236

CROSS REF TRANSMITTERS.
(2) RECEIVERS.

Amalgamated Wireless (Australasia) Ltd

INSTRUCTION BOOK NO. 4-5780R

INSTRUCTIONS FOR INSTALLING AND OPERATING

A.W.A. WIRELESS SET FS6

INSTALLATION TYPE 2J5780

47 York Street, Sydney

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Amalgamated Wireless (A'sia.) Ltd.,
47 York Street,
SYDNEY.

INSTRUCTION BOOK NO. 4-5780R
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INSTALLATION TYPE 2J5780

SCHEDULE OF INSTRUCTIONS AND DRAWINGS.

DRAWINGS.

	Drawing No.
Instructional Diagram, Wireless Set FS6, Installation Type 2J5780	5780C2
Schematic Diagram, Wireless Set FS6 (Sender 2J5277 and Receiver 2C5406) Unit Type 2J5775	5775C4
Schematic Diagram, Vibrator Unit Type 1H6439	6439D2

INSTRUCTION BOOK NO. 4-5780R
A.W.A. WIRELESS SET FS6
INSTALLATION TYPE 2J5780

SECTION A.

SCHEDULE OF EQUIPMENT.

Item 1. One Sender Type 2J5277 and Receiver Type 2C5406 in Case Assembly Type 2J5775.

Item 2. One Vibrator Power Supply Type 1H6439.

Item 3. One Vibrator, 6V, gas-filled, for Item 2.

Item 4. Two L.T. Connectors.

Item 5. One H.T. Connector.

Item 6. Two Leads, Counterpoise.

Item 7. Valves required for the operation of Item 1 as follows:-

1 Radiotron, Type 1K5G
2 Radiotrons, Type 1C7G
2 Radiotrons, Type 1K7G
1 Radiotron, Type 807
2 Radiotrons, Type 1L5G

Item 8. Instruction Book No. 4-5780R.

NOTE: This list is a guide to the items which comprise a normal equipment, but may be varied to suit the requirements of each installation.

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SECTION B.

OPERATION.

1. CONNECTING THE SET IN THE FIELD.

(a) Put together and erect the aerial. This normally consists of three mast sections (9 feet) or a vertical height of 20 feet if extra range is required.

(b) Stand the set with its back to the aerial and connect the terminal on the aerial base to the spring type "Aerial" terminal on the set.

(c) Connect a pair of counterpoise wires to each spring type "Earth" terminal on the set. For convenience, each pair of wires is connected to a common lug.

(d) Stand the vibrator unit and battery on the ground to the left of the set and as far away as convenient. Connect the units together with the leads provided, making the connections to the set first.

(e) Plug a microphone (Neophone type) and a pair of low resistance headphones into the jacks marked "Mic." and "L.R. 'phones" respectively.

(f) Open the valve door and make sure that the valves are plugged into their respective sockets with the cap connectors firmly in position. Close the valve door.

2. TUNING SENDER.

(a) Loosen the lock knob on the "Master Oscillator" dial by turning it anti-clockwise. Set the dial to the frequency required and lock it by re-tightening the lock knob.

NOTE: For frequencies on the outer scale, RED must show in the hole between the pointers and the RED pointer be used. For inner scale of frequencies, WHITE must show in the hole and the WHITE pointer be used.

(b) Turn the microphone switch to "Key".

(c) Turn the Send/Receive switch to "Send".

(d) Telegraphy: Press the key and turn the "Tune Aerial" knob and adjust "Aerial Tap" switch, until the aerial ammeter shows a reading. The "Aerial Tap" is then adjusted to a position giving maximum aerial current, meanwhile re-adjusting the "Tune Aerial" knob if required. Tap 1 is lowest inductance, Tap 12 is highest inductance. As frequency is increased, the taps used will progress from 12 to 1. 0° on the "Tune Aerial" dial is minimum condenser capacity, 180° is maximum capacity. The Sender is now ready for telegraphy.

(e) Telephony: Adjust as above for telegraphy, then turn the microphone switch to "Speech". The aerial ammeter should now show a steady reading of approximately half to two thirds that shown when the key is pressed for

telegraphy. Speak slowly and fairly loudly close to the microphone mouthpiece. The flat side of the microphone holder should be kept vertical.

The aerial current should increase slightly. If bad speech is reported and the aerial current decreases instead of increasing, either turn the "Aerial Tap" switch to a tap of lower inductance and re-adjust the "Tune Aerial" Knob , or re-adjust the "Tune Aerial" knob only, for slightly decreased aerial current. The current should then increase slightly with speech.

3. TUNING RECEIVER.

(a) Loosen the lock knob on the calibrated dial marked "Tune Receiver" by turning it anti-clockwise.

(b) Set the calibrated dial to the frequency required and lock the dial. Set the "Tune Rec. AE" and "Volume" controls to half scale.

(c) Turn the Send/Receive switch to "Receive".

(d) According to whether Telephony or Telegraphy is to be received, proceed as follows:

Telephony:

(i) Set the toggle switch to "Speech".

(ii) Using the vernier of the calibrated dial, search each side of the frequency required until the incoming signal is heard. Adjust the dial for best clarity of speech.

(iii) Adjust the "Tune Rec. AE" for maximum strength of received signal.

(iv) Adjust the strength to a satisfactory level with the "Volume" control.

Telegraphy:

(i) Place the toggle switch to "C.W."

(ii) Search each side of the frequency required with the vernier until the signal is heard and adjust the dial for the best note.

(iii) Bring the note to maximum strength with the "Tune Rec. AE".

(iv) Adjust the strength to a satisfactory level with the "Volume" control.

(v) Keep the note at constant pitch by re-adjusting the vernier of the calibrated dial as the volume control is used.

