

## S351 Universal Timer Relay

The S351 is a 12 or 24V multi-function timer relay with up to 6 modes of operation.

There are two full change over relay contacts rated up to 2A, a red and green indicator LED and two open collector outputs.

Dip switches S1- S3 are used to set the different modes and switch S4 is used to set the timing range as shown in the table. Use the POT to adjust the timer once the timing range has been set.

Mode	Description	Trigger	S1	S2	S3	S4 (timing range)	
						sc	min
1	Commutate	Latched	A	A	A	N/A	N/A
2	A-Stable	Latched	A	A	B	1-10 sec	3-60 sec
3	Bell cut off timer	Latched	A	B	A	1-60 sec	1-60 min
4	Max time switch	Latched	A	B	B	1-60 sec	1-60 min
5	Reset Pulse	Momentary	B	A	A	1-60 sec	1-60 min
6	Pulse Stretch	Momentary	B	A	B	1-60 sec	1-60 min

### Mode 1 – Commutate

Apply a trigger. The relay changes over and the green led indicates. This will remain until the first trigger is removed and a second trigger is applied, then the relay will switch back and the red led will indicate, until the trigger is removed when the led will extinguish.

### Mode 2 – A-Stable

Apply a trigger and the relay will a-stable. When the relay is switched the green led illuminates and when the relay is un-switched, the red led illuminates. When the trigger is removed, the relay will stop a-stabbling, reset to the un-switched state and the led will extinguish.

### Mode 3 – Bell cut off timer

Apply a trigger, the green led illuminates, but the relay doesn't switch. If the trigger is removed, the LED extinguishes and the timing is stopped. If the time period expires while the trigger is still applied, then the relay switches and the red led illuminates. This will remain until the trigger is removed.

### Mode 4 – Max time switch

Apply a trigger, the green led illuminates, and the relay switches. If the trigger is removed, the LED extinguishes, the relay switches back and the timing is stopped. If the time period expires while the trigger is still applied, then the relay switches back and the red led illuminates. This will remain until the trigger is removed.

### Mode 5 – Reset pulse

Apply a trigger, the green led illuminates, but the relay doesn't switch. If the trigger is removed, the timing continues. When the time period expires with the trigger removed, then the relay switches and the red led illuminates. This will remain for 1 second, then the relay will switch back and the LED extinguish.

### Mode 6 – Pulse stretch

Apply a trigger, the green led illuminates, and the relay switches. If the trigger is removed, the timing continues. When the time period expires with the trigger removed, the relay switches back and the red led illuminates for 1 second and then extinguishes.

**Connections**

Apply 12 or 24Vdc to either of the + and – terminals to power the unit.  
 To trigger the unit apply a positive to A or C, or apply a negative to B or D.  
 L1 and L2 are switch negatives that follow the onboard LED's.

**Relay output**

