Catalogue
2012
Leb Electronics was established in 1999 after a long experience, gained in the electronic sector. The firm specializes in development, designing and production of electronic devices destined mainly to the automations of gates.

Currently Leb Electronics is an important supplier of electronic equipment for many Italian firms, distinguishing itself for the innovation and reliability of the products.

The consolidation in the LEB’s staff of experts in industrial mechanics, has allowed, subsequently, the development of electro-mechanical operators containing innovative technical solutions that allows easy installations and reliability of operation. Since 2005, Leb Electronics can offer a complete range of operators able to satisfy the main demands of the market.

Currently the company is composed by young and specialized staff, with a complete and specific knowledge in its operational field. The distributive network is organized with Italian retailers and importers in most important countries.

A large stock of articles allows to process orders of customers quickly.

Leb Electronics always provides a pre and post-sale technical support. Besides, importers can benefit of technical trainings organized in Italy or, in case, near their headquarters.

The Company Mission is to produce and supply the customers with products containing state-of-the-art electronics matching to modern, strong and reliable electro-mechanical operators, and, at the same time, keeping an excellent quality/price ratio. User-friendly products on every aspect: quality, easy installation, reliability, service and price.

The excellent features of its products have allowed Leb Electronics to become a supplier of Companies operating in the DIY Market. Every year more and more customers start to work with Leb Electronics with mutual satisfaction.
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## Control Boards 230 V

### CTR18 – 230Vac – 1 sliding gate motor or up-and-over garage leaf
- 32VA electric transformer
- Closure after crossing photocells
- Working times adjustable by trimmer
- Plug-in radio receiver can be connected by Molex

Card suitable for working in very cold weather conditions

### CTR44 – 230Vac - 1 sliding gate motor
- Working times adjustable digitally
- Pedestrian opening by remote control
- Closure after crossing photocells
- Small dimensions

### CTR31 – 230Vac – 1 sliding gate motor or up-and-over garage leaf
- Slow-down feature
- Working times adjustable digitally
- Pedestrian opening and courtesy light also by remote control
- Open gate indicator light
- Separated inputs for Opening and Closing

## Control Board 12/24 V

### CTR58 – 12/24Vdc – 1 sliding gate motors
- Slow-down feature
- Working times adjustable digitally
- Automatic programming procedure (just 1 push)
- Amperometric obstacle sensor

For a complete list of control boards features, please refer to page 24

---

Rx on board - Box included

Rx on board - Box included

Rx on board - Box and trafo 100 VA included

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Control Boards 230 V

CTR17/S – 230Vac - 2 swing gate motors
- 32VA electric transformer
- Electro-lock control
- Working times adjustable by trimmer
- Plug-in radio receiver can be joined by Molex

Card suitable for working in very cold weather conditions

CTR32 – 230Vac - 2 swing gate motors
- Slow-down feature
- Working times adjustable digitally
- Pedestrian opening and courtesy light also by remote control
- Open gate indicator light
- Electro-lock control

Control Board 12/24 V

CTR57 – 12/24Vdc – 2 swing gate motors
- Slow-down function
- Working times adjustable digitally
- Automatic programming procedure (just 1 push)
- Amperometric obstacle sensor

Boxes

IOS2 – Box for Control Board 230 V – RSK4/RPSK4
- Hinged lid box

Standard with Control Board

SCT6 – Box for Control Board 12/24 V
- Room for back-up battery

Standard with Control Board
### Control Boards 230 V

CTR19 – 230Vac – Universal *(Swing and Sliding gate, Garage leaf)*
- 32VA electric transformer
- Controlling up to 2 leaves with 4 electric limit switches
- Working times adjustable by trimmer
- Plug-in radio receiver can be joined by Molex

Card suitable for working in very cold weather conditions

CTR54 – 230Vac – Universal *(Swing and Sliding gate, Garage leaf)*
- Obstacle sensing without encoder (amperometric sensor)
- Display on board
- Slow-down feature
- Working times adjustable digitally
- Controlling up to 2 leaves with 4 electric limit switches

### Control Board 12/24 V

CTR50 – 12/24Vdc – Universal *(Swing and Sliding gate, Garage door, Tubular)*
- Slow-down feature
- Working times adjustable digitally
- Automatic programming procedure (just 1 push)
- Amperometric obstacle sensor
- Controlling up to 2 leaves with 4 electric limit switches

For a complete list of control boards features, please refer to page 24
### Control Board 380 V

**AT380/C (AT380 + CTR44) – 380Vac sliding gate**
- Controlling 1 motor three-phase 380Vac
- Working times adjustable digitally
- Closure after crossing photocells
- Pedestrian opening by remote control
- Adjustable over-current device for electric motor

