

Release Notes for PCS-G70 & G50 - V2.64 Software

Release version 2.64 has been issued as mass production units from November have hardware change, related drivers and components have been changed to accommodate the new disc on chip hardware change.

All previous existing models of PCS-G70 & PCS-G50 will support version 2.64

All new models with new hardware shipped from November already loaded with Ver2.64 will only support version 2.64 or higher code

Contents

- **New Features**
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These release notes provide essential information for the latest software version available for the Sony PCS-G70 and PCS-G50 that can be found at ftp.sony-europe.com/

New software is made available to maintain and enhance the product(s) and their lifetime within our portfolio, it is always recommended to utilise the most recent version of software available for any product to ensure full performance and reliability is maintained at all times.





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PCS-G70 & G50 Version 2.61 - New Features

G series connectivity with Sony Network Camera (SNC)

A separate phone book specifically for the Sony Network Camera connections (referred to as the network camera list) can be created and used on the G series.

To enable this feature turn on "Network camera connection" under "General setting" / "Network camera" from the menu configuration page.

Verified connections with Sony Network Camera

Sony Network Camera	SNC-RX550P, SNC-RZ50P & SNC-CS50P (Version 2.10)
Communication method	TCP, UDP (Unicast), UDP (Multicast)
Image size	320 x 240 (QVGA), 160 x 120 (QQVGA)
Operation mode	H.264 or MPEG4 (Dual codec cannot be used with SNC)
Audio mode	G.711 (Both sides)
Bit rate	H.264: 32, 64, 128, 256, 384, 512, 768, 1024, 1536 Kbps MPEG4: 64, 128, 256, 384, 512, 768, 1024, 1536, 2048 Kbps
Frame rate	15 fps, 30 fps (15fps or less in TCP H.264)
Connection state	Point-to-point connection with PCS-G70/G50

Up to five Sony Network Cameras can be connected to one PCS-G70/G50

In multi-point conferences, the Sony Network Camera is treated as one terminal of the teleconference.

Up to five teleconferencing terminals or Sony Network Cameras can be connected to one PCS-G70/G50. The different types can be mixed in a multi-point conference. However, Sony Network Cameras are not supported at this time for cascade connections.

SNC User settings must be configured on the PCS

For a user with SNC Administrator privileges

- When parameters are set to "Auto" on PCS, the settings applied on the SNC are given priority for connection period.
- When you specify changes within PCS configuration such as the bit rate, image size, and other settings these are applied during the connection period of the SNC. Disconnecting the PCS then returns the SNC settings to the original pre-call state.

Note: When connecting a Sony Network Camera already in use with other applications a problem may occur with the environment that is currently being used. Make sure to consult the system administrator before connecting.

When the user is not the SNC Administrator (Full, Pan/Tilt, View, etc.)

The settings for SNC cannot be changed from the PCS. However, when the SNC is configured with settings other than the above specifications, it cannot be connected to PCS correctly.

Limitations in a multipoint connection using Sony Network Camera

- Presentation data and dual video cannot be sent or received.
- Still images cannot be sent or received.

Problems with this function

When the SNC is connected as one point in a multipoint conference and sending audio from the PCS to the SNC is enabled, there is a rare problem where a correct connection cannot be performed to the camera even if the connection is tested repeatedly. In this situation, either reset the SNC or turn off the power temporarily.

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ISDN Multipoint down speeding

For an ISDN multipoint conference, when adding a transmission to a new terminal from the host, if there are no free lines available, some of the lines to the 1st connected terminal are disconnected automatically and then made available for the new terminals connection.

Note: This function is enabled if all of the connected terminals are PCS. At this time if other manufacturer's terminals are used, the operations are the same as for Ver. 2.51 or earlier.

Example of connection if number of ISDN lines is 6 (12B):

1. Connect to one point in a point-to-point connection with 12B.
2. Add another transmission from the PCS-G70/G50.
3. There are not any free lines, lines are disconnected from the first connected point until the number of lines becomes 6B.
4. The new point is connected with 6B.
5. Add yet another transmission from host to create a third point.
6. There are not any free lines, the lines for the first and second terminals are reduced until the number of lines becomes 4B.
7. The new point is connected with 4B.

If some of the connected terminals are then disconnected, the number of lines will not increase to an already connected point. In the above example, if the third point is disconnected the number of lines for the first and second terminals will remain at 4B and not increase to 6B.



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PCS-G70 & G50 Version 2.63 – Improved Functions

Improved E.164 Service Menu

When using [Service command ENUM] Gatekeeper, the E.164 number is now displayed as the remote terminal name instead of the incoming E.164 alias number.

PCS-G70 & G50 Version 2.61 – Improved Functions

When sending Dual Video from a point in a multi-point conference, the broadcast mode (Full screen or split screen) can be changed on the MCU

Previously when Dual Video was sent from a point in multi-point conferences, the broadcast mode could not be switched. This limitation has been eliminated so that the broadcast mode can be changed from the MCU. When dual video is sent from multiple points, main units can freely switch between terminals used to deliver the 2nd stream to all points, but it does not change functions related to switching at the source of the 2nd stream.

When using the Data Solution Box to send or receive presentation data, settings can be made to divide the presentation data among the entire communication bandwidth

"H.239 rate ratio" under "Communication mode" can be set to "2/3", "1/2", or "1/3".

Note: The final delivery rate for presentation data is determined by the rate adjustment between terminals participating in a conference. This varies depending on the remote communication terminals, the connection order, and the circuit class.

With IP communication: The settings for the receiving terminal are given priority.

With ISDN communication: The settings for the transmitting terminal are given priority.

With SIP communication: The settings for the transmitting terminal are given priority.

