

Resistors

R1	5.6kΩ	C1
R2	27kΩ	C1
R3	1kΩ	C2
R4	56kΩ	C2
R5	100kΩ	C2
R6	680Ω	B2
R7	10kΩ	C2
R8	27kΩ	B2
R9	5.6kΩ	B2
R10	560Ω	B2
R11	4.7kΩ	B1
R12	5kΩ	B1
R13	1kΩ	B2
R14	12kΩ	B2
R15	47kΩ	A2

R16	12kΩ	A2
R17	100Ω	B2
R18	390Ω	B2
R19	680Ω	B2
R20	5.6Ω	B2
R21	2.2Ω	A2
R22	100Ω	B2
R23	2.2Ω	A2

Capacitors

C1	20pF	C1
C2	25pF	B2
C3	255pF	B2
C4	60pF	A1
C5	25pF	B2
C6	1,300pF	C1

C7	0.01μF	C2
C8	5,000pF	C2
C9	25pF	C1
C10	2,000pF	C1
C11	255pF	C2
C12	250pF	B1
C13	25pF	C2
C14	230pF	C2
C15	25pF	C2
C16	175pF	C2
C17	75pF	C2
C18	0.02μF	B2
C19	175pF	C2
C20	0.02μF	B2
C21	0.02μF	B2
C22	175pF	B2

C23	0.02μF	B2
C24	0.02μF	B1
C25	0.47μF	A1
C26	25μF	B2
C27	75μF	B2
C28	75μF	B2
C29	75μF	B2
C30	150μF	A2
C31	1,000pF	A2
C32	20pF	B1
C33	40pF	C2
C34	5pF	C2

Coils*

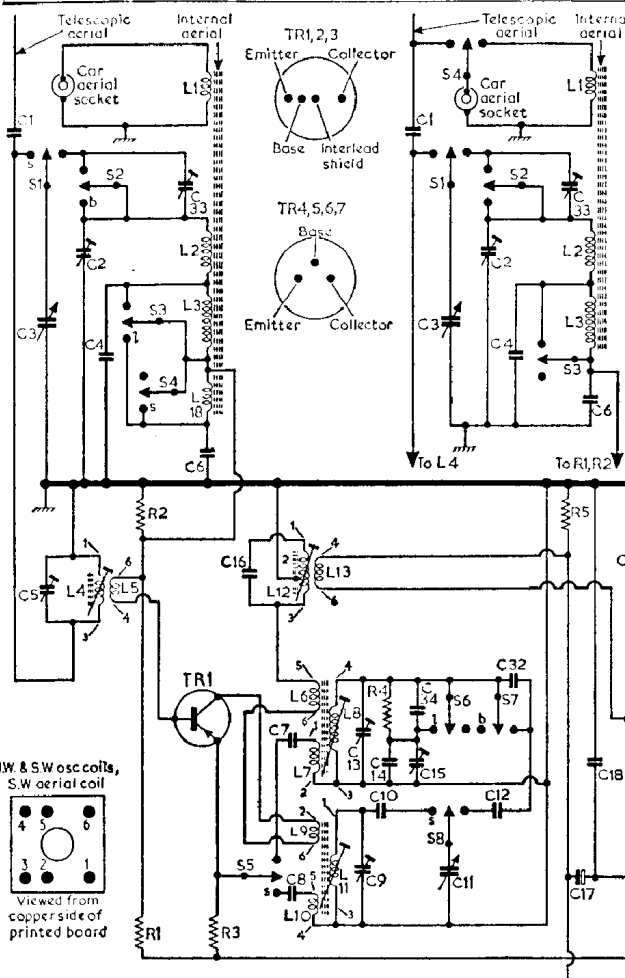
L1	—	A1
L2	1.0	C1
L3	10.0	A1
L4	—	C2
L5	—	C2
L6	—	C2
L7	—	C2

L8	2.5	C2
L9	—	C2
L10	—	C2
L11	—	C2
L12	10.0	C2
L13	—	C2
L14	10.0	C2
L15	—	C2
L16	4.5	B2
L17	—	B2
L18	—	B1
L19	15.0	—

Miscellaneous

S1-S8	—	B1
S9	—	B1
W1	OA70	B2
W2	AA120	A2

*Approximate d.c. resistance in ohms.



Circuit diagram of Ferguson 3132 showing the early and late version aerial input circuits. Press-button switching is used and one of the buttons is employed to select bondspread tuning at the l.f. end of m.w.

Transistor Table

Transistor	Emitter (V)	Base (V)
TR1	AF115	1.0
TR2	AF117	0.45
TR3	AF117	0.95
TR4	AC155	0.2
TR5	AC113	0.55
TR6	AC154	5.0*
TR7	AC127	5.0*

*Measured at the junction R21, R23 (see also "Output Balance Adjustment" overleaf).

CIRCUIT ALIGNMENT

Equipment Required.—An a.m. signal generator modulated 30 per cent; an audio output meter with an impedance to match 15Ω or alternatively a model 8 Avometer; a 0.1μF capacitor and a length of wire formed into an r.f. coupling loop.

Dismantle the receiver from its case and release the loudspeaker (see General Notes). During alignment the signal input level

- 1.—Switch receiver to m.w. and turn the tuning gang to maximum capacitance. Connect the audio output meter in place of the loudspeaker or connect the Avometer, switched to the 10V a.c. range, across the speech coil.
- 2.—Connect the signal generator across the tuning gang aerial section C3. Feed in a 475kc/s signal and adjust the cores of L16, L14 and L12 in that order for maximum output. Repeat until there is no further improvement.
- 3.—Connect the signal generator across the r.f. coupling loop and loosely couple the loop to the ferrite rod aerial. Feed in a 525kc/s signal, fully close the tuning gang and adjust L8 for maximum output.
- 4.—Switch receiver to "Lux." Feed in a 1,400kc/s signal and, with the tuning gang fully closed adjust C13 for maximum output.

- 5.—Repeat operations 3 and 4 until there is no further improvement.
- 6.—Switch receiver to m.w. Feed in a 600kc/s signal and tune receiver to this signal. Then adjust L2 for maximum output.
- 7.—Feed in a 1,500kc/s signal and tune receiver to this signal. Then adjust C2 for maximum output.
- 8.—Repeat operations 6 and 7 until there is no further improvement.
- 9.—Switch receiver to "Lux." Feed in a 1,439kc/s signal and tune receiver to this signal. Then adjust C33 for maximum output. Note: "Lux" aerial trimmer C33 should always be checked if the settings of C2 or L2 are altered. Also, after reassembling the receiver in its case, it should be checked that Radio Luxembourg is receivable on the "Lux" press-button range, if necessary re-adjusting the m.w. oscillator trimmer C13.
- 10.—Switch receiver to l.w. and fully close the tuning gang. Feed in a 148kc/s signal and adjust C15 for maximum output.
- 11.—Feed in a 220kc/s signal and tune receiver to this signal. Then adjust L3 for maximum output.

- 12.—Switch receiver to s.w. and fully extend the telescopic aerial. Lay the signal generator output lead nearby to provide a loose coupling.
- 13.—Feed in a 5.9Mc/s signal. Fully close the tuning gang and adjust L11 for maximum output.
- 14.—Feed in 17Mc/s signal. Fully open the tuning gang and adjust C9 for maximum output.
- 15.—Feed in a 6.77Mc/s signal and tune receiver to this signal. Then adjust L4 for maximum output.
- 16.—Feed in a 15.45Mc/s signal and tune receiver to this signal. Then adjust C5 for maximum output.

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