Appendix

Troubleshooting

Problem	Possible Solution
• No power	• Check if you pressed **POWER** on the remote control unit. (See page 12.) If the indicator on the TV does not light up, press **POWER** on the TV. • Is the AC cord disconnected? (See page 8.) • Has the power been turned on? (See page 12.)
• Unit cannot be operated.	• External influences such as lightning, static electricity, may cause improper operation. In this case, operate the unit after first turning off the power of the TV or unplugging the AC cord and replugging it in after 1 or 2 minutes.
• Remote control unit does not operate.	• Are batteries inserted with polarity (+, −) aligned? (See page 9.) • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light illuminated near the remote control sensor?
• Picture is cut off/with sidebar screen.	• Is the image position correct? (See page 21.) • Are screen mode adjustments such as picture size made correctly? (See page 16.)
• Strange color, light color, or color misalignment	• Adjust the picture tone. (See pages 18 and 19.) • Is the room too bright? The picture may look dark in a room that is too bright.
• Power is suddenly turned off.	• Is the sleep timer set? (See page 13.) • Check the power control settings. (See page 19.) • The unit's internal temperature has increased. Remove any objects blocking vent or clean.
• No picture	• Is connection to other components correct? (See page 11.) • Is correct input signal source selected after connection? (See page 24.) • Is the correct input selected? (See page 24.) • Is picture adjustment correct? (See pages 18 and 19.) • Is "On" selected in "Audio Only"? (See page 24.) • Is a non-compatible signal being input? (See page 30.)
• No sound	• Is the volume too low? (See page 13.) • Is "Variable" selected in "Output Select"? (See page 24.) • Have you pressed **MUTE** on the remote control unit? (See page 13.)
• The TV sometimes makes a cracking sound.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to change in temperature. This does not affect the TV's performance.

Troubleshooting-Digital Broadcasting

The error message about reception of broadcast

The example of an error message displayed on a screen	Error code	Possible Solution
• Failed to receive broadcast.	**E202**	• Check the antenna cable. Check that the antenna is correctly setup.
• No broadcast now.	**E203**	• Check the broadcast time in the program guide.

Cautions regarding use in high and low temperature environments
• When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
• Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the Liquid Crystal panel to malfunction.
Storage temperature: −4°F to +140°F (−20°C to +60°C)

RS-232C Port Specifications

■ PC control of the TV

• Attach an RS-232C cable cross-type (commercially available) to the supplied Din/D-Sub RS-232C for the connections.

NOTE

• This operation system should be used by a person who is accustomed to using computers.

■ Communication conditions

Set the RS-232C communication settings on the PC to match the TV's communication conditions.
The TV's communication settings are as follows:

Baud rate:	9,600 bps
Data length:	8 bits
Parity bit:	None
Stop bit:	1 bit
Flow control:	None

■ Communication procedure

Send the control commands from the PC via the RS-232C connector.
The TV operates according to the received command and sends a response message to the PC.
Do not send multiple commands at the same time.
Wait until the PC receives the OK response before sending the next command.

■ Command format

Eight ASCII codes + CR

C1	C2	C3	C4	P1	P2	P3	P4	↵

Command 4-digits   Parameter 4-digits   Return code

Command 4-digits: Command. The text of four characters.
Parameter 4-digits: Parameter 0–9, x, blank, ?

■ Parameter

Input the parameter values, aligning left, and fill with blank(s) for the remainder. (Be sure that 4 values are input for the parameter.)
When the input parameter is not within an adjustable range, "ERR" returns. (Refer to "Response code format".)
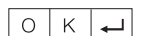Any numerical value can replace the "x" on the table.

0			

0	0	0	9

–	3	0	
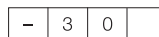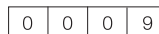
When "?" is input for some commands, the present setting value responds.

?			

?	?	?	?
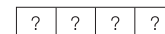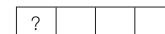
■ Response code format

Normal response

O	K	↵

Return code (0DH)

Problem response (communication error or incorrect command)

E	R	R	↵

Return code (0DH)

■ Command table

• Commands not indicated here are not guaranteed to operate.

