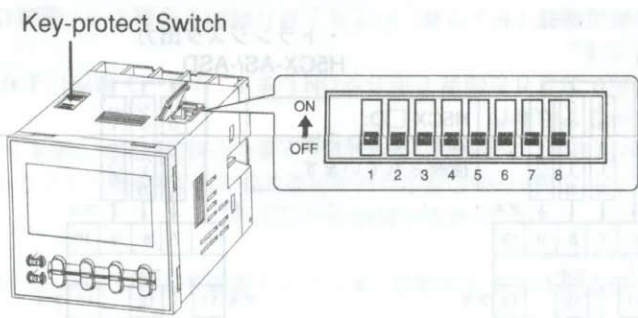


**Operating Instructions for Automatic Control Package for 311 Series Tilt-To-Load Drum Tumblers
with Serial Number 246333 - _____**

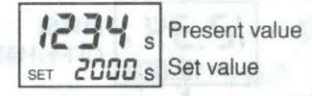
Application as a Timer

Step1 Basic settings can be done only with the DIP switch.
Note: H5CX-L8□ has no DIP switch, so go to **Step2**.



Key-protect Switch

• Display in RUN mode.
(except for Z mode)



Item	OFF	ON
1 DIP Switch Setting	Disable	Enable
2 Time range	See at right.	
3 Output mode	See at right.	
4 UP/DOWN mode	UP	DOWN
5 Input signal width	20ms	1ms

Switch2	Switch3	Switch4	time range
ON	ON	ON	0.001s to 9.999s
OFF	OFF	OFF	0.01s to 99.99s
ON	OFF	OFF	0.1s to 999.9s
OFF	ON	OFF	1s to 9999s
ON	ON	OFF	0min01s to 99min59s
OFF	OFF	ON	0.1min to 999.9min
ON	OFF	ON	0h01min to 99h59min
OFF	ON	ON	0.1h to 999.9h

Switch5	Switch6	Output mode
OFF	OFF	A Mode (Signal-ON delay (I) : Power recycle)
ON	OFF	A-2 Mode (Power-ON delay (I) : Power recycle)
OFF	ON	E Mode (interval: Power recycle)
ON	ON	F Mode (Cumulative : Power retain)

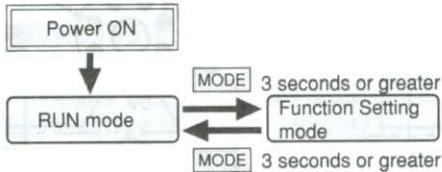
Note: Default settings are all OFF.

- Turn ON pin 1 on the DIP switch (enabled).
- DIP switch settings are updated when the power is turned ON. (Set the DIP switches before installation and turning on power.)

Operating Instructions for Automatic Control Package for 311 Series Tilt-To-Load Drum Tumblers with Serial Number 246333 - _____

Step 2 Functions that are not set on the DIP switch are set using front panel keys.

Switch from RUN mode to Function Setting mode.



Set each parameter

Items indicated with are not displayed when DIP switch setting is enabled. (pin 1 of the DIP switch is ON.)

Adjust set value with keys. The reverse video shows the default setting.

R	A	Signal-ON delay (I) : Power recycle
R-1	A-1	Signal-ON delay (II) : Power recycle
R-2	A-2	Power-ON delay (I) : Power recycle
R-3	A-3	Power-ON delay (II) : Power retain
b	B	Repeat cycle (I) : Power recycle
b-1	B-1	Repeat cycle (II) : Power retain
d	D	Signal-OFF delay: Power recycle
E	E	Interval: Power recycle
F	F	Cumulative: Power retain
Z	Z	Repeat cycle duty variable : Power recycle

Hold	Hold output /One-shot output (0.01 to 99.99s)
0.01 to 99.99	

* Indication becomes "Hold" when output time is set to "0.00".