When the NAT settings are turned on, the unit automatically determines whether to modify IP Packets or leave packets unchanged

The unit evaluates the connection request in terms of the IP Address and Subnet Netmask for the local terminal and IP Address for the remote terminal to determine whether the terminals are on the same subnet. If the remote terminal is determined to be on the same subnet, the Source IP Address is not overwritten. Therefore, both terminals on the subnet can be connected without changing settings

Duet Dynamic Device Discovery settings for AMX, one type of external controller device, can be made from the GUI

In "Other" under "Administrator settings", AMX device discovery can be turned on and off, and the number of hops can also be set. When AMX device discovery is turned on, PCS device information is sent in IP multi-cast packets on the network after PCS starts up until the external control mode starts from the AMX. Also, when the command AMX is entered from Serial I/F, the Duet Dynamic Device Discovery information is displayed on Serial I/F. With this function, the terminal information is automatically registered on AMX.

Streaming can be performed using Unicast with new command 'STRUN'

With conventional settings, streaming could only be set for multicast.

Setting this service command eliminates the limit on the IP addresses that can be set, so streaming can be performed for a specified computer (IP address).

Change the audio/video port number from the default values so at least two values apart.

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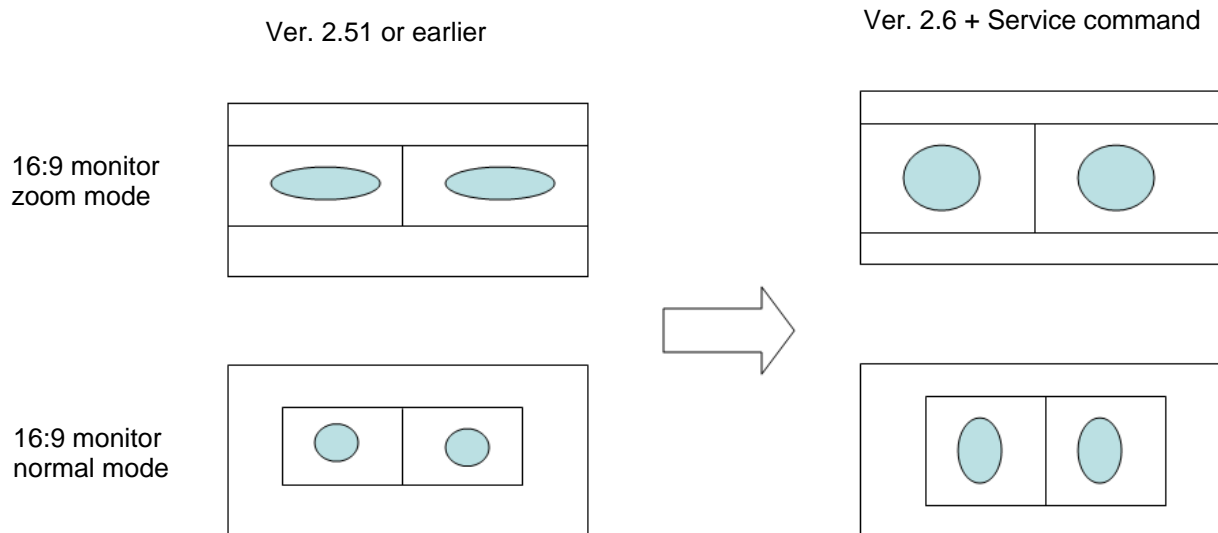
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<u>Port type</u>	<u>Default</u>	<u>Used for the service command</u>
Audio port number	49501	49502
Video port number	49500	49500

New Service command '*WIDE*' if 16:9 monitor is connected to VIDEO OUT

When a 16:9 format monitor was connected to the VIDEO OUT and monitor mode was set to "Full", 4:3 format images were stretched into 16:9 format display for all of the conventional modes. In Side By Side or Picture and Picture mode, a large amount of area above and below the image did not display anything. With this service command, the image reduces the amount of black area on the top and bottom of the display

- The launcher menu, full screen, camera menu, and other image displays are still stretched.
- When this mode is used, the terminal name display is displayed at the shifting position.
 - Please disable to terminal name display.



The background image can be changed, including the customized logo on the launcher screen

The logo and background image can be changed by using the following conditions:

- The logo file must be saved with the file name "minilogo.bmp"
- The background image must be saved as "wall.bmp".

The logo and background images can be changed by using the ftp to replace the existing files in the PCS-G70/G50 with user-created files.

The background image data is limited to Windows Bitmap (24-bit) format with 720 x 576 size.

The logo image data is limited to Windows Bitmap (24-bit) format and is positioned at the top left of the launcher screen.

To return to the factory default values after changing the background image once, log in to PCS via telnet and delete the files "wall.bmp" and "minilogo.bmp" in the directory "\FLASH\IMAGE".



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PCS-G70 & G50 Version 2.61 - Restrictions & Limitations

After inserting a 128 Mb Memory Stick, it takes approximately 10 seconds to be recognized by PCS and become ready for use (PCS-G70/G50)

Some Memory Sticks were not recognized properly, so recognition improvements were made in Ver. 2.50. As a result, recognizing a 128 Mb Memory Stick takes approximately 10 seconds. Writing and reading data can be performed properly.

When configured to automatically send Dual video upon starting a conference during H.239 Presentation mode, Dual video data cannot be sent but the icon for sending Dual video appears (PCS-G70 only)

In H.239 Presentation mode, Dual video cannot be sent automatically upon starting a conference, but an icon for sending Dual video appears. By stopping the transmission of Dual video, the icon disappears.

(Problem from Ver. 2.50)

The function of UPnP (PCS-G70/G50).

The router (NTT-West Web Caster 710) has been verified as compatible with the PCS-G70/G50 Ver2.2x software. But this router doesn't work on the Ver3.30. NAT setting is changed "Auto (UPnP)" to "On" when using this router on Ver2.3X.

(Problem since Ver2.30)

A broadcaster icon is displayed during the connection between two units (PCS-G70/G50).

Even when the terminal is connected to more than three points, and then one or more terminals exit the conference and the connection is reduced to two points, PCS is still internally functioning in the multi-point mode. For this reason, one of the two terminals becomes the broadcaster, and the broadcaster icon is displayed.

(Problem since Ver1.01)

A still image is received about 0.5 seconds later in some cases (PCS-G70/G50).

During Cascade connection, when a child terminal sends a still image, the child terminal of the remote party receives that image with a delay of about 0.5 seconds (about 1%).