### Control Boards 230 V

**CTR29 – 230Vac – For Tubular motor**
- Working times adjustable digitally
- Separated inputs for Opening and Closing
- Possibility to operate in dead man’s control mode

**CTR30 – 230Vac – For Rolling Shutter motor**
- Working times adjustable digitally
- Separated inputs for Opening and Closing
- Blinker and courtesy light outputs
- Safety device input
- Plug-in torque adjustment card can be joined by Molex

**REG – Torque adjustment card**
- Optional card for CTR30

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*For a complete list of control boards features, please refer to page 24*
## Remote controls

<table>
<thead>
<tr>
<th>Remote Control</th>
<th>Description</th>
</tr>
</thead>
</table>
| **TSAW4N** – Fixed code programmable by dip-switch | - 1024 code combinations  
- Operating frequency 433.92 MHz  
- 4 Channels  
- Battery GP27A |
| **TCP3** – Fixed code duplicator | - Fix code copying function  
- Operating frequency 433.92 MHz  
- 3 Channels (2 keys)  
- Lithium cell CR2016 x 2 long life |
| **DTR4** – Rolling Code | - Serialized code with 4,3 billion combinations  
- Operating frequency 433.92 MHz  
- 4 Channels  
- Batteries lithium cell CR2016 x 2 long life |
| **TRK4** – Rolling Code | - Serialized code with 4,3 billion combinations  
- Operating frequency 433.92 MHz  
- Battery GP27A  
- 4 Channels |
| **SMARTY** Rolling code or fixed code/cloner | - Serialized code with 4,3 billion combinations  
- Switchable into rolling code or fixed code  
- Fixed code copying function 64 bit  
- Programmable with Secret Key System  
- 4 Channels  
- Batteries lithium cell CR2016 x 2 long life  

**SMARTY433 – 433 MHz**  
**SMARTY868 – 433 MHz** |
| **LO428R** – Programmer for SMARTY (Secret Key System) | - Manage remotes and protect a specific receiver  
- Compatible also with old TPW4 and TPK4 remotes  
- Fixed code copying function  
- Serial programming mode |

*For Rx/Tx compatibility list please refer to page 26*
Radio Receivers

RWAU2 - 433.92 MHz - Plug-in radio receiver
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with all Leb’s remote controls, TRP1 and RTA2

RPAU2 - 868.35 MHz - Plug-in radio receiver
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with SMARTY868

RKAU2 - 433.92 MHz - Radio receiver with terminal board
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with all Leb’s remote controls, TRP1 and RTA2

RPAU2K - 868.35 MHz - Radio receiver with terminal board
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with SMARTY868

RWAU2SA - 433.92 MHz - Stand-alone radio receiver
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with all Leb’s remote controls, TRP1 and RTA2

RPAU2SA - 868.35 MHz – Stand-alone radio receiver
- 2 Channels
- 2 operation mode (monostable and bistable)
- Compatible with SMARTY868

RSK4 - 433.92 MHz - Rolling code receiver with terminal board
- 4 Channels, up to 1000 storable codes
- Secret Key System ready
- Wiegand interface for access control
- Compatible with SMARTY433, TRP1 and RTA2

RPSK4 - 868.35 MHz - Rolling code receiver with terminal board
- 4 Channels, up to 1000 storable codes
- Secret Key System ready
- Wiegand interface for access control
- Compatible with SMARTY868

RSK4M – Back-up memory card

IOS2 – Box for RSK4/RPSK4

For Rx/Tx compatibility list please refer to page 26
### Accessories

**ANSE** – Tuned antenna 433.92/868.36 MHz
- Helicoidal antenna for improved reception
- Supplied with 4 m coaxial cable RG58

**FTE** – Outdoor photocells 12Vdc/24Vac
- 15 m range
- Modulated infrared rays device
- Provided with focalizing lens
- Low current consumption

**LMF2** – Pair of photocells external use 12Vdc/24Vac
- 15 m range
- Provided with focalizing lens
- Synchronism function with 24Vac power supply

**CLE** – Aluminium column for accessories
- **CLE5** 50 cm high
- **CLE10** 100 cm high
  Price for each piece

**SELE** – Outdoor Key selector
- Base in aluminium
- Provided with 2 keys
- Double control

**TRC2** – Key
- Blank key for SELE

### Wireless keyboard
- Operation with fixed or rolling code (selectable)
- Secret Key System Ready
- Night light and acoustic beep
- Protection degree IP64
- Lithium cell CR2016 x 2 long life

