☐ Wiring diagram

☐ Dimensions
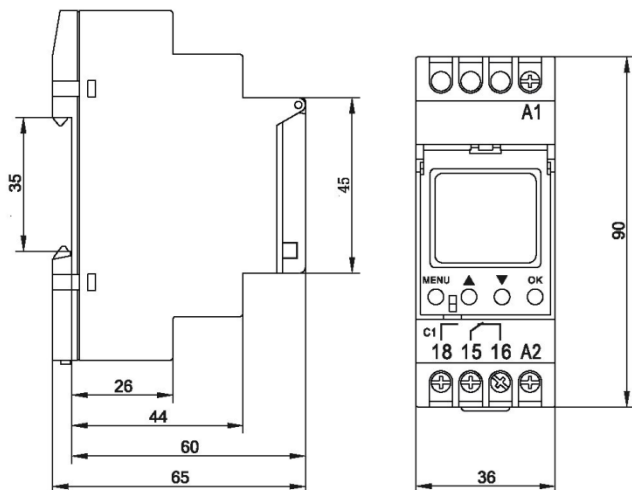
IMPORTANT!
Read this manual before operating the device and keep it for future reference. Performing repairs or modifications by the customer voids the warranty. The manufacturer is not liable for any damage that can result from improper installation or operation of the device.
Since the technical data is subject to continuous modification, the manufacturer reserves the right to modify product specifications or introduce other design solutions that do not impair product performance or usability. Additional information on ORNO products is available at: www.orno.pl. Orno-Logistic Sp. z o.o. is not liable for consequences resulting from failure to comply with the recommendations found in this manual. Orno-Logistic Sp. z o.o. reserves the right to make changes to the instruction – the current version can be downloaded from www.orno.pl. Any rights to translate/construe and the copyright of this manual are reserved. Disconnect the power supply before performing any activities. The device must be installed by qualified personnel – persons having knowledge of marking and earthing of electrical appliances as well as regulations concerning safety. Improper installation can cause a risk of electric shock.

1. Disconnect the power supply before performing any activities.
2. Do not use the device for any other purpose than intended.
3. Store the device in a dry location.
4. Do not immerse the device in water or other liquids.
5. Do not install or operate the device with damaged housing.
6. Do not modify or repair the device yourself. Removal of the enclosure will void the warranty and may result in electric shock.
7. Before connecting the power supply, make sure that all cables are properly connected.
8. The power consumption of connected electrical devices must not exceed the maximum load.

12/2019

□ Description

OR-PRE-433 digital timer is used for the implementation of time functions in control and automation systems. It operates according to the set time schedule planned by the user. There is an internal battery protecting the real-time clock and all settings when the electric power supply is off.

□ Properties

- Digital timer with weekly and pulse programs
- 3 years of backup power (lithium battery)
- 52 programs (26 on/off cycles)
- Sealable cover of the front panel; easy setting using 4 keys
- Automatic summer/winter time switchover
- LCD display
- Holiday mode
- Multilanguage
- Manual control using keys (AUTO, MANUAL, ON, OFF)
- Automatic transfer of weekdays
- 220–240 VAC power supply
- Double-module, mounted on a DIN TH-35 rail

□ Specifications

Supply terminals	A1–A2
Rated voltage	220–240 V AC
Rated frequency	50/60 Hz
Power consumption	1 W
Supply voltage tolerance	±10%
Number of channels	1
Number of programs	52
Program	weekly, daily, pulse
Operating modes	manual, automatic, holiday
Summer/winter time	off, automatic change
Time tolerance	fi 1 s/day at 25°C
Power reserve	3 years
Data readout	LCD display
Number of relay contacts	3 (NO, COM, NC)
Max. contact current	16A/250V AC, 16A, 30V DC
Rated insulation voltage	250 V
Protection degree	IP20
Pollution degree	3
Operating temperature	-20°C~55°C
Permissible relative humidity	≤50% (40°C, noncondensing)
Storage temperature	-30°C~70°C
Cable cross-section	1 mm²–4 mm²
Tightening torque	0.5 Nm
Installation	TH-35 rail (EN60715)
Dimensions	90×36×64 mm
Standard	IEC/EN 60730-1/1EC/EN 60730-2-7

