



TVM - 5003/IBL

Service Manual - TVM-5003/IBL

ALIGNMENT

TV SECTION

Regulator Adjustment

NOTE: Misadjustment of the low voltage regulator or the horizontal oscillator may result in damage to Horizontal output transistor or pulse limiter diode. The following procedures are recommended to insure reliable operation.

1. Connect the TV to an AC power supply or DC 13.5V.
2. Adjust vertical and horizontal oscillator controls until the picture is synchronized.
3. Connect a DC digital voltmeter, or other precision accuracy voltmeter, to the emitter of the regulator output transistor (or any 10.5 Volt test point).

Horizontal Oscillator Adjustment

Adjust horizontal hold RP301 until the picture holds in the SYNC to the center.

Deflection Yoke

When the raster lines do not appear to be horizontal, loosen the screws securing the deflection yoke. Press the deflection yoke hard against the root of the picture tube and then turn the right or left so that the scanning lines become horizontal.

Raster Centering

The centering device is attached to the rear of the deflection yoke with two levers. Turn these two levers alternately until the picture comes to the center of screen.

Vertical Argument Adjustment:

Adjust vertical argument RP501 until the picture comes to the center of screen.

GENERAL ALIGNMENT INSTRUCTIONS

Video IF Alignment

1. Preparation:

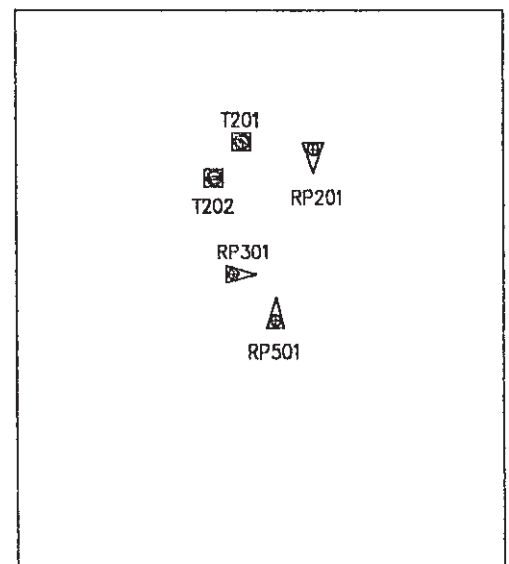
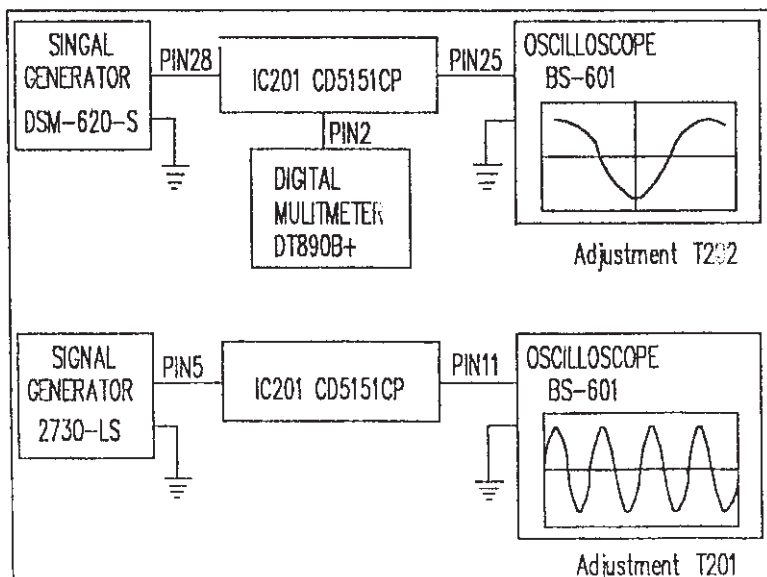
To prevent the signal from getting in vertical and horizontal oscillation circuit, connect the lead wire to the IF point of the tuner and the tuner ground.

2. Test Equipment Connection (see Figure 1):

Oscilloscope: connect to IC 201 pin11 & pin25.

DC power Supplies: Add DC +5.7V of AGC voltage to IC201 pin 2. (Adjustment RP201).

DC power Supplies: Add DC +13.5V to the DC jack.



