

**HIGH SEAS AND OVERSEAS RADIO  
WESTINGHOUSE LINEAR AMPLIFIER  
TYPE MS AND TYPE MS MODIFIED  
INSPECTION**

A visual inspection of the MS amplifier is made before initial operation following major maintenance, and after replacement of vacuum tubes.

This section affects Equipment Test Lists.

The amplifier is inspected for proper intercabling of components, for installation of plug-in components, and for proper setting and operation of interlock switches, shorting bars, and other safety devices. Tables A through D identify various items subject to inspection.

*Note:* Suffixes (U) and (M) identify components in unmodified or modified amplifiers.

**TABLE A  
FUSE COMPLEMENT**

DESIGNATION	AMPERES	TYPE	LOCATION UNIT	PROTECTION FOR
F1, F2	5*	MTH 5	Ampl	Fil Trans T1 and T2
F3, F4	0.5	AGC-1/2	Ampl	Bias Trans T6, T7, and T8
F5, F6, F7	8*	FRN 8	Ampl	Cooling Motor B1
F8, F9, F10	8*	FRN 8	Ampl	Cooling Motor B2
F11	0.25*	MDL	Ampl	Tuning Motor B10
F301(U)	0.25	701.250	Cont	+3000V Power Supply
F401(M)	0.50	75915	Cont	
F302(U)	0.25	701.250	Cont	+150V Power Supply
F402(M)	3/8	75915	Cont	
F303(U)	0.5	701.250	Cont	-150V Power Supply
F403(M)	3/8	75915	Cont	
F304(U)	1.0	AGC 1	Cont	-48V Power Supply
F404(M)	1.5	75915	Cont	
F305(U)	1.0	75915	Cont	Servo Fil Trans T302
F106, F107	10	ABC10	Rect	Transformer T108
F108	10	ABC10	Rect	Cabinet Heaters
F109	10	ABC10	Rect	Control Circuit
F110	5*	MDX5	Rect	Rect and Ampl Fil Circuits

\* Slow Blow Type

**TABLE B**  
**INDICATOR AND ILLUMINATING LAMP**

NOMENCLATURE	REFERENCE DESIGNATION	TYPE	DESCRIPTION
<b>Radio Frequency Unit</b>			
Overload rear	I1	6S6 (89661)	120 volts, 6 watts
Overload front	I2	6S6 (89661)	120 volts, 6 watts
H.V. ON	I3	6S6 (89661)	120 volts, 6 watts
	I4	330C766H11 (89661)	120 volts, 60 watts
Range 1 Indicator	I5(M)	NE51 (89661)	65 volts, 1/25 watt
Range 2 Indicator	I6(M)	NE51 (89661)	65 volts, 1/25 watt
Range 3 Indicator	I7(M)	NE51 (89661)	65 volts, 1/25 watt
Range 4 Indicator	I8(M)	NE51 (89661)	65 volts, 1/25 watt
<b>Control Unit</b>			
	I201	330C766H11 (89661)	120 volts, 60 watts
	I202	330C766H11 (89661)	120 volts, 60 watts
	I301(U)	6S6 (89661)	120 volts, 6 watts
	I302(U)	6S6 (89661)	120 volts, 6 watts
Frequency	LP1 through LP10	E1 (64959)	6 volts, 0.039 ampere
Standby	LP11	E1 (64959)	6 volts, 0.039 ampere
<b>Rectifier Unit</b>			
Filament Power	I101	6S6 (89661)	120 volts, 6 watts
H.V. ON	I102	6S6 (89661)	120 volts, 6 watts
Cabinet heater	I103	6S6 (89661)	120 volts, 6 watts
Input volts	I104	6S6 (89661)	120 volts, 6 watts
DC Overload	I105	6S6 (89661)	120 volts, 6 watts
	I106	330C766H11 (89661)	120 volts, 60 watts
Doors	I107	NE51 (89661)	65 volts, 1/25 watt
Air	I108	NE51 (89661)	65 volts, 1/25 watt

Check that all tubes are in place in accordance with the following:

**TABLE C**  
**VACUUM TUBE**

DESIGNATION	TYPE	UNIT	FUNCTION
V1, V2	ML 6423	Ampl	RF Power Amplifier
V3, V4	6W4GT	Ampl	Output Indicator Rect
V5	6SJ7	Ampl	Load Cont Rect
V1	2C51/396A	Cont	25-Hz Osc
V2 thru V16	5691	Cont	Servo Amplifiers
V301 thru V303	6AS7G(U)	Cont	Servo Power Supply Regulators
V1 (on VR301, VR302, VR303)	6112(U)	Cont	Servo Power Supply Regulators
V2 (on VR301, VR302, VR303)	5787(U)	Cont	Servo Power Supply
V101 thru V106	WL-575A(U)	Rect	High-Voltage Rect

**TABLE D**  
**TRANSFORMER CONNECTIONS**

PRIMARY VOLTAGE	WINDING	CONNECTIONS
<b>Transformer T107 (3 phase)</b>		
208 Volts, 50-60 Hz	Primary	In each phase tie: D1 to 2 D2 to 7 2 to 6 3 to 7 D2 to line
	Secondary	Tie 13 (phase A) to 13 (phase B) to 13 (phase C). Connect load to terminal 9 of each phase.
230 Volts, 50-60 Hz	Primary	In each phase tie: D1 to 1 D2 to 7 1 to 5 3 to 7 D2 to line
	Secondary	Tie 13 (phase A) to 13 (phase B) to 13 (phase C). Connect load to terminal 9 of each phase.
250 Volts, 50-60 Hz	Primary	In each phase tie: D1 to 1 D2 to 8 1 to 5 4 to 8 D2 to line
	Secondary	Tie 13 (phase A) to 13 (phase B) to 13 (phase C). Connect load to terminal 9 in each phase.

TABLE D (Cont)

PRIMARY VOLTAGE	WINDING	CONNECTIONS
<b>Transformer T108</b>		
208 Volts, 50 Hz 208 Volts, 60 Hz 230 Volts, 50 Hz 230 Volts, 60 Hz 250 Volts, 50 Hz 250 Volts, 60 Hz	Secondary	Connect load between: Terminals 4 and 7 Terminals 4 and 8 Terminals 4 and 6 Terminals 4 and 7 Terminals 4 and 5 Terminals 4 and 6
<b>Transformer T301 (U)</b>		
208 Volts, 50-60 Hz 230 Volts, 50-60 Hz 250 Volts, 50-60 Hz	Primary	Connect line to: Terminals 1 and 2 Terminals 1 and 3 Terminals 1 and 4
<b>Transformer T302 (U)</b>		
208 Volts, 50-60 Hz 230 Volts, 50-60 Hz 250 Volts, 50-60 Hz	Primary	Connect line to: Terminals 1 and 2 Terminals 1 and 3 Terminals 1 and 4
<b>Transformer T401 (M)</b>		
115 Volts, 50-60 Hz 230 Volts, 50-60 Hz	Primary	Connect line to: Terminals 1 and 2 or 3 and 4 on TB401 Terminals 1 and 4 Strap terminals 8 and 9