


12.A4


ENGLISH

12.A4 DIGITAL ASTRO TIME SWITCH with ON/OFF CONTACT OUTPUT and (0-10 V or PWM) SIGNAL OUTPUT

The 0-10 V / PWM output signal can be programmed to ramp up or down to the programmed output value **5** **F**, at a predetermined rate of change (PI) **4** **A**

"Switching" times are easily set using either the seasonally variable times of the Astro SUNSET and Astro SUNRISE functions, or the specific, fixed time-of-day of the TIMED function - or any combination of all three.


1 DISPLAY INDICATORS

- A** Setting
- B** Days of the week (1=Mon...7=Sun)
- C** Holiday program
- D** Permanent Manual Mode (active)
- E** Channel A functions:
Astro ON, Astro OFF, Pulse (TIMED event + 0-10 V / PWM)
- F** Day - Advanced/Retarded - % output signal
- G** Time, postcode (CP), percentage change in output power per second (PI), year (Y), day (D), month (M), hours (H), minutes (M), Daylight saving ON/OFF, Holiday program [Start: D (day), M (month). Finish: D (day), M (month)] PIN, exit menu (END)
- H** - Low battery (with power supply)
- Time switch without external power (powered by battery)
- I** Cancel
- L** Event memory location (max 50) - Country, Leading two characters of CP, PI, [Coor: geographic coordinates in degrees: N(North) / S(South), E(East) / W(West), TZ(Time zone)], Y(year), D(day), M(month), H(hour), M(minutes), Daylight saving ON/OFF (EU: Europe, BR: Brazil, MX: Mexico) [holiday program: Start: day(D), month(M); Finish: day(D), month(M)]
- M** Saved event

2 WIRING DIAGRAM: output 0-10V

3 WIRING DIAGRAM: output PWM



4 SETTINGS (examples)

- A** Back-lit display (only when externally powered)
- 4a** Setting: Country (IT), CP (leading two characters of CP), percentage change in output power per second (PI), year(Y), day(D), month(M), hour(H), minutes(M), Daylight saving ON/OFF (EU: Europe, BR: Brazil, MX: Mexico), PIN, exit menu (END)
- 4b** Holiday program
(Start: day/month. Finish: day/month), PIN, exit menu (END)
- 4c** Setup by geographic coordinates. Start at **4a**, select Country IT or CP 00 stage, scroll down with . Continue by setting the coordinates and time zone. Latitude: North (N) - South (S). Longitude: East (E) - West (W). Time zone(TZ)

5 PROGRAMMING (examples)

- A** Back-lit display (only when externally powered)
- B** NP: New Programming event
- C** 01, 02...: event memory location (Max 50)
- 5.1** **ASTRO ON:** Signifies programming the Astro SUNSET conditions - advance/retard **D** - applicable days **E** - required % output setting (0-10V / PWM) **F**
- 5.2** **ASTRO OFF:** Signifies programming the Astro SUNRISE conditions - advance/retard **D** - applicable days **E** - required % output setting (0-10V / PWM) **F**
- 5.3** **PULSE:** Signifies programming the conditions for a TIMED event - time of event **G** - applicable days **E** - required % output setting (0-10V / PWM) **F**
- D** Advance or retard from the Astro time (up to 90 minutes)
- E** Set applicable day(s) of the week (1 = Mon ... 7 = Sun)
- F** Set % value of the output signal (0-10 V / PWM)
- G** Set time of day for TIMED event (00:00 ... 23:59)

6 MANUAL MODE (Manually change the current output value)

Pushing the joystick towards  (**6a**) or towards  (**6b**) it is possible to modify the value of the output signal between 1% and 99%.
Note: the output contact (11-14) will be open for values below 10%, and will be closed for values above 10%.
NB: This setting will remain in force until the next programmed event.

7 PERMANENT MANUAL MODE

By activating the permanent manual mode **7a**, the program of events will be ignored (whilst the current signal output level is maintained).
De-activating the mode **7b**, and the device returns to follow the program of events, responding to the next occurring event.

