SHARP®

PN-85TH1
PN-75TH1
PN-65TH1
PN-L851H
PN-L751H
PN-L651H

LCD MONITOR

SOFTWARE GUIDE

Contents

Important Information

- This product has been shipped after strict quality control and product inspection. If, however, you find any failure or malfunction, contact your product dealer.
- Please understand that SHARP CORPORATION bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- If you or a third party uses the product incorrectly, or if the product is subjected to the effects of static electricity or electrical noise, or if the product malfunctions or is repaired, there is a risk that saved data will be corrupted or lost.
- Always back up important data to a USB flash drive or microSD memory card.
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- Language of OSD menu used in this manual is English by way of example.
- This manual does not contain basic operating instructions for Android.

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Introduction

By changing the input mode of this monitor to "APPLICATION", you can use Android applications.
The following applications can be used with the monitor. (Factory default)

Direct Drawing for Android (see page 7)	You can write letters or draw lines on the screen as a whiteboard. You can display an image or PDF file, and write/draw letters and lines on the image.
SHARP Wireless Display (see page 13)	You can display images from other devices on this monitor using wireless LAN.
File Explorer	Manage a file or a folder.
SHARP Print Service Plugin	Plug-in application that lets you use a SHARP multifunction machine connected to the same network to print. You can print to an applicable multifunction machine from an applicable application in APPLICATION mode. For details, visit the following Web page. http://www.sharp-world.com/products/copier/docu_solutions/mobile/Sharp_Print_Service_Plugin/

We only guarantee the operation of the home screen and the applications indicated above.
We do not guarantee the operation of any other applications.
Use APPLICATION mode in a landscape orientation.
We do not guarantee the use of APPLICATION mode in a portrait orientation.

Change this monitor to APPLICATION mode

1. **Turn on this monitor power.**
2. **Change the input mode to "APPLICATION".**

Home screen of APPLICATION mode

- In APPLICATION mode, you can also press the CONTENT MENU button on the remote control unit to show the home screen.
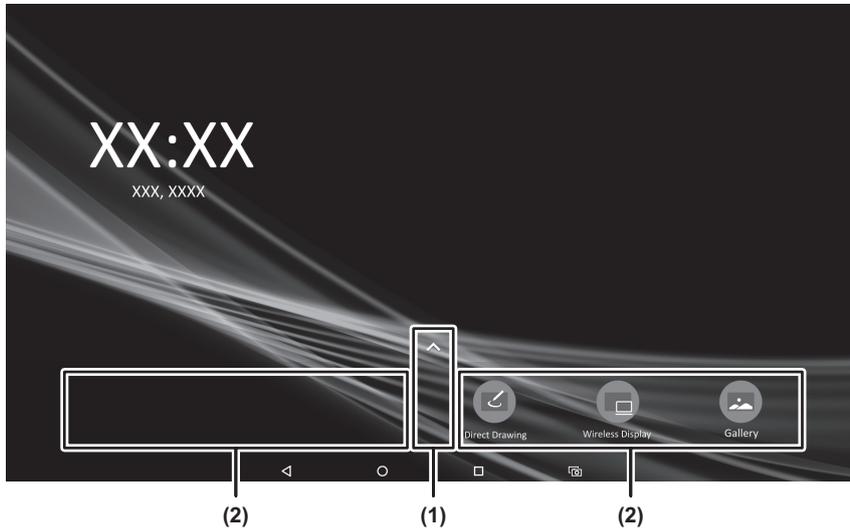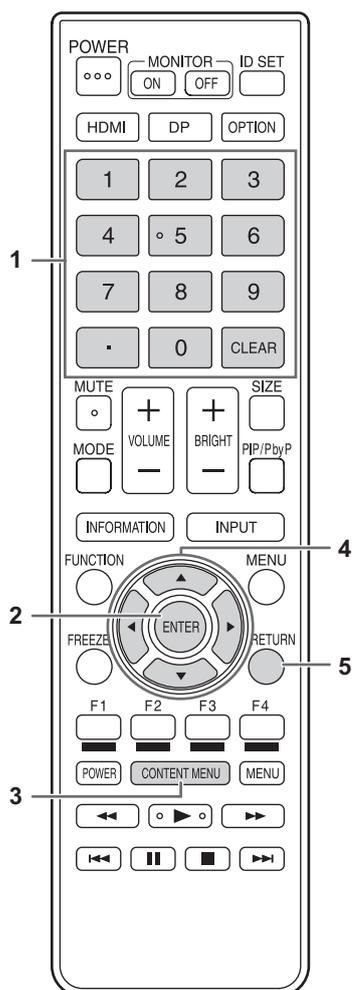

(1) The installed applications list appears.
(2) Any application can be placed here.

