



## Firmware Update (v 3.0.12 or later)

**KY-PZ510NWU/KY-PZ510NWE**  
**KY-PZ510NBU/KY-PZ510NBE**  
**KY-PZ510WU/KY-PZ510WE**  
**KY-PZ510BU/KY-PZ510BE**

This is a notification on the addition of new features, feature modifications and onscreen. Please read this together with the "INSTRUCTIONS". Setting value with the ● mark is the factory default.

### Caution

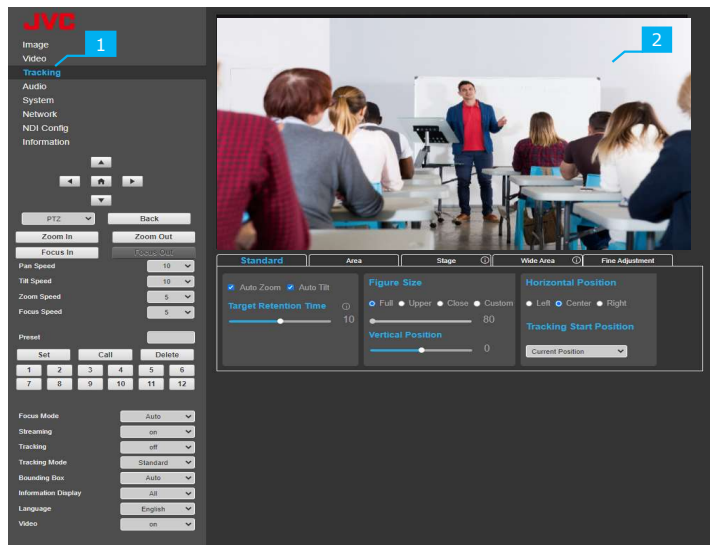
**Note that you cannot go back to the previous firmware version after you update to the latest version.**

- **Added the [Tracking] to the [View Remote Screen].**

### Tracking Menu

You can change the settings of the auto-tracking function.

Click ①[Tracking] on the left side of the [View Remote Screen], the ②Tracking settings tab on the right side.



Tracking Settings

- **[Tracking Mode] drop-down menu has been added to the View Remote Screen.**

### Tracking Mode

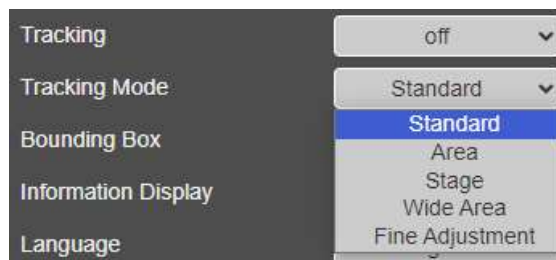
Sets the [Tracking Mode].

[Setting : ● Standard, Area, Stage, Wide Area, Fine Adjustment]

memo : \_\_\_\_\_

To change [Tracking Mode], set [Tracking] to "off".

To enable auto-tracking, set [Tracking] to "on".



Tracking Mode

- **Expanded the Auto Tracking function.**

In addition to the "Standard", four new modes have been added.

Standard	This is the normal tracking function. You can set the size to display the person on the screen, and the horizontal and vertical positions (headroom) of the person.
Area	Sets the area divided into four areas horizontally, and change the area by tracking only when the person moves to the next area.
Stage	Set the [Stage] area that is between the left and right edges, and the auto tracking is performed only when the person is in the Stage area.
Wide Area	Set two fixed areas. When the person moves to the next area, auto-tracking is performed, which is the same as [Area] mode. When a person goes out of fixed areas, it is tracked in the [Standard] mode.
Fine Adjustment	When a person's standing position is slightly different from the expected preset position, the camera tracks the person for a few seconds in [Fine Adjustment], and the PTZ position goes to the person to the center of the angle of view.

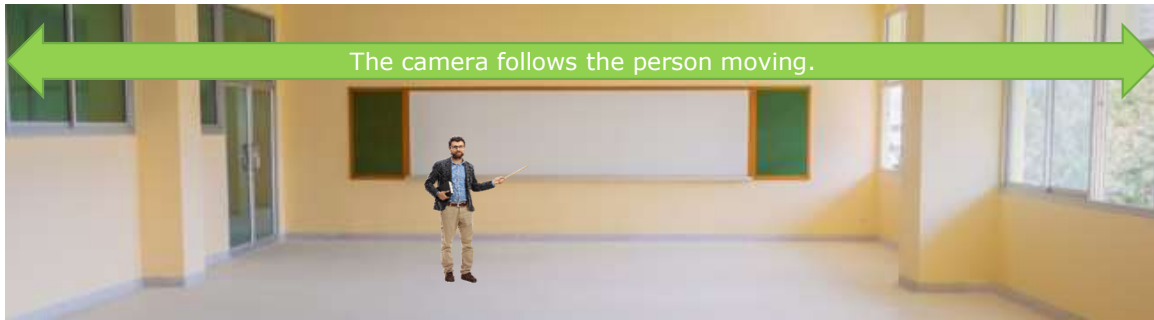
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The target person may not be tracked depending on the condition of the subject's surroundings.

## Standard

The camera tracks the person according to each setting.

