

SEIKO

JT-601 *JUDO Timer*

OPERATING MANUAL

Thank you for purchasing SEIKO JUDO TIMER JT-601.
Before using your SEIKO JUDO TIMER, please read this manual
carefully for its proper use and care.
Keep this manual handy for ready reference.

CAUTION

- (1) This manual may not be copied or reproduced in any form, in whole or in part, without the express written consent of SEIKO.
- (2) This manual may be subject to change without notice.
- (3) This manual has been prepared carefully to provide you with complete information for the operation of this product. For the purpose of constant improvement in this manual, your suggestions and comments on the descriptions included in it are highly appreciated.
- (4) SEIKO shall not be liable for any failure of this product or direct or indirect damages resulting from such failure if such failure is caused due to abuse, misuse, failure to observe instructions in this manual and neglect of other reasonable care, and servicing, changes, modifications or alterations performed by other than SEIKO or a servicing contractor authorized by SEIKO.

SAFETY ALERT SYMBOLS

The symbols and terms used in this manual have the meaning as explained below:



WARNING

WARNING is used to indicate a potentially hazardous situation which is likely to cause death or severe personal injury if the instructions under this heading are not followed correctly.



CAUTION

CAUTION is used to indicate a potentially hazardous situation which is likely to cause personal injury or property loss if the instructions under this heading are not followed correctly.

The following pictorial symbols indicate what must NOT be done.



General prohibition



Prohibition against disassembly/tampering



Prohibition against use near water



Prohibition against handling with wet hands



Prohibition against exposure to water

The following pictorial symbols indicate what must be done.



General instructions













Extraction of power plug

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1. SAFETY PRECAUTIONS

The following precautions must be strictly observed for the safety of yourself and your fellow workers and for the protection of property from loss and damages.

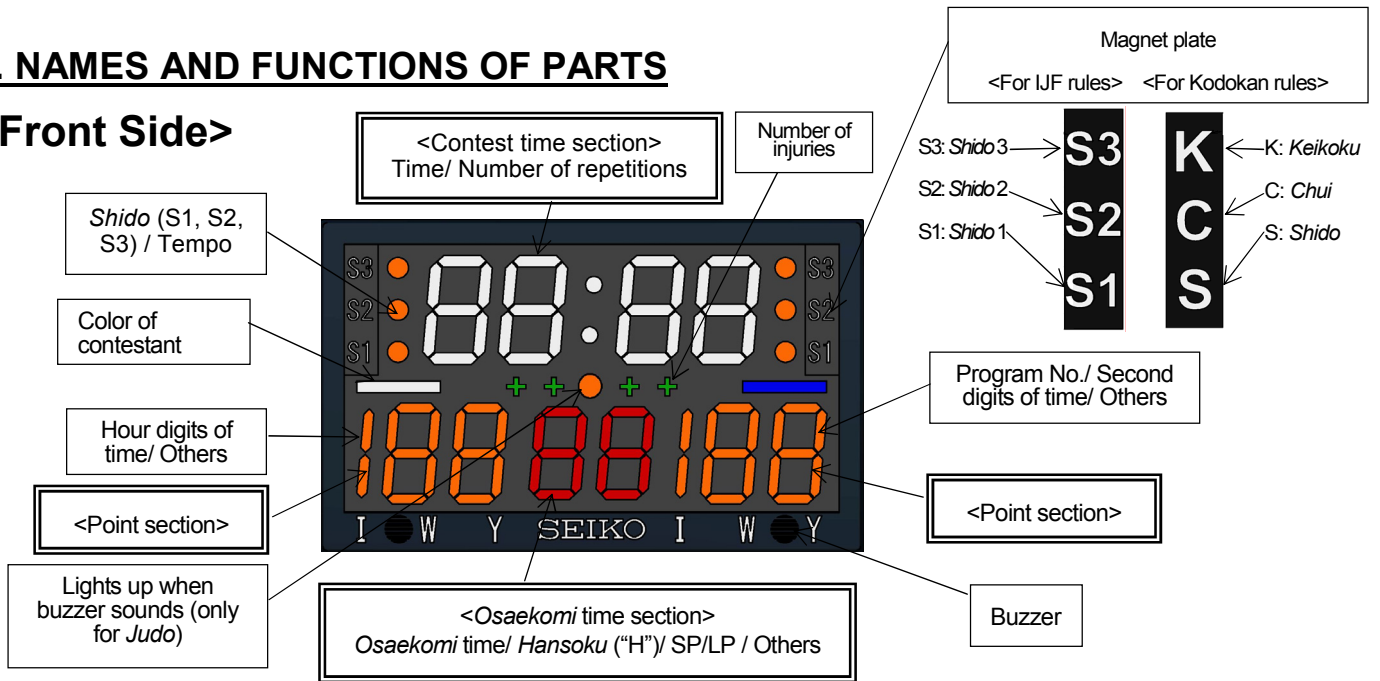
 WARNING		
Actions to be taken in case of troubles	If the Product is giving out smoke or burnt smell, or showing other abnormal symptoms, turn off the power switch and cut the power supply immediately. Then, call your nearby SEIKO dealer or agent for repair service. If the Product is used again without being reconditioned, an electric shock or fire may be caused.	
Caution on cable connection	When unplugging the power cord from the outlet, do not pull the cord, but hold the plug. An electric shock, a malfunction or fire may be caused.	
	Never use any damaged power cord or plug, or loose socket. An electric shock, short circuit or fire may result.	
	Do not use the Product at humid or dusty places, or places where the temperature changes abruptly. A short circuit or electric shock may result.	
Prohibition against unauthorized disassembly, repair or modification	Unless you are a qualified electrician, never try to disassemble, repair or modify the Product. For repair service, contact your nearby SEIKO dealer or agent. Unauthorized disassembly, repair or modification may cause an electric shock or fire.	
No foreign matter	Do not let any foreign matter such as pin and a piece of metal enter into the inside of the Product. In case this has occurred, turn off the power switch immediately, and call your nearby SEIKO dealer or agent for inspection. If the Product is used again without being reconditioned, an electric shock or fire may result.	
Prohibition against use near water	The Product is designed for indoor use only, and its case is not water resistant. Never expose the Product to water. Do not use it outdoors or near a swimming pool, where it may be exposed to rain or splashes of water. A short circuit or electric shock may result.	
Prohibition against handling with wet hands	Never operate the Product with wet hands. An electric shock or malfunction may result.	
Prohibition against exposure to water	Do not get the power and other connectors wet. A burn or a malfunction may be caused.	

