RECEPTION SET R 206 MK. I, AND POWER SUPPLY UNIT No. 15

FIRST ECHELON WORK

NOTE. This information is provisional and is supplied for guidance pending the issue of more complete instructions. All errors of a technical nature should be notified in accordance with Tels. A 009.

MAINTENANCE

GENERAL

1. Regular and careful maintenance is essential for keeping the receiver in good working order.

2. The maintenance described herein should be carried out by a Signals electrician as often as laid down in the maintenance charts. Whenever he maintains the receiver he should fill in the maintenance chart which is kept by the Signals Officer for each set under his control. Specimen charts are shown in Tables 1 and 2.

3. When handling components, especially those on the R.F. chassis and the rear part of the I.F. chassis, great care must be taken not to disturb their relative positions. Any earth leads that have to be unsoldered must be replaced exactly in their original positions, and two earth leads must never be replaced by a single lead since this may lead to instability.

GENERAL INSPECTION AND LUBRICATION

Range Control

4. Clean off all old grease with a rag and carbon tetrachloride. Relubricate with grease in the category covered by Grease Specification D.T.D.44D.

Turret

5. Lubricate, with a grease gun charged with grease as above, the nipples on the end bearings of the turret and the nipple on the control shaft. Force the grease in until the old grease is exuded, then wipe away all surplus grease.

MAIN TUNING control

6. Loosen the grub screws holding the large and small knobs and remove these knobs from the condenser drive spindle. Remove drive from spindle by loosening locking collar and remove the four screws that hold the drive together. Clean off all the old grease with a rag and carbon tetrachloride. Replace any defective parts. Notice especially whether the spring washer is sufficiently resilient, and replace it if it is not. Pack the appropriate drive parts with grease, as above, reassemble and replace.

7. In addition to the regular routine, the above maintenance should be carried out whenever the drive shows signs of slipping. If the centre spindle then shows signs of grooving, the set should be handed over to second line for repair.

B.F.O. and O.S.C. VERN controls

8. These cannot normally be lubricated and, if the drive fails, they should be replaced. In an emergency, however, feed grease, as detailed above, with a screwdriver or similar tool, into drive housing.

Cleaning

9. Clean the interior of the receiver and inspect for loose or dirty connections; dry out if necessary.

10. Inspect the 6-point plug-ended lead and screened lead connecting the R.F. and I.F./A.F. portions of the receiver. See that the plugs on these leads are clean and that they make good contact in their sockets. Ensure that the crystal filters are firmly plugged onto the I.F./A.F. chassis and that their securing plate is screwed down tightly. Tighten any loose securing bolts or screws.

CONTROLS

11. Check the mechanical action of all controls, working along the front panel from left to right.

(*a*) *L.F. and H.F. GAIN controls.* These controls should turn smoothly and stop with the O mark on the control in line with the reference mark on the front panel. Check for electrical efficiency as follows: With the set in operation but no aerial connected, set the L.F. GAIN at 10, the A.V.C. switch to R.T./OFF, and the BAND WIDTH KC/S switch to 8. Rotate the H.F. GAIN control slowly from 0 to 10. The set noise should increase uniformly and no clicks or crashes should be heard. Similarly with H.F. GAIN at 10 rotate the L.F. GAIN from 0 to 10, observing if similar results are obtained. If only a few clicks are heard, rapid rotation of the appropriate control about a dozen times should clear the trouble. If it cannot be cleared, replace the component.

(*b*) *B.F.O. and OSC.VERN controls.* These are fitted with slow-motion dials and should turn stiffly but smoothly through 360°. Check for electrical efficiency as follows: With the set in operation but no aerial attached, set the L.F. and H.F. GAIN controls at maximum, and BAND WIDTH KC/S control at 8. Put the A.V.C. switch to R.T./OFF and slowly rotate the OSC. VERN. control. If there is a series of crashes which repeat at the same angular setting, the condenser is probably faulty. Look for metallic particles between the vanes and check the tightness of the earthing prong. Try rotating the condenser rapidly about a dozen times. Check similarly the B.F.O. control, with the A.V.C. switch to C.W./OFF, for similar symptoms.

(*c*) *MAIN TUNING control.* This should turn smoothly with constant stiffness through 360°. See that the locking device firmly clamps the plate behind the control and thereby brings the slow-motion drive into action. Note that the tuning drum rotates in response to any movement of this control. The maximum allowable backlash between the tuning control and the drum is two divisions of the MAIN TUNING control scale. The presence of more backlash than this should be reported and the set handed in.

(*d*) *AE TRIMMER.* Check that this control turns smoothly through 360°. Check the electrical performance of the condenser, using the method described in (*b*) for the O.S.C. VERN. control.

(*e*) *Switches.* Check for positive action.

(*f*) *Knobs and handles.* Check the tightness of the securing screws and nuts, including those behind the front panel.

(*g*) *Plugs, sockets and jacks (including plugs and sockets of the aerial and earth panels).* Clean with carbon tetrachloride and see that good contact is made with the respective fittings.

VALVES

12. Check that valves are held firmly in their sockets. When withdrawing valves, especially ARP35's, pull them vertically upward with no sideways movement, otherwise they will be damaged. Take similar precautions when inserting new valves. Ensure that the clips fit tightly on the top caps of the valves and that the top caps are secure.

13. Valves should be changed as soon as they show signs of failure, i.e., when readings show a continued falling off in the valve tables.

FREQUENCY CALIBRATION AND RESETTING ACCURACY

14. Connect a 100Ω dummy aerial to the receiver and check the frequency calibration by tuning the receiver in, with the B.F.O. switched ON, to a Wavemeter class D. The frequency should be checked at 1Mc/s intervals throughout the range of the receiver. The calibration should be accurate to $\pm\frac{1}{2}\%$. This calibration should be checked at weekly intervals when new inductors are in use in the receiver, but after a few months' use the calibration may be carried out less often.

