V/UHF SYSTEM - ADJUSTMENT/TEST

EFFECTIVITY: AIRCRAFT WITH SINGLE V/UHF SYSTEM

1. General

   A. This section gives the procedures to do the check of the V/UHF system.

   B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	*DESCRIPTION*	*EFFECTIVITY*
23-14-00-700-801-A	V/UHF - FUNCTIONAL TEST	AIRCRAFT WITH SINGLE V/UHF SYSTEM

TASK 23-14-00-700-801-A
EFFECTIVITY: AIRCRAFT WITH SINGLE V/UHF SYSTEM

2. V/UHF - FUNCTIONAL TEST

A. General

(1) This task gives the procedures to do the V/UHF functional test.

NOTE: When the V/UHF remote-control panel or V/UHF transceiver is replaced with a new or repaired unit, it is necessary to reconfigure the V/UHF system (AMM TASK 23-14-00-800-801-A/200) before starting this test.

(2) When you do the V/UHF functional test, make sure the aircraft is not in or near a large metal structure.

(3) The V/UHF remote control panels are installed on main control panel.

B. References

REFERENCE	*DESIGNATION*
AMM SDS 23-51-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 23-14-00-800-801-A/200	-
ROHDE&SCHWARZ - CONTROL UNIT (GB 6500) Operator's Manual 6075.9155.12.xx	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
	-	Cockpit

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Cockpit

I. Preparation

SUBTASK 841-003-A

(1) Move the aircraft out of the hangar.

(2) Make sure that the aircraft is safe for maintenance.

(3) Energize the aircraft with a DC power supply (AMM TASK 20-40-01-860-801-A/200).

(4) On the circuit-breaker panel, make sure that the V/UHF XCVR circuit breaker is closed.

(5) Make sure that the Airborne Audio System (AMM SDS 23-51-00/1) is operational and on.

J. Test Procedures (Figure 501)

SUBTASK 720-003-A

(1) Do the V/UHF automatic Power-on Built-in Test (PBIT) as follows:

(a) On the V/UHF remote control panel, set the mode switch to the TR position.

Result:

1 The check of the Software checksum is done and the display will show:

CRC ok . .

s t a r t i n g

2 Soon after the display will show: (xx.xx = current software version, Axx = valid TxRx address, if available (range 0 to 30)).

V x x . x x ##

A x x

3 A built-in test is initiated.

4 An LED test is initiated.

5 After the PBIT, the last control unit with connected transceiver setting will show:

P 1 2

U ↑ Am

NOTE: When an error and/or warning message, e.g. BIT ERROR, appears and/or LED GO goes out, refer to the latest revision of ROHDE&SCHWARZ - CONTROL UNIT (GB 6500) Operator's Manual 6075.9155.12.xx for more information.

(2) Do the V/UHF Initiating the Built-in Test (IBIT) as follows:

(a) On the V/UHF remote control panel, set the mode switch to the SET position. Between positions GD and SET you must pull the mode switch (safety lock).

Result:

1 The display will show:

p b i t p a

s t

(b) On the V/UHF remote control panel, push the "2" key.

Result:

1 A built-in test is initiated. The display illumination is set to minimum value.

2 An LED test is initiated.

3 A Tx test is initiated.

4 A control element test is initiated. The display illumination is set to maximum value. The display will show:

M s w TR

MAN = e s c

(c) On the V/UHF remote control panel, set the mode switch to the TR position.

Result:

1 The display will show:

M s w TR+G

MAN = e s c

(d) On the V/UHF remote control panel, set the mode switch to the TR+G position.

Result:

1 The display will show:

M s w ADF

MAN = e s c

(e) On the V/UHF remote control panel, set the mode switch to the ADF position.

Result:

1 The display will show:

M s w GD

MAN = e s c

(f) On the V/UHF remote control panel, set the SQL/ACKN switch to the SQL position.

Result:

1 The display will show:

S q l SwON

MAN = e s c

(g) On the V/UHF remote control panel, set the SQL/ACKN switch to the ACKN position.

Result:

1 The display will show:

Key TAKE

MAN = e s c

(h) On the V/UHF remote control panel, push the "TAKE" push button.
Result:

1 The display will show:

Key 1

MAN = e s c

(i) On the V/UHF remote control panel, push the "1" key.
Result:

1 The display will show:

Key 2

MAN = e s c

(j) On the V/UHF remote control panel, push the "2" key.
Result:

1 The display will show:

Key 3

MAN = e s c

(k) On the V/UHF remote control panel, push the "3" key.
Result:

1 The display will show:

Key 4

MAN = e s c

(l) On the V/UHF remote control panel, push the "4" key.
Result:

1 The display will show:

Key 5

MAN = e s c

(m) On the V/UHF remote control panel, push the "5" key.
Result:

1 The display will show:

Key 6

MAN = e s c

(n) On the V/UHF remote control panel, push the "6" key.

Result:

1 The display will show:

Key 7

MAN = e s c

(o) On the V/UHF remote control panel, push the "7" key.

Result:

1 The display will show:

Key 8

MAN = e s c

(p) On the V/UHF remote control panel, push the "8" key.

Result:

1 The display will show:

Key 9

MAN = e s c

(q) On the V/UHF remote control panel, push the "9" key.

Result:

1 The display will show:

Key 0

MAN = e s c

(r) On the V/UHF remote control panel, push the "0" key.

Result:

1 The display will show:

Key ENT

MAN = e s c

(s) On the V/UHF remote control panel, push the "ENT" key.

