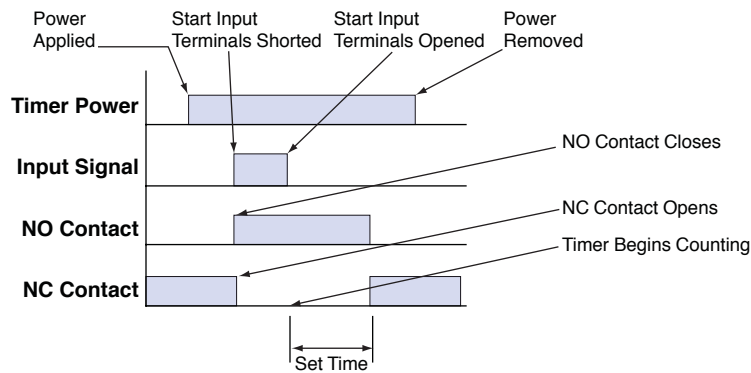


Timing Diagrams Overview

Guide to Reading Timing Function Diagrams

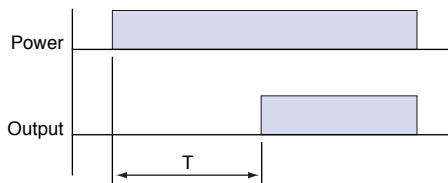


- 1. If power is disconnected during actual timing, most electronic timers reset to the preset time, ready for the re-application of supply voltage (except for GT3F "true OFF Delay").
- 2. NO = Normally open.
- 3. NC = Normally closed.

Timing Function Diagrams Overview

ON-Delay 1 (power start)

When voltage is applied to the coil, the relay contacts remain in the **off state** and the set time begins. When the set time has elapsed, the relay contacts transfer to the **on state**. The contacts remain in the on state until the timer is reset. The timer is reset by removing the coil voltage. Applicable models: RTE-P(B)1, GT3A-1, -2, -3, GT3D-1, -2, -3, -4, and GE1A.

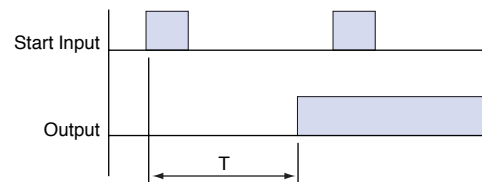


Type No.	GT3A-1, -2, -3	GT3D-1, -2, -3, -4	RTE-*1
Mode	A	1-A	A
See Page	805	813	798

Type No.	GE1A	GT5P	GT5Y
See Page	844	813	853

ON-Delay 2 (signal start)

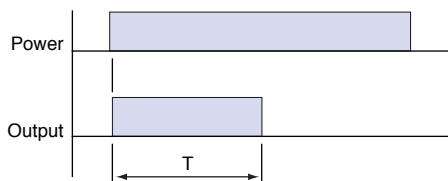
Voltage is applied to the coil at all times. When a start input is supplied, the relay contacts remain in the **off state** and the set time begins. When the set time has elapsed, the relay contacts transfer to the **on state**. The contacts remain in the **on state** until the timer is reset. The timer is reset by applying a reset input or by removing the coil voltage. Applicable models: GT3A-4, GT3D-4 and RTE-P(B) 2.



Type No.	GT3A-4	GT3D-4	RTE-*2
Mode	A	2-A	A
See Page	805	813	798

Interval 1 (power start)

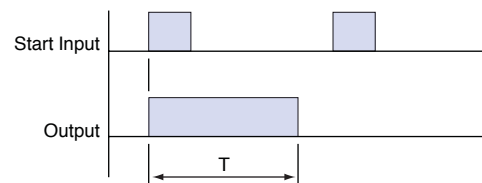
When voltage is applied to the coil, the relay contacts transfer immediately to the **on state** and the set time begins. When the set time has elapsed, the relay contacts transfer to the **off state**. The contacts remain in the **off state** until the timer is reset. The timer is reset by removing the coil voltage. Applicable models: RTE-P(B)1, GT3A-1, -2, -3, and GT3D-1, -2, -3, -4.