POWER SUPPLY UNIT NO. 15

15. (*a*) Clean the interior and inspect for loose or dirty connections; dry out if necessary. Ensure that input tappings on the power transformer are tightly made and that any loose securing screws or bolts are tightened.

(*b*) *Valves.* Ensure that valves and vibrators are firmly held in their holders. See that the vibrator is inverted if the set is using A.C. or otherwise it will chatter and damage the contacts, which will fail.

(*c*) *Fuses.* See that the Slydlok type fuse is correctly wired to blow at 10A (e.g., one strand of 35 S.W.G. tinned copper wire). Unscrew the cartridge type fuses and see that fuses are of correct size (250mA). Clean the ends of the fuse cartridge and replace.

(*d*) *Switches.* Check for positive action. Check the tightness of the securing screw on the handle of the A.C.-D.C. switch. Clean the contacts of this switch with a contact burnisher and coat lightly with petroleum jelly.

(*e*) *Plugs on front and rear panel.* Clean and see that good contact is made with their respective sockets. Remove baseplate and inspect the interior, replacing loose nuts, etc.

(*f*) *Loudspeaker.* Do not disturb the loudspeaker dust cover. See that no metallic particles, such as iron filings, fall near the loudspeaker.

(*g*) See that the spare aerial terminal plate is pushed home in its sockets and is securely held.

CONNECTORS AND PHONE LEADS

16. Examine for kinking and external fraying. Inspect anchoring of leads to headphones.

OPERATION

17. Carry out tests for daily maintenance given in the Working Instructions, ZA/20101.

18. In addition, tune in to a strong C.W. signal with the bandwidth switch set to O.7 and the A.V.C. switch set to C.W./ON. Having found the signal, set the A.V.C. switch to RT/ON. Tune the signal for minimum noise, i.e., ensure that it is in the centre of the pass band of the filter. Set the A.V.C. switch to C.W./ON and, with the B.F.O. control set to zero, adjust the B.F.O. trimmer C32A for zero beat note. This trimmer may be reached through the hole in the front panel below the B.F.O. control.

Date		*Mechanical*										*P.S.U. No. 15*						
	Cleaning	*L.F. GAIN*	*H.F. GAIN*	*B.F.O.*	*OSC. VERN*	*MAIN TUNING*	*AE TRIMMER*	*Switches*	*Knobs*	*Plugs, etc.*	*Valves*	*Freq. calib.*	*Interior*	*Valves*	*Fuses*	*Switches*	*Plugs, and spare aerial plate*	*Connectors*	*Operation*

Remarks

Table 1 — Weekly maintenance chart (see paras. 4–18)

Date	Lubrication			
	Range control	*Turret*	*MAIN TUNING*	

Remarks

Table 2 — Monthly maintenance chart (see paras. 4–18)

MECHANICAL REPLACEMENTS

B.F.O. box

19. To remove the B.F.O. box, proceed as follows :—

(*a*) Remove the 6-point socket (SO3) from the top of the box.

(*b*) Unsolder the two leads to the tag board underneath the box.

(*c*) Remove three screws (reached from below the chassis) holding the B.F.O. box to the chassis.

(*d*) Slacken the grub screws holding the shaft of C32A (mounted in the B.F.O. box) to the control shaft from the front panel.

(*e*) Remove V2E and slide the B.F.O. box off the chassis.

20. When fixing the B.F.O. box in position, remove the lid of the box, set the condenser vanes of C32A halfway, i.e., with the edge of the rotor vanes at 90° to the edge of the stator vanes. Set the B.F.O. dial to zero and tighten the grub screws holding the condenser shaft to the control knob shaft..

(*f*) Replace leads, etc., that have been removed.

Filter unit

21. If a filter unit must be replaced, the set must be returned to second to fourth line as realignment must be carried out.

FAULT LOCATION

Component faults

22. Table 3 should be used in conjunction with daily maintenance test table given in the Working Instructions. When measuring a resistor be sure that no resistor is in parallel with it ; if necessary, unsolder one end of the resistor to be checked. Condensers should be similarly tested, using a 500V Megger, provided that their working voltage is rated at more than 500V, D.C. Check the insulation of coils and transformers by measuring the resistance between the coil and chassis with a 500V Megger. Coil resistances are given in para. 25.

Part of set tested	*Test*	*Correct result*	*Incorrect result*	*Action*
(*a*) Power supply unit	Connect up for D.C. working and switch on, or, connect up for A.C. working, removing the vibrator, and switch on	Tuning drum should light up. After 30 sec. neon valve should strike. For D.C. working vibrator should be heard		Remove P.S.U. from its case, remove the baseplate and inspect. If faulty component is obvious, replace it, first ascertaining the cause of the breakdown. Other faults may be found using Avometer model 7 and circuit diagram. Test transformer T1A with all its leads disconnected, checking resistors and insulation of all windings (para. 25). Check inductors for continuity and insulation, and condensers for short-circuit in A.C. and D.C. input circuits, and then those in output circuit. Replace any faulty or suspected component
(*b*) Loudspeaker (L.S.)	Tune to strong R/T station	Reception in headphones and L.S.	Reception in headphones only.	Check continuity of 10Ω winding of T2A on R.S. R206 (2Ω D.C.) and connections to it. Check continuity of lead between PL3A/4 and S3A, and between L.S. and earth, and check on-off action of S3A. Test voice coil of L.S. (13Ω)

