












CT41 / 42

Wiper Control Switch

Operates wiper motors for efficient window cleaning

-  Size compatible with standard switches
-  Cost effective and easy to install
-  Self adjusting to your motors
-  Wipers always synchronised
-  Intermittent and 2 speed functioning
-  Self parking
-  Dual voltage for 12v and 24v systems
-  Reliable and easy to use
-  CT41 - 1 wiper switch, CT42 - 2 wiper switch



CT41 and CT42 INTELLIGENT WIPER SWITCH

General

CT41 and CT42 are microcontroller-based "intelligent switches" for operating one (CT41) or two (CT42) wiper motors, providing all the functions required for efficient windscreen cleaning.



- Voltage supply: 12v or 24v
- Fit for any DC motors (see output current) and for any kind of parking switch
- Activates/deactivates each wiper one by one (CT42 only)
- Synchronization in each selected mode (CT42 only)
- Three intermittent settings
- Perfect self parking position due to "dynamic brake"
- Wipe / wash program
- Dimmer input
- Standard switch size compatible
- Reliable, easy to install and to use

Pack includes:

- 1 off CT41 or CT42
- 1 off ten pole connector with female pins
- 2 off female fast-on
- 1 off MANT41PEVA or MANT42PEVA user manual

Controls and signalings

Push buttons scope

Controls are user friendly.

Button 1: CT41 - ON/OFF Switch
CT42 - by multiple pressing of No.1 button the following wipers selection are set:



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

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

Signalings

Three LEDs show wipers operation setting.
CT42 only: By pressing No.1 button, fast blinking LEDs will indicate the new wiper selection, as in the following chart:

Wiper 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.

CT41 & CT42:

- By pressing any button (CT41) or buttons No. 2 or 3 (CT42), 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.

See the following chart.

MODE	light	Flashing
FAST	Fast light blink	Fast slight blink
SLOW	Slow light 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	Asymm.	Continuous
Failure	Asymm.	Continuous

Power supply

CT41 and CT42 will operate on a power supply of 10 up to 30 V DC. Insert connector (linked to motors) before supply power. When powered a lamp test is executed. CT41 and CT42 will stay in stand-by, ready to operate.

ON switching

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

OFF switching

By pressing No.1 button (CT41) or as many times as required by wiper selection (CT42), wiper(s) will stop in park position.
The same can also be achieved by keeping No.3 button pressed for more than one second.

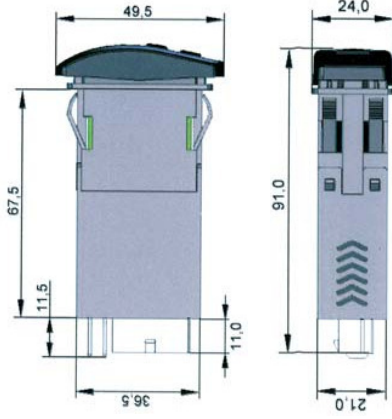
Wipe / Wash program

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

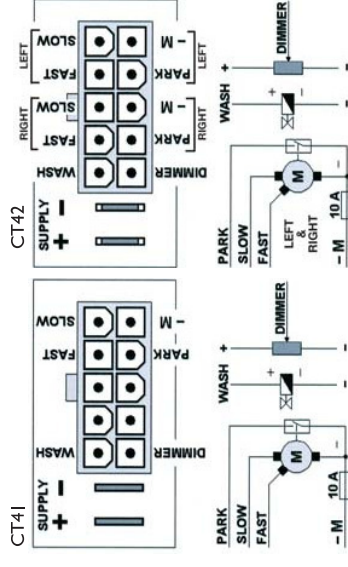
3sec. | 4 sec. | 3 sec. |
 Spray ===== Wipe =====
 ===== Wipe ===== Wipe =====

To increase wash timing or to increase spray/wipe time,

Dimensions



Wiring



- keep No.1 or No.2 button pressed .
After wipe / wash, wipers will return for operating in the previous selected mode.
- ### Failure
- A continuous asymmetrical flashing indicates that CT41 or CT42 hasn't received one or both parking switch signals or, in the case of CT42, that it is not possible to reach synchronisation. This may happen if:

- CT42:
- One (or both) parking switch is damaged or unconnected
 - One (or both) motors do not run (damaged or unconnected)
 - One (or both) motors do not run in FAST or in SLOW speeds
 - Motors run at different speeds and it is not possible to reach synchronisation.
 - 10 pole connector has been inserted after power supply and control works as with one speed motors

CT41:

- Parking switch is damaged or unconnected
- Motor doesn't run (damaged or unconnected)
- 10 pole connector has been inserted after power supply and control works as with one speed motor.



Technical specifications

	CT41	CT42
Voltage supply	10v to 30v DC	10V to 30V DC
Internal fuses	4-Amps PTC for each motor	4-Amps PTC for each motor
Stand-by current	Less than 20 mA	Less than 20 mA
Protection	Polarity inversion	Polarity inversion
Motors – output currents	Single or double speed – 4-Amps max.	Single or double speed – each motor 4-Amps max.
Input	1 parking switch (open in park position) Dimmer (connect to + supply if not used)	2 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)	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	3 intermittent settings 2 continuous speeds, slow and high speed
Wash / wipe program	Wash / wipe program	Wash / wipe program
Connections	10 poles connector – 2 male 6.3mm fast-on	10 poles connector – 2 male 6.3mm fast-on
Case	ABS black	ABS black
Working temperature	-10 °C / +50 °C	-10 °C / +50 °C
Storage Temperature	-20 °C / +70 °C	-20 °C / +70 °C