

## GT3D – Digital Timers

### Key features of the GT3D series include:

- Precise time setting using digital thumbwheel switches
- Elapsed or time remaining LCD display
- 6 time ranges, 16 timing functions
- Time delays up to 99.9 hours



UL Recognized  
File No. E55996

Cert. No. BL9801133323911 (LVD)  
Cert. No. E9971113332388 (EMC)



CSA Certified  
File No. LR58183  
File No. LR96764  
File No. LR83814



### Specifications

|   |                   | GT3D-2  | GT3D-3   | GT3D-4  | GT3D-8                     |
|---|-------------------|---|--|---|----------------------------|
| <b>Operation System</b>                   |                   | Solid state CMOS circuitry  |  |   |                            |
| <b>Operation</b>                          |                   | Multi-mode  |  |   | Multi-mode one-shot output |
| <b>Time Range</b>                         |                   | 0.01s to 99.9 hours   |  |   |                            |
| <b>Rated Voltage</b>                      |                   | 100 to 240V AC (50/60Hz), 24V AC (50/60Hz)/24V DC   |  |   |                            |
| <b>Contact Ratings</b>                    |                   | 125V AC/250V AC, 3A;<br>30V DC/1A (resistive load)  | 125V AC/250V AC, 5A;<br>30V DC/5A (resistive load) |   |                            |
| <b>Contact Form</b>                       |                   | Delayed SPDT +<br>instantaneous SPDT  | Delayed DPDT                                       | Delayed DPDT                                    | Delayed DPDT               |
| <b>Minimum Applicable Load</b>            |                   | 5V, 10mA (reference value)  |  |   |                            |
| <b>Voltage Tolerance</b>                  |                   | AF20 (100–240V AC): 85 to 264V AC<br>AD24 (AC): 20.4 to 26.4V AC<br>AD24 (DC): 21.6 to 26.4V DC   |  |   |                            |
| <b>Error</b>                              |                   | ±0.3% ±50ms (voltage, repeat, and temperature)  |  |   |                            |
| <b>Setting Error</b>                      |                   | ±0.5% ±50ms   |  |   |                            |
| <b>Reset Time</b>                         |                   | 60ms maximum  |  |   |                            |
| <b>Insulation Resistance</b>              |                   | 100MΩ minimum   |  |   |                            |
| <b>Dielectric Strength</b>                |                   | Between power and output terminals: 2,000V AC, 1 minute<br>Between contacts of different poles: 2,000V AC, 1 minute<br>Between contacts of the same pole: 750V AC, 1 minute |  |   |                            |
| <b>Power Consumption</b><br>(approximate) | <b>AF20</b>       | 11.8VA  | 11.6VA   | 3.7VA (100V AC, 60Hz)<br>11.6VA (200V AC, 60Hz) |                            |
|   | <b>AD24 AC/DC</b> | 1VA/0.8W  | 2.1VA/0.9W   | 2.1VA /0.9W                                     |                            |
| <b>Mechanical Life</b>                    |                   | 10,000,000 operations minimum   | 5,000,000 operations minimum                       |   |                            |
| <b>Electrical Life (at rated load)</b>    |                   | 50,000 operations minimum   | 100,000 operations minimum                         |   |                            |
| <b>Outputs</b>                            | <b>Relay</b>      | 250V AC, 3A, 30V DC, 1A<br>(resistive load)   | 240V AC/, 24V DC, 5A<br>(resistive load)           |   |                            |
| <b>Vibration Resistance</b>               |                   | 100N (approximate 10G)  |  |   |                            |
| <b>Shock Resistance</b>                   |                   | Operating extremes: 100N (approximate 10G)<br>Damage limits: 500N (approximate 50G)   |  |   |                            |
| <b>Operating Temperature</b>              |                   | –10 to +50°C  |  |   |                            |
| <b>Storage Temperature</b>                |                   | –30 to +80°C  |  |   |                            |
| <b>Operating Humidity</b>                 |                   | 45 to 85% RH  |  |   |                            |
| <b>Weight (approximate)</b>               |                   | 70g   | 75g  | 76g   |                            |
| <b>Housing Color</b>                      |                   | Gray  |  |   |                            |

**Part Number List**
**Part Numbers: GT3D-1/GT3D-2/GT3D-3**

| Mode of Operation   | Time Range          | Output                                   | Contact                           | Rated Voltage Code       | Complete Part No. |             |
|---|---------------------|--|-----------------------------------|--------------------------|-------------------|-------------|
|   |                     |  |                                   |                          | 8-Pin             | 11-Pin      |
| 1-A: ON-delay 1<br>1-B: Interval 1 first<br>1-C: Cycle 1 (OFF first)<br>1-D: Cycle 3 (ON first) | 0.01s to 99.9 hours | 250V AC, 3A, 30V DC, 1A (resistive load) | Delayed SPDT + instantaneous SPDT | 100 to 240V AC (50/60Hz) | GT3D-2AF20        | GT3D-2EAF20 |
|   |                     |  |                                   | 24V AC/DC                | GT3D-2AD24        | —           |
|   |                     | 240V AC, 24V DC, 5A (resistive load)     | Delayed DPDT                      | 100 to 240V AC (50/60Hz) | GT3D-3AF20        | GT3D-3EAF20 |
|   |                     |  |                                   | 24V AC/DC                | GT3D-3AD24        | —           |

**Part Numbers: GT3D-4**

| Mode of Operation  | Time Range          | Output                              | Contact      | Rated Voltage Code       | Complete Part No. |             |
|--|---------------------|-------------------------------------|--------------|--------------------------|-------------------|-------------|
|  |                     |                                     |              |                          | A (11-Pin)        | B (11-Pin)  |
| 1-A: ON-delay 1<br>1-B: Interval 1 first<br>1-C: Cycle 1 (OFF first)<br>1-D: Cycle 3 (ON first)<br>2-A: ON-delay 2<br>2-B: Cycle 2<br>2-C: Signal ON/OFF-delay 1<br>2-D: Signal OFF-delay 1<br>2-E: Interval 2<br>2-F: One-shot cycle<br>3-A: Signal ON/OFF-delay 2<br>3-B: Signal OFF-delay 2<br>3-C: One-shot 1<br>3-D: One-shot ON-delay<br>3-E: One-shot 2<br>3-F: Signal ON/OFF-delay 3 | 0.01s to 99.9 hours | 240V AC/24V DC, 5A (resistive load) | Delayed DPDT | 100 to 240V AC (50/60Hz) | GT3D-4AF20        | GT3D-4EAF20 |
|  |                     |                                     |              | 24V AC/DC                | GT3D-4AD24        | —           |