You can set how the person is framed on the screen, such as their horizontal and vertical (headroom)

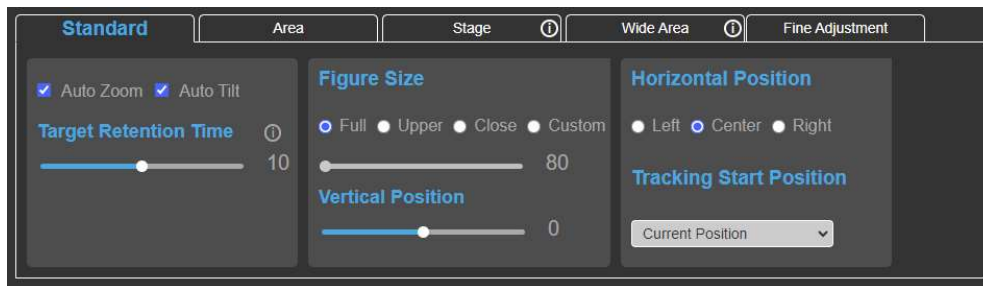


### [Standard Setting]

#### Common Settings

The settings with the same name are common to each tracking mode ("Standard", "Area", "Stage", "Wide Area" and "Fine Adjustment") and affect all tracking modes.

Example: The [Figure Size] setting in the "Standard" tab is also effective for "Fine Adjustment".



Example Standard

#### Auto Zoom

Check this box to use zoom to track.

#### Auto Tilt

Check this box to use tilt to track.

#### Target Retention Time

Sets the time for the PTZ position to return to [Tracking Start Position] when the target cannot be detected. Tracking stays "on" when camera returns to [Tracking Start Position].

[Setting Values : 5, 8, ●10, 12, 15 ]

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The unit is not seconds. This time is just a guide.

## Figure Size

Sets the framing of the person to be tracked.

[Setting Values : ●Full, Upper, Close, Custom (●80~141~290) ]

Full	Adjust the zoom to view the entire body of the person.
Upper	Displays the upper body or above the hips.
Close	Displays near the subject or above the chest.
Custom	When selected, the slider allows you to adjust the display size.



Figure Size = "Full"



Figure Size = "Upper"



Figure Size = "Close"

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Check [Auto Zoom].

## Vertical Position (Headroom)

Sets the interval from the top of the screen to the top of the subject to be tracked.

[Setting Values : -5, -4, -3, -2, -1, ●0, 1, 2, 3, 4, 5 ]



Vertical Position = "-5"



Vertical Position = "0"



Vertical Position = "5"

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Check [Auto Tilt].

## Horizontal Position

Sets where to place the tracking target.

[Setting Values : Left, ●Center, Right ]



Horizontal Position = "Left"



Horizontal Position = "Center"



Horizontal Position = "Right"

## Tracking Start Position

Sets the tracking start position.

If the tracking target cannot be detected, the camera returns to [Tracking Start Position].

[Setting Values : ●Current Position, Home Position, Preset1 ] (Standard)

[Setting Values : ●Current Position, Home Position, Preset1, W1, W2 ] (Wide Area)

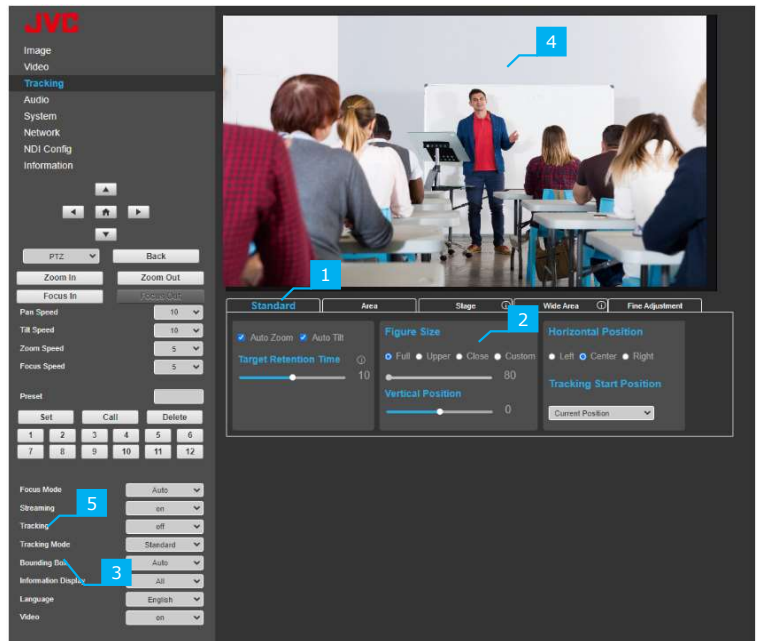
### 【Starting Auto Tracking in Standard】

1. Click the [Standard] tab on the tracking page of the View Remote Screen.
2. Set the items in the [Standard] tab.
3. Set the [Tracking Mode] to "Standard".
4. Frame the tracking target within the angle of view.
5. Set the [Tracking] to "on" to start Auto Tracking. Auto tracking starts after the camera PTZ position is moved to [Tracking Start Position].

### 【Stop Auto Tracking】

Set the [Tracking] to "off".