8 DELETION of all programmed events

- A** Back-lit display (only when externally powered)

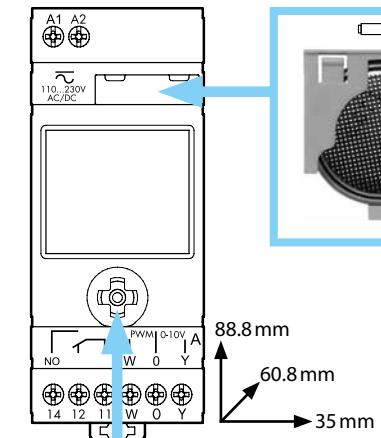
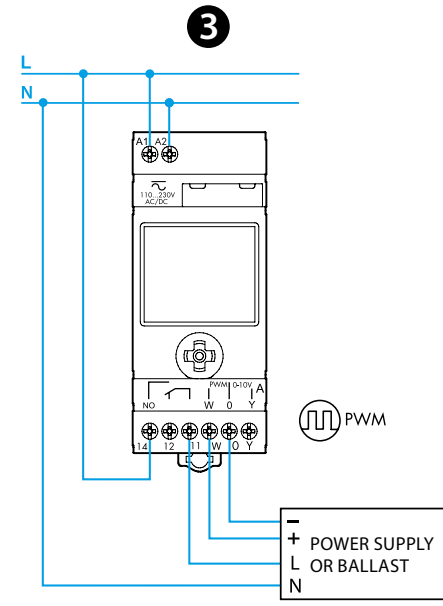
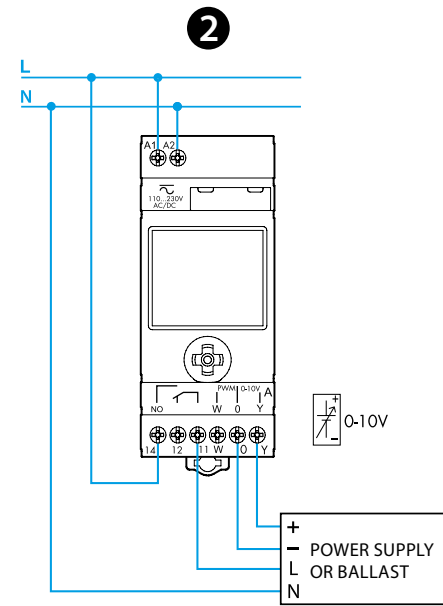
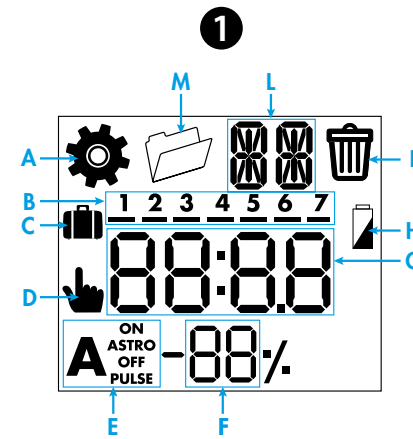
9 DELETION of a single programmed event

- A** Back-lit display (only when externally powered)