4. NETTING PROCEDURE.

(a) Proceed as under 3 to tune in the signal until a zero

beat is obtained.

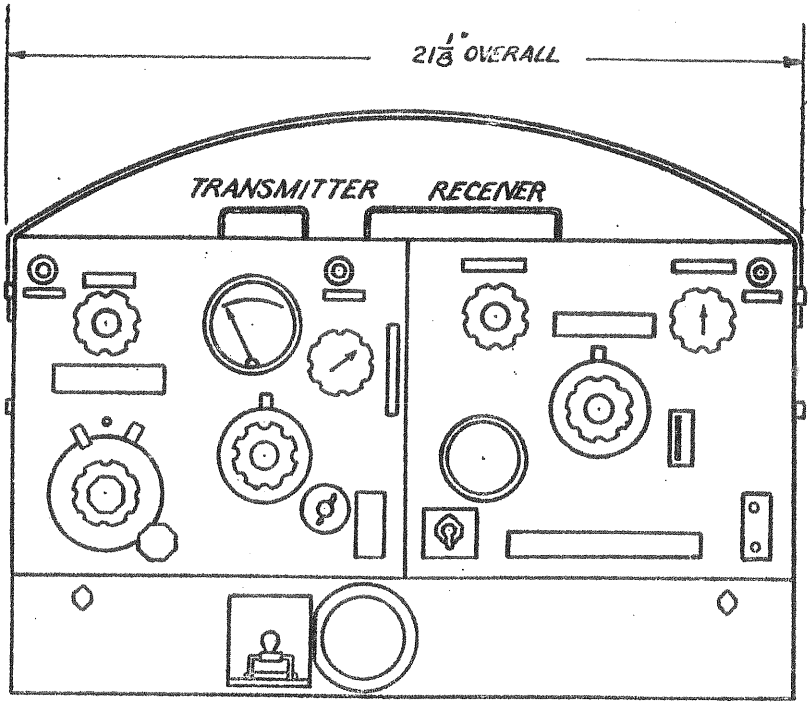
(b) Place the SEND-RECEIVE switch at "NET", re-adjusting the receiver to maintain zero beat if necessary.

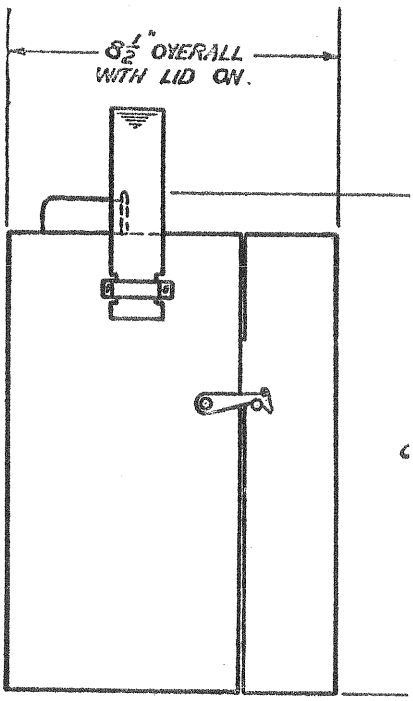
(c) Turn the SEND-RECEIVE switch to "SEND". Loosen the lock knob on the Sender "Master Oscillator" dial by turning anti-clockwise. Set the dial to the same frequency calibration as that indicated by the receiver dial, when tuned to the incoming signal. Adjust the Sender aerial tuning as under Section 2, (c), (d) and (e) for maximum aerial current.

(d) Return the Send-Receive switch to "NET" and set the "Master Oscillator" dial to zero beat with the incoming signal. Lock the dial by re-tightening the lock knob. Turn the SEND-RECEIVE switch to "SEND" and check Sender aerial tuning adjustment for maximum aerial current.

The sender is then ready for transmission on the "NET" frequency.

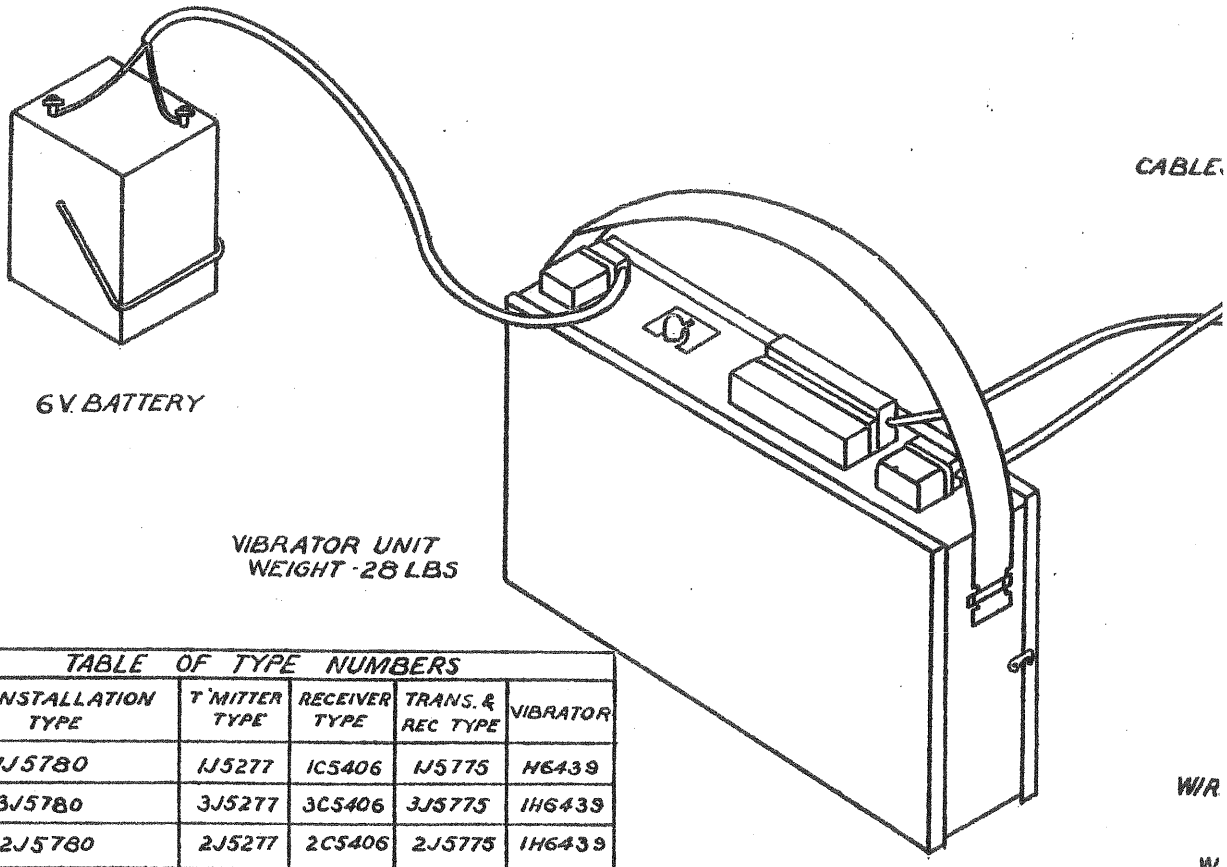
(e) Return the SEND-RECEIVE switch to Off or Receive as required.





