

14. Reference Information

14-1 Other issues related to other products

Problem	Descriptions
A fixed screen can cause permanent damage to the TV Braun tube.	Braun, PDP and LCD TVs can all be damaged. When a still image is displayed in a sequence, this can leave stains or after-images due to the characteristics of the panel. However, the DLP TV has the advantage that no stains or after-images are left on the screen. The DLP TV has mirror pixels on the DMD panel that project the beam onto the screen, in which the mirror is a digital representation of 0s and 1s, leaving no trace of light. The mirror returns to a blank state so that no stains or after-images are left.
Confusion between the ANYNET Port and the SERVICE Jack Port	The SAMSUNG SKY500N model has both an ANYNET port and a SERVICE jack port. Because the shape of the ANYNET port on the DLP TV is the same as that of the SERVICE jack port of the SKY500N, it fails to turn the TV off after a connection has been reported. The ANYNET port uses an RS232 port called Phone Jack, and the SERVICE jack port also uses the RS232 port. However, you must not connect the SERVICE port and the ANYNET port. Check if the port is the ANYNET port or the SERVICE port before connecting the port. Even if the TV cannot be turned on after connecting, the TV will turn on if you disconnect the connection.
Length of DVI Cable / PC RGB Cable	<p>- A too long DVI cable may cause a malfunction or degradation of the visual quality due to an attenuation of the signal. There is no recommendation for the cable length at present. In general, although a cable length of up to 5 meters should work, please check if video is properly displayed on the screen after connecting. If you think the length of the cable is longer than for normal use, check the visual quality of the video on the screen and shorten the length, if necessary.</p> <p>- This also applies to the PC RGB (D-Sub) cable. When the length of the cable is longer than for normal use, video may not be displayed on the screen. In this case, shorten the cable length.</p>
When a digitally distributed TV user receives HD-rated broadcasts:	The digital distributed TV (Ready Technique) can render HD sources as HD-rated. However, you need to install a set-top box for this purpose. The digital TV alone cannot render HD broadcasting as HD-rated. Install the formal set-top box for HD broadcasts.
When a digital distributed TV user selects normal size (4:3) to receive SD-rated digital broadcasts:	The digitally distributed TV (Ready Technique) renders any broadcasting service as SD-rated. However, when connected to a set-top box, the digital TV renders HD broadcasts as HD-rated and renders SD as SD-rated. The screen size is scaled to 4:3.
When a digitally built-in TV user receives SD (air) broadcasting:	The digitally integrated TV ("built-in" type) renders SD broadcasting as SD-rated. This can be understood easily. Even a high-resolution TV cannot improve a low resolution picture into high quality. In contrast, an SD-rated TV cannot represent HD broadcasting as HD because the resolution of the TV is lower than the original.
When selecting a picture size of 4:3 in connection with a computer or a multimedia device:	The representation capability of SD or HD-rated depend entirely on the TV set. The HD TV can render HD broadcasting as HD-rated only when it receives HD sources. In the meantime, the HD TV renders SD as SD-rated when it receives SD sources. The picture size has nothing to do with the resolution; TV models like SVP-XXL3HD or SVP-XXL6HD have a size adjustment feature to 16:9,ZOOM1,ZOOM2,ZOOM3,4:3. This is about the aspect ratio of the top and bottom boundaries to the overall screen and users can select their preference.

■ SD/HD broadcasts and the TV's display capability are related

1. A digital broadcast should be transmitted in wide screen (an aspect ratio of 16:9) HD. If the broadcasting station converts a conventional program created in normal screen (aspect ratio of 4:3) into a digital signal and broadcasts the signal, the left and right of the picture will not be displayed.

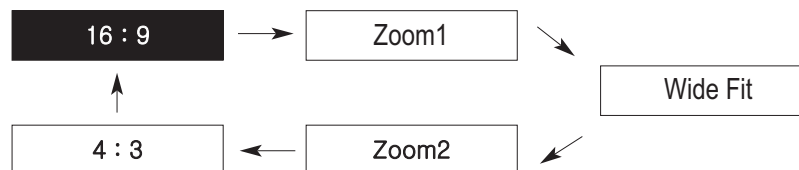
This symptom also appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.