DC REFERENCE VOLTAGE CHART

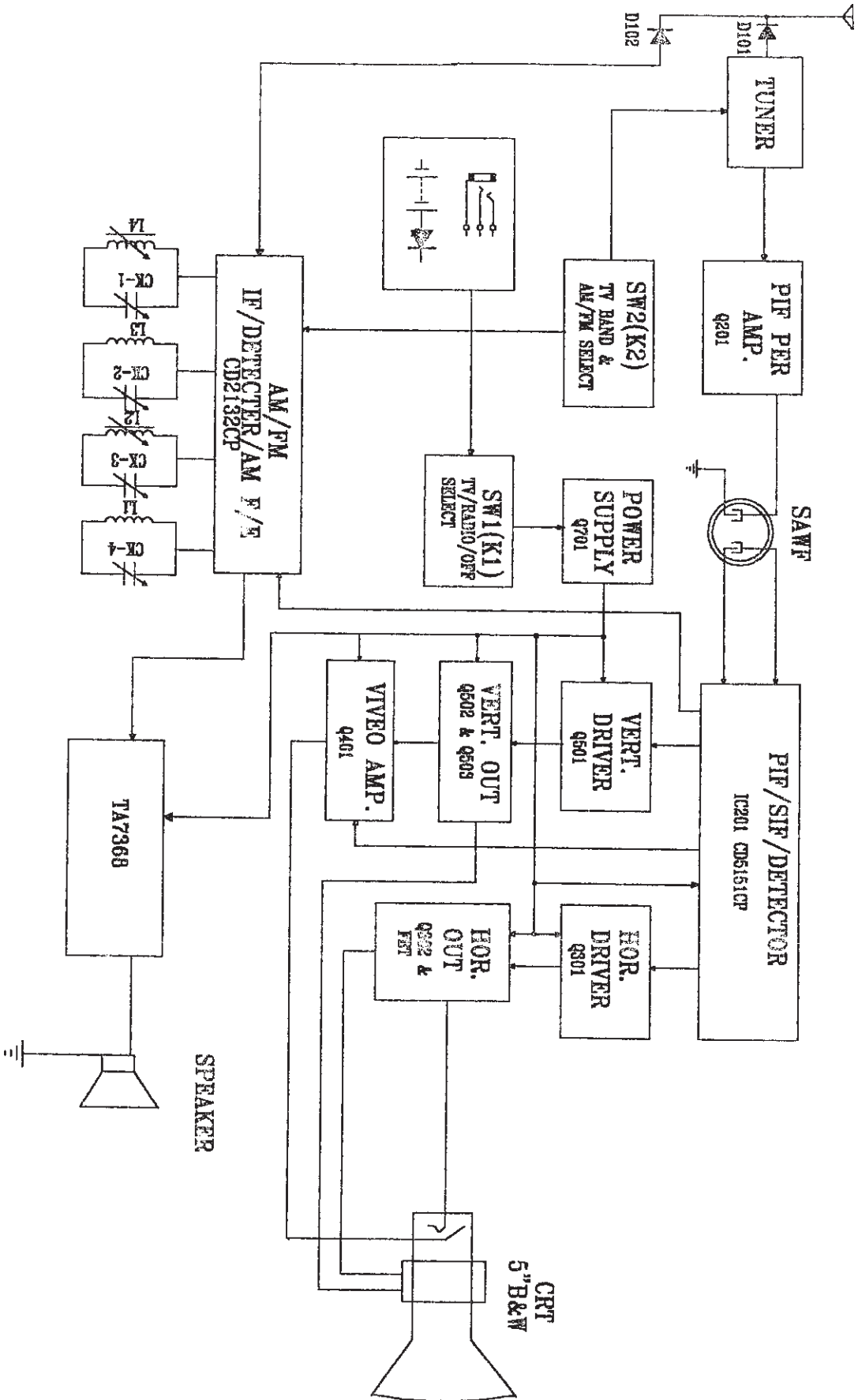
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V(V)	4.91	5.80	3.54	5.15	2.56	6.02	3.14	3.15	4.85	4.85	3.40	0.43	3.70	6.40	6.40	9.44
PIN	17	18	19	20	21	22	23	24	25	26	27	28				
V(V)	1.14	5.24	5.05	9.27	0	3.11	0.88	4.59	0.17	2.46	0	4.91				

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V(V)	0	0	5.10	0.50	5.14	5.14	4.47	0	4.58	1.00	0.98	5.13	5.14	4.37	5.13	5.14