VIEW WITH LID OFF.

TRANSMITTER - RECEIVER WIRELESS SET F.S.6.



CABLE

TABLE OF TYPE NUMBERS

INSTALLATION TYPE	T'MITTER TYPE	RECEIVER TYPE	TRANS. & REC TYPE	VIBRATOR
1J5780	1J5277	1C5406	1J5775	H6439
3J5780	3J5277	3C5406	3J5775	1H6439
2J5780	2J5277	2C5406	2J5775	1H6439

5780C2

APPROVED G.W.S. DATE 28-11-39

CHANGES

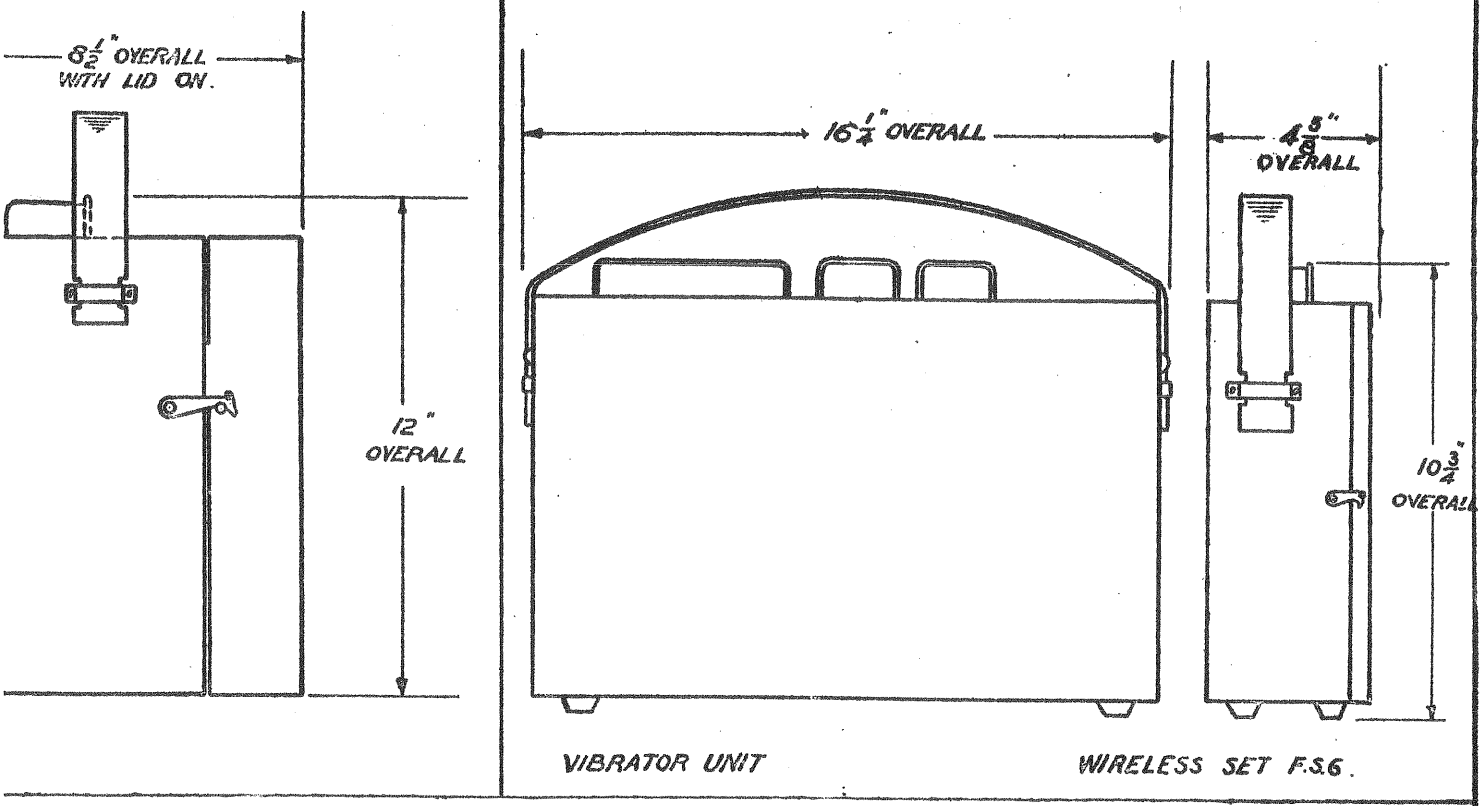
0 Type 3J added. Dwn. J.W.S. Tcd. D.J.W. Chd. W.J.