**Part Numbers: GT3D-8**

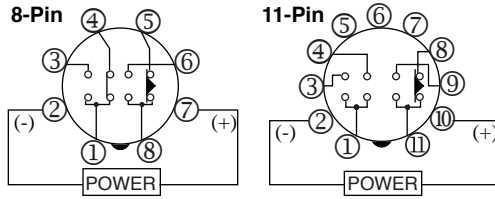
| Mode of Operation   | Time Range          | Output                              | Contact      | Rated Voltage Code       | Complete Part No. (11-Pin) |
|---|---------------------|-------------------------------------|--------------|--------------------------|----------------------------|
| 1: ON-delay one-shot 1<br>2: Cycle one-shot<br>3: ON-delay one-shot 2 | 0.01s to 99.9 hours | 240V AC/24V DC, 5A (resistive load) | Delayed DPDT | 100 to 240V AC (50/60Hz) | GT3D-8AF20                 |
|   |                     |                                     |              | 24V AC/DC                | GT3D-8AD24                 |

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1. For wiring schematics and timing diagrams GT3D, see pages 815 to 822.
  2. For more details about time ranges, see instructions on page 823.
  3. A (11-pin) and B (11-pin) differ in the way inputs are wired.
  4. For socket and accessory part numbers, see page 838.
  5. For timing diagrams overview, see page 794.

Timing Diagrams/Schematics

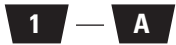
GT3D-2 Timing Diagrams  
Delayed SPDT + Instantaneous SPDT

Operation  
Mode Selection

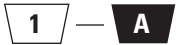


ON-Delay 1

Time Remaining



Time Elapsed



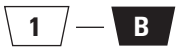
| Item                  | Terminal Number                                    | Operation |
|-----------------------|--|-----------|
| Set Time              |  | Set Time  |
| Power                 | 2 - 7 (8p)<br>2 - 10 (11p)                         |           |
| Delayed Contact       | 1 - 4, 5 - 8 (8p) (NC)                             |           |
|                       | 1 - 4, 8 - 11 (11p) (NO)                           |           |
|                       | 1 - 3, 6 - 8 (8p) (NO)<br>1 - 3, 9 - 11 (11p) (NO) |           |
| Instantaneous Contact | 1 - 4 (NC)   |           |
|                       | 1 - 3 (NO)   |           |
| Indicator             | OUT  |           |
| Digital Time Display  | DOWN   |           |
|                       | UP   |           |

Interval 1

Time Remaining



Time Elapsed

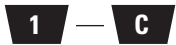


| Item                  | Terminal Number                                    | Operation |
|-----------------------|--|-----------|
| Set Time              |  | Set Time  |
| Power                 | 2 - 7 (8p)<br>2 - 10 (11p)                         |           |
| Delayed Contact       | 1 - 4, 5 - 8 (8p) (NC)                             |           |
|                       | 1 - 4, 8 - 11 (11p) (NO)                           |           |
|                       | 1 - 3, 6 - 8 (8p) (NO)<br>1 - 3, 9 - 11 (11p) (NO) |           |
| Instantaneous Contact | 1 - 4 (NC)   |           |
|                       | 1 - 3 (NO)   |           |
| Indicator             | OUT  |           |
| Digital Time Display  | DOWN   |           |
|                       | UP   |           |

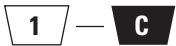
Cycle 1

(OFF first)

Time Remaining



Time Elapsed



| Item                  | Terminal Number                                    | Operation |
|-----------------------|--|-----------|
| Set Time              |  | Set Time  |
| Power                 | 2 - 7 (8p)<br>2 - 10 (11p)                         |           |
| Delayed Contact       | 1 - 4, 5 - 8 (8p) (NC)                             |           |
|                       | 1 - 4, 8 - 11 (11p) (NO)                           |           |
|                       | 1 - 3, 6 - 8 (8p) (NO)<br>1 - 3, 9 - 11 (11p) (NO) |           |
| Instantaneous Contact | 1 - 4 (NC)   |           |
|                       | 1 - 3 (NO)   |           |
| Indicator             | OUT  |           |
| Digital Time Display  | DOWN   |           |
|                       | UP   |           |

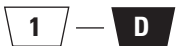
Cycle 3

(ON first)

Time Remaining



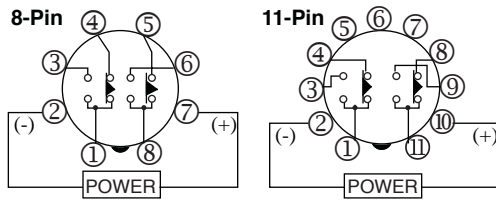
Time Elapsed



| Item                  | Terminal Number                                    | Operation |
|-----------------------|--|-----------|
| Set Time              |  | Set Time  |
| Power                 | 2 - 7 (8p)<br>2 - 10 (11p)                         |           |
| Delayed Contact       | 1 - 4, 5 - 8 (8p) (NC)                             |           |
|                       | 1 - 4, 8 - 11 (11p) (NO)                           |           |
|                       | 1 - 3, 6 - 8 (8p) (NO)<br>1 - 3, 9 - 11 (11p) (NO) |           |
| Instantaneous Contact | 1 - 4 (NC)   |           |
|                       | 1 - 3 (NO)   |           |
| Indicator             | OUT  |           |
| Digital Time Display  | DOWN   |           |
|                       | UP   |           |

**GT3D-3 Timing Diagrams**  
**Delayed DPDT**

**Operation Mode Selection**

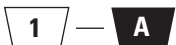


**ON-Delay 1**

Time Remaining



Time Elapsed



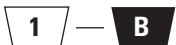
| Item                 | Terminal Number            | Operation |
|----------------------|----------------------------|-----------|
| Set Time             |                            | Set Time  |
| Power                | 2 - 7 (8p)<br>2 - 10 (11p) |           |
| Delayed Contact      | 1 - 4, 5 - 8 (8p)          | (NC)      |
|                      | 1 - 4, 8 - 11 (11p)        | (NO)      |
| Indicator            | 1 - 3, 6 - 8 (8p)          | (NO)      |
|                      | 1 - 3, 9 - 11 (11p)        | (NO)      |
| Digital Time Display | DOWN<br>UP                 |           |

