TOA
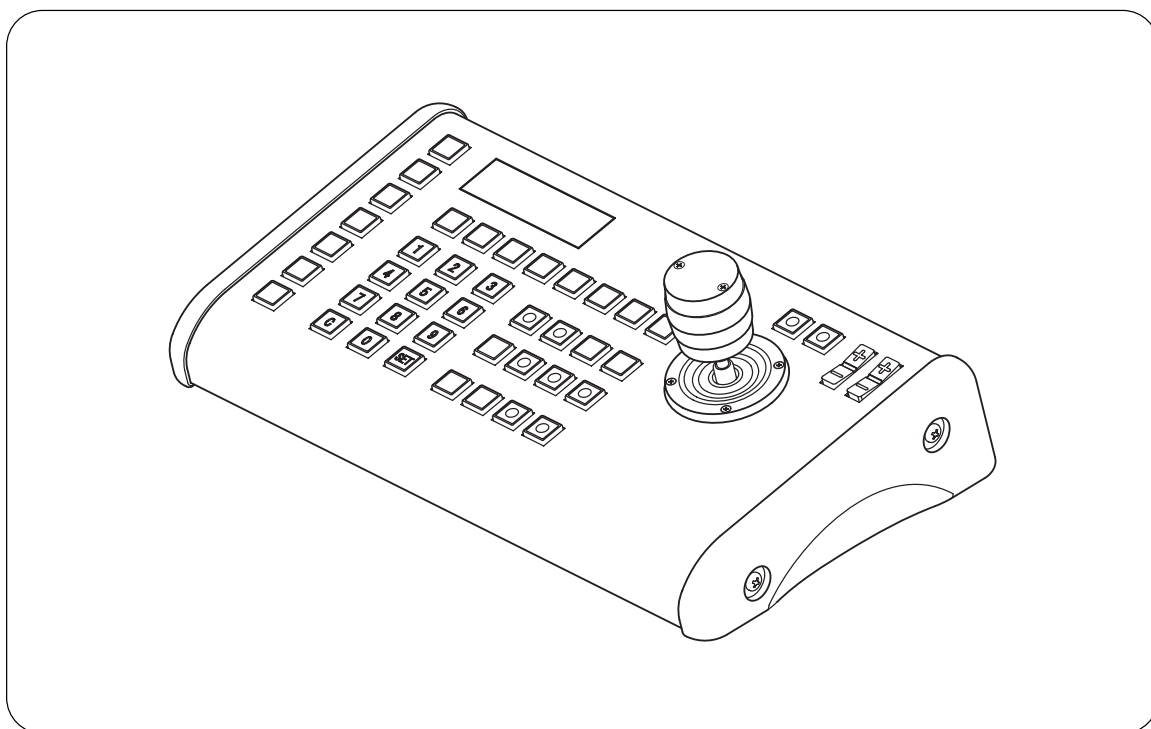
REMOTE CONTROLLER C-RM700

Thank you for purchasing TOA's Remote Controller. Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

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1. SAFETY PRECAUTIONS

· Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
· Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
· We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ **WARNING**	Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

⚠ **WARNING**	Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.

· This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

· Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.

· Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.

· Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.

· Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.

· If you detect smoke or a strange smell coming from the unit.
· If water or any metallic object gets into the unit.
· If the unit falls, or the unit case breaks.
· If the power supply cord is damaged (exposure of the core, disconnection, etc.)
· If it is malfunctioning (no tone sounds.)
· If it is malfunctioning (no image appears.)

· To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to qualified service personnel.

· Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.

· Do not touch a power supply plug or a coaxial cable during thunder and lightning, as this may result in electric shock.

CU version complies with Part 15 of the FCC Rules.

2. GENERAL DESCRIPTION

The TOA C-RM700 Remote Controller is used to remotely control TOA Combination cameras over communication lines (RS-485). It can remotely control up to 16 camera image switching and cameras in combination with TOA Multi-Switcher. Also, it is equipped with a 3-axis joystick that permits main operation to be performed with one hand.

3. FUNCTIONS

· Display Selection Function

The following screen formats can be selected for display of camera images connected to the Multi-Switcher: full screen, 4-segment, sequential 4-segment, 9-segment, 10-segment or 16-segment split-screen and sequential full-screen.

· Manual Operation Function

Controls the Combination camera's zoom, focus, pan and tilt functions.

· Preset Position Playback function

Controls the Combination camera's orientation, and displays the camera image on the monitor in the selected orientation.

· Function Key Programming

Camera numbers or camera number/position combination numbers can be programmed into the function keys (F1 – F8).
Pressing the function key (F1 – F8) displays the camera image on the full screen. If position numbers have been set, images of the selected camera orientation can be displayed.

· Abbreviated Number Function (Quick Display Function)

Permits camera numbers or camera number/position combination numbers to be programmed for numbers 1 – 520 depending on settings.
Entering the programmed number with the numeric key pad followed by the SET key displays the camera images through the camera corresponding the camera number on the full screen, and the image of selected camera orientation if the position number has been set.

· Alarm Function

Controls the display screen in synchronization with alarm signals input to the surveillance camera system to which the unit is connected.
When an alarm signal is detected, the image of the corresponding camera takes display precedence. The C-RM700 also features an Alarm Hold function that temporarily disables channel (camera number) switching in response to an alarm signal.
This Alarm Hold function prevents the currently displayed screen from being forcibly switched to an alarm-called screen by an alarm input during alarm hold. (when the Multi-Switcher is connected)

· Camera Protocol

It is equipped with TOA Type A,and TOA Type B which can control TOA Combination Cameras.

4. CONNECTABLE EQUIPMENT AND THEIR MAXIMUM NUMBERS

4.1. About Controllable Equipment by the C-RM700

Shown below are equipment that can be controlled by the C-RM700.

Camera
[Communication method: Type A]: C-CC504, and C-CC554
[Communication method: Type A/B]: C-CC514, C-CC564, C-CC574, C-CC704, C-CC714, C-CC764, and C-CC774
Up to 16 each of camera can be connected to the camera control terminals and controlled.)

Switcher: C-MS91D, C-MS91S, C-MS161D, and C-MS161S
Only one switcher can be connected for remote camera control.

4.2. About the Camera Control Terminal

The Camera control terminal is used to connect the Combination Camera or the C-IF500 Interface Unit. Up to 16 cameras can be connected to this terminal.
After connection completion of all cameras, turn on the power of cameras and the C-RM700, and initialize the cameras. Then be sure to perform camera check after the camera's initialization operation has been completed. (Refer to p. 31, "Camera Check.")

About the Descriptions in This Manual

- The explanations in this manual assume that the C-RM700 Remote Controller (this unit) is connected to a C-MS161D/S or C-MS91D/S Multi-Switcher.
- Camera number: Refers to the camera input terminal number connected to the switcher.
- Position number: Combination camera orientation can be programmed for No. 1–255.

5. NOMENCLATURE AND FUNCTIONS

[Top]
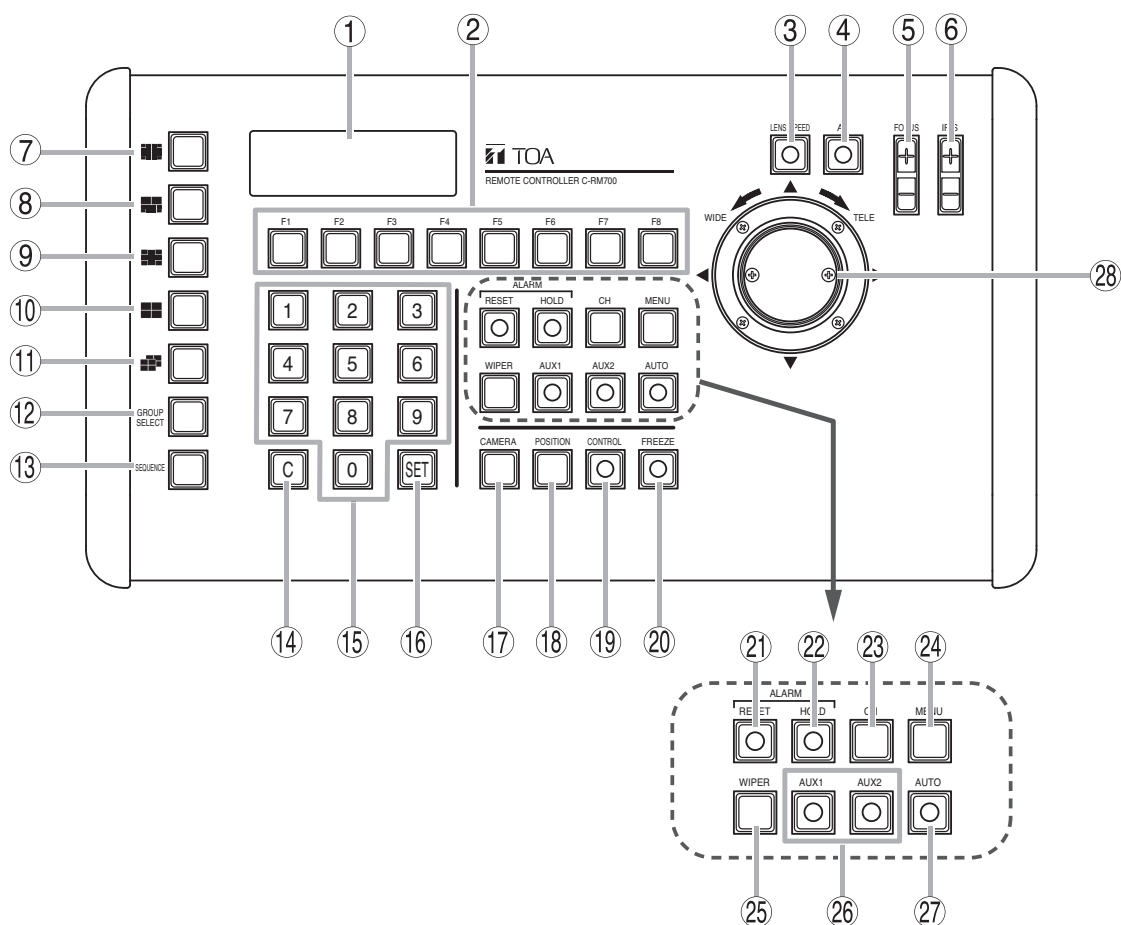
Notes

Depending on the system configuration, the operation of some keys may be disabled. The corresponding keys are marked with the following indications.

[*1] Functions only when the multi-switcher is connected to this unit.

[*2] Functions only when the Combination camera is connected to this unit.

① **LCD screen**

Displays character information for the setting menu, numeric keypad input status, current operation, etc.

② **Function keys [F1 – F8]**

A single depression of one of these keys displays the full-screen image of the key's corresponding preset camera number and position number.

Each key can also be set to activate automatic operations (panning, tracing, preset sequence, and tour) of the selected Combination camera.

③ **Lens speed key** [*2]

Adjusts the speed of lens operation when the Zoom or Focus key is pressed.

The focus moves slowly while the key lights. Used to fine adjust the focus.

④ **Auto-focus key** [*2]

Enables the Combination camera's Auto-focus function. This key can only be used when the Control key is lighting.

⑤ **Focus key** [*2]

Sets the Combination camera's zoom lens for "FAR" or "NEAR" operation. The Focus key can only be used when the Control key is lighting.

⑥ **Iris key**

Adjust the camera's iris level.

Note
This key cannot be used for the camera with a type A communication method.

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⑦ **16-segment split-screen key** *1

Displays camera images in the 16-segment split screen format on the monitor.

⑧ **10-segment split-screen key** *1

Displays camera images in the 10-segment split screen format on the monitor. Each depression of this key during the 10-segment split screen display switches the screen between Group 1 image display and Group 2 image display.

⑨ **9-segment split-screen key** *1

Displays camera images in the 9-segment split screen format on the monitor. Each depression of this key during the 9-segment split screen display switches the screen between Group 1 image display and Group 2 image display.

⑩ **4-segment split-screen key** *1

Displays camera images in the 4-segment split screen format. Each depression of this key during the 4-segment split screen display cycles through screens showing images of Groups 1 to 4.

⑪ **Sequential 4-segment split-screen key** *1

Sequentially cycles through all connected camera outputs of up to 4 groups of cameras at a preset time interval, and displays camera images in the 4-segment split screen format on the monitor. (Sequencing interval is set at the Switcher.)

⑫ **Group selector key** *1

Switches on-screen camera groups during 4-, 9- or 10-segment split-screen display on the monitor.

⑬ **Sequence key** *1

Sequences all connected camera outputs to the full screen at the specified time interval. (Sequencing interval is set at the Switcher.)

⑭ **Clear key [C]**

Used to correct entry errors through numeric keypad. Also, turns off the buzzer when sounded by an activated alarm.

⑮ **Numeric keypad [0 – 9]**

Used to enter the camera number, position number, abbreviated number, etc.

⑯ **SET key**

Used in conjunction with the numeric keypad to program the camera number or position number. Also, if pressed after entering the set abbreviated number with the numeric key, the full-screen camera image corresponding to that number can be displayed on the monitor.

⑰ **Camera key**

Displays the full-screen camera image corresponding to the specified camera number. This key does not function even if pressed without entering the camera number.

⑱ **Position key**

Orients the Combination camera toward the set direction. The Position key can only be used when the Control key is lighting. Pressing the Position key without designating the position number orients the camera toward the direction programmed under Position No. 1 (Home position).

⑲ **Control key**

Used to designate the camera to be manually controlled during a multi-screen display. This key cannot be used during a full-screen or sequential display. Also, nothing is operated even if this key is pressed without designating the channel number. The key lights when the camera is controllable.

⑳ **Freeze screen key** *1

Freezes camera images. However, sequential displays cannot be made still. The key flashes when there is a freeze image on the screen.

㉑ **Alarm reset key**

Resets the system's Alarm mode. The key flashes during Alarm operation.

㉒ **Alarm hold key**

Places activated Alarm inputs on hold. The key flashes during Alarm Hold.

㉓ **CH call key** *1

Displays the camera number on the monitor for a preset period of time.
This key is convenient for finding the camera number when no indication or only the camera name is displayed.

㉔ **Menu key**

When performing each setting, hold down the key for 3 seconds or more to display the menu on the LCD screen. Pressing the key again will close the setting screen and the display will disappear.

㉕ **Wiper key** *2

Remotely controls the outdoor-use Combination camera's wiper. This key can only be used while the Control key is lighting.

㉖ **Auxiliary 1 and Auxiliary 2 keys** *2

Control (close or open) the Combination camera's Auxiliary Contact Outputs.
The key lights when auxiliary contact is closed, and goes out when open. This key can only be used when the Control key is lighting.

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㉗ **Auto key** *2

Enables or disables the Combination camera's automatic functions (Auto-Pan, Auto-Trace, and Preset Sequence). The Auto key can only be used when the Control key is lighting.

Auto-Pan: Automatically rotates the camera horizontally.

Auto-Trace: Stores manual camera operations to the Combination camera, and automatically reproduces such operations stored in memory.

Preset Sequence: Automatically reproduces the camera images in the order of preset position numbers.

Tour: Stores the preset and trace performed at each camera in the order of desired reproduction number, and automatically reproduces such operation.

㉘ **Joystick** *2

Used to move up, down, left, or right and zoom in/out the camera with pan/tilt head connected to the system. The joystick can only be used while the Control key is lighting.

㉙ **Cable holder**

Used to bundle the cables.

㉚ **Camera control terminals (RS-485)**

Connect to the Combination camera.

㉛ **Slave unit remote control terminals**

Connect to another C-RM700 to be designated as a slave unit for remote control from different locations.