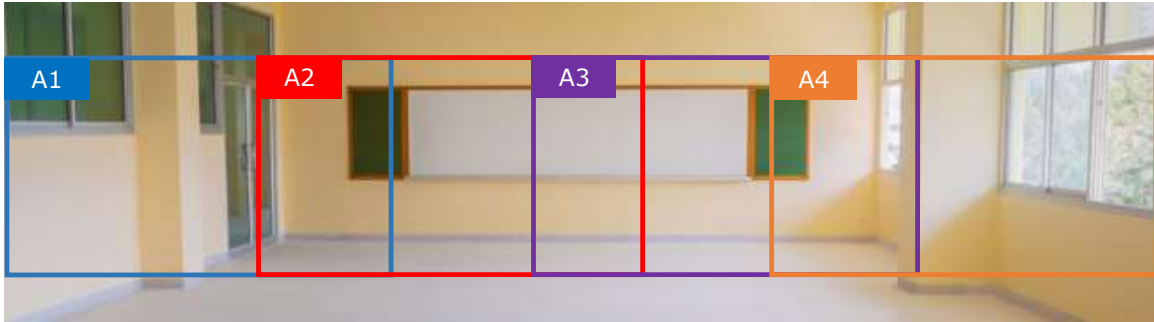
Auto Tracking stops and the camera PTZ position returns to [Tracking Start Position].



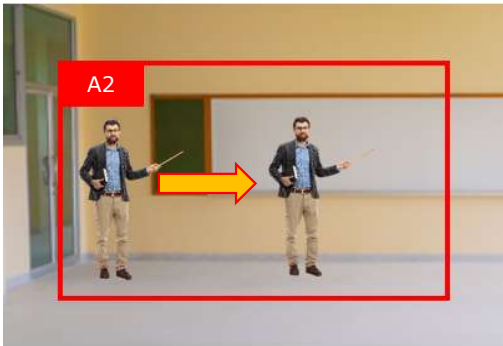
Starting Auto Tracking in Standard

## Area

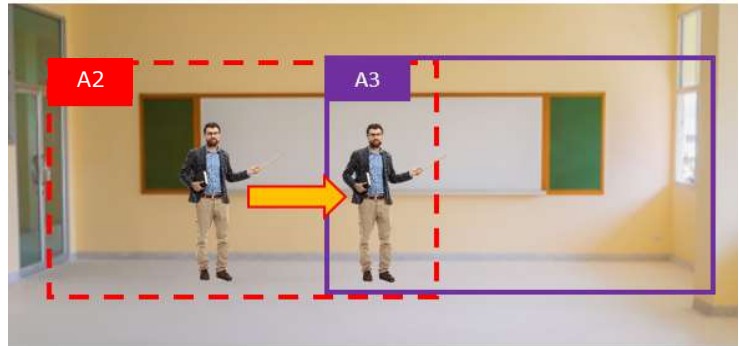
Sets up to four areas horizontally as the shooting range, tracks only when the target moves to the next area. The PTZ position also moves to the next area to follow the target. While the target person is within the same area, the PTZ position is fixed even if the person moves. The PTZ position returns to the [Starting Area] when the target moves out of the area and the time set by [Target Retention Time] is exceeded.



You can configure up to four areas.



When the target is moving in each area, PTZ position keep in the same.



The camera tracks and change area only when the target moves in the adjacent area.

## 【Area Setting】

### A1, A2, A3, A4

Use the [Set] button to register the view angles of the A1, A2, A3 and A4.

The image and PTZ position when the button is pressed are saved as a preset.

Presets 187 [A1], 188 [A2], 189 [A3], 190 [A4] are used.

The [Delete] button allows you to delete a registered preset.

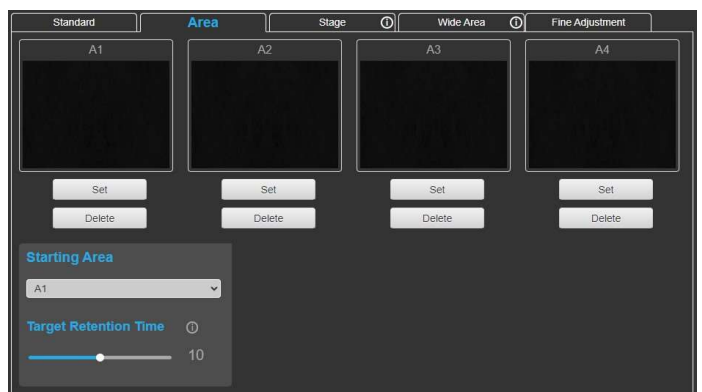
### Starting Area

Sets the tracking start position. If the tracking target cannot be detected after [Target Retention Time] is exceeded, the PTZ position returns to [Starting Area].

[Setting Values : ●A1, A2, A3, A4 ]

### Common Settings

You can set [Target Retention Time].