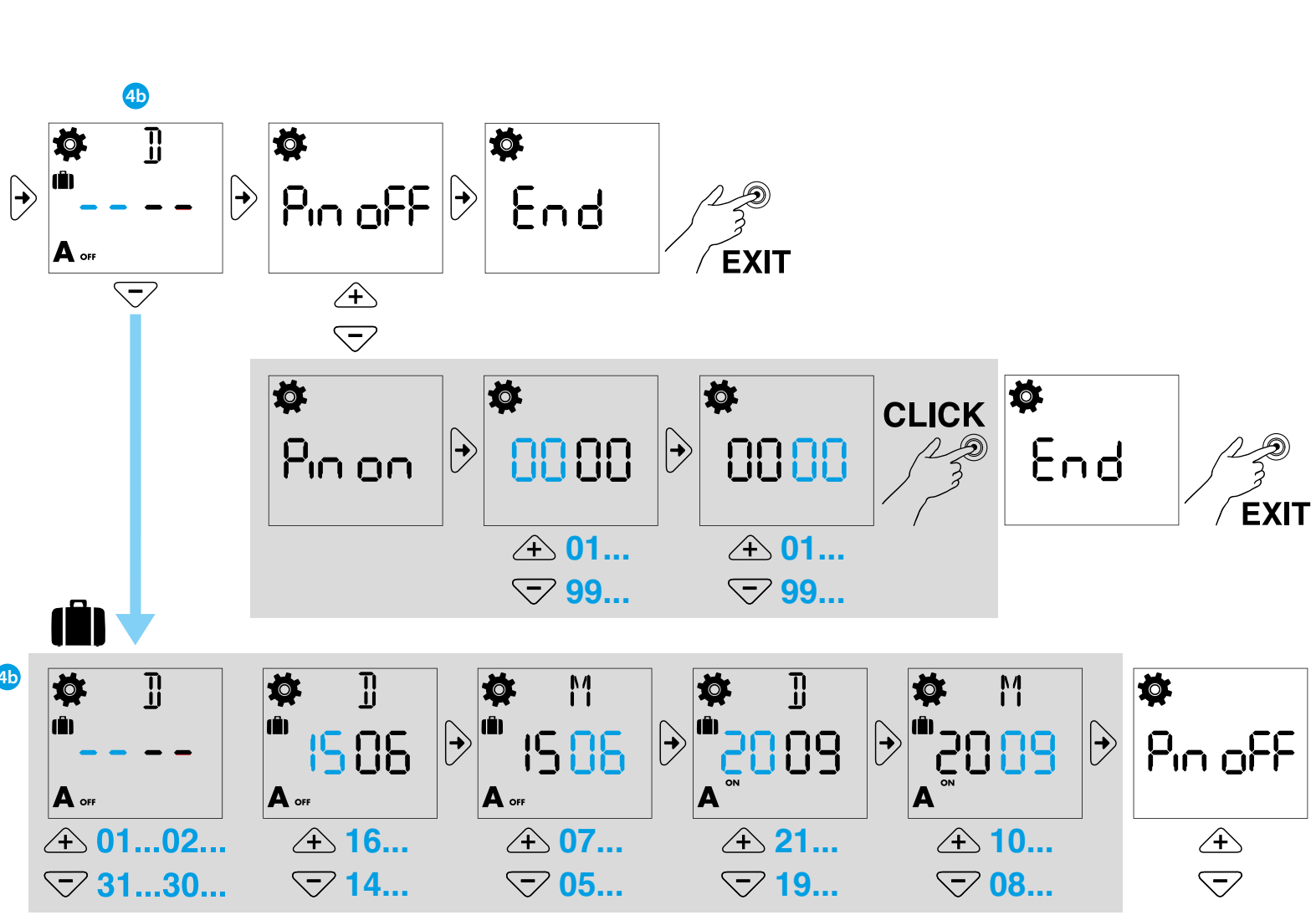
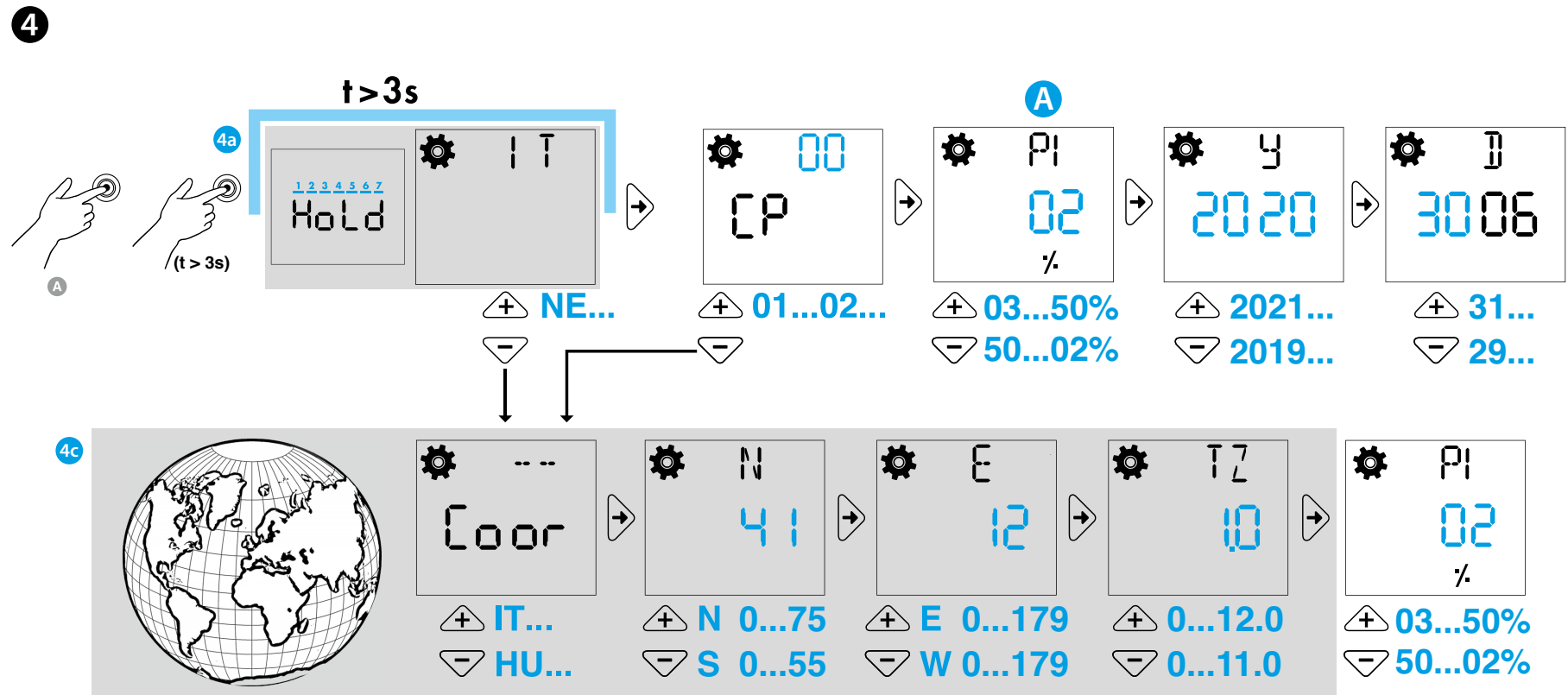
NOTE