**RTA2** – 433.92 MHz
**RTA8** – 868.35 MHz
## Accessories

### TRP1 – Radio Transponder Rolling Code 433.92 MHz
- 12Vdc/24Vac power supply
- 5 transponder keys included
- Protection degree IP54

### TRC1 – Transponder key

### LP – Blinker
- **LP 24SL 24 Vac**
- **LP 230SL 230 Vac**

### LMB1 – Blinker with built-in antenna
- **LMB1A/24 24 Vac**
  - Supplied with 4 m coaxial cable RG58
- **LMB1A/230 230 Vac**
  - Supplied with 4 m coaxial cable RG58

### LMP20WB – Solar Panel 12-24 Vdc
- Current limit (battery protection)
- 20W power
- Equipped with 2 fixing brackets
- Voltage regulator included
Irreversible operators for sliding gate BOOST

- Gearing completely made of solid steel in oil bath
- Fixing base plate included
- Unlocking lever very easy to use
- Magnetic limit switches
- Screws in stainless steel
- Equipped with control board and radio receiver
- Start-up power and slow-down function
- Electronic adjustment of the torque
- Pedestrian opening by remote control
- Automatic closing
- Separated inputs for Opening and Closing (only version 230V)

Version 24V

- Battery charger included
- Possibility to connect solar panel LMP20WB
- Obstacle sensing (current sensor)

MTC1 – Operator 24V for leaf up to 400 kg – (BOOST 4)

- Equipped with control board CTR50
- Radio receiver on board

MTC2 – Operator 230V for leaf up to 500 kg – (BOOST 5)

- Equipped with control board CTR31
- Radio receiver on board

MTC3 – Operator 230V for leaf up to 1000 kg – (BOOST 10)

- Equipped with control board CTR31 and receiver on board
- Ventilated for heavy duty

Fixing base plate for all operators BOOST

- 4 mm thickness
- Zinc-coated steel

Standard with Boost
### Technical Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>MTC1</th>
<th>MTC2</th>
<th>MTC3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max leaf weight</td>
<td>400</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Main power supply</td>
<td>230 V-50/60 HZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor power supply</td>
<td>24 Vdc</td>
<td>230 Vac</td>
<td>230 Vac</td>
</tr>
<tr>
<td>Mechanical motor power</td>
<td>W</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>Mechanical current absorption</td>
<td>A</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Capacitor</td>
<td>μF</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Thermic protection</td>
<td>°C</td>
<td>-</td>
<td>150</td>
</tr>
<tr>
<td>Motor revolution</td>
<td>rpm</td>
<td></td>
<td>1400</td>
</tr>
<tr>
<td>Operating speed</td>
<td>m/min</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Max torque</td>
<td>Nm</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Rack module</td>
<td>M</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°C</td>
<td>-20 +60</td>
<td></td>
</tr>
<tr>
<td>Protection degree</td>
<td>IP</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Duty</td>
<td>%</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Oil</td>
<td>Gearing Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit switch</td>
<td>magnetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator weight</td>
<td>kg</td>
<td>9</td>
<td>9,5</td>
</tr>
</tbody>
</table>

### Nylon Rack Module
- Solid steel core 10 x10 mm inside nylon structure
- Screws and washers included
- Suitable for leaves up to 1000 kg

**CRM 6 – 1 m bar with 6 fixing brackets**
**CRM 1 – 33 cm bar with 2 fixing brackets**

### CRM 5 – Metal Rack Module 4
- 1 m bar, 12 x 30 mm with 3 fixing brackets

### Kit for Sliding Gate
- BOOST operator equipped with control board (CTR31 or CTR50)
- Photocells FTE
- 2 remotes SMARTY
- Antenna ANSE
- Blinker (LP24SL or LP230SL)

**KOS2 – BOOST 4 (24 V) for leaf up to 400 kg**
**KOS1 – BOOST 5 for leaf up to 500 kg**
**KOS3 - BOOST 10 for leaf up to 1000 kg**
Irreversible operators for swing gate TINY

- Gearing completely made of solid steel and bronze
- Stainless steel shaft and painted zinc-coated steel pipe
- Unlocking system with Allen wrench included
- Adjustable and non-welding rear and front bracket included

TINY24 – Operator 24V for leaf up to 3 m
TINY230 – Operator 230V for leaf up to 3 m