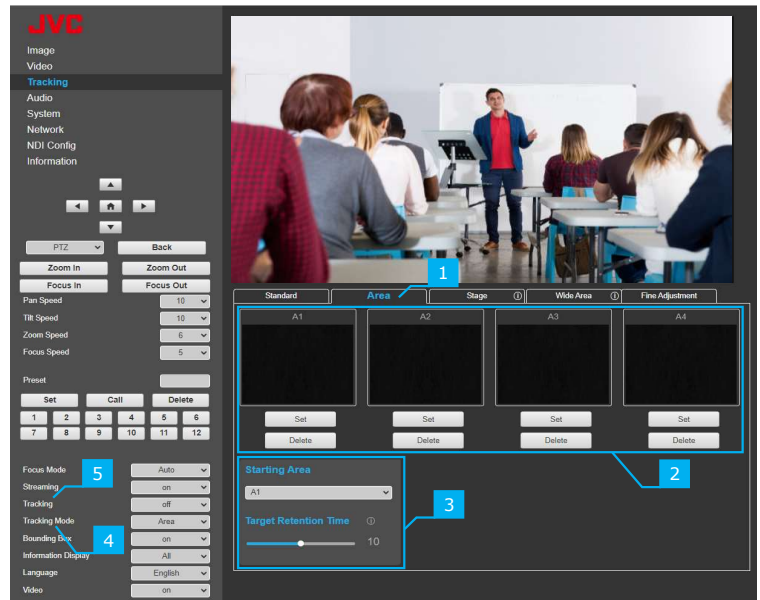
Area Setting

### 【Starting Auto Tracking in Area】

1. Click the [Area] tab on the tracking page of the View Remote Screen.
2. Set the PTZ position from A1 to A4.
  - Set the PTZ position and press the [Set] button from A1 to A4. The current PTZ position is registered from A1 to A4.
  - Set the area in the order of A1, A2, A3 and A4 from the left as seen from the camera.
  - Example: Do not place A2 to the left of A1.
  - As shown in this chart, set each area to overlap the space for one person with the adjacent area.
  - Register more than one area.
  - CAUTION: Do not set an unregistered area as the [Starting Area].
3. Set [Starting Area] and [Target Retention Time].
4. Set the [Tracking Mode] to "Area".
5. Set the [Tracking] to "on" to start Auto Tracking.
 

Auto tracking starts after the camera PTZ position is moved to [Starting Area].

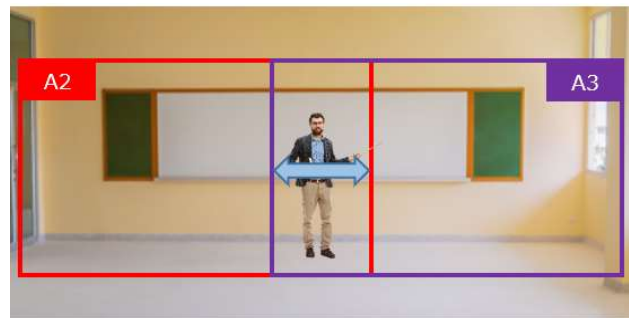
If the tracking target cannot be detected after [Target Retention Time] is exceeded, the display returns to [Starting Area].



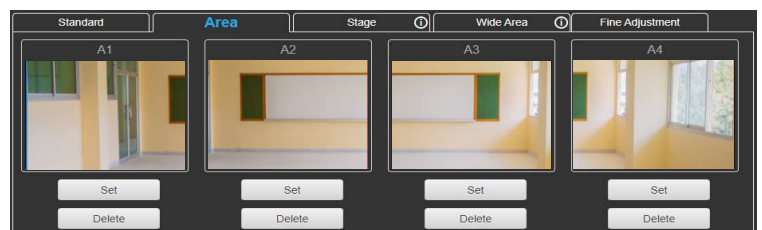
Starting Auto Tracking in Area

### 【Stop Auto Tracking】

- Set the [Tracking] to "off".
- Auto Tracking stops and the camera PTZ position returns to fixed position of [Starting Area].



set the area to overlap the space for one person with the adjacent area.



Example Area

## Stage

Set the stage area that is between the left and right edges and the auto tracking is performed only when the target person is in the stage area.



### [Stage setting]

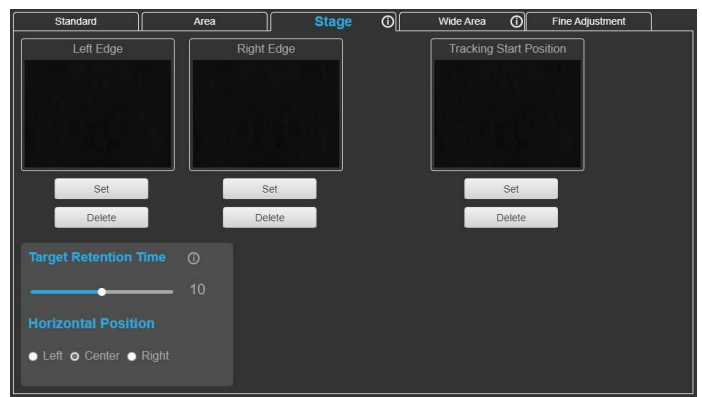
#### [Left Edge], [Right Edge] and [Tracking Start Position]

Register the range to track the target ([Left Edge] and [Right Edge]) and the angle of view for the [Tracking Start Position] with the [Set] button.

The image and PTZ position when the button is pressed are saved as a preset.

Presets 192 [Left Edge], 193 [Right Edge], and 191 [Tracking Start Position] are used.

The [Delete] button allows you to delete a registered preset.