- * When watching an SD (normal) broadcast through a Digital (Wide) TV (480P normal broadcast)
- * When watching an SD (normal) broadcast through a Digital Ready (Wide) TV (Using a set-top-box)
- * When watching an analog (normal) broadcast through a wide TV
(When watching a broadcast after changing the aspect ratio of the TV from 16:9 (wide screen) to 4:3)

2. When watching a DVD title or video tape in wide screen (21:9) through a wide (16:9) TV, watching video from a computer or game console by selecting the aspect ratio to 4:3, or watching video from a DVD, VCR, computer or game console through a wide TV by selecting the aspect ratio to normal (4:3) or wide (21:9), the left and right, or top and bottom of the picture will not be displayed.

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■ Changing the Order of the Picture Size for 16:9 Display Devices



■ Changing the Order of the Picture Size for DTV 1080i/720p Sources



■ Restrictions

1. When you want to change the picture size in PIP 'ON', you must turn the PIP off before changing the size. However, you can change the main picture size even in PIP ON for products with no restrictions.
2. When the picture size is not Normal (4:3 for 4:3 display devices, 16:9 for 16:9 display devices) and you turn PIP on, the picture size is changed to Normal. However, you can turn PIP on without changing the picture size for products with no restrictions.
3. In the OSD notation for the picture size, 16:9 is represented as "Wide" instead of "16:9" for devices other than with 16:9 displays.
Ex: For LCD 15:9 devices, "Wide" is displayed on the OSD instead of "16:9".
4. The picture size can be changed even in the blue screen. However, the picture size should be controlled by the product specifications if the change is impossible due to hardware restrictions.

14-2 Technical Terms

PIP (Picture In Picture)

A feature to enable two video images being displayed on one screen at the same time. For instance, you can see the TV channel and the video image at the same time.

Digital Broadcasting

The ATSC (Advanced Television Systems Committee) signals that the station digitalizes before transferring the audio/video signals.

Mono

A sound system that transmits voice signals in only one channel. It is hard to experience a 3D effect but can be run with one speaker.

LNA (Low Noise Amplifier)

This uses satellite technologies to amplify weak signals for improved quality even in poor reception areas.

Stereo

A sound system that transmits voice signals in two channels. This implements 3D effects by transmitting to both speakers (left/right).

Analog Broadcasting

The conventional system in which the station transfers the audio/video signals in NTSC formats.

Antenna Terminal

A terminal which the TV antenna is connected to. A round coaxial cable is connected to this terminal, which is usually used to watch air broadcasts.

English Captions (Subtitle)

A feature to provide English captions or character information services, which the user can use to study English using AFKN broadcasting or video tapes marked with "CC".

Audio/Video Terminal

The old 3- or 4-channel TV with no AV terminal has a low quality issue for video tape. The problem can be resolved using an A/V terminal that separates the audio and video signals. The video terminal is in yellow; the audio terminal is divided in two, white for left and red for right.

External Source

This includes sources from the video recorder, DTV set-top box and DVD player, (anything but the TV).

DVI-I Cable

One of the DVI cables that can transfer both digital and analog signals.

Satellite Broadcasting

This uses a satellite system to support a maximum of 100 channels including air services and provides high quality pictures anywhere in the country, even in poor reception areas. A set-top box (unbundled) is required to watch satellite broadcasting.

Closed Broadcasting

Other than VHF and UHF, this includes movies, entertainment and educational programs broadcast by hotels or schools. This is different from cable broadcasting.

Multiplexing

Two languages are provided at the same time when broadcasting foreign movies, dramas and news programs. You can choose either a native or foreign language, or choose both at the same time.

Component Terminal (Green, Blue, Red)

This provides maximum quality by dividing the contrast signals before transferring.

Cable Broadcasting

Compared to air broadcasting, it uses the cable system to transfer the signals. You should subscribe to a local cable broadcasting company and install a separate receiver.

Tuner

A device used to select a particular frequency from the TV set or the radio receiver.

Anynet

An AV networking system of Samsung's various AV devices, which enables the user to conveniently control AV devices using the TV.

DVD (Digital Versatile Disc)

This is a CD-sized, high storage disk that can store multimedia data including videos, games and audio applications using MPEG-2 compression technology.