<table>
<thead>
<tr>
<th>Technical Features</th>
<th>TINY24</th>
<th>TINY230</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max leaf length</td>
<td>m</td>
<td>3</td>
</tr>
<tr>
<td>Max leaf weight</td>
<td>kg</td>
<td>250</td>
</tr>
<tr>
<td>Main power supply</td>
<td></td>
<td>230 V-50/60 Hz</td>
</tr>
<tr>
<td>Motor power supply</td>
<td></td>
<td>24 Vdc</td>
</tr>
<tr>
<td>Mechanical motor power</td>
<td>W</td>
<td>30</td>
</tr>
<tr>
<td>Current absorption</td>
<td>A</td>
<td>2,5</td>
</tr>
<tr>
<td>Capacitor</td>
<td>μF</td>
<td>-</td>
</tr>
<tr>
<td>Thermic protection</td>
<td>°C</td>
<td>-</td>
</tr>
<tr>
<td>Max thrust</td>
<td>N</td>
<td>1500</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°C</td>
<td>-20 ÷ +60</td>
</tr>
<tr>
<td>Protection degree</td>
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<td>54</td>
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<tr>
<td>Duty</td>
<td>%</td>
<td>70</td>
</tr>
<tr>
<td>Operator weight</td>
<td>kg</td>
<td>3,5</td>
</tr>
</tbody>
</table>

Kit for swing gate TINY

- 2 TINY operators
- Control board CTR50 for 24V or CTR32 for 230V
- Photocell FTE
- 2 remotes SMARTY
- Antenna ANSE
- Blinker (LP24SL o LP230SL)

KPT6 – TINY 24 V for leaf up to 3 m
KPT7 – TINY 230 V for leaf up to 3 m
## Accessories

### SWING GATE

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Features</th>
</tr>
</thead>
</table>
| **CTR50 – 12/24Vdc – Universal** (Swing and Sliding gate, Garage door, Tubular) | Rx on board - Box and trafo 100 VA included | - Slow-down feature  
- Working times adjustable digitally  
- Automatic programming procedure (just 1 push)  
- Amperometric obstacle sensor  
- Controlling up to 2 leaves with 4 electric limit switches |
| **CTR32 – 230Vac - 2 swing gate motors** | Rx on board – Box included | - Slow-down function  
- Working times adjustable digitally  
- Pedestrian opening and courtesy light also by remote control  
- Open gate indicator light  
- Electro-lock control |
| **FTE – Outdoor photocells 12Vdc/24Vac** | | - 15 m range  
- Modulated infrared rays device  
- Provided with focalizing lens  
- Low current consumption |
| **ANSE – Tuned antenna 433,92/868,36 MHz** | | - Helicoidal antenna for improved reception  
Supplied with 4 m coaxial cable RG58 |
| **LP – Blinker** | | LP 24SL 24 Vac  
LP 230SL 230 Vac |
Irreversible operators for swing gate ARROW

- Die-cast aluminium body and epoxy powder coating
- Gearing completely made of solid steel and bronze
- Protected and easy unlocking system with Allen wrench included
- Built-in capacitor
- 2 Mechanical stoppers (open and close) included
- Adjustable and non-welding rear and front bracket included

AL400DC – ARROW 24V for leaf up to 4 m
AL400AC – ARROW 230V for leaf up to 4 m

<table>
<thead>
<tr>
<th>Caratteristiche tecniche</th>
<th>ARROW 24</th>
<th>ARROW 230</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max leaf length</td>
<td>m</td>
<td>4</td>
</tr>
<tr>
<td>Max leaf weight</td>
<td>kg</td>
<td>250</td>
</tr>
<tr>
<td>Main power supply</td>
<td></td>
<td>230V-50/60HZ</td>
</tr>
<tr>
<td>Motor power supply</td>
<td></td>
<td>24 Vdc</td>
</tr>
<tr>
<td>Mechanical motor power</td>
<td>W</td>
<td>40</td>
</tr>
<tr>
<td>Current absorption</td>
<td>A</td>
<td>3.2</td>
</tr>
<tr>
<td>Capacitor</td>
<td>µF</td>
<td>-</td>
</tr>
<tr>
<td>Thermic protection</td>
<td>°C</td>
<td>-</td>
</tr>
<tr>
<td>Max thrust</td>
<td>N</td>
<td>1800</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°C</td>
<td>-20 ÷ +60</td>
</tr>
<tr>
<td>Protection degree</td>
<td>IP</td>
<td>54</td>
</tr>
<tr>
<td>Duty</td>
<td>%</td>
<td>70</td>
</tr>
<tr>
<td>Operator weight</td>
<td>kg</td>
<td>6</td>
</tr>
</tbody>
</table>
### ARROW Operators

#### Kit for swing gate ARROW
- 2 ARROW operators
- Control board CTR50 for 24V or CTR32 for 230V
- Photocells FTE
- 2 remotes SMARTY
- Antenna ANSE
- Blinker (LP24SL o LP230SL)