App: G.W.S. 25-9-40 1 2J added. Dm. Tcd D.J.W. Chd. W.J.

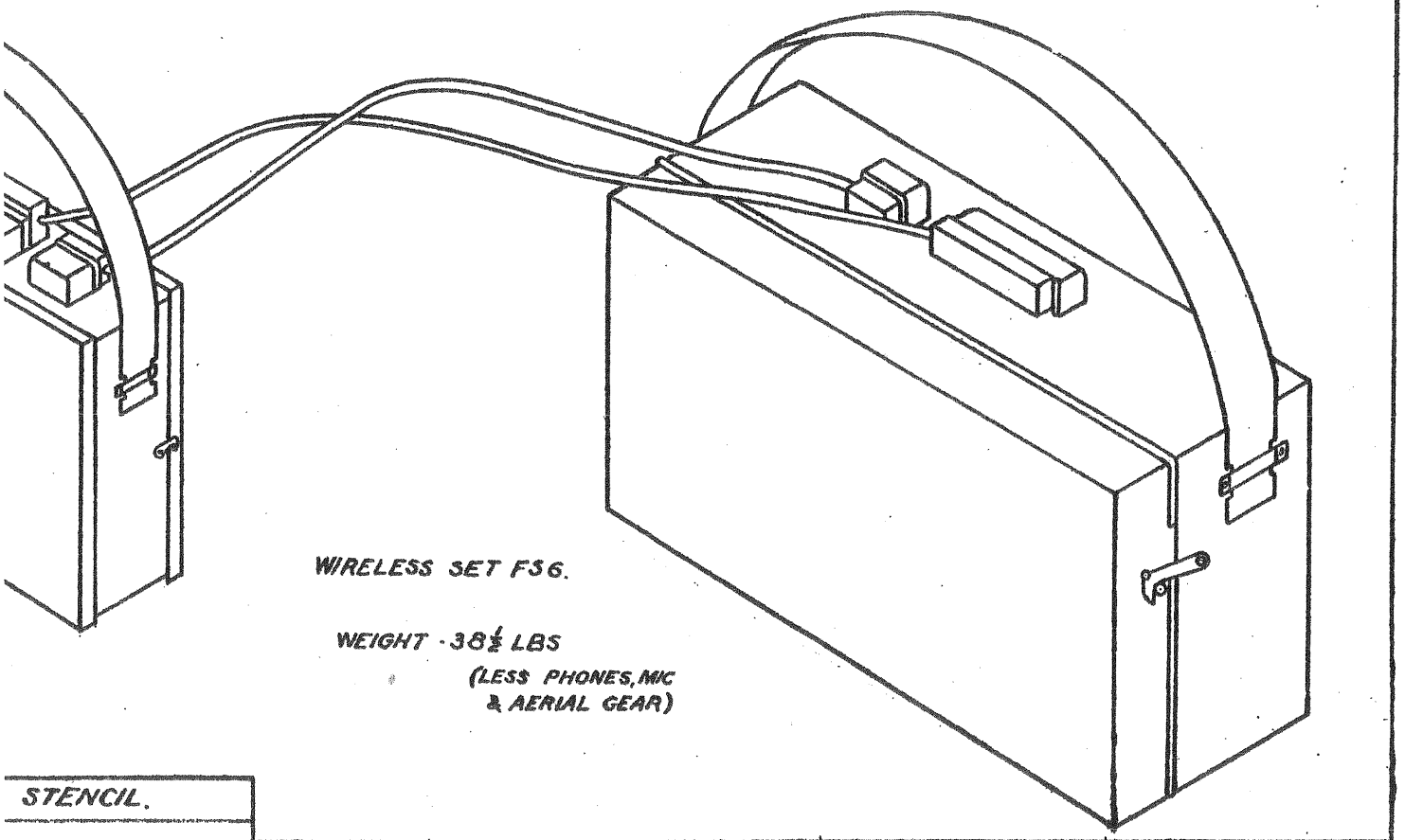
App: G.W.S. 1-11-40 2 Retraced Tcd: B. Rattrick Chd:

App: 4 23-10-41 3 ADD CHANGES TO GESTETNER STENCIL.

AM
(AUS



CABLES WEIGHT 2½ LBS.



WIRELESS SET F.S.6.