Permissible load capacity

💡	▭	▯▯	▯▯	▯	LED
2300W	2300W	1000W	500W	500W	500W

□ Operation instructions

○ Panel

Description of symbols

23-09-13 DD-MM-RR, 23 września 2013 r.
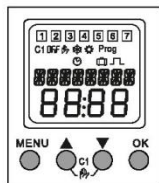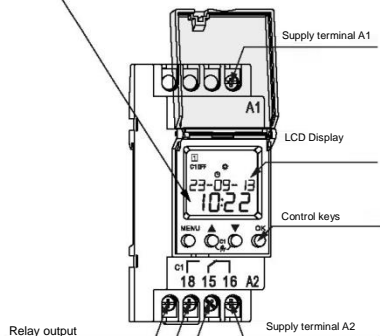
1 2 3 4 5 6 7 — Days of the week Monday, Tuesday, ...Sunday
C1 — Channel 1
ON OFF — Relay status
⏱ — AUTO mode
🚶 — MANUAL mode
🏠 — Holiday mode
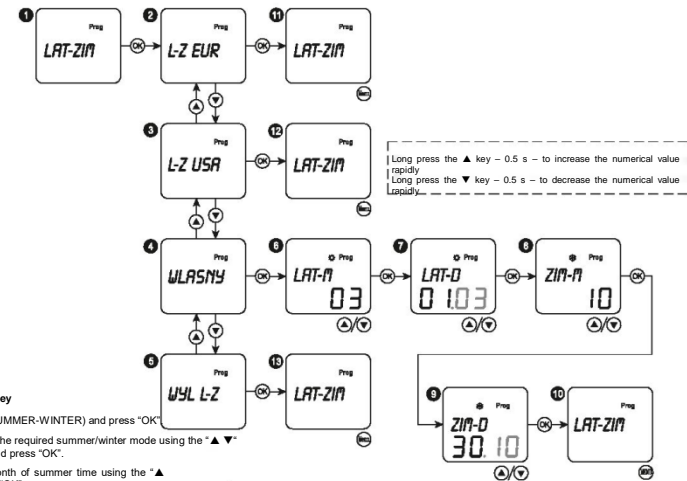❄ — Winter time
☀ — Summer time
Prog — Program setting
⊓ — Pulse mode

Keys

MENU ○ Enter the main menu ○ Back to the main menu	OK ○ Confirm selection
▲ ○ Select menu ○ Digit +	▼ ○ Select menu ○ Digit -
▲ ▼ OC1 - manual mode	

Supply terminal A1
A1
LCD Display
23-09-13
10:22
Control keys
C1
18 15 16 A2
Relay output
Supply terminal A2

● Summer/winter time switchover

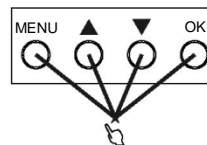| Display	Function	Switching to summer	Switching to winter
L-Z EUR	European summer/winter	Last Sunday in March	Last Sunday in October
L-Z USA	American summer/winter	Second Sunday in March	First Sunday in November
WLASNY	Custom	Freely programmable	Freely programmable
WYL L-Z	No summer/winter	None	None

Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
Long press the ▼ key – 0.5 s – to decrease the numerical value rapidly

Press the MENU key

❶ Select LAT-ZIM (SUMMER-WINTER) and press "OK"
❷❸❹❺ Select the required summer/winter mode using the "▲ ▼" keys and press "OK"
❻ Set the starting month of summer time using the "▲ ▼" keys and press "OK".
❼ Set the starting day of summer time using the "▲ ▼" keys and press "OK".
❽ Set the starting month of winter time using the "▲ ▼" keys and press "OK".
❾ Set the starting day of winter time using the "▲ ▼" keys and press "OK".
❿ ⓫ ⓬ ⓭ Return to the previous menu by pressing the "MENU" key.

