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REPORT NO. PR-C210IR-900M
INSTALLATION INSTRUCTIONS
FOR
INFRARED IMAGING SYSTEM

REVISIONS

<u>REV.</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>BY</u>
N/C	11/07/00	Original	MR
A	05/18/01	Add Video Output Note.	MR
B	09/06/02	Added reference to C210IR-101-2 Support Installation, section 2.1.1.	GP
C	12/06/05	Sect. 2.1.7, page 1 was "... and level tube to baggage compartment floor." Clarified to indicate positioning laterally and longitudinally.	REB

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1.0 INTRODUCTION

This document provides a step-by-step procedure for installation of the C210IR-100 Infrared Camera System Installation in the Cessna 210 Aircraft. The instructions contained herein are intended to supplement the information contained on the installation drawings.

2.0 INSTALLATION PROCEDURES

2.1 Support Installation (Drawing C210IR-101)

- 2.1.1 If your camera system has a dual power/control cable from the gimbal to the electronic control unit (Ref. FLIR MK-I and MK-II) then use C210IR-101-1. If your camera system has a single power/control cable from the gimbal to the electronic control unit (Ref. FLIR MK-III, U7000 and U7500) then use C210IR-101-2.
- 2.1.2 Remove baggage floor covering and all necessary access panels and edge fairings.
- 2.1.3 Locate and drill indicated hole through fuselage as shown, de-burr.
- 2.1.4 Adhere extrusion to circumference of opening.
- 2.1.5 Temporarily clamp angles to support assembly.
- 2.1.6 Position clamped support assembly in aircraft through hole and perpendicular to aircraft centerline.
- 2.1.7 Remove fasteners which conflict with angle installation. Adjust clamps to center the tube in the previously drilled opening and parallel to the baggage compartment floor (laterally). The support tube longitudinal angle should be set by leveling the Electronic Control Unit Mount Bracket to the cabin floor, not to the baggage compartment floor.
- 2.1.8 Remove clamped assembly and match drill support legs to the angles. Secure using indicated hardware.
- 2.1.9 Reposition support as shown. Mark and match drill floor to support angles.
- 2.1.10 Position, mark and match drill rivet holes for doubler and plate nuts.
- 2.1.11 Install plate nuts and doubler using indicated hardware.
- 2.1.12 Reinstall support assembly and secure using indicated hardware.
- 2.1.13 Reinstall floor covering and fairing, trimming as necessary.
- 2.1.14 Install placard in a conspicuous location on the baggage door.
- 2.1.15 Optional use of MIL-S-8802F Class B2 sealant and DC4 or equivalent products, as indicated, may be desirable.

2.2 Equipment Cabinet Installation (Drawing C210IR-201)

- 2.2.1 The equipment cabinet mount plate assembly may be installed to the seat rail pair in place of the copilot seat or in place of the left or right center passenger seat.
- 2.2.2 Measure distance between the seat rail centers. Use this measured distance and the distance indicated on the drawing to position the rail clamps in the bottom panel of equipment cabinet.
- 2.2.3 Drill indicated holes in equipment cabinet.
- 2.2.4 Install rail clamps as indicated and torque.

NOTE: Weight and balance calculations must include installed equipment.

2.3 Equipment Installation (Drawing C210IR-251)

NOTE: All video outputs to any monitors should come from the VCR if installed.

The monitor and electronics support module (EU) installations are addressed by this drawing.

The equipment cabinet installation is designed to carry up to 25 lb. The equipment mounting bracket for the electronics support module is provided on the C206IR-1010-2 support assembly.

2.3.1 Monitor Installation:

- 2.3.1.1 The swivel support is designed to carry the Inframetrics monitor. Other monitor installations may require different mounting provisions and separate approval.
- 2.3.1.2 Remove the top cover of the monitor, then drill and install plate nuts on each side using the indicated rivets.

NOTE: Cover monitor assembly when modifying top cover to keep foreign material out. Reinstall monitor cover.

- 2.3.1.3 Using indicated hardware, install the swivel support assembly to the monitor.
- 2.3.1.4 Place the monitor assembly on the top of the equipment cabinet, match drill and secure using indicated hardware.

2.3.2 Electronics Unit Installation:

- 2.3.2.1 Install IR-2000-1 buttons to EU using indicated hardware.
- 2.3.2.2 Remove the clip from the rail assembly of EU mount.

2.3.2.3 Move the sliding shafts away from the keyholes in the rail assembly.

2.3.2.4 Fit the buttons on the EU into the keyways, and slide them into the keyway slots.

2.3.2.5 Move the sliding shafts against the EU and tighten the lock knobs. Replace the clip.

NOTE: Weight and balance calculations must include installed equipment.

2.3.3 Recorder Installation:

2.3.3.1 Slide the legs of the adapter into the slots found on the bottom of the recorder, which are opposite of the threaded screw hole. Use the indicated screw to attach adapter to the recorder.

2.3.3.2 Identify convenient location for the recorder on the center shelf of the equipment cabinet. Drill indicated hole.

2.3.3.3 Secure recorder using indicated hardware.

2.4 Power Supply Wiring (Drawing C210IR-301)

2.4.1 Refer to drawing and camera system specification data for cable identification and connection.

2.4.2 Remove panels as necessary.

2.4.3 Install indicated circuit breaker in available aircraft breaker panel position. Provide electrical power through avionics buss.

2.4.4 Route power cable to electronics unit. General cable routing should follow existing electrical wiring.

2.4.5 When system is installed for use, loose cables should be routed under seats and otherwise secured.

2.4.6 When system is disabled or removed, loose cables and controls must be stowed or removed.