[Rear]
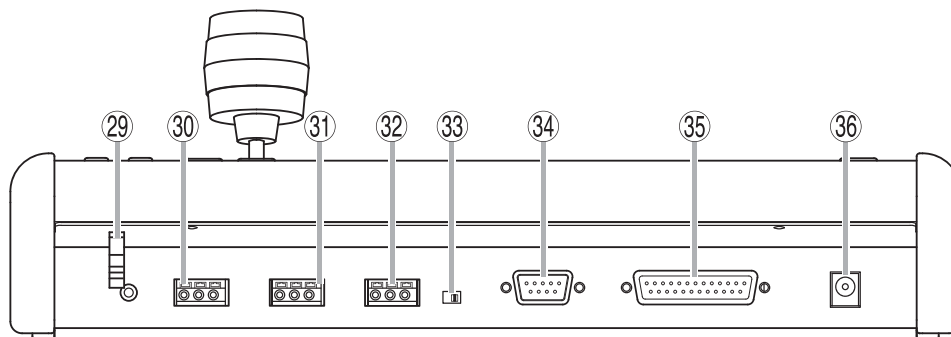
[Bottom surface] **Note:** Function indications (Silk printed) on the bottom surface
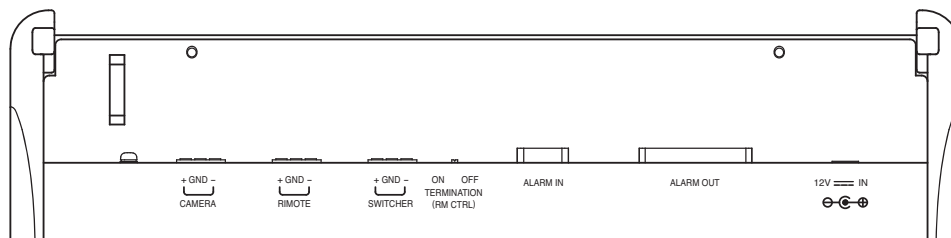
㉜ **Switcher control terminals (RS-485)**

Connect to the Multi-Switcher's dedicated remote control terminal, and control the Switcher's screen display.

㉝ **Slave remote controller terminal termination switch**

Set to ON during normal use.

㉞ **Alarm input terminal (RS-232C)**

Connects to an alarm input unit to receive alarm information.

㉟ **Alarm output/Control input terminal**

Closing the contact corresponding to the alarm activated channel (camera number).

㊱ **AC adapter power input terminal [12 V DC IN]**

Insert the DC plug of the dedicated AC adapter into this terminal.

6. OPERATION

6.1. Operating the Camera

The following camera operations can be performed when the Control key is lighting.

[Operating keys]
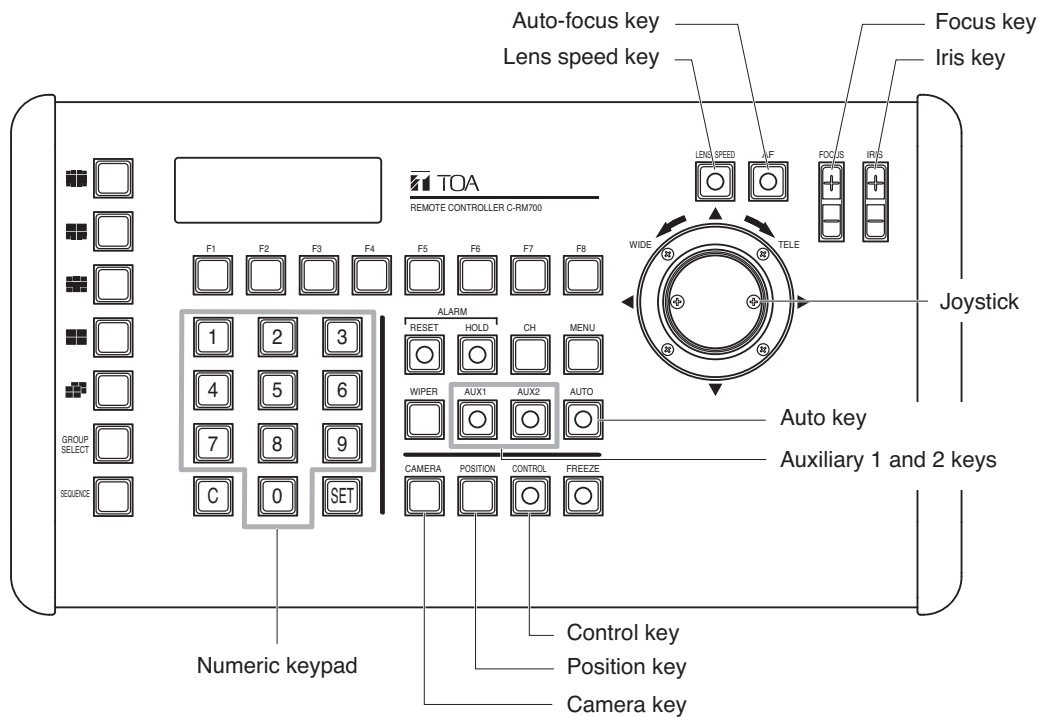
6.1.1. Selecting cameras for operation

Cameras to be manually controlled can be selected during full-screen or multi-segment screen display.

1. Using the numerical keypad, press the desired camera number.

(Example)
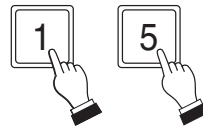
2. Press either the Camera or Control key.

2-1. Operation in full-screen display format
Press the Camera key.
The Control key will light, permitting operation of the designated camera.
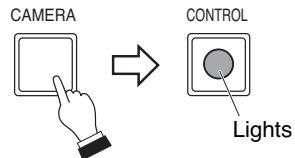
CAMERA → CONTROL

LCD screen

`1 5    CAMERA    0 0 1`

Lights

2-2. Operation in multi-screen display format
Press the Control key during multiscreen display.
The Control key will light, permitting operation of the designated camera.
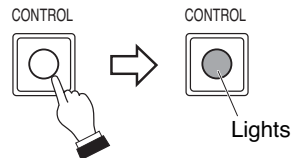
CONTROL → CONTROL

LCD screen

`CONTROL`

Lights

Monitor screen
(10-segment split-screen display)

Camera name ——— XX   YY

09	10	11	12
13	14	15	16

This camera can be operated.

Note
Both XX and YY camera images can be freely set using the Multi-switcher.

6.1.2. Rotating the camera with the joystick

Any connected Combination camera can be rotated in the desired direction using a joystick.

With the camera selected, tilt the joystick in the direction in which the camera is to be rotated.
The camera will rotate in the direction the joystick was tilted.

(Example) When panning the camera to the right;

LCD screen

MANUAL
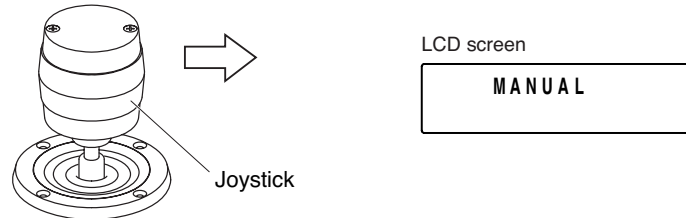
Joystick

Rotate the joystick while the camera is selected.
Clockwise rotation: Telescope; Counterclockwise rotation: Wide angle.

Wide angle   Telescope
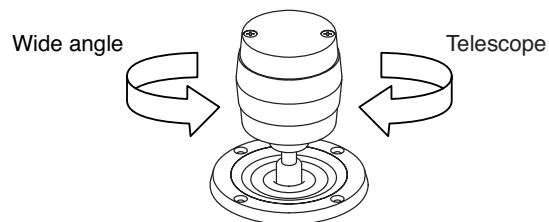
6.1.3. Activating the wiper

When a Combination camera with built-in wiper is connected to the system, the wiper can be activated using the Wiper key.

Press the Wiper key while the camera is selected.
The camera's built-in wiper is activated while the key is held down.

WIPER

LCD screen

WIPER

13
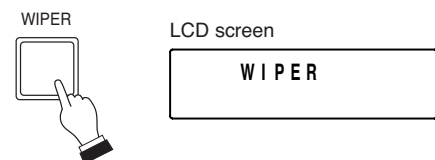
6.1.4. Controlling an auxiliary contact 1

The Combination camera's Auxiliary Contact Output 1 can be opened or closed.

1. Press the Auxiliary 1 key while the camera is selected.
   The Auxiliary 1 key will light and the auxiliary contact output 1 is closed (ON).
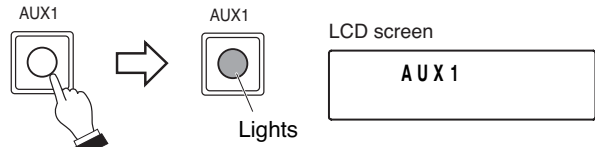
2. Press the Auxiliary 1 key again.
   The Auxiliary 1 key will extinguish and the auxiliary contact output 1 is opened (OFF).
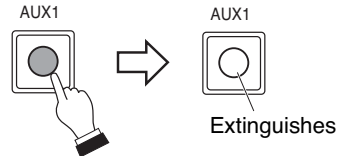
6.1.5. Controlling an auxiliary contact 2

Controls the Auxiliary Contact Output 2 of the C-CC504, C-CC514, C-CC554, C-CC564, and C-CC574.

[When the C-CC504, C-CC514, or C-CC554 is connected]
Auxiliary Contact Output 2 can be closed or opened in the same manner as for the Auxiliary Contact Output 1.

[When the C-CC564 or C-CC574 is connected]

1. Press the Auxiliary 2 key while the camera is selected.
   The Auxiliary 2 key will light and the Combination camera's internal auxiliary contact output 2 is activated.
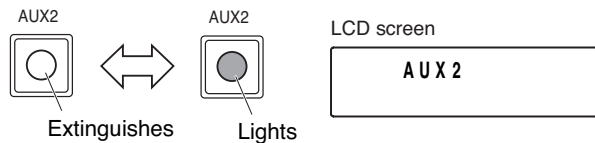
2. Press the Auxiliary 2 key again.
   The Auxiliary 2 key will extinguish and the auxiliary contact output 2 switches.

14
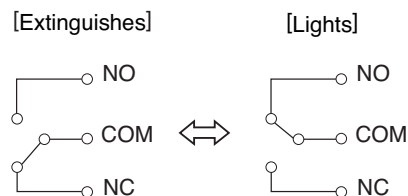
6.1.6. Activating the automatic functions

When a Combination camera is connected to the system, its automatic functions can be enabled using the Auto key.

1. Press the Auto key while the camera is selected.
   The Auto key will light and the camera's automatic functions (Auto-pan, Auto trace, Preset sequence, or Tour) will begin to operate.

   Auto-pan:
   Automatically rotates the camera horizontally.

   Auto trace:
   Automatic repetition of manual camera operations that have been stored in memory.

   Preset sequence:
   Automatic sequential display of camera positions in the order that their position numbers were preset.

   Tour:
   Stores the preset and trace performed at each camera in the order of desired reproduction number, and automatically reproduces such operation.
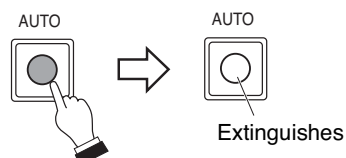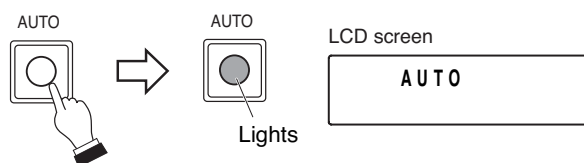
2. Press the Auto key again.
   The Auto key extinguishes and automatic operations are stopped.

AUTO AUTO LCD screen

AUTO

Lights

AUTO AUTO

Extinguishes

Note
Setting destination to which automatic function to operate differs depending on the type of protocol of the camera connected. Refer to the table below for details.

Protocol	Setting destination	Programming destination	Referral page
TOA Type A	Camera menu	Camera	p. 46
TOA Type B	Auto-key	Remote controller	p. 32

6.1.7. Activating the focus function

When a Combination camera is connected, its image can be focused using the Focus key.

Press the Focus "+" or "−" key while the camera is selected.
Focusing continues as long as the key is pressed.
Pressing the "+" key focuses the lens on distant objects, and pressing the "−" key focuses on near objects.

FOCUS

6.1.8. Changing the lens speed

The speed of lens movement when the Focus key is pressed can be adjusted.

Press the Lens speed key.
Lens speed decreases while the Lens speed key is lighting.

LENS SPEED   LENS SPEED

Lights: Very slow
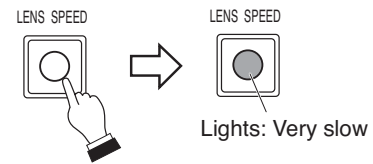
6.1.9. Activating the auto-focus function

When a Combination camera is connected, the Auto-focus function can be activated with a press of the Auto-focus key.

Press the Auto-focus key while the camera is selected.
The key remains lit while the Auto-focus function is in operation.

AF   AF   LCD screen

                        AUTO FOCUS

                Lights

AF   Auto-focus operation is completed.

          Extinguishes
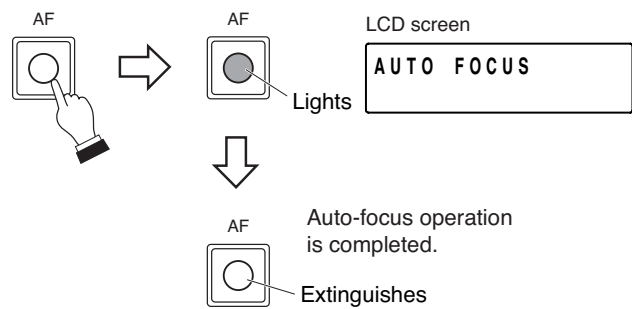
6.1.10. Selecting the camera position

1. Enter the camera position number with the numeric keypad.

2. Press the Position key.
   The camera image corresponding to the selected position will be displayed on the current monitor.

(Example)

5

POSITION   LCD screen

               5   POSITION

16
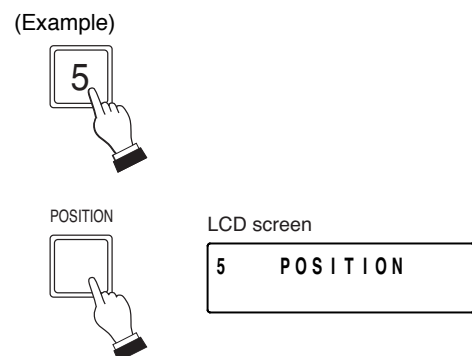
6.2. Monitor Display

[Operation keys]

16-segment split-screen key
10-segment split-screen key
9-segment split-screen key
4-segment split-screen key
Sequential 4-segment split-screen key
Group selector key
Sequential key

Function key
Alarm reset key
Alarm hold key
CH call key

Numeric keypad
SET key
Camera key
Control key
Freeze screen key
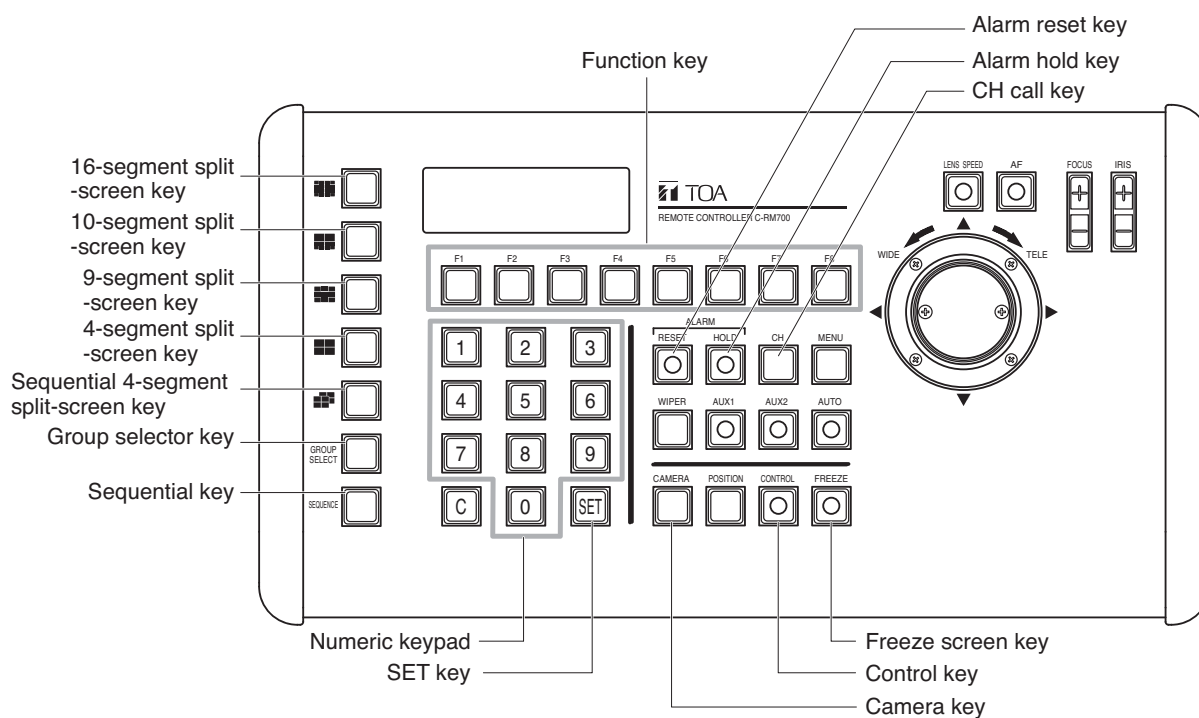
6.2.1. Viewing full-screen displays

1. Enter the camera number to be displayed on the full screen using the numeric keypad.

(Example)
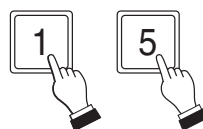
2. Press the Camera key.
   The designated camera image will be displayed on the full screen.
   Also, when the controllable camera is designated, the Control key lights, permitting camera operations with the joystick.