**KLO2 – ARROW 24 V for leaf up to 4 m**

**KLO1 – ARROW 230 V for leaf up to 4 m**

#### Accessories

2 Mechanical stoppers Standard with ARROW

#### CTR50 – 12/24Vdc – Universal *(Swing and Sliding gate, Garage door, Tubular)*
- Slow-down feature
- Working times adjustable digitally
- Automatic programming procedure (just 1 push)
- Amperometric obstacle sensor
- Controlling up to 2 leaves with 4 electric limit switches

**Rx on board - Box and trafo 100 VA included**

#### CTR32 – 230Vac - 2 swing gate motors
- Slow-down function
- Working times adjustable digitally
- Pedestrian opening and courtesy light also by remote control
- Open gate indicator light
- Electro-lock control

**Rx on board – Box included**

#### FTE – Outdoor photocells 12Vdc/24Vac
- 15 m range
- Modulated infrared rays device
- Provided with focalizing lens
- Low current consumption
**TWIST Operators**

Irreversible operator 24V articulated arm TWIST

- Gearing completely made of solid steel and bronze
- Die-cast aluminium base and epoxy powder coating
- Aluminium articulated arm with mechanical stopper
- Unlocking system with Allen wrench included
- Opening up to 110°
- Built-in CTR50 control board with room for back-up batteries
- Suitable in case of large and deep pillars

**TWIST24CS – TWIST with control board CTR50**

**TWIST24S – TWIST without control board**

**TWIST24C – TWIST with control board CTR50**

**TWIST24 – TWIST without control board**

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**Technical Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>TWIST24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max leaf length m</td>
<td>2.5</td>
</tr>
<tr>
<td>Max leaf weight kg</td>
<td>300</td>
</tr>
<tr>
<td>Main power supply V</td>
<td>230 V-50/60 HZ</td>
</tr>
<tr>
<td>Motor power supply V</td>
<td>24 Vdc</td>
</tr>
<tr>
<td>Mechanical motor power W</td>
<td>30</td>
</tr>
<tr>
<td>Current absorption A</td>
<td>2.5</td>
</tr>
<tr>
<td>Capacitor μF</td>
<td>-</td>
</tr>
<tr>
<td>Thermic protection °C</td>
<td>-</td>
</tr>
<tr>
<td>Max torque Nm</td>
<td>250</td>
</tr>
<tr>
<td>Operating temperature °C</td>
<td>-20 to +60</td>
</tr>
<tr>
<td>Protection degree IP</td>
<td>54</td>
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<tr>
<td>Duty %</td>
<td>70</td>
</tr>
<tr>
<td>Operator weight kg</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Kit for swing gate with articulated arm TWIST

- 2 TWIST operators
- Control board CTR50
- Photocells FTE
- 2 remotes SMARTY
- Antenna ANSE
- Blinker LP24SL

**KA02S – With aluminium articulated arm and stopper**

**KA02 – With zinc-coated articulated arm**
Accessories

**ARTICULATED ARM SWING GATE**

**CTR50 – 12/24Vdc – Universal** *(Swing and Sliding gate, Garage door, Tubular)*
- Slow-down feature
- Working times adjustable digitally
- Automatic programming procedure (just 1 push)
- Amperometric obstacle sensor
- Controlling up to 2 leaves with 4 electric limit switches

**FTE – Outdoor photocells 12Vdc/24Vac**
- 15 m range
- Modulated infrared rays device
- Provided with focalizing lens
- Low current consumption

**SELE – Outdoor Key selector**
- Base in aluminium
- Provided with 2 keys
- Double control

**TRC2 – Key**
- Blank key for SELE

**ANSE – Tuned antenna 433.92/868.36 MHz**
- Helicoidal antenna for improved reception
- Supplied with 4 m coaxial cable RG58

**LP – Blinker**

**LP 24SL 24 Vac**
- Supplied with 4 m coaxial cable RG58

**LP 230SL 230 Vac**
- Supplied with 4 m coaxial cable RG58

Rx on board - Box and trafo 100 VA included
Irreversible underground swing gate operator STONE

- Foundation box made of zinc-coated steel
- Heavy duty lid and foundation with drainage holes
- Gearing completely made of steel and bronze
- Waterproof motor
- 2 internal mechanical stoppers on version 110°
- 2 internal electric limit switches on version 180°
- Unlocking system with broached lever