(Problem since Ver2.00)

During a multipoint conference with IP connection, still images cannot always be sent correctly when the screen is set to split screen mode. (PCS-G70/G50)

When still images are sent in IP communication, switch to self broadcasting momentarily before sending the still images.

(Problem from Ver 2.50)



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PCS-G70 & G50 Version 2.63 – Fixes & Resolved Issues

In multi-point connections, when a terminal was fixed to the large area of a six-way split screen, the name was not displayed correctly on sub terminals when terminals left or entered the conference.

When using six-way split screen setting with a fixed terminal displayed in the largest area during a multi-point conference, whenever a terminal left or entered the conference and the terminal name display or information changed, that information was not always sent correctly from the MCU to all of the sub terminals. This problem has been corrected by ensuring that changes to the terminal name display and information is properly sent.

(Problem from Ver 1.0) [Corrected in Ver 2.63]

During SIP connection, there were cases where the model for the remote terminal could not be identified correctly. Even when connected to non-functioning terminals, holding, transferring, and presentation sending would be performed.

The remote terminal camera controls could not be performed even on terminals where the function was activated.

This problem has been corrected so that the model of the remote terminal can be identified correctly even if the remote terminal is a model other than PCS-G70/G50/PCS-1/PCS-TL33/30/PCS-TL50.

(Problem from Ver 2.0) [Corrected in Ver 2.63]

When the video mode was MPEG4 in SIP connection, the first connection after restarting the PCS unit was displayed as a black screen.

The screen was displayed as black for the first connection performed from a PCS after restarting (including turning the power on from standby mode) with SIP connection and MPEG4 set as the video mode. In this situation, the video mode could not be set properly. This problem has been corrected.

(Problem from Ver 2.0) [Corrected in Ver 2.63]

When an ISDN non-bonding connection formed between the remote terminal and MCU, the video data rate became lower.

When a remote terminal in an ISDN multi-point connection enters a conference in a non-bonding connection, the video data rate sometimes became less. This problem occurred because there was an error in the internal data rate calculation depending on the timing used for the connection. This problem has been corrected so that the data rate can be calculated correctly without relying on the timing.

(Problem from Ver 2.5) [Corrected in Ver 2.63]

Continuous Still image transfer issue with H264 codec

During video mode H.264, there was a problem where continuous still images could not be received.

This problem has been corrected

(Problem from Ver 2.62) [Corrected in Ver 2.63]



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PCS-G70 & G50 Version 2.61 – Fixes & Resolved Issues

When PCS was in an external control mode, camera's panning and tilting speed stayed slow regardless of the zoom position.

Normally, camera's panning and tilting begin to move at a slow speed and then move faster. The problem is as follows; When the PCS is in an external control mode, the panning and tilting speed stays slow. This may happen regardless of the zoom position with probability of about 50%. It restores once exits from the external control mode.
(Problem from Ver 2.6) [Corrected in Ver 2.61]

If QoS setting is in Hybrid mode or if FEC, ARQ, and ARC are all set to On, when a PC image is sent/received using the presentation function, some presentation data packets cannot be restored by the ARQ function (PCS-G70/G50)

When the QoS setting is in Hybrid mode, or when Hybrid is set to Off but FEC, ARQ and ARC are all set to On, the ARQ function that restores packets lost on the network by resending the packets does not working properly and thus some packets are not restored. A PC image sent by the presentation function may not be received or updated on a remote terminal depending on the network environment. To avoid this, set Hybrid to Off, FEC to Off, ARQ to On, and ARC to On.
(Problem from Ver 1.0) [Corrected in Ver 2.60]

PCS cannot be accessed correctly with Microsoft .NET Ver. 3 is installed on the computer.

If the header file in HTTP exceeds 256 bytes, the PCS Web server could not respond correctly. This problem has been corrected.
(Problem from Ver 1.0) [Corrected in Ver 2.60]

When the video mode is H.263 4CIF, there was a error in the video capture processing.

When the video mode was H.263 4CIF and the TV signal method was NTSC, the colour data for the first two lines were incorrect values and the image appeared green when capturing the video signal. This problem has been corrected by revising the capture method and the parameters.
(Problem from Ver 1.00) [Corrected in Ver 2.60]

When LAN cable was not connected, an error message appeared continuously.

When the LAN cable was not connected to the PCS unit, an error message sometimes stayed displayed on the launcher screen. This problem has been corrected.
(Problem from Ver 2.50) [Corrected in Ver 2.60]

The explanation for cascade in the instruction manual (for all languages other than Japanese) was incorrect.

There was an error in the instruction manual in all languages other than Japanese. This problem has been corrected.

(Incorrect) The remote parties must be using the PCS-1/1P, PCS-G50/G50P, PCS-G70/G70P, or PCS-TL50 Video Communication System.

(Correct) The host terminal on the remote side must be a PCS-1/1P, PCS-G50/G50P, PCS-G70/G70P, or PCS-TL50 as their main terminal.

(Problem from Ver 1.0) [Corrected in Ver 2.60]

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When sending presentation data using DSB, the lip sync between the camera image and audio sometimes became 1 or 2 seconds misaligned.

When presentation data, with its heavy movements, is used as the input image, the lip sync sometimes became 1 or 2 seconds misaligned. This problem has been corrected.

(Problem from Ver 2.40) [Corrected in Ver 2.60]

When the video mode is H.264 Interlaced SIF and IP communication is used, packet loss on the network caused terminal hang-ups

When LAN communication is conducted in the H.264 interlaced SIF video mode, PCS itself may hang as packet loss occurs. In this case, you have no other option to turn off the unit.

(Problem from Ver 1.0) [Corrected in Ver 2.60]

When connecting with an audio telephone after IP communication, the connection may become silent or noise may occur.

When connected with an audio telephone, there was an error in the initialization process for audio mode, so this problem only occurred after IP connection.

This problem occurred under the following conditions:

1. Turn on power to the PCS.
2. Call with the audio telephone.
3. Disconnect.
4. Start IP communication.
5. Disconnect.
6. Call with the audio telephone. ← Problem occurs

After ISDN communication, calls can be made correctly with the audio telephone.

