



**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.

Contact info:

**Anodyne Electronics Manufacturing Corp.**

#15-1925 Kirschner Road

Kelowna B.C. Canada

V1Y 4N7

Email: [support@aem-corp.com](mailto:support@aem-corp.com)

Toll Free: **1-888-763-1088**

Phone: 1-250-763-1088

Fax: 1-250-763-1089

[www.aem-corp.com](http://www.aem-corp.com)

**#15-1925 Kirschner Road, Kelowna BC Canada, V1Y 4N7**

**toll free 1-888-763-1088 t 250-763-1088 f 250-763-1089**

**[www.aem-corp.com](http://www.aem-corp.com)**



## AA21-450 Cabin PA System SM34 Installation and Operation Manual Supplement

This supplement contains installation and operation information that is unique to the AA21-450 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.

<p>Prepared By:</p> <div style="text-align: center;"> </div> <p>Tony Pearson Designer Nov 17, 2016</p>	<p>Checked By:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> <p>Loen Clement Designer Nov 17, 2016</p> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> <p>Tom Betzelt Product Support Manager Nov 17, 2016</p> </div> </div>	<p>Approved By:</p> <div style="text-align: center;"> </div> <p>Todd Blackstock R&amp;D Manager Dec 7/16</p>
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### Section 1.0 Description

The AA21-450 is identical to the AA21-400 with the following exceptions:

- a) The backlighting subassembly is powered by +5 Vdc instead of +28 Vdc.
- b) All instances of signal name “+28V LIGHTS” are replaced with “+5V LIGHTS”.

### 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.
<b>AA21-450</b>				
AA21-450-403-0	1.02	PA Controller	Interconnect	1220 and up
AA21-450-405-0	1.01	PA Controller	Connector Map	1220 and up
AA21-450-905-0	1.20	PA Controller	Faceplate Sheet 1 of 3	066274 and up
AA21-450-905-0	1.10	PA Controller	Faceplate Sheet 1 of 3	1220 to 066273