**Interval 1**

Time Remaining



Time Elapsed



| Item                 | Terminal Number            | Operation |
|----------------------|----------------------------|-----------|
| Set Time             |                            | Set Time  |
| Power                | 2 - 7 (8p)<br>2 - 10 (11p) |           |
| Delayed Contact      | 1 - 4, 5 - 8 (8p)          | (NC)      |
|                      | 1 - 4, 8 - 11 (11p)        | (NO)      |
| Indicator            | 1 - 3, 6 - 8 (8p)          | (NO)      |
|                      | 1 - 3, 9 - 11 (11p)        | (NO)      |
| Digital Time Display | DOWN<br>UP                 |           |

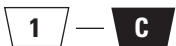
**Cycle 1**

(OFF first)

Time Remaining



Time Elapsed



| Item                 | Terminal Number            | Operation |
|----------------------|----------------------------|-----------|
| Set Time             |                            | Set Time  |
| Power                | 2 - 7 (8p)<br>2 - 10 (11p) |           |
| Delayed Contact      | 1 - 4, 5 - 8 (8p)          | (NC)      |
|                      | 1 - 4, 8 - 11 (11p)        | (NO)      |
| Indicator            | 1 - 3, 6 - 8 (8p)          | (NO)      |
|                      | 1 - 3, 9 - 11 (11p)        | (NO)      |
| Digital Time Display | DOWN<br>UP                 |           |

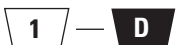
**Cycle 3**

(ON first)

Time Remaining



Time Elapsed

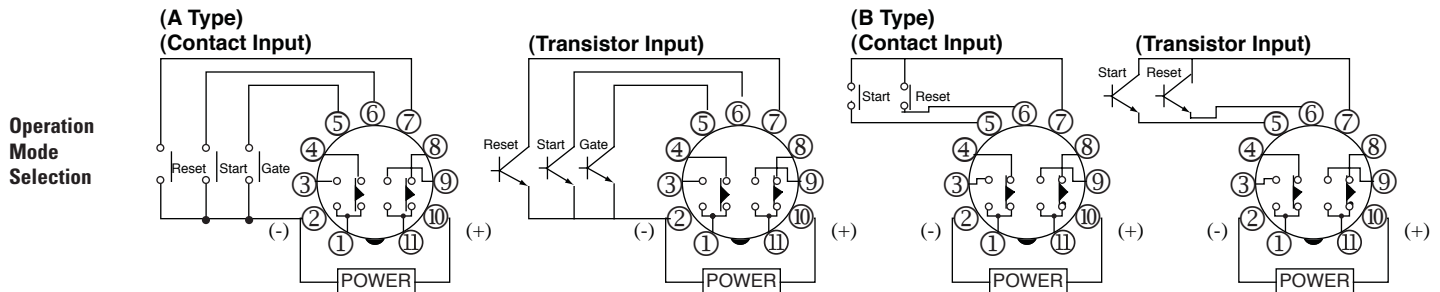


| Item                 | Terminal Number            | Operation |
|----------------------|----------------------------|-----------|
| Set Time             |                            | Set Time  |
| Power                | 2 - 7 (8p)<br>2 - 10 (11p) |           |
| Delayed Contact      | 1 - 4, 5 - 8 (8p)          | (NC)      |
|                      | 1 - 4, 8 - 11 (11p)        | (NO)      |
| Indicator            | 1 - 3, 6 - 8 (8p)          | (NO)      |
|                      | 1 - 3, 9 - 11 (11p)        | (NO)      |
| Digital Time Display | DOWN<br>UP                 |           |

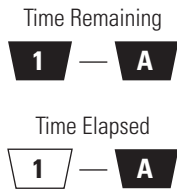
### GT3D-4 Timing Diagrams

These timers require a start input. A gate and reset input are optional. Inputs are controlled by external pushbuttons. Reset occurs when the power is removed or when the reset input is supplied. The gate signal can be used to interrupt (freeze) timer functions. Timer functions resume when the gate input is removed. B style timers are not equipped for gate input.

#### Delayed DPDT

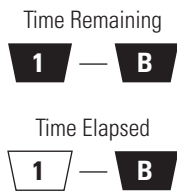


#### ON-Delay 1



| Item                 | Terminal Number      | Operation  |
|----------------------|----------------------|--|
| Power                | 2 - 10               | [Timing diagram showing power pulse]                   |
| Delayed Contact      | (NC) 1 - 4<br>8 - 11 | [Timing diagram showing normally closed contact pulse] |
|                      | (NO) 1 - 3<br>9 - 11 | [Timing diagram showing normally open contact pulse]   |
| Indicator            | OUT                  | [Timing diagram showing indicator pulse]               |
| Digital Time Display | DOWN                 | [Timing diagram showing digital display decreasing]    |
|                      | UP                   | [Timing diagram showing digital display increasing]    |
| Set Time             |                      | [Timing diagram showing set time interval]             |

#### Interval 1



| Item                 | Terminal Number      | Operation  |
|----------------------|----------------------|--|
| Power                | 2 - 10               | [Timing diagram showing power pulse]                   |
| Delayed Contact      | (NC) 1 - 4<br>8 - 11 | [Timing diagram showing normally closed contact pulse] |
|                      | (NO) 1 - 3<br>9 - 11 | [Timing diagram showing normally open contact pulse]   |
| Indicator            | OUT                  | [Timing diagram showing indicator pulse]               |
| Digital Time Display | DOWN                 | [Timing diagram showing digital display decreasing]    |
|                      | UP                   | [Timing diagram showing digital display increasing]    |
| Set Time             |                      | [Timing diagram showing set time interval]             |

Switches & Pilot Lights

Display Lights

Relays & Sockets

Timers

Terminal Blocks

Circuit Breakers

**GT3D-4 Timing Diagrams**

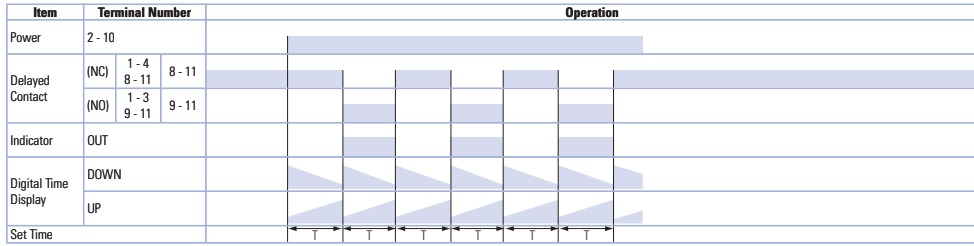
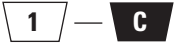
Switches & Pilot Lights