(Problem from Ver 1.0) [Corrected in Ver 2.60]

When an audio telephone connection is used in an ISDN multipoint conference, the video mode is changed to H.261.

Audio telephone is detected as H.261 in receivable video mode, so the video mode used for the conference is changed to H.261.

(Problem from Ver 2.50) [Corrected in Ver 2.60]

In Thai menu, some vowel positions were improper. (PCS-G70/G50)

(Problem from Ver 2.3) [Corrected in Ver 2.60]

In Arabic menu, some information which should be displayed from the left to right were inversed.

Version number was found under machine information

Index name, IP address, telephone number were found under phone book.

(Problem from Ver 2.3) [Corrected in Ver 2.60]

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Details for connections with SNC

The following information explains the procedure for connections to a Sony Network Camera (SNC)

Preparation

1. To perform a multipoint connection the H.323 MCU option must be installed on the main unit.
2. Check the model type and software version for the Network Camera?
 - Always check whether the used Network Camera is supported.
3. Is the Network Camera being used for other applications?
 - If it is being used for other applications, first obtain confirmation from the system administrator who is managing the Network Camera as connecting to the PCS will automatically change the Network Camera settings, so it may adversely affect a system that is already in use.
4. Consult the administrator for information about how to connect to the Network Camera?
 - Communication mode with the Network Camera Example: UDP (Unicast)
 - User authorization to access the Network Camera Example: Full
 - User name to access the Network Camera Example: kondo
 - User password to access the Network Camera Example: *****
 - IP address for the Network Camera Example: xx.xx.xx.xx
 - HTTP port for the Network Camera Example: 80

Two levels of user authorization can be used to access the Network Camera, Administrator or User

Administrator authorization: The Network Camera settings are changed from the PCS settings.

User authorization: The Network Camera settings are not changed from the PCS settings.

PCS Settings

1. Turn on "Network Camera Connection" under "Network Camera" in "General Settings".

The menu for settings related to the connection with the Network Camera is displayed, and the Network Camera List can be used to connect to the Network Camera.

Under "Network Camera" in "General Settings", we recommend also setting parameters such as "Bit rate" and "Operation mode" to "Auto". Only change the settings from "Auto" when you want to connect to the Network Camera from the PCS by using limited advanced conditions.
2. Network Camera List Registration
Press the "Phone book" button from the launcher to display the Phone book menu. A new button appears on the right side. This is the Network Camera List button.
A total of 20 entries can be registered within the list.

The following shows an example of settings for adding an entry in the list. Select the first entry in the list and select "Edit":

- Recognition: On
- Communication mode: UDP (Unicast)
- Name: Camera001
- IP address: xx.xx.xx.xx
- User name: kondo
- Password: *****
- HTTP port No: 80 (Set this to the same value used for the Network Camera setting).

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Note: When limiting the access to a Network Camera, do not register the password in the Network Camera List. If the password is not registered, the password will be requested every time the Network Camera is connected from the list. By setting an administrator password, browsing the Network Camera List itself can be limited.

Connections

1. For MCU calls with PCS terminals and SNC cameras use the standard phone book to connect the PCS units and the Network camera phone book to connect to a SNC camera
2. After making the first connection, add another SNC connection by selecting the second entry from the Network Camera List under Phone book

Note: Transmission to the Network Camera can only be performed on one unit at a time. Signals cannot be transmitted to multiple cameras at the same time. Connections to Network Cameras are not recorded in the history. Also, the connections are not recorded in the communication log that can be browsed by Web.

Main errors and countermeasures

When the connection cannot be performed correctly, check the Network Camera or PCS settings according to the error messages.

If connecting from PCS with USER restrictions:

SNC mode is set to JPEG then connections cannot be performed

- Change SNC codec to either H264 or MPEG

SNC mode is set to VGA then connections cannot be performed

- Change SNC image size to QVGA or QQVGA.

SNC port number different to PCS then connections cannot be performed

- Change the Network Camera port number

SNC mode is set to dual codec mode, connections cannot be performed

- Change SNC to single codec and the operation mode to H.264 or MPEG4.

Miscellaneous

After connecting the Network Camera and adding a new child terminal, the Network Camera switches to a Voice Only terminal. This happens because a request is issued from the PCS side to lower the communication bit rate, but the communication bit rate for the Network Camera cannot be changed for the request. In this situation, lower the bit rate for the Network Camera and try reconnecting. The problem can also be solved by the other terminals withdrawing from the conference.



Videoconferencing

Details for the Tracking camera improvements

The following information explains the PCSA-CHG70 tracking camera improvements

The voice tracking mode for the tracking camera improved

The sound detection accuracy when using voice tracking mode has been improved by adding judgment for environmental sounds, such as noise. Also, when sounds are detected near the area recognized as a person's face, the camera is smoothly and directly pointed toward the speaker. Furthermore, when sending or receiving sound effects, or when MIC is turned off, audio detection is not performed.

The following functions have also been added to service functions:

CTGHP1 to 14 When audio detection cannot be performed for a period of time, it returns to the preset#
CTGMDV, CTGMDP & CTGMDN The settings for tracking mode are saved if power is turned on or off.
CTGSTPP The camera can only move to preset position closest to the audio detection location.

Voice tracking mode correction for the tracking camera

The following points have been improved for the function that estimates the acoustic source.

- Errors where the direction was greatly off or pointed towards a wall
- Errors where the function did not work well under noisy environments, for detecting female voices, or in other similar situations
- Error where the function ceased to operate when there was a large amount of noise in the connected terminal during a point-to-point connection.

The following points have been improved for the function that controls the camera.

- Point the camera to the speaker in one step
If the acoustic source comes from near an area where a face has been detected, the camera directly moves towards the previously recognized face. In the conventional method, two steps were required as the camera first turned to the direction of the voice, and then to the direction of the face. Compared to these operations, the one step operation is faster and smoother.
Furthermore, every time the camera moves in the direction of the detected face, it automatically points to the correct height, so it is much less likely that the camera will remain pointed up or down.
- Improved the auto-zoom function
If a face cannot be found in the direction of the acoustic source, the camera automatically zoomed out, but often it zoomed too far, so this function has been disabled.
- Function to return to the home position (Service command)
If a voice is not detected for a certain amount of time (amount can be set), the camera returns to the home position (preset #2).