CAUTION

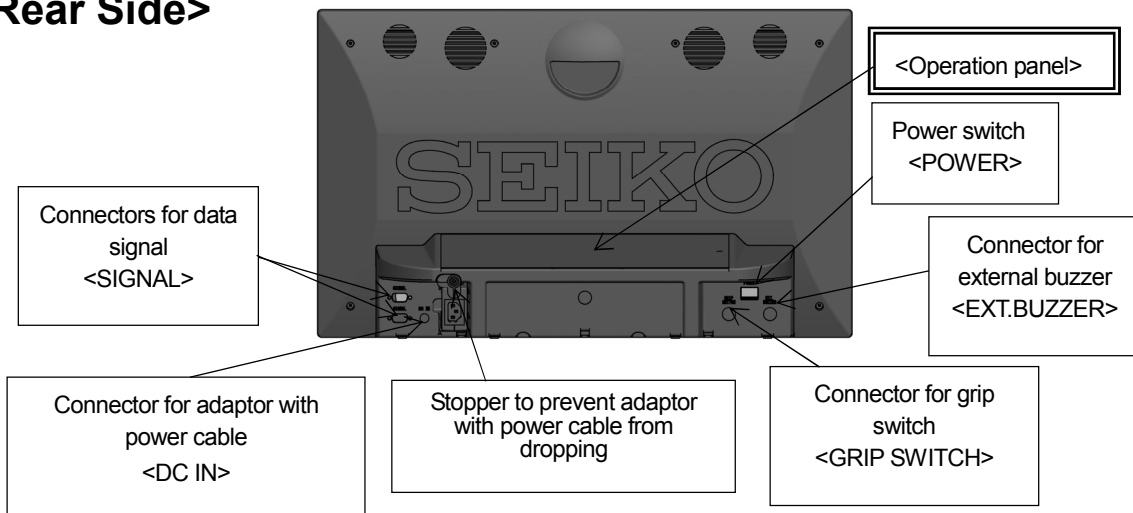
<p>Do not leave the Product under direct sunlight for a long time. The temperature inside it may rise excessively to damage the circuit and other parts.</p>	
<p>Before connecting the power cord and other cables to the Product, be sure to check that the power switch is turned off. Do not use any power cord or cable other than specified. Otherwise, an electric shock or malfunction may be caused.</p>	
<p>This Product is equipped with precision electronic circuits. Misuse or abuse, or rough handling of the Product may adversely affect the performance of such electronic circuits, causing a malfunction and reducing the serviceable life of the Product.</p>	
<p>When the power switch is turned on and off or vice versa in succession, an interval of at least 5 seconds should be provided between the switch operations.</p>	
<p>Before moving the Product, be sure to turn off the power switch. An electric shock or malfunction may result.</p>	
<p>While the Product is not in use, be sure to keep the power plug disconnected from the outlet. Otherwise, the insulation will be deteriorated to cause an electric shock, leakage of electricity, or fire.</p>	
<p>If any abnormal operation occurs due to an abnormal signal transmitted from outside or other causes, turn off the power switch, and then turn it on again after at least 5 seconds.</p>	
<p>When connecting the cables, insert the plugs properly. Otherwise, a malfunction or abnormal operation may be caused.</p>	
<p>Do not expose the case of the Product to solvents such as alcohol and gasoline, spray of cosmetics or the like, cleaners, adhesives, or paints. They may discolor, deteriorate or damage the case due to chemical change.</p>	

2. NAMES AND FUNCTIONS OF PARTS

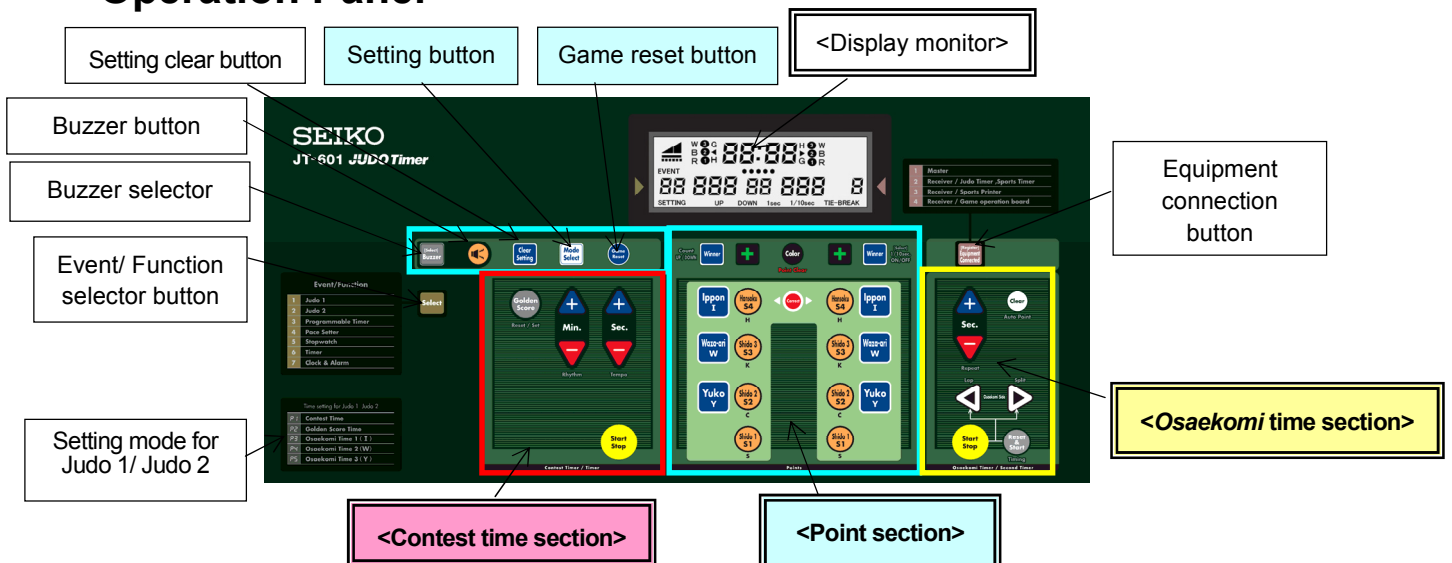
<Front Side>



<Rear Side>

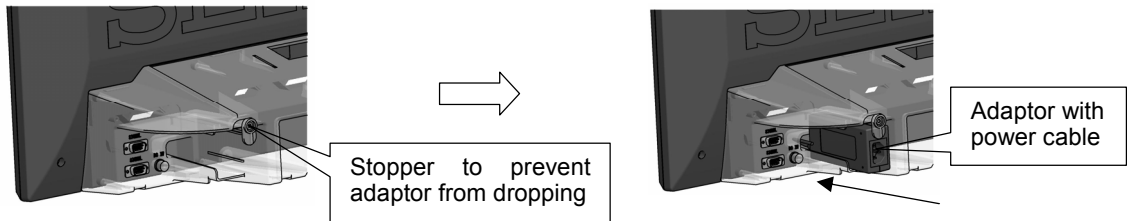



<Operation Panel>



3. BEFORE USING YOUR JUDO TIMER

1. Insert the plug of the adaptor with power cable securely into the power connector of the main unit. Fix the adaptor with the stopper to prevent it from dropping, and insert the power plug of the adaptor into the outlet properly.





2. Turn on the power switch (POWER).
3. Press  button to select the desired event or function.

The button is disabled while the setting procedure is performed or the timer is counting.


* Judo 1 (for IJF rules) and Judo 2 (for Kodokan rules) differ in the default settings of *Osaekomi* time as shown in the table below.

	<i>Osaekomi</i> time		Point
	IJF rules	Kodokan rules	
<i>Osaekomi</i> time 1 (I) = P3	25 seconds	30 seconds	<i>Ippon</i>
<i>Osaekomi</i> time 2 (W) = P4	20 seconds	25 seconds	<i>Waza-ari</i>
<i>Osaekomi</i> time 3 (Y) = P5	15 seconds	20 seconds	<i>Yuko</i>

4. FACTORY DEFAULT SETTINGS


- a. To reset the current event/function settings to the default settings:
By keeping  button pressed for 2 seconds while the setting procedure is not performed, the current event/function settings are cleared, and the factory default settings will be restored.
- b. By turning on the power while keeping  button pressed, all the current settings will be reset to the factory default settings. (The LED on the front side and the display monitor flash for 3 seconds to indicate that all the current settings have been reset.)
- c. For the factory default settings, refer to “4-8 Factory Default Settings (Initial Settings) of Each Event/Function”.

5. To enable  button, press  button to reset the JUDO TIMER.


6. By pressing  button, the volume and the manner of ringing of the buzzer can be selected from 5 patterns, namely, “high and continuous”, “high and intermittent”, “silent”, “low and continuous”, and “low and intermittent” as shown below.



* While in the Pace Setter function (4-4), the buzzer rings in a fixed manner irrespective of the above setting.

The buzzer keeps ringing while the buzzer button  is kept pressed.

7. A power failure backup function is provided. If the power plug is disconnected from the outlet by accident or a power failure occurs, the display becomes blank, but the condition immediately before the power failure returns when the power is restored, except for the Clock (4-7), which should be re-adjusted.

8. When using the JUDO TIMER JT-601 as a master device, press  button to select “1. Master”. For the details of connection with other devices, refer to “5. CONNECTION WITH OTHER DEVICES INCLUDING ANOTHER JUDO TIMER JT-601”.

