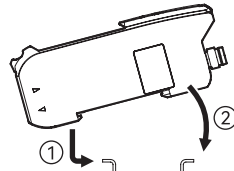




## SYSTEM PARAMETER SETTING

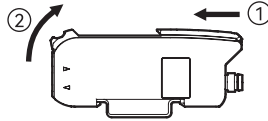
### Amplifier installation

- Clip the bayonet at the bottom of one end of the amplifier to one side of the DIN rail.
- Press the other end of the amplifier until it locks on the DIN rail.



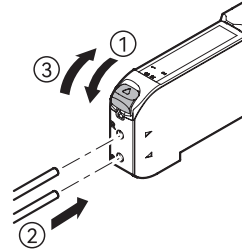
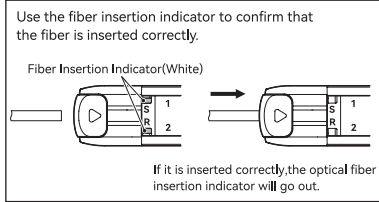
### Amplifier Disassembly

- Push the amplifier in the direction shown in the figure.
- Lift the other end of the amplifier to take out the amplifier.

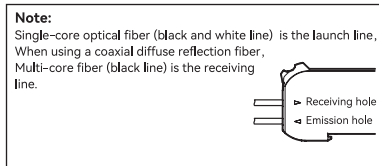


### Fiber installation

- Open the fiber fixing bolt (push down).
- Insert the optical fiber into the optical fiber groove and insert it as far as possible to the bottom of the groove.

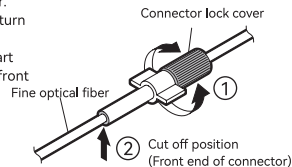


- Close the fiber fixing bolt (push up).



### How to use thin fiber

- In the state where the connector lock cover is loosened (the connector lock cover is rotated counterclockwise). Next insert the fiber into the connector from the right so that the fiber optic cable out of the front end of the connector. Then lock the connector lock cover (turn clockwise).
- Use fiber scissors to cut off the part of the fiber that protrudes from the front end of the connector



## SETTING MENU

Main menu	Submenu	Setting range, description	Initial value		
S1	L / D ON (N.O./N.C.) <sup>※1</sup>	Normally open mode, normally closed mode (N.O./N.C.)	Normally open		
S3	Response time	When the standard type and connection type master machine are used alone: 16 $\mu$ s, 70 $\mu$ s, 250 $\mu$ s, 500 $\mu$ s, 1ms, 2 ms, 8 ms When connecting the master machine and slave machine of the connection type: 22 $\mu$ s, 70 $\mu$ s, 250 $\mu$ s, 500 $\mu$ s, 1ms, 2ms, 8ms	250 $\mu$ s		
S4	Timer	Invalid, ON delay, OFF delay, on/off delay, single pulse output, ON delay single pulse	Invalid		
S6	Display screen				
	P1	Display mode	value, Percentage, bar graph, count value <sup>※2</sup> , edge value read <sup>※3</sup>	Illuminated value	
	P2	Keep showing	Invalid, peak/valley, peak, valley, time, on		
	P3	Brightness	10~100% (adjust in units of 10%)		100%
	P4	Swivel monitor	Invalid, valid		Invalid
	P5	Reverse display	Invalid, valid		Invalid
	P6	Alarm display	Invalid, valid		Invalid
	P7	Return to zero	Cancel, carry out		No Execute
	P8	Power saving mode	Invalid, valid		Invalid
	P9	Zoom mode <sup>※4</sup>	Invalid, valid-10times, valid-50times		Invalid
PA	Display language	English, Japanese, Simplified Chinese, Spanish, Korean	English		
PB	Return to main menu				
S7	Detection detailed settings				
	D1	Hysteresis	1 ~ 90%	5%	
	D2	Judgment mode	Standard mode, edge mode, invalid	Standard mode	
	D3	Light intensity compensation	Invalid, valid	Valid	
	D4	Sensitivity automatic adjustment	Invalid, valid-standard, valid-fast, valid-high speed	Invalid	
	D5	Brightness	Strong, medium, weak, automatic	Powerful	
	D6	Counter mode	Invalid, valid	Invalid	
	D7	Counter threshold <sup>※2</sup>	1~16383	10	
	D8	Edge direction <sup>※3</sup>	Up, down, two directions	Two directions	
	D9	Marginal time	16 $\mu$ s: 16 $\mu$ s ~ 5610 $\mu$ s 70 $\mu$ s: 70 $\mu$ s ~ 17850 $\mu$ s, 250 $\mu$ s: 250 $\mu$ s ~ 63750 $\mu$ s, 0.5ms: 0.5ms ~ 127.5ms 1ms: 1ms ~ 255ms, 2ms: 2ms ~ 510ms, 8ms: 8ms ~ 2040ms	2500 $\mu$ s	
DA	Edge lag <sup>※3</sup>	1 ~ 999	5		
S8	1/0				
	01	Input and output format	NPN, Push Pull, PNP	NPN	
	02	Pin2 setting <sup>※6</sup>	Switching output2, light receiving diagnostic output, teaching input, laser off, counter reset <sup>※5</sup> , invalid	Switching output2	
	03	Pin5 setting <sup>※7</sup>	Switching output2, receiving light diagnosis output, response output, invalid	Switching output2	
	04	Pin2 setting <sup>※7</sup>	Teach input, laser off, counter reset <sup>※5</sup> , read memory, invalid	Teaching input	
	05	Lock level	Key-Input, only keys	Key-Input	
	06	Write memory	Storage 1-5	—	
	07	Read memory	Storage 1-5	—	
08	Return to main menu				
S9	Information				
	I1	Product number	Factory time		
	I2	Software version number	Displays the software version of the product		
	I3	Hardware version number	Displays the software version of the product		
	I4	Internal temperature	Displays internal temperature in degrees Celsius		
	I5	Working hours	Display the working time after initialization		
	I6	Total working hours	Display working hours		
	I7	Counter value <sup>※5</sup>	Display counter values in counter mode		
	I8	Diagnosis of received light	Display diagnostic values for light exposure		
	IB	Edge peak <sup>※5</sup>	Display edge peak in edge peak mode		
	IC	Return to main menu			
	SC	Initialization			
SB	Not execute				
SB	Initialize settings				
SB	Reset				
SD	Go to the RUN screen				

※1 [N.O./N.C.] is displayed when [Edge Mode] is selected in [D2 Judgment Mode] or [Area] or [Window] is selected during teaching.

※2 Displayed when [Valid] is selected in [D6 counter mode]

※3 Displayed when [Edge Mode] is selected in [D2 Judgment Mode].

※4 When [Edge Mode] is selected in [D2 Judgment Mode], only [Disable] or [Valid] can be selected.

※5 Displayed when [Standard Mode] or [Disable] is selected in [D2 Judgment Mode].

※6 Displayed on FR-1-PNH

※7 Displayed on FR-1-PNH