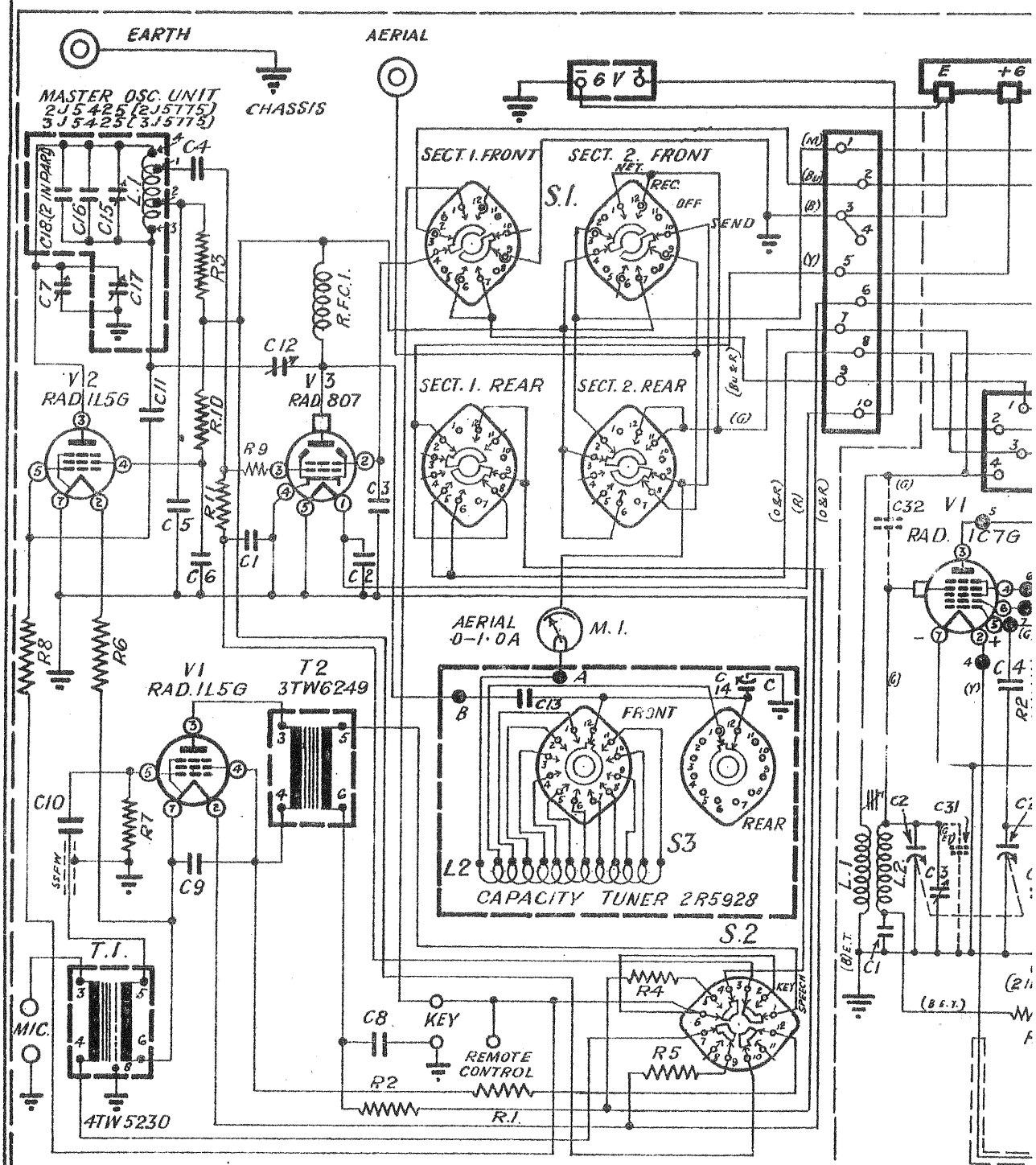
WEIGHT - 38½ LBS
(LESS PHONES, MIC
& AERIAL GEAR)

STENCIL.

AMALGAMATED WIRELESS
(AUSTRALASIA) LTD. - SYDNEY

INSTRUCTIONAL DIAGRAM
WIRELESS SET F.S.6.

REF.			1ST SHEET REF.
ARST.			
DRN.	J. Stubbings	27-11-39	TYPE 1,2&3J5780
TRCD.	J. Stubbings	27-11-39	
CKD.	W. Jenvy.	28-11-39	DWG. 5780C2
APP.	W.W.L.	28/11/39	



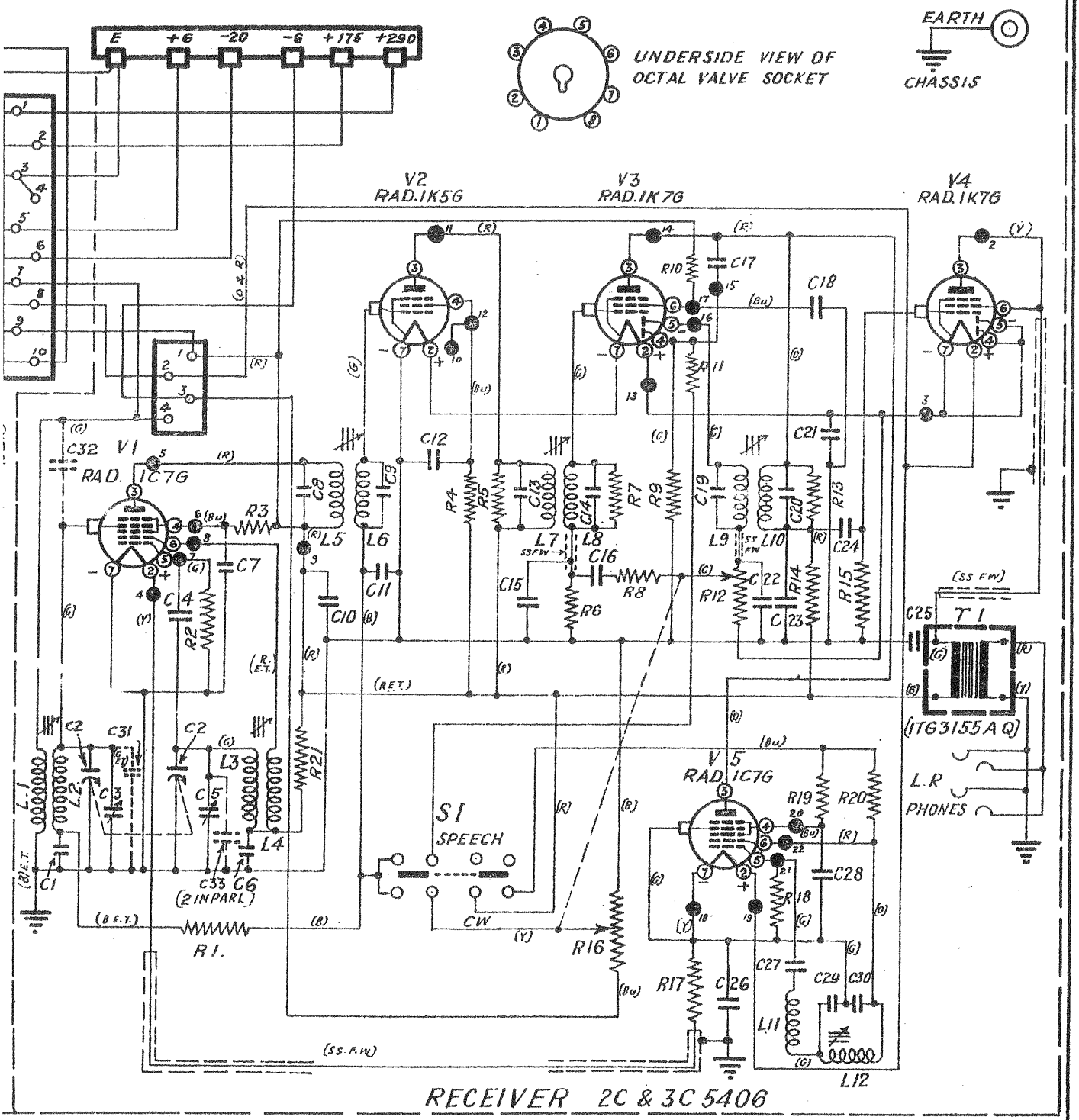
NOTE RE OAK SWITCH:-
TURN SWITCH TO EXTREME COUNTER CLOCKWISE POSITION WHEN LOOKING AT FRONT OF UNIT. THEN WIRE FROM BACK AS SHOWN

