

ALIGNMENT INSTRUCTIONS

A cathode-ray oscilloscope and a frequency-modulated signal generator are required for proper alignment. Synchronize the scope externally with the signal generator. Set Send-Receive switch to Receive, the Limiter "off", the MAN-AVC-BFO switch to MAN. position and the crystal selectivity switch to "off" position. Set band spread dial at 200, gain and sensitivity controls at maximum and output from signal generator no higher than is necessary to obtain output reading. Use insulated alignment screwdriver.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	SCOPE CONNECT	ADJUST	REMARKS	
.1 MFD.	High side to pin #3 (grid) of the third IF tube (5). Low side to chassis.	455KC	.54-1.32 MC	.54MC	High side to pin 5 of 6HG. Low side to chassis	A1,A2	Adjust for maximum amplitude, symmetry and pattern coincidence on the scope.	
"	High side to pin #4 (grid) of the second IF tube (4). Low side to chassis.	"	"	"	"	A3,A4	Adjust to obtain symmetrical, coinciding curve with as much amplitude as possible without disturbing the pattern.	
"	High side to pin #4 (grid) of the first IF tube (3). Low side to chassis.	"	"	"	"	A5	Adjust for maximum amplitude at center of curve.	
"	High side to grid cap of 6K9. Low side to chassis.	"	"	"	"	A6,A7	Adjust to obtain symmetrical coinciding curve with as much amplitude as possible without disturbing the pattern. This should result in a tall selectivity curve with a slightly flattened peak. Pin 5 (osc grid) should be grounded to obtain clearer pattern.	
"	"	"	"	"	"	A8	Turn crystal selectivity switch to position #1, set crystal phasing pointer on arrow. Keep input signal low to prevent overloading. Adjust A8 for maximum amplitude and symmetry.	
Switch crystal selectivity to position #2 and adjust phasing control, if necessary, to obtain identical images. Adjust the signal generator frequency to obtain coincidence of the images. If coincidence is not obtained, alternately make slight adjustments of the generator frequency, until images coincide. These last steps have determined the exact frequency of the quartz crystal with signal generator at this setting. Turn crystal "off" and repeat carefully the complete IF alignment procedure. The BFO may be adjusted if necessary by adjusting A35 for zero beat with beat oscillator setting at zero.							A9	Adjust slightly from the arrow position, and if complete coincidence is not obtained, alternately make slight adjustments of the phasing control and the signal generator and the frequency setting with signal generator at this setting.
The following adjustments should not be made unless it is positive that readjustment is necessary.								
200 MF	High side to ext. ant. Low side to chassis.	1.25MC	.54-1.32 MC	1.25MC	Connect output meter across voice coil.	A9	Adjust for maximum output.	
"	"	.6MC	"	.6MC	"	A10	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	1.25MC	"	1.25MC	"	A11	Adjust for maximum output.	
"	"	.6MC	"	.6MC	"	A12	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	.6MC	"	.6MC	"	A13	Adjust for maximum output.	
400 ohms	"	3.0MC	1.32-3.2 MC	3.0MC	"	A14	"	
"	"	1.4MC	"	1.4MC	"	A15	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	3.0MC	"	3.0MC	"	A16	Adjust for maximum output.	
"	"	1.4MC	"	1.4MC	"	A17	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	1.4MC	"	1.4MC	"	A18	Adjust for maximum output.	
"	"	5.5MC	3.2-5.7 MC	5.5MC	"	A19	"	
"	"	3.5MC	"	3.5MC	"	A20	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	5.5MC	"	5.5MC	"	A21	Adjust for maximum output.	
"	"	3.5MC	"	3.5MC	"	A22	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	10.0MC	5.7-10.0 MC	10.0MC	"	A23	Adjust for maximum output.	
"	"	6.0MC	"	6.0MC	"	A24	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	10.0MC	"	10.0MC	"	A25	Adjust for maximum output.	
"	"	6.0MC	"	6.0MC	"	A26	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	18.0MC	10.0-18.0 MC	18.0MC	"	A27	Adjust for maximum output.	
"	"	10.0MC	"	10.0MC	"	A28	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	18.0MC	"	18.0MC	"	A29	Adjust for maximum output.	
"	"	10.0MC	"	10.0MC	"	A30	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	30.0MC	18.0-31.0 MC	30.0MC	"	A31	Adjust for maximum output.	
"	"	18.0MC	"	18.0MC	"	A32	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	
"	"	30.0MC	"	30.0MC	"	A33	Rock tuning capacitor and output for maximum output.	
"	"	18.0MC	"	18.0MC	"	A34	Adjust for maximum output. Repeat last two steps until no further increase is obtained.	