4. METHOD OF OPERATION

4-1 Judo 1 (for IJF Rules)

* Judo 1 is designed for use for judo contest fought under IJF rules.

(1) Items shown on the display panel:

Contest time/ "Golden Score" contest time

Osaekomi time

Point (I [*Ippon*], W [*Waza-ari*], Y [*Yuko*])

Shido (S1, S2, S3)

Hansoku ("H")

Number of injuries (0 ~ 2)

Color of contestant (W [White], B [Blue] or R [Red] is shown on the monitor display)



(2) Items that can be adjusted:

Contest time (P1), "Golden Score" contest time (P2) (from 0 minutes 00 seconds up to 99 minutes 59 seconds can be set)

Osaekomi time 1 (I) (P3), *Osaekomi* time 2 (W) (P4), *Osaekomi* time 5 (Y) (P5) (from 0 up to 99 seconds can be set)

Non-interlocking/ interlocking between *Osaekomi* time and point (default setting: non-interlocking)

When they are not interlocked, the point should be awarded manually.

When they are interlocked, the corresponding point is awarded automatically when the set *Osaekomi* time has elapsed.

	<i>Osaekomi</i> time	Point
<i>Osaekomi</i> time 1 (I) = P3	25 seconds	<i>Ippon</i>
<i>Osaekomi</i> time 2 (W) = P4	20 seconds	<i>Waza-ari</i>
<i>Osaekomi</i> time 3 (Y) = P5	15 seconds	<i>Yuko</i>

Color of LED in the *Osaekomi* time section

Settable colors	<i>Osaekomi</i> time / <i>Hansoku</i> ("H")
Red	Red / Green
Green	Green / Red






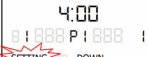
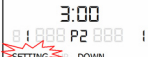







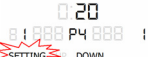





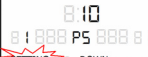

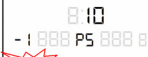

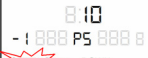




* Attach the supplied magnet plates (2 pieces) on the front panel with the "S1, S2, S3" side out.


* For the default settings, refer to 4-8 of this manual.

* If the JUDO TIMER is used with the default settings, the following procedure of confirmation/ adjustment of settings need not be performed.

■ Method of Confirmation/ Adjustment of Settings

















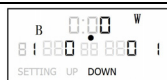






Ex.) Contest time: 4 minutes, "Golden Score" contest time: 2 minutes, *Osaekomi* time 1 (I): 20 seconds, *Osaekomi* time 2 (W): 15 seconds, *Osaekomi* time 3 (Y): 10 seconds, and *Osaekomi* time and point are interlocked.

	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	To activate contest time/ <i>Osaekomi</i> time setting mode					 → 
2	To change contest time (P1) To register contest time (P1), and move to "Golden Score" contest time (P2) setting	 			P1: 5 min. (default) 4 min. (after change) P2: 3 min. (default)	 → 
3	To change "Golden Score" contest time (P2) To register "Golden Score" contest time (P2), and move to <i>Osaekomi</i> time 1 (I) (P3) setting	 			P2: 2 min. (after change) P3: 25 sec. (default)	 → 
4	To change <i>Osaekomi</i> time 1 (I) (P3) To register <i>Osaekomi</i> time 1 (I) (P3), and move to <i>Osaekomi</i> time 2 (W) (P4) setting	 			P3: 20 sec. (after change) P4: 20 sec. (default)	 → 
5	To change <i>Osaekomi</i> time 2 (W) (P4) To register <i>Osaekomi</i> time 2 (W) (P4), and move to <i>Osaekomi</i> time 3 (Y) (P5) setting	 			P4: 15 sec. (after change) P5: 15 sec. (default)	 → 
6	To change <i>Osaekomi</i> time 3 (Y) (P5)				P5: 10 sec. (after change)	
7	To interlock <i>Osaekomi</i> time and point				Setting can be made at any time while in setting mode. Event No. on display monitor Non-interlocking: 1 Interlocking: -1	
8	To change LED color of <i>Osaekomi</i> time digits				LED color of <i>Osaekomi</i> time digits changes from red to green and vice versa.	 LED color on display board is changed, but no change is made on monitor display.
9	To register settings, and change over to contest mode					
10	To set colors of contestants				Ex.) (display board) Left side: white Right side: blue The button is enabled in any mode.	 Display monitor: "W", "B" or "R" is shown according to setting. With each press of button, colors of left and right contestants change as follows: OFF-OFF → while-red → red-white → blue-white → white-blue → OFF-OFF.

*1. With each press of  button while in the setting mode, contest time and "Golden Score" contest time count down and up alternately. Note that *Osaekomi* time counts up only, irrespective of the operation of the button.

● Operation Procedure: Operation of Contest time and *Osaekomi* Time

Ex.) (Default setting) – Contest time: 5 minutes, “Golden Score” contest time: 3 minutes, *Osaekomi* time 1 (I): 25 seconds, *Osaekomi* time 2 (W): 20 seconds, *Osaekomi* time 3 (Y): 15 seconds, and *Osaekomi* time and point are not interlocked.















	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When contest is started:				Contest timer starts counting.	 ⇒ 
2	When <i>Osaekomi</i> starts:				<i>Osaekomi</i> timer starts counting.	 ⇒  While <i>Osaekomi</i> timer is counting, ◀ ▶ is shown, and colors of contestants flash.
3	To specify contestant applying <i>Osaekomi</i>				When white contestant applies <i>Osaekomi</i> , white LED on display board starts flashing.	 “W” (alphabet representing color of contestant applying <i>Osaekomi</i>) flashes.
4	When <i>Osaekomi</i> is broken, and contest is continuing:			 	Stop <i>Osaekomi</i> timer. Reset <i>Osaekomi</i> timer.	 ⇒  ⇒ 
5	When <i>Osaekomi</i> is broken, but another <i>Osaekomi</i> starts immediately:				When <i>Osaekomi</i> is broken, but another <i>Osaekomi</i> starts immediately:	
6	When <i>Osaekomi</i> time 1 (for <i>Ippon</i>) has elapsed, or contest time has expired:				Contest timer stops automatically with a buzzer sound, or contest time is counted down to “0”.	 or (Buzzer) 
7	When “Golden Score” contest is fought:				“Golden Score” contest time set is shown.	 “G” is shown at left of “Golden Score” contest time.
8	Operation procedure for “Golden Score” contest is the same as that for original contest.					
9	When right-hand contestant has won:					 Color and point section of winner flash.
10	To reset display for a new contest				Display is reset to the settings you have made initially.	

*1. If *Waza-ari* has been awarded to the contestant applying *Osaekomi*, a lapse of 20 seconds of *Osaekomi* time constitutes *Awase-waza Ippon*, and the contest time stops automatically.









*2. To correct the contest time already set, press  button in the contest time section to stop the contest time, and press  button in the same section to adjust it as desired.

To correct the *Osaekomi* time already set, press  button in the *Osaekomi* time section to stop the *Osaekomi* time, and press  button in the same section to adjust it as desired.