**Cycle 1**  
(OFF first)

Time Remaining



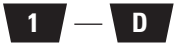
Time Elapsed



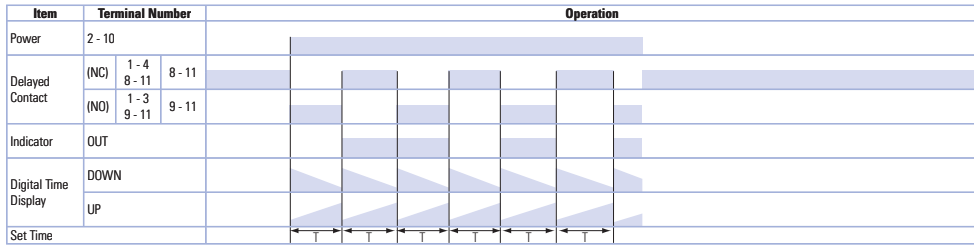
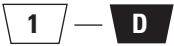
Display Lights

**Cycle 3**  
(ON first)

Time Remaining



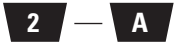
Time Elapsed



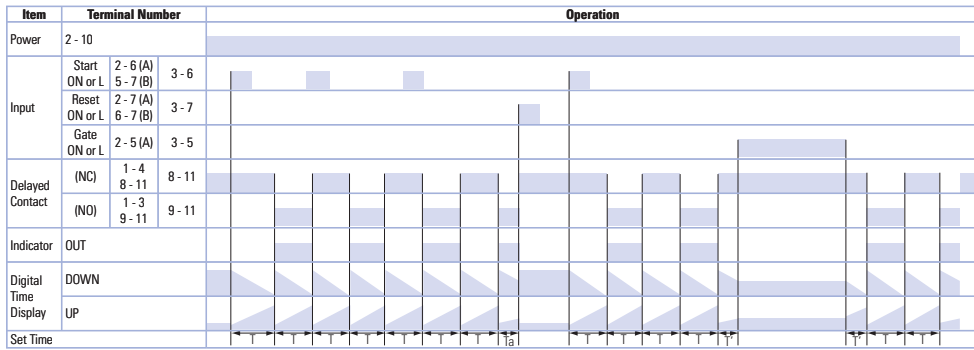
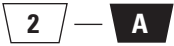
Relays & Sockets

**ON-Delay 2**

Time Remaining



Time Elapsed



Timers

Terminal Blocks

Circuit Breakers

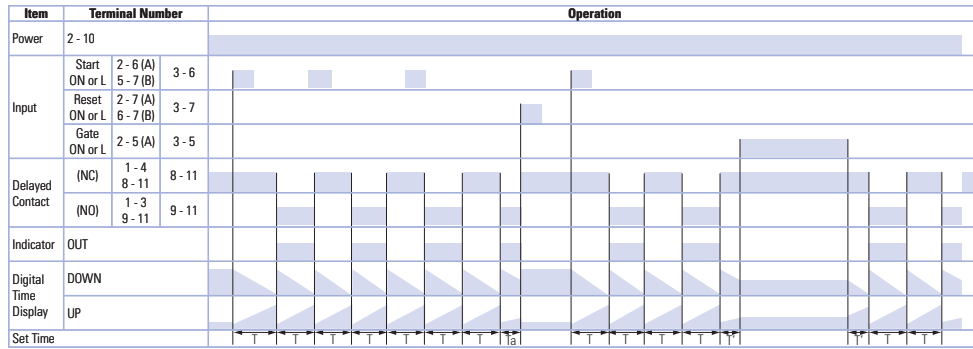
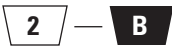
GT3D-4 Timing Diagrams

Cycle 2

Time Remaining



Time Elapsed

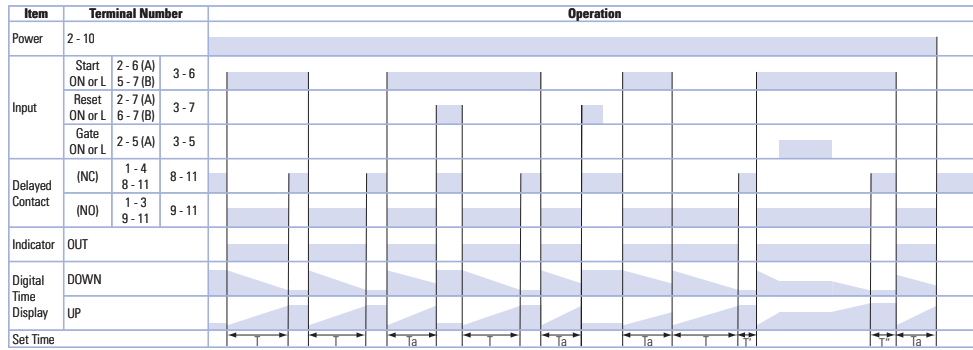
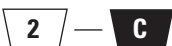


Signal ON/OFF-Delay 1

Time Remaining



Time Elapsed

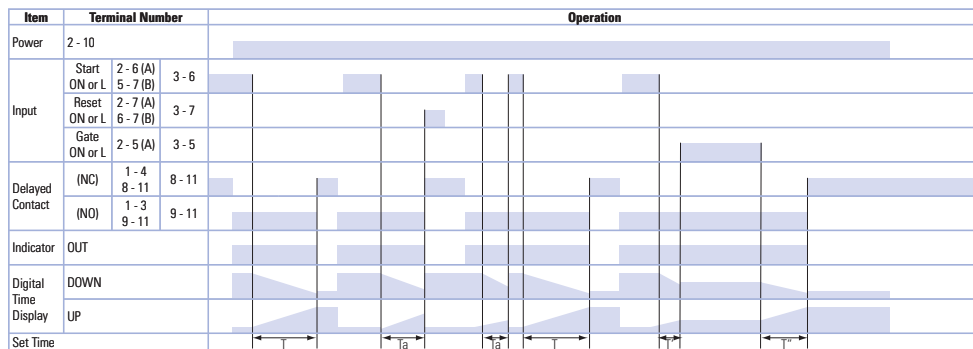
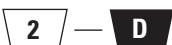