20ms	20ms
1ms	1ms

nPN	NPN input
pNP	PNP input

	Control output OFF	Control output ON
rEd	Always Red	
Grn	Always Green	
r-G	Red	Green
G-r	Green	Red

HP-1	Key protection level 1
HP-2	Key protection level 2
HP-3	Key protection level 3
HP-4	Key protection level 4
HP-5	Key protection level 5

• Display in RUN mode. (Z mode)

12.34 s Present value ON duty

18.50 s Present value Cycle time

Time range

- 0.01s to 99.99s
- 0.1s to 999.9s
- 1s to 9999s
- 0min01s to 99min59s
- 0.1min to 999.9min
- 1min to 9999min
- 0h01min to 99h59min
- 0.1h to 999.9h
- 1h to 9999h
- 0.001s to 9.999s

**Operating Instructions for Automatic Control Package for 311 Series Tilt-To-Load Drum Tumblers
with Serial Number 246333 - _____**

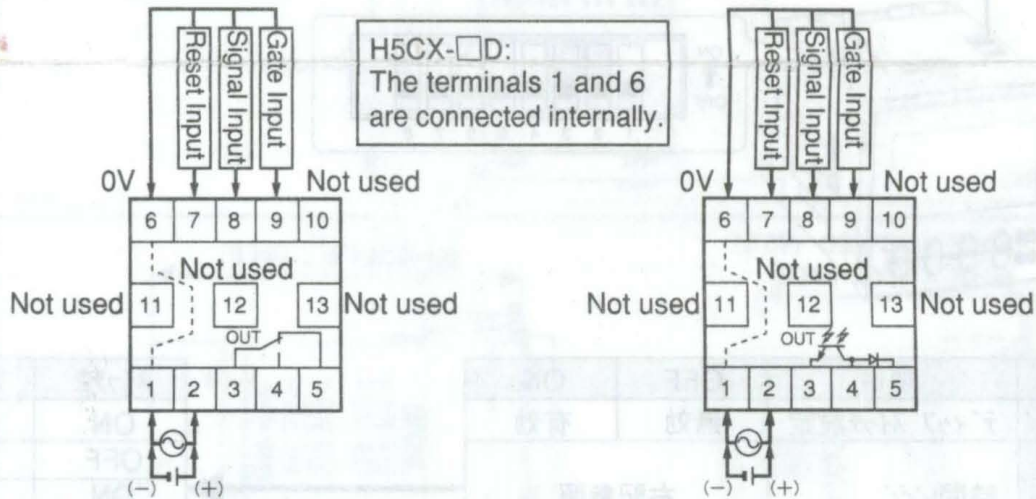
Terminal Arrangement

Use after checking the specifications of the power supply voltage.
Do not connect unused terminals.

