

# Service Manual



## Colour Television TX-21S3T TC-21S3R Z-7 Chassis

### Specifications

<b>Power Source :</b>	220-240V AC, 50Hz	<b>RCA IN</b>	Video 1V p-p 75Ω
<b>Power Consumption :</b>	50W	<b>RCA IN</b>	Audio 500mV rms, 10KΩ
<b>Standby Power Consumption :</b>	1W	<b>High Voltage :</b>	27kV + 0.7kV / - 1kV (zero beam current)
<b>Aerial Impedance :</b>	75Ω unbalanced, Coaxial Type	<b>Picture Tube :</b>	A51ESF43X191 51 cm V 90° measured diagonally
<b>Receiving System :</b>	PAL-I (UHF), PAL-525/60, NTSC (AV Only)	<b>Audio Output :</b>	6 W (Music Power) 8 Ω Impedance
<b>Receiving Channels :</b>	UHF E21 – E69	Speaker	
<b>Intermediate Frequency :</b>		Headphones	8 Ω Impedance
Video	39.5 MHz		
Sound	33.5 MHz	<b>Accessories supplied :</b>	Remote Control
Colour	35.07 MHz		2 x R6 (UM3) Batteries
			TV Stand
			AV Cover
<b>Video / Audio Terminals :</b>		<b>Dimensions :</b>	
AV1 IN	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10KΩ RGB (21 pin)	Height :	480 mm
AV1 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1KΩ	Width :	520 mm
		Depth :	485 mm
		<b>Net Weight :</b>	20kg

Specifications are subject to change without notice.  
Weight and dimensions shown are approximate.

### IMPORTANT

This receiver uses a HOT chassis, after service please ensure that the chassis is returned to its correct position.  
Particular care being taken to the position of the customer controls.  
Failure to do so could endanger customer safety.

**Panasonic CS (U.K.) Ltd.**  
WILLOUGHBY ROAD,  
BRACKNELL  
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RG12 8FT.

**Panasonic**

# SCHEMATIC DIAGRAM FOR MODELS

## TX-21S3T / TC-21S3R

### (Z-7 CHASSIS)

#### **IMPORTANT SAFETY NOTICE**

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

#### 1. RESISTOR

All resistors are carbon 1/4W resistor, unless marked. Unit of resistance is OHM ( $\Omega$ ) ( $K=1,000$ ,  $M=1,000,000$ ).

	: Nonflammable		: Metal Oxide
	: Metal Film		: Fuse
	: Wire Wound		: Solid

#### 2. CAPACITOR

All capacitors are ceramic 50V capacitors, unless marked as follows: Unit of capacitance is  $\mu F$ , unless otherwise stated.

	: Temperature Compensation		: Polyester
	: Polypropylene		: Dipped Tantalum
	: Electrolytic		: Bipolar
	: Metallised Polyester		: Z-Type

#### 3. COIL

Unit of inductance is  $\mu H$ , unless otherwise stated.

#### 4. TEST POINT



Test Point position

#### 5. EARTH SYMBOL

 Chassis Earth (COLD)       Line Earth (HOT)

#### 6. VOLTAGE MEASUREMENT

Voltage is measured by a DC voltmeter. Measurement conditions are as follows:

Power source ..... AC 220 / 240V, 50Hz

Receiving Signal ..... Colour Bar signal (RF)

All customer controls ..... Maximum position

#### 7.

-  Indicates the Video signal path
-  Indicates the Audio signal path
-  Indicates the Vertical/Horizontal signal path

