



For your safety, please read the following before using.

**Caution for your safety**

\*Please keep these instructions and review them before using this unit.

\*Please observe the cautions that follow:

**Warning** Serious injury may result if instructions are not followed.

**Caution** Product may be damaged, or injury may result if instructions are not followed.

\*The following is an explanation of the symbols used in the operation manual.

**Caution:** Injury or danger may occur under special conditions.

**Warning**

1. In case of using this unit with machineries(Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it is required to install fail-safe device, or contact us.

It may cause a fire, human injury or property loss.

2. Install the unit on a panel.

It may give an electric shock.

3. Do not connect, inspect or repair when power is on.

It may give an electric shock.

4. Do not disassemble the case. Please contact us if it is required.

It may cause an electric shock or a fire.

**Caution**

1. This unit shall not be used outdoors.

It might shorten the life cycle of the product or give an electric shock.

2. Please observe the rated specifications.

It might shorten the life cycle of the product and cause a fire.

3. Do not use beyond of the rated switching capacity of Relay contact.

It may cause insulation failure, contact melt, contact failure, relay broken and fire etc.

4. In cleaning unit, do not use water or an oil-based detergent and use dry towels.

It may cause an electric shock or a fire.

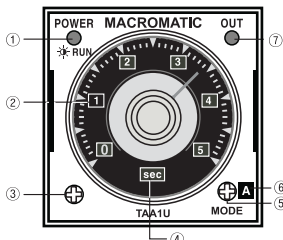
5. Do not use this unit in place where there are flammable or explosive gas, humidity, direct ray of the light, radiant heat, vibration and impact etc.

It may cause a fire or an explosion.

6. Please be careful not to blow dust or wire clippings into the unit.

It may cause a fire or malfunction.

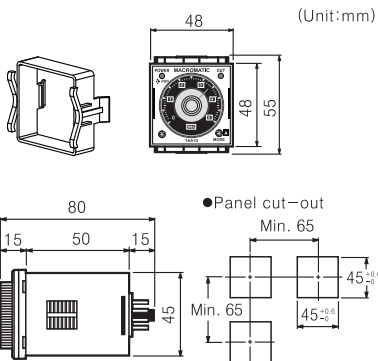
**Front panel identification**



- ① Operation/Power LED  
(Timer operation:Flicker, Timer stop:LED ON)
- ② Time range display
- ③ Time range selector
- ④ Time unit(sec, min, hour, 10h)
- ⑤ Operation mode selector
  - A : Power ON Delay
  - A1 : Power ON Delay 1
  - B : Power ON Delay 2
  - F : Flicker
  - F1 : Flicker 1
  - I : Interval
- ⑥ Operation mode display
- ⑦ Output LED

\*The above specifications are subject to change without notice.