Singal OFF-Delay 1

Time Remaining



Time Elapsed

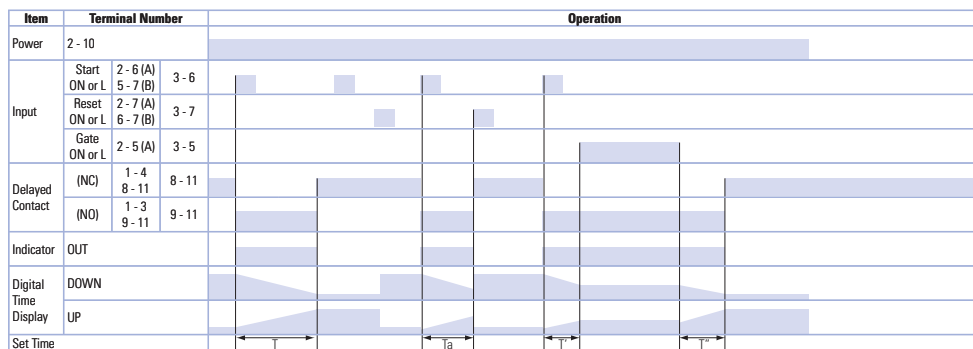
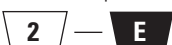


Interval 2

Time Remaining



Time Elapsed



**GT3D-4 Timing Diagrams**

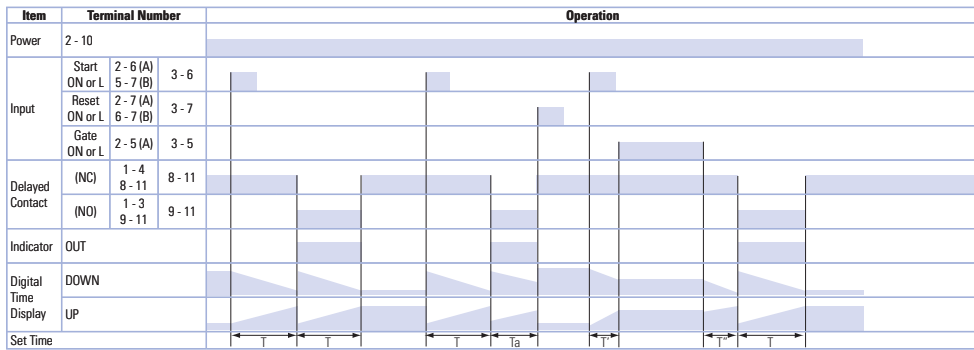
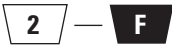
Switches & Pilot Lights

**One-Shot Cycle**

Time Remaining



Time Elapsed



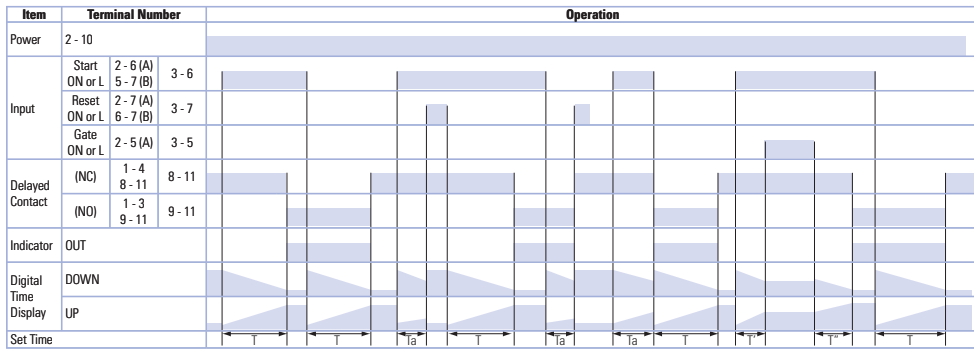
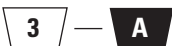
Display Lights

**Signal ON/OFF-Delay 2**

Time Remaining



Time Elapsed



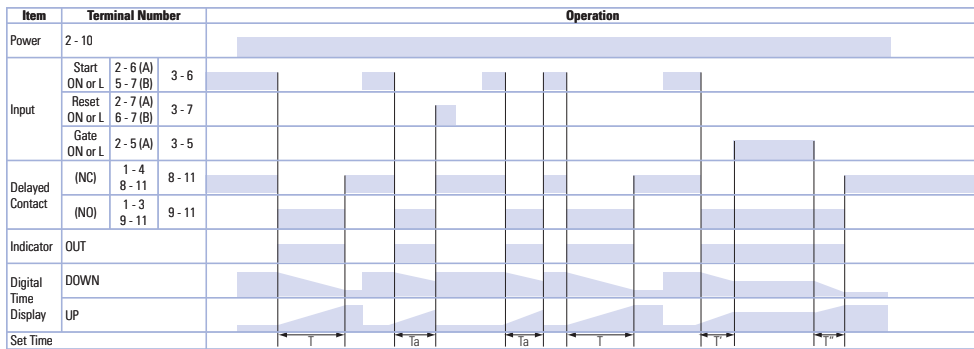
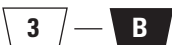
Relays & Sockets

**Singal OFF-Delay 2**

Time Remaining



Time Elapsed



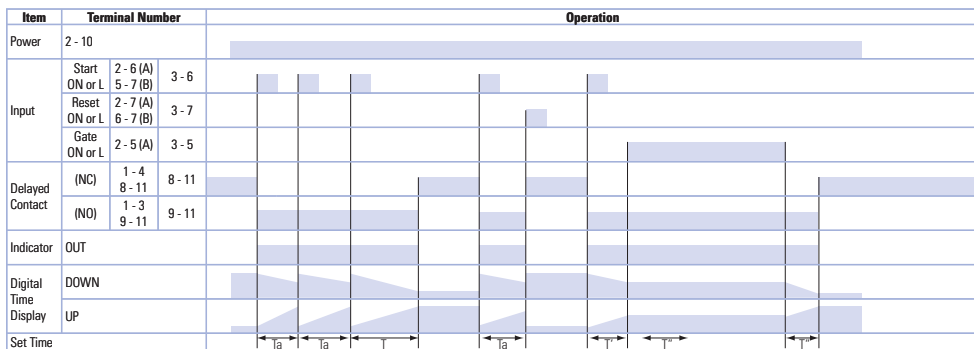
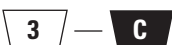
Timers