□ Reset

Press the four keys simultaneously for 0.5 seconds to reset. The device will be restored to factory settings.

□ Keys combination for MANUAL control

○ AUTO/RECZNIE (AUTO/MANUAL)

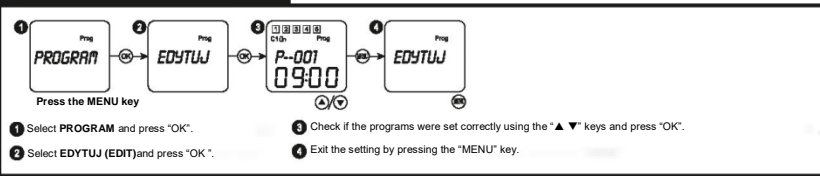Simultaneously press the "▲ ▼" keys to enter the manual ON mode. When the programs are activated, the manual mode will exit automatically.

○ WLACZ/WYLACZ (ON/OFF)
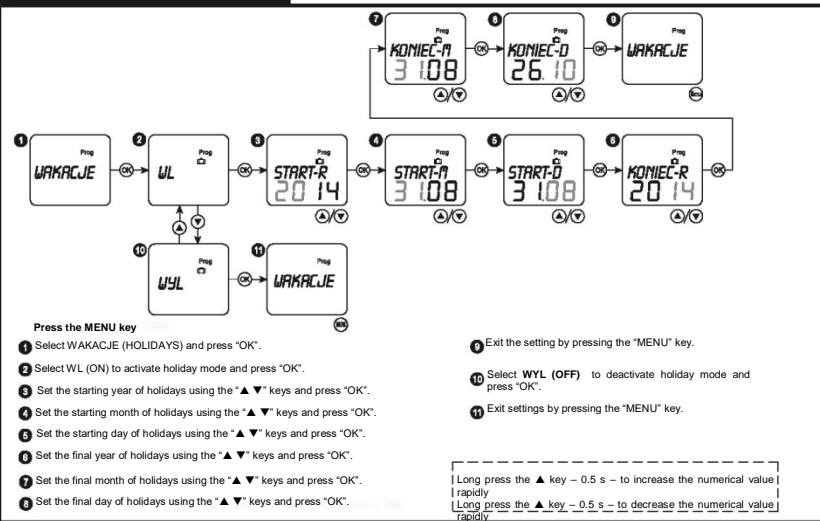
Simultaneous press the "▲ ▼" keys for 2 s. The output status of channel 1 switches to **WLACZ/WYLACZ (ON/OFF)**, 🚶 flashes.

AUTO	AUTO mode
RECZNIE	MANUAL mode
WLACZ	PERMANENT ON mode
WYLACZ	PERMANENT OFF mode

● Checking a program

Press the MENU key

① Select **PROGRAM** and press "OK".

② Select **EDYTUJ (EDIT)** and press "OK ".

③ Check if the programs were set correctly using the "▲ ▼" keys and press "OK".

④ Exit the setting by pressing the "MENU" key.

● Holiday program

Press the MENU key

① Select WAKACJE (HOLIDAYS) and press "OK".

② Select WL (ON) to activate holiday mode and press "OK".

③ Set the starting year of holidays using the "▲ ▼" keys and press "OK".

④ Set the starting month of holidays using the "▲ ▼" keys and press "OK".

⑤ Set the starting day of holidays using the "▲ ▼" keys and press "OK".

⑥ Set the final year of holidays using the "▲ ▼" keys and press "OK".

⑦ Set the final month of holidays using the "▲ ▼" keys and press "OK".

⑧ Set the final day of holidays using the "▲ ▼" keys and press "OK".

⑨ Exit the setting by pressing the "MENU" key.

