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REPORT NO. PR-206MC-120M

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

MINI-CAM INSTALLATION

FOR

BELL MODELS 206A, 206B, 206L1, 206L3, 206L4

**RECORD OF REVISIONS**

<b>REVISION NO.</b>	<b>ISSUE DATE</b>	<b>DATE INSERTED</b>	<b>BY</b>
ORIGINAL	05/01/07		PTI

**REVISION CONTROL PROCEDURE**

Revisions to this document are mailed to owner of record. Before inserting a change, ensure this manual is correct. Check the existing List of Effective Pages in this manual to ensure that all prior revisions are inserted. **Do not insert this revision if prior revisions are not inserted.**

**LIST OF EFFECTIVE PAGES**

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D-1	0	05/01/07

These Instructions for Continued Airworthiness (ICA) except for the Airworthiness Limitations Section have been reviewed and found to comply with the applicable requirements of Appendix A to the Federal Aviation Regulations Part 27.

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**AIRWORTHINESS LIMITATIONS**

The Airworthiness Limitations Section is FAA approved and specifies inspections and other maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

**No airworthiness limitation associated with this type design change.**

**This system has no life-limited components.**

## **1.0 SYSTEM DESCRIPTION**

The 206MC-100 Mini-Cam installation includes the following major components:

1. Camera Installation
2. Camera Control Unit Installation
3. DC Voltage Converter and electrical Installation

Total System Weight: 4 lbs.

Total System Current Draw: less than 2.5 amps

Reference Appendix A entitled "Figures" at the end of this document for supporting figures.

## **2.0 INSPECTION AND MAINTENANCE**

- 2.1 It is the objective of this inspection and maintenance procedure to ensure that component installations are secure and that the electrical system is airworthy. If any part of the installation appears to be functioning improperly, consult the troubleshooting guide in Appendix A. If a major component is damaged or continues to malfunction, the component in question should be returned to the manufacturer for replacement. **NO FIELD REPAIRS AUTHORIZED.**

Unless otherwise specified, torque all loose and/or replaced fasteners and fittings per standardized torque values as shown in AC43-13.1B or later equivalent, as revised.

- 2.2 Camera/Camera Mount(Reference Figure 1, Item 1)
- 2.2.1 Inspect camera mount installation for loose or missing screws. Replace missing screws and washers with indicated type or equivalent. Torque screws 12-15 in-lbs.
  - 2.2.2 Inspect camera mount for overall shape and any cracking. If cracked, the camera/camera mount should be removed and sent to Paravion Technology, Inc.
- 2.3 Camera Control Unit (Reference Figure 1, Item 2)
- 2.3.1 Inspect the CCU installation for loose or missing attaching hardware. Replace missing screws and washers with indicated type or equivalent. Torque screws 12-15 in-lbs.
- 2.4 Voltage Converter (Reference Figure 1, Item 3)
- 2.4.1 Inspect the CCU installation for loose or missing attaching hardware. Replace missing screws and washers with indicated type or equivalent. Torque screws 12-15 in-lbs.