**One-Shot 1**

Time Remaining



Time Elapsed



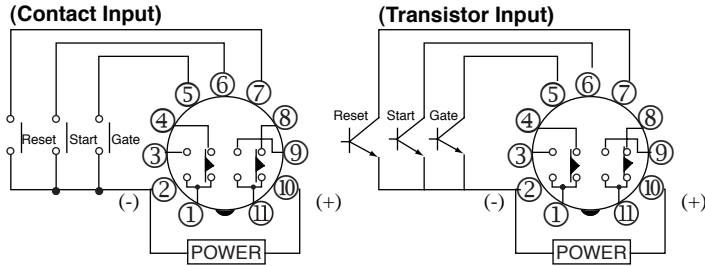
Terminal Blocks

Circuit Breakers



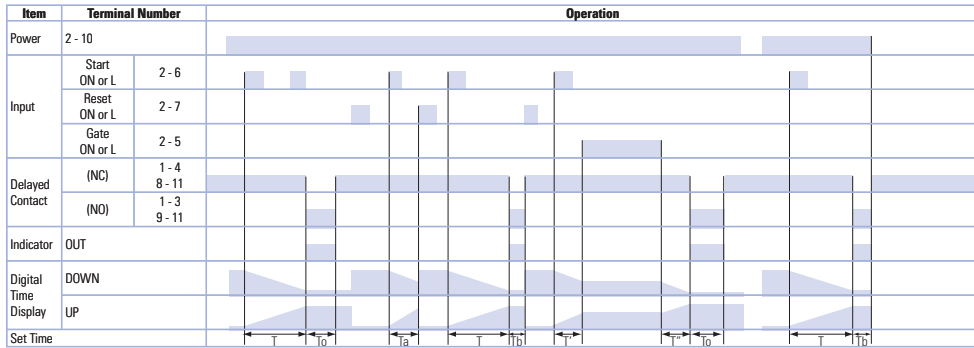
GT3D-8 Timing Diagrams  
Delayed DPDT

Operation  
Mode Selection



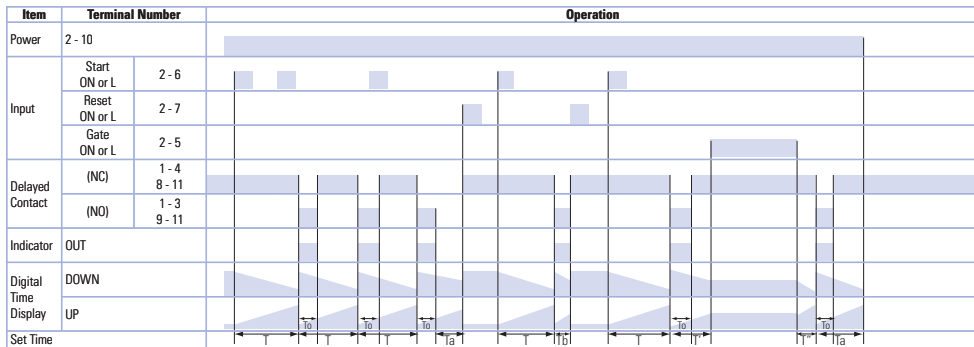
ON-Delay One-Shot 1

Time Remaining **1**  
Time Elapsed **1**



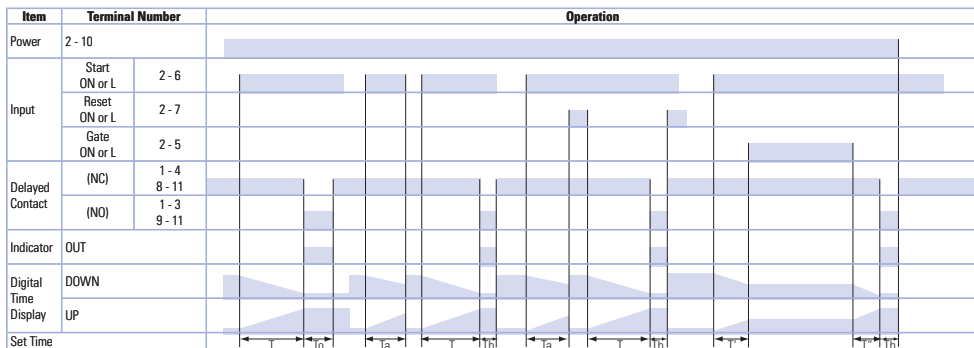
Cycle One-Shot

Time Remaining **2**  
Time Elapsed **2**



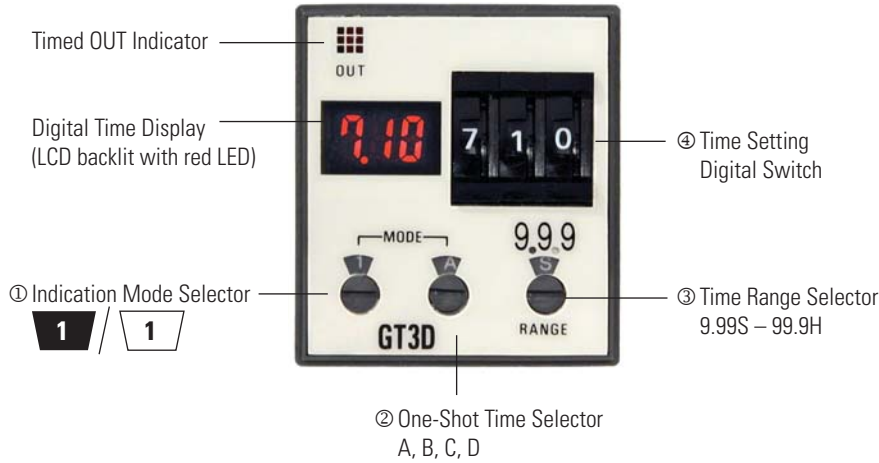
ON-Delay One-Shot 2

Time Remaining **3**  
Time Elapsed **3**



T = Set time  
 Ta = Shorter than set time  
 Tb = Shorter than single-shot output time  
 T = T' + T"  
 T0 = Single-shot output time (selected from A, B, C, D, E or F)

Instructions: Setting GT3D-2, GT3D-3 Timers



| Step 1   | Desired Mode/Selection |                           |                |                           | Remarks  |
|--|------------------------|---------------------------|----------------|---------------------------|--|
|  | Time Display Mode      | ① Indicator Mode Selector | Operation Mode | ② Operation Mode Selector |  |
| Select the desired time display and operation modes. | Time elapsed           |                           | ON-delay 1     | A                         | 1. Use the flat screwdriver to set the selectors. Since selectors do not turn all the way around, both clockwise and counterclockwise rotation may be necessary.<br>2. The ① Indicator Mode Selector determines whether the Digital Time Display shows the time elapsed or time remaining. The ② Operation Mode Selector determines the desired operation mode. Decide which display and mode is desired, then use these two selectors ①② to set the operation mode.<br>3. The ② Operation Mode Selector has two blank modes which are not intended for use. Always have this selector set to A, B, C, or D. |
|  | Time remaining         |                           |                |                           |  |
|  | Time elapsed           |                           | Interval       | B                         |  |
|  | Time remaining         |                           |                |                           |  |
|  | Time elapsed           |                           | Cycle 1        | C                         |  |
|  | Time remaining         |                           |                |                           |  |
|  | Time elapsed           |                           | Cycle 3        | D                         |  |
|  | Time remaining         |                           |                |                           |  |

