

CT42 INTELLIGENT WIPER SWITCH USER MANUAL

1. General



CT42 is a microcontroller - based "intelligent switch" for operating two wiper motors; 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

- > Activates/deactivates each wiper individually
- > **Synchronization in each selected mode**
- > Three intermittent speed functions
- > Perfect self parking position due to "dynamic brake"
- > Wipe/wash program
- > Dimmer input
- > Standard switches size compatible
- > Easy to install and to use
- > reliable

Package includes:

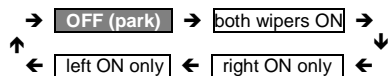
- no. 1 CT42
- no. 1 ten pole connector with female pins
- no. 2 female fast-on
- no. 1 user manual

2. Controls and signalings

Push buttons functions

Controls are user friendly.

- 1 Button: by pressing the no. 1 button multiple times, the following **wiper selections** are set:



- 2 Button: increase speed / decrease time between strokes.
 3 Button: decrease speed / increase time between strokes

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

Signalings

Three LEDs show wipers operation setting. By pressing no. 1 button a fast blinking LEDs will show the new wipers selection, as in following chart:

| Wipers selection | 2 seconds long blinking | |
|------------------|-------------------------|---------------|
| ON both wipers | | Fast blinking |
| ON right only | | Fast blinking |
| On left only | | Fast blinking |
| OFF both wipers | | LEDs OFF |

After fast blinking, LEDs will show the selected mode.

By pressing the no. 2 or 3 button, mode will change and the LEDs:

- will blink as many time as delay time (in seconds) between strokes (4 blinks for 4 seconds delay).
- will have a light flash – slowly if SLOW speed is selected, quickly if FAST speed is selected.

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

CT42 will operate on a power supply of 10 up to 30 V DC. **Insert connector (linked to motors) before connecting to power supply.** When powered a lamp test is executed. CT42 will stay in stand-by, ready to operate.

4. ON switching

By pressing the no. 1 or no. 2 button, both wipers will start in SLOW speed mode (the only possible continuous mode if one speed motors are used).

5. OFF switching

By pressing the no. 1 button as many times as required by **wiper selections**, wipers will stop in park position. The same by keeping the no. 3 button pressed more than one second.

6. Wipe / Wash program

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

| 3sec. | 4 sec. | 3 sec. |
 |==== Spray ===== Spray =====|
 |===== Wipe ===== Wipe ===|

To increase wash timing or to increase spray/wipe time, keep no. 1 or no. 2 button pressed.

After the wipe / wash program is over, wipers will return to operating in the previous selected mode.

7. Failure

A continuous asymmetrical flashing indicate that CT42 is not receiving one or both parking switch signal or that it is not possible to reach synchronism.

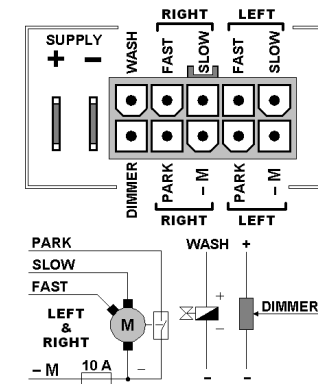
This may happen if:

- one (or both) parking switch is damaged or disconnected
- one (or both) motor doesn't run (damaged or disconnected)
- one (or both) motor doesn't run in FAST or in SLOW speed
- motors run at too much different speeds and it is not possible to reach synchronism.
- 10 poles connector was inserted and connected to the motor after the connection was made to the power supply.

8. Technical specifications

| | CT42 |
|--------------------------|---|
| Voltage supply | 10V to 30V DC |
| Internal fuses | 4A self-resettable PTC for each motor |
| Stand-by current | Less than 20 mA |
| Protection | polarity inversion |
| Motors – output currents | Single or double speed – each motor 4 Amps max. |
| Input | 2 parking switch (open in park position) Dimmer (connect to + supply if not used) |
| Output | 2 slow speed – L and R SLOW 2 high speed – L and R 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 | 10 poles connector – 2 male 6,3 mm fast-on |
| Case | ABS black |
| Working temperature | -10 °C / +50 °C |
| Storage Temperature | -20 °C / +70 °C |

9. Wires



10. Dimension