2.5 Electrical Installation (Ref. Figure 2)

2.5.1 Power Supply wiring

2.5.1.1 Assure aircraft Master Switch Off. Access Overhead panel circuit breaker location for Mini-Cam.

2.5.1.2 Inspect integrity of circuit breaker terminals and wires installation. Repair as necessary.

2.5.2 Inspect wiring for chafed or broken insulation and installation security. Repair or replace as needed.

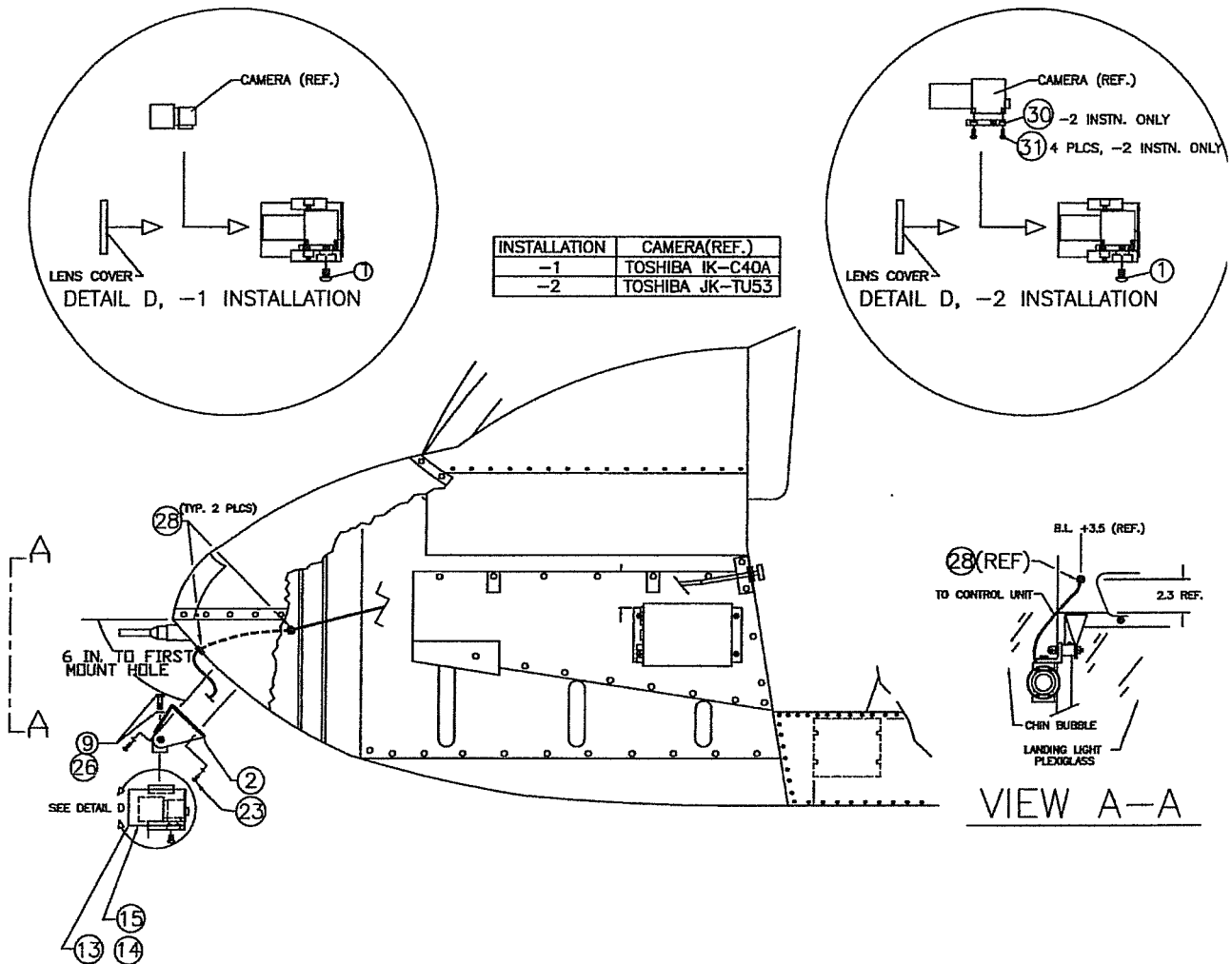
**3.0 COMPONENT REMOVAL AND REPLACEMENT**

3.1 Refer to Figure 1 and Figure 2 as necessary to remove and/or install components.

APPENDIX A

FIGURES





**Figure 1: Camera Mount Installation**

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>-1 INST'N</u>	<u>-2 INST'N</u>
1	MS35206-278	Screw	1 EA.	1 EA.
2	206MC-1000-1	Mount Assembly	1 EA.	1 EA.
9	AN3-6A	Bolt	1 EA.	1 EA.
13	IK-C40A	Camera/ Control Unit Pair	1 EA.	
13	JK-TU53	Camera/Control Unit Pair		1 EA
14	JF4.8F1.8	Lens	1 EA.	1 EA.
15	MC-1100-1	Canister Assembly	1 EA.	
15	MC-1100-2	Canister Assembly		1 EA.
23	MS27039-1-10	Screw	2 EA.	2 EA.
26	NAS1149DO363J	Washer	1 EA.	1 EA.
28	MS35489-9	Grommet	2 EA.	2 EA.
30	MC-1100-15	Adapter		1 EA.
31	M3 X 0.5 X 8MM	PHPN/2C Screw		4 EA.

