ELECTRONIC PROGRAMMERS
ELECTRONIC PROGRAMMERS
MICROPROCESSOR CONTROLLED FOR 24V MOTORS

CARDIN PRO

MAINS POWER SUPPLY 230Vac
MOTOR OUTPUT 24Vdc
PROTECTION GRADE IP55
FIREPROOFING GRADE V2
AUTOMATIC GATE/DOOR PROGRAMMING

Electronic devices for the control of automatic opening systems with one or two gate leaves: swing gates and garage doors. Powered by 24Vdc they intelligently manage the movement of the gate.

Available in the following versions:
- with gate positioning control and encoder;
- with timer-controlled movement.

Both are equipped with a 433MHz FM radio receiver card.

Specially studied and designed for this type of use, these Cardin programmers are fitted with digital “step by step” time programming which is easily carried out in real time while the gate is moving thus reducing the installation time.

Monitoring the current consumption allows the control of a sophisticated anticrush safety system and the “soft start” and “soft stop” functions reduce the stress on the mechanical components.

The simplified programming method uses one or two buttons (depending on the version) allowing all functions to be programmed rapidly.

ALL WEATHER CONTAINER ABS IP55 WITH WALL FASTENING ELEMENTS

The electronic components of the CC242ETOP and PRG900 series are housed in a container with sealing gaskets and cable gland entry holes for the insertion of Ø16mm rigid tubes.

The electronic components of the CC242EXTOPCB series are housed in a container with sealing gaskets with:

- cover closing system using rapid action hooks;
- removable plaque factory set for the fastening of up to five cable clamps;
- air circulation slits built into the container;
- removable support in nylon fibre housing the electronic appliances on DIN rails;
- a Ø21 mm cable clamp and two Ø16mm cable clamps.

CC242ETOPCB
CC242EXTOPCB

READY TO FIT RIGID TUBE ENTRY POINTS
Ø21 AND Ø16 CABLE GLANDS SUPPLIED WITH CC242EXTOPCB
433MHz OR 868MHz INTEGRATED RECEIVER CARDS
EMERGENCY NI-MH BATTERIES IN THE CC242ETOPCB AND CC242EXTOPCB VERSIONS
SELF-PROGRAMMING MONITORED BY AN LCD GRAPHICS DISPLAY CC242ETOP AND CC242EXTOPCB
PRODUCT DESCRIPTION

ELECTRONIC PROGRAMMERS FOR THE MANAGEMENT OF ONE OR TWO ENCODER-CONTROLLED MOTORS
Electronic programmer for encoder-controlled 24Vdc motors that allow the precise position control of hinged and sliding gates fitted with a multi-decoding module S449 - S486 - S504 - S508. Batteries and battery charger in the CC242ETOPCB and CC242EXTOPCB versions.
The electronic programmer is factory fitted with a graphic LCD display (128 x 128 pixels) with backlighting in six different languages. The menu allows you to read the number of manoeuvres carried out and to rapidly set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light, photoelectric cell function setting and electric lock enable etc.

ELECTRONIC PROGRAMMER
ECU, BATTERY CHARGER AND NiMH BATTERIES

ELECTRONIC PROGRAMMERS FOR THE MANAGEMENT OF ONE OR TWO MOTORS
Electronic programmer for the control of 24Vdc hinged gates with intelligent time control functions that allow you to control the position of the hinged and sliding gates, fitted with a multi-decoding module S449 - S486 - S504 - S508.
Gate travel time programming is fully automatic and guided by a 6-digit display which allows you to visualise the number of manoeuvres carried out and to set several parameters such as the type of motor, the torque setting and the limited opening distance. Dip-switches allow you to set the system parameters including: the sequential button mode, automatic reclosing, warning lamp pre-flashing, intermittent warning lamp activation, indicator light and photoelectric cell function setting and electric lock enable.

VOLTAGE REGULATOR STABILIZED AT 24Vdc (SERIES PRG900)
The device supplies a regulated 24Vdc voltage in output starting from a direct current input that can vary from 19Vdc to 38Vdc. It is fitted with 2 signal LEDs, one indicating the presence of voltage at the output binding post and the other giving status information (correct operation, overload, activated protection).

KIT BATTERY CHARGER + NiMH BATTERIES
Allows the programmers PRG900 and CC242ETOP to work during blackouts.
ELECTRONIC PROGRAMMERS

MICROPROCESSOR CONTROLLED FOR 230V MOTORS

CARDIN PRO

MAINS POWER SUPPLY 230Vac
MOTOR OUTPUT 230Vac
PROTECTION GRADE IP55
FIREPROOFING GRADE V2
INTERFACE FOR A STANDARD SLOT-IN RADIO CARD
COMMAND INPUTS: TA, TC, TD, TB.