Preset position speaker tracking mode (Service command)

In this mode, the camera only moves to the preset position that is closest to the area where the audio is detected. Enable this function when the automatic fine-tuning for camera direction and zoom becomes a concern. The preset positions must be registered before using this function.

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Service commands related for PCSA-CTG70

Return home position time (new)

ctghp If voice is not detected from the direction of the camera for this set time, the camera returns to home set position (preset #2). The range is 0 (off) or 1 to 14 (The time to return to the home position which is calculated at set value x 1.5 seconds)

Note

1. After downloading an image, the presets must be reset.
2. This must be set longer than the hold time (**ctght**) setting.
3. The default is 0 (off).

Default speaker tracking mode (new)

ctgmdv This is the default setting for speaker tracking mode immediately after starting up

Default presenter mode (new)

ctgmdp This is the default setting for presenter mode immediately after starting up

Default next face centering mode (new)

ctgmdn This is the default setting for next face centering mode immediately after starting up

Speaker tracking preset position (new)

ctgstpp This mode causes the camera to only point to a preset position when speaker tracking mode is selected

Hold time

ctght* After the camera has panned (tilted) towards a voice, it does not react again to voice for this set amount of time. The setting range is 1 to E (The time to return to the home position which is calculated at set value x 1.5 seconds)

* However, if a face is not detected, then the time is x 0.5 (seconds).

* When speaker tracking preset position is enabled, then time is x1.5 sec even if a face is not detected.

* The default is 8 (12 seconds).



Videoconferencing

Software Revision History

Version	Date	Major features
Ver 1.01	Oct 19, 2004	First Release
Ver 1.02	Nov 1, 2004	Fixed Bugs <ul style="list-style-type: none">• When video mode is set to Auto in Communication Setup Menu, other video settings are not active• Audio/video problem can occur in cascade H.320 of conventional point-to-point conferencing• There can be a case that the input selection at the far-end terminal does not work• Connection problem when PCS-1/1P or PCS-TL50 becomes MCU and PCS-G70/G70P is connected• In the network environment with around 5% packet loss ratio, the reboot of the system can happen• Lip synchronization function does not work properly when the bit rate is more than 3Mbps• There is a case that Dual Video does not work properly when the bit rate is high in LAN or ISDN connection.
Ver 1.20	Feb 1, 2005	New Features <ul style="list-style-type: none">• Tracking camera (PCSA-CTG70) supported• Echo cancelling microphone (PCSA-A7P4) supported• IPELA design supported Fixed Bugs <ul style="list-style-type: none">• In a multipoint conference, when you send a still image from an MCU and then cancel it, it is necessary to set the Broadcast mode over again.• During a single monitor setup, whiteboard data cannot be saved to a Memory Stick.• If DSB data is received while the menu is being displayed, subsequent screen operations cannot be carried out properly.• In a multipoint conference, if you switch from the V.A mode to the Split mode, the screen blacks out for a moment at regular intervals.• When a prefix is set to multipoint simultaneous transmission, the prefix is not added to the second point and later.• In a six-point conference including the MCU, frame skip problems occur in the video output of the five monitors.• The function to start Dual Video immediately after a conference begins cannot be used.• In multipoint conference connection, the icon that indicates the Voice Active mode is not displayed properly.• There was a case that the PCS system did not start up normally in the former version.
Ver02.00	Apr 28, 2005	New Functions <ul style="list-style-type: none">• Streaming is supported.(PCS-G70)• Recording using Memory Stick is supported.• SIP is supported. Improved Functions <ul style="list-style-type: none">• Performance of the H.263 4CIF is improved• The Dual Video is supported in the multipoint video conference configuration(PCS-G70)• Multiple languages (all of the languages that are supported by the PCS-1 Ver3.0 are also supported)• The optimal main video codec mode is automatically selected when sending the Dual Video/DSB.• UI (User Interface) is improved in the same manner as the PCS-1 Ver3.0• The QoS dynamic data rate control (ARC) function applies to the DSB/Dual Video data.• The H.239 status information (PRESET'N (Presentation function) and the DUAL (Dual Video function)) are added to the communication status.• Size of the characters indicating the geographic names on the 5-monitor Out are enlarged.• The number of input sources (AUX2 and sub camera) for input video selection is increased to be sent to the far-end party.• Saving/reading of the setup data is enabled from the Administrator menu.• SNMP is expanded (Equivalent to the PCS-1Ver3.0)• Transition of screens when receiving the presentation data is changed.• When changing the background image, a background image can be selected from the 4 patterns.• Graphic design of icons indicating history of outgoings and incomings is changed.