CAMERA

LCD screen

15   CAMERA

015

Camera number displayed in full-screen format

CONTROL   CONTROL
Extinguishes   Lights
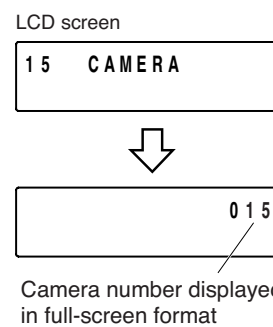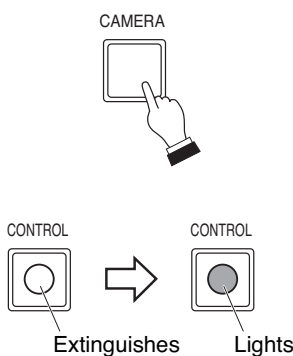
6.2.2. Viewing multi-screen displays (only active when the Multi-Switcher is connected)

[16-segment split-screen viewing]

Press the 16-segment split-screen key.
All connected camera images will be displayed on the monitor.

LCD screen

```
1 6 – S E G M E N
```
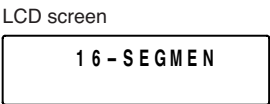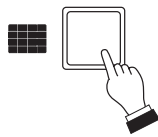
Monitor screen

01	02	03	04
05	06	07	08
09	10	11	12
13	14	15	16

Camera number

[10-segment split-screen viewing]

1. Press the 10-segment split-screen key.
   The images of camera numbers 1–8 (Group 1) and 2 more images (settable with the Switcher) will be displayed on the monitor.

LCD screen

```
1 0 – S E G M E N
```
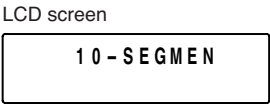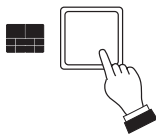
2. Press the 10-segment split-screen key again, or the Group selector key. The images of camera numbers 9–16 (Group 2) and 2 more images (settable with the Switcher) will be displayed on the monitor.

Monitor screen (Group 1)

Camera name

01		04	
01	02	03	04
05	06	07	08

Camera No.

OR   GROUP SELECT

Monitor screen (Group 2)

09		13	
09	10	11	12
13	14	15	16

[9-segment split-screen viewing]

1. Press the 9-segment split-screen key.
   The images of camera numbers 1–9 (Group 1) will be displayed on the monitor.
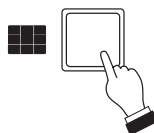
LCD screen

```
9 – S E G M E N T
```

2. Press the 9-segment split-screen key again, or the Group selector key. The images of camera numbers 10–16 (Group 2) will be displayed on the monitor.

Monitor screen (Group 1)

01	02	03
04	05	06
07	08	09

Camera number ——— 04

Monitor screen (Group 2)

OR   GROUP SELECT
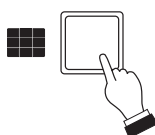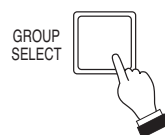
10	11	12
13	14	15
16		

[4-segment split-screen viewing]

1. Press the 4-segment split-screen key.
   The images of camera numbers 1–4 (Group 1) will be displayed on the monitor.
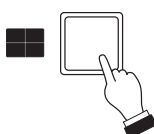
LCD screen

```
4 – S E G M E N T
```

2. Press the 4-segment split-screen key again, or the Group selector key.
   The images of camera numbers 5–8 (Group 2) will be displayed on the monitor.
   The displayed camera group is switched to camera numbers 9–12 (Group 3), camera numbers 13–16 (Group 4) and then back to Group 1 each time the key is pressed.

Monitor screen (Group 1)

01	02
03	04

Camera number ——— 03

Monitor screen (Group 2)

OR   GROUP SELECT

05	06
07	08

19
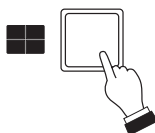
6.2.3. Viewing sequential displays

The outputs of all cameras connected to the switcher can be displayed on the monitor in sequential order at viewing intervals preset at the switcher. The outputs of the cameras not connected cannot be displayed. For details, refer to the instruction manual included with the switcher.

[Sequential full-screen viewing]

Press the Sequence key.
The images for Cameras 1–16 are displayed in sequential order.
Note that if the Tour Sequence function has been set, the camera images will be switched in the order of the specified reproduction number. (Refer to , "Tour sequence.")

Note: In this example, Camera No. 2 is not displayed on the monitor because it is not connected.

SEQUENCE

LCD screen

S E Q U E N C E

Monitor screen

Camera No. 1

Camera name

Camera No. 3

Camera name

Camera No. 16

Camera name
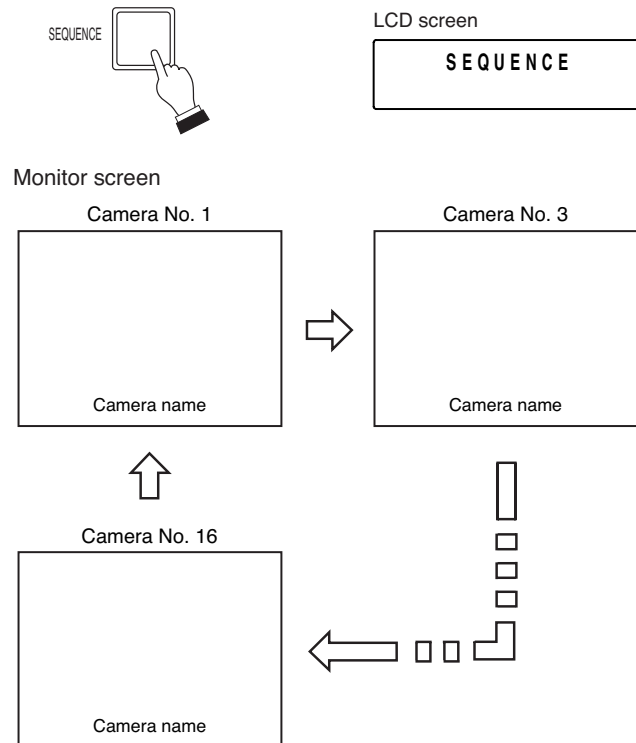
[Sequential 4-segment split-screen viewing]

1. Press the Sequential 4-segment split-screen key.
   4 groups of camera images are displayed in 4-segment split screen automatically being toggled in sequence.

2. Pressing the same key again stops the display sequence at the currently displayed screen.

LCD screen

4 – S E G M E N T

Monitor screen

Group1

| AAAA | BBBB |
| CCCC | DDDD |

Camera name

Group2

| EEEE | FFFF |
| GGGG | HHHH |

Group4

| MMMM | NNNN |
| OOOO | PPPP |

Group3

| IIII | JJJJ |
| KKKK | LLLL |
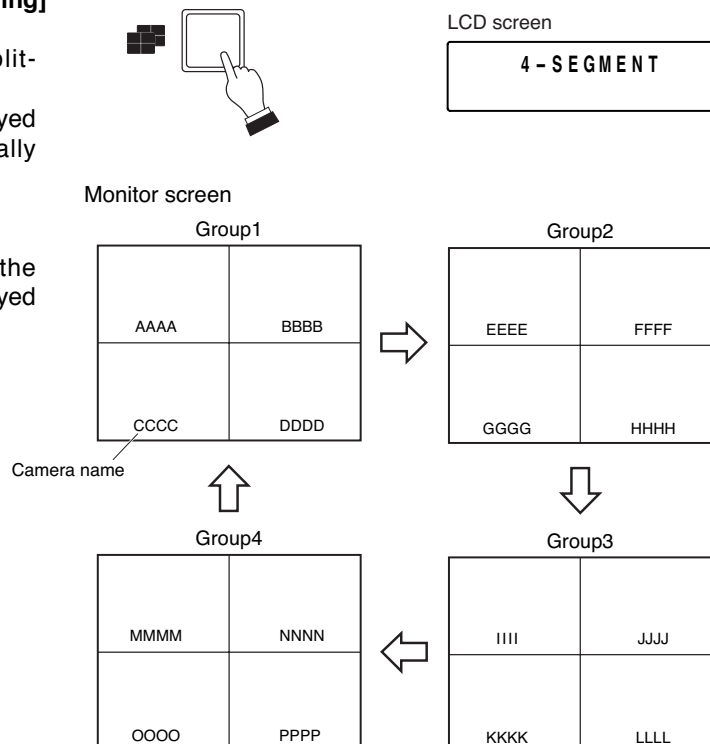
6.2.4. Displaying the camera number (only active when the Multi-Switcher is connected)

Press the CH call key while a camera image is displayed on the monitor. All connected camera numbers will be displayed.

Note
The camera number is displayed even when the camera is not connected.

CH
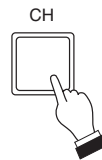
LCD screen

```
CHANNEL  CALL
```

Monitor screen
(10-segment split-screen display)

12		16	
01	02	03	04
05	06	07	08

6.2.5. Viewing the freeze screen (only active when the Multi-Switcher is connected)

1. Enter the camera number to freeze using the numeric keypad.
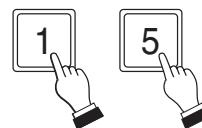
2. Press the Freeze screen key.
   The "F" or "Freeze" indication will flash on the corresponding camera image screen.

3. Repeat Steps 1 and 2 to freeze other camera images.

(Example)

1 5

Monitor screen
(10-segment split-screen display)

09		15	
09	10	11	12
13	14	15	16
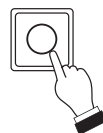
FREEZE   FREEZE

Flashes

LCD screen

```
15    FREEZE
```

09		FREEZE	
09	10	11	12
13	14	F	16

Camera name

Freeze display indication

[Resetting individual freeze displays]

1. Enter the camera number to reset the freeze display using the numeric keypad.

2. Press the Freeze screen key.

(Example)
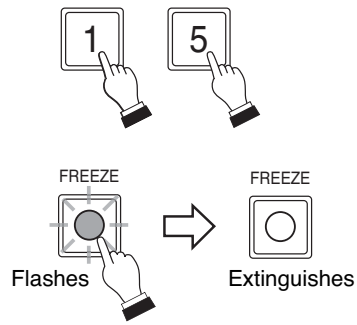
| 1 | 5 |

Monitor screen
(10-segment split-screen display)

FREEZE

Flashes   Extinguishes

The freeze display will be reset.

[Simultaneously resetting all freeze displays]

Press the Freeze screen key.

FREEZE

Flashes   Extinguishes
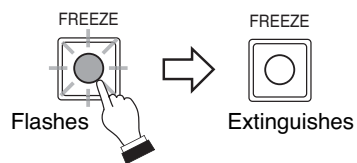
LCD screen

Monitor screen
(10-segment split-screen display)

09		15	
09	10	11	12
13	14	15	16

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6.2.6. Using the function keys

By simply pressing a Function key (F1–F8), the camera image (camera number and position number) programmed into the key can be displayed on the monitor.(Refer to , "Function.")

Press a Function key (any one of F1–F8).
The corresponding camera image (camera number and position number) is displayed on the full screen of the monitor.

Function key

| F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 |

CONTROL

Lights

LCD screen

F3   FUNCTION KEY

01

Displays the camera number programmed into the Function key.
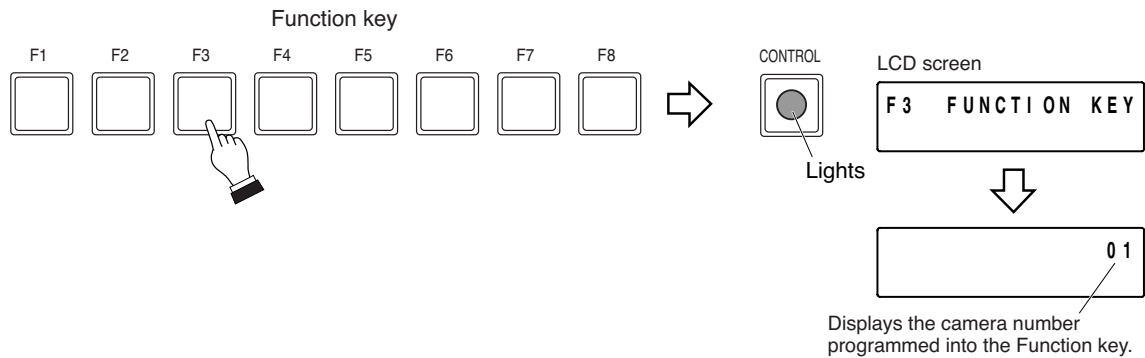
6.2.7. Using the abbreviated numbers

By merely entering the programmed abbreviated number with the numeric keypad followed by the SET key, the camera image (camera number and position number) programmed can be displayed on the monitor. (Refer to , "Abbreviation.")

1. Enter the abbreviated number using the numeric keypad.
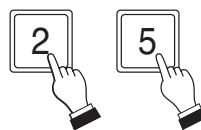
2. Press the SET key.
   The programmed camera image (position) will be displayed on the full screen. Also, when the controllable camera is designated, the Control key lights, permitting camera operations with the joystick.

(Example)

2   5

SET

CONTROL   CONTROL

Extinguishes   Lights

LCD screen

25   SET

001

Displays the camera number programmed under the abbreviated number.

23
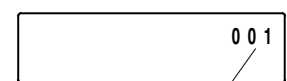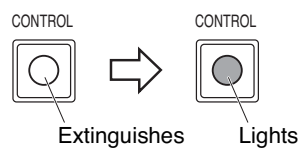
6.3. Alarm Hold and Reset

The Alarm can be held or reset when "1 Front" has been selected in the "Alarm Hold" setting, and is not activated when "2. ALWAYS" has been selected. (Refer to p. 41, "Alarm hold.")