TIPS

- When you use "Settings", a password is required. (Factory setting) (See page 15.)

■ Remote control unit operation

1. Numeric input buttons
Use to enter numbers.

2. ENTER
Confirm the selected item.

3. CONTENT MENU
Display the home screen.

4. Cursor
These buttons are used to perform operations such as selecting applications or items, and moving the cursor.
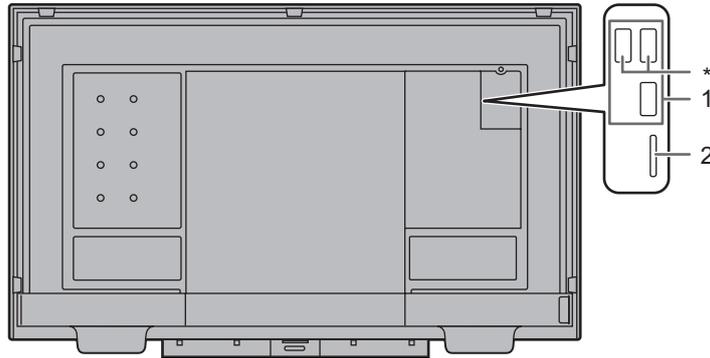
5. RETURN
Returns to the previous screen.

TIPS

• Buttons used vary by application.

USB port / microSD card slot

USB devices (memory device, keyboard, mouse) and a microSD memory card can be used in APPLICATION mode.

1. **USB port**
   - Connect USB devices (memory device, keyboard, mouse) that you want to use in APPLICATION mode.
   - Connect a USB flash drive to be used with Direct Drawing for Android to one of the USB ports indicated by "*" above.
     Supported USB flash drives

File System	FAT32/NTFS (Read only)
Capacity	Up to 64 GB (For FAT32, the maximum file size is 4 GB)

   - A USB flash drive that is encrypted or has a security function cannot be used.
   - Use a USB flash drive with a shape that can be inserted in the USB port. Some USB flash drives with special shapes cannot be inserted. Do not forcibly insert a USB flash drive. This may damage the connector or cause failure.

2. **microSD card slot**
   - Insert a microSD memory card.
     Pay attention to the orientation of the memory card, and slowly push in until you hear a "click" sound.
     Supported microSD memory cards

File System	FAT32/NTFS (Read only)
Capacity	• microSD memory card: Up to 2 GB • microSDHC memory card: Up to 32 GB • microSDXC memory card: Up to 64 GB • Maximum file size for FAT 32: 4 GB

   - Encrypted files and folders cannot be used.
   - exFAT format is not supported.

TIPS

- You can prohibit the use of USB devices and a microSD memory card. (See page 15.)

■ How to remove a USB flash drive or a microSD memory card

1. **Display the applications list on the home screen of APPLICATION mode and select "File Explorer".**

2. **Select ⏏ of the device you want to remove.**

Direct Drawing for Android

- You can write letters or draw lines on the screen as a whiteboard.
- You can print or save content written on the screen.
- You can display an image or PDF file, and write/draw letters and lines on the image.
- In this application, the data of one screen is referred to as a "sheet".
- A maximum of 10 sheets can be opened.
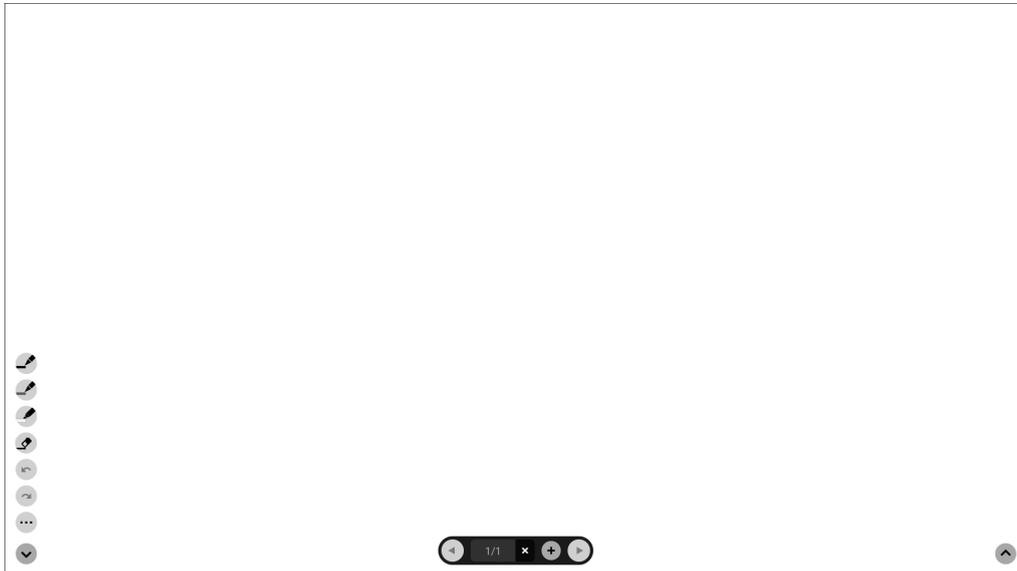
!Caution