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		<ul style="list-style-type: none"> When only a single child terminal is used in the multipoint video conference, the full screen display will be displayed even when the Split screen setup is selected. Only when the PRI is used in the ISDN connection, On/Off setup of the CRC4 is enabled. The setups regarding sending are fixed to the specific value on the screen of sending the Web I/F that is different from the setups of the main unit. These setups regarding sending on the screen of sending the Web I/F are changed so that they are matched with the UI setup of the PCS (such as LINE I/F, number of lines, etc.) <p>Fixed Bugs</p> <ul style="list-style-type: none"> When a child terminal receives an incoming call from other terminal in the cascaded connection (or when a child terminal performs a send operation to other terminal), the connection between the terminal that has performed outgoing/incoming call and the MCU machine is disconnected. Unless the connection is established under the IP environment, the send operation from the incoming history using the ISDN connection cannot be made normally. In the multipoint video conference, the screen switching could not be implemented normally such as the case that the video signal of the remote party was not displayed normally on the child screen of PinP when the screen switching operation such as switching between Split screen and Broadcaster screen was made after the switching between the remote party screen and the local screen had been made earlier using the screen switching function from the MCU machine. When length of the data regarding the charge information (AOC) is too long under the ISDN connection environment, the normal processing cannot be executed and the connection cannot be established. There was a case in France that the ISDN (PRI) connection cannot be established. The "blur" phenomenon appears partly on the screen during the DSB send/receive process under the ISDN connection environment. When the Japanese kanji character "輸" is entered as a name in the Address Book, the PCS shows another Japanese kanji character "譽". There was a case in the PPPoE setup of the Web control that the set password was displayed as it is on the screen. The presentation data cannot be received normally when using H.239 from the Polycom under the environment that the Polycom VSX is connected using the ISDN. The abnormal characters such as <1> and <3> are displayed in the message that appears when a new terminal has joined the video conference under the environment of multipoint video conference. When the RAS message has not reached to GateKeeper due to network trouble, the subsequent connections cannot be established normally. There was a case in the MCU machine under the environment of multipoint video conference that the child screen was not displayed normally. The video signal of the AUX1 and AUX2 becomes all black during Power On. When a Memory Stick that is not formatted yet by the PCS is inserted and removed, the removed status can no longer be sensed. The input selection of the sub systems (such as sub camera, AUX2 and IR2) of the local and remote party cannot be executed during receiving the Dual Video signal. When the screens of Far/Near are switched to show the local screen, and then the operations such as specifying the Broadcaster or switching of the Broadcast modes are executed, the local screen can no longer be displayed in the multipoint video conference. The indicators do not show the correct data when receiving the Dual Video signal.
Ver02.01 (PCS-G50 Only)	July 15, 2005	<p>Fixed Bugs</p> <ul style="list-style-type: none"> The presentation data can not be transmitted/received. The presentation data can not be transmitted/received any more since PCS-G50 or G70 transmitted the presentation data once to a remote party and then stopped. This trouble will occur only when PCS-G50 is peer-to-peer connected to PCS-G70 via IP. With the other conditions, trouble as above does not occur definitely.



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Ver02.10	Sep 24,20 05	<p>New Functions</p> <ul style="list-style-type: none">• Standard encryption support (for both PCS-G70/G50)• Presenter mode for the tracking camera (PCSA-CTG70) support (only for PCS-G70)• PRI support (only for PCS-G50)• Streaming support (only for PCS-G50)• UPnP support (for both PCS-G70/G50)• ToS (Can be set by data type) (for both PCS-G70/G50)• User's terminal information display on launcher (for both PCS-G70/G50) <p>Improved Functions</p> <ul style="list-style-type: none">• Camera can be fine-tuned (for both PCS-G70/G50)• The performance of transmitting presentation data by DSB is improved (same for PCS-G70/G50).• The performance of the Video mode (H.263 4CIF) is improved (same for PCS-G70/G50).• Web improvement (for both PCS-G70/G50)• UI improvement (for both PCS-G70/G50)• MIC/AUX-IN is muted when the DTMF tone transmission window is displayed (for both PCS-G70/G50)• Any key other than the PowerOn button returns the unit from standby (for both PCS-G70/G50)• Bit rate for the automatic route control (ARC) Video no longer becomes 0 (for both PCS-G70/G50)• Holding down the Far/Near keys allows the camera control target for the other party to be switched to direct (for both PCS-G70/G50)• Whether or not the model and version match is checked when loading the setting file (same for PCS-G70/G50).• Enabling or disabling connection-related settings (same for PCS-G70/G50) <p>Added Service Commands</p> <ul style="list-style-type: none">• PKS * * * * (for both PCS-G70/G50)• TCB (PCS-G70 only)• SIP expanded functions (for both PCS-G70/G50) <p>Problems fixed in Ver1.20 Ver2.10</p> <ul style="list-style-type: none">• Sub address does not function properly (same for PCS-G70/G50).• A Wizard is launched if IP setting is not performed (same for PCS-G70/G50).• ISDN multi-point transmission cannot be performed with only H.320MCU option installed (same for PCS-G70/G50).• Multi-point transmission from Web I/F fails (same for PCS-G70/G50).• During Cascade connection, the point name is displayed as in some cases (same for PCS-G70/G50).• Input cannot be switched properly from Web I/F in some cases (PCS-G50 only).• Still images cannot be sent correctly in some cases (same for PCS-G70/G50).• When the video input is set to IR1, the video of IR1 is not displayed correctly after restart (same for PCS-G70/G50).• When the Video mode is PAL, if the number of the monitor is set to 1 and its output setting to DSB RGB, the launcher is not displayed correctly when the power is turned on (same for PCS-G70/G50).• When restored from standby, the camera does not return to the position before standby (PCS-G70 only).• When the sub camera is connected, the Web Monitor of Web I/F cannot be displayed correctly (same for PCS-G70/G50). <p>Problems in Ver2.10</p> <ul style="list-style-type: none">• A broadcaster icon is displayed during the connection between two units (same for PCS-G70/G50).• A still image is received about 0.5 seconds later in some cases (same for PCS-G70/G50).• When the split screen is displayed during Multi-point connection, operation to switch between the remote party and the user's own terminal can be performed from Web I/F (same for PCS-G70/G50).• In the Multi-point conference using PRI, some points cannot send or receive video correctly (same for PCS-G70/G50).• During ISDN point-to-point connection, presentation data cannot be sent properly by DSB in some cases while both terminals are sending Dual Video (PCS-G70 only).
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Ver2.20		<p>New Functions</p> <ul style="list-style-type: none"> • Standard encryption support (for both PCS-G70/G50) <p>Improved Functions</p> <ul style="list-style-type: none"> • Improvement of Sound Quality for PCSA-A7P4 (for both PCS-G70/PCS-G50) • Revision of communication mode settings (4CIF, Interlace) and priority order for video codec mode (for both PCS-G70/PCS-G50) • H.239 abilities of presentation and dual video can each be set On/Off individually (PCS-G70 only) • Web improvement (for both PCS-G70/G50) <p>Problems fixed in Ver2.20</p> <ul style="list-style-type: none"> • Immediately after making IP connection (approx. 30 sec), the video and audio were unsynchronized. • When the split screen is displayed during Multi-point connection, operation to switch between the remote party and the user's own terminal can be performed from Web I/F (same for PCS-G70/G50). • During ISDN point-to-point connection, presentation data cannot be sent properly by DSB in some cases while both terminals are sending Dual Video (PCS-G70 only). • When the unique Sony encryption was set, the signal was unencrypted over an ISDN connection but PCS did not correctly send and receive presentations through DSB (for both PCS-G70/PCS-G50) • When sending dual video, drop frames sometimes occurred in the main video (PCS-G70 only) • During SIP connection, the ringback tone did not sound correctly on the outgoing transmission terminal (for both PCS-G70/PCS-G50) • Service command PKS**** did not function correctly (for both PCS-G70/G50) <p>Problems in Ver2.20</p> <ul style="list-style-type: none"> • A broadcaster icon is displayed during the connection between two units (same for PCS-G70/G50). • A still image is received about 0.5 seconds later in some cases (same for PCS-G70/G50). • In the Multi-point conference using PRI, some points cannot send or receive video correctly (same for PCS-G70/G50).
Ver2.21		<p>The PCS couldn't send the Audio and video data over 330 times connection without power off.</p>
Ver2.22		<p>Problems fixed in Ver2.22</p> <ul style="list-style-type: none"> • Did not enter the IP address normally with a PCS in which PCSA-M3G70/M3G50 only was installed. (for both PCS-G70/G50) • During IP connection at 1024 kbps or below, sound was not synchronized with motion. (for both PCS-G70/G50) • Character display position "H.239" in "Communication" setup menu was displaced to the right, when it was being changed using the web control function. (only for PCS-G50) • Improper error message appeared when an unplugged endpoint was called. (for both PCS-G70/G50) • Improper error message appeared when an unplugged endpoint or nonexistent endpoint
Ver2.23		<p>Problems fixed in Ver2.23</p> <ul style="list-style-type: none"> • Digital zoom mode doesn't work. (for both PCS-1/11)
Ver2.24		<p>Problems fixed in Ver2.24</p> <ul style="list-style-type: none"> • When sending the presentation data over a low bit rate IP connection, the data transmission rate temporarily became faster and the other terminal was sometimes unable to receive the data correctly due to this burst in speed. (The smoothing process did not function properly when transmitting presentation data at a low bit rate.) (PCS-G70/G50) • The transmission bitrates of the image fell down to 0 occasionally by the fact that the delay is large and under a bad network conditions. (PCS-G70/G50) • The machine of a certain Mac Address did not operate correctly occasionally. It overlaps with the port that the port number used by an internal process communication uses to communicate with the outside. (PCS-G70/G50) • The message of "boot sum changed" is not displayed.(PCS-G70/G50) • Receiving the fast update request from the remote terminal, there was some cases where encoding Process in intra mode did not work normally.

