## Failure to receive or poor receive

If during the preceding checks the receiver is found to be poor or inoperative, checks will have to be made to determine if the fault is in the AF, IF, mixer or RF stages, or, indeed, the power supply.

REMEMBER THAT THE VOLTAGES THAT EXIST IN THIS TRANSCEIVER CAN BE LETHAL, SO TAKE GREAT CARE, AND

REMOVE THE MAINS PLUG FROM ITS SOCKET IF YOU NEED TO SOLDER COMPONENTS, ETC. SWITCHING THE TRANSCEIVER OFF AT THE FRONT PANEL IS NOT ENOUGH AS MAINS VOLTAGE IS STILL PRESENT WITHIN THE TRANSCEIVER AND POWERSUPPLY CABINETS UNDER SWITCH-OFF CONDITIONS.

Assuming, first of all, that the receiver is totally dead, the following procedure should be adopted:

- 1. Switch on and observe that all valve heaters are glowing.
- 2. If not, switch off and check the heater of the offending valve or valves for continuity on the ohm range of the multimeter. (There should be only a few ohms across the heater pins.) If just V11 (VFO) and V10 (HF oscillator) are not glowing it is as well to remember that these two valves have their heaters supplied separately from all the other valves, and a check should be made on the supply voltages at the valve pins of the HF oscillator V10. (It is impossible to measure the heater voltage actually at the pins of V11 VFO as these are in the VFO compartment.) Replace any valves with open circuit heaters with new replacement valve(s). (See VFQ footnote Table 2).
- 3. If, however, only a few valve heaters are glowing, and possibly very brightly, switch off immediately! Remove mains plug from socket! Now check the wiring to the multiway plug/socket from the power supply as these are rather prone to breakage, especially in the plug.

General	Approx 4 of 16swg wire wrapped around valve envelope.
coverage	
receiver	
	6 of coaxial cable from aerial socket
IG. 4. Set up	used to check for the presence of
signals	used to check for the presence at various stages as listed in Remove screening can from valv

Assuming that all valve heaters are glowing and the receiver is still dead, look at the voltage stabiliser V20. This should be seen to glow a purple colour. If not, most probably either V20 is defective or no HT is being supplied from the PSU. Check leads/plugs/back to PSU and

## Table 2

Voltage checks. Receive condition. Control settings. LSB, Bandswitch, 3.5MHz. AF Gain, Midway. RF Gain Minimum. EXT MOX.

3.5MHz. AF Gain, Midway. RF Gain Minimum. EXT MOX.											
VALVE	1	2	3	4	5	6	7	8	9	NOTES	
V20	+ 150				+ 150		0			IF voltage low or high check V20, R96, R100	
V17	0	20	0	50Hz 6.3	50Hz 12.6	225.	240	1	70	IF voltage on Pin 2 low, check, V17,Ti T, Primary, R100, C151	
										IF voltage Pin 2 high check V17, R93, C125	
										IF voltage pin 9 low, check, V17, R92, C125	
										IF voltage pin 9 high, check, V17, R94, RV95 slider to chassis	
V16	100	5	0	0	0	100	0	3.5	50Hz 6.3	IF voltage pin 1 or 6 low check voltage at V20, RFC9, R13	
V15	175	0	A/C 2.6	A/C 6.3	6.3	135	-1	.6	A/C 12.6	IF voltage pin 6 high/ low check V15, R82, R81, C109, C127	
V14	0	3	A/C 12.6	A/C 6.3	4	=	43	-	_	IF voltage pin 5 low, RX gain will be low, check V14, R68, R69	
V13	0	-	A/C 6.3	A/C 12.6	200	135	3.5	-	-	IF voltages high/low check V13, R70, R72, R71, C105, C104, IFT4	
V12	0	-	A/C 6.3	Ā/C 12.6	215	3.0	_	_		IF voltages high/low check V12, R22, C22, C97, C98, R66, IFT5	
V11	115	0	7.8	Ā/C 6.3	Ā/C 12.6	72	1.2	4.5	4.2	VFO See note below. But check V11 and voltage from V20	
V10	Арргох — 2.5		A/C 6.3	0	220	0	170	-	_	IF voltages high/low check V10, R51, RFC7, R49, C71, C75, C193	
<b>V</b> 9	-1	1.2	A/C 6.3	A/C 12.6	235	52	0	=	-	IF voltages high/low check V9, R46, R47, R48, IFT2, C27, R28. Also V4 if pin 5 V9 low	
V19	0	1.2	A/C 6.3	Ā/C 12.6	240	52	0	_	=	IF voltages high/low check V19, R114, R115, R116, R117, R221, C22, C134, C135, C136, Mech. filter	
V6	.35	-23	.35	A/C 6.3	0	0	235	35*	0	*Voltage pin 8 depends on band selected. IF voltages high/low check R39, R40, R123, R36, APC1, R35, V6, C37	
	Note:	All vo	tages	± 10%					-	Note: All voltages within the VFO are difficult to measure and a 9 pin plug/valve holder with suitable test points on it and interposed between valve and VFO. If any resistors are found defective in the VFO it is best to replace them all.	