Result:

1 The display will show:

Key MAN

MAN = e s c

(t) On the V/UHF remote control panel, push the "MAN" key.

Result:

1 The display will show:

P b i t p a

s t

NOTE: When an error and/or warning message, e.g. BIT ERROR, appears and/or LED GO goes out, refer to the latest revision of ROHDE&SCHWARZ - CONTROL UNIT (GB 6500) Operator's Manual 6075.9155.12.xx for more information.

(3) Do the V/UHF functional test as follows:

NOTE: Before you start this test, coordinate with the ground station to use a common frequency in the V/UHF band

(a) On the V/UHF remote control panel, set the mode switch to the TR position.

(b) On the V/UHF remote control panel, push the "MAN" key.

(c) On the V/UHF remote control panel, enter with a new frequency.

(d) On the V/UHF remote control panel, push the "ENT" key twice.

(e) On the V/UHF remote control panel, push the "6" key to set the Am mode.

(f) On the V/UHF remote control panel, push the "ENT" key twice.

(g) On the pilot's DAP, push the "COM 3" key.

NOTE: During the reception, adjust the COM 3 volume control on the DAP and make sure that the full-range volume adjustment is available.

(h) With headphones, push the PTT button and establish two-way communications with the test facility.

Result:

1 Make sure of the presence and quality of sidetone in the phones during transmission and the intensity and clarity of the reply signal during reception.

(i) Do the steps before again for a minimum of three frequencies (one low end, one intermediate, and one high end) in each of these bands/types of modulation:

Table 501 - FREQUENCY RANGE AND TYPE OF MODULATION TO BE TESTED

BAND DESIGNATION	MODE	FREQUENCY RANGE
Civil Air Traffic Control	AM	118 to 135.975 MHz
Land Mobile	AM	136 to 155.975 MHz
Land Mobile	FM	136 to 155.975 MHz
Maritime	FM	156 to 173.975 MHz
Tactical/Military/NATO	AM	225 to 399.975 MHz
Tactical/Military/NATO	FM	225 to 399.975 MHz

(j) Operate the SQL OFF switch on the V/UHF remote control panel.

Result:

1 Make sure that the receiver squelch is disabled with the switch out, and enabled with the switch in.

(k) Operate all other mode control switches on the V/UHF remote control panel.

Result:

1 Make sure that the respective functionality and/or indication operates satisfactorily.

(l) Turn the related dimming control for the V/UHF remote control panel.

Result:

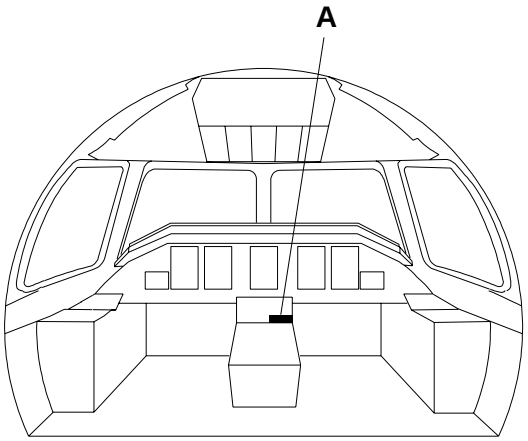
1 Make sure of a satisfactory backlighting operation.

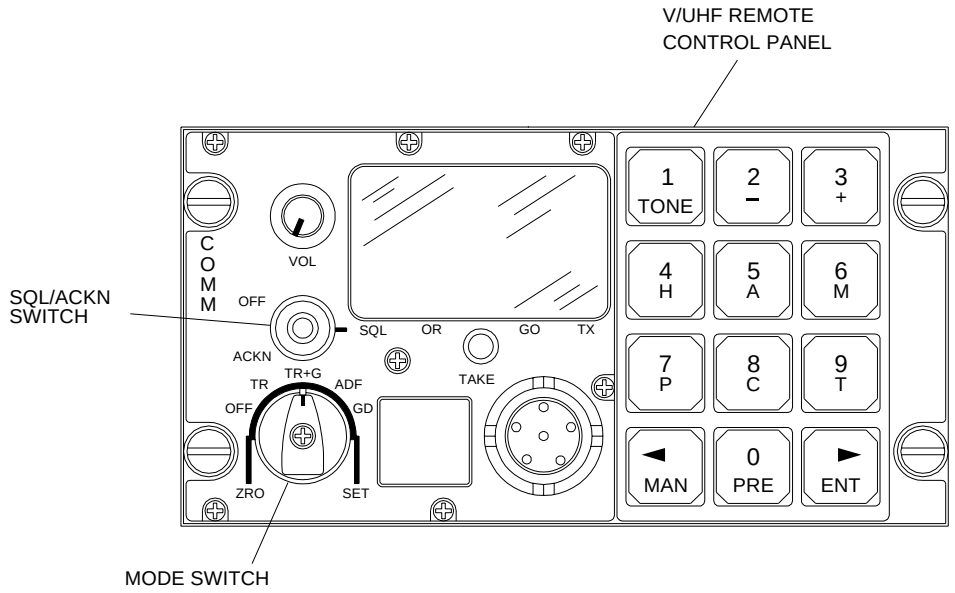
K. Follow on

SUBTASK 842-003-A

(1) Deenergize the aircraft (AMM TASK 20-40-01-860-801-A/200).

EFFECTIVITY: AIRCRAFT WITH SINGLE V/UHF SYSTEM
V/UHF - Functional Test
Figure 501





DET. A

EM145AMM231188A.DGN