Part of set tested	*Test*	*Correct result*	*Incorrect result*	*Action*
(*c*) AE TRIMMER (C2A)	Adjust RANGE CONTROL handle to any range, and rotate AE TRIMMER knob	General noise level of output should vary.	Noise level constant	Remove R.F. chassis platform and inspect vanes and earth prong. Check leads to condenser.
(*d*) L.F. GAIN (R18A)	Tune in to R/T signal and rotate L.F. GAIN control	Volume should vary according to direction of rotation	Volume does not vary	Unsolder leads to R18A and test between outer pins for continuity. Check between centre pin and each outer pin in turn for variation of resistance with rotation
(*e*) H.F. GAIN (R19A)	While tuned in to R/T signal, put A.V.C. switch to RT/OFF and rotate H.F. GAIN control	Volume should vary according to direction of rotation	Volume does not vary	Check C21R, R2M, and R19A as for R18A in (*d*)
(*f*) BAND WITH KC/S (S1A)	While tuned in to a strong R/T station, set BAND WIDTH KC/S switch from 8 to 2.5 and then to 0.7	Signals remain at almost constant strength with high notes progressively disappearing	Signals still heard but only faintly with switch in certain positions	Check condensers and resistors and oak wafer switches. Further tests should be carried out in 2nd-4th line. To check crystal filters, replace suspected filter by 20kΩ resistor, connected between filter sockets Nos. 1 and 2, when the signal strength will rise to the correct working level if the filter was at fault. To replace filter, see para. 21
(*g*) LIMITER (S4A)	While tuned to a strong R/T signal, put LIMITER switch in	Output decreases and becomes distorted	No alteration in output	Check connections to switch and the switch action. Check for continuity 10Ω winding of T2A (2Ω D.C.). Remove and check W1A (para. 25)
(*h*) A.V.C switch (S2A)	Tune to strong unfading R/T signal with A.V.C. switch at RT/OFF and H.F. GAIN at maximum. Then switch to RT/ON	Output should be loud and distorted and then quickly reduced to normal and undistorted	Output unchanged	Check resistors and condensers and A.V.C. switch. Check A.V.C. feeds to valves V1A, V2B, V2C. Further tests to be carried out in 2nd-4th line
(*j*) CW reception	Tune to CW signal and rotate B.F.O. control	Whistle should be heard, varying in pitch as control is moved	No whistle heard or whistle does not vary	Check C29A, R8B, R16A, R11F, C21L, C21M. If all these components are good, replace B.F.O. box (para. 19)
(*k*) FILTER switch (S3A)	Tune to a CW signal and put FILTER switch to IN. Rotate B.F.O. control	Maximum output with beat note of about 900 c/s	Set goes dead or no peak frequency	Disconnect filter leads and check switches S3A/1 and S3A/2. If switch is correct, replace filter leads

Table 3—Fault location

VALVE CIRCUIT TESTING

23. The operator can test valves by comparing their performance with that of new ones, in the order given in Table 4.
24. Receiver valve stages V6A, V4A, V2A, B, C and V3A can be tested very simply by tapping the top cap (i.e., the control grid) of the valves with a wet finger in the same order as in Table 4, when a buzz or plop should be heard if all stages between that point and the headphones or L.S. are working (though not necessarily correctly). For this test no aerial is connected, the A.V.C. switch is at R.T./OFF, the L.F. and H.F. GAIN controls are at a maximum, the BAND WIDTH KC/S switch is at 8 and RANGE 3 is in use.

GENERAL DATA

25. The following figures will facilitate the checking of individual components :—

Transformers

L.F. inter-valve transformer T1A

Resistance A.C. primary, total	= 1.5kΩ±10%
„ „ secondary, „	= 5kΩ±10%

T1A—P.S.U. No. 15

A.C. primary between 20 and 10	= 1.25Ω
„ „ „ 10 „ 0	= 1.25Ω
„ „ „ 0 „ 100	= 12.5Ω
„ „ „ 100 „ 150	= 5.7Ω
„ „ „ 150 „ 200	= 6.0Ω
„ „ „ 200 „ 230	= 3.5Ω
H.T. secondary between 250 and 0	= 80Ω
L.T. heaters „ 6.5 „ 0	= 0.1Ω
Vibrator „ 9 „ 0	= 0.4Ω

T2A

Primary	=600Ω, ±10%
Secondary 150Ω winding	= 35Ω, ±10%
600Ω „	= 70Ω, ±10%
10Ω „	= 2Ω, ±10%

Chokes

L8A. Resistance	= 0.5Ω
L9A, B. „	=220Ω, ±20%

Loudspeaker coils

10Ω winding, D.C. resistance	= 2Ω
Voice coil, resistance	= 13Ω

Electrolytic condenser

C1A. Resistance in forward direction	=100kΩ
„ „ backward „ after 1 min.	= 80kΩ

Rectifier

W1A. With 1.4V across two sections in forward direction, current not less than 100mA. With 12V across two sections in reverse direction, current not greater than 4mA.

H.T. and L.T. voltages

Average H.T. voltage, with set running on A.C. or D.C. input and no signal, H.T. will be at least 200V.

Average L.T. voltage, under same conditions, on D.C. (input 12V), L.T. = 11.5V ; on A.C., L.T. = 12.5V.

R.F. chassis voltage test panel (Fig. 1)

Set operating under no signal conditions, A.V.C. switch at R.T./OFF, and H.F. GAIN at 10.

Between tags labelled H.T.+ and V1A, voltage	= 1.65V
„ „ „ H.T.+ „ V2A, „	= 1.7V

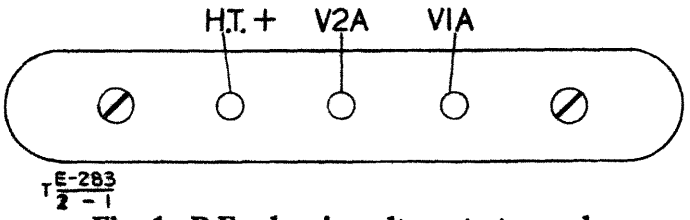

Fig. 1—R.F. chassis voltage test panel

I.F./A.F. chassis voltage test panel (Fig. 2)

Set operating under no signal conditions, A.V.C. switch at R.T./OFF, and H.F. GAIN at 10.

