

SUPPLEMENT No. 12

INSTALLATION OF COBOLT CAMERA SYSTEM

This Supplement must be included in the Z 143 L - Z 143 LSi Airplane Maintenance Manual (Doc. No. 005.022.2), Chapter 95, if installation of COBOLT 275 camera system acc. to Drwg. No. L 143.8420 is installed.

The information contained herein supplements or supersedes the information in Airplane Maintenance Manual (Doc. No. 005.022.2).

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COBOLT 275 CAMERA SYSTEM

DESCRIPTION AND OPERATION

Camera system Cobolt 275 is intended for supervising and recording of scanned terrain during flight.

Camera system consists of two parts:

- camera Cobolt 275
- control system

Camera Cobolt 275 is installed in the bottom part of the fuselage below left rear seat (see Fig. 1). It is attached to the aircraft construction by 4 pcs of special M6 bolts. Control system (see Fig. 2) is installed instead of right front seat in special construction, it consists of LCD monitor, recorder and control stick (see Fig. 3).

Camera Cobolt 275 and control system are interconnected by cables with quick-lock connectors. The cable connecting the camera and control system is permanently installed in the aircraft fuselage.

It is possible to record scanned pictures from the camera COBOLT 275 by digital video recorder SONY DSR-11.

Camera system requires no maintenance or inspections during its lifetime..

SPECIFICATIONS DATA

Turret size	275 mm (D) x 400mm (H)
Weight	11 kg typical
Hand Controller Unit	0.8 kg, 230 mm Height
Control Unit	253 mm x 142 mm, 3 kg
Power supply	18-32 VDC < 150 W
Environmental	RTCA DO-160
LOS Pan range	360 degrees continuous
LOS Elevation Range	+20 / -120 degrees
AZ/EL slew rate	Up to 60°/s
Stow	Magnetically held in stow poaition

Thermal imager specifications

Sensor	3 rd gen. 640x512 3-5 µm sensor
Fields of view	WFOW : 18° NFOW : 4°
Focus	Auto focus and manual focus available

EFFECTIVITY: ALL

Color camera – zoom lens

Sensor	Super HAD Color
Resolution	740 000 pixels
Fields of view	45o to 2o optical continuous zoom
Low light level	without IR cut-off filter