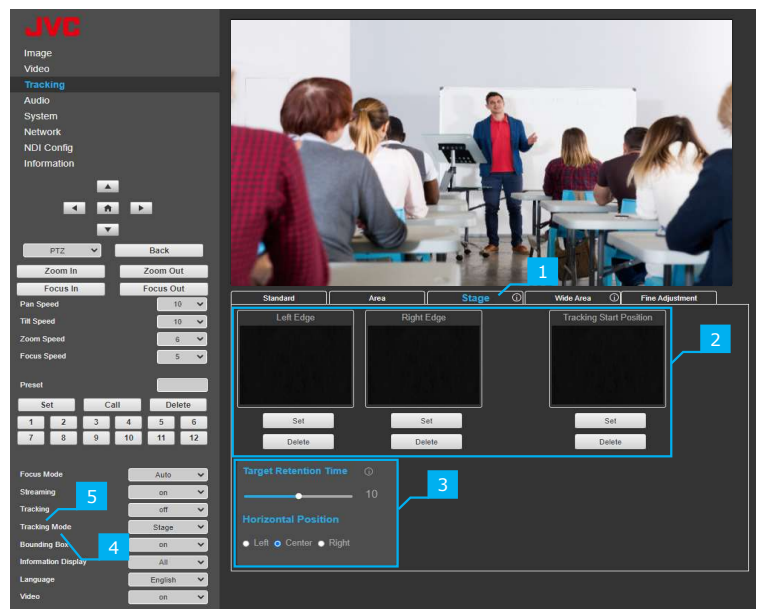
Stage Setting

### Common Settings

You can set [Target Retention Time] and [Horizontal Position].

### [Starting Auto Tracking in Stage]

- Click the [Stage] tab on the tracking page of the View Remote Screen.
- Set [Left Edge], [Right Edge] and [Tracking Start Position].
  - Set the PTZ position and press the [Set] button for [Left Edge], [Right Edge] and [Tracking Start Position]. The current PTZ position is registered.
  - Do not reverse the settings for [Left Edge], [Right Edge].
  - Auto Tracking may not work depending on the [Left Edge], [Right Edge] and [Tracking Start Position].
  - Do not turn on [Tracking] before setting [Left Edge], [Right Edge] and [Tracking Start Position].
- Set [Target Retention Time] and [Horizontal Position].
- Set the [Tracking Mode] to "Stage".
- Set the [Tracking] to "on" to start Auto Tracking. Auto tracking starts after the camera PTZ position is moved to [Tracking Start Position].

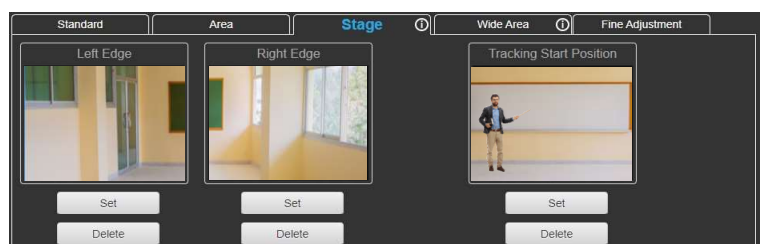


Starting Auto Tracking in Stage

### [Stop Auto Tracking]

Set the [Tracking] to "off".

Auto Tracking stops and the camera PTZ position returns to [Tracking Start Position].

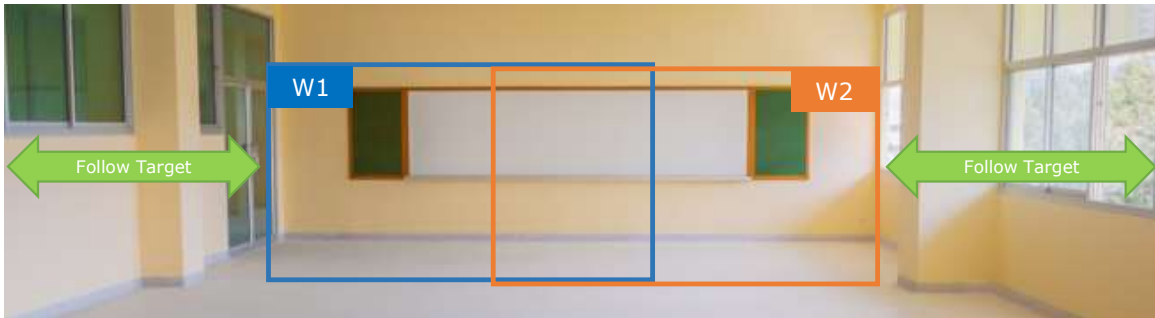


Example Stage



## Wide Area

Set two fixed areas. When the person moves to the next area, auto tracking is performed, which is the same as [Area] mode. When a person goes out of fixed areas, it is tracked as the [Standard]. When the target is in the [W1] or [W2], the same operation as in [Area]. When the target is not in the [W1] or [W2] area, the same operation as in [Standard].



The camera does not follow in [W1] or [W2].