⑩ Select **WYL (OFF)** to deactivate holiday mode and press "OK".

⑪ Exit settings by pressing the "MENU" key.

> Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
> Long press the ▲ key – 0.5 s – to decrease the numerical value rapidly

□ Language settings

● Select menu language

Press the MENU key

① Select **JEZYK (LANGUAGE)** using the "▲ ▼" keys and press "OK ".

② Select the desired language using the "▲ ▼" keys and press "OK"
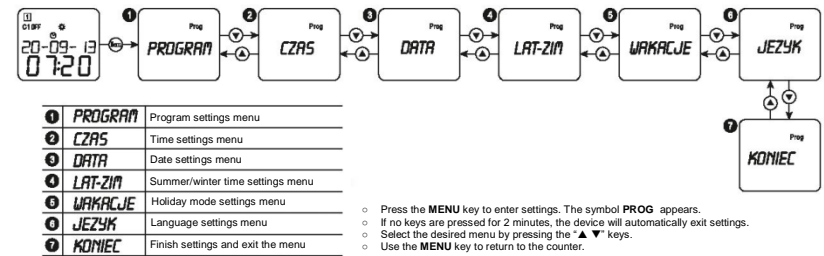
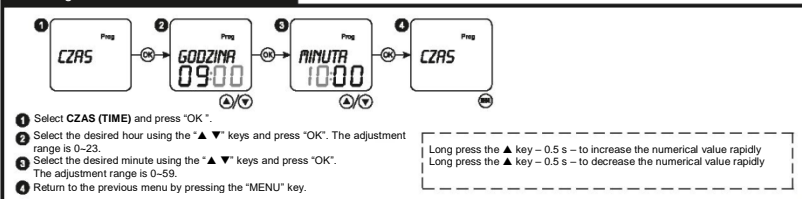③ Exit the setting by pressing the "MENU" key
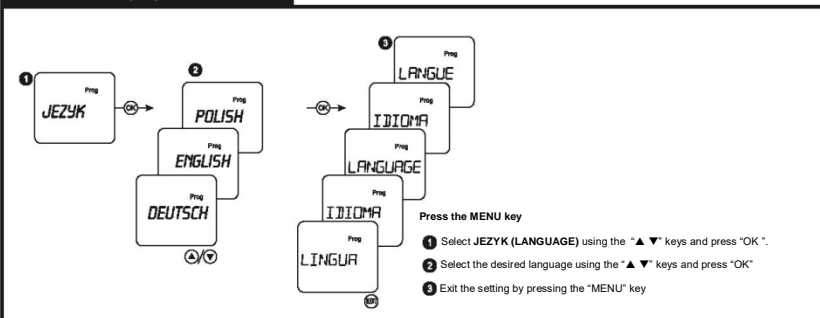
□ Initial operation
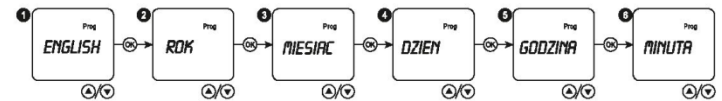
① Select the desired language using the "▲ ▼" keys and press "OK".

② Select the desired year using the "▲ ▼" keys and press "OK".

③ Select the desired month using the "▲ ▼" keys and press "OK".

④ Select the desired day using the "▲ ▼" keys and press "OK".

⑤ Select the desired hour using the "▲ ▼" keys and press "OK".