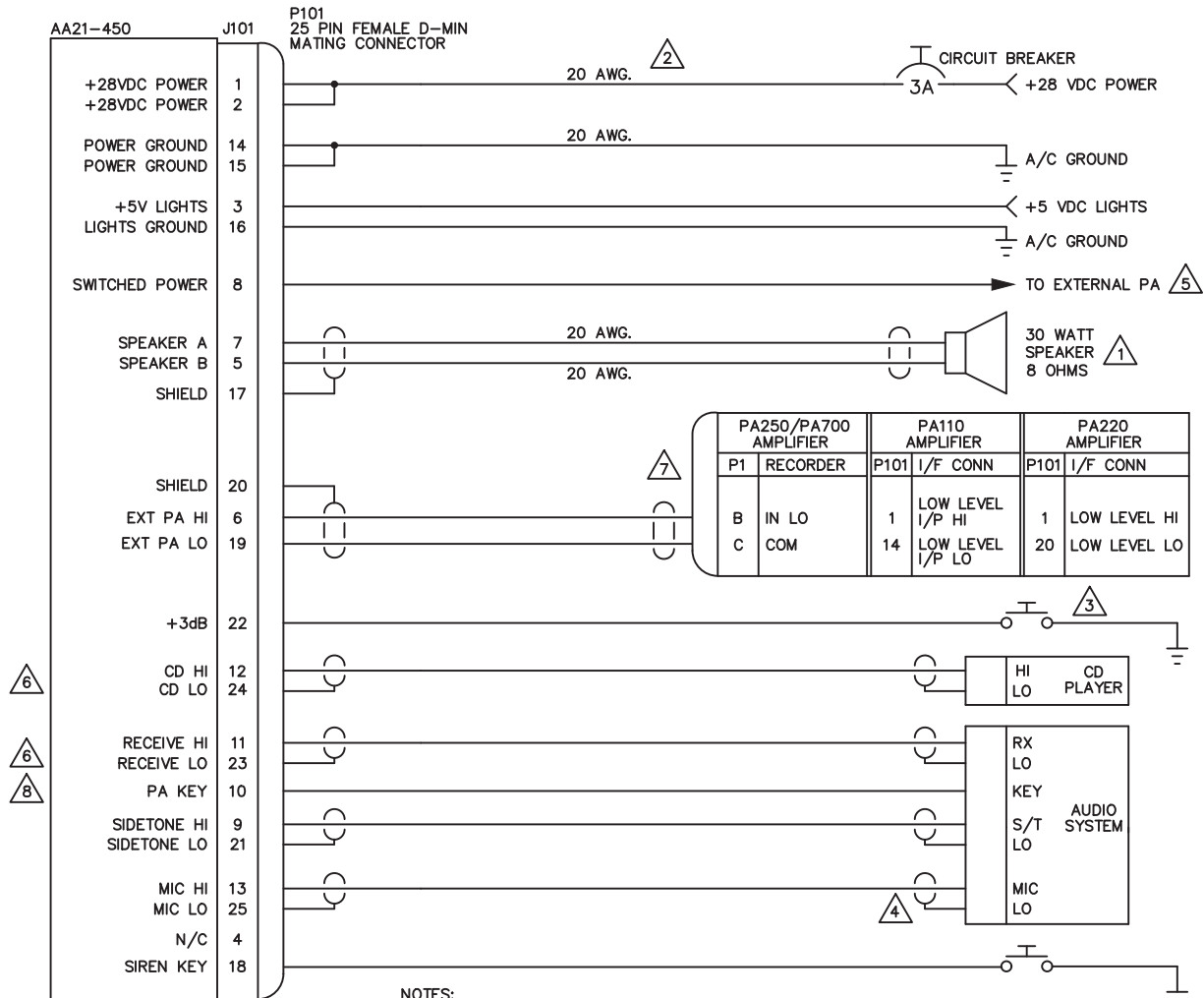
### Section 3.0 Operation

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

End of Supplement

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:

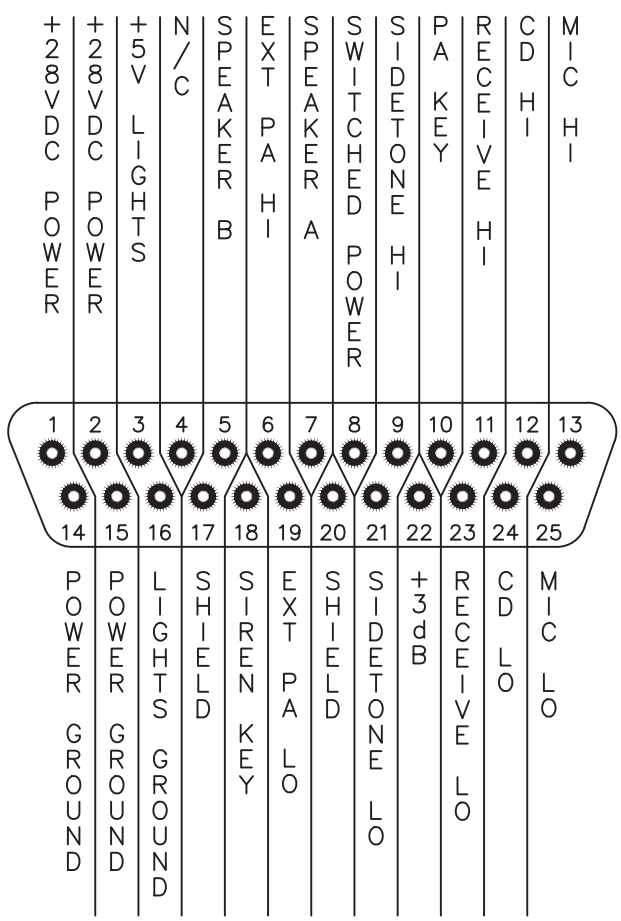
N/C:  
NO CONNECTION. THE PIN IS NOT CONNECTED TO ANYTHING INTERNALLY, AND THEREFORE SHALL HAVE NO CONNECTION EXTERNALLY.

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	TAT	OCT 22/01	DIMENSIONS ARE IN INCHES [MM] TOLERANCES: FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"		TITLE: <h2 style="text-align: center;">CABIN PA SYSTEM INTERCONNECT</h2>
CHECKED		Oct 21, 2016	MATERIAL: N/A FINISH: N/A		
APPROVED		Nov 8/16	PAPER SIZE: A	CAGE CODE: L9015	PART No.: AA21-450 REVISION: 1.02
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.			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