### [Wide Area setting]

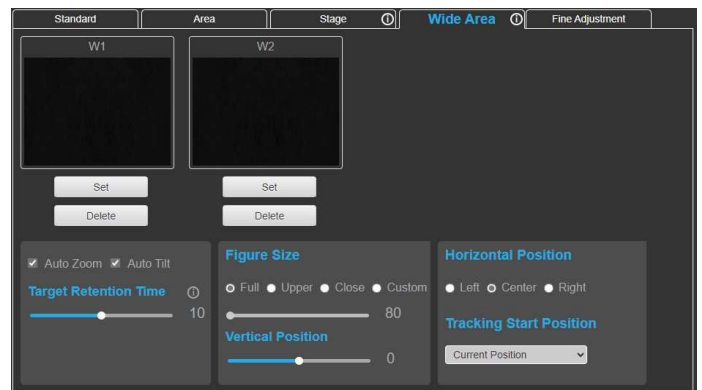
#### W1, W2

Use the [Set] button to register the view angles of [W1] and [W2].

The image and PTZ position when the button is pressed are saved as a preset.

Presets 194 [W1] and 195 [W2] are used.

The [Delete] button allows you to delete a registered preset.



Wide Area Setting

### Common Settings

You can set [Auto Zoom], [Auto Tilt], [Target Retention Time], [Figure Size], [Vertical Position], [Horizontal Position] and [Tracking Start Position].

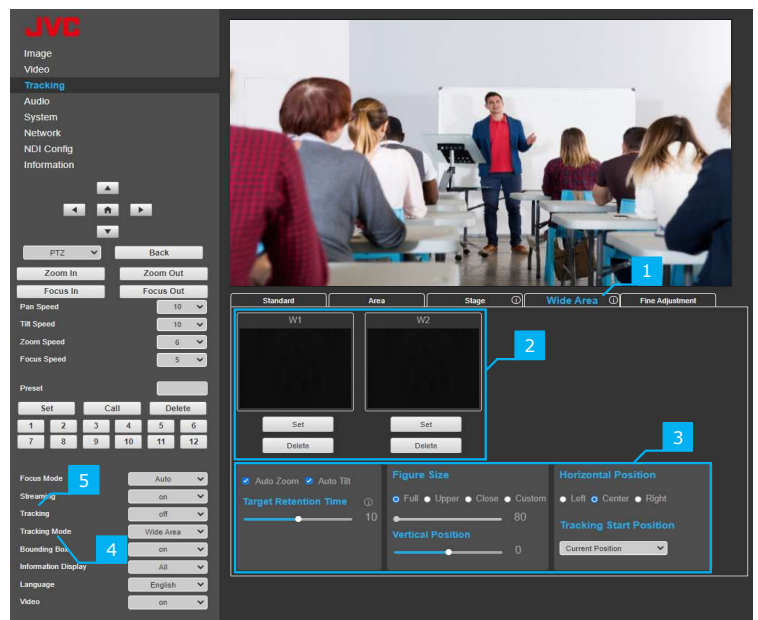
### [Starting Auto Tracking in Wide Area]

1. Click the [Wide Area] tab on the tracking page of the View Remote Screen.
2. Set [W1] and [W2].
  - Set the PTZ position and press the [Set] button for [W1] and [W2]. The current PTZ position is registered.
  - Set [W1] on the left and [W2] on the right as seen from the camera.
3. Set the items in the [Wide Area] tab.
4. Set the [Tracking Mode] to "Wide Area".
5. Set the [Tracking] to "on" to start Auto Tracking.

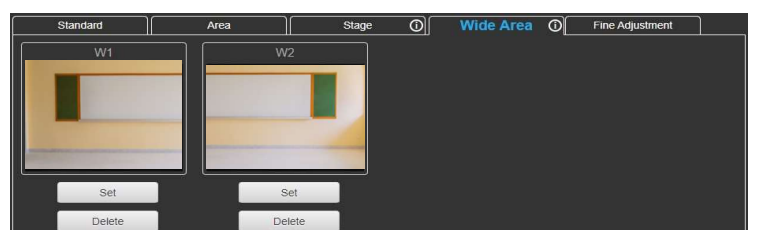
### [Stop Auto Tracking]

Set the [Tracking] to "off".

Auto Tracking stops and the camera PTZ position returns to [Tracking Start Position].



Starting Auto Tracking in Wide Area



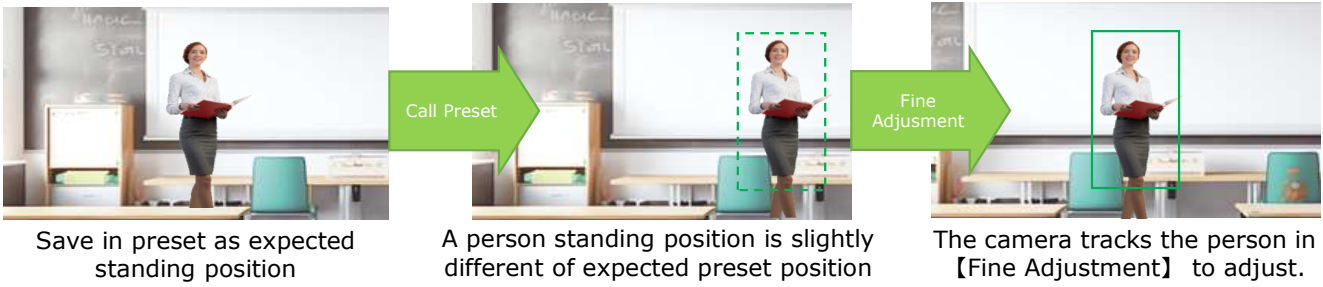
Example Wide Area

## Fine Adjustment

When the target's position is slightly different from the preset position, the camera will track target for a few seconds in [Fine Adjustment] to align the PTZ position to the center of the angle of view.