Recommended lead wire: AWG 18 to 24, solid or stranded, copper

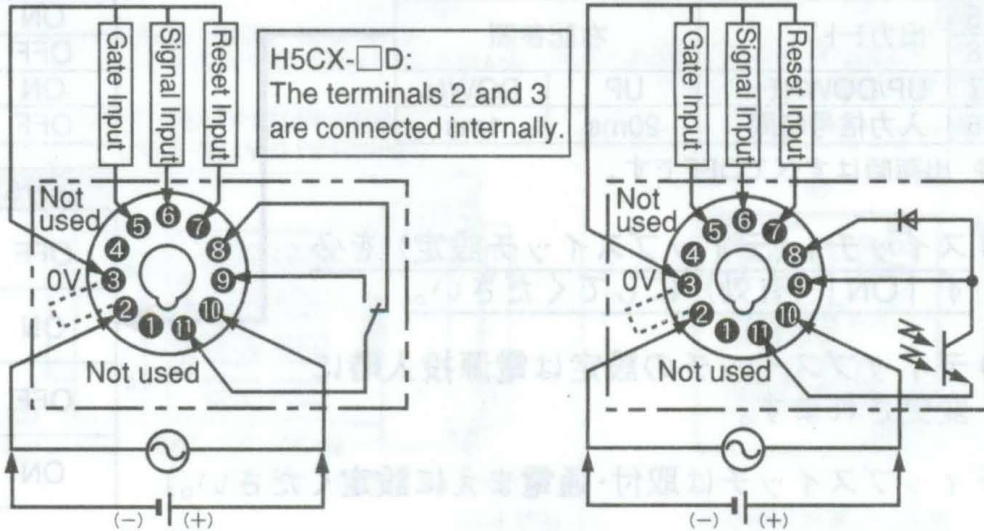
•Contact output
H5CX-A/-AD

•Transistor output
H5CX-AS/-ASD

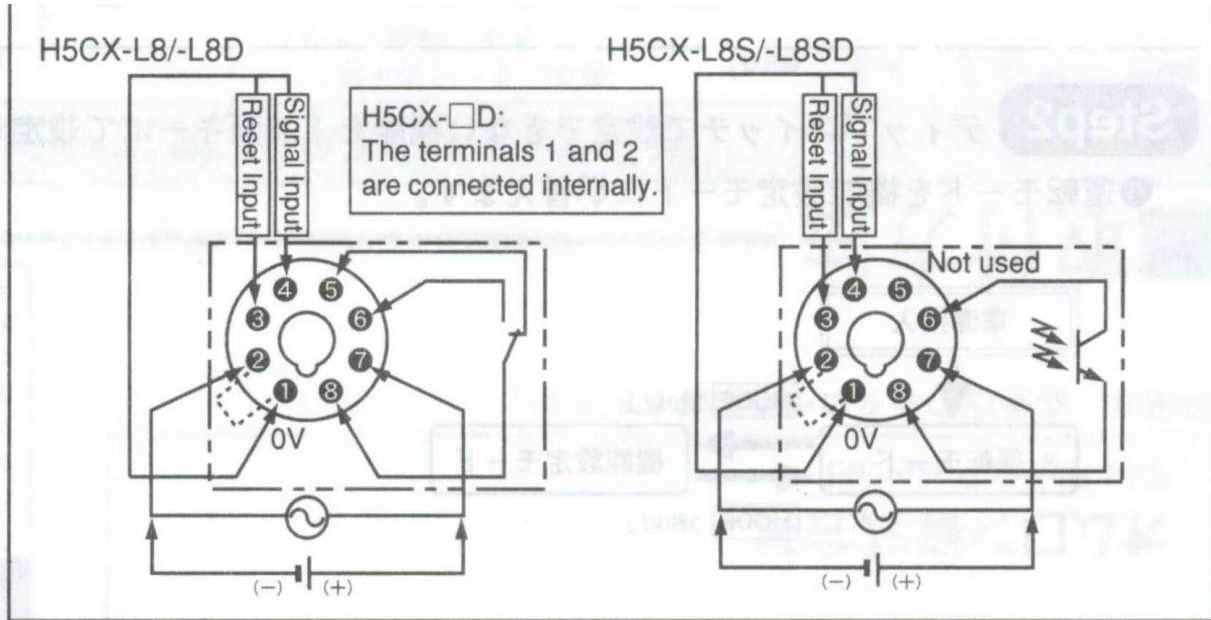


H5CX-A11/-A11D

H5CX-A11S/-A11SD



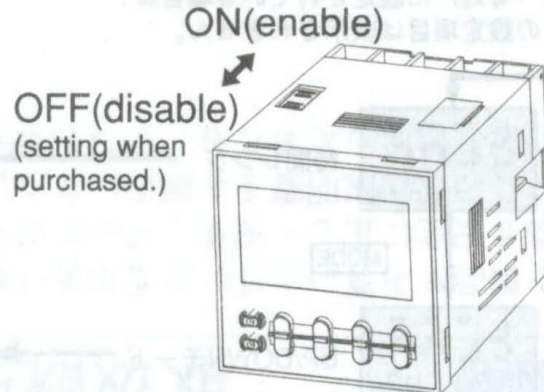
Operating Instructions for Automatic Control Package for 311 Series Tilt-To-Load Drum Tumblers with Serial Number 246333 - _____



Key-protect Switch Settings

When the key-protect switch is ON, individual key operations can be disabled to prevent setting errors according to the key-protection levels shown in the following table.

* Key-protection levels are set in Function Setting mode.



Level	*Mode change	Display switch in the RUN mode	Reset key	Up / Down key
KP-1	Invalid	Valid	Valid	Valid
KP-2	Invalid	Valid	Invalid	Valid
KP-3	Invalid	Valid	Valid	Invalid
KP-4	Invalid	Valid	Invalid	Invalid
KP-5	Invalid	Invalid	Invalid	Invalid

* Transition to "Model selection mode" and "Function setting mode".

**Operating Instructions for Automatic Control Package for 311 Series Tilt-To-Load Drum Tumblers
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Self-diagnostic functions			
Present Value	Set Value	Meaning	Recovery
E2	No display	Memory error (RAM)	Turn the power OFF and ON again. If normal operation is still not restored, it may be necessary to repair or replace the H5CX. If the display is restored to normal, then a probable cause can be external noise affecting the control system. Check for external noise.
E2	SUN	Memory error (EEP)	All settings are initialized to the factory setting when pressing Reset key.
E1	No display	CPU error	Reset Key or power cycled.

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