Between points labelled	H.T.+	and	V6A, voltage	=6.2V
„ „ „	H.T.+	„	V4A, „	=1.9V
„ „ „	H.T.+	„	V2E, „	= 0V
„ „ „	H.T.+	„	V2D, „	=4 1V
„ „ „	H.T.+	„	V2B, „	=2.84V
„ „ „	H.T.+	„	V2C, „	=3.48V
„ „ „	H.T.+	„	V3A, „	=2.69V
„ „ „	H.T.+(OSC.)	„	V1B, „	=3.3V

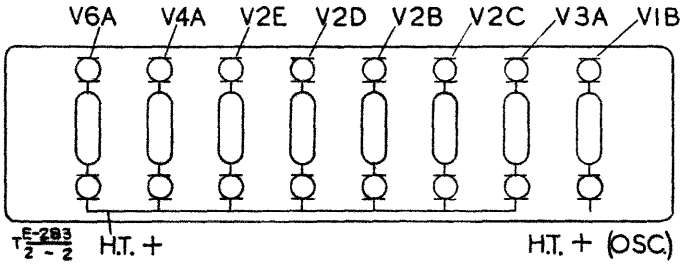

Fig. 2—I.F. chassis voltage panel

VALVE TESTS

26. By noting at regular intervals the performance of certain valve stages, the **Signals electrician** can detect when any one of these stages begins to lose efficiency and can thereby keep the general performance of the receiver at a high level. Test figures for the valves are given in Tables 4 and 5. The value of the test figures depends upon their being taken under the same conditions on each occasion. These conditions are :—

(*a*) The Reception set R 206 will be used with the Power supply unit No. 15. The unit will be run from A.C. mains and the power transformer tap will be adjusted to suit the supply voltage.

(*b*) The range turret will be set to range 6.

(*c*) An Avometer model 7 will be used for all tests, if available, and will be set to an appropriate range.

(*d*) When making resistance measurements, the P.S.U. No. 15 will be switched off.

(*e*) All tests will be done under no signal conditions, with L.F. and H.F. GAIN controls set at minimum, except where otherwise stated. The position of other controls is not important, but due regard must be paid to the remarks column.

(*f*) Tests on valves of R.F. chassis must be carried out from above as the base tags are inaccessible while the set is working.

(*g*) On the R 206, heater measurements are A.C., all others being D.C.

(*h*) On the P.S.U. No. 15 the following precautions should be taken. When V1A and B are removed and the load disconnected from the unit, tests must be done in the shortest possible time, and the unit switched off as soon as possible, as the no load voltage is high. Well-insulated test leads must be used.

(*j*) Other test conditions to be complied with are set out for each valve, under Test Conditions.

(*k*) Voltage tolerances ±10%. Resistance tolerances ±20%.

27. Other voltages are measured at certain pins of valves on the I.F. chassis under no signal conditions similar to the above, except that no valve is removed from the chassis and the Avometer is connected with its positive lead to the pin under test *underneath* the chassis, and the negative lead connected to chassis. For these tests the line voltage is 200V and the L.T. voltage is 6.2V A.C. The figures for these tests are given in Table 5 under the heading *V*(2).

Table 4 - Valve voltages and resistances for Reception set R 206

V1A, ARP35 — Conditions of test, V1A removed, V2A plugged in

Pin		*V*	*mA*	*Resistance* To	Ω	*Remarks*
1	H	6.0		Chassis	6	
2	Gs	200		H.T.+	1k	
3	A	200		„	1k	
4	Sup.	—		Chassis	0	
5	Internal screening	—		„	0	
6	K	—		„	(*a*) 300 (*b*) 1.3k	(*a*) A.V.C. switch at R/T-ON (*b*) A.V.C. switch at R/T-OFF
7	G1	—		„	250k	A.V.C. switch at R/T-OFF H.F. GAIN at 0
8	Internal screening	—		„	0	
9	H	6.0		„	0.1	

V2A, ARP34 — Conditions of test, V2A removed, V1A plugged in

Pin		*V*	*mA*	*Resistance* To	Ω
1	Met.	—		Chassis	0
2	H	4		„	6
3	A	200		H.T.+	4.5k
4	G_s	180		(*a*) Pin 3 (*b*) H.T.+	(*a*) 75k (*b*) 80k
5	Sup	—		Chassis	400
6	Blank	—	—	—	—
7	H	6		Chassis	0
8	K	—		„	400
T.C.	G	—		„	0

V3A, ARTH2 — Conditions of tests, V3A removed, V1B plugged in

Pin		*V*	*mA*	*Resistance* To	Ω	*Remarks*
1	Met.	—		Chassis	0	
2	H	0		„	6	
3	Hex. A	200		(*a*) H.T.+ (*b*) I.F./R.F. plug	(*a*) 7k (*b*) 1k	Remove single-point plug PL4A and test at prong
4	Hex. G_2 & G_4	100		(*a*) H.T.+ (*b*) Chassis	(*a*) 30k (*b*) 30k	
5	Tri. G Hex. G_3	—		(*a*) Pin 8 (*b*) Chassis	(*a*) 50k (*b*) 50k	
6	Tri. A	200		H.T.+	10k	
7	H	6.1		Chassis	0.5	
8	K	—		„	300	±10%
T.C.	Hex. G_1	—		„	0	

V1B, ARP35 — Conditions of test, V1B removed, V3A plugged in

Pin		V	mA	Resistance To	Resistance Ω
1	H	6.0		Chassis	3.5
2	G_s	120		H.T.+	15k
3	A	210		„	0
4	Sup.	—		Chassis	0
5	Internal screening	—		„	0
6	K	—		„	0
7	G	—		„	50k
8	Internal screening	—		„	0
9	H	6.0		„	0.5

V2D, ARP34 — Conditions of test, V2D removed, V5A plugged in

Pin		V	mA	Resistance To	Resistance Ω	V (2)
1	Met.	—	—	Chassis	0	
2	H	6.0		„	0.5	6.2
3	A	200		H.T.+	11k	150
4	G_s	180		„	100k	60
5	Sup.	—		(*a*) Pin 8 (*b*) Chassis	(*a*) 0 (*b*) 400	
6	Blank	—	—	—	—	
7	H	6.0		Chassis	5.5	0.2
8	K	—		„	400	
T.C.	G	—		„	250k	