- When the power is turned off, any data in Direct Drawing for Android is lost.
  If Direct Drawing for Android is running, a message will appear. Save any data you need.

Direct Drawing for Android

■ Function list

Tool	Function
✎ / ✎ / ✎	Draw lines. (See page 9.) Pen palette 1 ⟶ Pen palette 2 ⟶ Pen palette 3 ⟶
✐	Erase a line that you drew. (See page 9.)
✋	This appears when "Draw with pen and finger" is selected. (See page 12.) Touch to perform gesture actions (enlarging/reducing, moving a sheet, etc.). (See page 10.)
↶	Undo the previous drawing or edit. You can repeat undo a maximum of 50 times.
↷	Redo an undone action.
⋯	The sub-menu will appear. To close the sub-menu, touch ❮ .
▣	Save/open a sheet. You can open an image or PDF file and use it as the background.
🗑	Delete a drawn line, opened image, or a sheet. (See page 11.)
🖨	Print a sheet.
⚙	Change the settings of this application. (See page 12.) You can check the version of the application.
⌃ / ⌄	Show/hide the tools. Touch ⌃ to show the tools, or ⌄ to hide the tools. If you press ⌃ on the opposite side when the tools appear, the displayed tools are hidden and the tools on the opposite side are shown.
◀	Display the previous sheet.
1/1	Shows the current sheet number and the total number of sheets.
✕	Delete the currently displayed sheet.
＋	Add a new sheet behind the currently displayed sheet.
▶	Display the next sheet.

Drawing

The line/eraser setting is assigned to each touch pen (thin/thick) and finger.
Operate with what you use to draw.

1. **Touch one of "Pen palette 1" to "Pen palette 3".**
   If the line you want to draw does not exist, touch one of "Pen palette 1" to "Pen palette 3" twice. You can change the line setting (non-transparent/transparent, thickness, color).
2. **Draw.**

> TIPS
>
> • On the touch pen (supplied), you can set the thin tip and thick tip of the pen separately.
>   When this software is launched, the thin tip is set to "Pen palette 1", and the thick tip is set to "Eraser".
> • To draw with only a touch pen, select "Draw only with pen". (See page 12.)
>   To use your finger to draw, select "Draw with pen and finger". (See page 12.)
> • When this software is launched, drawing by finger is set to "Pen palette 1".

Erasing a drawn line

The line/eraser setting is assigned to each touch pen (thin/thick) and finger.

Operate with what you use to erase.

1. **Touch 🗹 .**
   To change the size of the eraser, touch 🗹 twice.
2. **Move while continuing to touch the place you want to erase.**
   The part you move over is erased.

> TIPS
>
> • On the touch pen (supplied), you can set the thin tip and thick tip of the pen separately.
>   When this software is launched, the thin tip is set to "Pen palette 1", and the thick tip is set to "Eraser".
> • To use your finger to erase, select "Draw with pen and finger". (See page 12.)

■ Erasing with the eraser (supplied)

Touch the screen with the cloth surface of the eraser (supplied).
When a frame appears in the touched position, move the eraser.

Actions using your finger (gesture)

Enlarge/reduce a sheet
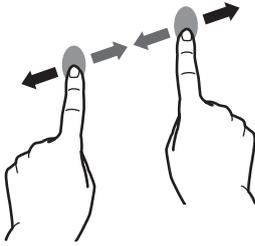
Moving the display position of a sheet (when enlarged)
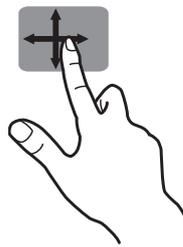
Move to the previous/next sheet

Pinch-in/pinch-out

Swipe
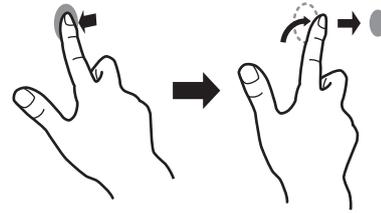
Left/right flick

When drawing with a touch pen (supplied)
(When "Draw only with pen" is selected (See page 12.))
Your finger can only be used for a gesture action.