Optional features

Auto-tracker
INS
Laser Range Finder
Geo-pointing / Geo-location

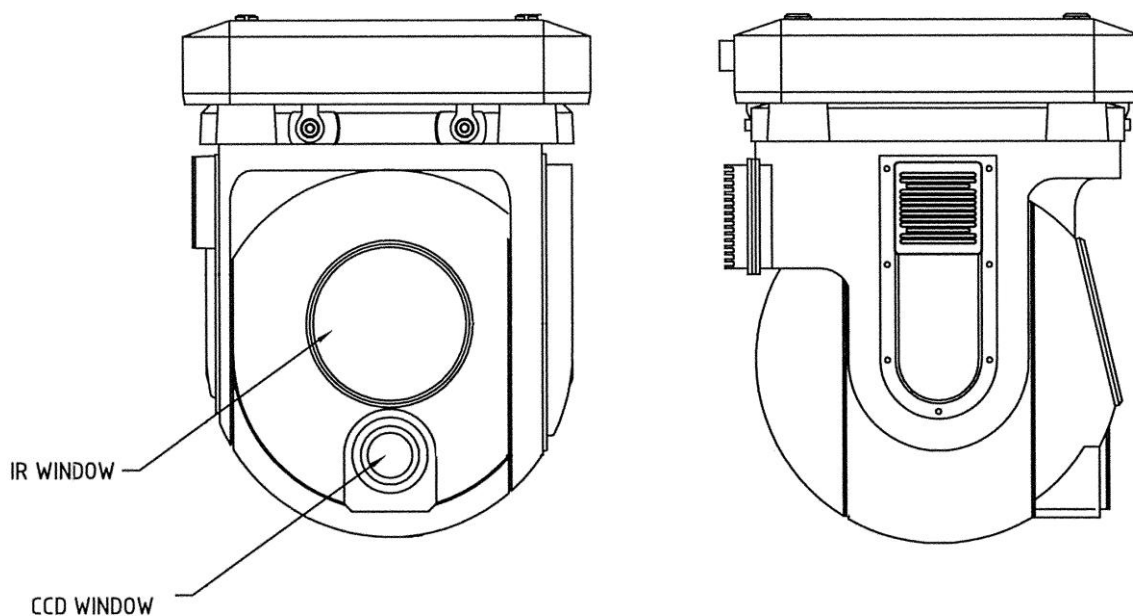


Fig. No. 1 Camera Cobolt 275 on aircraft fuselage

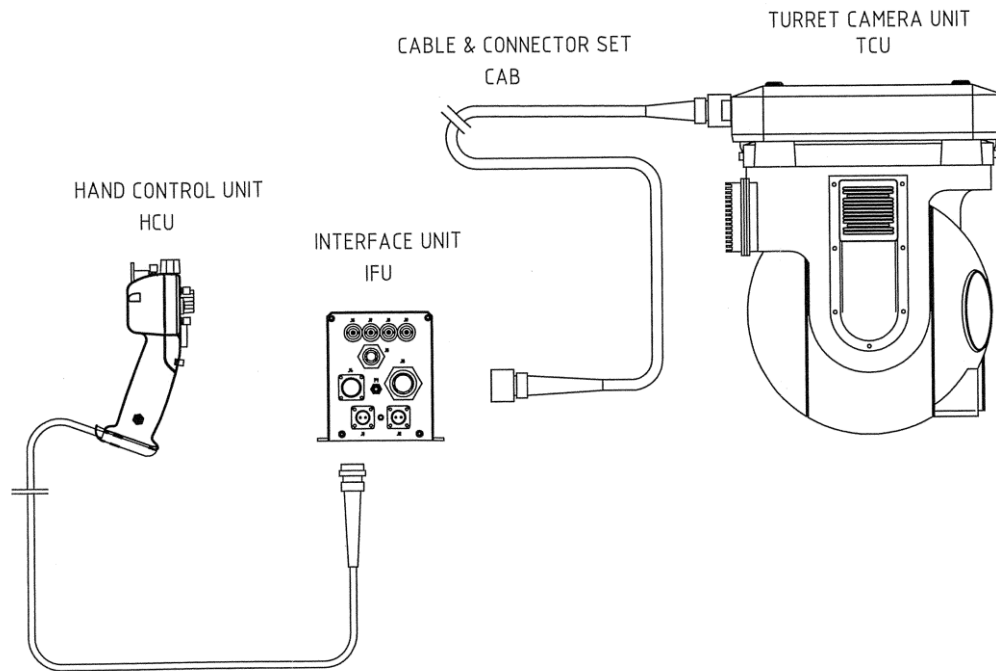


Fig. No. 2 Installation of Camera Cobolt 275

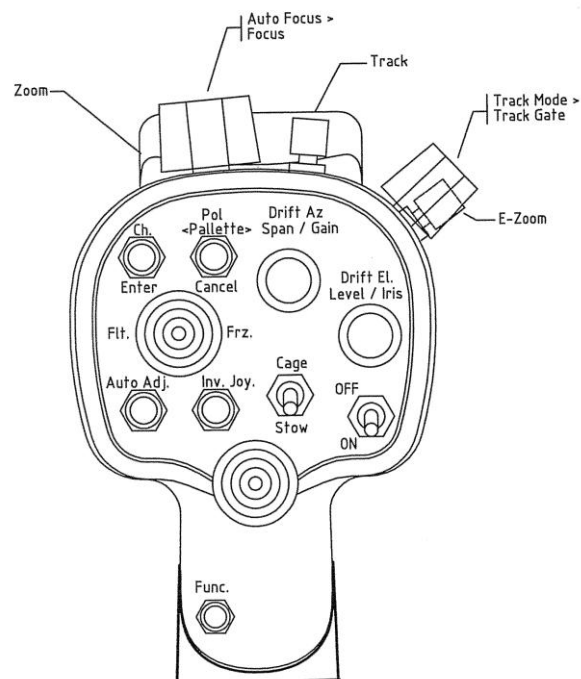


Fig. No. 3 Control stick of Camera Cobolt 275

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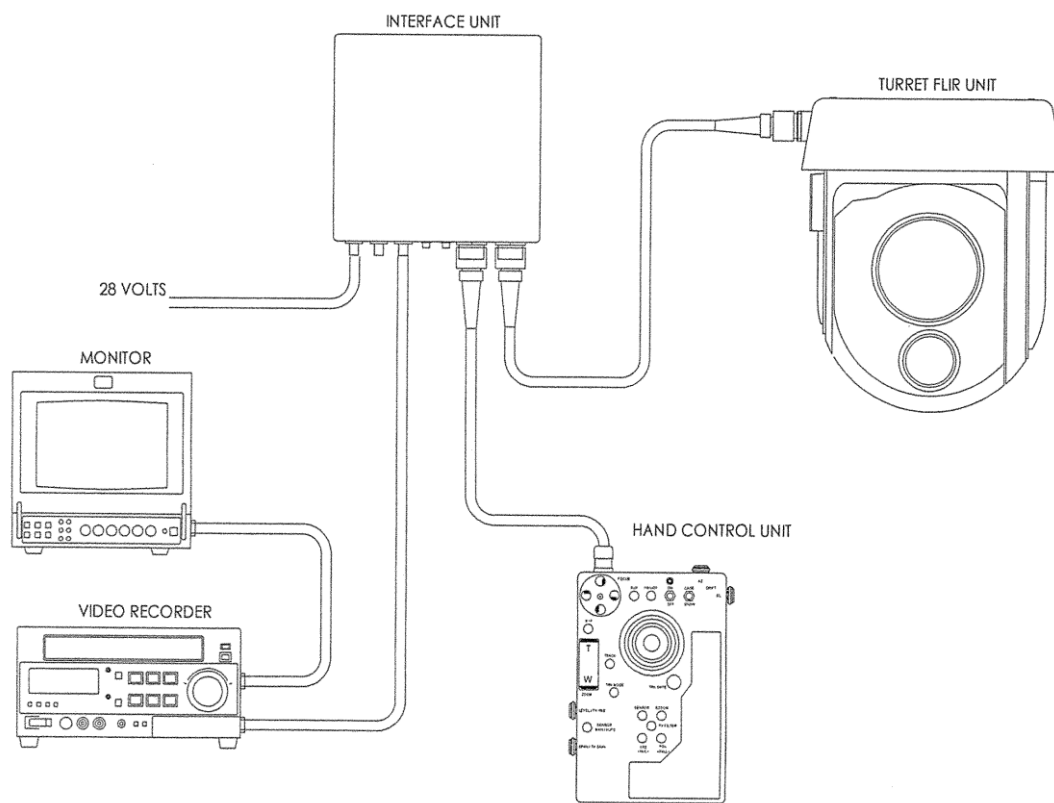


Fig. No. 4 Typical Installation of Camera Cobolt 275

MAINTENANCE

ASSEMBLY OF CAMERA COBOLT 275

Remove the cover on bottom part of fuselage.

Insert the camera Cobolt 275 from under and attach it with 4 pcs of special M6 bolts with washers. It is necessary to lock the bolts with LOCTITE 243 threadlocking adhesive. Before mounting the bolts, apply several drops of this adhesive into the internal thread M6 in load-bearing construction. Apply moment $3^{+0.5}$ Nm for tightening the bolts. To check tightening the bolts at pre-flight inspection, mark bolt head with its surroundings with a strip of red paint.

Through the assembly opening on bottom part of fuselage, connect the plug (quick-lock connector) of camera cable installed in the fuselage and tighten swivel nut with leatherette cover.

ASSEMBLY OF CONTROL SYSTEM

Remove right front seat from the aircraft.

Remove left seat beam and right seat beam (4 pcs of M8 bolts).

Fit the control system on seat beams on main spar of wing centre-section and attach it with 4 pcs of M8 bolts.

Connect power cable and control system cable to the sockets located on the bracket on main spar of wing centre-section below right front seat.

DISASSEMBLY OF CAMERA COBOLT 275 AND CONTROL SYSTEM

Removal is performed in an opposite way.

Attach the cable disconnected from the camera Cobolt 275 to the tube construction of fuselage framework and lock it against movement with perforated tape.

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