UO24DC/MT – STONE 24V
UO230AC/MT – STONE 230V

<table>
<thead>
<tr>
<th>Caratteristiche tecniche</th>
<th>STONE 24/110</th>
<th>STONE 230/110</th>
<th>STONE 24/180</th>
<th>STONE 230/180</th>
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<tr>
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<td>Main power supply</td>
<td>230 V-50/60 Hz</td>
<td>230 Vac</td>
<td>24 Vdc</td>
<td>230 Vac</td>
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<td>230 Vac</td>
<td>24 Vdc</td>
<td>230 Vac</td>
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<td>Capacitor μF</td>
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<td>Thermic protection °C</td>
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<td>-20 ÷ +60</td>
<td>-20 ÷ +60</td>
<td>-20 ÷ +60</td>
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<td>Duty %</td>
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CAINT/110 – Foundation box for STONE 110°

- Equipped with transmission levers 110°, mechanical stoppers and unlocking system
- Zinc-coated steel with drainage holes

CAINT/180 – Foundation box for STONE 180°

- Equipped with chain transmission 180°, magnetic limit switches and unlocking system
- Zinc-coated steel with drainage holes
Kit underground operator STONE

- 2 STONE operators
- 2 Foundation boxes
- 2 Unlocking levers
- Control board
- Photocells FTE
- 2 remotes SMARTY
- Antenna ANSE
- Blinker (LP24SL o LP230SL)

**KU03 – STONE 24V opening 110°**
- With CTR50 control board

**KU04 – STONE 230V opening 110°**
- With CTR32 control board

**KU02 – STONE 24V opening 180°**
- With CTR50 control board

**KU01 – STONE 230V opening 180°**
- With CTR54 control board
Sectional leaf operator 24 V SPEEDY

- Gearing made of bronze
- Supplied with 3 m guide and pre-assembled chain
- Guide made of aluminium pieces 1 m x 3
- Equipped with chain stretcher
- Provided with wall plugs and brackets for installation
- 1 remote control DTR4 included
- Control board CTR47 with built-in radio receiver
- Toroidal transformer
- Easy and automatic programming
- 2 magnetic limit switches
- Soft start and soft stop
- Obstacle detection
- Courtesy light control also by remote control

<table>
<thead>
<tr>
<th>Technical features</th>
<th>SPEEDY 60</th>
<th>SPEEDY 80</th>
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<tr>
<td>Main power supply</td>
<td>230 V-50/60 HZ</td>
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<td>Duty</td>
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<td>Operator weight</td>
<td>kg</td>
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SPD60 – Kit SPEEDY 24V sectional door 600N

- 3 m guide with pre-assembled chain
- 1 remote control SMARTY included
- Wall plugs and brackets for installation

SPD80 – Kit SPEEDY 24V sectional leaf 800N

- 3 m guide with pre-assembled chain
- 1 remote control SMARTY included
- Wall plugs and brackets for installation
### SPEEDY Operators

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
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<tbody>
<tr>
<td>KBS1A</td>
<td>Adapter arm for up-and-over garage leaf</td>
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### Accessories

<table>
<thead>
<tr>
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<tr>
<td>KFC1</td>
<td>External release wire</td>
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<tr>
<td>GEK01</td>
<td>1 m additional guide with chain</td>
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<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
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<tbody>
<tr>
<td>FTE</td>
<td>Outdoor photocells 12Vdc/24Vac</td>
</tr>
<tr>
<td>SELE</td>
<td>Outdoor Key selector</td>
</tr>
<tr>
<td>TRC2</td>
<td>Key</td>
</tr>
<tr>
<td>RTA2</td>
<td>Wireless keyboard</td>
</tr>
</tbody>
</table>

#### FTE – Outdoor photocells 12Vdc/24Vac
- 15 m range
- Modulated infrared rays device
- Provided with focalizing lens
- Low current consumption

#### SELE – Outdoor Key selector
- Base in aluminium
- Provided with 2 keys
- Double control

#### TRC2 – Key
- Blank key for SELE

#### RTA2 – Wireless keyboard
- Operation frequency 433.92 MHz
- Operation with fixed or rolling code (selectable)
- Night light
- Acoustic beep
- Protection degree IP64
- Lithium cell CR2016 x 2 long life
## Table of features of control boards

<table>
<thead>
<tr>
<th>Technical Features/Control Boards</th>
<th>CTR18</th>
<th>CTR44</th>
<th>CTR31</th>
<th>CTR58</th>
<th>CTR17</th>
<th>CTR32</th>
<th>CTR57</th>
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<td>12/24V</td>
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<tr>
<td>Control of 1 or 2 motors</td>
<td>Slide</td>
<td>Slide</td>
<td>Slide</td>
<td>Swing</td>
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<tr>
<td>Possibility to operate single leaf (for swing)</td>
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<tr>
<td>Possib. 0 secs delay between leaves (for swing)</td>
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<tr>
<td>Control of electric limit switches</td>
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<tr>
<td>Time programming (mechanical stoppers)</td>
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<tr>
<td>Control of encoder</td>
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<tr>
<td>Obstacle detector (amperometric sensor)</td>
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<td>Kickback function for electric-lock</td>
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* Suitable also for up-and-over garage leaf
### Table of features of control boards