6.3.1. Holding the alarm

Press the Alarm hold key.
The Alarm hold key will flash.
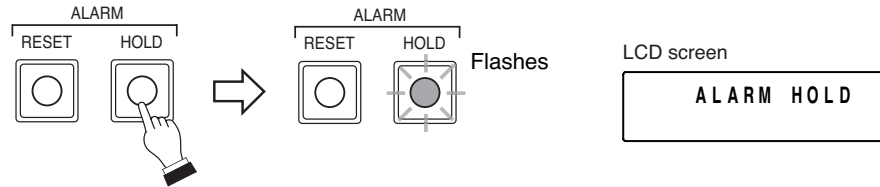
[When an alarm signal is received during Alarm Hold]

The Alarm reset key flashes while the "AL HOLD" indication is displayed on the monitor.
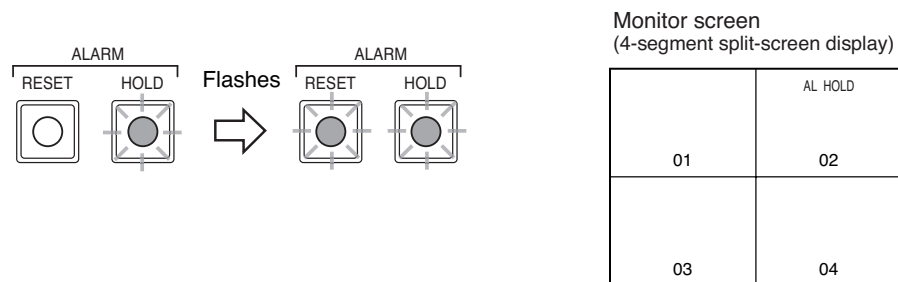
6.3.2. Displaying alarm-activated camera images

Press the Alarm hold key.
The Alarm hold key will extinguish, displaying the alerted camera image on the monitor in full screen format.
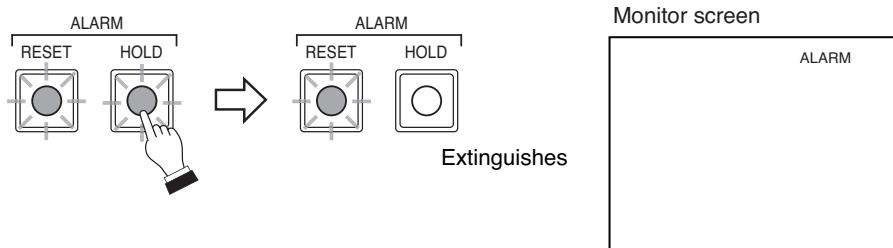
6.3.3. Resetting the alarm

Press the Alarm reset key.
The Alarm reset key will extinguish, resetting the alarm state.
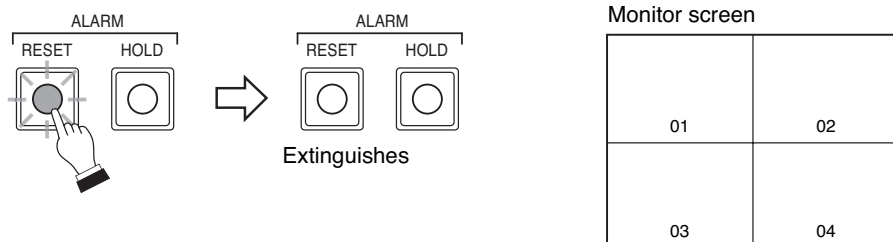
Note
The alarm cannot be reset when "2. LEVEL" has been selected in the Alarm Signal setting. The state of alarm continues as long as an alarm signal input is received. (Refer to p. 40, "Alarm signal.")

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7. SETTINGS

7.1. Setting Items and Their Descriptions

OPERATION MODE *	(p. 29)	Designates this unit as a master, or slave.
SWITCHER *	(p. 29)	Determines the type of switcher to be connected to this unit.
PROTOCOL	(p. 30)	Sets the camera control protocol (RS-485 communication).
CAMERA CHECK	(p. 31)	Checks the Combination camera connected to the camera control terminal for 30 seconds.
MANUAL SPEED	(p. 32)	Sets the combination camera's maximum rotation speed in manual operation.
AUTO KEY	(p. 32)	Sets the automatic operation to ON or OFF when type B is connected to this unit.
TIME ADJUSTMENT	(p. 33)	Sets whether or not to adjust the combination camera's clock.
AUTO RETURN	(p. 33)	Sets the function to automatically return the camera to a specified (Home) position after operation completion.
HOME POS	(p. 34)	Sets the Combination camera's standby status when it is not controlled at all.
I/O SPEED *	(p. 35)	Sets the transfer rate of each control terminal.
BUZZER *	(p. 36)	Sets whether or not to sound a buzzer when an alarm is engaged.
INITIAL SCREEN	(p. 36)	Sets the screen to be displayed on the monitor immediately after the power is switched ON.
INITIAL CHANNEL	(p. 37)	Sets the channel (camera number) to be displayed first when the power is switched ON.
SENSOR ALARM	(p. 38)	Set to "ON" when using the Sensor Alarm function.
CAMERA ALARM	(p. 38)	Sets to "ON" when using the Combination camera's alarm contact input.
PRESET CAM ALARM	(p. 39)	Sets the position number in which the Combination camera will automatically face when an alarm contact close information is received from the camera.(Only valid when "1. ON" has been selected in the "Camera alarm" setting.)
ALARM SIGNAL	(p. 40)	Sets the type of alarm continued action.
ALARM TIME	(p. 40)	Sets the time interval from alarm signal reception to reset.
ALARM FUNCTION	(p. 41)	Sets the monitor display method when an alarm signal is received.(Only valid when "1. EDGE" has been selected in the "Alarm signal" setting.)
ALARM HOLD	(p. 41)	Sets the monitor display to be switched when an alarm signal is received.
FUNCTION	(p. 42)	Displays the corresponding preset camera image (camera number and position number) on the monitor by simply pressing a Function key.
ABBREVIATION	(p. 44)	Displays the corresponding preset camera image (camera number and position number) on the monitor when the abbreviated number (entered with the numeric keypad) is entered, followed by the SET key.
TOUR SEQ	(p. 45)	Sequentially displays two or more camera outputs on the full screen in order of reproduction (1–128) at preset time interval (seconds).
CAMERA MENU	(p. 46)	Calls up the camera's built-in menu screen, permitting various Combination camera settings, such as present position.
I/O SELECTION	(p. 46)	Selects when outputting the operation commands from an RS-232C port to a master remote controller.
PASSWORD	(p. 47)	Sets the password required to open the menu.

Note: Only the setting items marked with "*" can be performed when "2. SLAVE" has been selected in the "Operation mode" setting. In this event, other items are not displayed on the menu screen.

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7.2. Operating Keys and Display Screen

[Keys to be used in setting operations]

LCD screen
Displays the setting items and their contents.

Alarm reset key
Used for password setting.

Joystick
Selects setting items
when tilted up and down,
and setting contents
when tilted left and right.

Clear key
Returns the mode to the
setting item selection
without confirming the
setting contents.

SET key
Confirms the setting items
and contents.

Numeric keypad
Used for entering numbers.

Menu key
Holding down this key calls up the menu
display on the LCD screen. The menu display
returns to the normal screen if the key is pressed
again during setting.

[LCD screen display]

Setting item

```
OPERATION MODE
1.MASTER
```

Setting content

7.3. Basic Setting Operations

This section shows basic operating procedures for each setting item.

7.3.1. When the password has not been set

1. Press the Menu key for 3 seconds or more.
   The menu screen is displayed.

[Some operation examples]

2. Tilt the joystick up or down to select the setting item.

3. Press the SET key to confirm the setting item.
   The current setting contents (if not set, the factory-predetermined setting contents) are displayed at the lower part of the LCD screen.
   In this event, one character "1" of the setting contents flashes. (The flashing character differs depending on the content.)

4. Tilt the joystick left or right to select the desired setting content.
   Note
   Pressing the Clear key before Step 4 is completed will return the display to the screen last shown (in Step 2) before the SET key was pressed without storing the setting contents.

5. Press the SET key to confirm the setting contents.
   The display returns to the screen (in Step 2) to select the setting item.

6. Repeat Steps 2–5 to continue to set other items.
   Press the Menu key again when returning to the normal screen after setting completion.

```
┌─────────────────────┐
│ OPERATION MODE      │
└─────────────────────┘
```

(Example)

```
┌─────────────────────┐
│ AUTO RETURN         │
└─────────────────────┘
```
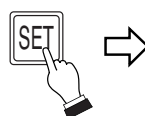
SET ⇨
```
┌─────────────────────┐
│ AUTO RETURN         │
│ 1.ON                │
└─────────────────────┘
```

```
┌─────────────────────┐
│ AUTO RETURN         │
│ 1.ON 10SEC          │
└─────────────────────┘
```
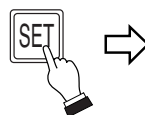
SET ⇨
```
┌─────────────────────┐
│ AUTO RETURN         │
└─────────────────────┘
```

Note
All keys are disabled for a maximum period of 30 seconds when returning to the normal screen from the menu screen without performing camera check if the Combination camera is not connected.

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7.3.2. When the password has been set

Note, however, that the password setting differs from those explained here. Refer to .

1. Press the Menu key for 3 seconds or more.
   The password entry screen is displayed.

MENU

LCD screen

```
PASSWORD
****
```

Press for 3 seconds or more.
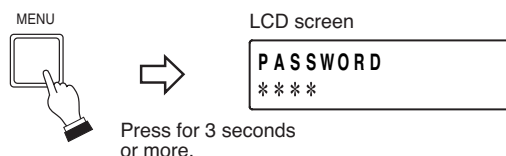
2. Enter the password (4 digits) using the numeric keypad.

3. Press the SET key.
   If the entered password is correct, the menu screen is displayed. (Example)

[Some operation examples]

```
1   2   3   4
```

```
PASSWORD
1234
```
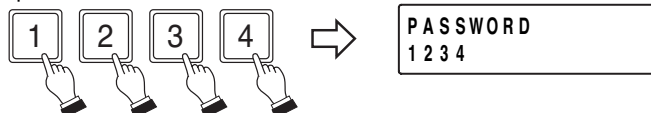
4. Tilt the joystick up or down to select the setting item.

5. Press the SET key to confirm the setting item.
   The current setting contents (if not set, the factory-predetermined setting contents) are displayed at the lower part of the LCD screen.
   In this event, one character "1" of the setting contents flashes. (The flashing character differs depending on the content.)

SET

```
OPERATION MODE
```

(Example)

```
AUTO RETURN
```

6. Tilt the joystick left or right to select the desired setting content.
   Note
   Pressing the Clear key before Step 6 is completed will return the display to the screen last shown (in Step 4) before the SET key was pressed without storing the setting contents.

SET

```
AUTO RETURN
1.ON
```
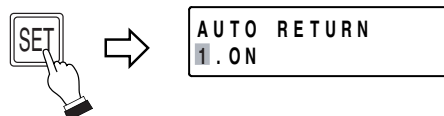
7. Press the SET key to confirm the setting contents.
   The display returns to the screen (in Step 4) to select the setting item.

8. Repeat Steps 4–7 to continue to set other items.
   Press the Menu key again when returning to the normal screen after setting completion.

```
AUTO RETURN
1.ON 10SEC
```

SET

```
AUTO RETURN
```

7.4. Setting the Functions

Perform the following settings referring to the Basic Setting Operations on .
After connection completion of all cameras, turn on the power of cameras and the C-RM700, and initialize the cameras. Then be sure to perform camera check after the camera's initialization operation has been completed. (Refer to , "Camera check.")

7.4.1. Operation mode

Sets this unit's operation mode.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "OPERATION MODE," and confirm it with the SET key.
   The setting contents will appear on Line 2.

```
OPERATION MODE
1.MASTER
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1. MASTER	Be sure to select Master when only a single C-RM700 unit is used. When 2 units are connected, set either unit as the Master and the other as "SLAVE."
2. SLAVE	When 2 units are connected, set either unit as "SLAVE," and the other as "MASTER."

Note: Operation mode is set to "1. MASTER" by the factory.

7.4.2. Switchers

Sets the type of switcher to be connected to this unit.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "SWITCHER," and confirm it with the SET key. The setting contents will appear on Line 2.

```
SWITCHER
1.16INPUT
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1. 16 INPUT	Select when the 16 channels Multi-Switcher is connected to the switcher control terminal (RS-485) or a switcher is not connected to the terminal.
2. 9 INPUT A	Select when the 9 channels Multi-Switcher is connected to the switcher control terminal (RS-485) and Camera 9's 4-segment split-screen display is set for "OFF" in the Multi-Switcher settings.
3. 9 INPUT B	Select when the 9 channels Multi-Switcher is connected to the switcher control terminal (RS-485) and Camera 9's 4-segment split-screen display is set for "ON" in the Multi-Switcher settings.

Note: The switcher type is set to "1. 16 INPUT" by the factory.

7.4.3. Protocol

Selects the type of camera control protocol (RS-485 communication).

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "PROTOCOL," and confirm it with the SET key. The setting contents will appear on Line 2.

```
PROTOCOL
1.TYPE B
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1. TYPE A	Select when connecting the type A communication controlled camera.
2. TYPE B	Select when connecting the type B communication controlled camera.
3. TYPE B ONE WAY	Select when controlling the Combination camera without receiving the response from the camera. (Example: when controlling the Netcansee camera via a network.) **Note:** This will not ensure that combination cameras other than Netcansee devices can be remotely controlled via communication network.

Note: The protocol type is set to "2. TYPE B" by the factory.

Notes
・For the controllable cameras, refer to , " About Controllable Equipment by the C-RM700."
・When "TYPE B ONE WAY" is selected;

C-CC514, C-CC564, C-CC574, C-CC714, C-CC764, and C-CC774:

Set the DIP SW2 No. 7 to the ON position. (Although the description of the DIP SW2 No. 7 is "Unused" in the installation manual supplied with each camera, this setting is required when using the TYPE B ONE WAY protocol.)

C-CC704:

Set the DIP SW No. 8 to the ON position. (Although the description of the DIP SW No. 8 is "Unused" in the installation manual supplied with the C-CC704, this setting is required when using the TYPE B ONE WAY protocol.)

In this "TYPE B ONE WAY" protocol, Auto-focus, Auxiliary 1, and Auxiliary 2 keys do not light. When a camera to operate is selected during full-screen or multi-segment screen display, the control key always lights regardless of the camera selected.

To stop each individual automatic operation, press the Auto-key while holding down the function key assigned as a shift key.

To set each individual auxiliary contact to OFF, press each individual auxiliary key while holding down the function key assigned as a shift key.

For the shift key setting, refer to , "Function."

7.4.4. Camera check

Checks Combination Cameras connected to the Camera Control terminal for 30 seconds.

Notes
· Be sure to perform this camera check except when the "TYPE B ONE WAY" has been selected in Protocol setting.
· Once the Camera Check has been completed, only the cameras recognized when the check was performed can be controlled. Therefore, be sure to perform the camera check again whenever unrecognized cameras are found or new cameras are added. Also, in case that unrecognized cameras are still found after performing camera checks several times, check to be sure that there is no fault with protocol of the camera side, communication speed settings, wirings, and protocol and I/O speed settings of this unit.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "CAMERA CHECK," and press the SET key.

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[When "1. Start" is pressed]

The check takes approximately 30 seconds. All keys are disabled during the check.

The check interval is counted down from "30" (seconds) displayed to the right of Line 1.
The camera numbers of the connected Combination cameras are displayed in numerical order on Line 2.
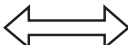
(Example)
```
CAMERA CHECK    20
1,2,3,4,5,11,12→
```

The indication "OK" is displayed after the 30-second check is completed.

```
CAMERA CHECK    OK
1,2,3,4,5,11,12→
```

After check completion, connected cameras can be confirmed by tilting the joystick to the left or right to scroll the screen.