● Operation Procedure: Contest Time and *Osaekomi* Time Operation (When *Osaekomi* Time and Point are Not Interlocked)

	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When <i>Osaekomi</i> starts:				<i>Osaekomi</i> timer starts counting.	 → 
2	To specify contestant applying <i>Osaekomi</i>				When white contestant applies <i>Osaekomi</i> , white LED on display board starts flashing.	 "W" (alphabet representing color of contestant applying <i>Osaekomi</i>) flashes.
3	When 15 seconds of <i>Osaekomi</i> time has elapsed:				Award <i>Yuko</i> (Y) point manually.	 → 
4	When 20 seconds of <i>Osaekomi</i> time has elapsed:				Award <i>Waza-ari</i> (W) point manually.	 → 
5	When 25 seconds of <i>Osaekomi</i> time has elapsed and <i>Ippon</i> is scored: Contest is ended.				Award <i>Ippon</i> (I) point manually. JUDO TIMER stops automatically with a buzzer sound. Contest timer stops counting.	 (Buzzer) → 






● Operation Procedure: Contest Time and *Osaekomi* Time Operation (When *Osaekomi* Time and Point are Interlocked)

	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When <i>Osaekomi</i> starts:				<i>Osaekomi</i> timer starts counting.	 → 
2	To specify contestant applying <i>Osaekomi</i>				When white contestant applies <i>Osaekomi</i> , white LED on display board starts flashing.	 "W" (alphabet representing color of contestant applying <i>Osaekomi</i>) flashes.
3	When 15 seconds of <i>Osaekomi</i> time has elapsed:				<i>Yuko</i> (Y) point is awarded automatically.	
4	When 20 seconds of <i>Osaekomi</i> time has elapsed:				<i>Waza-ari</i> (W) point is awarded automatically.	
5	When 25 seconds of <i>Osaekomi</i> time has elapsed and <i>Ippon</i> is scored: Contest is ended.				<i>Ippon</i> (I) point is awarded automatically. JUDO TIMER stops automatically with a buzzer sound. Contest timer stops counting.	 (Buzzer)






● Operation Procedure: When *Mate* is Announced during *Osaekomi*


	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When <i>Mate</i> is announced during <i>Osaekomi</i> :				<i>Osaekomi</i> time stops correspondingly with contest time.	
2	<i>Osaekomi</i> is broken.					 ◀▶ on display monitor disappears.
3	To reset <i>Osaekomi</i> time				<i>Osaekomi</i> time is reset.	 Color of contestant applying <i>Osaekomi</i> stops flashing.
4	Contest is resumed.				Contest time is restarted.	 → 

● Operation Procedure: When *Sono-mama* is Announced during *Osaekomi*


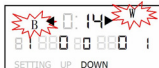


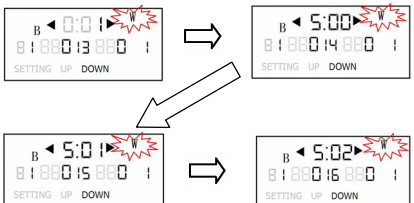



	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When <i>Sono-mama</i> is announced during <i>Osaekomi</i> :				<i>Osaekomi</i> time stops correspondingly with contest time.	
2	Contest is resumed.				<i>Osaekomi</i> time is restarted correspondingly with contest time.	 → 

- Operation Procedure: When *Osaekomi* was Broken Immediately before *Osaekomi* Time Expired and *Ippon* was Scored, but *Osaekomi* Time could not be Stopped and *Ippon* was Awarded (in the case where *Osaekomi* time and point are interlocked)


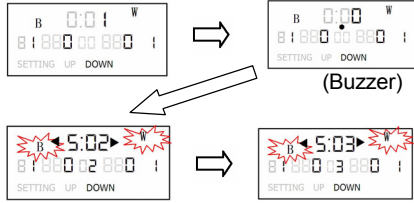
	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When 25 seconds of <i>Osaekomi</i> time has elapsed and <i>Ippon</i> is scored:				<i>Ippon</i> (I) point is awarded automatically. JUDO TIMER stops automatically with a buzzer sound. Contest timer stops counting.	 (Buzzer)
2	When <i>Osaekomi</i> was broken when 24 seconds of <i>Osaekomi</i> time has elapsed, but <i>Osaekomi</i> time could not be stopped:				Set <i>Osaekomi</i> time to 24 seconds. Point is corrected automatically.	
3	To reset <i>Osaekomi</i> time				<i>Osaekomi</i> time is reset.	


- *1. If  button is pressed before *Osaekomi* time is corrected, point should be corrected manually.

- Operation Procedure: Contest Time and *Osaekomi* Time Operation (When *Osaekomi* Continues after Contest Time has Expired)


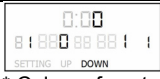









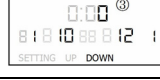











	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	When <i>Osaekomi</i> starts:				<i>Osaekomi</i> timer starts counting.	
2	To make color of contestant applying <i>Osaekomi</i> flash				When white contestant applies <i>Osaekomi</i> , white LED on display board starts flashing.	 "W" (alphabet representing color of contestant applying <i>Osaekomi</i>) flashes.
3	When <i>Osaekomi</i> continues after contest time has expired:				Contest time is counted up from the time you have set (total contest time elapsed is shown). Buzzer does not ring, and counting of <i>Osaekomi</i> time continues.	
4-1	When <i>Osaekomi</i> time has elapsed and <i>Ippon</i> is scored: Contest is ended.				JUDO TIMER stops automatically with a buzzer sound. Contest timer stops counting.	 (Buzzer)
4-2	When <i>Osaekomi</i> is broken before <i>Osaekomi</i> time expires: Contest is ended.				<i>Osaekomi</i> time stops, and contest is ended with a buzzer sound.	 (Buzzer)









- Operation Procedure: Contest Time and *Osaekomi* Time Operation (When *Osaekomi* Starts Simultaneously with Expiration of Contest Time)

	Operation	Contest time section	Point section	<i>Osaekomi</i> time section	Action/ Remarks	Display monitor
1	Contest time has expired. When <i>Osaekomi</i> starts simultaneously with expiration of contest time ("Start/Stop" button is pressed 2 seconds after end of contest):				Contest time stops automatically with a buzzer sound. Total contest time and <i>Osaekomi</i> time are shown inclusive of the time that has elapsed before button is pressed.	 (Buzzer)

- *1. If *Osaekomi* starts simultaneously with the expiration of the contest time, and *Osaekomi* time cannot be started before the end of the contest, the JUDO TIMER stops automatically with a buzzer sound. By pressing  button in the *Osaekomi* time section within 5 seconds after the end of the contest, however, the total contest time and the *Osaekomi* time are shown inclusive of the time that has elapsed before the button is pressed. Note, however, that the button is disabled if any other button is pressed in advance.

● Operation Procedure: Point Operation

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Right-hand contestant scored <i>Yuko</i> .				Settable range <i>Yuko</i> : 0 ~ 9	 * Colors of contestants are not included in illustrations here and below though they are actually shown.
2	Right-hand contestant scored <i>Waza-ari</i> .				Settable range <i>Waza-ari</i> : 0 ~ 2 <i>Ippon</i> : 0 ~ 1	
3	<i>Shido</i> 1 was given to right-hand contestant.					
4	<i>Shido</i> 2 was given to right-hand contestant.				<i>Yuko</i> point is automatically awarded to left-hand contestant.	
5	<i>Shido</i> 3 was given to right-hand contestant.				<i>Waza-ari</i> point is automatically awarded to left-hand contestant.	
6	Right-hand contestant scored <i>Yuko</i> .					
7	<i>Yuko</i> of right-hand contestant was cancelled (to correct display)		 While pressing 			
8	Right-hand contestant received an injury.				With each press, injury mark is shown on display board in the order below: Not shown → "+" → "++" → Not shown	 Display monitor: ". ." or ". . ." are shown.
9	Right-hand contestant received <i>Shido</i> 4 or <i>Hansoku</i> .				<i>Ippon</i> point is automatically awarded to left-hand contestant.	
10	Left-hand contestant is declared the winner.				Another press cancels winner indication.	 Color of winner (if specified) and point section flash.
11	To show display for a new contest				Display is reset to the settings you have made initially.	

*1.  button can nullify the operations made by pressing       and  buttons.

4-2 JUDO 2 (for Kodokan rules)

* Judo 2 (for Kodokan rules) differs from Judo 1 (for IJF rules) in the default settings of *Osaekomi* time.

	<i>Osaekomi</i> time	Point
<i>Osaekomi</i> time 1 (I) (P3)	30 seconds	<i>Ippon</i>
<i>Osaekomi</i> time 2 (W) (P4)	25 seconds	<i>Waza-ari</i>
<i>Osaekomi</i> time 3 (Y) (P5)	20 seconds	<i>Yuko</i>

* Attach the supplied magnet plates (2 pieces) on the front panel with the “K, C, S” side out.