TRANSISTORS

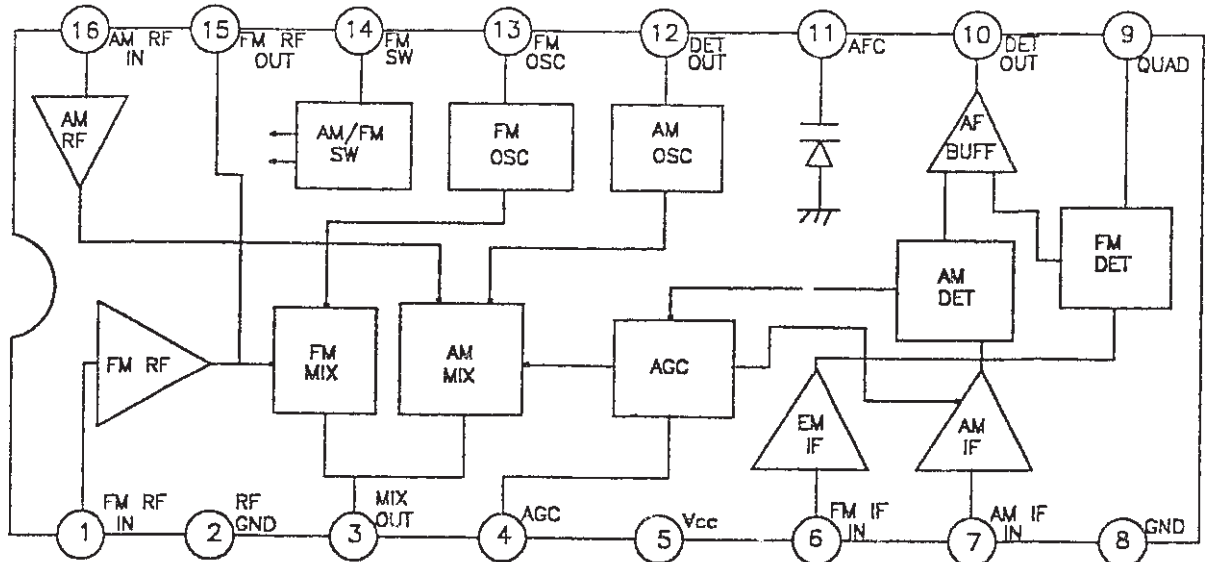
TYPE NO.	NPN OR PNP	Pc (mW) /(W)	Ic (mA) /(A)	Vcbo (V)	Vceo (V)	Vces (V)			hFE	fT (MHz)	PIN 123	Ve (V)	Vb (V)	Vc (V)	PACK.
							Ic (mA)	Ib (mA)							
SC1674	NPN			30	20	0.3			120-180	600	EBC				TO-92
SC1008	NPN			80	60	0.7			120-200		EBC				TO-92
2N5551	NPN			180	160	0.2			100-250		EBC	0	0.1	9.6	TO-92
SS8050	NPN			40	25	0.5			120-250		EBC				TO-92
A614	PNP			80		1.5			150-250		BCE	13.1	9.9	12.3	TO-220
SA8550	PNP			40	25	0.5			120-250		EBC				TO-92
SC9013	NPN			40	20	0.6			120-200		EBC				TO-92
SC9014	NPN			50	45	0.3			120-250		ERC				TO-92

