

SECTION 4

SAFETY RELATED ADJUSTMENT

Note: When the following parts (☒ and ☑ on the schematic diagrams) has been replaced, check and adjust the HV regulation circuit and HV hold down circuit.

PA board

- ☒ components RV100, RV250
- ☑ components C607, C608, C610, C611, C155, C157, C250
R109, R111, R112, R114, R117, R118, R104, R105, R106, R107, R108, R120, R121, R157, R158, R250, R251, R252, R253, R256, R257, R258, R259, R260
RV101, RV150
D252, D253
IC101, IC102, IC100, IC152, IC153, IC250, IC251
L601, L602, L603, L604
PH500

CDR board

- ☒ component RV965
- ☑ components R960, R967, R971, R972, R973, R974, R975, R1007
D960, D965
IC961, IC971, IC990

CDG board

- ☒ component RV965
- ☑ components R960, R967, R971, R972, R973, R974, R975, R1007
D960, D965
IC961, IC971, IC990

CDB board

- ☒ component RV965
- ☑ components R960, R967, R971, R972, R973, R974, R975, R1007
D960, D965
IC961, IC971, IC990

PB board

- ☑ components FBT10, FBT11

BA board

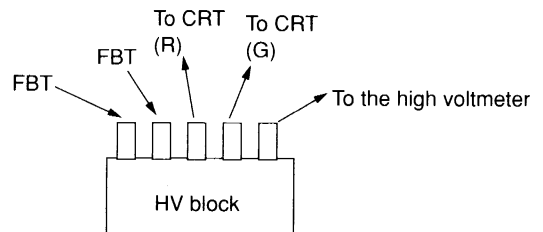
- ☑ components R839, R841, R847, R855, R848, R870, R873, R872, R877, R876
D806
IC804

Note: When the power supply block has been replaced, check that the +B MAX voltage is within 200 ± 2 V.

4-1. PA BOARD HV REGULATOR/HV PROTECTOR ADJUSTMENT

Note: The electric power (+200 V) remains on the PA board for several minutes after even turning off the unit power. When withdrawing PA board from the unit, check that the voltage of TP600 (+200V HV) has dropped. In case of hurry, it may be allowed to discharge with the resistance of approx. $1 \text{ k}\Omega/3 \text{ W}$. In that case, withdraw the PA board after checking the power voltage.

1. Connect the cable from the high voltmeter with the output terminals of the chassis and the CRT (B) on HV block.



2. Input the monoscope signal.
3. Set CONTR to MAX by pressing the CONTR (+) key, then set BRIGHT to MAX by pressing the BRIGHT (+) key.
4. Rotate RV100 (HV.REG) of the PA board slowly to the right (clockwise) and adjust the high voltage to 34 kV.
High voltage specification during HV.PROT adjustment: $34 \pm 0.3 \text{ kV}$
5. Rotate RV250 (HV.PROT) slowly to the left (counterclockwise) and stop when LED (D251) is lit. (In several second HV drops, then the power goes OFF.)
6. Cover RV250 with a rotation stopper cap and apply RVT to fix it.
7. Rotate RV100 to the left a little to turn the power ON.
8. Rotate RV100 slowly to the right and check that the power goes OFF at the high voltage of 34 kW.
* If the specifications are not satisfied, perform Steps 4 to 8 again.
9. Rotate RV100 to the left a little to turn the power ON.
10. Press the MUTING PIC key on the remote commander to set to CUT OFF.

11. Adjust RV100 to set the high voltage to 33 kV.

High voltage adjustment specification (during CUTOFF): 33.0 ± 0.3 kV

12. Turn OFF the power, and cover RV250 with a rotation stopper cap and apply RVT to fix it.

13. Turn ON the power, and check that the high voltage is within the specification.

High voltage adjustment specification (during CUTOFF): 33.0 ± 0.3 kV

14. Check that the high voltage variation when the CONTR and BRIGHT are set to MIN and set to MAX using the remote commander is within the specification.

High voltage variation specification: $+0.2/-0.3$ kV

* If the specifications are not satisfied, perform Steps 10 to 13 again.

* When readjusting RV100 and RV250, replace the VR and rotation stopper caps before readjustment.

15. Set CONTR and BRIGHT to 80 and 50 respectively using the remote commander.

4-2. CRT PROTECTOR ADJUSTMENT

1. Connect a variable current source (3.5 mA to 4.5 mA) between the cathode terminal (pin 8 of CRT socket) of the CBR (CBG and CBB) board and B +12 V line of the CDR (CDG and CDB) board.

2. Connect a pull-up resistor (4.7 k Ω) between pin 3 of CN244 (CN264 and CN284) and +5 V line of the CDR (CDG and CDB) board, then connect an oscilloscope to it.

3. Gradually raise the output of the variable current source, and adjust RV965 of the CAR (CAG and CAB) board so that the waveform on the oscilloscope changes from "High" to "Low" level at 3.9 ± 0.1 mA.

