
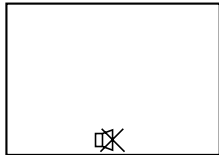



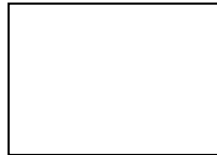
SERVICE MODE


1. ENTERING TO SERVICE MODE

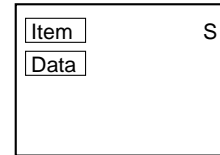
1) Press  button once on Remote Control.



2) Press  button again to keep pressing.



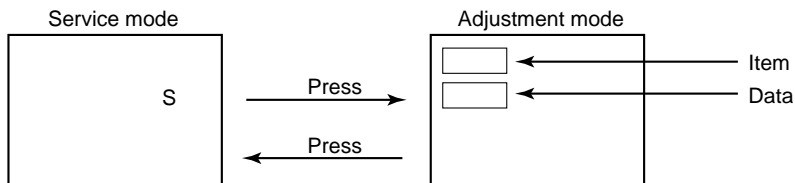
3) While pressing the  button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Frequency of lamp replacement

Test signal selection :

Selection of the adjustment items :

Change of the data value :

Adjustment menu mode ON/OFF :

Initialization of the memory (QA02) :

“CSBRT” selection :


“SCNT” selection :

“COLP” (or “OTHER”) selection :


“TNTC” (or “TNTV”) selection :

Self diagnostic display ON/OFF :

CALL + RGB button

 button (on Remote)

Channel /  (on TV or Remote)

Volume  +/- (on TV or Remote)

MENU button (on TV)

CALL + Channel button on TV ()

1 button

4 button

5 button

6 button

9 button note: Displayed differently as shown below, depending on the setting of the receiving color system.

COLP (PAL)

COLC (NTSC)

COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

- 1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 14)

5. ADJUSTING THE DATA

- 1) Pressing of VOLUME ▲ +/- button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

- 1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

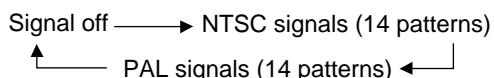
After replacing QA02, the following initialization is required.



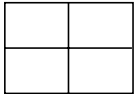
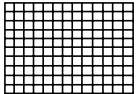
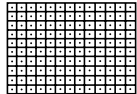

1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
Perform "Auto search Memory" on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

- 1) Every pressing of -⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

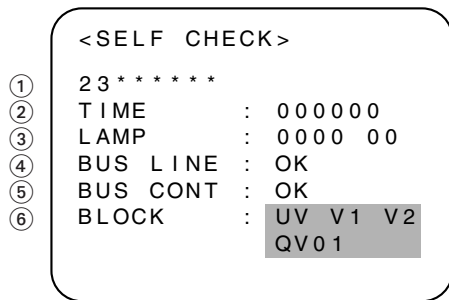


Signals	Picture
<ul style="list-style-type: none"> • Red raster • Green raster • Blue raster • All Black • All White 	
<ul style="list-style-type: none"> • Black & White 	
<ul style="list-style-type: none"> • Black cross-bar • White cross-bar • Black cross-bar on green raster 	
<ul style="list-style-type: none"> • Black cross-hatch • White cross-hatch 	
<ul style="list-style-type: none"> • Black cross-dot • White cross-dot 	
<ul style="list-style-type: none"> • H signal (white) • H signal (black) 	

* The signals marked with ■ are not usable to display in the Test signal for some model.

8. SELF DIAGNOSTIC FUNCTION

- 1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
The diagnosis will begin to check if interface among IC's are executed properly.
- 2) During diagnosis, the following displays are shown.



- ① Part number of microcomputer (QA01)
- ② Total hour of turn the TV on.
(unit: H, Max. 999999 hours)
- ③ Showing the operation hour of lamp.
(unit H, Max. 9999 hours)
LAMP : 0000 00
Frequency of lamp replacement.
(0~99)
Showing a count 1 by "CALL + RGB" button in "Service mode."
- ④ BUS LINE CHECK----"OK" is normal.
"SDA1-GND" ----- SDA-GND short circuit.
"SCL1-GND" ----- SCL-GND short circuit.
"SCL1-SDA1" ----- SCL-SDA short circuit.
- ⑤ BUS CONT --- "OK" is normal.
When indication shows "Q○○○ NG", the device with the number may possibly be damaged.
- ⑥ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→1)
V2 : VIDEO 2 input mode (→2)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : Blue

Green : Normal

Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.

QV01 : In case of indication green ---Normal

In case of indication red with input signal---

Failure may exist in output line including QV01.

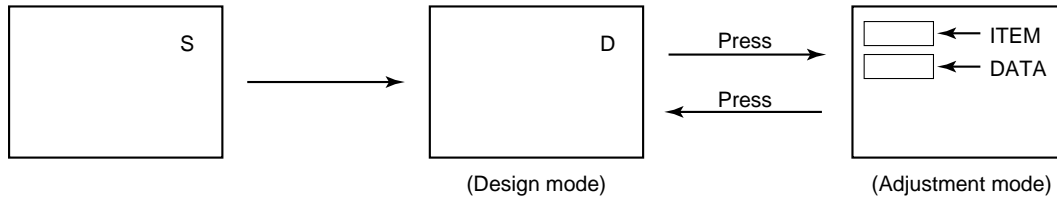
NOTE: (1) In case that power indicator is blinking with interval of 1 second; A part of Bus line does not operate normally. Check Bus line.

* The items marked with ■ are not usable to display in the SELF DIAGNOSTIC FUNCTION for some model.

DESIGN MODE

1. ENTERING TO DESIGN MODE

- 1) Select the Service mode.
- 2) While pressing CALL button on Remote and press MENU button on TV.
- 3) Press MENU button on TV.



When QA02 is initialized, items “OPT0” and “OPT1” of DESIGN MODE are set to the data of the representative model of this chassis family.

Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items “OPT0” and “OPT1”.

2. SELECTING THE ADJUSTING ITEMS

Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3. (▲ button for reverse order)

Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 14)

3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.