Type No.	GT3A-1, -2, -3	GT3D-1, -2, -3, -4	RTE-*1
Mode	B	1-B	B
See Page	805	813	798

Interval 2 (signal start)

Voltage is applied to the coil at all times. When a start signal is supplied, the relay contacts transfer immediately to the **on state** and the set time begins. When the set time has elapsed, the relay contacts transfer to the **off state**. The contacts remain in the **off state** until the timer is reset. The timer is reset by applying a reset input or by removing the coil voltage. Applicable models: GT3A-5 and GT3D-4.

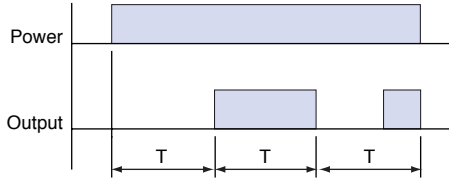


Type No.	GT3A-5	GT3D-4
Mode	A	2-E
See Page	805	813

- 1. T = set time, T' = shorter than set time, T_s = one shot output time
- 2. For more detailed timing diagrams, see specifications for individual timer models.

Cycle 1 (power start, OFF first)

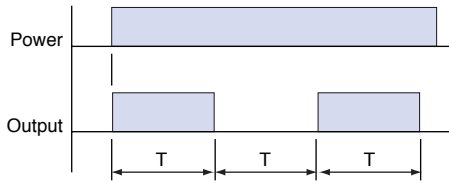
When voltage is applied to the coil, the contacts remain in the **off state** and the set time begins. At the end of the set time, the contacts transfer to the **on state** and remain in the **on state** until the set time elapses. The timer cycles between the two states until power is removed from the coil. Removing the coil voltage resets the timer. The set time for both the **on state** and the **off state** is the same. Applicable models: GT3A-1, -2, -3, GT3D-1, -2, -3, -4 and RTE-P(B)1.



Type No.	GT3A-1, -2, -3	GT3D-1, -2, -3, -4	RTE-*1
Mode	C	1-C	C
See Page	805	813	798

Cycle 3 (power start, ON first)

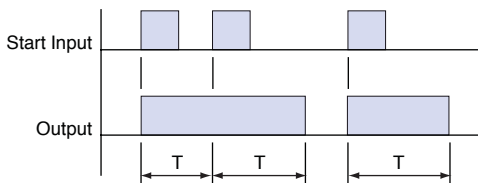
When voltage is applied to the coil, the contacts immediately transfer to the **on state** and the set time begins. At the end of the set time, the contacts transfer to the **off state** and remain in the **off state** until the set time elapses. The timer cycles between the two states until power is removed from the coil. Removing the coil voltage resets the timer. The set time for both the **off state** and the **on state** is the same. Applicable models: GT3A-1, -2, -3, GT3D-1, -2, -3, -4 and RTE-P(B)1.



Type No.	GT3A-1, -2, -3	GT3D-1, -2, -3, -4	RTE-*1
Mode	D	1-D	D
See Page	805	813	798

One Shot 1 (signal start, retriggerable)

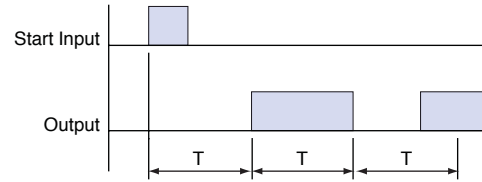
Voltage is applied to the coil at all times. When a start signal is supplied, the contacts immediately transfer to the **on state** and the set time begins. If another start signal is supplied (**before set time has elapsed**) the set time restarts, as the contacts remain in the **on state**. Successive pulses at a frequency greater than the set time will cause the contacts to remain in the **“On state”** indefinitely. When the set time has elapsed the contacts transfer back to the **off state**. The contacts remain in the **off state** until the next start signal is supplied (no reset is necessary). The timer can be reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-6 and GT3D-4.