CONTROL ITEM		COMMAND	PARAMETER	CONTROL CONTENTS	
POWER ON COMMAND SETTING		R S P W	0 _ _ _	Off	The Power On command rejected.
			1 _ _ _	On	The Power On command accepted.
POWER SETTING		P O W R	0 _ _ _	Power Off	It shifts to standby.
			1 _ _ _	Power On	Power On
INPUT SELECTION A	TOGGLE	I T G D	x _ _ _	(Toggle)	It input-switches by the toggle. (It is the same as an input change key)
	TV	I T V D	0 _ _ _		It input-switches to TV. (A channel remains as it is. (Last memory))
	INPUT1-8	I A V D	* _ _ _	Input terminal number (1–8)	It input-switches to INPUT1~INPUT8.
INPUT SELECTION B	INPUT 1	I N P 1	* _ _ _	0: Auto, 1: VIDEO, 2: COMPONENT	An input change is also included.
	INPUT 2	I N P 2	* _ _ _	0: Auto, 2: COMPONENT, 3: S-TERMINAL	
AV MODE SELECTION		A V M D	* _ _ _	0: (Toggle), 1: STANDARD, 2: MOVIE, 3: GAME, 4: USER, 5: DYNAMIC (Fixed), 6: DYNAMIC, 7: PC	Although it can choose now, it is toggle operation in inside.
VOLUME		V O L M	* * _ _	Volume (0–60)	
POSITION	H-POSITION	H P O S	* * * _		The screen position variable ranges depend on the View Mode or the signal type. The ranges can be seen on the position-setting screen.
	V-POSITION	V P O S	* * * _		
	CLOCK	C L C K	* * * _	Only PC mode. (0–180)	
	PHASE	P H S E	* * * _	Only PC mode. (0–40)	
VIEW MODE		W I D E	* _ _ _	0: (Toggle) [AV], 1: Side Bar [AV], 2: S.Stretch [AV] 3: Zoom [AV], 4: Stretch [AV], 5: Normal [PC] 6: Zoom [PC], 7: Stretch [PC], 8: Dot by Dot [PC] [AV], 9: Full Screen [AV]	0: Although it can choose now, it is toggle operation in inside. 1: Only available when 4:3 signal is being input. 5, 6: Only available when 4:3 signal is being input. 8: [PC] Available except when UXGA is being input. [AV] Only available when 1080i/p is being input. 9: Only available when 720p is being input.
MUTE		M U T E	* _ _ _	0: (Toggle), 1: On, 2: Off	
SURROUND		A C S U	* _ _ _	0: (Toggle), 1: On, 2: Off	
AUDIO SELECTION		A C H A	x _ _ _	(Toggle)	
SLEEP TIMER		O F T M	* _ _ _	0: Off, 1: OFF TIMER – 30 MIN., 2: OFF TIMER – 60 MIN., 3: OFF TIMER – 90 MIN., 4: OFF TIMER – 120 MIN.	
CHANNEL	DIRECT CHANNEL (ANALOG)	D C C H	* * * _	The channel number of TV (1–135)	An input change is included if it is not TV display. In Air, 2–69ch is effective. In Cable, 1–135ch is effective.
	DIRECT CHANNEL (DIGITAL)	D A 2 P	* * * *	(0100-9999)	DIGITAL Air (Two-Part numbers, 2-digit plus 2-digit)
		D C 2 U	* * * _	(1-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Front half of DIGITAL CABLE CHANNEL NO. (Designate major channel)
		D C 2 L	* * * _	(0-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Rear half of DIGITAL CABLE CHANNEL NO. (Designate minor channel)
		D C 1 0	* * * *	(0-9999)	DIGITAL Cable (One-Part numbers, 5-digit, less than 10,000)
		D C 1 1	* * * *	(0-6383)	DIGITAL Cable (One-Part numbers, 5-digit, more than 10,000)
	CH UP	C H U P	x _ _ _	The channel number of TV +1	If it is not TV display, it will input-switch to TV. (same function as CH∧)
	CH DOWN	C H D W	x _ _ _	The channel number of TV −1	If it is not TV display, it will input-switch to TV. (same function as CH∨)
CC		C L C P	x _ _ _	(Toggle)	Toggle operation of a closed caption.

NOTE

• If an underbar (_) appears in the parameter column, enter a space.
• If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
• Any numerical value can replace the "x" on the table.

