

Honeywell

SYSTEM DESCRIPTION AND OPERATION MANUAL

Learjet Model 45

B. Weather Radar Controller

- (1) Figure 2-4-3 shows a graphical view of the WC-650 Weather Radar Controller. It is located on the pedestal in the cockpit of the aircraft. Table 2-4-2 gives items and specifications particular to the unit.

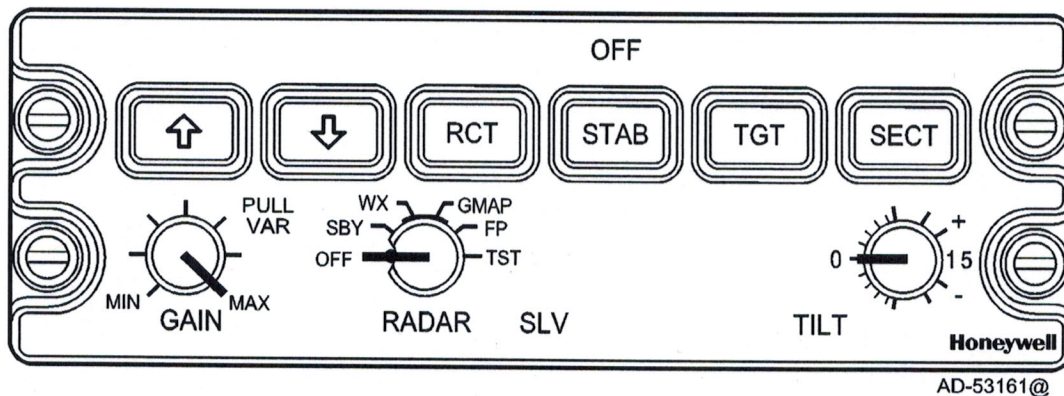


Figure 2-4-3. WC-650 Weather Radar Controller

Table 2-4-2. Weather Radar Controller Leading Particulars

Item	Specification
Dimensions (maximum):	
• Height	1.87 in. (47.5 mm)
• Width	5.75 in. (146.1 mm)
• Length (from rear of bezel)	7.0 in. (177.8 mm)
Weight (maximum)	2.0 lb (0.86 kg)
Power Requirements:	
• Primary	+22 to +32 V dc, 8.5 W, maximum
• Lighting	5 V ac/dc at 1.0 A, nominal
User Replaceable Parts	None
Knobs:	
• GAIN and TILT Knob	HPN 7011875-901
• RADAR Mode Knob	HPN 7011875-902
Setscrews (Multi-Spline, 2-56 by 1/8 inch, Cup Point) ..	HPN 2500148-64
Mating Connectors:	MS27473F14-18S
NOTE: The mating connector uses strain relief MS27506-B14-2.	
Mounting	Unit Dzus Fasteners

- (2) The WC-650 Weather Radar Controller selects the modes, range, and antenna tilt. The radar information is displayed on the PFDs or MFDs. The function of each switch and control is given in Table 2-4-3.

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Table 2-4-3. WC-650 Control Functions

Item	Functional Description
TILT	Single-turn rotary control that varies antenna tilt between 15 degrees up and 15 degrees down. The range between +5 degrees and -5 degrees is expanded for ease of setting.
RADAR MODE	<p>A six-position rotary switch that selects the following primary radar modes:</p> <ul style="list-style-type: none"> • OFF - Removes power from system. • SBY - Standby. Places system in non-transmitting mode. • WX - Selects the system in the weather (WX) mode. • RCT - Enables the cyan (sky blue) REACT (RCT) field to indicate ranges where the receiver calibration has been exceeded in the WX mode. RC is selected in the TST mode on alternate sweeps automatically. RCT compensation is active in all modes except GMAP. • GMAP - Places system in GMAP mode. RCT compensation is inactive. • FP - Selects the system Flight Plan (FP) (navigation) display mode. • TST - Selects the system self-test mode.
GAIN	Single-turn rotary control that varies the RTA receiver gain. Control is active when pulled. When pushed, receiver gain is preset and calibrated. Selection of RCT or TGT ALERT overrides the variable gain setting causing receiver gain to be fixed and calibrated. When active (pulled), full Counter-Clockwise (CCW) rotation supplies straight gain increase over the preset value.
STAB	Momentary button that deselects the stabilization function. Also, used to invoke the stabilization trim mode. The STAB button overrides forced standby by pushing it four times within 3 seconds.
TGT	Momentary alternate-action button that selects the Target Alert (TGT) function (OFF RANGE TGT ALERT).
SECT	Momentary alternate-action button that selects either full (120 degrees) or reduced (60 degrees) scan Sector (SCT).

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Table 2-4-3. WC-650 Control Functions (cont)

Item	Functional Description
RCT	Momentary button enables the REACT (RCT). RCT is always selected in the TEST mode. RCT compensation is available in all modes except MAP.
Range	A two-button range selection function that permits range selection from 5 to 300 NM full scale in WX, RCT, or GMAP mode or 5 to 1000 NM full scale in the flight plan mode. The up arrow button selects increasing range, while the down arrow button selects decreasing ranges. These buttons are also used to exit forced standby by pushing both simultaneously.