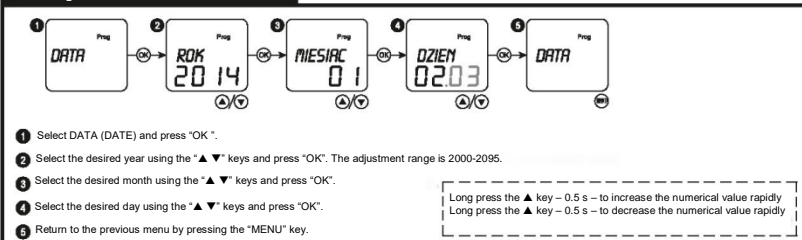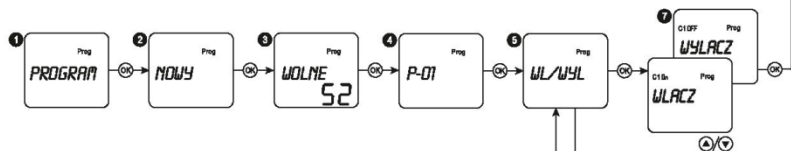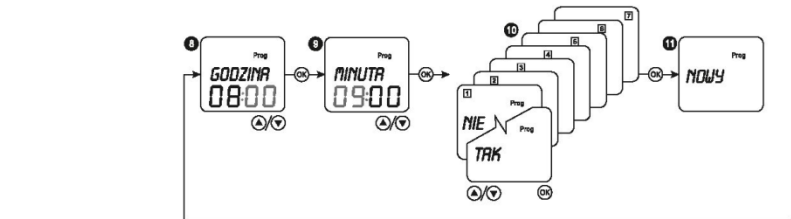⑥ Select the desired minute using the "▲ ▼" keys and press "OK".

□ Main menu

①	PROGRAM	Program settings menu
②	CZAS	Time settings menu
③	DATA	Date settings menu
④	LAT-ZIM	Summer/winter time settings menu
⑤	WAKACJE	Holiday mode settings menu
⑥	JEZYK	Language settings menu
⑦	KONIEC	Finish settings and exit the menu

- Press the **MENU** key to enter settings. The symbol **PROG** appears.
- If no keys are pressed for 2 minutes, the device will automatically exit settings.
- Select the desired menu by pressing the "▲ ▼" keys.
- Use the **MENU** key to return to the counter.

● Setting the time

① Select **CZAS (TIME)** and press "OK ".

② Select the desired hour using the "▲ ▼" keys and press "OK". The adjustment range is 0~23.

③ Select the desired minute using the "▲ ▼" keys and press "OK". The adjustment range is 0~59.

④ Return to the previous menu by pressing the "MENU" key.

> Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
> Long press the ▲ key – 0.5 s – to decrease the numerical value rapidly

● Setting the date

① Select **DATA (DATE)** and press "OK ".

② Select the desired year using the "▲ ▼" keys and press "OK". The adjustment range is 2000-2095.

③ Select the desired month using the "▲ ▼" keys and press "OK".

④ Select the desired day using the "▲ ▼" keys and press "OK".

⑤ Return to the previous menu by pressing the "MENU" key.

> Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
> Long press the ▲ key – 0.5 s – to decrease the numerical value rapidly

● Creating a new program

Press the MENU key

❶ Select **PROGRAM** and press "OK".

❷ Select **NOWY (NEW)** and press "OK ".

❸ Information about available memory will appear on the display.

❹ Select the new program number and press "OK".

When the program memory is full, a new program will not be created. The symbol **PEŁNY (FULL)** will appear on the display.
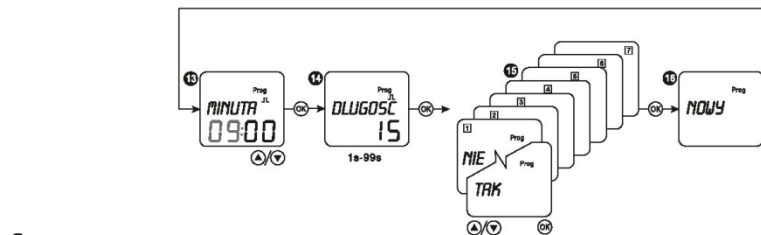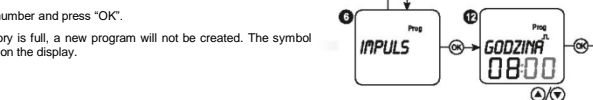
❺ Select the **WL/WYL (ON/OFF)** mode and press "OK".