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Ver2.30	<p>New Functions</p> <ul style="list-style-type: none"> • The new remote commander “PCSA-RG1” is supported. • Thai language support. • The receiving a data of dual video function is supported on the PCS-G50. (Only PCS-G50) • The disk on chip device is supported. <p>Improved Functions</p> <ul style="list-style-type: none"> • The quality of echo canceller is improved. • A name of signal encryption method is changed. • A name of NAT mode is changed. • The digital zoom function of camera unit is changed the setting on GUI. • The service command is supported in the speaker tracking mode on the tracking camera(PCSA-CTG70) • The name of video mode “H.263 Interlaced SIF” on the communication status is changed. • When a dial number is judged not to be an IP address, access to the DNS. If “@” is included in a dial number column, access to the GateKeeper (PCS send the ARQ (AdmissionReQuest) to the GateKeeper and receive the ACF (AdmissionConFirm) from the GateKeeper). <p>Problems fixed in Ver2.30</p> <ul style="list-style-type: none"> • On the MCU conference, the name of sites is not displayed in the six-split window mode. • The 2 nd camera is not controlled. (Only PCS-G70) • When a conference was connected through an IP connection for a long period of time, the connection sometimes severed under certain environments. • A problem occurred where presentation data was not sent correctly by H.239 during a connection to a Tandberg MPS. • A problem occurred where the GateKeeper registration did not match and the PCS could not be connected to GateKeeper correctly. • The Setting data is lost, if the mechanical power switch is off when go to the standby mode • When router and PCS that PPPoE worked were connected to the same Hub, PPPoE does not work. • In the Multi-point conference using PRI, some points cannot send or receive video correctly.
Ver2.31	<p>In PCS-G70/G50 Ver 2.30, some users could not upgrade correctly with the Memory Stick. When upgrading with the Memory Stick (or when downgrading from the service menu), the unit kept rebooting repeatedly. When this situation occurred, the application would load correctly if the Memory Stick was removed from the unit, but the application program would not be updated. This problem did not cause any permanent problems with the equipment. The unit operated correctly with the previous version.</p> <p>If this problem occurred, the user could upgrade correctly using the ftp tool. This problem has been corrected in PCS-G70/G50 Ver 2.31.</p>
Ver2.31P01	<p>In Ver 2.30, the echo canceller function was improved, but the function did not work correctly under certain environments or operating conditions. (Symptoms of the problem)</p> <ul style="list-style-type: none"> • During a conference call, the sound coming from the other party gets louder and softer in waves. • The volume deteriorates until it cannot be heard. • The sound becomes inaudible for a few seconds, but then becomes audible again. <p>Therefore, only the echo canceller function in Ver 2.31 P01 has been returned to the same version as used in Ver 2.2X. Use this version if you experienced the problems noted above with Ver 2.30/Ver 2.31.</p>
Ver2.40	<p>New Functions</p> <ul style="list-style-type: none"> • Support for video mode H.263 4CIF during a multi-point conference. (PCS-G70/G50) • Support for SNTP • Support AMX Duet device discovery • New echo canceller algorithm • Support IPELA VC Link service (Service available to JAPAN only) <p>Problems fixed in Ver2.40</p> <ul style="list-style-type: none"> • When changing the NAT settings, the PCS would reboot • The Whiteboard could not always be recognized correctly • When PCS-G50/G70 was the MCU in a multi-point connection, if the audio mode changes • The video from the MCU would sometimes be delayed during an ISDN multi-point conference • When using an ISDN unit, the number of lines to use for ISDN could not be set correctly via Web