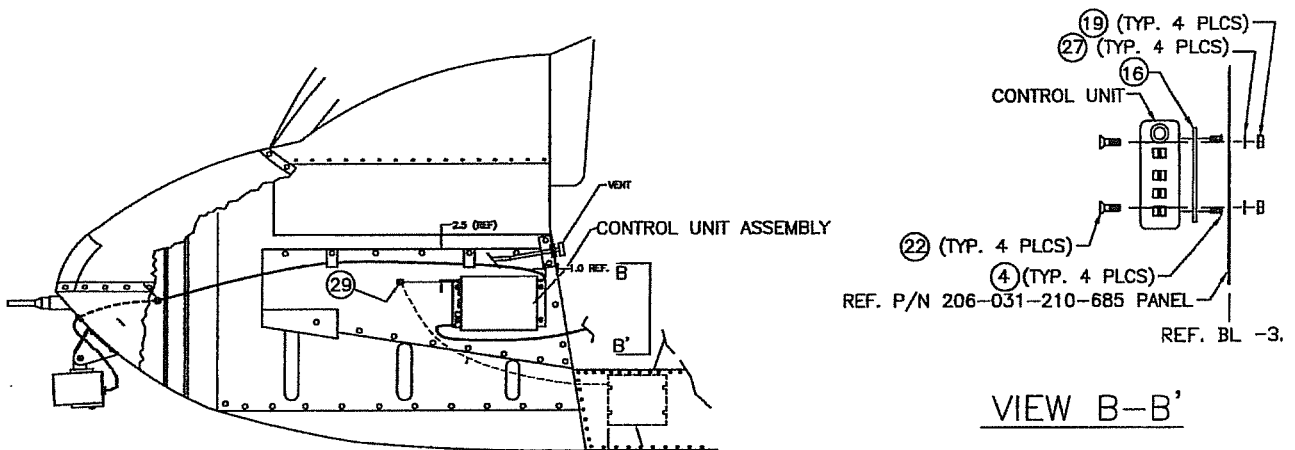
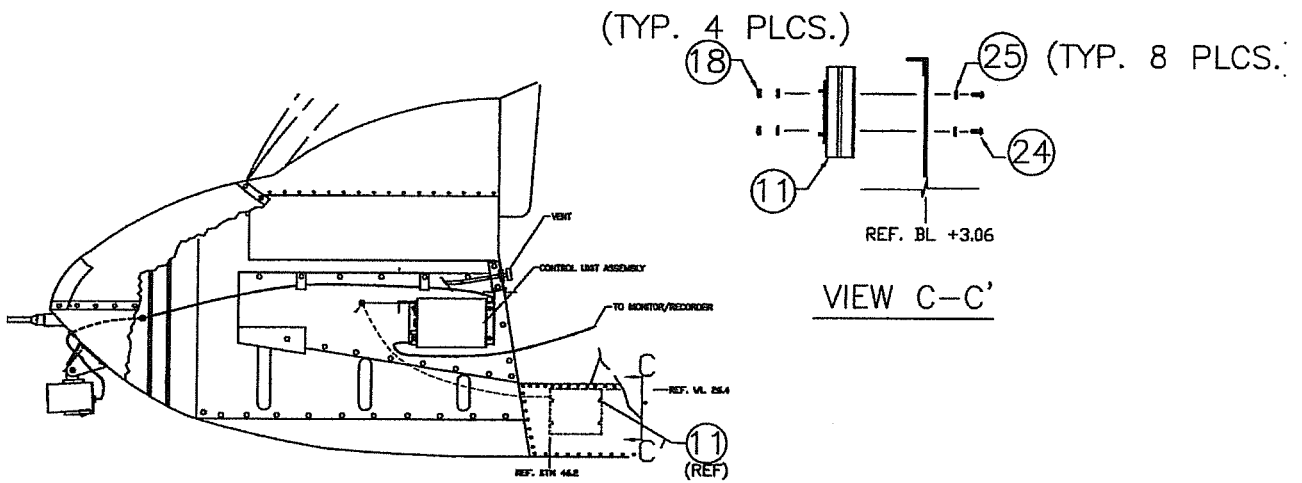


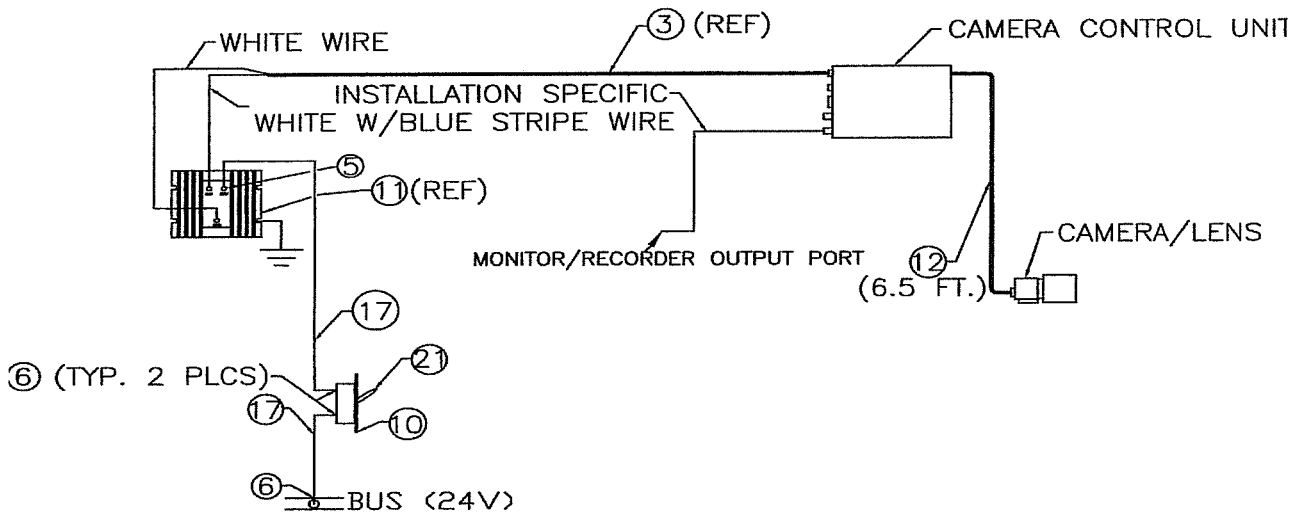
Figure 2: Camera Control Unit Installation

