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Service Bulletin
TV Products

CSV-1

Model: **KP-41T15, KP-41T25, KP-41T35, KP-46C36**
KP-46S15, KP-46S17, KP-46S25, KP-46V25
KP-46V35, KP-48S35, KP-48V45, KP-53S15
KP-53S17, KP-53S25, KP-53S35, KP-53V25
KP-53V35, KP-53V45, KP-53XBR45
KP-53XBR4CT, KP-61S35, KP-61V25
KP-61V35, KP-61V45, KP-61XBR48

No. **513R1**

Subject: **CRT Replacement**

Date: August 21, 2001

Symptom:
(161X) Ground of replacement CRT may be different than the original. Heater resistor value change may be required.

Solution: When replacing the CRT the following changes may be necessary.

1. When replacing the CRT the original may have used a braided wire across the CRT to ground the CRT and CRT Board. The replacement CRT uses a grounding wire that connects to a ground lug. This grounding lug wire should be packed in the replacement CRT box. See picture below.

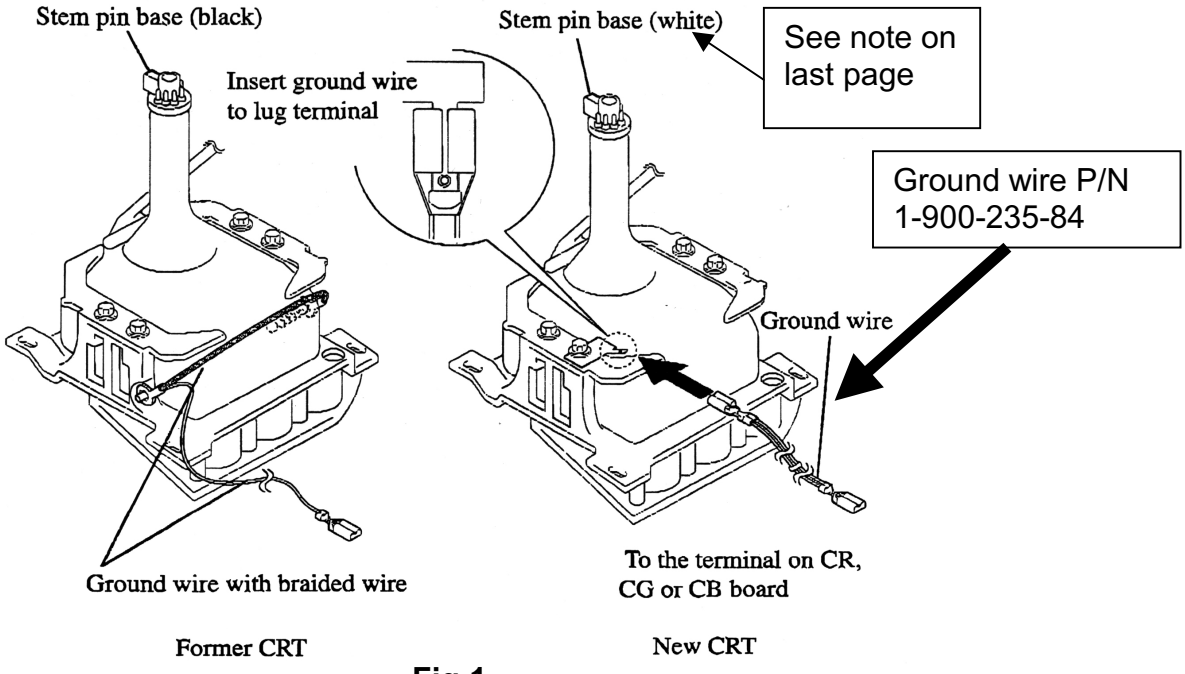

Fig 1

2. Heater resistor value change.

When the CRT is replaced it is required to check the heater resistor value. This resistor value will change depending on how many newer CRTs are used. It should be checked even if you are only changing one CRT because one might have been replaced prior to your present repair. Failure to do so may cause the CRT life span to be shortened.

In order to determine if the CRT heater resistor is the older value or not, check the color of the CRT plastic pin base stem. (See Fig 1)

Black stem indicates an older CRT and the value of the heater resistor was not changed.

White stem indicates a newer CRT and the value of the heater resistor may require a different value.

3. Procedure for replacing the heater resistor.

1. After replacing the defective CRT, check the color of the CRT plastic pin base stem of all three CRTs. (See Fig 1)

2. The value of the heater resistor, on the E or G Board depending on the model, will be determined by how many of the CRTs have a white stem base. Refer to the chart below.

3. Check the heater resistor value in the set and confirm if it is the correct value as per the chart below. If not please replace the resistor with the correct value.

Replace resistors for the heater circuit with the correct value resistors specified by the number of the new heater CRTs as shown in the following chart.

Part Number Chart

Description	Part Number
0.22 Ohm 1 Watt	**1-216-341-11**
0.47 Ohm 1 Watt	**1-216-345-11**
1.2 Ohm 3 Watt	**1-216-390-11**
1.5 Ohm 3 W	**1-216-391-11**

See the tables below to determine what value resistor change is required if necessary.

			New Heater Resistor Quantity of new type CRTs (white stem base) in the set after defective CRTs are replaced			
Model	**Chassis**	**Former Heater Resistor**	**One**	**Two**	**Three**	**Board**
KP-41T15	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-41T25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-46S15	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-46S17	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-46S25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-46V25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-46V35	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53S15	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53S17	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53S25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53V25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP53V35	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53XBR45	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-53XBR4CT	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-61V25	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-61V35	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board
KP-61XBR48	RA-1	1 Ohm 1/12 W (R835)	No need to replace	0.47 Ohm 1W	0.22 Ohm 1W	E Board

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			New Heater Resistor			
			Quantity of new type CRTs (white stem base) in the set after defective CRTs are replaced			
Model	**Chassis**	**Former Heater Resistor**	**One**	**Two**	**Three**	**Board**
KP-41T35	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-43C36	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP48S35	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-48V45	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-53S35	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-53V45	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-61S35	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board
KP-61V45	RA-2	1.8 Ohm 3 W (R569) 0.68 Ohm 3W (R540)	No need to replace No need to replace	1.5 Ohm 3 W No need to replace	1.2 Ohm 3W 0.47 Ohm 3W	G Board

Note: As of 4/24/01, PJ CRT will begin the use of colored stem caps in their process**.** The color of the stem cap will match the color of the CRT. They will begin with red and green. White will continue to be used on the blue tubes until the supply is exhausted, at which time they will begin the use of blue stem caps also, we expect this to be sometime in June 2001. Please see picture below.
There has been no material change, only a dye added for color. Engineering analysis of dimensions, arc testing, flame testing, and pin cap adhesion show no change in performance from our current stem cap.

Please note, that depending upon shipments, you may continue to see white stem caps only for some time.


OLD
NEW