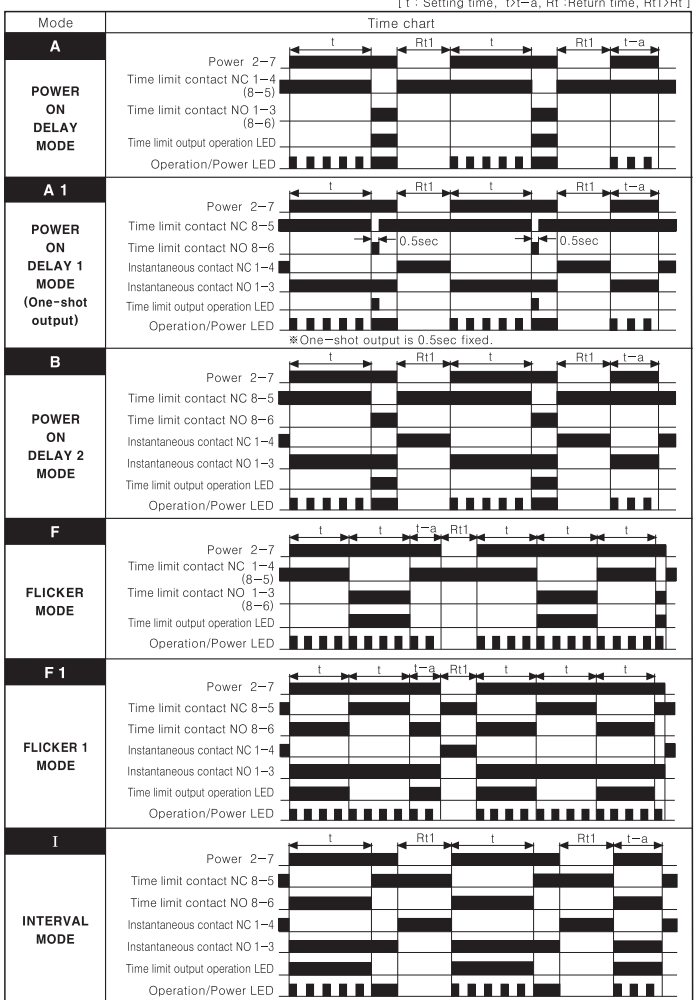
**Dimensions**



**Time specifications**

Time range	Time unit	Time setting range
0.5	sec	0.05~0.5 sec
1.0		0.1~1.0 sec
5		0.5~5 sec
10		1~10 sec
0.5	min	0.05~0.5 min
1.0		0.1~1.0 min
5		0.5~5 min
10		1~10 min
0.5	hour	0.05~0.5 hour
1.0		0.1~1.0 hour
5		0.5~5 hour
10		1~10 hour
0.5	10h	0.5~5 hour
1.0		1~10 hour
5		5~50 hour
10		10~100 hour

**Output operation mode**



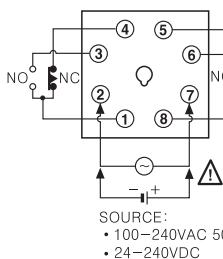
\*When using F, F1 output operation modes, if the time is set too short, the output may not work properly due to contact output response time. Please set the time at least over 100ms.

**Specifications**

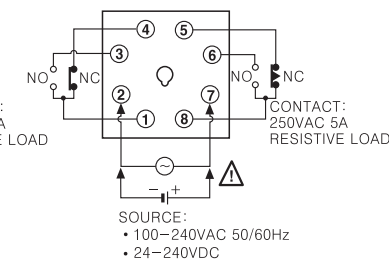
Model	TAA1U						
Control time setting range	0.05 sec ~ 100 hour						
Power supply	• 100~240VAC 50/60Hz, 24~240VDC (Universal)						
Allowable voltage range	90 to 110% of rated voltage						
Power consumption	• 100~240VAC : 4.3VA, 24~240VDC : 2W						
Return time	Max. 100ms						
Control output	<table border="1"> <tr> <th>Contact</th> <th>Type</th> <th>Capacity</th> </tr> <tr> <td></td> <td>Time limit DPDT (2c) or Instantaneous SPDT(1c)+Time limit SPDT(1c) selectable according to output operation mode</td> <td>250VAC 5A resistive load</td> </tr> </table>	Contact	Type	Capacity		Time limit DPDT (2c) or Instantaneous SPDT(1c)+Time limit SPDT(1c) selectable according to output operation mode	250VAC 5A resistive load
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	Time limit DPDT (2c) or Instantaneous SPDT(1c)+Time limit SPDT(1c) selectable according to output operation mode	250VAC 5A resistive load					
Relay life cycle	<table border="1"> <tr> <th>Mechanical</th> <th>Electrical</th> </tr> <tr> <td>Min. 10,000,000 operations</td> <td>Min. 100,000 operations (at 250VAC 5A resistive load)</td> </tr> </table>	Mechanical	Electrical	Min. 10,000,000 operations	Min. 100,000 operations (at 250VAC 5A resistive load)		
Mechanical	Electrical						
Min. 10,000,000 operations	Min. 100,000 operations (at 250VAC 5A resistive load)						
Repeat error	Max. ±0.2% ±10ms						
Setting error	Max. ±5% ±50ms						
Voltage error	Max. ±0.5%						
Temperature error	Max. ±2%						
Insulation resistance	100MΩ (at 500VDC)						
Dielectric strength	2000VAC 50/60Hz for 1 minute(Between all terminals and case)						
Ambient temperature	-10 ~ 55°C (at non-freezing status)						
Storage temperature	-25 ~ 65°C (at non-freezing status)						
Ambient humidity	35 ~ 85%RH						
Unit weight	Approx. 90g						

**Connections**

●[A], [F] output operation mode



●[A1], [B], [F1], [I] output operation mode



**Caution for using**

1. Please connect DC power input after checking polarity of power.
2. When supply the power to the Timer, connection shown in Figure 1 might cause malfunction due to leakage current through R and C. Please connect R and C as shown in Figure 2 to prevent malfunction.
 

(Figure 1)

(Figure 2)
3. It might cause malfunction if changing the setting time, time range or operation mode during operating unit. Please change the setting time, time range or operation mode after cut the power off.
4. Do not use this unit at below places.
  - ①Place where there are severe vibration or impact.
  - ②Place where strong alkalis or acids are used.
  - ③Place where there are direct ray of the sun
  - ④Place where strong magnetic field or electric noise are generated.
5. Installation environment
  - ①It shall be used indoor
  - ②Altitude Max. 2000m
  - ③Pollution Degree 2
  - ④Installation Category II

\*It may cause malfunction if above instructions are not followed.

**Macromatic Industrial Controls**

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For product information and technical support go to [www.macromatic.com/contact](http://www.macromatic.com/contact)