V2B, ARP34

Pin		V	mA	Resistance To	Resistance Ω	Remarks
1	Met.	—		Chassis	0	
2	H	6.0		„	0.5	
3	A	200		H.T.+	11k	
4	G_s	170		„	100k	
5	Sup.	—		(*a*) Pin 8 (*b*) Chassis	(*a*) 0 (*b*) 350	A.V.C. switch at R/T-ON
6	Blank	—	—	—	—	
7	H	6.2	—	Chassis	0.5	
8	K	—		Chassis	(*a*) 400 (*b*) 1.4k	(*a*) A.V.C. switch at R/T-ON (*b*) A.V.C. switch at R/T-OFF
T.C.	G	—		„	500k	A.V.C. switch at R/T-OFF H.F. GAIN at 0

V2C, ARP34 — Conditions of test, V2C removed V2B plugged in

Pin		V	mA	Resistance To	Resistance Ω	Remarks
1	Met.	—	—	Chassis	0	
2	H	6.0		„	0.5	
3	A	200		H.T.+	11k	
4	G_s	180		„	100k	
5	Sup.	—		(*a*) Pin 8 (*b*) Chassis	(*a*) 0 (*b*) 400	A.V.C. switch at R/T-ON
6	Blank	—		—	—	
7	H	6.0		Chassis	5.5	
8	K	—		„ „	(*a*) 400 (*b*) 1.4k	A.V.C. switch at R/T-ON A.V.C. switch at R/T-OFF
T.R.	G	—		„	250k	A.V.C. switch at R/T-OFF H.F. GAIN at 0

V4A, AR21

Pin		V	mA	Resistance To	Resistance Ω	Remarks	V (2)
1	Met.	—	—	Chassis	0		
2	H	6.0		„	5.0		0.2
3	Tri. A	200		H.T.+	50k		80
4	D_1A	—		(*a*) Pin 4 (*b*) Chassis	(*a*) 0 (*b*) 501k		
5	D_2A	—		(*a*) Pin 4 (*b*) Chassis	(*a*) 0 (*b*) 501k		
6	Blank	—	—	—	—		
7	H	6.0		Chassis	0.5		6.2
T.C.	G	—		„	(*a*) 0 (*b*) 1M (*c*) 100k	(*a*) L.F.GAIN at 0 (*b*) „ „ „ 10 (*c*) „ „ „ 5	
8	K			Chassis	1k		

V2E, ARP34 — Conditions of test, V4A plugged in, V2E removed, A.V.C. switch set at C.W./ON or C.W./OFF

Pin		V	mA	Resistance To	Resistance Ω	V (2)
1		—	—	Chassis	0	
2	H	6	200	„	5	0.2
3	A	200		H.T.+ Test pt.	71k	50
4	G_s	200		„	76k	75
5	Sup	—		Chassis	0	
6		—	—	—	—	
7	H	6.0	200	Chassis	0	6
8	K	—		„	0	
T.C.	G	—		„	50k	

V5A, ARDD5

Pin		V	mA	Resistance To	Resistance Ω	V (2)
1	Met.	—	—	Chassis	0	
2	H	6.0		„	0	6.2
3	A_2	—		(*a*) Pin 5 (*b*) Chassis	(*a*) 0 (*b*) 500k	
4	K_2	—		(*a*) Pin 8 (*b*) Chassis	(*a*) 0 (*b*) 0	
5	A_1	—		Chassis	500k	
6	Blank	—	—	—	—	
7	H	6.0		Chassis	5.0	0.2
8	K_1	—		„	0	

V6A, VT52

Pin		V	mA	Resistance To	Resistance Ω	V (2)
1	Blank	—	—	—	—	
2	H	6.0		Chassis	25	0
3	A	220		H.T.+	1.2k	180
4	G_s	220		„	0	200
5	Blank	—		—	—	
6	Blank	—		—	—	
7	H	6.0		Chassis	0	6
8	K	—		„	1.2k	
T.C.	G	—		„	5k	

Table 4 — Valve voltages and resistances for Reception set R 206

Note. *V*(2). See para 27.

V1A, 6X5G — Conditions of test, V1A and V2A removed, P.S.U. not connected to R 206. Voltage tests should be done as quickly as possible and power then switched off.

Pin		*V*	*mA*	*Resistance*	
				To	Ω
1		—	—	—	—
2	H	A.C. 6.0		Chassis	0
3	A_1	A.C. 200		Chassis	88
4	—	—	—	—	—
5	A_2	A.C. 200		Chassis	88
6	—	—		—	—
7	H	A.C. 6.0		Chassis	0
8	K	0		To pin 8 of V1B	0

V1B, 6X5G

Pin		*V*	*mA*	*Resistance*	
				To	Ω
1		—	—	—	—
2	H	A.C. 6.0		Chassis	0
3	A_1	A.C. 200		Chassis	88
4	—	—	—	—	—
5	A_2	A.C. 200		Chassis	88
6	—	—	—	—	—
7	H	A.C. 6.0		Chassis	0
8	K	10		To pin 8 of V1A	0

Tables 5 — Valve voltages and resistances for P.S.U. No. 15

V8A, AW2 — Conditions of test, P.S.U. connected to R 206 and power on, V2A removed.