Type No.	GT3A-6	GT3D-4
Mode	A	3-C
See Page	805	813

Cycle 2 (signal start, OFF first)

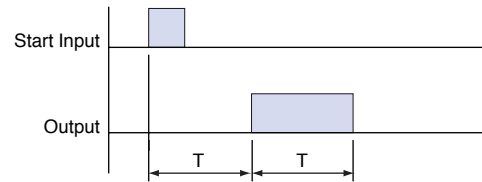
Voltage is applied to the coil at all times. When a start signal is supplied, the relay contacts remain in the **off state** and the set time begins. At the end of the set time, the contacts transfer to the **on state** and remain in the **on state** until the set time elapses. The timer cycles between the two states until the timer is reset. The set time for both the **on state** and the **off state** are the same. The timer is reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-4, GT3D-4 and RTE-P(B) 2.



Type No.	GT3A-4	GT3D-4	RTE-*2
Mode	B	2-B	B
See Page	805	813	798

One Shot Cycle (signal start)

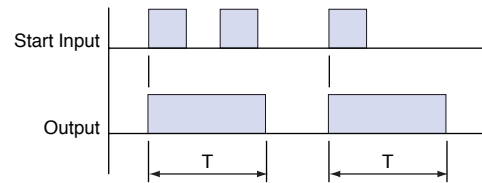
Voltage is applied to the coil at all times. When a start signal is supplied, the contacts remain in the **off state** and the set time begins. At the end of the set time, the contacts transfer to the **on state** and remain in the **on state** for the set time. After the set time has elapsed, the contacts return to the **off state**. The contacts remain in the **off state** until the timer is reset. The timer is reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-5 and GT3D-4.



Type No.	GT3A-5	GT3D-4
Mode	B	2-F
See Page	805	813

One Shot 2 (signal start)

Voltage is applied to the coil at all times. When a start signal is supplied, the contacts immediately transfer to the **on state** and the set time begins. If another start signal is supplied (**before set time has elapsed**), the set time will not be affected. When the set time has elapsed, the contacts transfer back to the **off state**. The contacts remain in the **off state** until the next start signal is supplied (no reset is necessary). The timer can be reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-6, GT3D-4, and RTE-P(B)2.

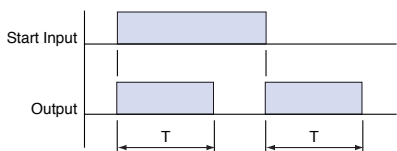


Type No.	GT3A-6	GT3D-4	RTE-*2
Mode	C	3-E	F
See Page	805	813	798

1. T = set time, T' = shorter than set time, Ts = one shot output time
 2. For more detailed timing diagrams, see specifications for individual timer models.

Signal ON/OFF-Delay 1

Voltage is supplied to the coil at all times. When a maintained start signal is supplied, the contacts immediately transfer to the **on state** and the set time begins. When the set time has elapsed, the contacts transfer to the **off state**. The contacts remain in the **off state** until the start signal is removed. The contacts transfer back to the **on state** and remain in the **on state** for the set time. When the set time has elapsed, the contacts transfer to the **off state** and remain in the **off state** until the start signal is supplied again (no reset is necessary). The timer is reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-4, GT3D-4 and RTE-R(B)2.

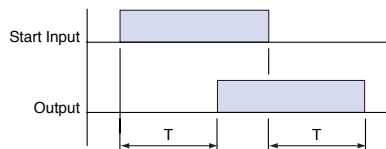


Type No.	GT3A-4	GT3D-4	RTE-*2
Mode	C	2-C	D
See Page	805	813	798

Signal ON/OFF-Delay 2

Signal ON/OFF-Delay 2

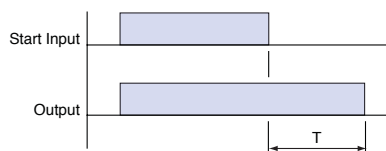
Voltage is supplied to the coil at all times. When a maintained start signal is supplied, the contacts remain in the **off state** and the set time begins. When the set time has elapsed, the contacts transfer to the **on state**. The contacts remain in the **on state** until the start signal is removed. Once the start signal is removed, the contacts remain in the **on state** and the set time begins again. Once the set time has elapsed, the contacts transfer back to the **off state**. The timer is ready for the next start signal. The timer is reset by the application of a reset signal or removal of power. Applicable models: GT3A-5 and GT3D-4.