```
CAMERA CHECK    OK
1,2,3,4,5,11,12→
```
⟸⟹
```
CAMERA CHECK    OK
←13,14
```


[When "2. Clear" is pressed]

Setting returns to the factory preset.

4. Press the Clear key to return to the menu screen.

7.4.5. Manual speed (Protocol: Type B only)

Sets the Combination camera's maximum rotation speed in manual operation.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "MANUAL SPEED," and confirm it with the SET key.
   The setting contents will appear on Line 2.

```
MANUAL SPEED
1.24°/SEC
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1.	24º/SEC	3.	60º/SEC	5.	120º/SEC	7.	240º/SEC
2.	40º/SEC	4.	90º/SEC	6.	160º/SEC	8.	360º/SEC

Note: The manual speed is set to "5. 120º /SEC" by the factory.

7.4.6. Auto-key (Settable to Type B by this unit)

Sets one of the automatic operations (Auto-pan, Auto-trace, Preset sequence and Tour) for the Combination camera to ON or OFF. This function can only be enabled when the Control key is lighting.
Note: For the type A camera, perform automatic operation settings at the Combination camera.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "AUTO KEY," and confirm it with the SET key.
   The setting contents will appear on Line 2.

```
AUTO KEY
1.AUTO PAN
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1. AUTO PAN	Calls up the automatic panning function.
2. AUTO TRACE1 – 9. AUTO TRACE8	Stores the manual camera operations into the Combination camera, and recalls the function to automatically reproduce such operations.
10. PRESET SEQ	Calls up the function to automatically reproduce the camera images in the order of preset numbers set to the Combination camera.
11. TOUR1 – 26. TOUR16	Calls up tours stored in each camera.

Note: The Auto key is set to "1. Auto-Pan" by the factory.

Note: Functions that can be used differs depending on the type of Combination camera. For the functions, refer to , "Auto-key settings."

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7.4.7. Time adjustment (Protocol: Type B only)

The Combination camera's built-in clock can be set when the alarm output/control terminal (Pin 23) is closed with the Ground. The cameras of which built-in clock can be adjusted are C-CC514, C-CC564, C-CC574, C-CC764, and C-CC774. (Refer to p. 51, "Alarm Output/Control Input Terminal Connections."

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "TIME ADJUSTMENT," and confirm it with the SET key.
   The setting contents will appear on Line 2.

```
TIME ADJUSTMENT
1.OFF
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1. OFF	Disables time adjustment.
2. 1:00 – 24. 23:00	Sets the time to receive contact input for the clock synchronization. Sends a corresponding command relative to that time to the cameras.

7.4.8. Automatic reset

Enables the function that automatically resets the camera to a fixed position (home position) if the camera is not operated for a preset time interval following camera operation.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "AUTO RETURN," and confirm it with the SET key.
   The setting will appear on Line 2.

```
AUTO RETURN
1.ON
```

3. Tilt the joystick left or right to select one of the following setting contents and confirm it with the SET key.

[Setting contents]

1.ON	Confirming this setting displays the screen for setting the time interval before Automatic Reset occurs following camera operation.
	``` AUTO RETURN 1.ON 10SEC ```
	Tilt the joystick left or right to select the reset interval: "10 SEC," "15 SEC," "20 SEC," "30 SEC," "1 MIN," "2 MIN," "3 MIN," "4 MIN" and "5 MIN." The selected time is confirmed with the SET key.
	Note: "SEC" of the reset interval stands for seconds, and "MIN" for minutes.
2. OFF	Disables the Automatic Reset function.

Note: This selection is set to "2. OFF" by the factory.

Note: When using the Timer Program and Alarm Action functions at the Combination Cameras, operations of the Combination Camera itself takes precedence. So use the Combination Camera's Automatic Reset function. This unit's Automatic Reset function may not be activated.

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7.4.9. Home position

Sets the Combination camera's state when automatically returned to home position.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "HOME POS," then confirm it with the SET key.
   The channel (camera number) input screen for the Home Position setting will appear.

3. Enter the channel number with the numeric keypad, and confirm the entry with the SET key.
   The operation setting is displayed on line 2, and the flashing cursor moves to the position "1" (left).
   The indication "1" on the left shows the operation content when the Home Position selection input terminal in the unit's rear panel-mounted Alarm output/control input terminal is opened.
   Similarly, the indication "2" on the right shows the operation content when the Home Position terminal is closed. (Refer to p. 51, "Alarm Output/Control Input Terminal Connections.")

4. Tilt the joystick left or right to select the operation contents for "1" from the list shown below and confirm it with the SET key.
   The flashing cursor moves to the position "2" (right).

5. Tilt the joystick left or right to select the operation contents for "2" from the list shown below and confirm it with the SET key.

6. To further set other channels, repeat Steps 3–5. To return to the setting item display, press the Clear key.

```
HOME POS


  2          [SET]


HOME POS    **CH

        (Example)
  3          7   [SET]


HOME POS      7CH
1 TRA1   2 POS1

  4          [SET]


HOME POS      7CH
1 TRA1   2 OFF

  5          [SET]
```
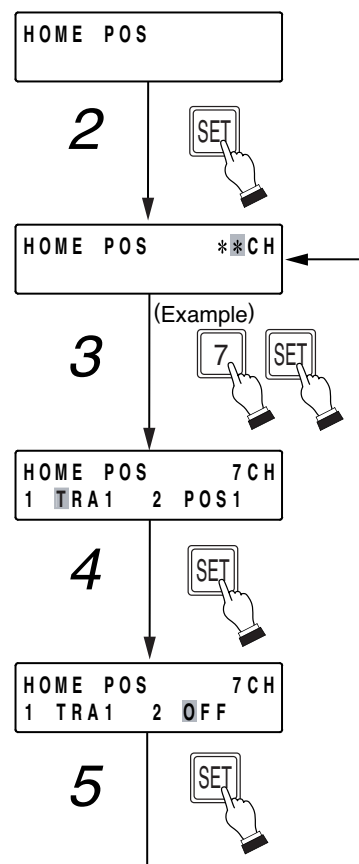
[Home position selector terminal operation settings]

POS1	Orients the camera in the direction of Position 1, as set at the camera.
POS2	Orients the camera in the direction of Position 2, as set at the camera.
PAN	Activates the Auto-Pan function.
TRA1 – 8	Activates the Auto Trace function.
P-SEQ	Activates the Preset Sequence function.
TOU1 – 16	Activates the Tour function.
OFF	Disables Home position function.

Note: This selection is set to "POS1" by the factory.

Notes
・Match the selected home position to the Combination Camera's home position when the Combination Camera capable of home position setting is connected.
・Make sure to perform each camera setting when "POS2", "TRA1–8," "P-SEQ," or "TOUR1–16" is selected. The unit could malfunction if this setting is not correctly performed.
・Functions that can be used differ depending on the cameras to be connected. For functions, refer to p. 54, "Auto-key settings."

7.4.10. I/O speed

Sets each control terminal's transfer rate.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "I/O SPEED," then press the SET key to confirm the selection.
   The screen for selecting the control terminal is displayed.

3. Tilt the joystick left or right to select "CAMERA," "SWCHER" (switcher), "REMOTE," or "ALARM," then press the SET key to confirm the selected control terminal.
   The transfer rate is shown on Line 2. In this event, the previously made setting is displayed.

4. Tilt the joystick left or right to select "4800," "9600," "19200," or "38400," then press the SET key to confirm the selected transfer rate.
   Note
   Set the same transfer rate as those of equipment connected to each control terminal.

Control Terminal	Factory Setting
Camera	38400 bps
Switcher	19200 bps
Remote controller	19200 bps
Alarm	38400 bps

5. To further set other control terminals, repeat Steps 3–4.
   To return to the setting item display, press the Clear key.

I/O SPEED

2 SET

I/O SPEED REMOTE

3 SET

I/O SPEED RIMOTE
19200

4 SET

7.4.11. Buzzer

Sets whether or not to sound the buzzer when an alarm signal is received.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "BUZZER," then confirm the selection with the SET key.
   The setting will appear on Line 2.

```
BUZZER
1.ON
```

3. Tilt the joystick left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. ON	Sounds a buzzer when alarm is activated.
2. OFF	Sounds no buzzer when alarm is activated.

Note: This selection is set to "1. ON" by the factory.

7.4.12. Initial screen

Sets the screen to be displayed immediately after the power is turned on.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "INITIAL SCREEN," then confirm the selection with the SET key.
   The setting will appear on Line 2.

```
INITIAL SCREEN
1.FULL
```

3. Tilt the joystick left or right to select one of the following settings, and confirm it with the SET key.

Note: The setting contents differ depending on the type of switcher connected to the system.

[Setting contents]

Switcher Type	Setting contents
Multi-Switcher	1. FULL (full screen) 2. SEQUENCE (sequence) 3. 4-SEG SEQ (sequential 4-segment split-screen display) 4. 4-SEG (4-segment split-screen display) 5. 9-SEG (9-segment split-screen display) 6. 10-SEG (10-segment split-screen display) 7. 16-SEG (16-segment split-screen display) **Note** Make sure that the selected setting is the same as that for the connected switcher.

Note: This selection is set to "1. FULL " by the factory.

7.4.13. Channel designation

Sets the first channel (camera number) to be displayed after the power is turned ON.

Note
This channel setting can only be performed when one of the settings "1. FULL," "4. 4-SEG," "5. 9-SEG," or "6. 10-SEG" has been selected in the "Initial screen" setting. The Channel Designation item is not displayed on the menu screen when another setting has been selected.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "INITIAL CHANNEL," then confirm the selection with the SET key.
   The setting corresponding to the Initial Screen setting is displayed on Line 2.

3. Using the joystick and numeric keypad, select the setting depending on the "Initial screen" setting, and confirm the selected setting with the SET key. (Refer to the table shown below.)

[Setting contents]

"Initial screen" setting	Setting contents

1. FULL (full screen)	Enter the channel to be designated with the numeric keypad, and confirm the setting with the SET key.
	
	```INITIAL CHANNEL```
	```CHANNEL123```
	
	Note: This selection is set to "1" by the factory.

4. 4-SEG (4-segment split-screen display)	Tilt the joystick to the left or right to select "1→4," "5→8," "9→12," or "13→16" and confirm the selection with the SET key.
	
	```INITIAL CHANNEL```
	```1→4```
	
	Note: This selection is set to "1→4" by the factory.

5. 9-SEG (9-segment split-screen display)	Tilt the joystick to the left or right to select "1→9" or "10→16," and confirm the selection with the SET key.
	
	```INITIAL CHANNEL```
	```1→9```
	
	Note: This selection is set to "1→9" by the factory.

6. 10-SEG (10-segment split-screen display)	Tilt the joystick to the left or right to select "1→8" or "9→16," and confirm the selection with the SET key.
	
	```INITIAL CHANNEL```
	```1→8```
	
	Notes
	• Make sure that this setting is the same as that of the connected switcher.
	• This selection is set to "1→8" by the factory.

7.4.14. Sensor alarm

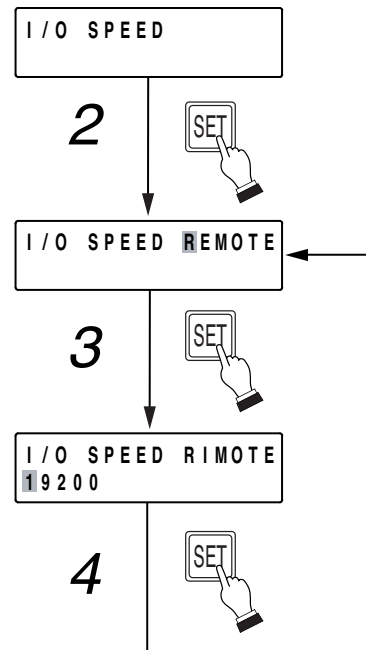Select "1. ON" to use the Alarm input terminal (such as the C-AL80 and camera alarm).

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "SENSOR ALARM," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
SENSOR ALARM
1.ON
```

3. Tilt the joystick to the left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. ON	Uses when receiving alarm signals from the alarm input terminal.
2. OFF	Alarm signals are not received from the alarm input terminal.

Note: This selection is set to "2. OFF" by the factory.

7.4.15. Camera alarm

Select "1. ON" to use the Combination camera's alarm contact input.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "CAMERA ALARM," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
CAMERA ALARM
1.ON
```

3. Tilt the joystick to the left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. ON	Uses the Combination camera's alarm contact input.
2. OFF	Does not use the Combination camera's alarm contact input..

Note: This selection is set to "2. OFF" by the factory.

Note
When alarm settings and alarm report settings are performed on the camera, set the report settings of the alarm contact number to be used to ON.

7.4.16. Camera alarm preset

Sets the position number to automatically change the Combination camera's orientation when an alarm contact close information is received from the Combination camera. Different preset reproduction positions can be programmed into each of 8 camera alarm contact inputs. It is also possible to perform setting so that a camera contact output that has received an alarm signal can be closed in synchronization with the alarm. Number of contact inputs differs depending on the cameras.

Notes
• This setting can only be performed when "1. ON" has been selected in the "Camera alarm" setting. This setting item is not displayed on the menu screen when "2. OFF" has been selected.
• When alarm settings and alarm report settings are performed on the camera, set the report settings of the alarm contact number to be used to ON.
• Do not use the camera alarm preset settings when using the camera's alarm action settings.
• This function is not available when "TYPE B ONE WAY" is selected in the protocol setting.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "PRESET CAM ALARM," and confirm the selection with the SET key.
   The Camera Alarm Preset content will appear on Line 2, and the unit switches to Camera Number Entry Waiting mode.

3. Enter the camera number using the numeric keypad, and confirm it with the SET key. The flashing cursor will move to the alarm number.

4. Tilt the joystick to the left or right to select the alarm number, and confirm the selected alarm number with the SET key.
   The flashing cursor will move to the preset position number.

5. Using the numeric keypad, enter the position number to be displayed when the alarm contact is closed, and confirm the number with the SET key.
   The flashing cursor will move to the rightmost position.

6. Tilt the joystick to the left or right to select either [ ] (space) or [∗], and confirm the content with the SET key.
   For the camera equipped with 2 auxiliary contact outputs, if [∗] is selected, the camera's auxiliary contact output 2 can be set to be closed when the camera alarm contact is closed.

7. Repeat Steps 3–6 to continue the Camera Alarm Preset settings of other cameras. Press the Clear key to return to the setting item display.

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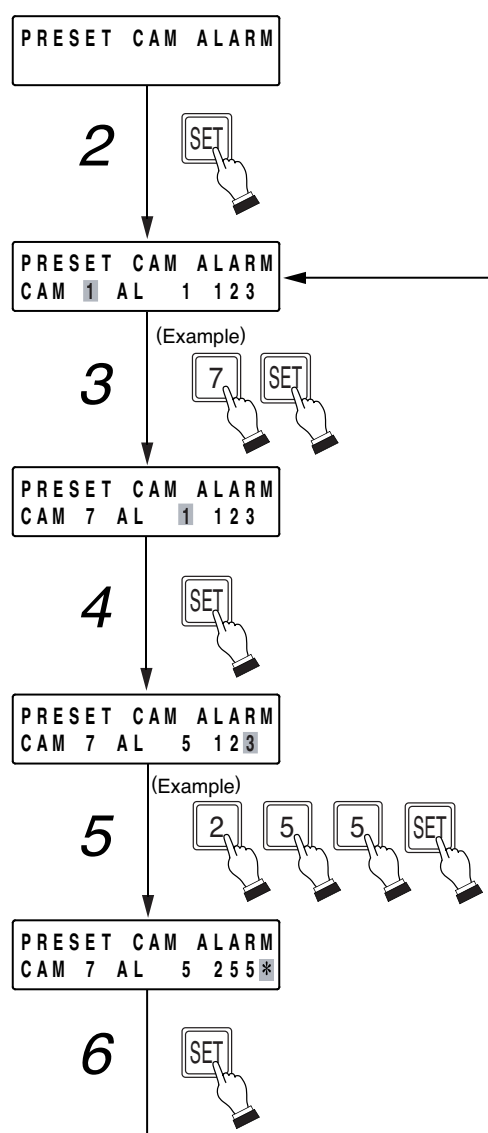
7.4.17. Alarm signal

Sets continuous alarm operations.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "ALARM SIGNAL," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
ALARM SIGNAL
1.EDGE
```

3. Tilt the joystick to the left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. EDGE	Terminates alarm operations when the time interval set in the "Alarm time" setting (next page) passes or when an alarm reset signal is received.
2. LEVEL	Terminates alarm operations when the alarm input terminal receives alarm end data. Also, if "1. ON" has been selected in the "Camera alarm" setting, alarm operation will stop when all alarm signals from the camera change from close to open data.