#### 8. This schematic diagram is the latest at the time of printing and is subject to change without notice.

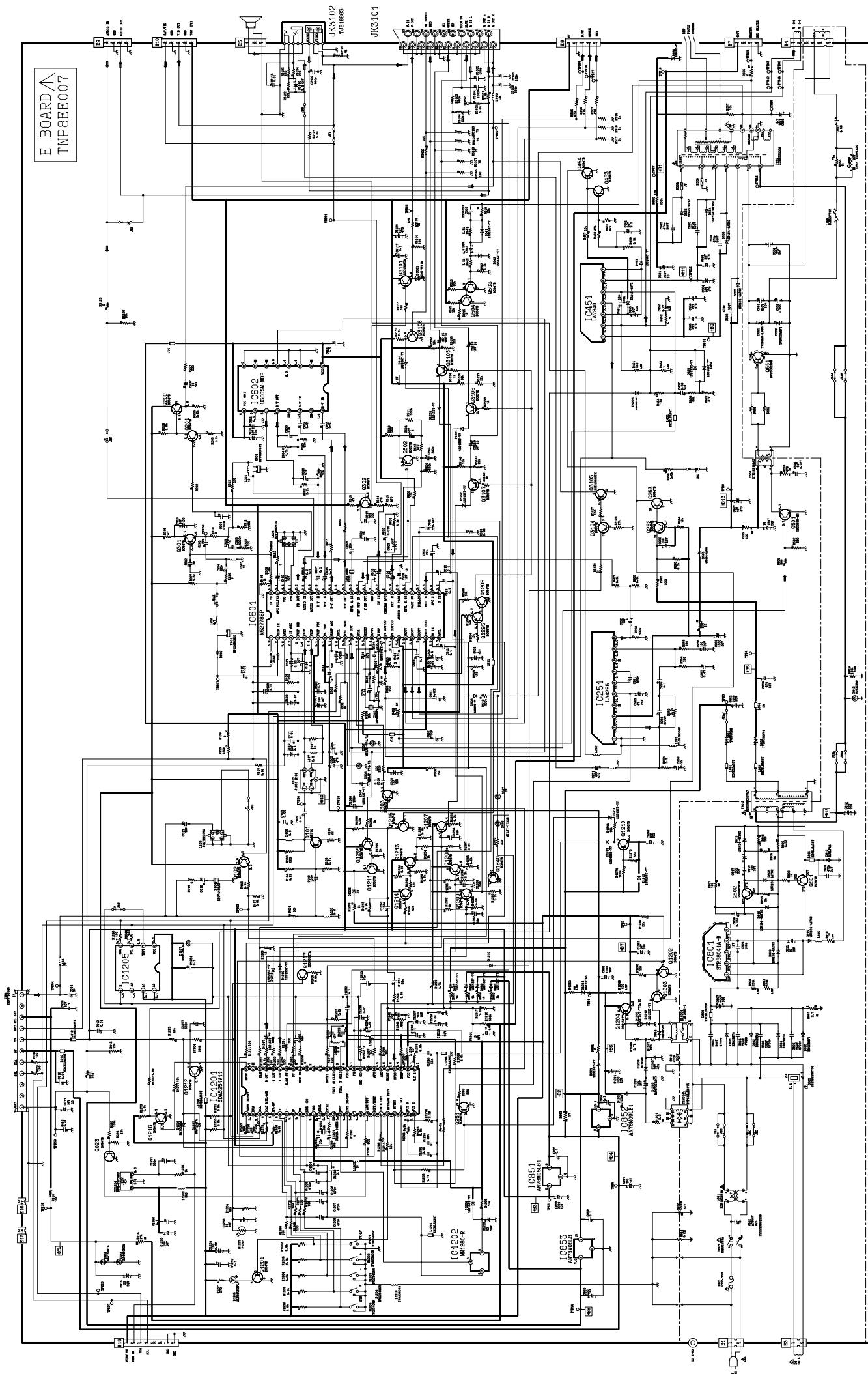
#### **Remarks:**

1. Care must be taken when servicing this receiver, as it uses a HOT chassis. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions. All circuits except the Audio, Video input circuits are HOT.