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<th>CTR54</th>
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<th>CTR29</th>
<th>CTR30</th>
<th>AT380 + CTR44</th>
<th>CTR47**</th>
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<td>Univ*</td>
<td>Univ*</td>
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<tr>
<td>Control of blinker (pre-flashing, flashing, etc.)</td>
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<td>✓^3</td>
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<tr>
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<tr>
<td>Display on board</td>
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<tr>
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<tr>
<td>Possibility to program all the operation times</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Univ = Universal, control of any kind of opening

1. Also soft start
2. Photocells must be excluded
3. Excludible

**CTR47 Available only with SPEEDY operator
# Table of Compatibility Tx/Rx Leb Electronics

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<thead>
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<th>ARTICLES</th>
<th>FEATURES</th>
<th>Transmission Tx</th>
<th>Transmission Rx</th>
<th>100 codes storable</th>
<th>1000 codes storable</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSWA4N</td>
<td>Dip Switch</td>
<td>FIXED CODE</td>
<td>433,92 MHz</td>
<td></td>
<td>RWAU2, RKAU2, RWAU2SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCP3</td>
<td>Only Copier</td>
<td>FIXED CODE</td>
<td>868,35 MHz</td>
<td></td>
<td>RPSK4 (Rolling code only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTR4</td>
<td>HCS301</td>
<td>ROLLING</td>
<td>433,92 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRK4</td>
<td>ROLLING</td>
<td></td>
<td>433,92 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMARTY 433</td>
<td>Universal</td>
<td>ROLLING OR FIXED CODE</td>
<td>433,92 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTA2</td>
<td>Wireless</td>
<td>ROLLING OR FIXED CODE</td>
<td>433,92 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRP1</td>
<td>Wireled powered through mains</td>
<td>ROLLING</td>
<td>433,92 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

**Articles Transmission Tx/Rx Leb Electronics**

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<td>Universal</td>
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<td>868,35 MHz</td>
<td></td>
<td>RWAU2, RPAU2K, RPAU2SA</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>RTA8</td>
<td>Wireless</td>
<td>ROLLING OR FIXED CODE</td>
<td>868,35 MHz</td>
<td></td>
<td>RPSK4 (Rolling code only)</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Features**

- 1024 code combinations
- Default 12 bit codification 1010101010
- Settable with dip switch
- Same characteristics as cloned TSWA4N
- Auto power-off
- Serialized 4.3 billion code combinations
- Rolling or fixed code
- Copier 64 bit
- Auto power-off
- Default 20 (12 bit also possible)
- Code to be entered manually in keyboard 1 to 5 digit
- Keys already serialized
- Rolling or fixed code
- Serialized 4.3 billion code (RC)
- Copier 64 bit
- Auto power-off
- Code to be entered manually in keyboard 1 to 5 digit

***Far storing Rx makes possible to store new rolling code radio transmitters without manually operating on Rx, with a simple radio transmitter already stored***
Secret Key System

SMARTY
SMARTY, beside its standard features, is a programmable remote to be used in order to implement Secret Key System.

RSK4/RPSK4
Classic receiver for rolling code, can be switched for operating in Secret System mode.

L0428R
Hand device for programming SMARTY to be used in Secret Key System.

What is Secret Key System of Leb electronics?
It is a total protection and managing system of any radio transmitter stored with access key in a specific receiver RSK4 (433,92 MHz) or RPSK4 (868,35 MHz). It is based on native Rolling Code transmission. In addition to standard working mode of Tx/Rx, it makes possible deleting, storing and replacing any code with our SMARTY remote, but only if previously authorized by installer or administrator. Moreover, it makes possible to store, with a PC and a dedicated included Software, codes directly to the receiver. Database back-up copy can be also stored on memory card RSK4M, already on board on receiver as a standard.

How does Secret Key System work?
Any radio transmitter SMARTY can be a rolling code or fixed code/copier remote, but inside there is also a highly technological electronic circuit programmable by L0428R, able to turn its transmission into “Secret Key” standard. Beside normal use, the remote can now transmit instructions to the specific receiver in order to modify previously stored codes or enter a new ones.