Pin		*V*	*mA*	*Resistance*	
				To	Ω
1	A	260		H.T.+ Test pt.	14k
2	C	0		Chassis	0
3	—	—	—	—	—
4	—	—	—	—	—

Tables 5 — Valve voltages and resistances for P.S.U. No. 15

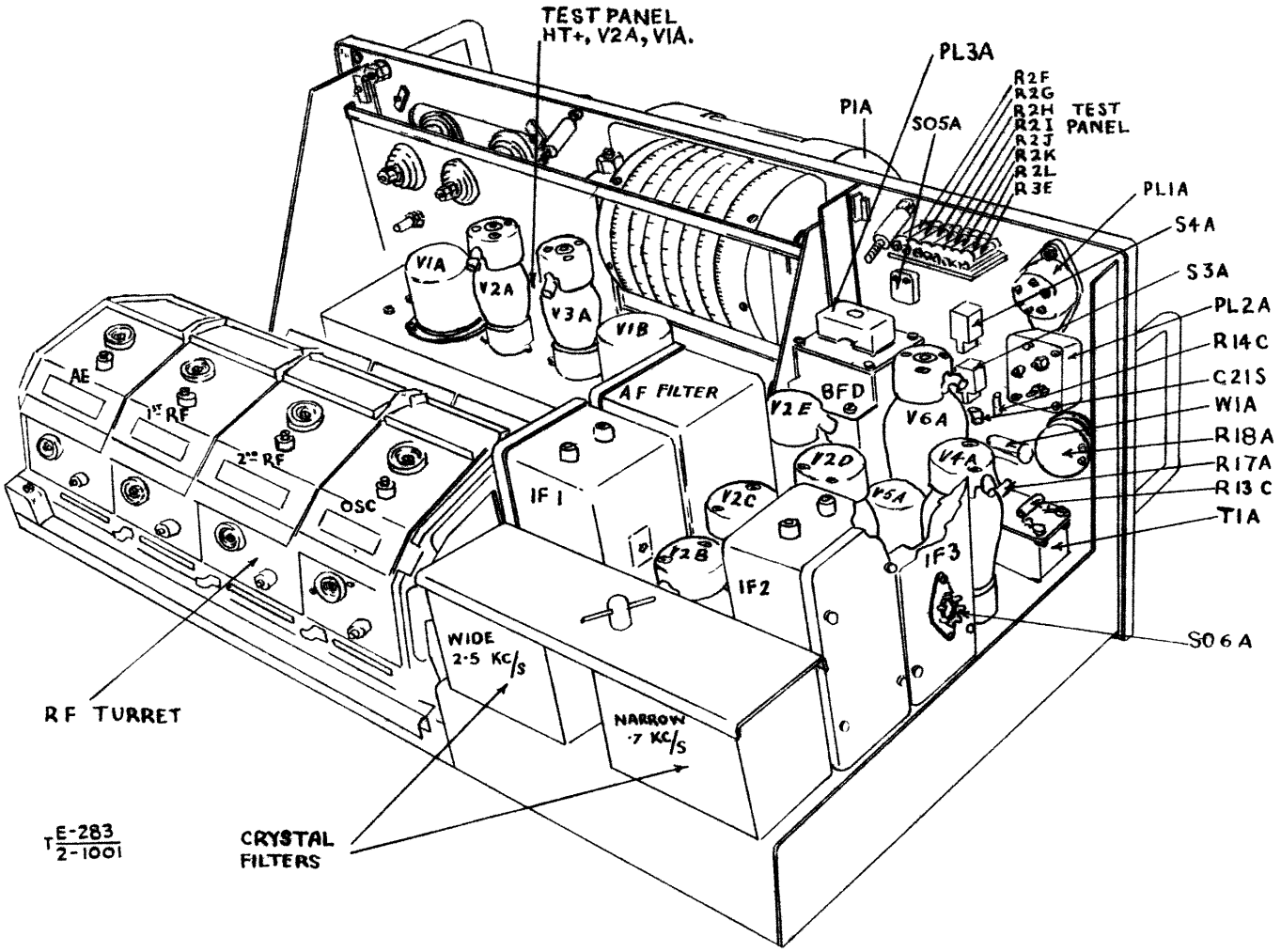

Fig. 1001—Receiver chassis top view