DVI (Digital Visual Interface) Terminal

This is a digital signaling standard.

This uses TMDS to reduce the signal loss rate for sharper images.

DVI-D Cable

One of the DVI cables that can only transfer digital signals.

HDMI (High Definition Multimedia Interface)

An interface into which the digital signals as well as the high quality image data can be connected with one cable. There is no need to compress the bit rate.

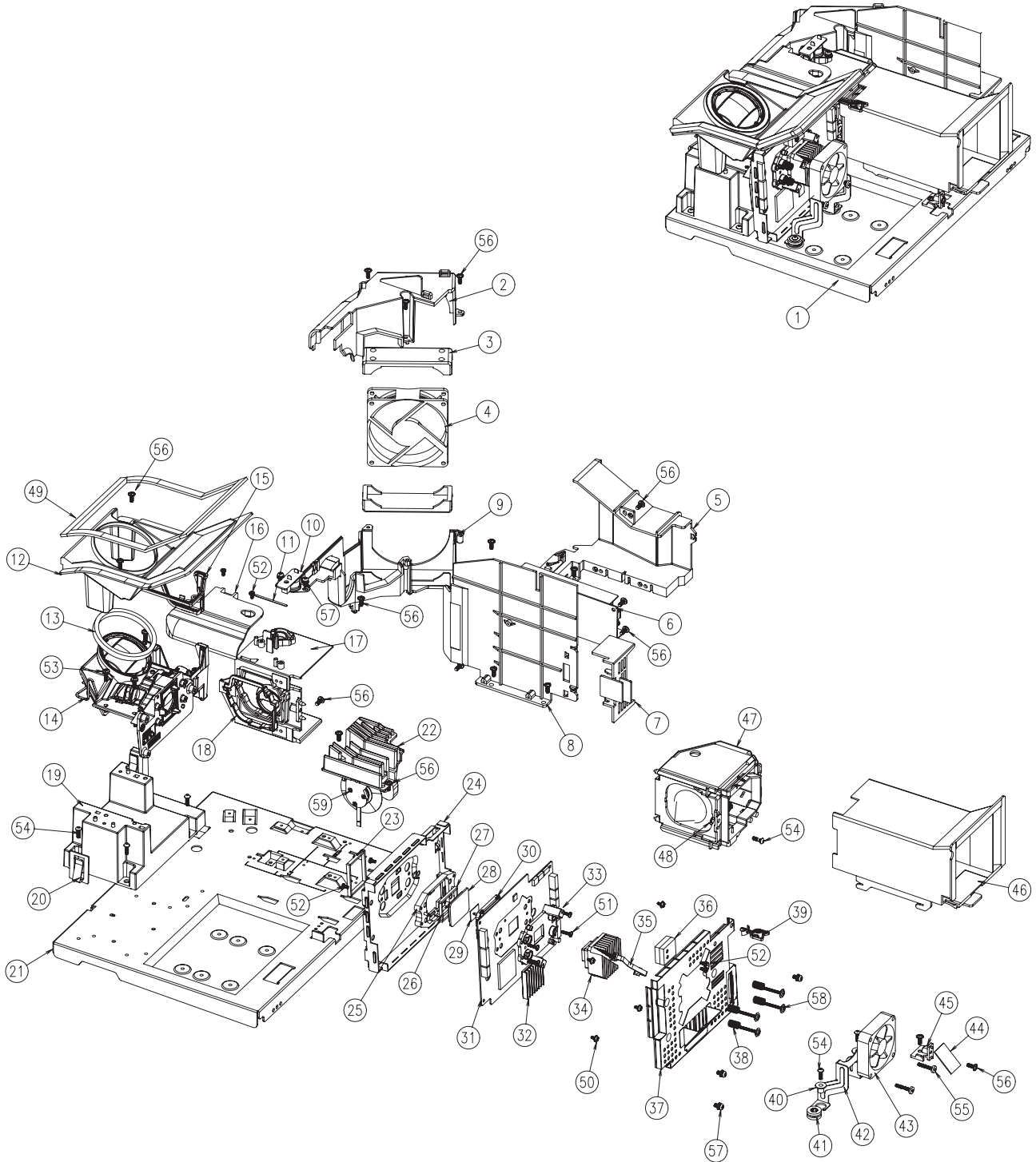
S-video Terminal

This is, called "Super-video", divided into video and color signals for sharper image display.

