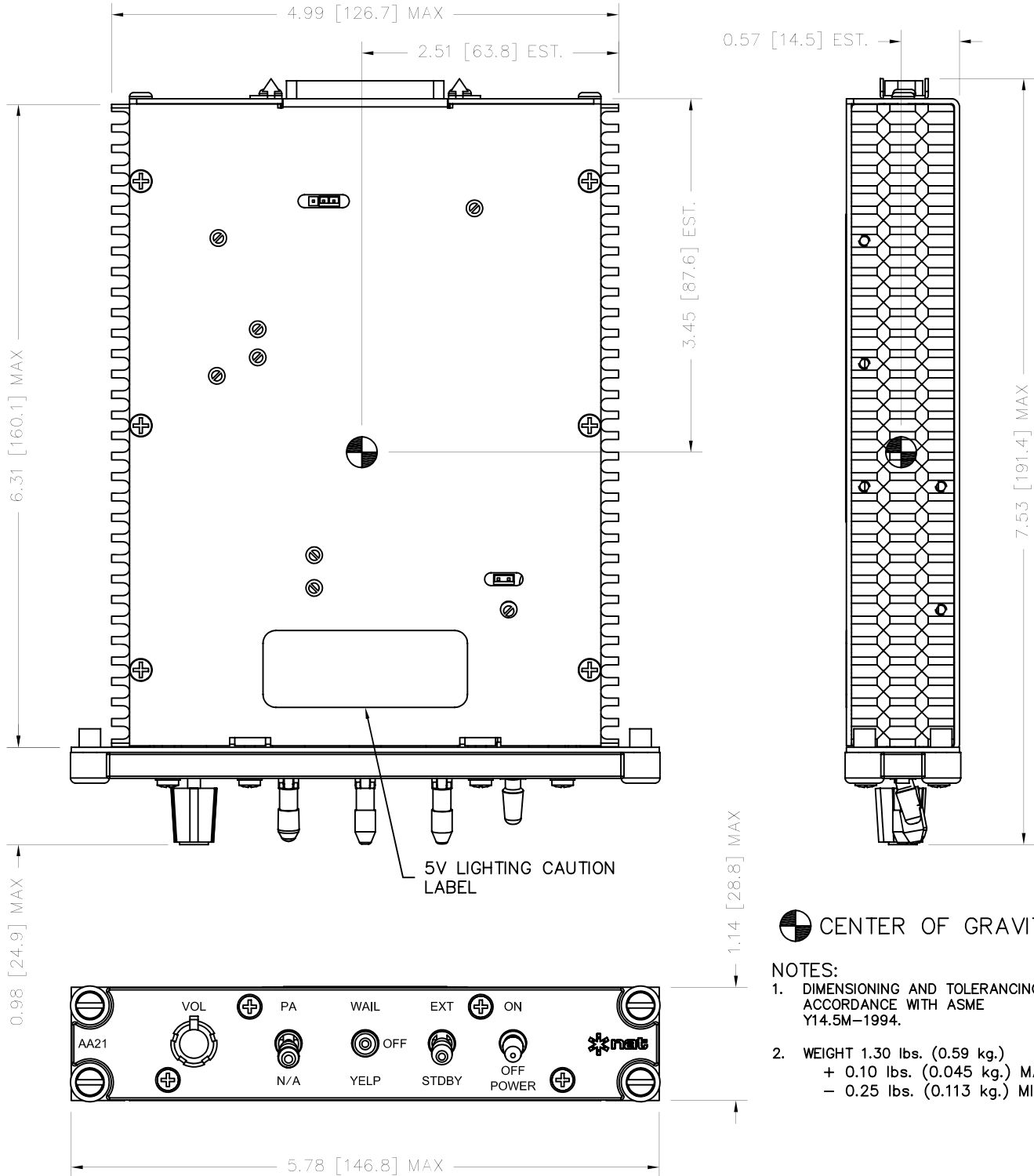


**? SEALED**

2012.06.09  
10:25:34  
-07'00'