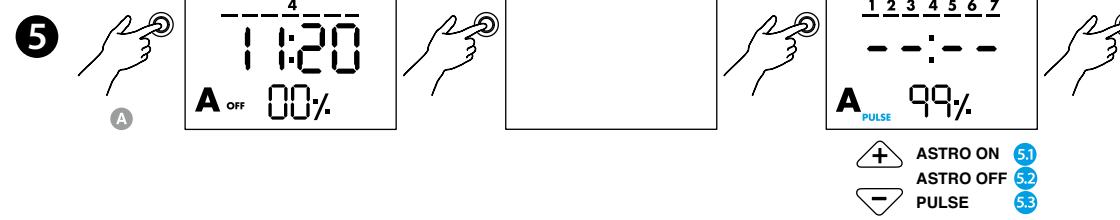
- Battery replacement: BATTERY CR 2032 (LiMnO₂) 3V, 230mAh. Complies with Article 11, EU directive 2006/66/CE. Dispose of batteries according to local regulations
- Back-lit display (only when externally powered)
- ASTRO times vary over the year
- PWM 0% = output contact open
- (0-10 V) ≤9% = output contact open
- Maximum cable length: 20 m (0-10 V) - 10 m (PWM)
- PWM: setting 0-99% - resolution 1%
- 0-10 V: setting 0-99% - resolution 1%

EN 60669-1 / EN 60669-2-1	
12.A4.8.230.0010	
U _N 110...230 V AC (50/60 Hz) / DC	
U _{min} 90 V AC / DC	
U _{max} 264 V AC / DC	
P 2.8 VA (50 Hz) / 0.9 W	
1 CO (SPDT) 16 A 250 V AC + PWM (300 Hz, max 30 V DC, 20 mA) + 0-10 V (max 10 mA)	
AC1 4000 VA	
AC15 (230 V AC) 750 VA	
	(230 V) 2000 W
	(230 V) 750 W
	(230 V) 400 W
	(-20...+50)°C
IP20	

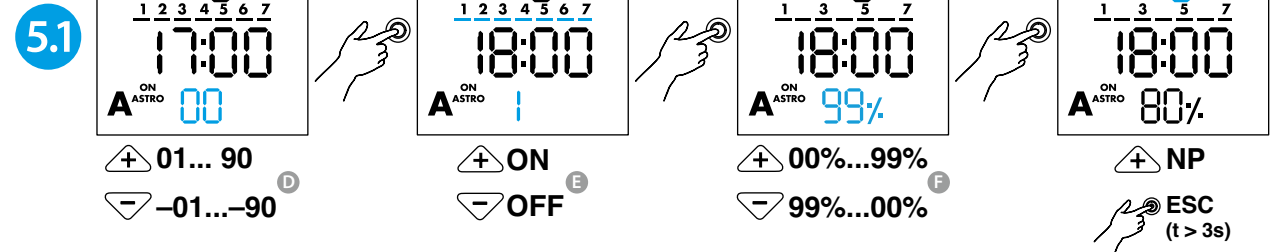


- Operating Control, Independently mounted
- Panel mounting, Type 1 Action
- Pollution Degree 2, Impulse Voltage 4000 V
- Terminals nominal torque: 0.8 Nm
- The battery can be replaced only by the manufacturer or competent personnel
- The device can be installed and configured only by the installer or a qualified installer
- The circuit connected to PWM/0-10 terminals must present at least a basic insulation in respect to the line circuit