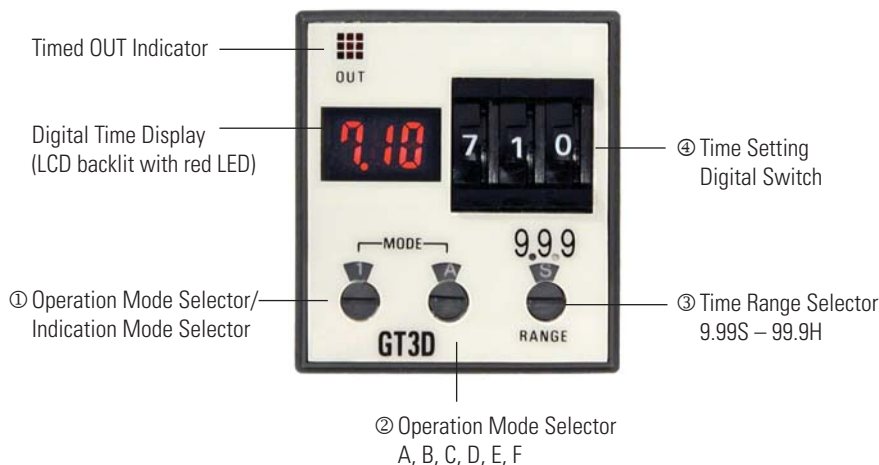
| Step 2  | Desired Operation            | Selection               |                          | Remarks  |
|---|------------------------------|-------------------------|--------------------------|--|
|   | Base Time Ranges             | ③ Time Range Selector   |                          | 1. The ③ Time Range Selector controls both the decimal point indicator (9.99, 99.9, 999) and the time increment indicators S (seconds), M (minutes), and H (hours).<br>2. Chose which base time range contains the targeted timer setting. Then use the ③ Time Range Selector to set the decimal point indicator and time increment indicator to its corresponding pair of settings.<br>3. Since these configurations offer a complete range of settings from 0.01 seconds to 99.9 hours, the setting of 9.99 for minutes and the 9.99 and 999 settings for hours are not listed and should not be used. |
|   |                              | Decimal Point Indicator | Time Increment Indicator |  |
| Select a time range that contains the desired period of time. | 0.01 seconds to 9.99 seconds | 9.99                    |                          |  |
|   | 0.1 seconds to 99.9 seconds  | 99.9                    |                          |  |
|   | 1 second to 999 seconds      | 999                     |                          |  |
|   | 0.1 minutes to 99.9 minutes  | 99.9                    |                          |  |
|   | 1 minute to 999 minutes      | 999                     |                          |  |
|   | 0.1 hours to 99.9 hours      | 99.9                    |                          |  |

| Step 3 | Desired Operation  | Selection | Remarks  |
|--------|--|-----------|--|
|        | Set the precise period of time desired by using the ④ Time Setting Digital Switch. |           | Use the ④ Time Setting Digital Switch to set the desired period of time. It is important to remember that the setting of the ③ Time Range Selector determines the units of time measurement as well as the implied decimal point location. |

It is important to remember that the ③ Time Range Selector not only selects the time range but also influences the interpretation of the Digital Time Display. Changing the ③ Time Range Selector setting changes the units of time measurement (seconds, minutes, hours) as well as the decimal point location.

Instructions: Setting GT3D-4 Timers



| Step 1   | Desired Mode/Selection       |                           |   |  | Remarks   |
|--|------------------------------|---------------------------|---|--|---|
|  | Time Display Mode            | ① Indicator Mode Selector | Operation Mode  | ② Operation Mode Selector  |   |
| Select the desired time display and operation modes.                               | Time elapsed                 |                           | ON-delay 1<br>Interval 1<br>Cycle 1<br>D: Cycle 3   | A<br>B<br>C<br>D   | 1. Use a flat screwdriver to set the selectors. Since selectors do not turn all the way around, both clockwise and counterclockwise rotation is necessary.<br><br>2. The ① Indicator Mode Selector determines whether the Digital Time Display shows the time elapsed or time remaining. The ② Operation Mode Selector determines the desired operation mode. Decide which display and mode is desired; then use these two selectors ① ② to set the operation mode.<br><br>3. When using the indicator mode setting "1," the ② Operation Mode Selector has two blank modes which are not intended for use. When using mode setting "1," always have the operation mode selector set to A, B, C, or D. |
|  | Time remaining               |                           |   |  |   |
|  | Time elapsed                 |                           | ON-delay 2<br>Cycle 2<br>Signal ON/OFF-delay 2<br>Signal OFF-delay 1<br>Interval 2<br>One-shot cycle                  | A<br>B<br>C<br>D<br>E<br>F   |   |
|  | Time remaining               |                           |   |  |   |
|  | Time elapsed                 |                           | Signal ON/OFF-delay 2<br>Signal OFF-delay 2<br>One-shot 1<br>One-shot ON-delay<br>One-shot 2<br>Signal ON/OFF-delay 3 | A<br>B<br>C<br>D<br>E<br>F   |   |
|  | Time remaining               |                           |   |  |   |
| Step 2   | Desired Operation            | Selection                 |   | Remarks  |   |
| Select a time range that contains the desired period of time.                      | Base Time Ranges             | ③ Time Range Selector     |   | 1. The ③ Time Range Selector controls both the decimal point indicator (9.99, 99.9, 999) and the time increment indicators S (seconds), M (minutes), and H (hours).<br><br>2. Chose which base time range contains the targeted timer setting. Then use the ③ Time Range Selector to set the decimal point indicator and time increment indicator to its corresponding pair of settings.<br><br>3. Since these configurations offer a complete range of settings from 0.01 seconds to 99.9 hours, the setting of 9.99 for minutes and the 9.99 and 999 settings for hours are not listed and should not be used. |   |
|  |                              | Decimal Point Indicator   | Time Increment Indicator  |  |   |
|  | 0.01 seconds to 9.99 seconds | 9.99                      |   |  |   |
|  | 0.1 seconds to 99.9 seconds  | 99.9                      |   |  |   |
|  | 1 second to 999 seconds      | 999                       |   |  |   |
|  | 0.1 minutes to 99.9 minutes  | 99.9                      |   |  |   |
| 1 minute to 999 minutes  | 999                          |                           |   |  |   |
| 0.1 hours to 99.9 hours  | 99.9                         |                           |   |  |   |
| Step 3   | Desired Operation            | Selection                 |   | Remarks  |   |
| Set the precise period of time desired by using the ④ Time Setting Digital Switch. |                              |                           |   | Use the ④ Time Setting Digital Switch to set the desired period of time. It is important to remember that the setting of the ③ Time Range Selector determines the units of time measurement as well as the implied decimal point location.   |   |