* The indications other than the default settings of *Osaekomi* time and colors of contestants, and the adjustment and operation procedures are the same as those mentioned in “4-1 Judo 1 (for IJF rules)”.



4-3 Programmable Timer

* This function is convenient for various types of training including interval training.

(1) Items shown on display panel:

Timer that counts from 0 up to 99 minutes 59 seconds is displayed.

The number of times the programs are repeated is displayed.

Program No. is displayed.

The last program can be canceled, and in that case, “-P” is displayed instead of “P”, which is displayed during ordinary program cycles.

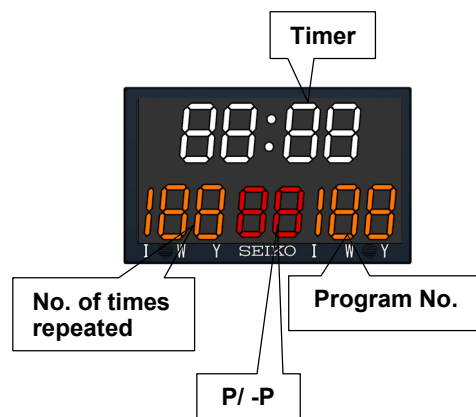
(2) Items that can be adjusted:

Up to 20 programs can be contained in 1 program cycle.

The number of times the programs are repeated can be set as desired (up to 199 times).

If the number of times repeated is set to “0”, the programs are repeated endlessly.

* For the default settings, refer to 4-8 of this manual.


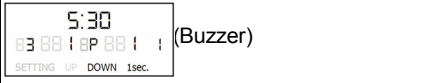
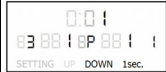

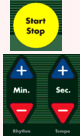







■ Method of Confirmation/Adjustment: (Ex.: Program 1: 5 minutes and 30 seconds→Program 2: 3minutes and 20 seconds, number of times repeated: 15 times)


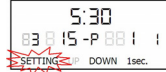

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To activate setting mode					
2	To set time of Program 1 To register time of Program 1, and move to Program 3 setting				Ex.: 5 minutes and 30 seconds	
3	To set time of Program 2 To register time of Program 2, and move to Program 3 rhythm setting				Ex.: 3 minutes and 20 seconds	
4	*1. To set Program 3 and more programs, follow the above steps. *2. Once “0:00” is set for the time of a Program during the setting mode, setting procedure of the rest of the Programs will be cancelled.					
5	To set number of times repeated				Ex.: 15 times	
6	To register settings, and change over to timer mode					

*1. With each press of button while in the setting mode, the timers can be set to count upward (UP) and downward (DOWN) alternately. Note that the number of times repeated is counted only upward.

- Operation Procedure: Start of Timer (Ex.: Program 1: 5 minutes and 30 seconds→Program 2: 3minutes and 20 seconds, number of times repeated: 15 times)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To start Program 1				Counting is started with a buzzer sound	 (Buzzer)
2	End of Program 1/ Start of Program 2				At the same time as Program 1 ends, Program 2 starts counting with a buzzer sound.	 ⇒  (Buzzer)
3	To stop Program To adjust Program time					
4	End of Program 2/ Start of Program 1 for 2nd time				At the same time as Program 2 ends, Program 1 starts counting for 2nd time with a buzzer sound.	 ⇒  (Buzzer)
5	When all Programs are completed as designated, display returns to Program 1 before start.				Timer is automatically stopped with a buzzer sound, and display returns to settings you made initially.	 ⇒  (Buzzer)

- Operation Procedure: To End Program Cycles without Counting the Last Program (To skip Program 2 in the 15th cycle when 15 is set for the number of times repeated)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To cancel last Program					 " - " is added before "P".
2	When cancellation of last Program is engaged				After Program 2 is counted for 15 times, timer stops automatically with a buzzer sound.	 (Buzzer)

4-4 Pace Setter

* By setting rhythm and tempo, pace setter sound can be given out. This function is convenient for various types of training.

(1) Items shown on display panel:

Rhythm and tempo you have set are displayed.

The number of times the tempo sound/indication is repeated is displayed.

● marks on both sides of the display panel visually indicate the tempo.

(2) Items that can be adjusted:

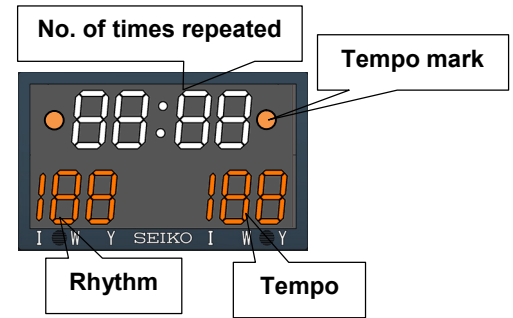
Rhythm and tempo can be set as desired.

The number of times the tempo sound/indication is repeated can be set up to 9,999 times.

If such number of times is set to "0", the sound is given out endlessly.

* For the default settings, refer to 4-8 of this manual.

* The pace setter sound (buzzer sound) rings in one tone irrespective of the rhythm and tempo setting, and cannot be silenced.



■ Method of Confirmation/Adjustment (Ex.: Rhythm: 2 [simple duplet time], tempo: 120 times/minute, number of times repeated: 240 times, display of number of times repeated: counted upward)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To activate setting mode					
2	To set rhythm and tempo (simple duplet time and 120 times/minute) To set number of times repeated (240 times)					
3	To register settings, and change over to pace setter function					

*1. With each press of button while in the setting mode, the display of number of times the tempo sound/indication is repeated can be set to count upward (UP) and downward (DOWN) alternately.

*2. Setting ranges of rhythm, tempo and number of times the tempo sound/indication is repeated are 1 ~ 9, 30 ~ 255, and 1 ~ 9999, respectively.

*3. If more than 200/minute is set for the tempo, the lower half of the segments of the hundreds digit of the tempo display is lighted on the display panel.

● Operation Procedure: (Ex.: Rhythm: 2 [simple duplet time], tempo: 120 times/minute, number of times repeated: 240 times, display of number of times repeated: counted upward)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To start Pace Setter				Buzzer sounds according to set rhythm and tempo. ● marks on both sides of display panel light up alternately.	
2	To change rhythm and tempo					
3	To stop pace setter sound/ To change number of times repeated				Number of times repeated can be changed while pace setter is stopped.	
4	Tempo sound/indication has been repeated set number of times.				Pace Setter stops automatically with a buzzer sound.	
5	To use Pace Setter newly				Display is reset to settings you made initially.	

4-5 Stopwatch

(1) Items shown on display panel:

Up 199 hours, 59 minutes, and 59 seconds 99 can be measured and displayed.

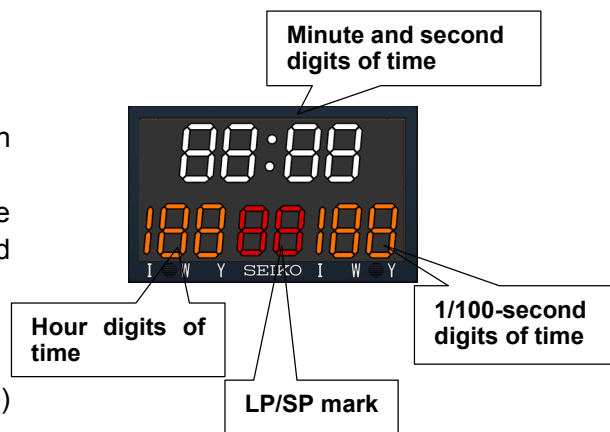
The times of the first and second runners, and the first and second lap times are measured and displayed.

Lap time (LP)/split time (SP) marks are displayed.

(2) Items that can be adjusted:

Display can be changed over between lap time (LP) and split time (SP) displays.