If [Tracking Duration Time] is exceeded, Normal PTZ operation is possible.

Selecting the next preset will trigger [Fine Adjustment] again.



## [Fine Adjustment Setting]

### Tracking Duration Time

Sets [Tracking Duration Time] after moving to the Preset.

If [Tracking Duration Time] is exceeded, Normal PTZ operation is possible.

[Setting Values : 1, 2, ●3, 4, 5, 6]



Fine Adjustment Settings

memo :

When the size of the person after PTZ position correction is small, Increasing [Tracking Duration Time] may help. The unit is not seconds. This time is just a guide.

## Common Settings

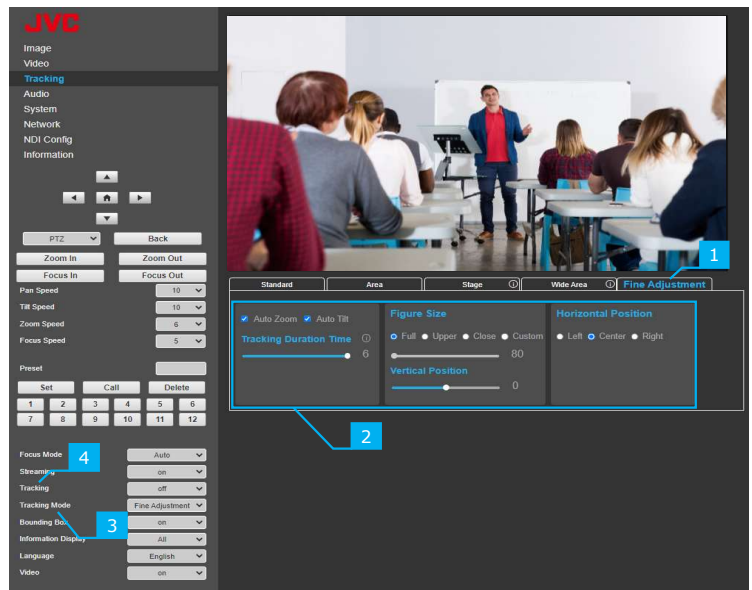
You can set [Auto Zoom], [Auto Tilt], [Figure Size], [Vertical Postion] and [Horizontal Postion].

## [Starting Auto Tracking in Fine Adjustment]

1. Click the [Fine Adjustment] tab on the tracking page of the View Remote Screen.
2. Set in [Fine Adjustment] tab. Refer to page 3-5.
3. Set the [Tracking Mode] to "Fine Adjustment".
4. Set the [Tracking] to "on" to start Fine Adjustment mode. Each time you recall a preset, adjust the PTZ position to center the person in the angle of view.

## [Stop Auto Tracking]

Set the [Tracking] to "off". Auto Tracking stops.



Starting Auto Tracking in Fine Adjustment

- **Added [Tracking Config] to the main menu.**

Added Tracking and Tracking Mode to the Tracking Settings item.  
Auto tracking can now be selected and operated from the main menu.

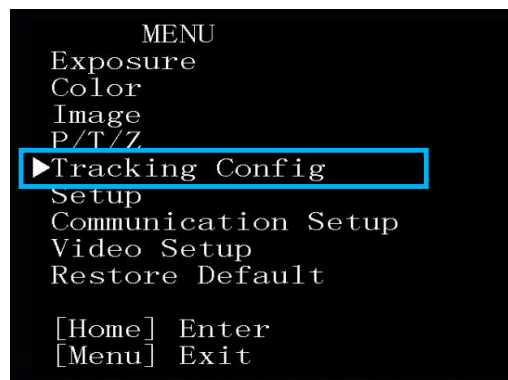
### Tracking

Set to "on" to start Auto Tracking  
[Setting Values : ●off, on ]

### Tracking Mode

Set the tracking mode to work when [Tracking] is "on".  
[Setting Values : ●Standard, Area, Stage, Wide Area, Fine Adj.]

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To change [Tracking Mode], set [Tracking] to "off".



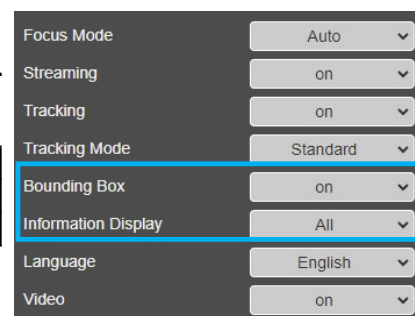
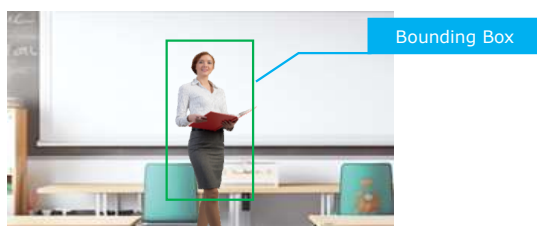
Main Menu

- **Additional drop-down menus for [Bounding Box] and [Information Display] in the View Remote Screen.**

### [Bounding Box]

Encloses the target currently being tracked during auto tracking in a green frame.  
[Setting Values : on , off, ●Auto ]

on	[Bounding Box] is always displayed during target detection.
off	[Bounding Box] is not displayed during target detection.
Auto	Displays only during target detection or select the target person.



drop-down menus

memo : \_\_\_\_\_  
When [Bounding Box] is set to "on" or "Auto", it will be visible on all HDMI/SDI, View Remote Control Screen, and Live Streaming outputs regardless of the setting of [Information Display].