Note: This selection is set to "1. EDGE" by the factory.

7.4.18. Alarm time

Sets the interval between alarm input and alarm reset.

Note
The Alarm Time can only be set when "1. EDGE" has been selected in the "Alarm signal" setting. This setting item is not displayed on the menu screen when "2. LEVEL" has been selected.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "ALARM TIME," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
ALARM TIME
3.20SEC
```

3. Tilt the joystick to the left or right to select one of the following settings, and confirm it with the SET key.

[Setting contents]

1. 10SEC (10 seconds)	6. 2MIN (2 minutes)
2. 15SEC (15 seconds)	7. 3MIN (3 minutes)
3. 20SEC (20 seconds)	8. 4MIN (4 minutes)
4. 30SEC (30 seconds)	9. 5MIN (5 minutes)
5. 1MIN (1 minute)	10. NO LIMIT (no time limit)

Note: This selection is set to "3. 20SEC" by the factory.

Notes
• If "10. NO LIMIT" is selected, the alarm can only be reset when the Alarm reset key on this unit's top panel is pressed.
• If Alarm time has been set on the camera, match this unit's alarm time setting and that of the camera.

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7.4.19. Alarm function

Sets the camera image monitor method to be used when an alarm signal is received.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "ALARM FUNCTION," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
ALARM FUNCTION
1.SEQ
```

3. Tilt the joystick to the left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. SEQ (sequence)	Sequences the alarm-activated camera outputs to the monitor in full-screen display in the order of alarm signal reception.
2. LAST	The output of the camera corresponding to the last received alarm signal is displayed on the monitor in full-screen display.

Note: This selection is set to "1. SEQ" by the factory.

7.4.20. Alarm hold

Always places alarm signal input to the surveillance camera system on hold.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "ALARM HOLD," and confirm the selection with the SET key.
   The setting will appear on Line 2.

```
ALARM HOLD
1.KEY
```

3. Tilt the joystick to the left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. KEY	Permits the alarm to be held or reset using the unit's front panel-mounted keys. (Refer to p. 24, "Alarm Hold and Reset.")
2. ALWAYS	Always places the alarm on hold when an alarm signal is input. Select this setting when it is not desirable to have the screen automatically switched every time an alarm signal is received.

Note: This selection is set to "1. KEY" by the factory.

7.4.21. Function

By simply pressing the function key (F1–F8), the camera image (camera number and position number) can be displayed on the monitor.
It is also possible to control alarm contact switching and instruct the camera to perform multiple automatic operations.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "FUNCTION," and confirm the selection with the SET key.
   The setting will appear on Line 2, and the unit switches to function key entry waiting mode.
   Note that when the camera number or the position number is not programmed in advance, the "∗∗∗" indication is displayed in place of the number.

3. Tilt the joystick to the left or right to select the desired function key and confirm the setting with the SET key.
   The flashing cursor moves to the camera number.

4. Enter the camera number using the numeric keypad, and confirm it with the SET key.
   Enter a number from 1 to 16. The flashing cursor moves to the position number.

5. Enter the position number with the numeric keypad, and confirm it with the SET key.
   Enter a number from 1 to 255.

   Note: Entering "0" will switch the screen to full-screen display, and will not execute position playback.

6. Repeat Steps 3–5 to continue to set the camera images to be displayed on the monitor.
   Press the Clear key to return to the setting item display.

```
FUNCTION        F1
CAM∗∗∗  POS∗∗∗
```
Function key No. (F1 - F8)
Position No.
Camera No.

```
FUNCTION        F1
CAM∗∗∗  POS∗∗∗
```

3 [SET]

```
FUNCTION        F1
CAM∗∗∗  POS∗∗∗
```
(Example)

4 [1] [5] [SET]

```
FUNCTION        F1
CAM15   POS∗∗∗
```
(Example)

5 [1] [2] [3] [SET]

```
FUNCTION        F1
CAM15   POS123
```
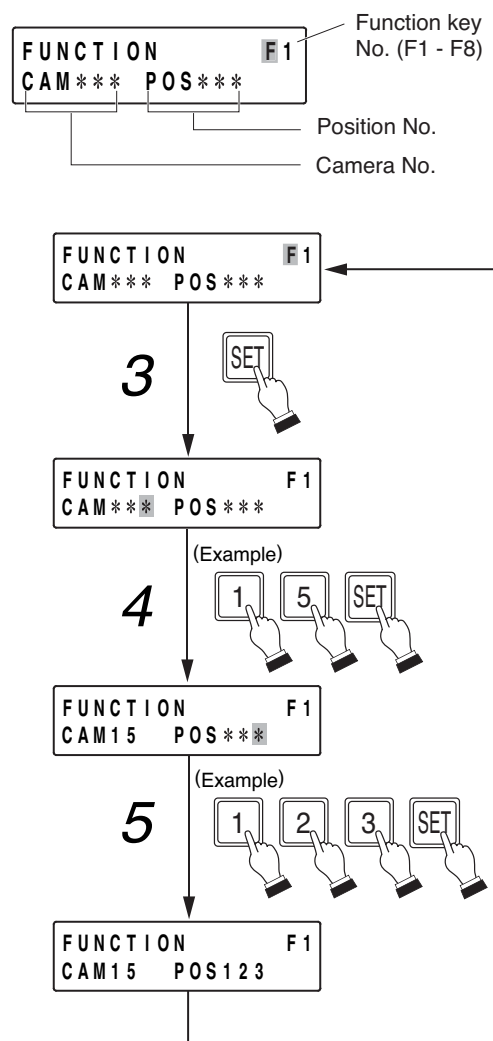
[Automatic operation settings]

After performing the settings in Steps 1–3 above, tilt the joystick up or down to select one of the following settings, then press the SET key to confirm it.

```
FUNCTION        F1
AUTO PAN
```

AUTO PAN	Continues panning between 2 points set on the camera menu.
AUTO TRACE	Repeats manual operations set on the camera menu.
PRESET SEQUENCE	Plays back the positions stored in the camera in setting order.
TOUR1 – 16	Execute the tour set on the camera menu.
SHIFT	Assigns the desired function key as a shift key. For the usage of the Shift key, refer to .

Note: Usable functions differ depending on the type of camera and protocol. For functions, refer to , "Function key settings."

[Deleting settings]

After pressing the Alarm reset key, press the SET key.

【Shift key function】

Preset and Trace memories can be stored or erased without activating the menu.

Setting item	Input No.	Combination of keys	Protocol	
			TYPE A	TYPE B
Position memory	1 – 255	Position key for 3 seconds	Enable	Enable
Position memory reset	1 – 255	Shift key + Clear key for 3 seconds	Disable	Enable *2
Trace memory start (Trace 1 – 8)	301 – 308	Shift key + Position key for 3 seconds	Disable	Enable *1
Trace memory end	300	Shift key + Position key for 3 seconds	Disable	Enable
Auto pan left endpoint memory	317	Shift key + Position key for 3 seconds	Disable	Enable
Auto pan right endpoint memory	319	Shift key + Position key for 3 seconds	Disable	Enable
Auto pan left endpoint memory reset	317	Shift key + Clear key for 3 seconds	Disable	Enable
Auto pan right endpoint memory reset	319	Shift key + Clear key for 3 seconds	Disable	Enable

*1 For the TYPE B protocol cameras, trace numbers to be stored differ depending on the models.

     No. of memorable traces (2): C-CC514, C-CC564, C-CC574, C-CC714, C-CC764, and C-CC774

     No. of memorable traces (8): C-CC704

*2 Erasing the Home position memory reset's position No. "1" for the TYPE B protocol camera causes the camera position to return to the default position. For the C-CC704, position No. "1" is erased also.

7.4. 22. Abbreviation

By merely pressing the preprogrammed abbreviated number (numeric keypad entry and SET key), the camera image (camera number and position number) can be displayed on the monitor.
Up to 255 camera numbers or camera/position numbers can be set. (The abbreviated number provides the same function as the "Function.")

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "ABBREVIATION," and confirm the selection with the SET key.
   The settings are displayed on Line 2, and the unit switched to Abbreviation number Entry Waiting mode.

3. Tilt the joystick to the left or right, or use the numeric keypad to enter the designed abbreviated number and confirm the setting with the SET key.
   Enter a number from 1 – 520. The flashing cursor moves to the camera number.

4. Enter the camera number using the numeric keypad, and confirm it with the SET key.
   Enter a number from 1 to 16. The flashing cursor moves to the position number.

5. Enter the position number with the numeric keypad, and confirm it with the SET key.
   Enter a number from 1 to 255.
   Note
   Entering "0" will switch the screen to full-screen display, and will not execute position playback.

[Setting the camera's alarm contact output (close)]

After confirming the camera number and position number, the flashing cursor will move to the alarm contact output selection indication on the rightmost position in line 2.

6. Tilt the joystick to the left or right to select either [ ] (space) or [*], and confirm the selection with the SET key.
   For the camera equipped with 2 auxiliary contact outputs, if [*] is selected, the camera's auxiliary contact output 2 can be set to close when the alarm signals are input to the set abbreviation number camera.

7. Repeat Steps 3–6 to continue setting other abbreviated numbers. Press the Clear key to return to the setting item display.

[Deleting Settings]

After pressing the Alarm reset key, press the SET key.

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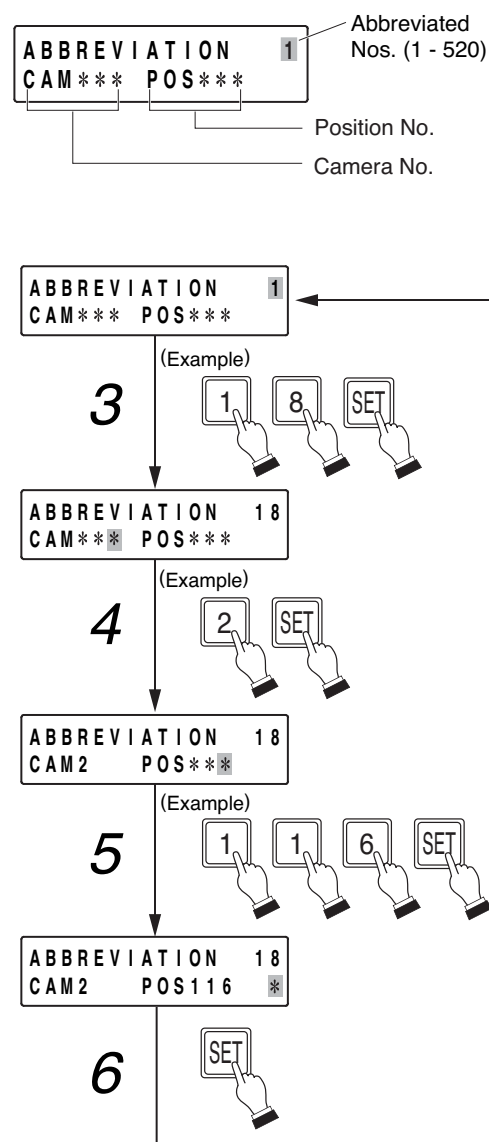
7.4.23. Tour sequence

The Tour Sequence function switches multiple camera outputs in sequence at a set time interval (seconds).
Merely pressing the Sequence key permits up to 16 camera outputs to be displayed on the full screen in the order of their set playback number.
The camera number, position number and viewing time can be set for individual playback numbers.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "TOUR SEQ," and confirm the selection with the SET key.

This unit will wait for the entry of "YES" (to use the function) or "NO" (to not use the function).

3. Tilt the joystick to the left or right to select either "YES" or "NO," and confirm the entry with the SET key.
The setting is displayed on Line 2 if "YES" is selected, and the unit switched to playback number entry waiting mode.

   Note that when the camera number or the position number is not programmed in advance, the "∗∗∗" indication is displayed in place of the number.

4. Enter the playback number using the numeric keypad or by tilting the joystick to the left or right, and confirm the entered number with the SET key.
Enter a number from 1 to 128. The flashing cursor moves to the camera number.

5. Enter the camera number with the numeric keypad, and confirm the number with the SET key.
Enter a number from 1 to 16.
The flashing cursor moves to the position number.

6. Enter the position number with the numeric keypad, and confirm the number with the SET key.
Enter a number from 1 to 255.
   **Note:** Entering "0" will switch the screen to full screen display, and does not execute position playback.
The flashing cursor moves to the rightmost viewing interval selection indication on Line 2.
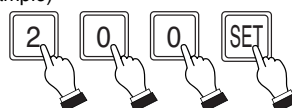
7. Tilt the joystick to the left or right to select the viewing interval: "3SEC," "10SEC," "15SEC," "20SEC," "30SEC," or "1MIN," and confirm the interval selection with the SET key.
   Note: (SEC: seconds, MIN: minutes)

8. Repeat Steps 4–7 to continue setting the playback numbers.
Press the Clear key to return to the setting item display.

```
TOUR SEQ NO
```
(Set by the factory)

```
TOUR SEQ YES
```

3 [SET]

Playback No.

```
TOUR SEQ        1
C∗∗∗ P∗∗∗ T10SEC
```
(Example)

4 [1] [SET]

```
TOUR SEQ        1
C∗∗∗ P∗∗∗ T10SEC
```
(Example)

5 [1] [2] [SET]

```
TOUR SEQ        1
C 12 P∗∗∗ T10SEC
```
(Example)

6 [2] [0] [0] [SET]

```
TOUR SEQ        1
C 12 P200 T20SEC
```

7 [SET]

[Deleting Settings]
After pressing the Alarm reset key, press the SET key.

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7.4.24. Camera menu

Calls up the camera's menu screen, and performs various Combination camera settings, such as the storage of preset camera positions.
For detailed operations and settings of the camera menu, refer to the instruction manual included with the camera.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "CAMERA MENU," and confirm the selection with the SET key.
   The unit will wait for entry of the camera number that starts up the menu.

```
CAMERA MENU**CH
```

3. Enter the camera number with the numeric keypad, and confirm the entered number with the SET key.
   The selected camera menu appears on the monitor. Pressing the Menu key again while the menu is being displayed on the monitor will turn off the display, returning the display to the camera number entry screen.

4. Repeat Steps 2 and 3 to continue to set other camera numbers.
   Press the Clear key to return to the setting item display.

7.4.25. I/O selection

For the unit set to "2. Slave" in the operation mode, perform this selection to remotely control the master remote controller by connecting the remote controller's RS-232C terminal to a PC.
Note: This screen is displayed only when the unit is designated as a slave.

1. Press the Menu key for 3 seconds or more to display the menu screen.

2. Tilt the joystick up or down to select "I/O SELECTION," and confirm it with the SET key.

```
I/O SELECTION
1.SWITCHER
```

3. Tilt the joystick to left or right to select either of the following settings, and confirm it with the SET key.

[Setting contents]

1. SWITCHER	Select this in normal use.
2. ALARM	Select this when it is necessary to remotely control the master remote controller by connecting to a PC.

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7.4.26. Password

Sets the password required when opening the menu.