* For the default settings, refer to 4-8 of this manual.



■ Method of Confirmation/Adjustment: Changeover between Lap and Split time displays

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Select Stopwatch.					"LP" is shown on display monitor only.
2	Display can be changed over between lap and split time displays.					"SP" is shown on display monitor only.












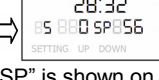





*1. Changeover of displays between lap and split times can be made even while the stopwatch measurement is in progress. By pressing button, "LP" and "SP" appears and disappears alternately, and the corresponding measurement is displayed.

● Operation Procedure: To Measure Elapsed Time (Standard Measurement)




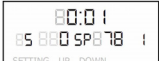







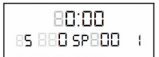
	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Select Stopwatch.				Either lap or split time display can be used.	"LP" is shown on display monitor only.
2	To start Stopwatch				Measurement is started.	"LP" is shown on display monitor only.
3	To stop Stopwatch (Ex.: 18 seconds 08)				Measurement is stopped.	"LP" is shown on display monitor only.
4	To reset Stopwatch				Stopwatch is reset to "0".	"LP" is shown on display monitor only.

*1. After measuring 199 hours, 59 minutes, and 59 seconds 99, the Stopwatch continues measurement from "0".











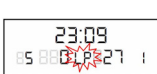

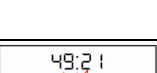

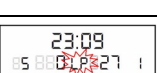







● Operation Procedure: To Measure Split Time (SP)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Select split time display.					 "SP" is shown on display monitor only.
2	To start Stopwatch				Measurement is started.	 "SP" is shown on display monitor only.
3	To measure split time (Ex.: 26 minutes and 13 seconds 08)				Measured split time (not in progress) is displayed, and "SP" flashes. *Measurement is continued internally.	 "SP" flashes on both display monitor and display panel.
(4)	Display can be changed over to lap time as required.				Lap time is displayed, and "LP" flashes.	 "LP" flashes on both display monitor and display panel.
(5)	To return to split time display				Split time is displayed, and "SP" flashes.	 "SP" flashes on both display monitor and display panel.
6	To release split time (Ex.: 28 minutes and 32 seconds 56)				Total time measurement in progress is displayed.	 →  "SP" is shown on display monitor only
7	To stop Stopwatch (Ex.: 2 hours, 20 minutes and 23 seconds 72)				Stopwatch is stopped.	 → "SP" is shown on display monitor only.
8	To reset Stopwatch				Stopwatch is reset to "0".	 "SP" is shown on display monitor only.







● Operation Procedure: To Measure Times of First and Second Runners

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Select split time display.					 "SP" is shown on display monitor only.
2	To start Stopwatch				Measurement is started.	 "SP" is shown on display monitor only.
3	To measure time of 1st runner (Ex.: 26 minutes and 13 seconds 08)				Time of 1st runner (not in progress) is displayed, and flashing "SP" is shown. *Measurement is continued internally.	 "SP" flashes on both display monitor and display panel.
4	To measure time of 2nd runner				Time of 1st runner (not in progress) is displayed, and "SP" (not flashing) is shown. *Measurement is continued internally.	 "SP" flashes on both display monitor and display panel.
5	To display time of 2nd runner (Ex.: 28 minutes and 32 seconds 56)				Time of 2nd runner is displayed instead of that of 1st.	 "SP" flashes on both display monitor and display panel.
6	To reset Stopwatch				Stopwatch is reset to "0".	 "SP" is shown on display monitor only.

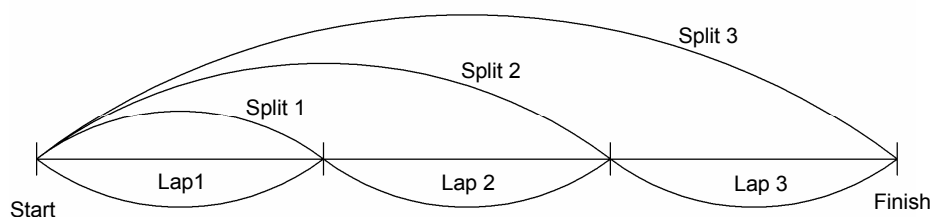
● Operation Procedure: To Measure Lap Time

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	Select lap time display.					 "LP" is shown on display monitor only.
2	To start Stopwatch				Measurement is started.	 "LP" is shown on display monitor only.
3	To measure 1st lap time (Ex.: 26 minutes and 13 seconds 08)				1st lap time (not in progress) is displayed, and flashing "LP" is shown. *Measurement is continued internally.	 "LP" flashes on both display monitor and display panel.
4	To release lap time (Ex.: 28 minutes and 32 seconds 56)				Total time measurement in progress is displayed.	 ⇒  "LP" is shown on display monitor only.
5	To measure 2nd lap time (Ex.: 23 minutes and 9 seconds 27)				2nd lap time (not in progress) is displayed, and flashing "LP" is shown. *Measurement is continued internally.	 "LP" flashes on both display monitor and display panel.
(6)	Display can be changed over to split time as required.				Split time is displayed. Flashing "SP" is shown.	 "SP" flashes on both display monitor and display panel.
(7)	To return to lap time display				2nd lap time is displayed, and flashing "LP" is shown.	 "LP" flashes on both display monitor and display panel.
8	To release lap time (Ex.: 1 hour, 2 minutes and 15 seconds 56)				Total time measurement in progress is displayed.	⇒  ⇒  "LP" is shown on display monitor only.
9	To stop Stopwatch (Ex.: 2 hours, 20 minutes and 21 seconds 72)				Stopwatch is stopped.	 "LP" is shown on display monitor only.
10	To reset Stopwatch				Stopwatch is reset to "0".	 "LP" is shown on display monitor only.

● Operation Procedure: When Lap Time is Not Released in Step 8 above But Measurement is Stopped

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To measure 3rd lap time and stop Stopwatch				3rd lap time is displayed, and Stopwatch is stopped.	⇒  "LP" is shown on both display monitor and display panel.
2	To show total time (Ex.: 2 hours, 20 minutes and 21 seconds 72)				Total time is displayed.	 "LP" is shown on both display monitor and display panel.
3	To reset Stopwatch				Stopwatch is reset to "0".	 "LP" is shown on display monitor only.

*1. The figure below illustrates the concept of split and lap times:



Split time: Time that has elapsed from the start of an activity to any given stage.

Lap time: Time that has elapsed from the start of one stage of an activity to that of the next stage.

4-6 Timer (with Warning Buzzer)

(1) Items shown on display panel:

Timer counts down the set time, or counts up from "0" to the set time.

Timer can be set to count down or up in 1/10 second increments.

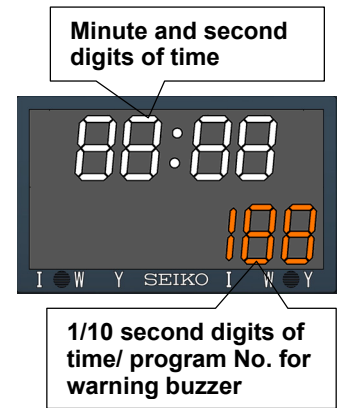
The warning buzzer can be programmed to ring at the designated time, and the program No. is shown on the display while it is engaged.

(2) Items that can be adjusted:

Any desired amount of time up to 99 minutes and 59 seconds can be set for the Timer.

The warning buzzer can be programmed to ring at up to 9 different designated times.

* For the default settings, refer to 4-14 of this manual.



Method of Confirmation/Adjustment of Settings (Ex.: Timer time: 10 minutes and 30 seconds, Program 1 for warning buzzer: 1 minute and 30 seconds)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To activate setting mode					
2	To register timer time, and move to Program 1 setting				Ex.: 10 minutes and 30 seconds	
3	To register Program 1 for warning buzzer, and move to Program 2 setting				Ex.: 1 minute and 30 seconds	
4	*1. To set Program 3 and more programs, follow the above steps. *2. Once "0:00" is set for the time of a Program during the setting mode, setting procedure of the rest of the Programs will be cancelled.					
5	To register settings, and change over to Timer display					

*1. With each press of button while in the setting mode, the Timer can be set to count upward (UP) and downward (DOWN) alternately.