❻ Select the IMPULS (PULSE) mode and press "OK".

❼ Select **WLACZ (ON)** or **WYLACZ (OFF)** using the "▲ ▼" keys, and press "OK".

❽ ⓬ Set the hour using the "▲ ▼" keys and press "OK".

❾ ⓭ Set the minute using the "▲ ▼" keys and press "OK".

❿ ⓯ Set the days of the week when you want the program to be active (Monday to Sunday) using the "▲ ▼" keys.
If you select TAK (YES), the program will be active for the flashing day. If you select NIE (NO), the program will not be active for the flashing day. Press "OK".

⓫ ⓰ Return to the previous menu by pressing the "MENU" key.

⓮ Set the pulse duration, the adjustment range is 1–99 s.

> Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
> Long press the ▼ key – 0.5 s – to decrease the numerical value rapidly

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● Modify a program
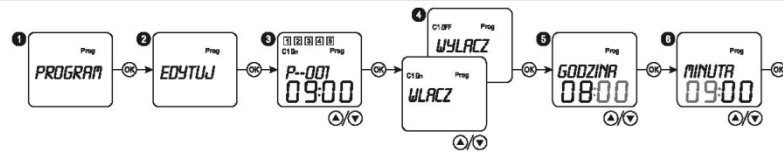
Press the MENU key

❶ Select the PROGRAM and press "OK".

❷ Select **EDYTUJ (EDIT)** using the "▲ ▼" keys and press "OK".

❸ Select the desired program using the "▲ ▼" keys and press "OK".

❹ Select **WLACZ (ON)** or **WYLACZ (OFF)** using the "▲ ▼" keys, and then press "OK".

❺ Set the hour using the "▲ ▼" keys and press "OK".

❻ Set the minute using the "▲ ▼" keys and press "OK".

❼ Set the days of the week when you want the program to be active (Monday to Sunday) using the "▲ ▼" keys.
If you select TAK (YES), the program will be active for the flashing day. If you select NIE (NO), the program will not be active for the flashing day. Press "OK".

❽ Return to the previous menu by pressing the "MENU" key.

> Long press the ▲ key – 0.5 s – to increase the numerical value rapidly
> Long press the ▼ key – 0.5 s – to decrease the numerical value rapidly

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● Delete a program
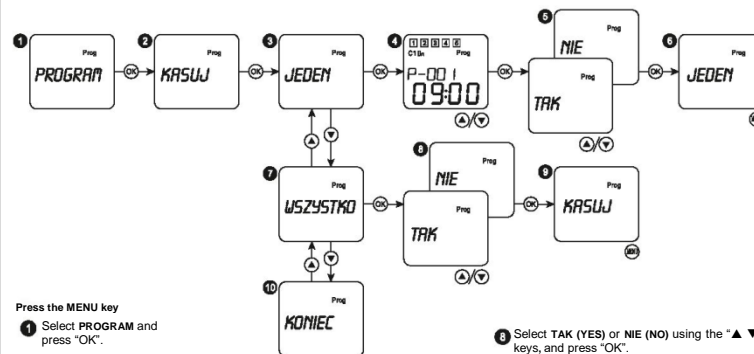
Press the MENU key

❶ Select **PROGRAM** and press "OK".

❷ Select **KASUJ (DELETE)** and press "OK ".

❸ Select **JEDEN (ONE)** to delete a single program and press "OK".

❹ Select the desired program using the "▲ ▼" keys and press "OK".

❺ Select **TAK (YES)** or NIE (NO) using the "▲ ▼" keys, and press "OK".

❻ Exit setting by pressing the "MENU" key

❼ Select **WSZYSTKO (ALL)** to delete all programs and press "OK".

❽ Select **TAK (YES)** or **NIE (NO)** using the "▲ ▼" keys, and press "OK".

❾ Exit settings by pressing the "MENU" key.

❿ Finish program settings.