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>-1 INST'N</u>	<u>-2 INST'N</u>
4	M3 X 0.5 X 6MM	CSPH Screw	4 EA.	4 EA.
16	MC-2000-1	Plate	1 EA.	1 EA.
19	MS21042L08	Nut	4 EA..	4 EA.
22	MS24693-50	Screw	4 EA.	4 EA.
27	NAS1149DN632J	Washer	4 EA.	4 EA.
29	MS35489-4	Grommet	1 EA.	1 EA.



**Figure 3: Voltage Converter Installation**

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>-1 INST'N</u>	<u>-2 INST'N</u>
11	ES50050-1	Converter	1 EA.	1 EA.
18	MS21042L3	Nut	4 EA.	4 EA.
24	MS35207-261	Screw	4 EA.	4 EA.
25	NAS1149DO332J	Washer	8 EA.	8 EA.



**Figure 4: Electrical Diagram,**

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>-1 INST'N</u>	<u>-2 INST'N</u>
3	206MC-2010-1	Cable Assembly	1 EA.	1 EA.
5	MS25036-102	Terminal	1 EA.	1 EA.
6	MS25036-149	Terminal	3 EA.	3 EA.
10	CAM-310-1	Placad	1 EA.	1 EA.
11(REF.)	ES50050-1	Converter	1 EA.	1 EA.
12	EXC-402M	Cable	1 EA.	1 EA.
17	M22759/16-18	Wire	12 FT.	12 FT.
21	MS24509-5	Breaker	1 EA.	1 EA.

## APPENDIX B

### TROUBLESHOOTING GUIDE

<b>TROUBLESHOOTING GUIDE</b>		
<b>Problem</b>	<b>Possible Cause</b>	<b>Corrective Action</b>
Imaging Failure	Breaker Tripped	Determine overload origin (see below)
	Loose Connection	Inspect all wiring connections
	Camera Failure	Refer to manufacturer's Instructions
	Voltage Converter	Refer to manufacturer's Instructions
	Monitor Failure	Refer to applicable monitor manufacturer's Instructions

APPENDIX C

ANNUAL/PERIODIC INSPECTION CHECKLIST

INSPECTION CHECKLIST			
INSPECTION		COMMENTS	INITIALS
1.	Camera/Camera Mount Installation	Installation Hardware, Mount Bracket Condition	
2.	Camera Control Unit Installation	Installation Hardware, Control Unit Condition	
3.	Voltage Converter Installation	Installation Hardware, Converter Condition	
4.	Electrical Installation	Mini-Cam Circuit Breaker Installation, Electrical Wiring Condition, Wire Ends Terminals Installations	
5.			
6.			
7.			
8.			
9.			

APPENDIX D

WEIGHT AND BALANCE INFORMATION

<b>Weight and Balance Data; 206MC-100 INSTALLATION**</b>					
<b>ITEM</b>	<b>Longitudinal</b>			<b>Lateral</b>	
	<b>Weight</b>	<b>F.S.</b>	<b>Moment</b>	<b>B.L.</b>	<b>Moment</b>
	<b>(lb)</b>	<b>(in)</b>	<b>(in-lbs)</b>	<b>(in)</b>	<b>(in-lbs)</b>
206MC-1000-1 Bracket Inst'n..	0.2	4.5	1.0	+4.9	1.1
MC-1100 -(X) + Camera Inst'n	0.9	4.5	3.9	+6.4	+5.5
Camera Control Unit.	1.7	33.9	57.6	-3.8	-6.5
Voltage Converter (ES50050-1)	0.6	48.0	28.8	-3.1	-1.9
Electrical Wiring Inst'n.	0.3**	19.0**	5.7**	0**	0**
<b>Total **</b>	<b>3.7**</b>	<b>26**</b>	<b>97**</b>	<b>-0.5**</b>	<b>-1.8**</b>

\*\* Estimated, Actual weight and c. g. location may vary.