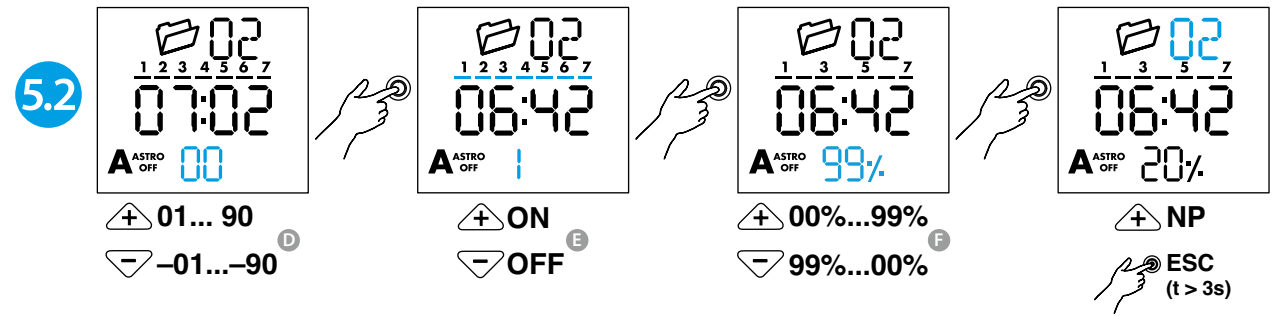




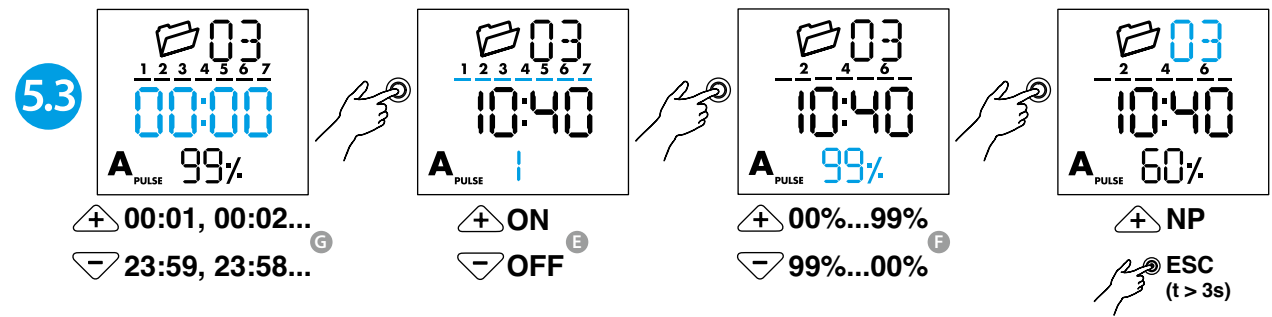
- + ASTRO ON 5.1
- ASTRO OFF 5.2
- PULSE 5.3