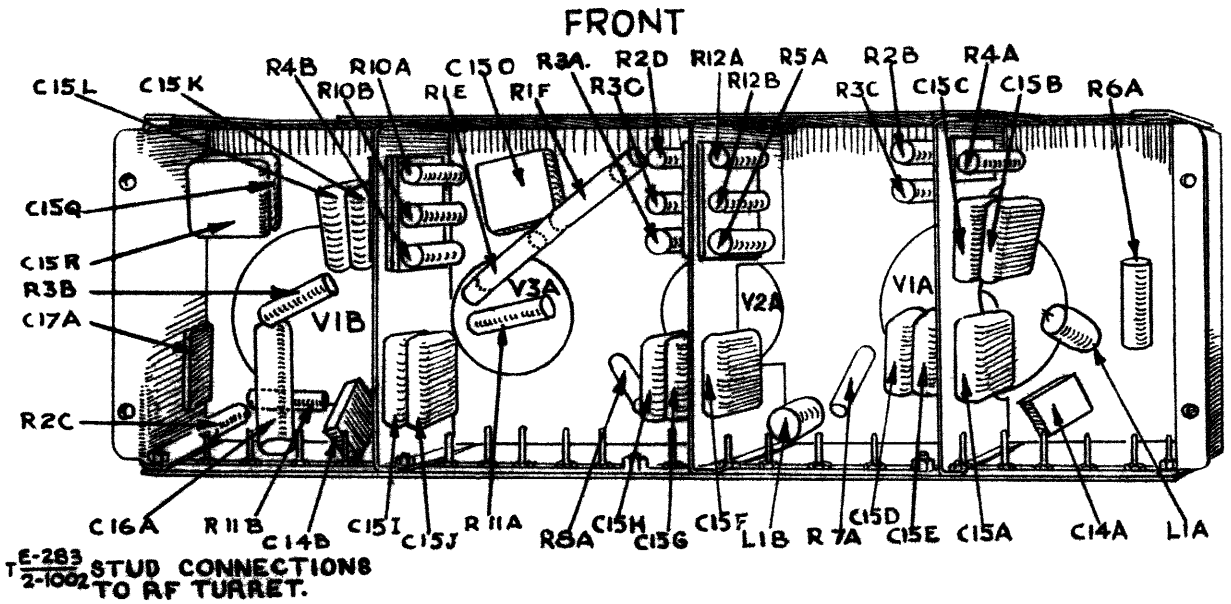

Fig. 1002—Underside of R.F. chassis

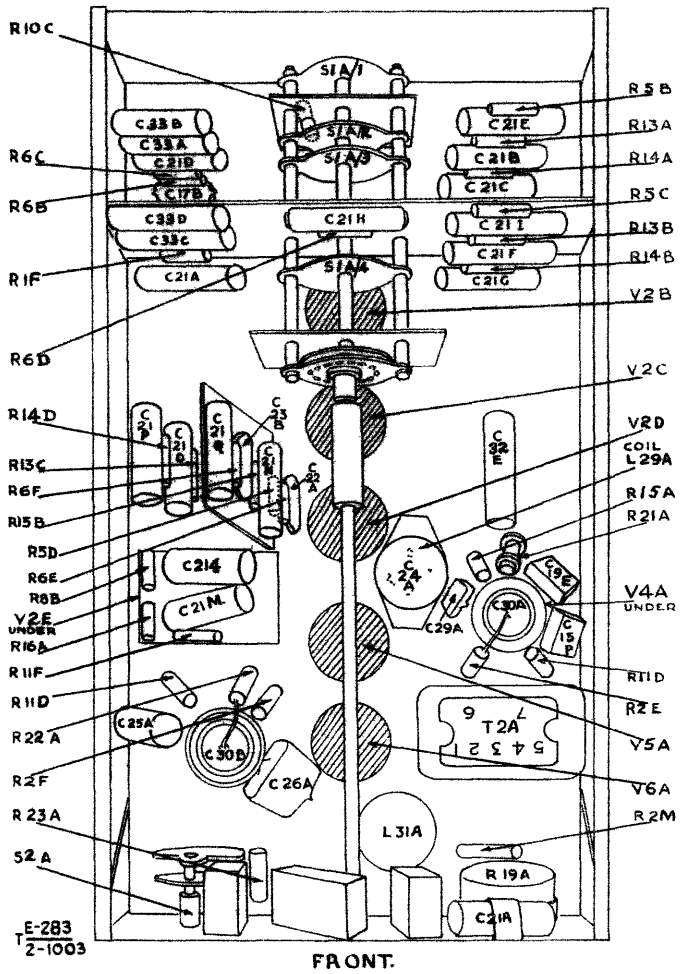

Fig. 1003—Underside of I.F./A.F. chassis

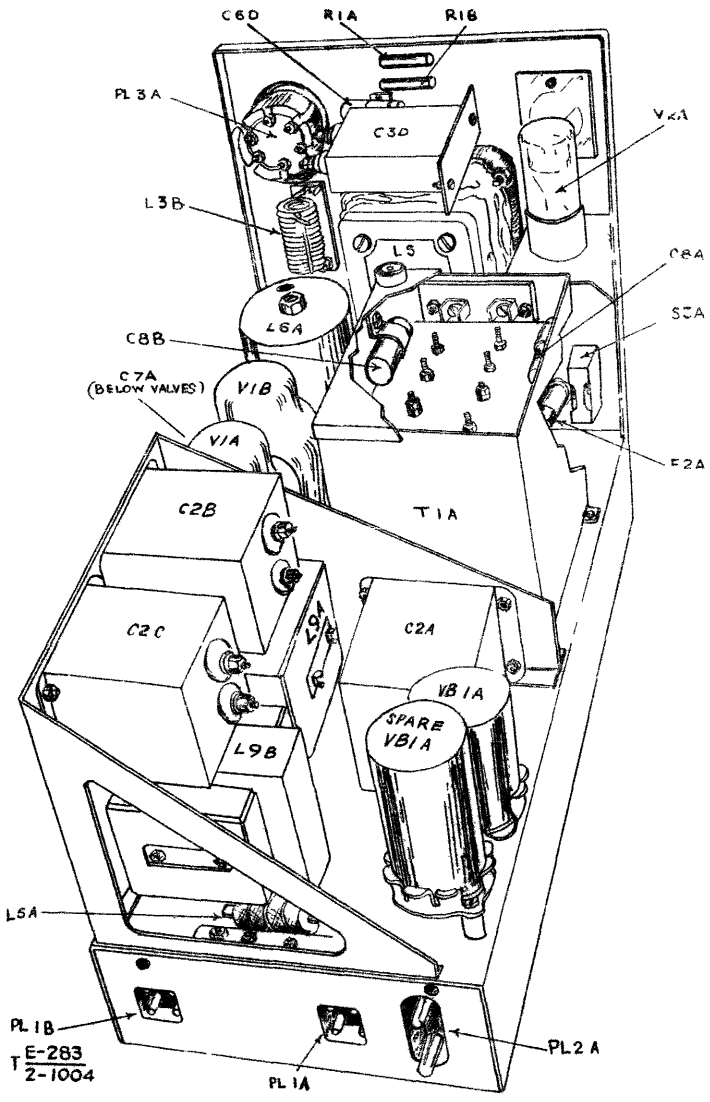