Type No.	GT3A-5	GT3D-4
Mode	C	3-A
See Page	805	813

Signal OFF-Delay 1

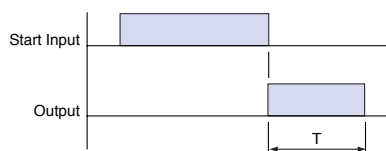
Voltage is applied to the coil at all times. When a start signal is supplied, the contacts immediately transfer to the **on state**. The set time begins **when the start signal is removed**. When the set time has elapsed, the contacts transfer to the **off state**. The contacts remain in the **off state** until the next start signal is supplied (no reset is necessary). The timer can be reset by application of a reset input or by removing coil voltage. Applicable models: RTE-P(B)2, GT3A-4, and GT3D-4.



Type No.	GT3A-4	GT3D-4	RTE-*2
Mode	D	2-D	E
See Page	805	813	798

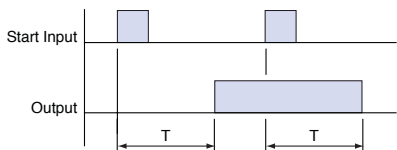
Signal OFF-Delay 2

Voltage is applied to the coil at all times. When a maintained start signal is supplied, the contacts remain in the **off state**. When the "start signal is removed", the contacts transfer to the **On state** and the set time begins. When the set time has elapsed, the contacts transfer back to the **off state**. They remain in the **off state** until the next start signal is supplied (no reset is necessary). The timer can be reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-5 and GT3D-4.



Type No.	GT3A-5	GT3D-4
Mode	D	3-B
See Page	805	813

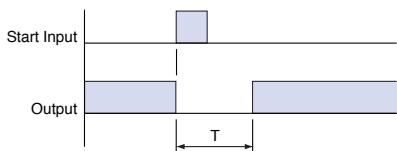
Voltage is supplied to the coil at all times. When a momentary start signal is supplied, the contacts remain in the **off state** and the set time begins. When the set time has elapsed, the contacts transfer to the **on state**. The contacts remain in the **on state** until another momentary input is supplied. The contacts then remain in the **on state** for the set time. When the set time has elapsed, the contacts transfer to the **off state** and remain in the **off state** until the start signal is supplied again (no reset is necessary). The timer is reset by application of a reset input or by removing coil voltage. Applicable models: GT3A-6 and GT3D-4.



Type No.	GT3A-6	GT3D-4
Mode	D	3-F
See Page	805	813

One Shot ON-Delay (signal start)

When voltage is applied to the coil, the preset time is initiated and the contacts remain in the **off state** for the preset time. Following the preset time, the contacts transfer to the **on state**, and remain in the **on state** until the start input is supplied. Following the start input, the contacts transfer to the **off state** for the preset time. After the preset time has elapsed, the contacts transfer back to the **on state** and remain there until either the next start input is supplied or the timer is reset. The timer can be reset by either a reset input or removal of the coil voltage. Applicable models: GT3A-6 and GT3D-4.



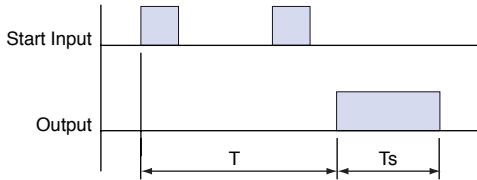
Type No.	GT3A-6	GT3D-4
Mode	B	3-D
See Page	805	813

1. T = set time, T' = shorter than set time, Ts = one shot output time
 2. For more detailed timing diagrams, see specifications for individual timer models.



ON-Delay One-Shot Output 1 (signal start)

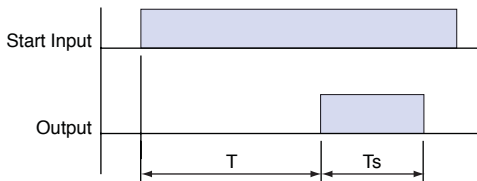
Voltage is applied to the coil at all times. When a momentary start signal is supplied, the contacts remain in the off state and the preset time begins. Following the preset time, the contacts transfer to the on state and remain in the on state for the one-shot preset time. Following the one-shot preset time, the contacts transfer back to the off state and remain there until the timer is reset. The timer can be reset by applying either a reset input or removal of the coil voltage. Applicable model: GT3D-8.