*2. By pressing button, the Timer counts in 1/10 second increments instead of 1 second increments (default setting). This button operation can be made even while the Timer is counting.

Operation Procedure: Start of Timer (Ex.: Timer time: 10 minutes and 30 seconds, Program 1 for warning buzzer: 1 minute and 30 seconds, counting in 1/10 second increments)

	Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1	To start Timer				Timer starts counting.	
2	When designated time of Program 1 is reached				Warning buzzer rings automatically.	
3	When set time is up/ To reset Timer				Timer stops automatically with a buzzer sound. Display is reset to settings you made initially.	

Examples of Displays When Timer is Counting Up and Down (Ex.: Timer time: 5minutes and 30 seconds, counting in 1/10 second increments)

	Before start	During counting		Time-up
Counting up				
Counting down				

4-7 Clock & Alarm

* The Clock indicates the current time in 24-hour indication system.

(1) Items shown on display pane:

Hour, minutes and seconds are displayed.

(2) Items that can be adjusted.

Alarm can be set to ring at a designated time.

Alarm can be programmed to ring at up to 5 different times.

* For the default settings, refer to 4-8 of this manual.



■ Method of Confirmation/Adjustment of Settings: Time Setting (Ex.: 10 minutes past 10 o'clock)

Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1 Select Clock & Alarm					
2 To set hour and minute digits				"Min.": for Hour setting "Sec.": for Minute setting	
3 To start Clock				Clock starts indicating time.	

■ Method of Confirmation/Adjustment of Settings: Alarm Time Setting (Ex.: 55 minutes past 11 o'clock)

Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1 Select Clock & Alarm					
2 To register alarm time of Program 1, and move to Program 2 setting				"Min.": for Hour setting "Sec.": for Minute setting	
3 *1. To set Program 2 and more programs, follow the above steps.					
4 To register settings, and change over to Clock display					

*1. Once the Clock has been set and started, it continues operating even while the alarm setting procedure is performed.

■ Method of Confirmation/Adjustment of Settings: To Cancel Alarm Program

Operation	Contest time section	Point section	Osaekomi time section	Action/ Remarks	Display monitor
1 To cancel Alarm Program					
2				By blanking out hour and/or minute digits, Program is cancelled.	
					or
					or

*1. Even if one Program is cancelled, other Programs will not be cancelled, and they are still engaged as you have set. (Cancellation of Program "b1" will not cancel Program "b2".)



*2. The Alarm Programs (up to 5 Programs) you have set can be checked by pressing + button.

*3. The Clock continues operating internally while other events/functions are used and the respective displays are shown.

*4. The Alarm Programs you have set are retained even if other events/functions are used. However, the Alarm will not sound at the designated time while events/functions other than Clock & Alarm are in use.

*5. The time set for the Clock and the Alarm Programs will be cleared if the power is turned off.

4-8 Factory Default Settings (Initial Settings) of Each Event/Function

- *1. To reset the current settings of the event/function in use to the default settings, keep  button pressed for 2 seconds. The current settings of the event/function in use will all be cleared and reset to the default settings programmed at the factory.
- *2. By turning on the power while  button is kept pressed, all the settings of all the events/functions will be reset to the factory default settings. LEDs on the front display panel and the display monitor flash for 3 seconds to indicate that resetting has been completed.
- *3. The default settings listed below can be adjusted as desired.

NO.	Event/ Function	Default Setting	
1	Judo 1 (for IJF rules)	Contest time (P1)	5 minutes
		"Golden Score" contest time (P2)	3 minutes
		<i>Osaekomi</i> time 1 (I) (P3)	25 seconds
		<i>Osaekomi</i> time 2 (W) (P4)	20 seconds
		<i>Osaekomi</i> time 3 (Y) (P5)	15 seconds
		Interlocking/ non-interlocking between <i>Osaekomi</i> time and point	Non-interlocking
		LED color of <i>Osaekomi</i> time	Red
		Count-down or -up (contest time and "Golden Score" contest time)	Count-down
2	Judo 2 (for Kodokan rules)	Contest time (P1)	5 minutes
		"Golden Score" contest time (P2)	3 minutes
		<i>Osaekomi</i> time 1 (I) (P3)	30 seconds
		<i>Osaekomi</i> time 2 (W) (P4)	25 seconds
		<i>Osaekomi</i> time 3 (Y) (P5)	20 seconds
		Interlocking/ non-interlocking between <i>Osaekomi</i> time and point	Non-interlocking
		LED color of <i>Osaekomi</i> time	Red
		Count-down or -up (contest time and "Golden Score" contest time)	Count-down
3	Programmable Timer	Program (P1 ~ P20)	Not set
		Timer	Not set
		Count-down or -up (timer)	Count-down
		Number of times repeated (1 ~ 199)	Not set
4	Pace Setter	Rhythm (1 ~ 9)	2 (duple time)
		Tempo (30 ~ 255 beats/min.)	120 beats/min.
		Number of times repeated (1 ~ 9999)	Not set
		Count-down or -up	Count-up
5	Stopwatch	LP or SP	LP
6	Timer	Timer	Not set
		1/10- or 1 sec. increments	1 sec.
		Count-down or -up (timer)	Count-down
		Time to ring warning buzzer (b1 ~b9)	Not set
7	Clock & Alarm	Current time	Not set
		Alarm time (b1 ~ b5)	Not set

5. CONNECTION WITH OTHER DEVICES INCLUDING ANOTHER JT-601


CAUTION

Before connecting the dedicated cables, be sure to turn off the power of all the devices. When turning them on, be sure to turn on the master device first, and if they are connected in a serial manner, turn on other devices one by one in order from the one nearest to the master device. Otherwise, the devices may show abnormal displays or operate improperly. Also, do not use any other cable than specified. A malfunction may result.



When more than one device is connected to the master device, never connect or disconnect the dedicated cables while the power is on. Otherwise, the devices may show abnormal displays or operate improperly. If such operation was performed by mistake, turn off the power of all the devices, and then, turn them on after at least 5 seconds. In doing so, if they are connected in a serial manner, turn on the master device first, and then, turn on other devices one by one in order from the one nearest to the master device.



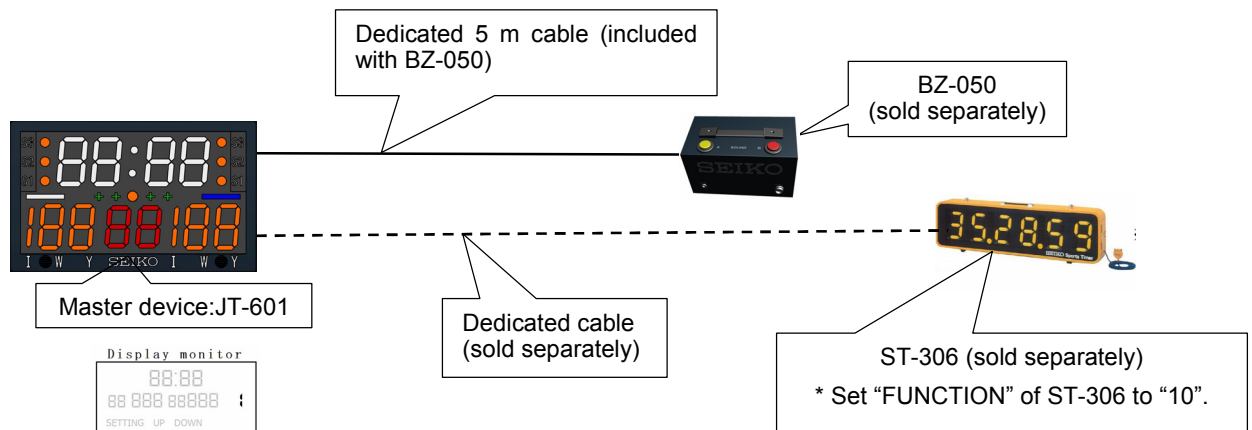
* When connecting with other devices including another JT-601, select the connection condition using Equipment Connection button .