NOTE:-
C33, C32 & C31 (SH...
IN REC...

5775 C4

	DATE	CHANGES
APPROVED		

FORM 104



NOTE:-
C33, C32 & C31 (SHOWN DOTTED) INCLUDED IN REC. 3C5406 ONLY.

COLOUR CODE.

(M)	MAROON.	(O & R)	ORANGE & RED TRACER.
(Y)	YELLOW.	(Br)	BROWN.
(O)	ORANGE.	(B)	BLACK.
(W)	WHITE.	(Bu)	BLUE.
(G)	GREEN.	(R)	RED.

(Bu & R) BLUE & RED TRACER.

SSFW. — SINGLE SCREENED FRIED WIRE

AMALGAMATED WIRELESS (AUSTRALASIA) LTD. — SYDNEY

SCHEMATIC DIAGRAM
WIRELESS SET F.S.G.

REF.		1st SHEET REF.
ARGT.		
DRN.		
TRCD.	M.A.M.Loots 27.9.40	TYPE 2J&3J5775
CKD.		
APP.	W.M.R. 30/9/40	DWG. 5775C4

FORM 105

AMALGAMATED WIRELESS (AUSTRALASIA) LTD. — SYDNEY

SCHEMATIC DIAGRAM

VIBRATOR POWER SUPPLY

	REF.	1st SHEET REF.
DRN.	ARGT.	
TRCD.		
CKD.		
APP.		