DC REFERENCE VOLTAGE CHART

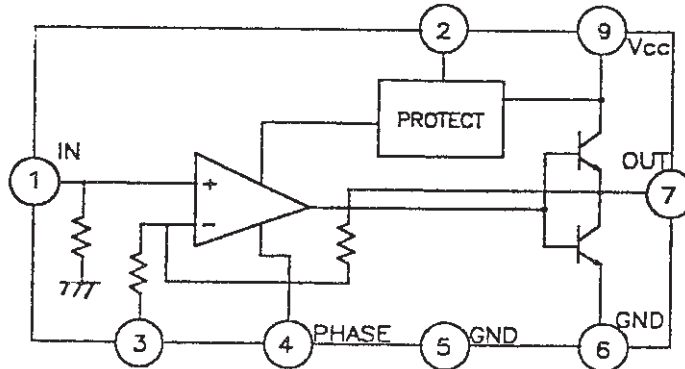


IC INTERNAL BLOCK DIAGRAM

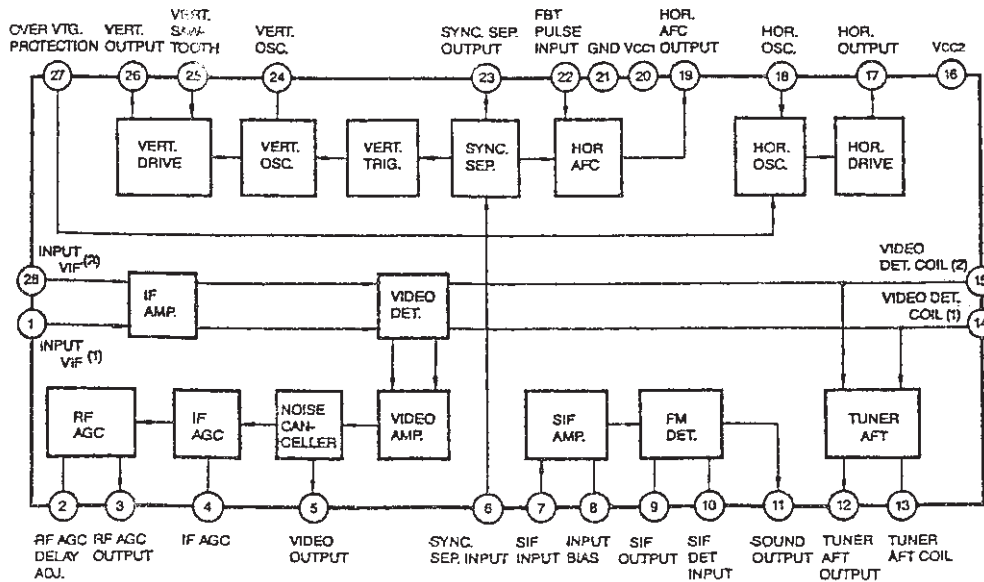
IC1 TA2132P



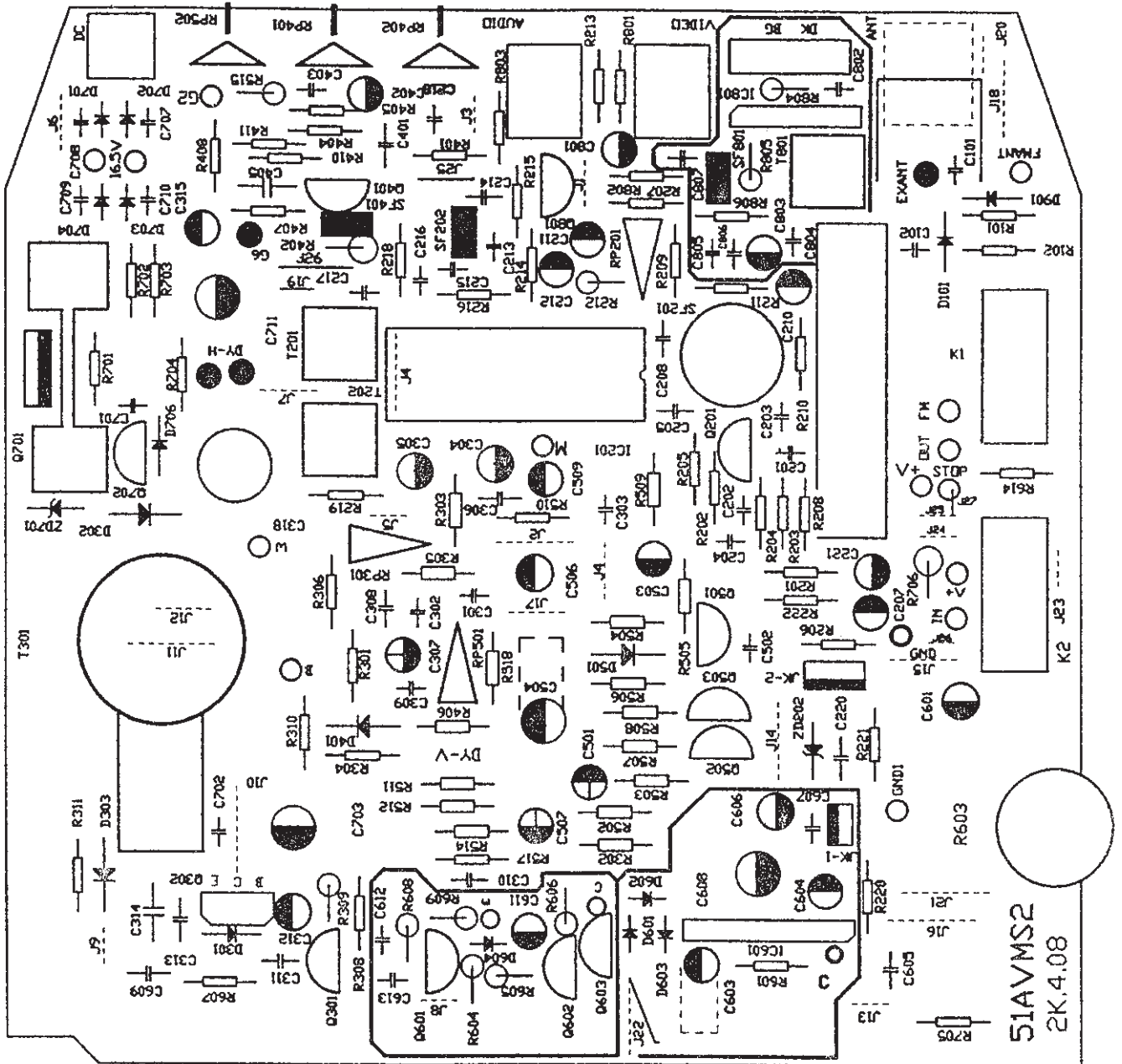
IC601 CD7368CP



IC201 CD5151CP



TOP OVERLAYER VIEW



SCHEMATIC DIAGRAM

