```
                    ┌─────────────┐
                    │    Start    │
                    └─────────────┘
                           │
                           ▼
        ┌─────────────────────────────┐
        │      Replace signal         │
──────▶ │           unit              │
│       └─────────────────────────────┘
│                      │
│                      ▼
│                    ╱◇╲
│                  ╱     ╲
│                ╱  Model ID and model ╲──────────┐
│                ╲  name is correct?   ╱          │
│                  ╲     ╱                         │
│  Yes               ╲◇╱                          │
│                      │                           │
│                      ▼                           │
│       ┌─────────────────────┐                    │
│       │     Initialize      │ ◀──────────┐      │
│       │    memory data      │            │      │
│       └─────────────────────┘            │      │
│                  │                        │      │
│                  ▼                        │      │
│                ╱◇╲                       │      │
│              ╱     ╲                      │      │
└────────────╱  Abnormal display? ╲        │      │
              ╲                   ╱        │ No    │
                ╲     ╱                     │      │
                  ╲◇╱                      │      │
                    │                       │      │
                    ▼                       │      │
    ┌───────────────────────────────┐      │      │
    │ Enter the service mode  and   │      │      │ Yes
    │ select version check mode.    │      │      │
    └───────────────────────────────┘      │      │
                    │                       │      │
                    ▼                       │      │
                  ╱◇╲                      │      │
                ╱     ╲                     │      │
              ╱  Model ID and model ╲───────┘      │
              ╲  name is correct?   ╱              │
                ╲     ╱                             │
                  ╲◇╱                              │
                    │                               │
                    ▼                               │
                 ◀──────────────────────────────────┘
            ╭─────────────╮
            │     END     │
            ╰─────────────╯
```

Test Signal Selection

Every pressing of ⊕ button on the remote control changes the built-in test patterns on screen as described below in Service Mode.

Signal off ⟶ R ⟶ G ⟶ B
↑ All White ⟵ All Black ⟵
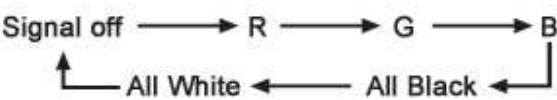
Picture	Signal
	Red raster
	Green raster
	Blue raster
	All Black
	All White

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 is executed properly.

2. During diagnosis, the following displays are shown.

* Self check display and Item are subject to the models.

(1) Firmware :
   Version information of microprocessor
   Series name (AAAA) and market area (BB) and software program version (0000)

(2) Time : Total hour of turn the TV on. (Unit : H)

(3) BL_STATUS :
   Counter for saving BackLight on error.
   This value is counted till 99 (Decimal).

(4) Bus line : -- "OK" is normal
   SCL-GND (Red indication) : SCL-GND short circuit
   SDA-GND (Red indication) : SDA-GND short circuit
   SCL-SDA (Red indication) : SCL-SDA short circuit

(5) Bus cont : --- "OK" is normal.
   NG is abnormal (Red indication).
   When the abnormal status is detected, type name of semiconductor is indicated in red colour.

(6) Block
   UV   : TV reception mode

V1 - V9 : VIDEO 1-9 input mode

PC　　 : PC mode

YUV　 : YUV mode

DTV　 : DTV mode

UV	ATV
V1	↪ 1 (SCART (FULL))
V2	↪ 2 (SCART (S+AV))
V3	↪ 3 (Composite/Component/S)
V4	HDMI1
V5	HDMI2
V6	HDMI3
V7	PC
V8	--
V9	--
PC	--
YUV	--
DTV	DTV (Digital Only)

Version Check Mode

1. Press "9" button twice on remote control during display of adjustment menu in the service mode.
   The version of main MPU will be checked.

2. During Version Check, the following displays are shown.

* Version check display and Item are subject to the models.

Version check

(1)	MAIN MPU	: AAAA_BB_0000(C00)
(2)	EEPROM	: 00(MODEL ID = 00)
(3)	SUB MPU	: 00(NO RTC)/00(RTC)
(4)	OPTION	: 00 11 22 33 44 55 66 77 88
(5)	HDMI EDID	: CH1:OK CH2:OK CH3:OK
(6)	DB SW Ver	: 0.00
(7)	DB MW Ver	: 0.00/0.00
(8)	A/D Adjust	:

	COMP	PC	NTSC	PAL
MAIN	OK	NG	OK	NG
SUB	—	—	OK	NG

(9) 100Hz/120Hz : 0000

(10) DRMA0000-REV00

(11) 12345678   MODELNAME   DDD-00(EEE)

(12)   (13)

(1) MAIN MPU :

Version information of microprocessor

Series name and Code Program Version (4 figure number) and OSD Version (2 figure number).

(2) EEPROM :

Version information of EEPROM : Display 1 byte data.

(3) SUB MPU :

Version information of SUB MPU : Display 1 byte data.

Left side means QF01 (for AV-LINK) micon software version.

Right side means QA01 (for CEC) micon software version. (Only CEC model)

(4) OPTION :

Option information : Display six numbers of 1 byte data.

(5) HDMI EDID :

EDID data check item. Display channel numbers depend on HDMI input numbers.

OK : EDID data is enable.

NG : EDID data is disable.

(6) SW Ver

Version information of DB software as Toshiba release. (Only digital model.)

(7) MW Ver

Left side is Application and UI version information of DB software. (Only digital model.)

Right side is Firmware (Driver) version information of DB software. (Only digital model.)

(8) A/D Adjust

A/D adjustment item.

--MAIN : It's enable only in double Window model. A/D adjustment status of main picture.

--SUB   : It's enable only in double Window model. A/D adjustment status of sub picture.

--COMP : Component input

--PC   : PC input

--NTSC : NTSC (60 Hz) SD signal (composite input).

--PAL   : PAL (50 Hz) SD signal (composite input).

--OK   : A/D adjustment set correctly.

--NG   : A/D adjustment set incorrect.

--   : A/D adjustment is not needed. Because its picture format isn't used.

(9) 100 Hz FPGA Software Version

It's enable only in 100 Hz drive panel model.

(10) Memory Data Version

Version information of EEPROM.

DRMA**** means model number of EEPROM.

REV** means version of EEPROM.

(11) CD number

CD information (ascii code). : Display 4 byte data.

(12) Model Name

Model name information (ascii code). : Display 7 byte data.

(13) LCD Panel Vendor information display

The following Panel Vender (DDD) and screen size (00) and resolution (EEE) are displayed.

Example : AUO-32 (1080p) indicates that Vender is AUO and Screen Size is 32 inch and Full HD panel.