

0 to 25 (1)

0 to 25

(1)

(0)

0 to 31

(27)

0 to 63

COLOR%1

COLOR%2

COMMUNIC

Mode selection

CVS1

DARK CMP

IMG GAIN





djusts Color 1 margin percentage. Larger

djusts Color 2 margin percentage. Large slue means wider detection area.

: Off to 5 : On. Baud rates are 4800, 9600,

1 to 5: On. Baud rates are 4800, 9600, 19200, 38400, 576000bps in order. Data length=8bit, no parity, stop bit=1bit. When the communication function is activated, external lighting and remote monitoring are deactivated.

ter selecting, turn off and on to activate

elects CVS2 sensor mode : Pattern matching sensor : Color area sensor

Selects the correction rate of color

oarkness.

O. Off
31: Max. (Amplifies black color and converts to other colors.)
Select a larger value to detect slight difference in dark colors, and a smaller value to detect the difference between

Controls the gain of image sensor. Selecting a larger value increases the screen brightness but also noise level. Select a larger value to shorten the

nite, gray, and black

the setting.

When so to monit		activated, you can switch to another bank olor and area from the current bank (see al).
Function LCD display	Setting range (Initial value)	Description
Set value initialization INITIALZ	0 to 15 (0)	You can initialize the set values, masking and brightness irregularity correction data. Select 15, and turn the power on pressing and holding UP and DOWN 10: Locks all of the values. 11: Unlocks all of the values.
LCD up/down reverse LCD VIEW	0, 1 (0)	Normal display Reverses the LCD display vertically. Select 1 when installing the unit upside-down.
Lighting ON/OFF LIGHT ON	0, 1 (1)	O: Internal lighting OFF. (External lighting remains on.) I: Internal lighting ON.
OFF delay time OFFDELAY	0 to 5000 (0)	Stops output when the area judgment result is over the set time (unit: ms) and also out of the specified range.
ON delay time ON DELAY	0 to 5000 (0)	Starts output when the area judgment result is over the set time (unit: ms) and also within the specified range.
One-shot output ONESHOT	0, 1 (0)	When set to 1, output starts by one-shot and remains on during OFF delay time. When OFF delay time is set at "0," output remains on continuously. Change the bank to stop output.
Area range	0 to 3	Select the condition to start output. 0 : Color 1 and 2 are within the area range. 1 : Color 1 and 2 are out of the area range.

OUTSIDE

5 Operation and Display

Descriptions of LCD display Standard screen

ETEN OWN

BANK

Left: Darkest color, Right: Brightest color (Upper: Color 1, Lower: Color 2).

Output status and Sort number
Orange: Output On, Green: Output Off
When sort function is activated, the sorted bank number is displayed.

Captured imageDisplays the image captured by the camera.

Indicates the setting and editing menus.

Screen display mode Indicates the current screen mode.

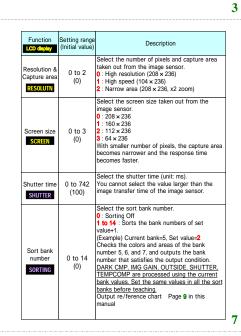
Indicates the current area (Upper: Color 1, Lower: Color 2). The area range (from upper limit to lower limit) is colored in

2

10

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orange. It is logarithmic graph



Color 1 area Upper: Lower area limit Lower: Current area. Orange indicates that the current area is within the specified range, and Green indicates that the current area is out of the specified range.

Response time
Displays the response time
from starting image capture
to outputting by the unit of
0.1ms.

range.

Indicates the transmitting/receiving status.

S Readout command is correctly received and response is nsmitted.

Set value access command is correctly received and response is

transmitted.

Data or checksum error in readout command.

Data or checksum error in set value access command.

Error command is received.

Color 2 area Same as .

Setting range (Initial value) Description Selects the synchronization input setting. When set to 0-3, the bank selection 3 input is assigned to the synchronization input. The ssigned to the synchronization input, ine apturing conditions are as follows.

! While the synchronization input is Off

! When the synchronization input is switched om On to Off

! While the synchronization input is On

! When the synchronization input is on

"When the synchronization input is switched om Off to On

Captures images continuously 0 to 4 input : Captures images continuously nables/disables teaching, masking, brightnes regularity correction, and PC communication: Enables all of the functions. Enables teaching (TEACH1, TEACH2) only: Disables all of the functions. 0 to 50 nigh temperature, this function comper e color difference. The function is off when TEMPCOM pecifies the position to display the color to Color ach when the external teaching is used.