Specifications

Item			Model: LC-46SB57UN	Model: LC-52SB57UN
LCD panel			46″ Class (45 $^{63}/_{64}$″ Diagonal) Advanced Super View & BLACK TFT LCD	52″ Class (52 $^{1}/_{32}$″ Diagonal) Advanced Super View & BLACK TFT LCD
Resolution			2,073,600 pixels (1,920 × 1,080)	
TV Function	TV-standard (CCIR)		American TV Standard ATSC/NTSC System	
	Receiving Channel	VHF/UHF	VHF 2-13ch, UHF 14-69ch	
		CATV	1-135ch (non-scrambled channel only)	
		Digital Terrestrial Broadcast (8VSB)	2-69ch	
		Digital cable[*1] (64/256 QAM)	1-135ch (non-scrambled channel only)	
	Audio multiplex		BTSC System	
Backlight			60,000 hours (in default "STANDARD" mode)	
Audio out			10W × 2	
Terminals	Rear	INPUT 1	AV in, COMPONENT in	
		INPUT 2	COMPONENT in, S-VIDEO in	
		INPUT 4	ANALOG RGB (PC) in (15-pin mini D-sub female connector), Audio in (Ø 3.5 mm jack)	
		INPUT 6	HDMI in with HDCP, Audio in (Ø 3.5 mm jack)	
		INPUT 7	HDMI in with HDCP	
		INPUT 8	HDMI in with HDCP	
		ANT/CABLE	75 Ω Unbalance, F Type × 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)	
		AUDIO	Audio in (Ø 3.5 mm jack)	
		DIGITAL AUDIO OUTPUT	Optical Digital audio output × 1 (PCM/Dolby Digital)	
		OUTPUT	Audio out	
		RS-232C	9-pin D-sub male connector	
	Side	INPUT 3	AV in	
		INPUT 5	HDMI in with HDCP	
		SERVICE	Software update	
OSD language			English/French/Spanish	
Power Requirement			AC 120 V, 60 Hz	
Power Consumption			254 W (0.5 W Standby with AC 120 V)	290 W (0.5 W Standby with AC 120 V)
Weight	TV + stand		49.6 lbs./22.5 kg	58.5 lbs./26.5 kg
	TV only		39.7 lbs./18.0 kg	50.7 lbs./23.0 kg
Dimension[*2] (W × H × D)	TV + stand		43 $^{53}/_{64}$ × 30 $^{3}/_{64}$ × 13 $^{1}/_{2}$ inch	49 $^{19}/_{64}$ × 33 $^{25}/_{32}$ × 13 $^{1}/_{2}$ inch
	TV only		43 $^{53}/_{64}$ × 27 $^{47}/_{64}$ × 3 $^{29}/_{32}$ inch	49 $^{19}/_{64}$ × 31 $^{11}/_{32}$ × 3 $^{43}/_{64}$ inch
Operating temperature			+32°F to +104°F (0°C to +40°C)	

[*1] Emergency alert messages via Cable are unreceivable.
[*2] The dimensional drawings are shown on the Spanish operation manual.
- As part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Optional Accessory

The listed optional accessory is available for the Liquid Crystal Television. Please purchase it at your nearest shop.
- Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

Part name	Model number
Wall mount bracket	AN-52AG4

PC Compatibility Chart

It is necessary to set the PC correctly to display XGA and WXGA signal.

PC	Resolution		Horizontal Frequency	Vertical Frequency	VESA Standard
PC	VGA	720 x 400	31.5 kHz	70 Hz	——
		640 x 480	31.5 kHz	60 Hz	O
			37.9 kHz	72 Hz	O
			37.5 kHz	75 Hz	O
	SVGA	800 x 600	35.1 kHz	56 Hz	O
			37.9 kHz	60 Hz	O
			48.1 kHz	72 Hz	O
			46.9 kHz	75 Hz	O
	XGA	1024 x 768	48.4 kHz	60 Hz	O
			56.5 kHz	70 Hz	O
			60.0 kHz	75 Hz	O
	WXGA	1360 x 768	47.7 kHz	60 Hz	O
	SXGA	1280 x 1024	64.0 kHz	60 Hz	O
	SXGA+	1400 x 1050	65.3 kHz	60 Hz	O
	UXGA	1600 x 1200	75.0 kHz	60 Hz	O

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■ Acknowledgements
The following open source software components are included in this product:
• linux kernel/busybox/uClibc/zlib/libpng/libjpeg

CLEARING THE SECRET NUMBER

If you forget the secret number, clear the secret number using the following procedure.

1 Select an item from the list below to display the secret number input screen. (For operating the on-screen display menu, see page 17.)
  • "EZ Setup", "CH Setup", "Parental CTRL" or "Reset" on the Setup menu.
  • "Color System" on the Option menu.
  • "Software Update" on the Digital Setup menu.

2 Press and hold both **CH∧** and **VOL＋** on the TV simultaneously until the message appears on the screen.

The secret number is ☐☐☐☐ .

NOTE
• As a precautionary measure, make a note of your secret number above, cut it from this manual, and keep it in a safe place.