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

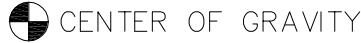
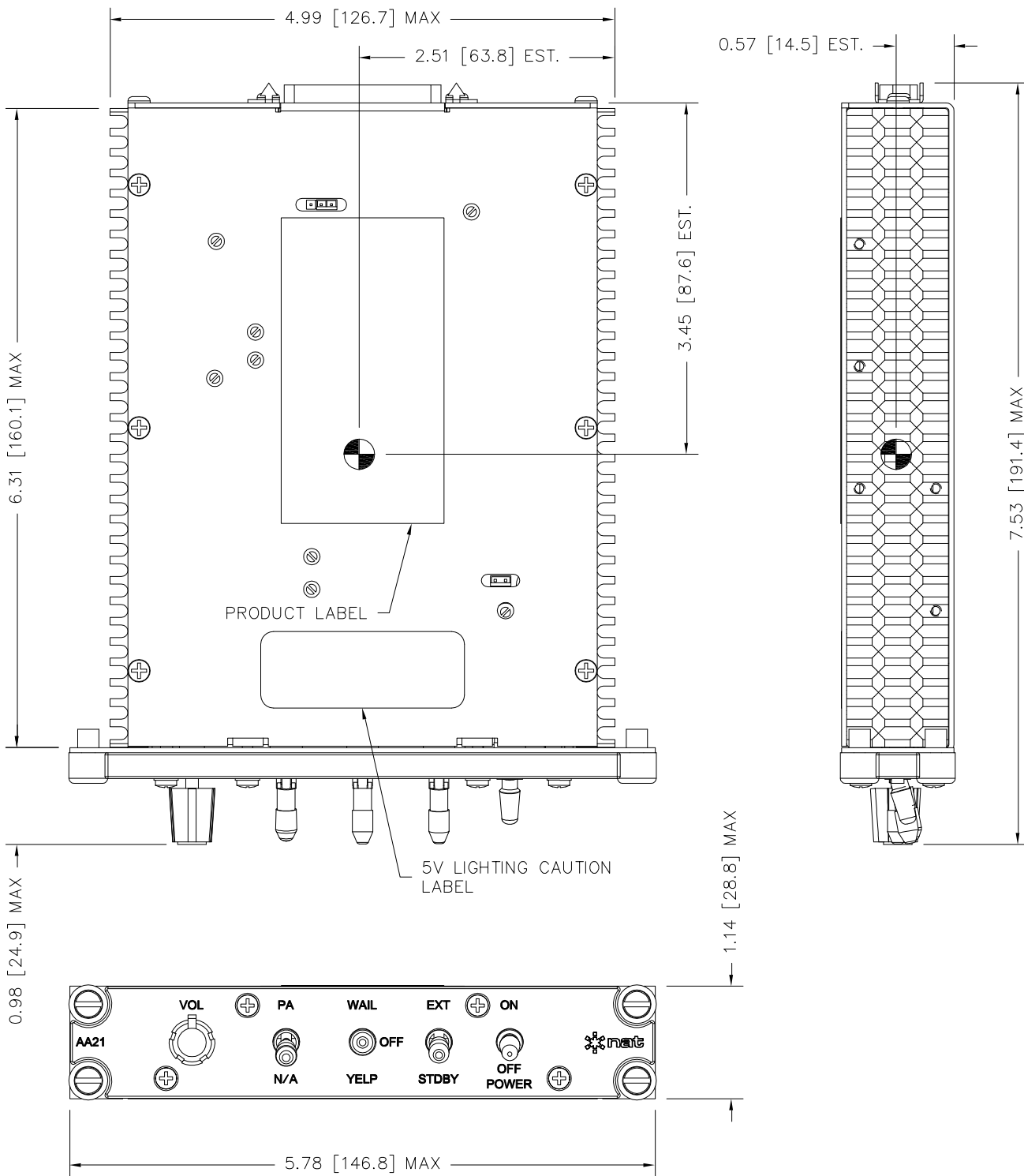


NOTES:

- 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

CONFIDENTIAL AND PROPRIETARY TO COBHAM

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	JUN 05/12	TITLE	CABIN PA SYSTEM			
		CHECKED	<i>[Signature]</i>					
MASS:		APPROVED	<i>[Signature]</i>	SIZE	CAGE CODE	PART NO.	REV.	SHEET
MATERIAL: -				A	3AB01	AA21-405	1.10	1/1
FINISH: -		FILE	922-0.DWG	DWG. TYPE	MECH. INSTALLATION	DWG. NO.	AA21-405-922-0	



NOTES:  
 1. DIMENSIONING AND TOLERANCING  
 IN ACCORDANCE WITH ASME Y14.5M-1994

CONFIDENTIAL AND PROPRIETARY TO NAT LTD.

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 THIRD ANGLE PROJECTION	DESIGNED SRK DRAWN MWS	NORTHERN AIRBORNE TECHNOLOGY LTD.			
		DATE APR 03/07 CHECKED NAT 284 NAT 255	TITLE CABIN PA SYSTEM			
MASS: 1.4 lbs. (0.64 Kg) MAX	APPROVED NAT 114	SIZE A	CAGE CODE 3AB01	PART NO. AA21-405	REV. 1.00	SHEET 1/1
FINISH: -	FILE 922-0.DWG	DWG. TYPE MECH. INSTALLATION	DWG. NO. AA21\405\922-0			