Type No.	GT3D-8
Mode	1
See Page	813

ON-Delay One-Shot Output 2 (signal start)

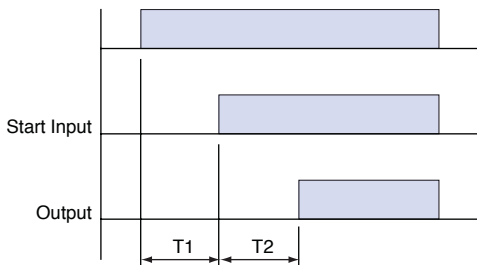
Voltage is applied to the coil at all times. When a maintained start signal is supplied, the contacts remain in the **off state** and the preset time begins. Following the preset time (start input is still present), the contacts transfer to the **on state** and remain in the **on state** for the one-shot preset time. When the one-shot preset time has elapsed, contacts transfer back to the **off state** and remain there until timer is reset. The timer can be reset by a reset input, removal of the coil voltage or removal of start input. Applicable model: GT3D-8.



Type No.	GT3D-8
Mode	3
See Page	813

Sequential Start (power start)

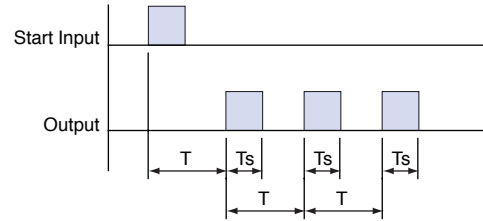
When voltage is applied to the coil, both contacts remain in the OFF state and the set time, T1, begins. When T1 has elapsed, output 1 comes on and T2 begins. When T2 has elapsed, output 2 comes on. Both outputs remain on until power is removed from the coil. Applicable model: GT3W-A.



Type No.	GT3W-A
Mode	A
See Page	834

Cycle One-Shot Output (signal start)

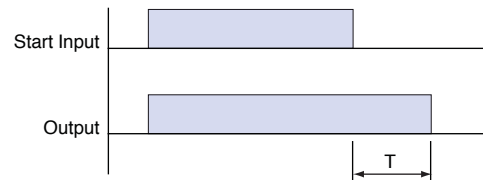
Voltage is applied to the coil at all times. When a momentary start signal is supplied, the contacts remain in the **off state** and the preset time begins. Following the preset time, the contacts transfer to the **on state**. The contacts remain in the **on state** for the one-shot preset time. After the one-shot preset time has elapsed, the contacts transfer back to the **off state**. The contacts remain in the **off state** for the preset time minus the one-shot preset time. The timer cycles between **on and off states** until the timer is reset by a reset input or removal of the coil voltage. Applicable model: GT3D-8.



Type No.	GT3D-8
Mode	2
See Page	813

True Power-OFF Delay

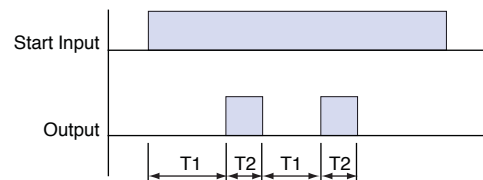
When voltage is applied, output comes on immediately; when voltage is removed from the coil, the timer begins timing (internal capacitors power the timing circuit). When time has expired, contacts transfer back to the OFF state. If power is reapplied before the elapsed time has expired, the timing function will reset back to the starting point. Applicable models: GT3F-1, 2.



Type No.	GT3F-1, 2
Mode	Power OFF-Delay
See Page	826

Recycler Outputs (power start)

When voltage is applied to the coil, both contacts remain in the off state and time T1 begins. When T1 has elapsed, both contacts transfer to the ON state and T2 begins. When T2 has elapsed, both contacts transfer back to the OFF state and T1 begins again. The cycle continues until power is removed, at which time both contacts transfer back to the OFF state. Applicable model: GT3W-A.



Type No.	GT3W-A
Mode	D
See Page	834

1. T = set time, T' = shorter than set time, Ts = one shot output time
 2. For more detailed timing diagrams, see specifications for individual timer models.