



## USER'S MANUAL



**AUTOMATIC NETWORK LOAD  
CONTROLLER**

**AR-01**

***Congratulations on the purchase of TM REAL-EL automatic network load controller!***

Please read this User's Manual before using the unit and retain this User's Manual in a safe place for future reference.

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**1. SAFETY PRECAUTIONS**

Before using this device, be sure to read and understand safety rules:

- Do not connect the load with a capacity more than 3.6 kW to every socket of the device.
- The automatic network load controller (ANLC) is designed to operate inside premises only. The device operation in high humidity conditions is prohibited.
- ANLC operation with mechanical damages on its case is prohibited.
- Do not connect ANLC to sources with nonsinusoidal voltage, e.g. UPS.
- It is recommended to connect ANLC to a grounded socket.
- Room temperature during ANLC operation must be from +10 to +35 °C.
- Do not use abrasive materials or organic compounds (alcohol, petrol, solvents etc.) to clean ANLC.
- If signs of failures are detected (for example, the output voltage absence in sockets), mechanical damages, excessive heating of the device or odor, it is necessary to unplug the device immediately from the socket and address to a service center. See the list of authorized service centers on web-site [www.real-el.com](http://www.real-el.com).
- Do not open or repair the device by yourself. It must be repaired by the qualified personnel only.

**2. PACKAGE CONTENTS**

- Automatic network load controller – 1 pc
- User’s manual – 1 pc
- Warranty card – 1pc

**3. TECHNICAL DESCRIPTION**

**Purpose**

Automatic network load controller (ANLC) is designed to organize the joint operation of two independent electrical devices, the total power of which exceeds a limit of a permissible power of a power supply line without automatic protection operation of the line and functional failure of the powered devices. Principle of its operation consists in using pauses in operation of some household appliances (boiler, convector, iron etc.), which can be disconnected temporarily. You can connect to the network (3.6 kW), for example, a washing machine and boiler with a capacity of 2.2 kW and 2 kW accordingly. Their simultaneous connection without ANLC will result in disconnecting an input circuit breaker and the power supply network overload. ANLC reduces the load to wiring and promotes operation safety of powerful household appliances. Therefore, the application of ANLC provides a consumer with a simple connection method of additional electrical devices to the power supply network with insufficient power.

**Features**

- Joint operation of two powerful household devices
- Increase of the mains output capability
- Cost saving for the mains modification
- Intelligent control system
- LED indication of active sockets
- Fast response time
- Permissible current of every connected load is 16 A

**Design description**

- ① “Priority” socket
- ② Socket to connect secondary load
- ③ Connection plug to the power supply network ~230 V
- ④ “Priority” socket indicator
- ⑤ Power supply socket indicator

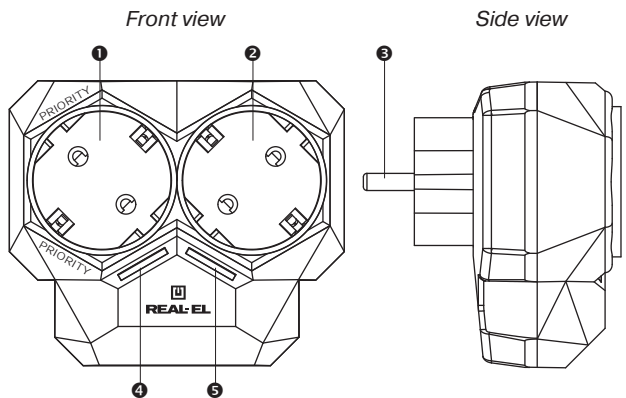


Fig. 1. ANLC design

#### 4. CONNECTION AND OPERATION

**Attention! The device must operate in the power supply network protected by an automatic circuit breaker with the interrupting current not more than 16 A.**

- Plug ANLC's power cord ❶ into a standard socket of the home power supply system 230 V/50 Hz (see the tentative connection diagram in Fig. 2). Indicators ❷ and ❸ active.
- Connect one of household electric appliances to the second socket ❹ the operation of which is uncritical to the short-time power supply failures (for example, electric water heater, electric convector, floor heating electrical system etc.).
- Connect an electrical device to the "Priority" socket ❺, the operation of which is required at the moment and the power supply failure to which is inadmissible (for example, automatic washing machine and dishwashing machine, electric pump of the water supply system, electric kettle, microwave oven, hair dryer etc.).
- If a device connected to the "Priority" socket ❺ consumes more than 100 W, the power supply to the second socket ❹ is disconnected automatically. At that, the indicator ❸ is not active. The power supply to the second socket is recommenced automatically after 2 seconds after power reduction consumed by a device plugged in the "Priority" socket below 100 W (sleep mode, timer mode etc.). When the device connected to the "Priority" socket starts to operate at full capacity, the cycle recurs once again.
- Example of ANLC operation is given in Fig. 2. A washing machine plugged in the "Priority" socket is preset in the timer mode. While the timer of the washing machine does not start the washing mode, the water heater plugged in the second socket will continue to operate. As soon as the washing machine starts to operate, the second socket will be disconnected until the washing process is over (when the second socket is disconnected, indicator ❸ is not active).

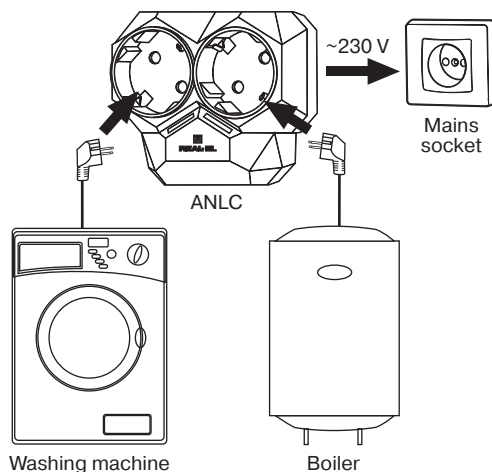


Fig. 2. Tentative connection diagram

**Attention! Do not overload ANLC's sockets - it can lead to the out of order of the device. Power consumption of devices connected to ANLC's every socket must not exceed 3.6 kW.**

**5. TROUBLESHOOTING**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Automatic network load controller is not turned on.	No voltage in the power supply network.	Make sure that voltage is available.
ANLC is on, but voltage is absent in sockets.	ANLC is out of order.	Address to a service-center.
Excess heating of the device, sparking, burning odor.	ANLC is out of order.	Disconnect ANLC from the mains socket and address to a service-center.

If none of the above methods can solve the problem, please seek professional advice at your nearest service center. Never attempt to repair the product by yourself.

**6. TECHNICAL SPECIFICATIONS**

<b>Parameter</b>	<b>Value</b>
Rated voltage, V	~230
Maximum load current for every socket, A	16
Maximum power for every socket, kW	3.6
Operation threshold according to power consumption, W	100
Turn-on delay time of the secondary load, sec	not less than 2
Turn-off time of the secondary load, sec	not less than 0.3
Dimensions, mm	94 × 80 × 81
Weight, g	130

**Notes:**

- **Technical specifications given in this table are supplemental information and cannot give occasion to claims.**
- **Technical specifications and package contents are subject to change without notice due to the improvement of TM REAL-EL production.**



Model: **AR-01**

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