1. Press the Menu key while holding down the Alarm reset key.
   The password setting screen will appear.

```
PASSWORD
****
```

2. Enter the password (4 digits) with the numeric keypad, and confirm the password with the SET key.
   The display will return to the normal screen.

7.5. Adjusting the Joystick Position

Adjust the joystick's center position.

1. Turn off the remote controller's power.

2. Turn on the power while holding down both the Camera and Auto keys.
   The unit judges the current joystick position as the center position.
   Note: Do not turn on the power while tilting the joystick.

8. CONNECTIONS

8.1. Connection to Combination Cameras

Connect the Combination camera's control cable to the unit's Camera Control terminal, making sure to match their polarities.

Remote controller
C-RM700

Camera control terminals
+ GND −

Shielded twisted-pair cable

To video input

Combination camera   To 24 V AC
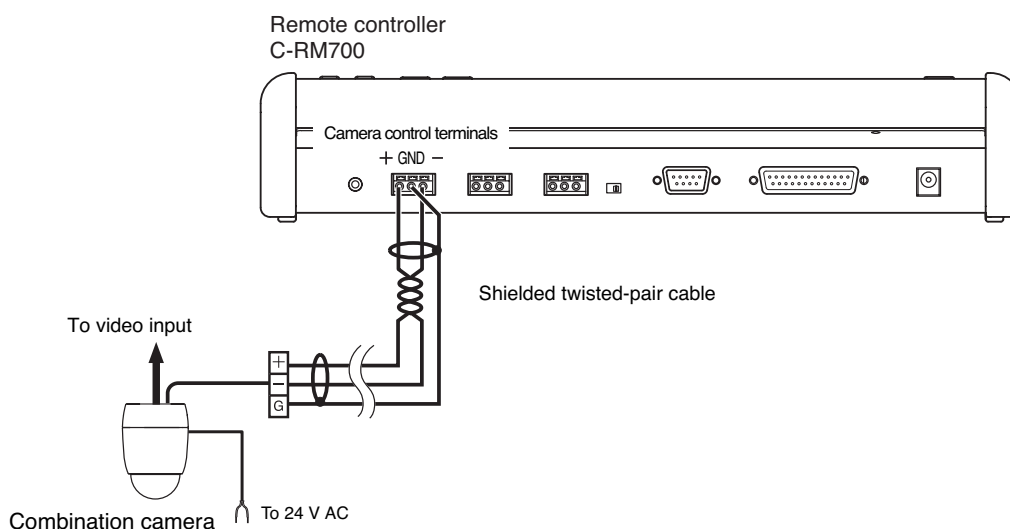
8.2. Connection to Multiple Combination Cameras

Using the each camera's alarm input allows the sensors to be connected for each individual camera.

Note
Number of connectable sensors differs depending on the type of camera.

Remote controller
C-RM700

Camera control terminals
+ GND −

Shielded twisted-pair cable

To video input

Sensor   5, 10

To video input

Sensor   5, 10

To 24 V AC

Combination camera
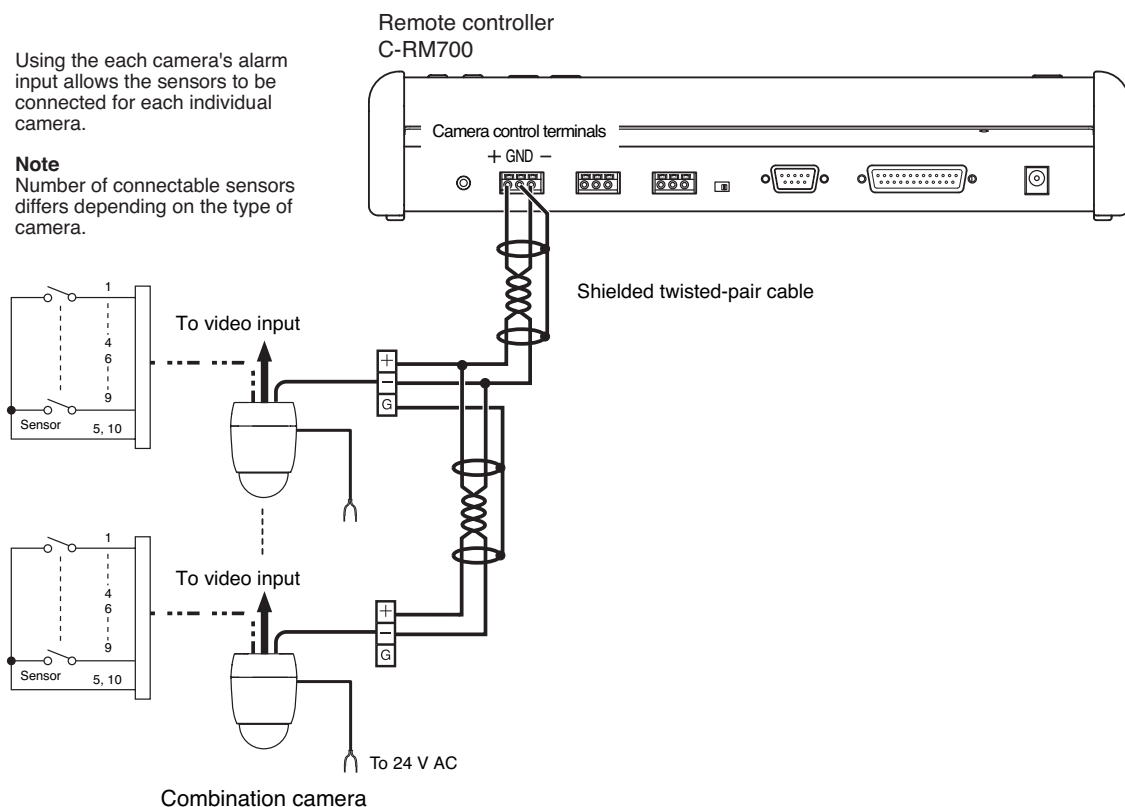
[Connection cables]

· Recommended cable type: CPEV-S type (shielded twisted-pair cable) thicker than 0.65 mm in diameter.

· The maximum cable distance between the unit and the Combination camera is 1.2 km when connected in a matched pair. If multiple cameras are connected to a system, the maximum distance between connected equipment is 1.2 km in total.

Remote Controller C-RM700		Combination camera		Combination camera		Combination camera
	a		b		c	

$$a + b + c \leqq 1.2 \text{ km}$$
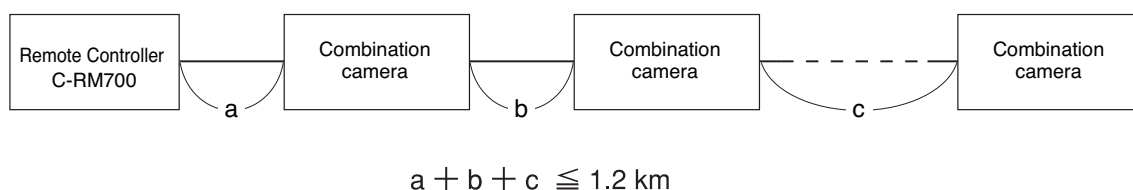
[Connected Camera Termination Switch Setting]

Make sure that the termination switches of the cameras connected to the system are set as follows.

Cameras other than the last connected camera: Termination switch OFF
Last connected camera: Termination switch ON

Remote Controller C-RM700	Combination camera	Combination camera	Combination camera
	Termination switch: OFF	Termination switch: OFF	Termination switch: ON

48
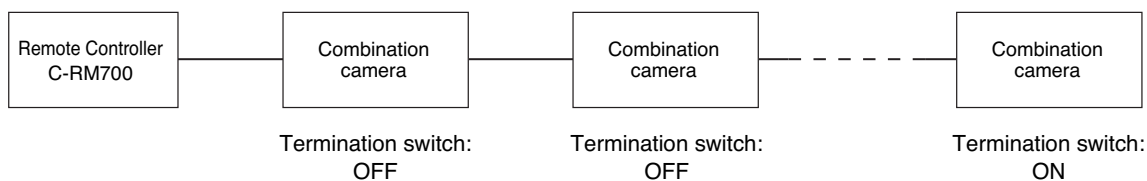
8.3. Connection to the Alarm Unit

Note: Select "1. ON" in the Sensor Alarm setting (Refer to p. 38, "Sensor alarm".)

Remote controller
C-RM700

Alarm input terminal
RS-232C

RS-232C reverse cable
Female D-sub 9-pin connector
to Female D-sub 9-pin connector

Alarm Input Unit
C-AL80

Sensor

ALARM/ / REMOTE IN

RS-232C
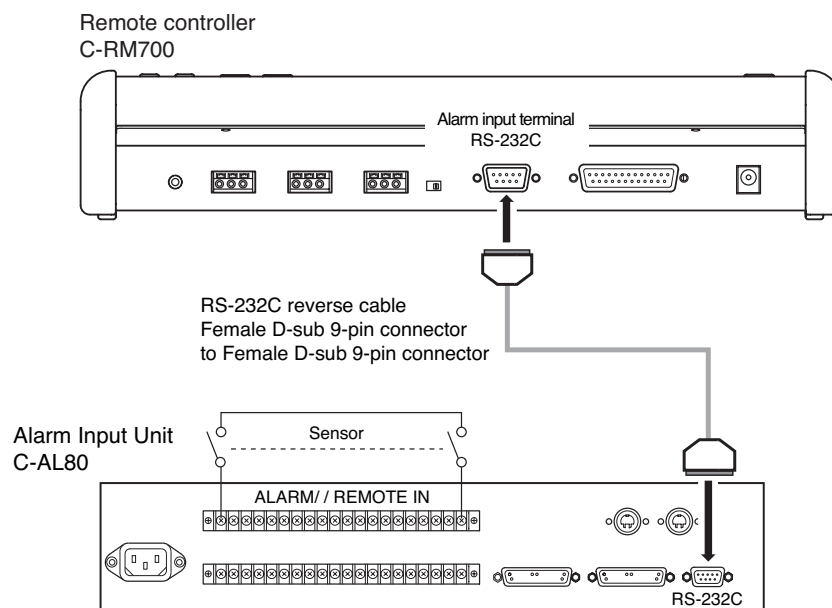
8.4. Connection when Controlling the System from 2 Locations

By connecting 2 C-RM700 Remote Controllers, the system can be controlled from 2 locations.

Set the operation mode of one controller for "MASTER," and the other controller for "SLAVE." (Refer to p. 29, "Operation mode".)

Note
Set the "I/O SPEED: REMOTE" of the MASTER designated C-RM700 Controller (this unit) and "I/O SPEED: SWITCHER" of the SLAVE-designated C-RM700 Controller to the same transfer rate. (Refer to p. 35 "I/O speed.")

(Example)

C-RM700 (Master)	C-RM700 (Slave)
I/O SPEED: REMOTE **19200 bps**	I/O SPEED: SWITCHER **19200 bps**

C-RM700 (Operation mode: Master)

Slave unit remote
control terminals
+ GND −

Shielded twisted-pair cable

C-RM700 (Operation mode: Slave)

+ GND −
Switcher control terminals

49
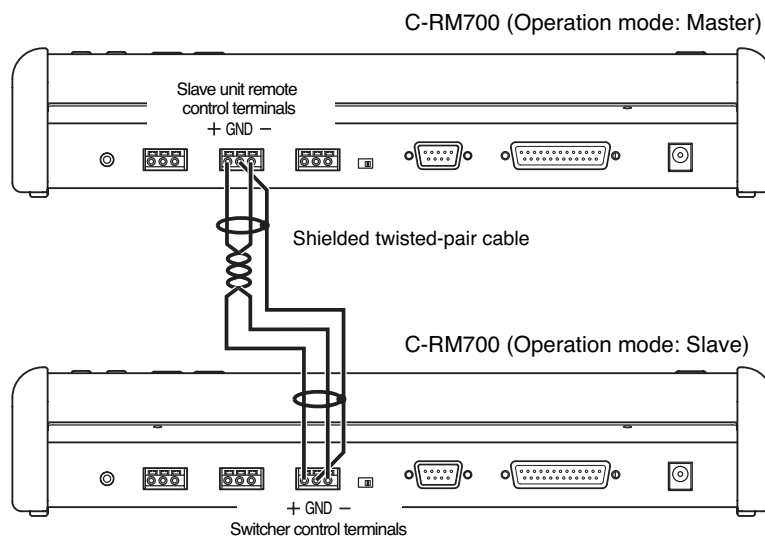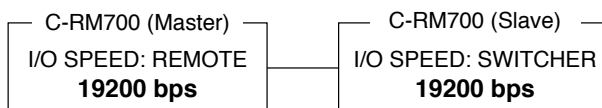
8.5. Connection to the Multi-Switcher

・Match the Multi-Switcher's camera input terminal number with the camera's address number.

・The C-RM700's switcher settings need to be changed depending on the multi-switcher to be connected. (Refer to p. 29, "Switchers.")

・To perform control using an alarm input, be sure to set to "ALARM RECEIVE: SLAVE" in the "REC/ALARM" setting on the Multi switcher's menu screen. For details, refer to the instruction manual enclosed with the Multi-switcher.

・Using the each camera's alarm input allows the sensors to be connected for each individual camera. Number of connectable sensors differs depending on the type of camera. To expand the alarm input, connect the C-AL80 Alarm Input Unit to this unit.

Notes

・Never use the Multi-switcher's alarm input terminals, as this could lead to unit malfunction.

・When connecting the C-AL80 Alarm Input Unit to this unit, be sure to set the C-AL80's Mode Selection Switch "3" to "REMOTE OFF" position.

・To switch the display to the fixed camera's images when an alarm signal is received, connect an Alarm Input Unit to this unit. Also, set the position number of the fixed camera to be switched to when an alarm signal is received to "0" in this unit's abbreviation number setting.

・The Alarm Input Unit uses the abbreviation numbers to perform alarm activation. For details, refer to p. 44, "Abbreviation" and instruction manual enclosed with the Alarm Input Unit.

50
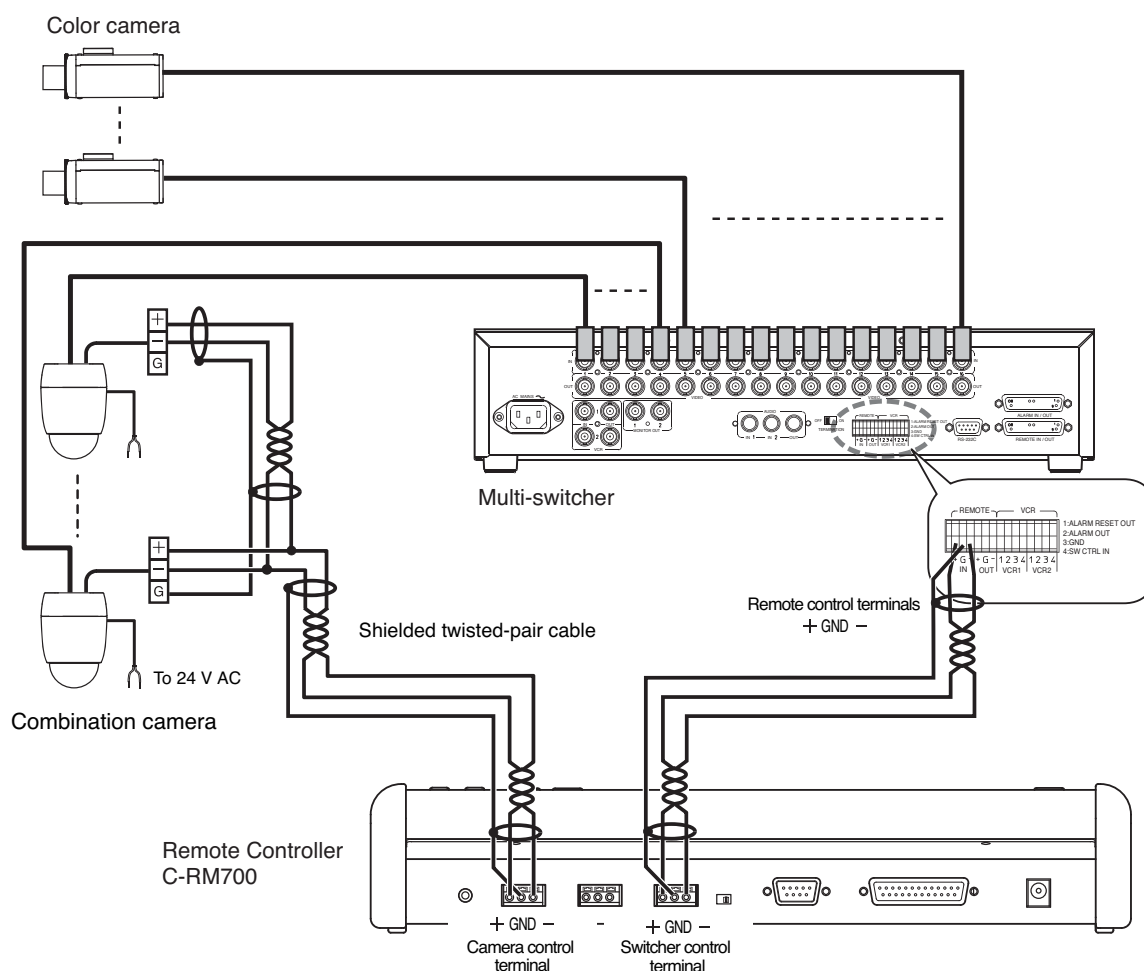
8.6. Alarm Output/Control Input Terminal Connections

Shown below are the numbers and names of the Alarm I/O terminal pins.

