

Owners Service Data for Medium Wave H3 Push Button Car Radio

Sufficient information is contained in this Manual to enable a competent radio service mechanic to effect all normal repairs to the set.
The Manual includes—

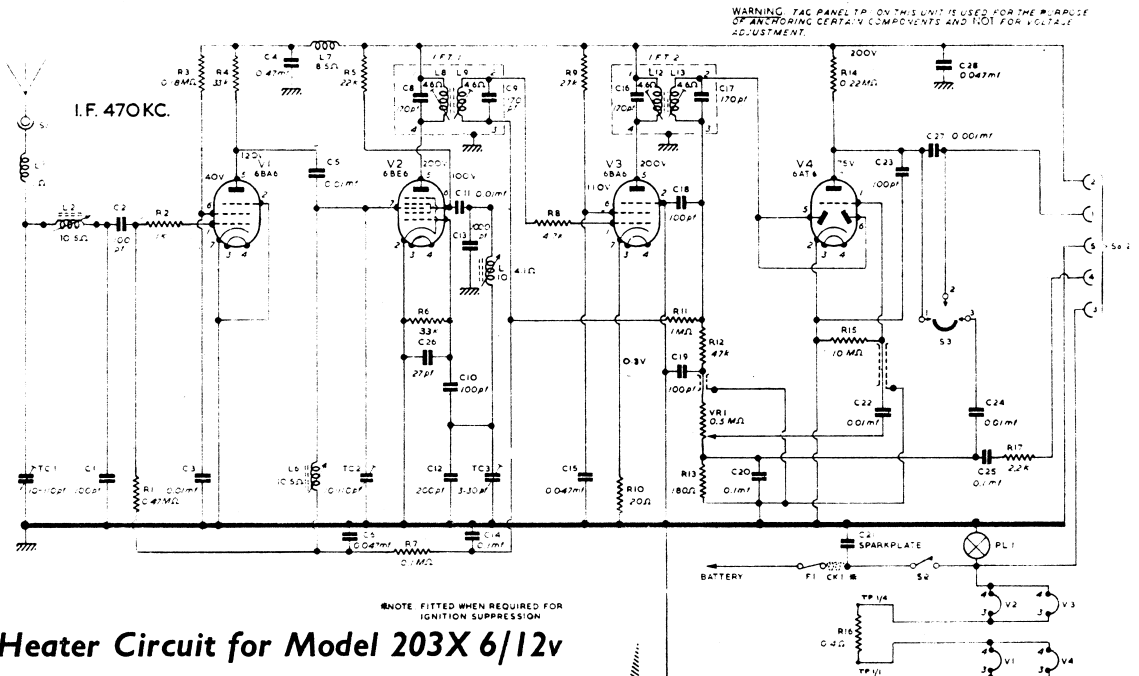
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|-----------------------|--|
| Control Unit | 202X for 12v. operation
203X for 6/12v. operation |
| Power/Amplifier Units | |

The equipment operates efficiently on either positive or negative earth electrical circuits.

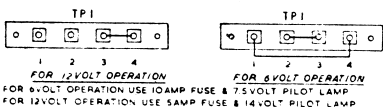
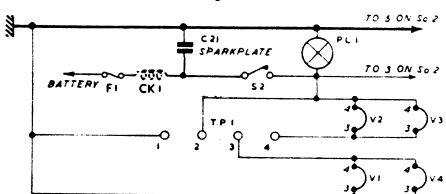
Note: When changing the voltage of models 203XC or 203XD it is necessary to insert a vibrator cartridge and pilot lamp of the correct voltage, as well as altering the connections on the voltage adjustment panel.

For further information please refer to Service Manual TM.31 obtainable from Smiths Radiomobile pointed distributor.

M.W. Push Button Control Unit Model 202X (12 v)



Heater Circuit for Model 203X 6/12v



The circuit shown illustrates the heater arrangement of 203X. The remainder of the circuit is the same as 202X.

Alignment Instructions

H3

During alignment, the input to the receiver must be progressively reduced as the circuits are brought into line so that the output does not exceed 200 m.W. (0.8 volts for a 3.5 ohm non-inductive load). An A.C. voltmeter (rectifier type) may be used as an output meter. The signal generator should be connected to a dummy aerial comprising a series capacitor of 15 pfd and a 50 pfd capacitor from the aerial socket to chassis.

I.F. ALIGNMENT

1. Set Volume Control to maximum, Tone Control fully anti-clockwise and bring tuning carriage right out, i.e., towards front panel.
2. Inject a modulated signal at 470 kc s (modulated at 400 cycles to 30%) between the grid of V2 and chassis, via a .1 mfd Capacitor, leaving grid connection made.
3. Adjust cores of L13, L12, L9 and L8, in that order, for maximum output. When adjusting any coil its companion coil must be damped with a 47,000 ohm resistor.
4. Repeat until no further increase in output is obtainable.

M.W. ALIGNMENT

Controls as for operation 1 of I.F. Alignment, connect signal generator to the aerial socket and chassis via the dummy aerial.

Ensure that the tuning cores are screwed back as far as possible into their square rubber grommets before proceeding with alignment.

Oper. No.	Set Pointer To	Generator To		Adjust for Max. Output
		Kc s	M	
1	Tuning carriage fully out	1,620	185	TC1, TC2, TC3 L10
2	Tuning carriage fully in	520	577	
3*	Set left hand edge of pointer to Calibration Mark on Front Plate Flange	1,100	272	L2, L6 Ferroxcube Rod
4†	Tune in	550	545	
5	Repeat operation 3 (L2 only) and 4			

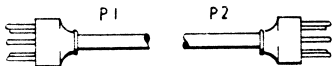
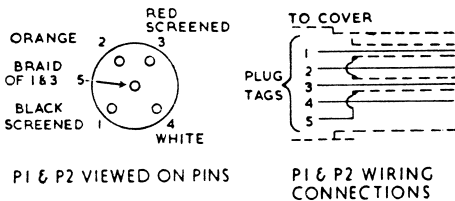
*On early models, where there is no Calibration Mark, tune in.

†The ferroxcube rod protrudes from the base of L2. This operation must only be carried out when it has been necessary to fit a new L2. After adjustment, ensure that the ferroxcube rod is sealed.

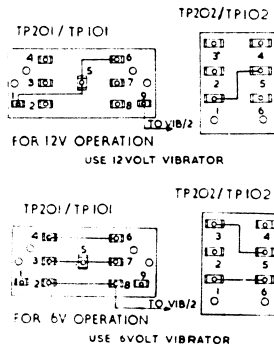
For access to cores of L2, L3, L6 and L10, remove Back plate and Diffuser Assembly.

M.W. SENSITIVITY: With input level 110 db below 1 volt (3 microvolts) check that the output is not less than 200 mW when using XA or XC amplifiers; 2 watts when using XB or XD amplifiers.

INTERCONNECTING CABLE



VOLTAGE ADJUSTMENT



VOLTAGE READINGS

Readings were taken with an input of 14 volts (12 volt units) and 7 volts (6 volt units).

Mean voltage readings are given against the use of meters possessing internal resistances of from 500-20,000 ohms p.v.

A variation of $\pm 15\%$ can be anticipated on all readings.

TOTAL BATTERY CONSUMPTION

- 12 Volt Operation
Control Unit with Standard Amplifier 3.25 amps (14 volt input)
Control Unit with De-Luxe Amplifier 3.5 amps (14 volt input)
- 6 Volt Operation
Control Unit with Standard Amplifier 7.6 amps (7 volt input)
Control Unit with De-Luxe Amplifier 7.9 amps (7 volt input)