How many parts Secret Key System consist of?
It's an user-friendly and very easy system. It consists of
- Receiver RSK4(433,92 MHz) o RPSK4 (868,35 MHz).
- Radio transmitter SMARTY433 (433,92 MHz) or SMARTY868 (868,35 MHz)
- Portable programmer L0428R
- Software Secret Key of Leb electronics (optional and free of charge)

What are the advantages in using Secret Key System?
The system is very useful when in need of controlling a large number of remotes and codes. The installer can count on a database of codes and only himself has privileges for programming the Rx. All the authorised codes of transmitters can be stored in the Rx all together at once by PC. Beside, new radio transmitters can be stored, removed or changed without being on installation site. Moreover back-up copies of database can be stored away in case of failure or damage of Rx.
Leb Electronics headquarter is located in Acquafredda (BS), Via Caduti del Lavoro, 1 (Z.I.), CAP 25010

GPS coordinates:
DMS 45°18’39,2” N 10°25’13,8” E
DDD 45,31099 10,42051

Coming from A4 highway, take the Desenzano exit and keep driving towards Asola/Parma up to getting to Acquafredda.

Coming from highway A21, take the Manerbio exit and follow Leno indication, once there keep following Gottolengo indication and once there keep driving to Acquafredda.
ARTICLE 1
WARRANTY

1.1. With exception of what expressly agreed each time between the parts, Leb Electronics guarantees the conformity of the supplied products and anything else explicitly agreed. Warranty due to defects is limited only to product defects due to materials or manufacturing defects that can be referred to Leb Electronics.

The warranty does not apply in case of:

- Malfunctions or damages related to transport;
- Malfunctions or damages caused by anomalies of the electrical mains or any incorrect use of the product;
- Tampering or damages caused by unauthorized personnel and/or due to use of non-genuine Leb Electronics articles and/or spare parts;
- Defects and/or damages caused by chemical agents and/or atmospheric phenomena (e.g. lightning strikes, etc.);
- Replacement of parts which are subjected to usagel wearing, as lamps, batteries, etc.
- Products without an identification plate.

This warranty shall expire in case any non-genuine Leb Electronics accessory is installed.

1.2. Warranty on Leb Electronics operators has a validity of 20 months beginning from the start-up date, when a suitable evidence of that is available, and in any case not longer than 24 months from the production date.

The warranty is subjected to an expressly written request to Leb Electronics to act according to the points here below indicated. No return of goods or debit notes will be accepted if not previously authorized by Leb Electronics. With this request, within a reasonable time and at its own will, Leb Electronics will either:

a) supply the buyer with free of charge and ex-works products of the same quality and type of the faulty or non-standard ones; Leb Electronics can also ask the buyer to send back the faulty goods at its own expenses; these goods will become Leb Electronics' property.

b) Repair at its own expenses the faulty products, or modify non-standard products. In this case, all transport costs will be at the buyer’s expenses.

c) Supply spare parts free of charge: all transport costs are at the buyer’s expenses.

1.3. The warranty, as per this article, absorbs and replaces all legal warranties due to defects and differences and excludes any other Leb Electronics liabilities that could be originated by the supplied products; in particular, the Buyer will not be able to claim any other further requests. Leb Electronics shall not be responsible for any further claims once the warranty period has expired.

ARTICLE 2
CLAIMS

2.1. It is understood that, as applied by Italian Law nr. 21 June 1971, art. 1:

“Claims regarding quantity, weight, gross weight and colour, or claims regarding faults and defects in quality compliance which the Buyer could discover on delivery of the goods, shall be submitted by the Buyer within 7 days from the delivery, under penalty of nullity of the warranty”.

ARTICLE 3
DELIVERY

3.1. Any liability from damages ensuing from total or partial delayed or failed delivery, shall be excluded.

ARTICLE 4
PAYMENT

4.1. Any delayed or irregular payment shall entitle Leb Electronics to cancel any ongoing agreement, including arrangements not related to the current issue, as well as entitling Leb Electronics to claim damages, if any.

4.2. Leb Electronics shall however have the right to claim overdue interests at bank rate in Italy increased by 5 points. In case of failed payment Leb Electronics shall have the right to cancel all warranties on goods, regarding the Customer as insolvent.

4.3. The Buyer shall be bound to full payment, even when claims or disputes are under way.

ALL INFORMATION HAVE BEEN WRITTEN AND CHECKED WITH THE GREATEST CARE. HOWEVER WE DO NOT TAKE ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS. LEB ELECTRONICS CAN CHANGE, AT ANY TIME AND WITHOUT PREVIOUS WARNING THE CHARACTERISTICS AND THE PRICES OF ALL ITS PRODUCTS.

ALL PRICES MENTIONED IN THIS DOCUMENT ARE IN EUROCURRENCY AND WITHOUT VAT.

MINIMUM ORDER IS EURO 500. BELOW THIS AMOUNT LEB ELECTRONICS HAS THE RIGHT NOT TO CONFIRM ORDER.