Displays the color detection window in HRU screen (excluding the system menu. detection (0) WINDOW

3 Setting Options

n to 9999

(1)

0 to 9999

0 to 9999

0 to 9999

0 to 16 (16)

(0)

Color 1

Color 2

AREA LO2

Color 1

AREA HI1

Color 2

AREA HI2

BANK

The funct

Description

ects the lower limit of Color 1 dete

lects the lower limit of Color 2 dete

lects the upper limit of Color 1 tection area.

elects the upper limit of Color 2 tection area.

The set value "0" corresponds to "9999."

The set value "0" corresponds to "9999."

Selects the bank selecting option.

14: Selects the set bank. (Bank election 2 input is the external teaching

nput) 16 : Selects a bank by external input.

bank. During copying, capture and judgment is interrupted. When the power turned off, the setting returns to "0."

ited in purple contain the set values for each bank.

The value settings and their lock information are shared in both of pattern matching and color area sensor modes. When the sensor mode is switched, the lower/upper area limit values, position axis, and rotation correction axis may become incorrect, or the locked items may be shifted.
When this happens, perform the setting or teaching again (for each sensor mode)

Changing the Monitor Bank Number

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4 Reading Sort Number

Judgment Output and AUX output Three(3) sort numbers are read out using two(2) types of output. The outputs appear as follows starting the current

iuiiibei.		
	Control output	AUX output
Bank No.	(Black)	(Red/Black)
Current	ON	OFF
+ 1	OFF	ON
+ 2	ON	ON
The above co	mbinations are re	peated in order

r (for the

RS232C communication is available by connecting the optional cable (CVS-C2C) to the external connecter (CVS manual page 7). This communication function allows reading up to fifteen(15) sort numbers. ("255" is returned when sorting is not activated.)

Bank number readout protocol Command Data Checksum Received by CVS2

53H		49H		63H	-	recoursed by	0102	
Transmitted		Response		Sort number (Lower,			Checksum	
by CVS2	_	06H		0 to 14, 2	55	0, 255	SUM	
SUM = one's complement of (06H + Sort number Lower + Upper								

Received data error or checksum error
Response Data (Lower) Data (Upper) Checksum
15H 00H 00H EAH

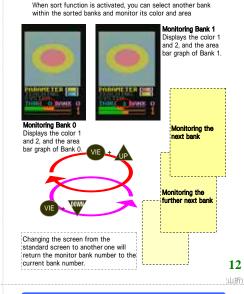
The response may delay by 3 seconds or more during external

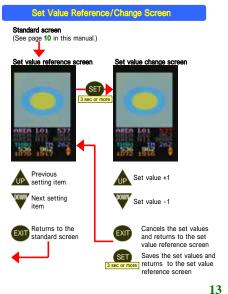
The settings and procedures are basically common with CVS2 pattern matching sensor functions. Refer to CVS2 manual for operation examples. CVS2 manual page 48 CVS2 manual page 48 CVS2 manual page 23 CVS2 manual page 29 CVS2 manual page 46 Standard Screen Operation screen See page 13 in this SET Teaching menu See page 14 in this manual. See page 19 in this

Color 1 or 2 is within the area range. Color 1 or 2 is out of the area range.

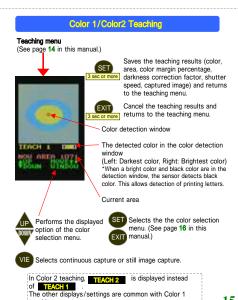


Changing the Screen Display Mode







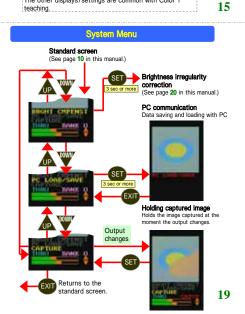


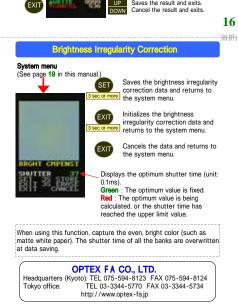




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