When drawing with your finger
(When "Draw with pen and finger" is selected (See page 12.))

Touch 👆 to perform a gesture action.

Opening a PDF or image on the current sheet

You can open a file in PDF format or an image (in JPEG or PNG format) on the current sheet.
- If there are lines drawn on the sheet, the file will appear under the lines.
- An opened image will appear in the full screen without changing the aspect ratio.
- Up to the 10 pages of a PDF file can be opened.
  When there are multiple pages, the pages will appear in order starting from the current sheet.
- Depending on memory usage and other factors, it may not be possible to open a file even if it is in a supported format.

1. **Touch ⋯ , ■ .**
2. **Touch "Insert a PDF or an image to background".**
3. **Select the file.**

Opening a file

Data of this application that is saved in dedicated format (SDSW format) is opened as a new sheet.
The current sheet closes.

1. **Touch ⋯ , ■ .**
2. **Touch "Open file".**
3. **Touch "Open without saving".**
   To save the current sheet, touch "Save" and perform the save procedure.
4. **Select the file.**

Saving a sheet

You can save a sheet in dedicated SDSW format or PDF format.
You can save the sheet to this monitor's built-in memory (internal memory), or to a USB flash drive or microSD memory card.

> TIPS
> * When you save a sheet in SDSW format, you can open the sheet in this application and re-edit the sheet.
> * When you save a sheet in PDF format, an opened image and drawn lines are all saved as a single image.
>   (The sheet cannot be re-edited using this application.)
> * The date and time of saving are automatically set in the file name. (Example:180101_120000.sdsw / 180101_120000.pdf)

1. **Touch ⋯ , ▇ .**
2. **Touch "Save" (SDSW format) or "Save as PDF".**
   A dialog box appears to let you specify the save location.
3. **Specify the file save location and the file name.**
4. **Touch "Save".**

Erasing all lines drawn on the current sheet

1. **Touch ⋯ , ▆ .**
2. **Touch "Clear drawing data on Current sheet".**
   A confirmation message will appear.
3. **Touch "Yes".**

> TIPS
> * The sheet will not be deleted.

Clearing a PDF or an image opened on the current sheet

1. **Touch ⋯ , ▆ .**
2. **Touch "Clear background image on Current sheet".**
   A confirmation message will appear.
3. **Touch "Yes".**

Deleting a sheet

1. **Touch ⋯ , ▆ .**
2. **Touch "Delete Current sheet" or "Delete All sheets".**
   A confirmation message will appear.
3. **Touch "Yes".**
   If you deleted all sheets, a new sheet will appear.

Settings

■ Drawing with your finger (Draw with pen and finger) / Drawing with only a touch pen (Draw only with pen)

1. Touch ⚙ .
2. **To draw with your finger: Touch "Draw with pen and finger".**
   You can now draw with a touch pen and your finger.

   Touch 👆 before performing a gesture.
   The button changes to "Draw only with pen".

   To draw with only a touch pen: Touch "Draw only with pen".
   You can now draw with only a touch pen.
   Finger actions will now be gestures.
   The button changes to "Draw with pen and finger".

■ Returning the settings to their default state (Back to default settings)

1. Touch ⚙ .
2. Touch "Back to default settings".
3. When a confirmation message appears, touch "Yes".

■ Checking the version of this software (Version Information)

1. Touch ⚙ .
2. Touch "Version Information".
3. When you have finished checking, touch "OK".

SHARP Wireless Display

- You can display images from other devices on this monitor using wireless LAN.
  You can capture the displayed screen and set it to the background of a Direct Drawing for Android sheet.
- The other device must support Miracast transmission.
  For details, see the manual for the device.
- Connections to all devices is not guaranteed.

Wireless Display is ready to connect.

Select this name on your device for Wireless Display connection.