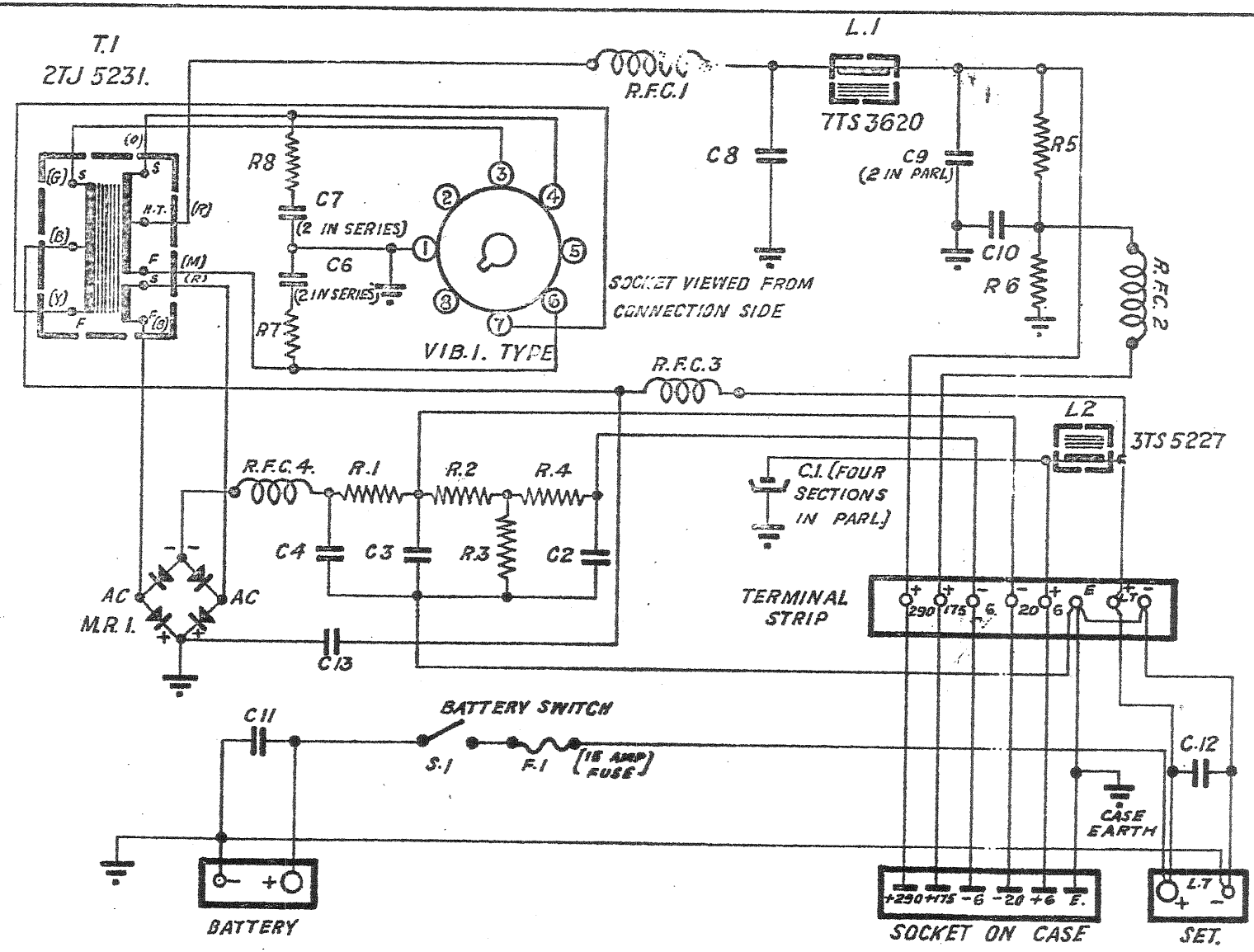
TYPE IH6439

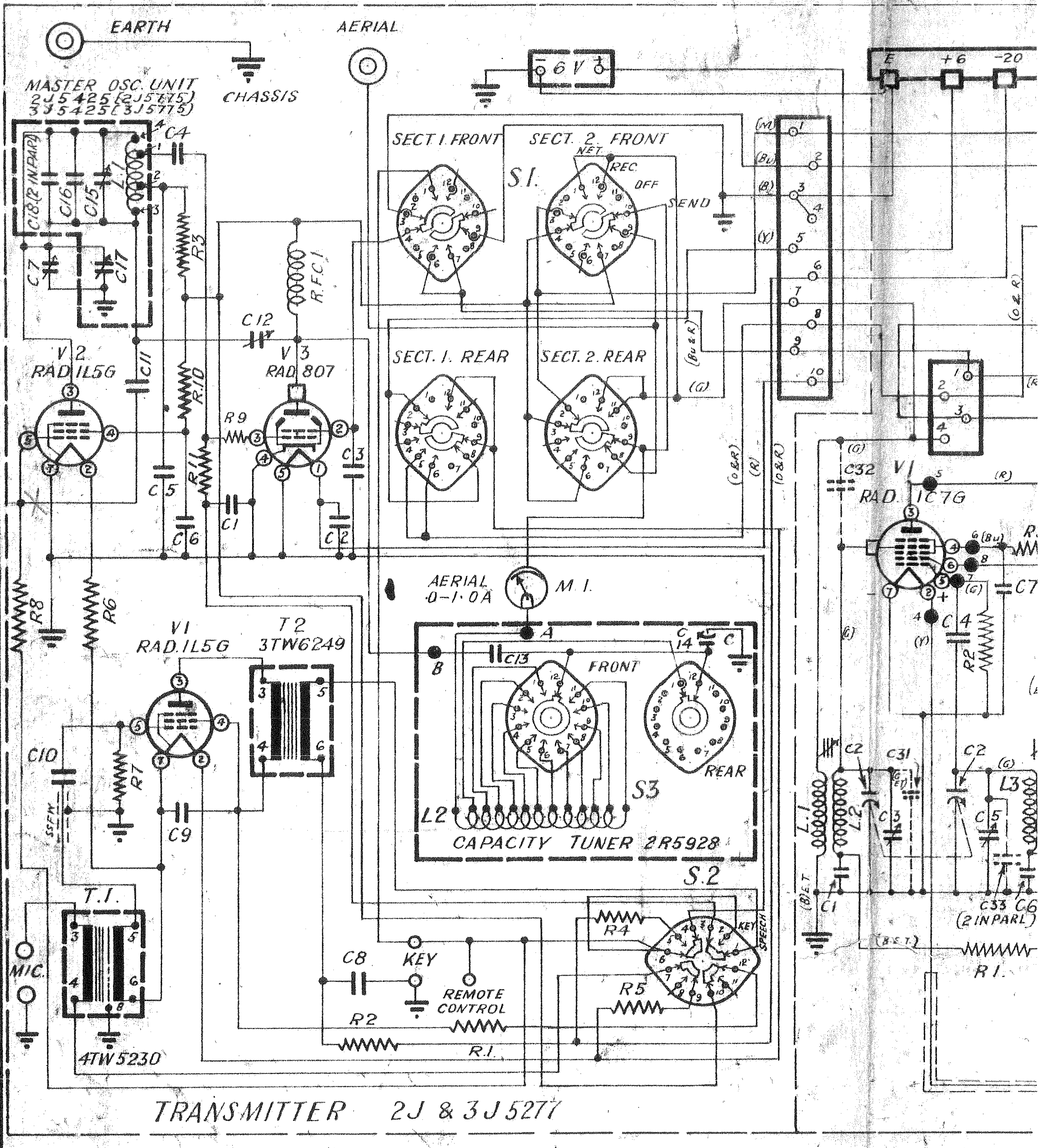
DWG. 6439 D2

6439 D2

APPROVED | DATE 1-1-

CHANGES





NOTE RE OAK SWITCH:-
TURN SWITCH TO EXTREME COUNTER CLOCKWISE POSITION WHEN LOOKING AT FRONT OF UNIT THEN WIRE FROM BACK AS SHOWN

NOTE:-
C33 C32 & C31 (SHOWN ... IN REC. 3C5...

