

CT42P INTELLIGENT WIPER SWITCH USER MANUAL

1. General



CT42P is a microcontroller - based "intelligent switch" for operating two wiper motors; it provides all the functions for a proper windscreen cleaning.

- Voltage supply: 12V - 24V
- Fit for any d.c. motors (see output current) and for any kind of parking switch

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

Packet includes:

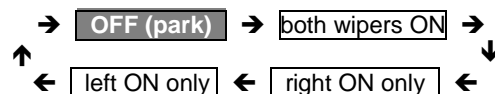
- no. 1 Console CT42P
- no. 1 Relay box CT42P
- no. 1 Eight pole flat cable L = 1m
- no. 1 Four pole minifit conn. with female pins*
- no. 2 Four pole connector
- no. 3 female fast-on
- no. 1 MANT42PEVA user manual

* If request.

2. Controls and signalings

Push buttons scope

- 1 Button: by multiple pressing of no. 1 button the following **wipers selection** 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 leds blinking will indicate 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 no. 2 or 3 button, mode will change and the leds:

- will flash as many time 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.

See the following chart.

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

3. Power supply

CT42P will operate on a power supply of 10 up to 30 V DC. **Insert connectors before supplying power.** When powered a lamp test is executed. CT42P will stay in stand-by, ready to operate.

4. ON switching

By pressing 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 no. 1 button as many times as required by wipers selection, wipers 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. | 4 sec. | 3 sec. |
|=== Spray ===== Spray =====|
|===== Wipe ===== Wipe ===|

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

After wipe / wash, wipers will return for operating in the previous selected mode.

7. Failure

A continuous asymmetrical flashing indicate that CT42P doesn' receive one or both parking switch signal or that it is not possible to reach synchronism. This may happen if:

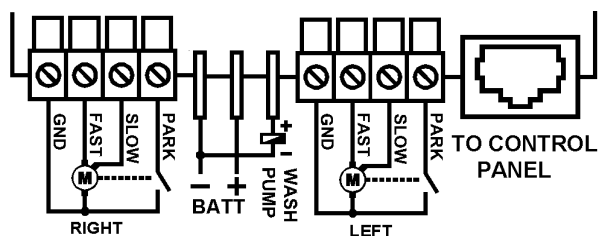
- one (or both) parking switch is damaged or unconnected
- one (or both) motor doesn't run (damaged or unconnected)
- one (or both) motor doesn't run in FAST or in SLOW speed
- motors run at too much different speeds and it is not possible to reach synchronism.
- one (or both) connector has been inserted after supply power and control works as with one speed motors.

8. Technical specifications

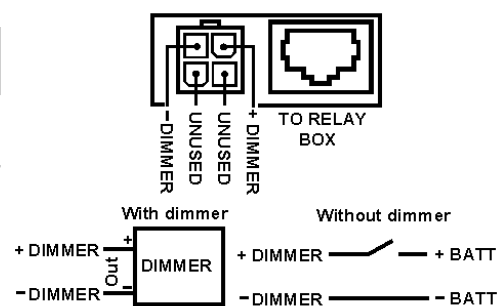
	CT42P	
Voltage supply	10V to 30V DC	
Internal fuses	16A PTC for each motor	
Stand-by current	Less than 20 mA	
Protection	polarity inversion	
Motors – output currents	Single or double speed – each motor 16 Amps max.	
Input	2 parking switch (open in park position) Dimmer (see par. Wires)	
Output	2 slow 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	Relay box	Console
	2 four poles connector female 6,3 mm fast-on 1 eight poles tel. Conn	1 four poles Minifit conn. 1 eight poles tel. Conn.
Case	Gray ABS	Black ABS
Working temperature	-10 °C / +50 °C	
Storage Temperature	-20 °C / +70 °C	

9. Wires

Relay Box



Console



Use cable size proper
to maximum motor current

10. Dimensions