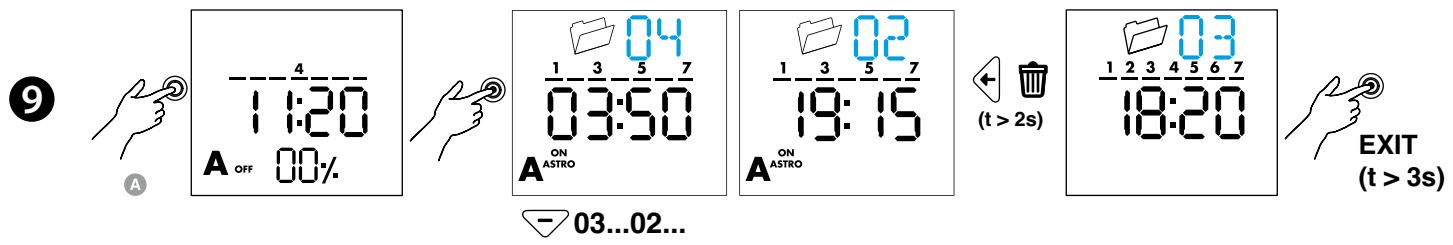
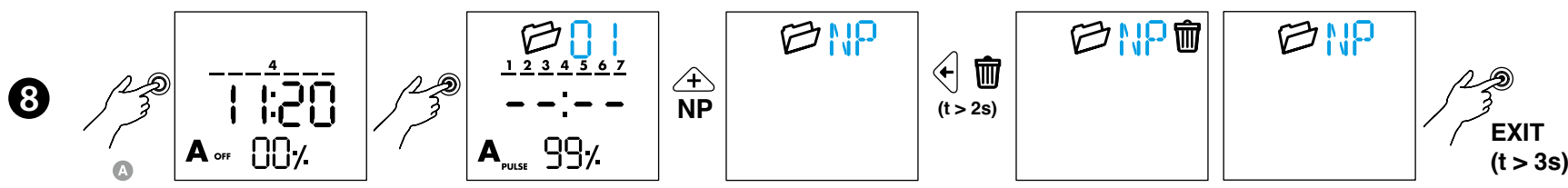
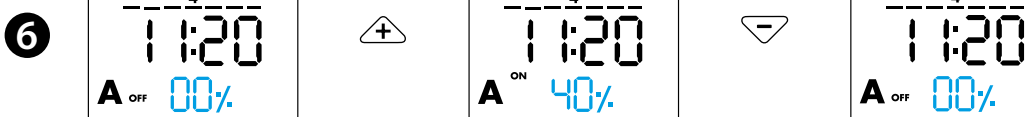
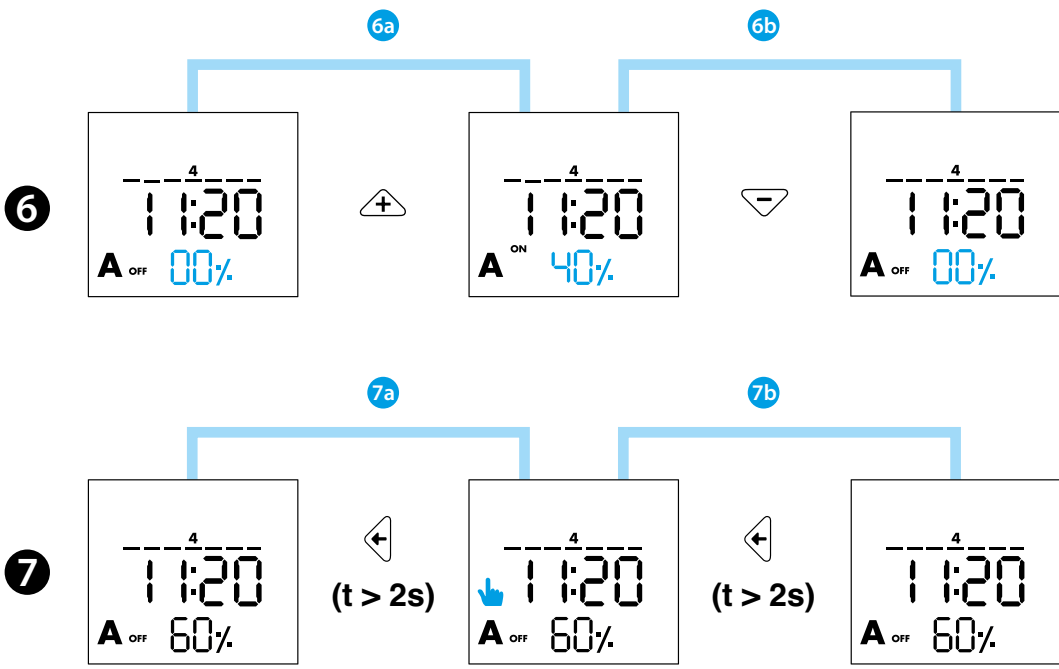
- + 01... 90
- -01...-90
- + ON
- OFF
- + 00%...99%
- 99%...00%
- + NP
- ESC (t > 3s)



- + 01... 90
- -01...-90
- + ON
- OFF
- + 00%...99%
- 99%...00%
- + NP
- ESC (t > 3s)



- + 00:01, 00:02...
- 23:59, 23:58...
- + ON
- OFF
- + 00%...99%
- 99%...00%
- + NP
- ESC (t > 3s)



- 03...02...