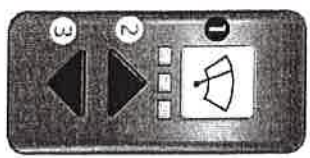


# CT42 INTELLIGENT WIPER SWITCH USER MANUAL

## 1. General



CT42 is a microcontroller based "intelligent switch" for operating two wiper motors. It provides all the functions for a proper windshield 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"
- > Wiper/wash program
- > Dimmer input
- > Standard switches size compatible
- > Easy to install and to use
- > reliable

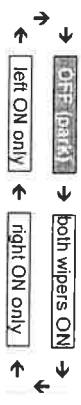
Package includes:

- 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

- 1 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	LEDs	2 seconds long blinking
ON both wipers	[Fast blinking]	Fast blinking
ON right only	[Fast blinking]	Fast blinking
On left only	[Fast blinking]	Fast blinking
OFF both wipers	[LEDs OFF]	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 blink]	Fast slight blink
SLOW	[Slow blink]	Slow slight blink
2 sec. delay	[4 blinks]	2 Slow blink
4 sec. delay	[4 blinks]	4 Slow blink
8 sec. delay	[4 blinks]	8 Slow blink
OFF	[LEDs OFF]	LEDs OFF
Wiper/wash	[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

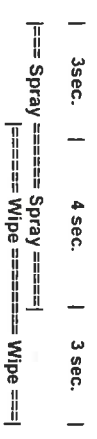
By pressing the no. 1 or no. 2 button, both wipers will start in SLOW speed mode (the only possible continuous mode if one speed motors are used)

## 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.

## 8. Wipe / Wash program

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



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

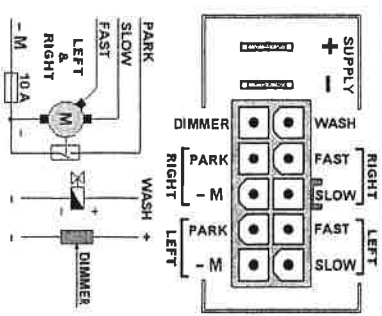
A continuous asymmetrical flashing indicate that CT42 is not receiving one or both parking switch signal or that it is not possible to reach synchronism. This may happen if:

- 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.

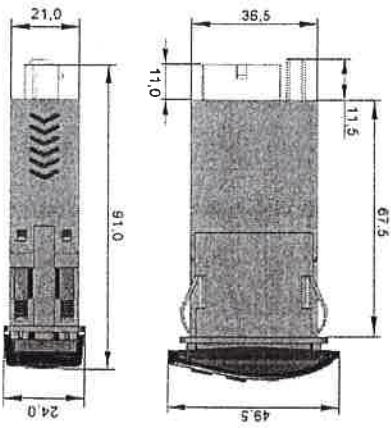
## 8. Technical specifications

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



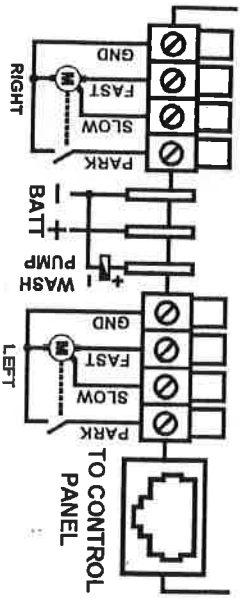
*Pr. motor  
mk5:  
SLOW - 12V  
70W - 24V*



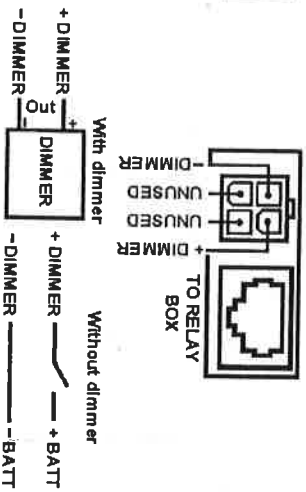
	CT42P	
Voltage supply	10V to 30V DC	
Internal fuses	16A PTC for each motor	
Stand-by current	Less than 20 mA	
Protection	polarity inversion	
Motors – output currents	Single or double speed – each motor 16 Amps max.	
Input	2 parking switch (open in park position) Dimmer (see par. Wires)	
Output	2 slow 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 2 four poles connector female 6,3 mm fast-on 1 eight poles tel. Conn	Console 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