■ Examples of Equipment Connection

5-1 Use of Judo Timer JT-601 as Master Device

To use JT-601 as a master device:

- Press Equipment Connection button to select “1. Master”.
- High-Volume Buzzer BZ-050 (sold separately) and Sports Timer ST-306 (sold separately) can be connected with JT-601.

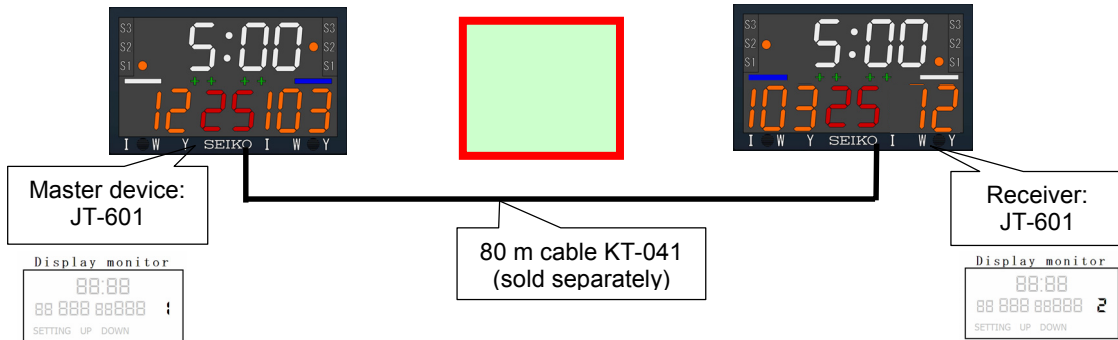


Note: For the locations of connectors for connecting above devices, refer to the illustration of “<Rear Side>” in “2. NAMES AND FUNCTIONS OF PARTS”.

5-2 Receiver/ Judo Timer , Sports Counter

To use JT-601 as a master device and connect another JT-601 as a receiver:

- Setting of JT-601 used as a master device: Press Equipment Connection button to select “1. Master”.
- Setting of JT-601 used as a receiver: Press Equipment Connection button to select “2. Receiver: Judo Timer, Sports Counter”.(Up to 4 units of JT-601 can be connected as receivers.)

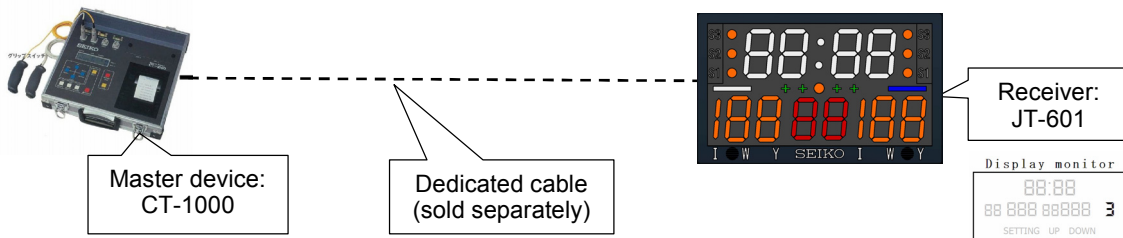


Note: The buttons except button are disabled on the receiver side. By pressing button , Points on both ends of the display panel change places.

5-3 Receiver/ Sports Printer

To use CT-1000 as a master device and connect JT-601 as a receiver:

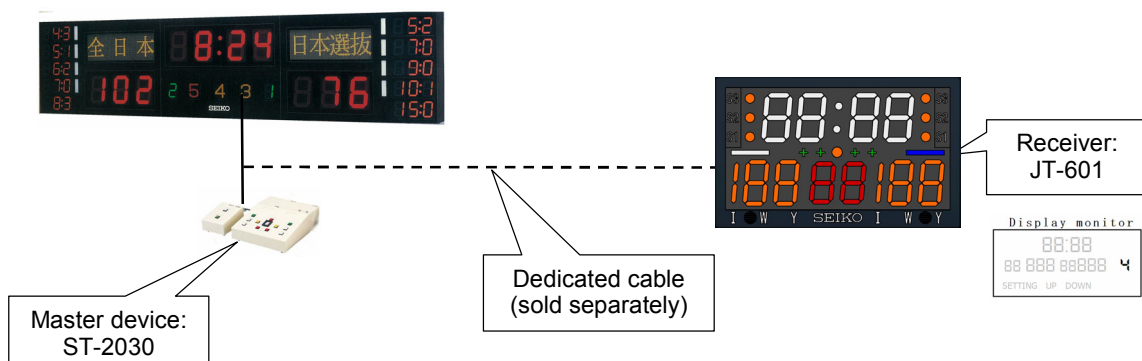
- Setting of JT-601 used as a receiver: Press Equipment Connection button to select “3. Receiver/ Sports Printer”.



5-4 Receiver/ Game Operation Board

To use ST-2000 Series (Operation Board ST2030) as a master device and connect JT-601 as a receiver:

- Setting of JT-601 used as a receiver: Press Equipment Connection button to select “4. Receiver/ Game Operation Board”.



6. PRODUCT COMPOSITION AND SPECIFICATIONS

1. Product Composition

- Main unit: 1 unit
(JT-601MBX)
- Adaptor with power cable (5 m): 1 piece
(KT-ADP01)
- Magnet plate : 2 pieces
- Operating manual: 1 copy

2. Specifications

- Dimensions : Main unit Approx. 650 (W) x 400 (H) x 220 (D) mm
- Character height : Contest time section 130 mm
Point section 120 mm
Osaekomi time section 110 mm
- Display : High-intensity LED
- Operational temperature range : 0 °C ~ 40 °C (except under direct sunlight)
- Weight : Approx. 4.3 kg (main unit), 0.7 kg (adaptor with power cable)
- Power supply : AC 100V ~ 240 V, 50/60 Hz (maximum power consumption: 30 W)
- Case material : ABS resin

* By using interlocking cable KT-041 (80 m; sold separately), JT-601 can be interlocked with up to 4 other JT-601 units.

* Judo Timer JT-601 is designed for indoor use only.

Note: The above specifications are subject to change without prior notice for product improvement.

SEIKO TIME SYSTEMS INC.

URL <http://www.seiko-sts.co.jp>

GUARANTEE

Thank you very much for purchasing SEIKO JUDO TIMER JT-601.

We certify that the Product is guaranteed against defects in material and workmanship according to the guarantee conditions specified herein.

If the Product malfunctions under normal use as described in this Operating Manual within one year from the date of purchase, it will be repaired without charge.

To qualify for the services under the guarantee, you must present your SEIKO JUDO TIMER JT-601 to the retailer from whom it was purchased, or a service facility designated by us. Packaging and transportation charges are to be paid by the owner of the Product.

Even within the guarantee period, repair services will be provided at cost in the following cases:

- (1) Failure or damage caused by misuse or carelessness;
- (2) Failure or damage caused by improper repair or modification;
- (3) Failure or damage caused by improper handling such as dropping of the Product during transportation after purchase;
- (4) Failure or damage caused by natural disasters such as fire, flood, earthquake and lightning, and other factors beyond the control of us such as smoke and other air pollution and extraordinary atmospheric pressure;
- (5) Scratches, cracks or other damage on the case caused by use over time;
- (6) If the name of the retailer and the purchase date are not indicated in the space below, or if such information has been rewritten; and
- (7) If this Guarantee is not submitted together with the Product.

Date of purchase:

Retailer:

Please note that this Guarantee is valid only if the name of the retailer and the date of purchase are properly entered by the retailer from whom your SEIKO JUDO TIMER JT-601 was purchased.