Fig. 1004—Power supply unit No. 15

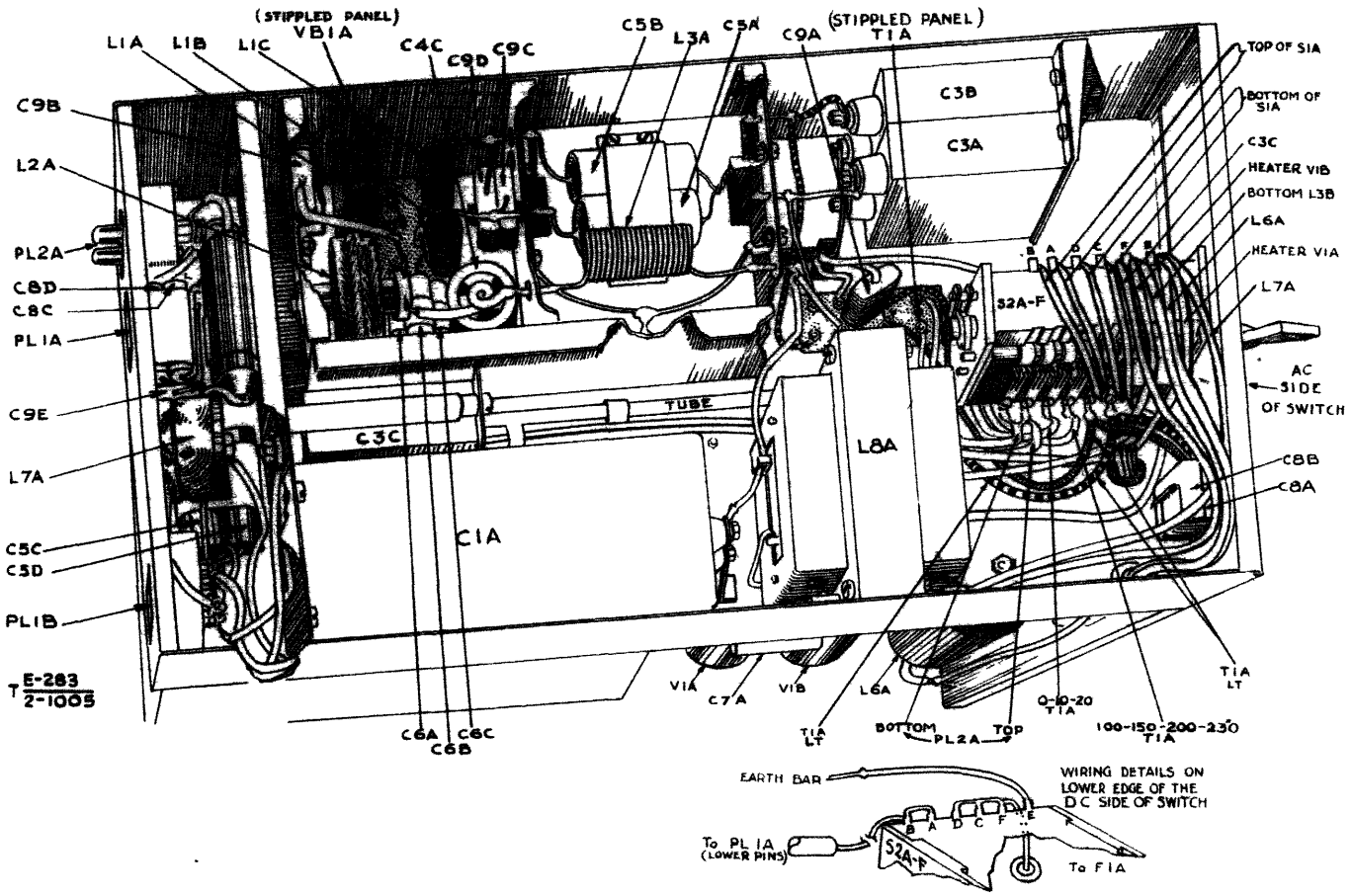

Fig. 1005—Underside view of Power supply unit No. 15

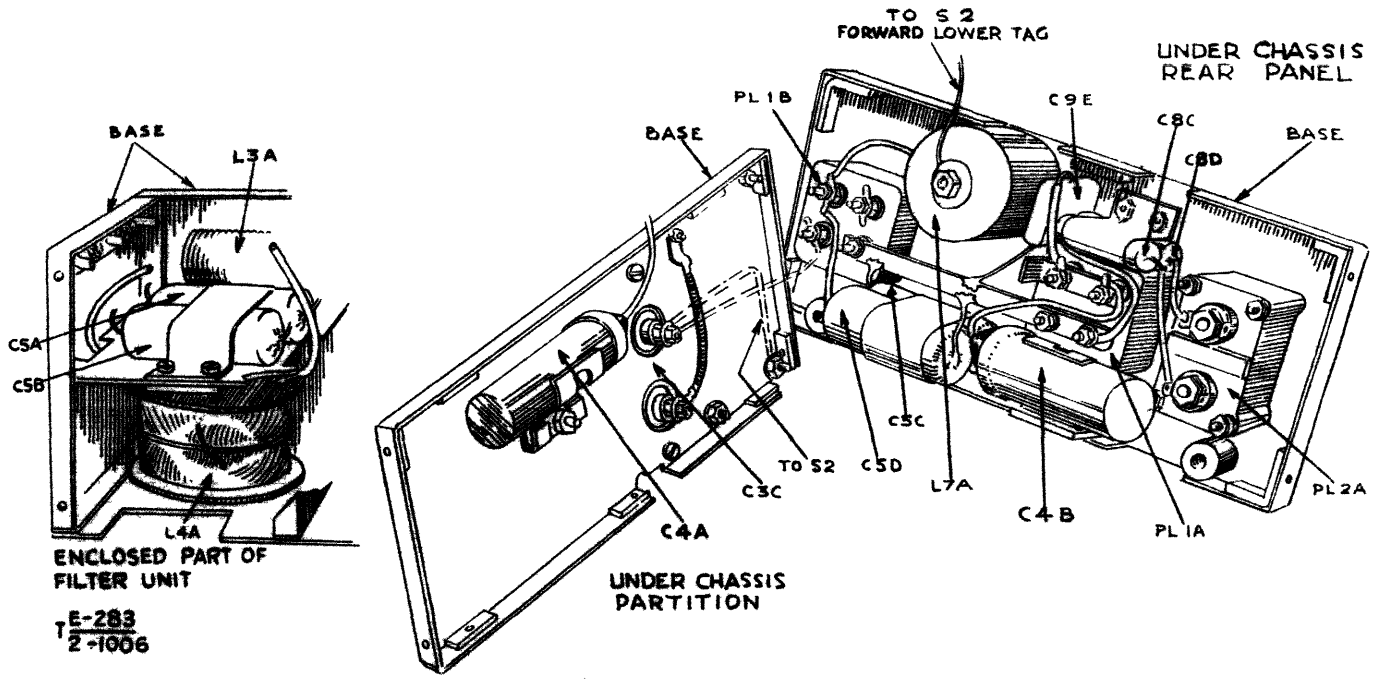

Fig. 1006—Power supply unit No. 15, under chassis sub-assemblies

END