(1) PN_LTH1_series_xxxx

(2)
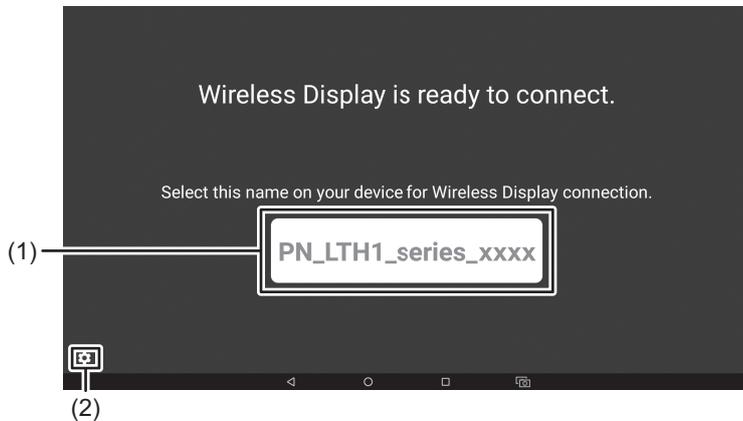
(1) The name of this monitor appears.
(2) Use to change settings. (See page 14.)

1. Check the display name of this monitor ((1) above).
2. The other device will find and connect to this monitor (display name in (1) above).

Wireless Display is ready to connect.

Invitation to connect
From:

DECLINE   ACCEPT

PN_LTH1_series_xxxx
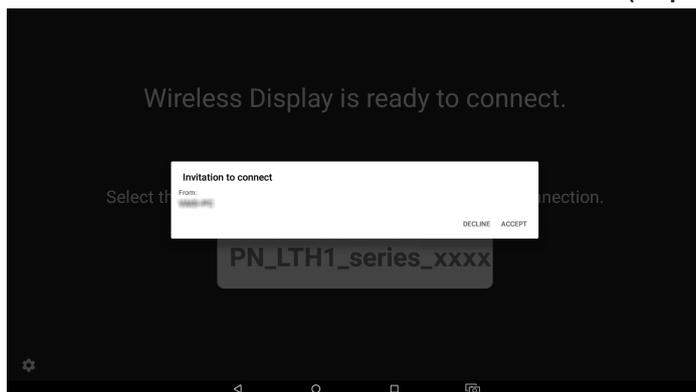
3. Touch "ACCEPT".
The device screen will appear.
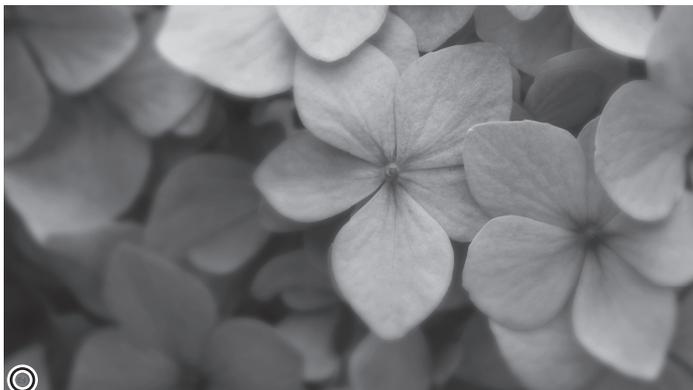
You can touch the icon ( ) in the lower left corner of the screen to capture the screen and set it as the background of the Direct Drawing for Android sheet. (You will disconnect from the device.)

When you are finished
1. **Press the RETURN button on this monitor's remote control unit.**
   Or, disconnect by operating the other device.

■ Settings

Device Name
Change the name of this monitor.

Setup

You can configure settings for APPLICATION mode.
Also check the "Menu Items" in the Operation Manual such as video and audio settings.
Display the applications list on the home screen of APPLICATION mode and select "Setup".
A password enter screen appears. (Factory setting)
Enter a password to release the lock. (The default setting is "admin".)
To change the password, select "Change Password".
(At least 4 characters and no more than 16 characters.)
The lock release state will continue for approx. 15 minutes.

■ Setup

Date & Time

Set the date and time.

Ethernet (LAN)

Set whether or not to use LAN terminal.
Set the IP address, subnet mask, and other settings.

Wireless Region

Select the region to use this monitor.

Wireless LAN

Set whether or not to use wireless LAN.
To use wireless LAN, first set the "Wireless Region".
Configure settings for wireless LAN.

Wireless LAN Profile Backup/Recovery

Save wireless LAN settings.
By saving the settings, you can return the settings to the saved settings in the event that the wireless LAN settings are lost.
The settings are returned when you turn on the power or change "Wireless LAN" from "Off" to "On".

Bluetooth

Set whether or not to use a commercially available Bluetooth device.
Configure settings for Bluetooth.