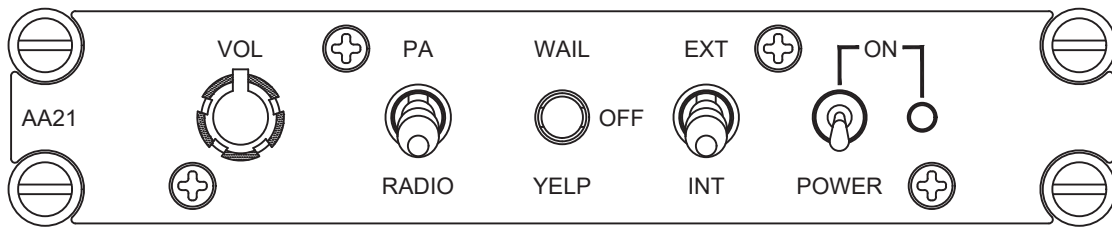





VIEW IS FROM REAR OF AIRFRAME CONNECTOR

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DRAWN	TAT	OCT 22/01	DIMENSIONS ARE IN INCHES [MM]	
CHECKED		Oct 21, 2016	TOLERANCES:	
APPROVED		Nov 8/16	FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"	
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			N/A	
			FINISH:	
			N/A	PAPER SIZE: <b>A</b> CAGE CODE: <b>L9015</b> PART No.: <b>AA21-450</b> REVISION: <b>1.01</b>
			SCALE: N/A	DO NOT SCALE DRAWING    DRAWING No.: 405-0    SHEET: 1 of 1

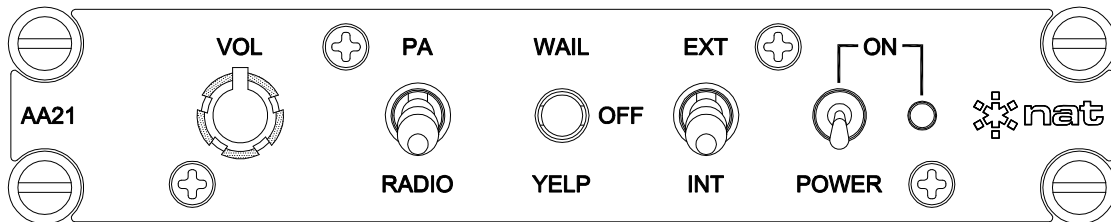
REVISIONS

REV	DESCRIPTION	DATE	BY
1.10	DOCCR01643 - "A" HOLE WAS 0.265 DIA 0.375 CBORE X 0.10 DEEP, "G" HOLE WAS 0.130 DIA X 0.200 CBORE X 0.15 DEEP.	MAR 28/06	TAT
1.20	ECO1054 - UPDATED TO AEM FORMAT AND REMOVED NAT LOGO.	OCT 27/16	LAC




	NAME	DATE	UNLESS OTHERWISE SPECIFIED:	 <b>ANODYNE ELECTRONICS MANUFACTURING CORP.</b>	KELOWNA BC CANADA (250)-763-1088 WWW.AEM-CORP.COM		
DRAWN	TAT	OCT 22/01	DIMENSIONS ARE IN INCHES [MM] TOLERANCES:				
CHECKED		27-Oct-16	FRACTIONAL _____ ±0.0625" ANGULAR _____ ±0.5° TWO DECIMAL PLACE _____ ±0.010" THREE DECIMAL PLACE _____ ±0.005"				
APPROVED		27-Oct-2016	MATERIAL:	TITLE: <b>PA CONTROLLER FACEPLATE</b>			
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.			N/A			PAPER SIZE: <b>A</b>	CAGE CODE: <b>L9015</b>
			FINISH:	SCALE:1:1   DO NOT SCALE DRAWING   DRAWING No.: 905-0		SHEET:1 of 3	

REVISIONS			
REV	DESCRIPTION	DATE	BY
1.10	DOCCR01643 - 'A' HOLE WAS 0.265 DIA 0.375 CBORE X 0.10 DEEP, 'G' HOLE WAS 0.130 DIA X 0.200 CBORE X 0.15 DEEP.	MAR 28/06	TAT



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DESIGNED	RL	 <b>NAT</b> NORTHERN AIRBORNE TECHNOLOGY LTD.				
DRAWN	TAT					
DATE	OCT 22/01	TITLE PA CONTROLLER FRONT VIEW				
CHECKED	<b>NAT 255</b>					
APPROVED	<b>NAT 131</b>	SIZE	CAGE CODE	PART NO.	REV.	SHEET
FILE	905-0.DWG	A	3AB01	AA21-450	1.10	1/3
DWG. TYPE		FACEPLATE		DWG. NO. AA21\450\905-0		