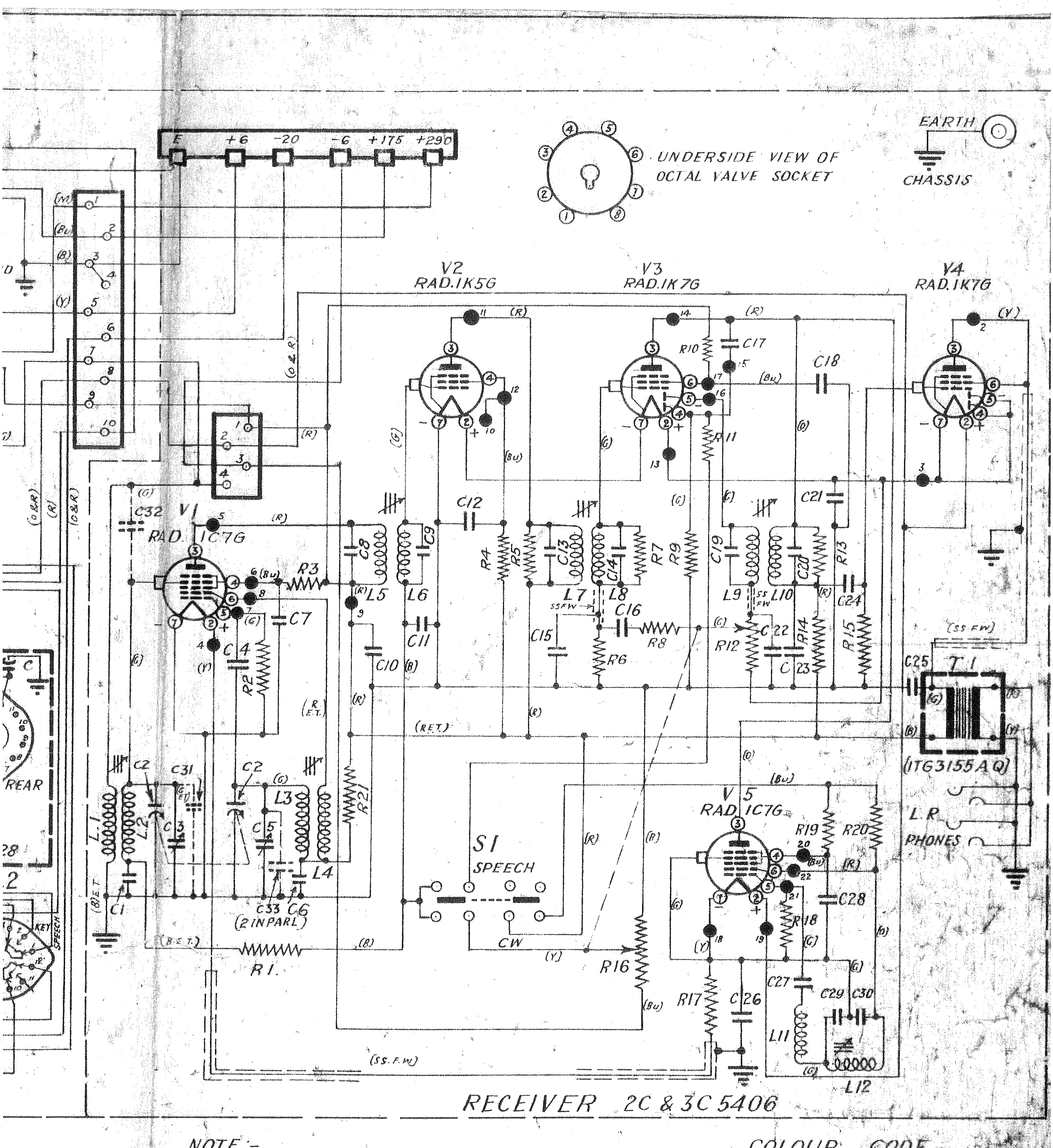
0	ADD CHANGES TO GESTEINER STENCIL
DATE 30-5-40	CHANGES
APPROVED	

5775 C4

AMAL...
(AUST...

SCH...
WIR...

104



NOTE:-
C33, C32 & C31 (SHOWN DOTTED) INCLUDED
IN REC. 3C5406 ONLY.

COLOUR CODE

(M)	MAROON.	(O & R)	ORANGE & RED TRACER
(Y)	YELLOW.	(Br)	BROWN
(O)	ORANGE.	(B)	BLACK
(W)	WHITE.	(Bu)	BLUE.
(G)	GREEN.	(R)	RED.

(Bu & R) BLUE & RED TRACER.

SSFW. – SINGLE SCREENED FRIED WIRE

STENCIL.

AMALGAMATED WIRELESS
(AUSTRALASIA) LTD. — SYDNEY

SCHEMATIC DIAGRAM
WIRELESS SET F.S.6.

REF.	
ARGT.	
DRN.	
TRCD.	M.A. Woods 27.9.40
CKD.	
APP.	30/9/40

1st SHEET REF.

TYPE 2J&3J5775
DWG. 5775C4

5283D4	APPROVED	DATE	CHANGES
		1-6-39	

AMALGAMATED WIRELESS
(AUSTRALASIA) LTD. - SYDNEY

VIBRATOR UNIT FOR
WIRELESS SET F.S.6.
FOR FIELD USE.

REF.		1ST SHEET REF.
ARGT.		
DRN.		24/5/39
TRCD.		1-6-39
CKD.		2-6-39
APP.		

TYPE 3H5283

DWG. 5283D4