Telnet Server

Configure settings to use a telnet server.
Telnet Server .... When using telnet server function, set to ON.
User Name .... Set an account name when connecting to this monitor.
Password....................................... Set a password when connecting to this monitor.
Port.. Set the port number to be used.
Auto Logout Time (minutes) .... Set the time to logout automatically by minutes.
Reset .... Initialize the telnet server settings.

Proxy Settings

Proxy Settings .... When using this monitor in the proxy environment, set to ON.
Address .... Set a proxy server's address.
Port.. Set a port number when connecting to the proxy server.
User Name .... Set an account name when connecting to the proxy server.
Password....................................... Set a password when connecting to the proxy server.
Exclusion List.................................. Set the address do not use proxy server.
Reset .... Initialize the proxy settings.

USB Drive/SD Card

Enabled .... Allow the use of USB devices and a microSD memory card.
Disabled... Prohibit the use of USB devices and a microSD memory card.

Settings/Setup Lock

When using "Settings" or "Setup", set whether or not a password is necessary.
Enabled .... A password is necessary.
Disabled... A password is unnecessary.

Full Screen Mode

Enabled .... The navigation bar and status bar do not appear.
Disabled... The navigation bar and status bar appear.

APPLICATION Mode Reboot

Set to restart the Android system.
A schedule is set by factory default in this monitor that restarts the system at 3:00 AM.
Reboot now .... Restart the Android system.
Schedule... Set whether or not a schedule is used to restart the Android system.
Time.. Set a time to restart the Android system.

Software Information

Shows the software license agreement and open source license.

Status

Shows APPLICATION mode information.

Updating the Software (Update)

Update applications and firmware that are factory-installed in APPLICATION mode. (A network environment that allows access to the internet is required.)
Display the applications list on the home screen of APPLICATION mode and select "Update".
The first time you start the Update, a region selection screen will appear. Select your region.
The "Export Law Assurances" appears. Select "YES".
To use the software distributed by the "Update", you must agree to the "Export Law Assurances".
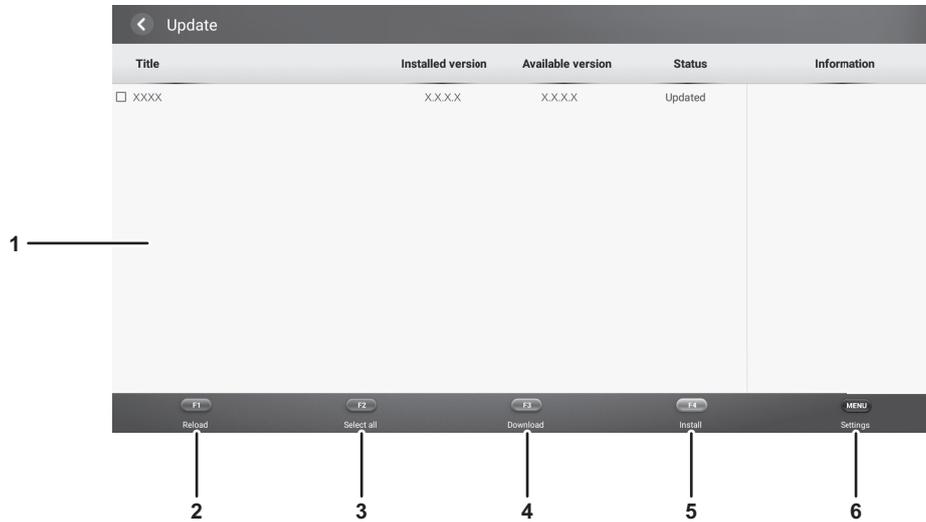
1. **Information area**
   Shows information on already downloaded software and software that can be downloaded.

2. **Reload**
   Refresh the information in the information area.

3. **Select all**
   All software in the list are selected.
   If already selected, the selection is canceled.

4. **Download**
   Download the selected software.

5. **Install**
   Install the selected software.

6. **Settings**
   Configure settings for Update.
   • Region ....Select region to be used.
   • Show warning messages ....Set whether or not to display warning message.
   • Hide updated items ....Set whether or not to hide updated items in the information area.
   • Scheduled installation ....Set whether or not updates are automatically checked for and executed.
   • Scheduled install time ....When "Scheduled installation" is set to "ON", set the time at which updates are executed. Update runs every day at the set time.
   • Scheduled firmware installation....................When "Scheduled installation" is set to "ON", set whether or not the firmware is also updated automatically.
   • Reset ....Initialize the "Settings".

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