It is important to remember that the ③ Time Range Selector not only selects the time range but also influences the interpretation of the Digital Time Display. Changing the ③ Time Range Selector setting changes the units of time measurement (seconds, minutes, hours) as well as the decimal point location.

Switches & Pilot Lights

Display Lights

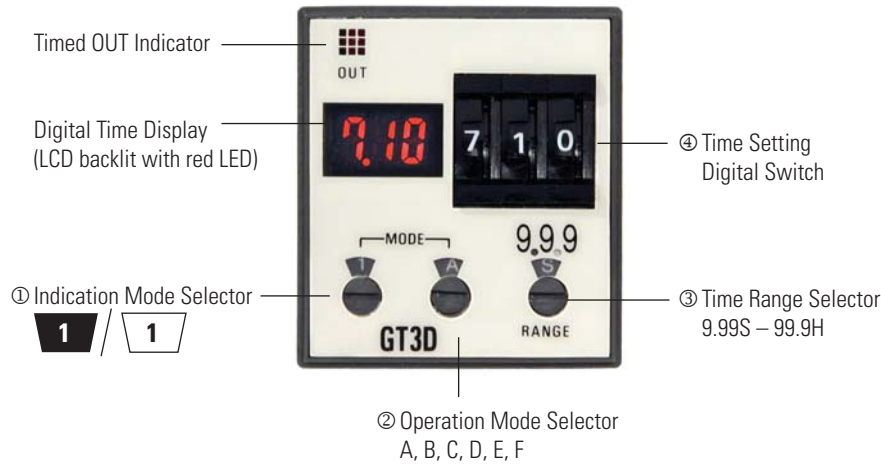
Relays & Sockets

Timers

Terminal Blocks

Circuit Breakers

### Instructions: Setting GT3D-8 Timers



| Step 1   | Desired Mode of Operation       |                | Selection                          |                          | Remarks  |
|--|---------------------------------|----------------|------------------------------------|--------------------------|--|
| Select the time display and operation modes.                                       | Operation Mode                  | Time elapsed   | ① Indicator Mode Selector          |                          | 1. Use a flat screwdriver to set the selectors. Since selectors do not turn all the way around, both clockwise and counterclockwise rotation is necessary.<br>2. The GT3D-8 ① Indicator Mode Selector selects both whether the Digital Time Display displays the time elapsed or time remaining and also the mode of operation. Decide which display and mode is desired. Then use this selector to set the operation mode.  |
|  |                                 | Time remaining | ① Indicator Mode Selector          |                          |  |
|  | Cycle One-Shot                  | Time elapsed   | ① Indicator Mode Selector          |                          |  |
|  |                                 | Time remaining | ① Indicator Mode Selector          |                          |  |
|  | ON-Delay One-Shot 2             | Time elapsed   | ① Indicator Mode Selector          |                          |  |
|  |                                 | Time remaining | ① Indicator Mode Selector          |                          |  |
| Step 2   | Desired Mode of Operation       |                | Selection                          |                          | Remarks  |
| Select the single shot output time.  | Desired Single-Shot Output Time |                | ② Single-Shot Output Time Selector |                          | On the GT3D-8 timers, the desired single-shot output time can be selected from the A, B, C, D, E, and F modes using the ② One-Shot Output Time Selector.   |
|  | 0.1 seconds                     |                | A                                  |                          |  |
|  | 0.5 seconds                     |                | B                                  |                          |  |
|  | 1 second                        |                | C                                  |                          |  |
|  | 5 seconds                       |                | D                                  |                          |  |
|  | 10 seconds                      |                | E                                  |                          |  |
| 50 seconds   |                                 | F              |                                    |                          |  |
| Step 3   | Desired Operation               |                | Selection                          |                          | Remarks  |
| Select a time range that contains the desired period of time.                      | Base Time Ranges                |                | ③ Time Range Selector              |                          | 1. The ③ Time Range Selector controls both the decimal point indicator (9.99, 99.9, 999) and the time increment indicators S (seconds), M (minutes), and H (hours).<br>2. Chose which base time range contains the targeted timer setting. Then use the ③ Time Range Selector to set the decimal point indicator and time increment indicator to its corresponding pair of settings.<br>3. Since these configurations offer a complete range of settings from 0.01 seconds to 99.9 hours, the setting of 9.99 for minutes and the 9.99 and 999 settings for hours are not listed and should not be used. |
|  | 0.01 seconds to 9.99 seconds    |                | Decimal Point Indicator            | Time Increment Indicator |  |
|  | 0.1 seconds to 99.9 seconds     |                | 9.99                               | S                        |  |
|  | 1 second to 999 seconds         |                | 99.9                               | M                        |  |
|  | 0.1 minutes to 99.9 minutes     |                | 999                                | H                        |  |
|  | 1 minute to 999 minutes         |                | 99.9                               |                          |  |
|  | 0.1 hours to 99.9 hours         |                | 999                                |                          |  |
| Step 4   | Desired Operation               |                | Selection                          |                          | Remarks  |
| Set the precise period of time desired by using the ④ Time Setting Digital Switch. |                                 |                |                                    |                          | Use the ④ Time Setting Digital Switch to set the desired period of time. It is important to remember that the setting of the ③ Time Range Selector determines the units of time measurement as well as the implied decimal point location.   |



It is important to remember that the ③ Time Range Selector not only selects the time range but also influences the interpretation of the Digital Time Display. Changing the ③ Time Range Selector setting changes the units of time measurement (seconds, minutes, hours) as well as the decimal point location.

Switches & Pilot Lights

Display Lights

Relays & Sockets

Timers

Terminal Blocks

Circuit Breakers