C-RM700

Alarm output/control input terminals
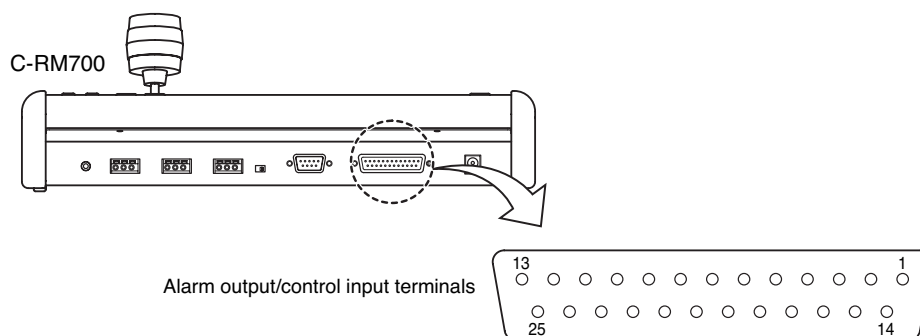
Pin No.	Function	Pin No.	Function
1	Ground	14	Alarm Output 10
2	Alarm Output 1	15	Alarm Output 11
3	Alarm Output 2	16	Alarm Output 12
4	Alarm Output 3	17	Ground
5	Ground	18	Alarm Output 13
6	Alarm Output 4	19	Alarm Output 14
7	Alarm Output 5	20	Alarm Output 15
8	Alarm Output 6	21	Alarm Output 16
9	Ground	22	Alarm Output
10	Alarm Output 7	23	Time Adjustment Input
11	Alarm Output 8	24	Home Position Selection Input
12	Alarm Output 9	25	NC
13	Ground		

[Alarm Output Terminal] (Pin Nos. 1 – 21)

The terminal of the number corresponding to the alarm-activated camera number shorts with the ground terminal. Alarm output terminals 1–16 are the NPN open collector output.
Operating current: Maximum 20 V, 20 mA

[Alarm Output Terminal] (Pin No. 22)

This terminal is shorted with the ground terminal even when only one of the alarm input terminals receives an alarm signal. The alarm output terminal is the NPN open collector output.
Operating current: Maximum 20 V, 20 mA

[Time Adjustment Input Terminal] (Pin No. 23) (Enables only when controlling the Type B protocol)

Shoring this terminal with the ground terminal causes the time synchronization command to be sent to the Combination Camera. Set the time to receive a contact input in the "Time adjustment" setting. (Refer to p. 33, "Time adjustment.")
Open voltage: 5 V DC, short circuit current: Maximum 5 mA

[Home Position Selection Input Terminal] (Pin No. 24)

2 channels of Home position can be programmed for the C-RM700.
When this terminal is in open state, the camera's operation follows the setting programmed for "1" in the Home position settings, while it follows for "2" in the Home position settings if the terminal is being shorted with the ground terminal. (Refer to p. 34, "Home position.")
Example: Use this terminal to switch the Home position in the daytime and nigh time.
Open voltage: 5 V DC, short-circuit current: Maximum 5 mA

[NC] (Pin No. 25)

Leave this pin unconnected.

8.6.1. Assembling D-sub connectors onto cables

Prepare the D-sub connector supplied with the Unit.

1. Solder the cable wires to the corresponding connector pins to be used.

2. Fold back the braided shield over the cable jacket and wrap with the copper foil tape.

3. Cover the connector with shield cover A.

4. Align shield cover B with shield cover A, and press till its hook fits into place.

5. Tighten the cover nut.

6. Install the lock screws.

7. Mount the E-rings to the screws.

Shield cover B

Lock screw

Cover nut

E-ring

Hook

Copper foil tape

Shield cover A
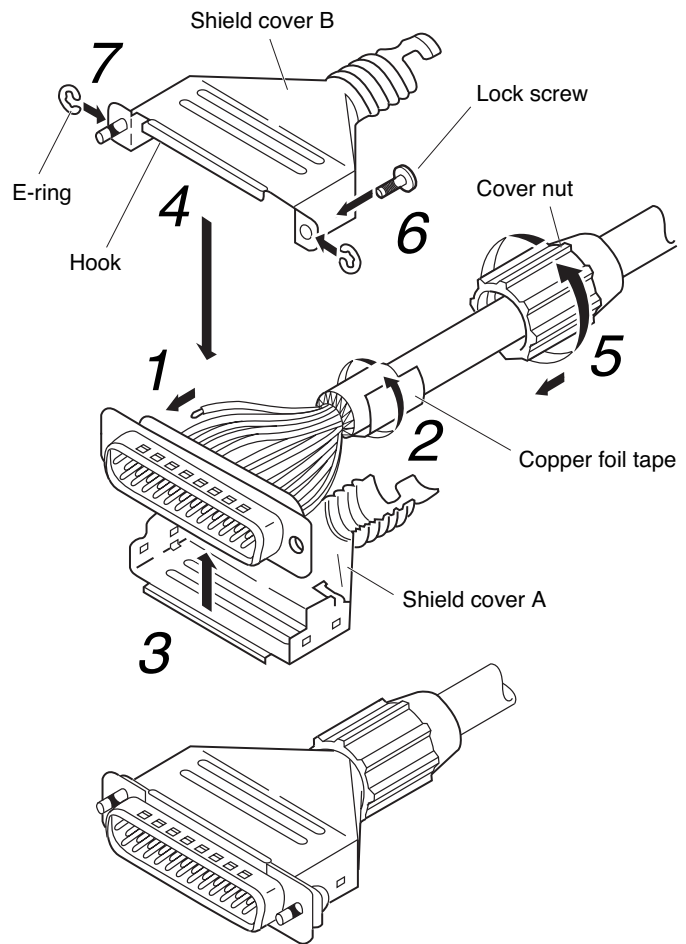
8.7. System Example

Make the following connection when connecting TOA Combination cameras.
Be sure to carefully read "Connection to the Multi-Switcher" on , and perform each device setting correctly at the time of connection.

Alarm Input Unit
C-AL80

RS-232C

Remote Controller
C-RM700

Alarm input terminal

RS-485

Camera control terminal

RS-485

Switcher control terminal

RS-485

Monitor

Multi-switcher

Combination camera

To 24 V AC

Color camera

———— : Coaxial cable (video signal)

———— : RS-232C, RS-485
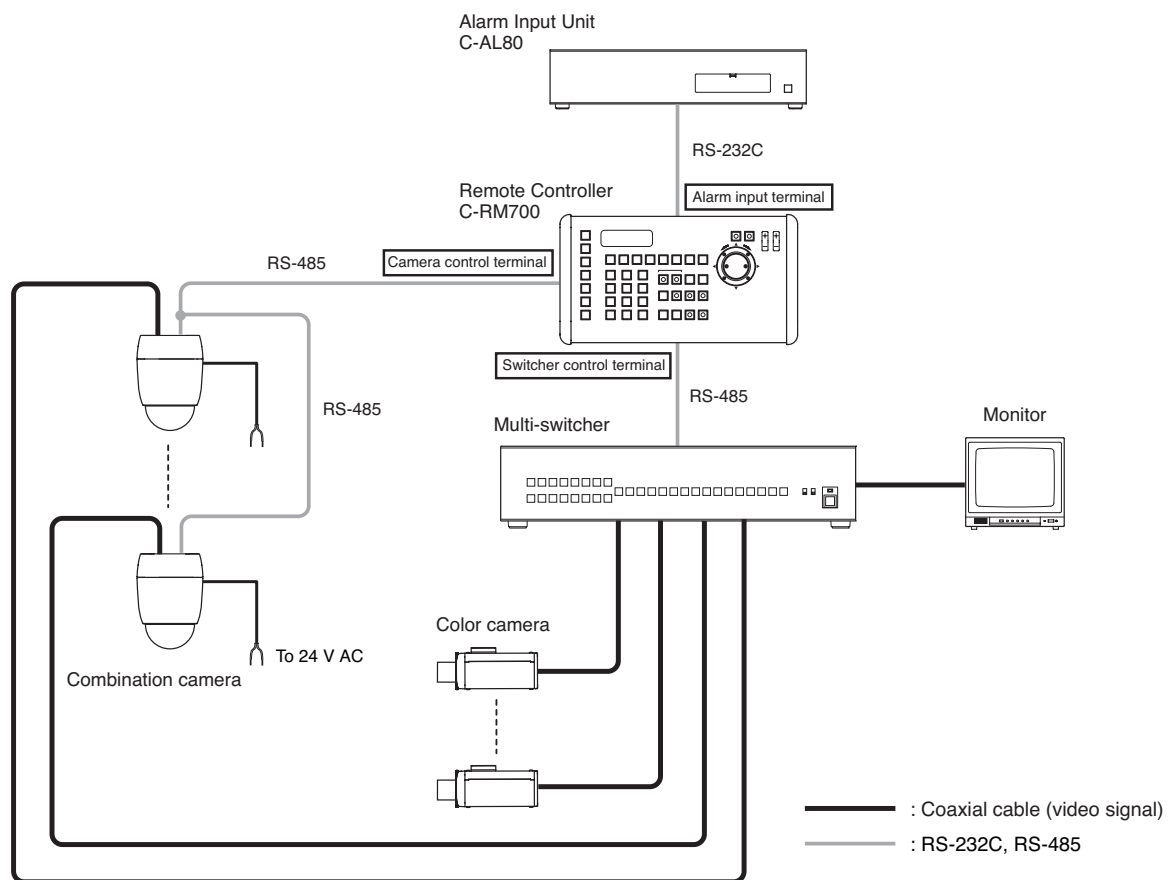
9. LIST OF FUNCTION SETTINGS

Settable functions differ depending on each camera or protocols. For details, refer to the list below.

9.1. Auto-Key Settings

For the Auto-key settings, refer to , "Auto-key."

	C-CC514, C-CC564, C-CC574, C-CC714, C-CC764, C-CC774	C-CC704
Auto Pan	Enable	Enable
Auto Trace 1	Enable	Enable
Auto Trace 2	Enable	Enable
Auto Trace 3	—	Enable
Auto Trace 4	—	Enable
Auto Trace 5	—	Enable
Auto Trace 6	—	Enable
Auto Trace 7	—	Enable
Auto Trace 8	—	Enable
Preset Sequence	Enable	—
Tour 1	Enable	Enable
Tour 2	Enable	Enable
Tour 3	Enable	Enable
Tour 4	Enable	Enable
Tour 5	Enable	Enable
Tour 6	Enable	Enable
Tour 7	Enable	Enable
Tour 8	Enable	Enable
Tour 9	Enable	—
Tour 10	Enable	—
Tour 11	Enable	—
Tour 12	Enable	—
Tour 13	Enable	—
Tour 14	Enable	—
Tour 15	Enable	—
Tour 16	Enable	—

9.2. Function Key Settings

For the Function key settings, refer to , "Function."

	TOA TYPE A			TOA TYPE B	
	C-CC504 C-CC554	C-CC514, C-CC564, C-CC574, C-CC714, C-CC764, C-CC774	C-CC704	C-CC514, C-CC564, C-CC574, C-CC714, C-CC764, C-CC774	C-CC704
Auto Pan	Enable	Enable	Enable	Enable	Enable
Auto Trace 1	Enable	Enable	Enable	Enable	Enable
Auto Trace 2	—	—	—	Enable	Enable
Auto Trace 3	—	—	—	—	Enable
Auto Trace 4	—	—	—	—	Enable
Auto Trace 5	—	—	—	—	Enable
Auto Trace 6	—	—	—	—	Enable
Auto Trace 7	—	—	—	—	Enable
Auto Trace 18	—	—	—	—	Enable
Preset Sequence	Enable	Enable	Enable*	Enable	—
Tour 1	—	—	—	Enable	Enable
Tour 2	—	—	—	Enable	Enable
Tour 3	—	—	—	Enable	Enable
Tour 4	—	—	—	Enable	Enable
Tour 5	—	—	—	Enable	Enable
Tour 6	—	—	—	Enable	Enable
Tour 7	—	—	—	Enable	Enable
Tour 8	—	—	—	Enable	Enable
Tour 9	—	—	—	Enable	—
Tour 10	—	—	—	Enable	—
Tour 11	—	—	—	Enable	—
Tour 12	—	—	—	Enable	—
Tour 13	—	—	—	Enable	—
Tour 14	—	—	—	Enable	—
Tour 15	—	—	—	Enable	—
Tour 16	—	—	—	Enable	—

* Executes the Tour 1.

10. SPECIFICATIONS

Power Source	12 V DC
Current Consumption	130 mA
Slave Remote Controller	RS-485, Screwless connector (connectable one slave-designated C-RM700)
Camera Control	RS-485 (Type A and Type B), screwless connector
Switcher Control	RS-485, screwless connector
Alarm Input	RS-232C, D-sub connector (9 pins, male)
Alarm Output/Control Input	Alarm output: 16 channels, NPN open collector output, withstand voltage: 20 V DC, control current: 20 mA, D-sub connector (25 pins, female) Time adjustment input: 1 channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: 5 mA max. Home position selection input: 1 channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: 5 mA max.
Display	LED indication of alarm status, alarm hold status, auxiliary setting 1, auxiliary setting 2, automatic operation status, control status, still picture status, lens speed, and auto focus LCD indication of key entry confirmation
Alarm Signal	Continuous alarm tone (can be turned on and off)
Number of Unit Connections	Up to 16 (controllable cameras with RS-485 communication)
Maximum Cable Distance	1.2 km (1.31 yd)*
Operating Temperature	0°C to +40°C (32°F to 104°F)
Operating Humidity	80%RH or less (no condensation)
Finish	Panel: Surface-treated steel plate, silver, paint Sides: Rubber
Dimensions	323.6 (W) x 112.7 (H) x 181 (D) mm (12.74" x 4.44" x 7.13")
Weight	1.7 kg (3.75 lb)

* Applies to the system where the unit and Combination camera are connected in a matched pair. Represents the total of connected cable distances if multiple Combination cameras or Interface units are connected in the system (when the CPEV-S cable thicker than 0.65 mm (0.03") in diameter is used).

Note: The design and specifications are subject to change without notice for improvement.

· **Accessory**
   D-sub connector (25 pins, male) 1