VHF/UHF

VHF refers to the 2 - 13 channel system; UHF indicates the 14 - 69 channel system.

14-3 K220 Engine Ass'y



K220 Engine Exploded View List			
No.	Description	Specification	Q'ty
1	ASSY ENGINE P-DLP	56K2 ENGINE ASSY	1
2	COVER-DUCT TOP	PC+GF20%	1
3	RUBBER-FAN	SILICON	2
4	FAN	92*92*25	1
5	COVER-BALLAST	PC GF20%	1
6	BALLAST	132W	1
7	COVER-BALLAST	PC ABS T2.5	1
8	COVER-BALLAST	PC +G/F20%	1
9	COVER-DUCT BOT	PC+GF 20%	1
10	PCB-THERMISTOR ASSY	HLP5063WX/XAA,L62B	1
11	HOLDER-WIRE	EGI,T0.5	1
12	COVER-P/J LENS	PC ABS	1
13	SPONGE-P/J LENS	PU FROM	1
14	ASSY LENS P-OPTIC MODULE	NTR,HD5-CARL ZEISS	1
15	RUBBER-COLOR WHEEL	SILICON,NTR	1
16	COVER-WHEEL	PC ABS	1
17	HOLDER-HOUSING LAMP	AL D/C	1
18	RUBBER-LAMP	SILICON,NTR	1
19	BASE-ENGINE	PC G/F20	1
20	HOLDER-WIRE	NYLON	1
21	BRACKET-ENGINE BASE	SECC,T1.6	1
22	ASSY-COLOR WHEEL	-	1
23	GASKET-MODULE L,R	POL YURETHANE	1
24	SHIELD CASE-DMD(F)	SECC,T1.0	1
25	HOLDER-CLAMP DMD	MG,T2.5,D/C	1
26	GASKET-DMD,L	POL YURETHANE	2
27	GASKET-DMD,R	POL YURETHANE	2
28	DLP	1280x720xHD5	1
29	SHEET-PAD H/S	SV42L6,PP,T0.5	1
30	HOLDER-INTERPOSER	T3.0,BLACK	1
31	ASSY-DMD BOARD	EINSTEIN,K2 L64D,HD5	1
32	HEAT SINK-ES	SUNRAY,A6063	1
33	BRACKET-PANEL	AL D/C	1
34	BRACKET-COOLER	AL	1
35	SPRING ETC-H/S DMD	SUS,T1.0	1
36	BRACKET-COOLER	AL	1
37	ASSY SHIELD P-PCB	SPTE,T0.5,DMD	1
38	SPRING ETC-COIL,DMD	SPRING STEEL	4
39	CLAMP-CORE WIRE	NYLON 66	1
40	HOLDER-BOSS	SUM24L	2
41	RUBBER-FAN	SILICON,NTR	1
42	BRACKET-FAN	SECC,T1	1
43	FAN	60*60*15	1
44	ASSY MISC-DETECTOR S/W	HLP5063WX/XAA,L62B	1
45	HOLDER-DETECTOR S/W	CU T1.5	1
46	COVER-DUCT RIGHT	PC G/F20	1
47	LAMP ASSY	PHILIPS 132W	1

K220 Engine Exploded View List			
No.	Description	Specification	Q'ty
48	HOLDER-SCREW LAMP	PE T0.5	1
49	SPONGE-ENGINE	-	1
50	SCREW-TAPTITE	PWH,+,B,M3,L6	4
51	SCREW-MACHINE	BH,+,M3,L12	4
52	SCREW-TAPTITE	BH,+,S,M3,L12	6
53	SCREW-TAPTITE	BH,+,B,M4,L12	3
54	SCREW-MACHINE	PH,+,M4,L12	9
55	SCREW-TAPTITE	BH,+,S,M4,L20	2
56	SCREW-TAPTITE	PWH,+,B,M3,L10	30
57	SCREW-MACHINE	WSP,PH,+,M4,L8	6
58	SCREW-MACHINE	PH,+,M3,L30	4
59	SCREW-MACHINE	BH,+,M2,L5	5

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