# **PR100**

# **BACK-UP BATTERY**

For Models: Filo Maestro Aria









### Warnings

■ The installation, testing and set-up of automation devices for doors and gates must be performed by gualified and experienced personnel who must also determine the type of tests required based on the risks involved, and ensure that laws, standards and regulations in force are complied with. ■ Nice disclaims responsibility for any damage resulting from improper use of the product; the only use authorized by the manufacturer is the one described in this manual. ■ The packaging materials must be disposed of in compliance with the regulations locally in force. ■ The buffer battery must not be immersed in water or any other liquid substances. If liquid substances should penetrate inside the device, disconnect it from the automation system immediately and call Nice customer service; using the device under these conditions could be hazardous. ■ Do not place the buffer battery near heat sources or expose it to open flames; this could damage the device and cause malfunctions, fire hazards or other dangers. ■ In case of prolonged inactivity, to avoid the possibility that harmful substances may leak from the buffer battery, the latter should be disconnected from the automation system and stored in a dry location.

### **Description and Intended Use**

The PR100 buffer battery (**fig.1**) may only be installed in gate automation systems equipped with Nice Home control units. The battery enables the storage of energy while the automation is powered by the electrical mains, energy that is returned to the system in the event of a power failure (buffer operation); it enables approximately ten gate activations in the absence of power from the electrical mains.

Depending on the type of automation, when the system is powered by the buffer battery the movements may take place at "slow" speed even if the "fast" speed was selected.

### Installation

A The power supply to the system must be disconnected during installation of the PR100 buffer battery.

- **01.** Depending on the type of automation, remove the protection that covers the battery connector.
- 02. Insert the battery in its designated housing.
- **03.** Using the cable provided for this purpose, connect the buffer battery connector to the connector in the control unit:
- SLIDING GATES: see fig. 2
- SWING GATES: see fig. 3, fig. 4
- GARAGE DOORS: see fig. 5

**Warning:** plug the smaller connector into the buffer battery and the larger one into the control unit; no polarity needs to be observed when plugging in the connectors.

### Operational Checks and Testing

Instructions translated from Italian

The following tests should be carried out immediately after connecting the battery to the control unit.

- **01.** Make sure that the **L2** led (**fig.1**) is on, showing that the battery is supplying energy to the system. Make sure that the different LEDs on the control unit signal that the latter is operating properly.
- **02.** If these things do not occur it probably means that the battery is completely exhausted; in this case proceed to the next step and wait a few hours with the automation system powered by the mains before you test the operation of the battery again.
- **03.** Connect the automation system to the mains power supply and see whether the **L1** led (**fig.1**) lights up to signal that the battery is recharging correctly.
- **04.** Activate at least one opening and closing manoeuvre to make sure that the system operates properly when it is powered by the electrical mains.
- **05.** Disconnect the automation system from the electrical mains; make sure that the **L2** led (**fig.1**) lights up, then activate at least one opening and closing manoeuvre to make sure that the system operates properly also when it is powered by the battery.

**Note:** depending on the type of automation, when the system is powered by the buffer battery the movements may take place at "slow" speed even if the "fast" speed was selected.

**06.** At the end of the tests, reconnect the automation to the electrical mains.

### Maintenance, Storage Battery Replacement, Disposal

The PR100 buffer battery does not require any maintenance; however, in case of long periods of inactivity, it should be disconnected from the system and stored in a dry location.

Storage batteries should be replaced whenever their autonomy is significantly reduced as a result of aging. This operation may only be performed by qualified technicians; please contact Nice customer service.

▲ Storage batteries contain lead and other polluting substances; certain electronic components may contain polluting substances: do not dispose of them with other common waste. Use the disposal methods established by the regulations locally in force.



## **Technical Characteristics**

PR100 is produced by Nice S.p.A. (TV) Italy. Nice S.p.A., in order to improve its products, reserves the right to modify their technical characteristics at any time without prior notice. In any case, the manufacturer guarantees their functionality and fitness for the intended purposes.

Note: all the technical characteristics refer to a temperature of 20°C.

### ■ PR100 buffer battery

**Note:** the performances of lead-acid storage batteries are affected by their operating conditions: temperature, absorbed current, state of charge and age of the storage battery may cause significant variations in the data shown below

■ Type: 24V battery kit, complete with battery charger, suitable for powering gate and door automation systems in the event of mains power failures ■ Technology adopted: Storage of electrical power by means of maintenance-free hermetic

# lead-acid storage batteries

■ Charge/discharge voltage: 28V at maximum charge; 16V at maximum discharge (when it is totally exhausted, the battery is disconnected automatically)

**Technical characteristics** 

■ Current delivered: Rated 4A; 7.5A for 3 seconds, starting current

■ Storage capacity: 1.2Ah, corresponding to an autonomy of approximately 12 hours with the automation system in stand-by mode; or 5 minutes with a load of 4A corresponding to an aver-

age of at least 10 manoeuvres Complete recharge time: Approximately 16 bours

■ Storage battery life: Estimated at 4 ÷ 6 years; or, over 1000 cycles for 30% discharge depth, over 500 cycles for 50% discharge, over 200 cycles for 100% discharge

■ Ambient operating temperature: -20 ... 50°C (storage battery efficiency decreases at lower temperatures: at -10°C efficiency is 30%; storage battery lifetime decreases at higher temperatures: at 40°C, lifetime expectation could be reduced to 2 years

■ Mounting and connections: Installation in the compartments provided in the control units or gearmotors. Connection via supplied cable

■ Protection class: IP30 (to be used only inside control units or gearmotors or other protected environments)

Dimensions / weight: 104 x 53 h 143 mm / 1450 g