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		<ul style="list-style-type: none"> • MCU mode if the "display" key was pressed via child terminal the camera would become inoperable • Garbled address registry history display • Video input name display position not correct. (PCS-G50 only) • H.239 Dual configuration settings lost. (PCS-G50 only)
Ver2.41		<p>New Functions</p> <ul style="list-style-type: none"> • The new service command "NOPT61" is supported <p>Improved Functions</p> <ul style="list-style-type: none"> • Improved the picture quality of H.263 4CIF mode
Ver2.42		<p>New Functions</p> <ul style="list-style-type: none"> • The LED device on the front has changed in PCS-G70/PCS-G50
Ver2.43		<p>New Functions</p> <ul style="list-style-type: none"> • A hardware change of PCS-G70/G50 was introduced in May 2007. PCS application software has to be changed for the checking hardware block. This hardware change has no limitation of all functions. • PCS-G70/G50 Ver2.43 is supporting both current hardware and new hardware. <p>Problems fixed in Ver2.40</p> <ul style="list-style-type: none"> • In 6 mosaic mode (Video mode is H.263 4CIF), an image sometimes has a noise for an instant when speaker is changed.(PCS-G70/G50). • There may be no "connect complete" message when the connection is established by an external command via telnet.(PCS-G70/G50) • The terminal name is not displayed correctly when any participated terminal disconnects or an additional participates terminal in the multipoint conference. (PCS-G70/G50) • A user accesses a PCS (of which status is standby) via ftp, the user cannot wake up the PCS. (PCS-G70/G50) • PCS-G70/G50 may reboot, if it is connected to the SIP Phone (PCS-G70/G50) • Some terminals cannot receive and send the video in the multipoint conference (where video mode is H.263 4CIF) (PCS-G70/G50)
Ver2.50		<p>New Functions</p> <ul style="list-style-type: none"> • Added compatibility over NAT/firewall (H.460) (PCS-G70/G50) • Added Shared Phone Book function (PCS-G70/G50) • Added Side by side and Picture and picture modes to the display mode (PCS-G70/G50) <p>Improved Functions</p> <ul style="list-style-type: none"> • Improved the error status relating to the IP network in the launcher display(PCS-G70/G50) • Improved the communication status display during IP connection(PCS-G70/G50) • Added support for Dual video function based on the H.239 Presentation standard in an IP connection to increase compatibility with other manufacturers' terminals (PCS-G70/G50) • In a multipoint conference, a speaker can be displayed on sub-monitors using MCU (PCS-G70/G50) • Added detail for explanatory codes when a conference ends (is disconnected) (PCS-G70/G50) • Improved FTP upgrade software (PCS-G70/G50) • While receiving presentation data, the remote image can be displayed in the picture window by using PinP (PCS-G70/G50) • When one entry is highlighted on the phone book menu, the name now appears on the bottom of the screen (PCS-G70/G50) • In communication status, the video codec mode display "H.263 4CIF" is divided into "H.263 4CIF" and "H.263 4SIF" (PCS-G70/G50) • With BRC-300, the camera has an internal delay, and a service command now allows a sound delay to be encoded in PCS (PCS-G70/G50) • Added a command to start/stop sending Dual video to the external control commands (PCS-G70 only) • A command to check the point ID and name of remote terminals in connection is added to the external control commands (PCS-G70/G50) • Added UPnP router compliance(PCS-G70/G50) • Added limits to text input in Web I/F(PCS-G70/G50) <p>Problems fixed in Ver 2.50</p> <ul style="list-style-type: none"> • When using Microsoft IE7, some settings cannot be configured properly from the PCS Web interface (PCS-G70/G50) • Another error message was displayed over the message for upgrading the peripheral devices (PCS-G70/G50)

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	<ul style="list-style-type: none"> • Repeating SIP transfer operations restarted the terminal performing the transfer (PCS-G70/G50) • When a call made from the history was immediately cancelled, the screen display was distorted (PCS-G70/G50) • When SNTP was enabled, errors were output to the system log even on standby (PCS-G70/G50) • Line type for direct dial on the launcher screen did not become Auto after start-up by turning the power on (PCS-G70/G50) • When using H.264 Interlaced SIF, video may have become washed out on images with noise or fast movement after regular intra frames (PCS-G70/G50) • When using an ISDN line connected to a PBX (switching system) for a long time, making/receiving a call could not be performed properly (PCS-G70/G50) • Information about the connected conference was not recorded properly in the call log (PCS-G70/G50) • H.323 alias/E.164 number did not appear on the launcher screen after turning the power on (PCS-G70/G50) • If a PC image was sent or if transmission was stopped using the presentation function while receiving Dual video, the screen did not return to the Dual video reception screen (PCS-G70/G50) <p>Problems in Ver. 2.50</p> <ul style="list-style-type: none"> • If QoS setting is in Hybrid mode or if FEC, ARQ, and ARC are all set to On, when a PC image is sent/received using the presentation function, some presentation data packets cannot be restored by the ARQ function (PCS-G70/G50) • When configured to automatically send Dual video upon starting a conference during H.239 Presentation mode, Dual video data cannot be sent but the icon for sending Dual video appears (PCS-G70 only) • The function of UPnP (same for PCS-G70/G50). • A broadcaster icon is displayed during the connection between two units (same for PCS-G70/G50). • A still image is received about 0.5 seconds later in some cases (same for PCS-G70/G50).
Ver2.51	<p>Fixed Problems in Ver 2.51</p> <ul style="list-style-type: none"> • During a multipoint conference using both ISDN and IP connection, when a child terminal with IP connection sent PC images via DSB, the PC images were not received correctly on the child terminals with ISDN connection. • When the phone book had at least 32 entries with images attached, entries could not be copied or all deleted at once.
Ver2.63	<p>Fixed Problems in Ver 2.63</p> <ul style="list-style-type: none"> • Terminal name display issue with six split mcu • Mpeg4 video after SIP connection resulted in black screen • Corrected terminal type within SIP connection • Video rate became less in non bonded ISDN MCU calls • Fixed still image transfer problem when H264 is used