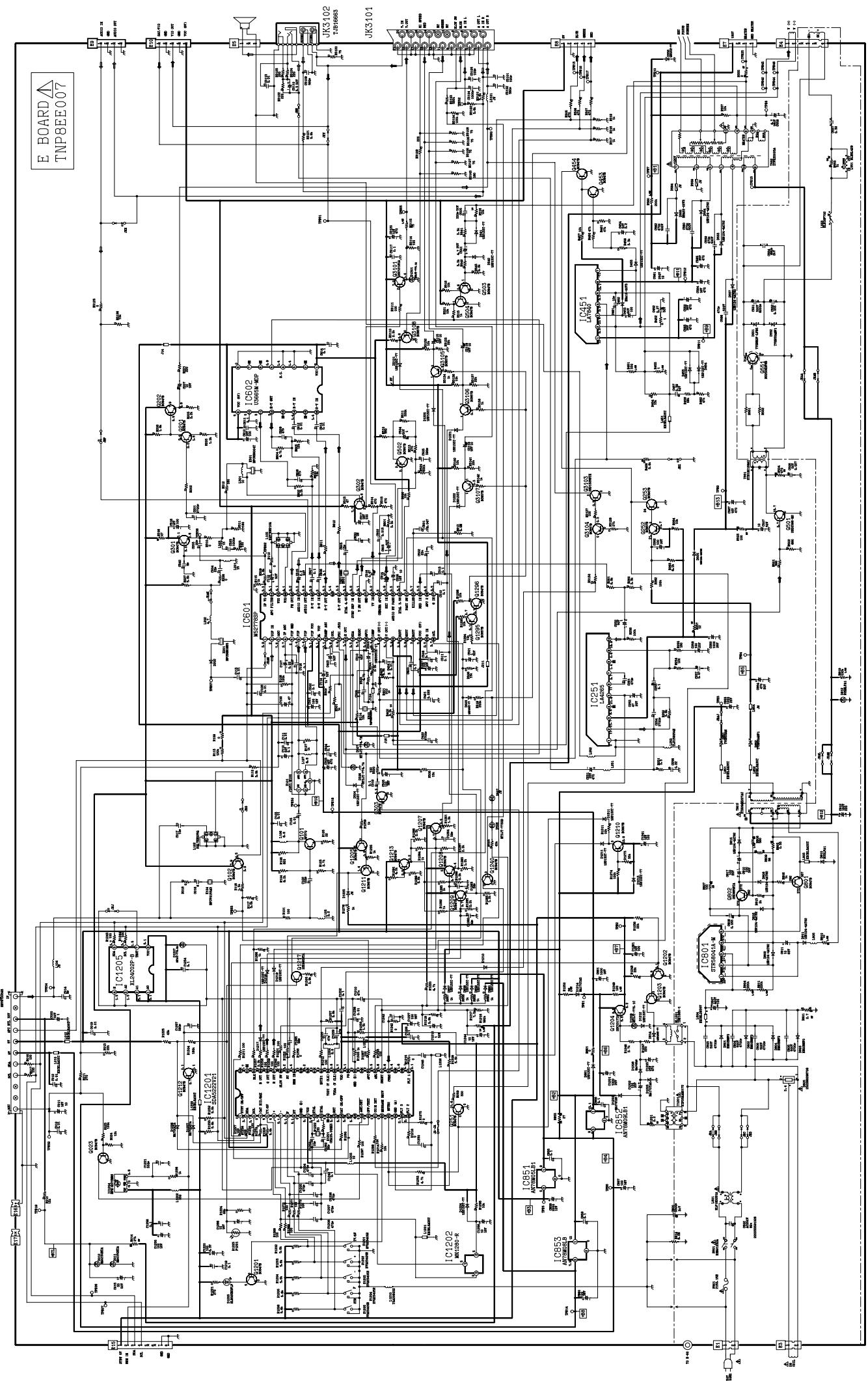
#### **2. Precautions**

- a. Do not touch the HOT part, or the HOT and COLD parts of the chassis, at the same time, as you are liable to a shock hazard.
- b. Do not short-circuit the HOT and COLD circuits as electrical components may be damaged.
- c. Do not connect an instrument, such as an oscilloscope, to the HOT and COLD circuits simultaneously, as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.
- d. Make sure to disconnect the power plug before removing the chassis.

E - BOARD TX - 21S3T



E - BOARD TC - 21S3R



Y BOARD TX - 2153T / TC - 2153R