### Information Display

You can select the output destination for screen displays such as the MENU.  
[Setting Values : ●All, HDMI/SDI, Web/Streaming, off ]

All	Displays on HDMI/SDI, Web (View Remote Screen), Live Streaming all at once.
HDMI/SDI	Displays only on HDMI or SDI output.
Web/Streaming	Displays only on the View Remote Screen and Live Streaming.
off	Does not appear in any output.

- **Additional target selection method during auto tracking.**

Additional selection methods of the target [Bounding Box] in multiple-person situations are as follows:

1. Left and right buttons of the View Remote Screen.
2. Double-click the person displayed in the image on the View Remote Screen.
3. Left/right operation of the control lever of the RM-LP100 Remote Camera Controller (Version 0323 or later).
4. Lever left/right operation of IP remote control operated by Standard Protocol



View Remote Screen



RM-LP100

- **Added ②[Color Matrix] to ①[SETUP] of the main menu.**
- **②[Color Matrix] has been added to the ①[Image] menu of the View Remote Screen.**

**[Color Matrix]**

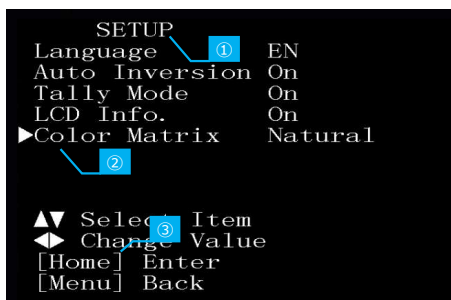
You can select "Standard" or "Natural".  
 [Setting Values : ●Standard, Natural]

Standard	Standard color matrix settings.
Natural	It is brighter and more natural than standard, and is effective for shooting under strong monochromatic light sources such as stage

memo : \_\_\_\_\_

When you select ③[Home] on the main menu, the camera will restart.

When using the View Remote Screen, press the ③[Submit & Reboot] button after selecting to restart the camera.



SETUP menu

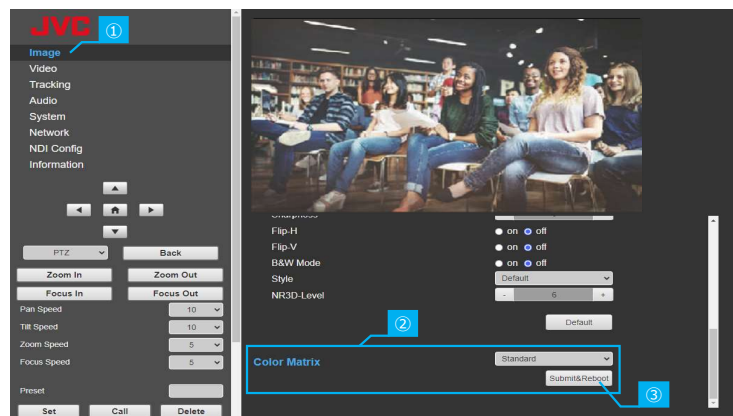


Image menu of the View Remote Screen.

- **Auto Tracking commands have been added to the JVC Web API.**

Please refer to [JVC Camcorder Web API Reference].

• **Expansion of camera settings that can be memorized and recalled for each preset position.**

Previously, the camera could only remember the pan, tilt, zoom, and focus positions.

The camera can store and set exposure, color, image quality, and PTZ settings for each preset position.

Preset Information		Before Update	After Update	Preset Information		Before Update	After Update
Exposure	Mode	-	✓	Color	Saturation	-	✓
	ExpCompMode	-	✓		Hue	-	✓
	ExpComp	-	✓	Image	Luminance	-	✓
	Backlight	-	✓		Contrast	-	✓
	Bright	-	✓		Sharpness	-	✓
	Iris	-	✓		Flip-H	-	✓
	Shtter	-	✓		Flip-V	-	✓
	Gain	-	✓		B&W Mode	-	✓
	Gain Limit	-	✓		Style	-	✓
	Anti-Flicker	-	✓	P/T/Z	AF-Zone	-	✓
	Meter	-	✓		AF-Sense	-	✓
	DRC	-	✓		Digital Zoom	-	✓
	Color	WB Mode	-	✓	Other	Zoom Position	✓
RG Tuning		-	✓	Focus Mode		✓	✓
BG Tuning		-	✓	Focus Position		✓	✓
R Gain		-	✓	Pan Position		✓	✓
B Gain		-	✓	Tilt Position		✓	✓

✓ Difference

memo : \_\_\_\_\_

You cannot restore preset positions using files exported from cameras with firmware versions earlier than v 3.0.12.

Files exported from cameras with firmware version v 3.0.12 cannot be used with cameras with version v 3.0.12 or earlier.