CT41P INTELLIGENT WIPER SWITCH
USERS MANUAL

1. General

CT41P is a microcontroller - based "intelligent switch" for operating one wiper motor; it provides all the functions for a proper windscreen cleaning.

- Voltage supply: 12V or 24V
- Fit for any d.c. motors (see output current) and for any kind of parking switch
- Three intermittent setting
- Perfect self parking position due to "dynamic brake"
- Wipe/wash program
- Dimmer input
- Standard switch size compatible
- Easy to install and to use
- reliable

Packet includes:

- no. 1 Console CT41P
- no. 1 Relay box CT41P
- no. 1 8 poles flat cable L = 1m
- no. 1 4 poles connector with female pins*
- no.1 7 poles connector
- no. 1 User manual

* If required.

2. Controls and signalings

Push buttons scope

Controls are user friendly.

1 ON/OFF switch
2 increase speed / decrease time between strokes.
3 decrease speed / increase time between strokes

All the push buttons have a double function, as below described.

Signalings
Three leds show wipers operation setting.
By pressing any button, mode will change and the leds:
- will flash as many times as delay time (in seconds) between strokes (4 flash if 4 seconds is the delay time selected between strokes).
- will have a light flash – slowly if SLOW speed is selected, quickly if FAST speed is selected.

After blinking, leds will show the selected mode.
See the following chart

MODE	light	Flashing
FAST	□ □ □	Fast slight blink
SLOW	□ □ ■	Slow slight blink
2 sec. delay	■ ■ □	2 Slow blink
4 sec. delay	■ □ ■	4 Slow blink
8 sec. delay	□ ■ ■	8 Slow blink
OFF	■ ■ ■	Leds OFF
Wipe/wash	□ ■ □	----------
Failure	Asymm.	Continuous

3. Power supply

CT41P will operate on a power supply of 10 up to 30 V DC. **Insert connectors before suppling power.** When powered, a lamp test is executed. CT41P will stay in stand-by, ready to operate.

4. ON switching

By pressing no. 1 or no. 2 button, wiper will start in SLOW speed mode (the only possibile continuous mode if one speed motor is used).

5. OFF switching

By pressing no. 1 button wiper will stop in park position.
The same by keeping pressed no. 3 push button more than one second.

6. Wipe / Wash program

By keeping pressed no. 1 or no. 2 button more than one second, washing program will start.

| 3sec. | 3 sec. | 4 sec. |

|=== Spray === Spray ====|
|==== Wipe ====== Wipe ===|

To increase wash timing or to increase spray/wipe time, keep no. 1 or no. 2 button pressed.
After wipe / wash, wipers will return for operating in the previous selected mode.

7. Failure

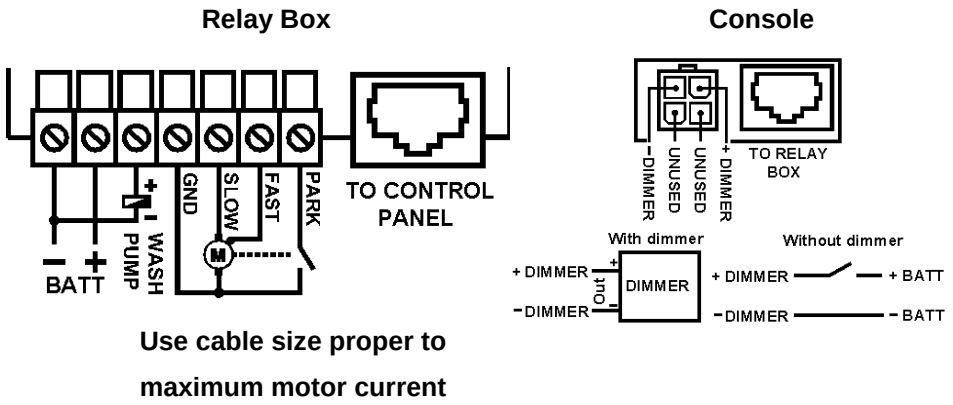
A continuous asymmetrical flashing indicates that CT41P doesn't receive the parking switch signal.

This may happen if:
- parking switch is demaged or unconnected
- motor doesn't run (demaged or unconnected)
- connector to wiper motor has been inserted after suppling power and control works as with one speed motor.

8. Technical specifications

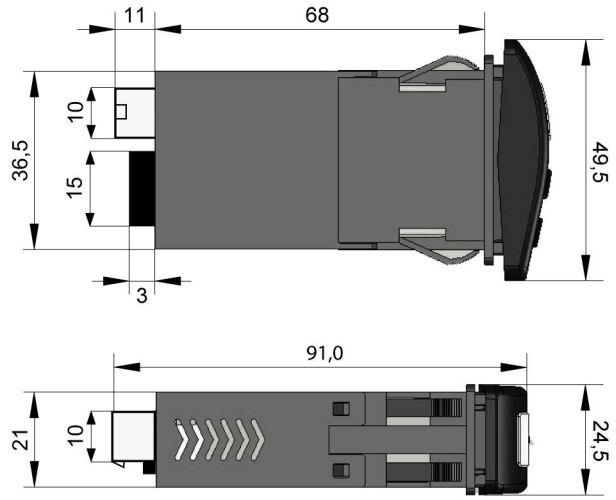
	CT41P	
Voltage supply	10V to 30V DC	
Internal fuse	12 Amps PTC	
Stand-by current	Less than 20 mA	
Protection	Polarity inversion	
Motor – output current	Single or double speed – 12 Amps max.	
Input	1 parking switch (open in park position) Dimmer (connect to + supply if not used)	
Output	1 slow speed – SLOW 1 high speed – FAST (if 2 speed motors) 1 wash pump (positive pole)	
Functions	3 intermittent settings 2 continuous speeds, slow and high speed Wash / wipe program	
Connections	Relay box	Console
	1 seven poles Conn. 1 eigth poles tel. Conn.	1 four poles Minifit Conn. 1 eight poles tel. Conn.
Case	ABS black	ABS black
Working temperature	-25 °C / +55 °C	
Storage Temperature	-30 °C / +80 °C	

9. Wires

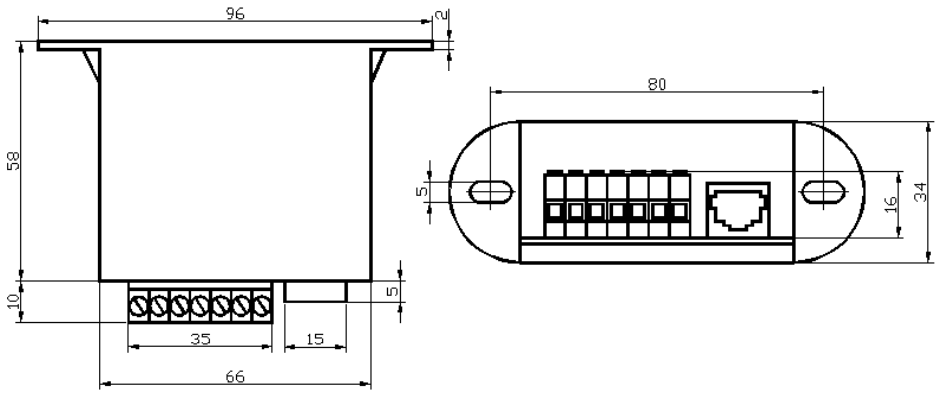


Use cable size proper to maximum motor current

10. Console dimension



11. Relay Box dimension



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