Electronic devices for the control of automatic opening systems. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital “step by step” time programming which is easily carried out in real time while the gate is moving thus reducing the installation time.

The simplified programming method uses one or two buttons (depending on the version) allowing all functions to be programmed rapidly. In the double gate/door version the programming procedure is guided by a LED display.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, manual and remote control functions (the product takes a Cardin standard slot-in receiver card).

Electronic devices for the control of automatic opening systems with one or two gate leaves: sliding gates, hinged gates and garage doors powered by 230Vac.

The complete range of programmers simplifies and solves all possible installation problems. The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.
PRODUCT DESCRIPTION

ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR
WITH MAXIMUM POWER YIELD 650 W
Digital work time control. Command inputs: TA, TC and TB. Security inputs: photocells, safety edge (N.C. contact or 8.2 kΩ), digital safety edge.
Output for a courtesy light 230Vac 300W and for a led warning light. The appliance is supplied with a S449, 433MHz, FM decoder.
Suitable for the control of automatic rolling shutters.

ELECTRONIC CONTROL UNIT, BASIC VERSION

ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS

ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR
WITH MAXIMUM POWER YIELD 600 W
Digital work time control. Possible operation without mechanical travel limits. Command inputs: TA, TC, TD, TB. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card (complete with cable glands Ø 2 x Ø9mm + Ø 2 x Ø16mm).
Suitable for the control of automatic road barriers.

SLOT-IN CARD
Slot-in card that allows the complete control of the opening and closing micro-switches as well as the control of the inverting photocells (for application on 230V road barriers).

ELECTRONIC PROGRAMMERS FOR THE CONTROL OF ONE 230V MOTOR
WITH MAXIMUM POWER YIELD 450 W
Digital work time control. Possible operation without mechanical travel limits. Torque setting. Maximum power initial thrust control and torque limitation. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card.
Suitable for the control of automatic gates and doors with one 230V motor.

ELECTRONIC PROGRAMMERS FOR THE CONTROL OF TWO 230V
MOTORS WITH MAXIMUM POWER YIELD 470 + 470W
Digital work time control separately memorised for each gate leaf guided by a 6-digit display. Possible operation without mechanical travel limits. Torque setting. Maximum power initial thrust control, torque limitation and deceleration management with deceleration zone control. The appliance is fitted with an interface for the insertion of a standard Cardin radio receiver card.
Suitable for the control of automatic gates and doors with two 230V motors.

ADDITIONAL FUNCTION CARD
Optional card that allows you to extend the functions of the control units:
- Timer-controlled lamp 230Vac 500W (electric lock or an electric brake can be fitted as an alternative);
- 8.2kΩ safety edge management.

CABLE GLANDS KIT
Cable glands 4 x Ø16mm.
ELECTRONIC PROGRAMMERS

SINGLE PHASE - THREE PHASE MOTORS FOR INDUSTRIAL INSTALLATIONS

CARDIN PRO

MAINS POWER SUPPLY 230Vac / 400Vac
MOTOR OUTPUT:
SINGLE PHASE 230Vac
THREE PHASE 400V3~
PROTECTION GRADE IP55
FIREPROOFING GRADE V2

INTERFACE FOR A STANDARD SLOT-IN RADIO CARD
COMMAND INPUTS: TA, TC, TD, TB.

Electronic devices for the control of automatic opening systems. The appliances feature integrated logic and function activation confirmation using leds.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, manual and remote control functions.

The appliances can take a Cardin standard slot-in receiver card and are supplied with cable glands.

Electronic devices for the control of automatic opening systems with one gate leaf: sliding gates, hinged gates, garage doors and factory doors.

The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

PRG383TCE
PRODUCT DESCRIPTION

INDUSTRIAL PROGRAMMER CONTROLLING ONE SINGLE PHASE / THREE PHASE MOTOR
- 370W single phase power supply 230Vac,
- 700W three phase power supply 400V3~.
Automatic, semiautomatic, manual and remote control functions.
Command inputs TA, TB, TC, TD, TAL.
Incorporated door security switch.
Optional external control buttons.
Electric brake output.
Interface for a standard slot-in radio receiver card.
Supplied with 4 x Ø16mm cable glands.
Suitable for the control of industrial gates and doors with one single-phase/three phase motor.

ELECTRONIC CONTROL UNIT, BASIC VERSION
ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS

INDUSTRIAL PROGRAMMER CONTROLLING ONE THREE PHASE MOTOR
- 2200W three phase power supply 400V3~.
Automatic, semiautomatic, manual and remote control functions.
Command inputs TA, TB, TC, TD, TAL.
Incorporated door security switch.
Optional external control buttons.
Electric brake output.
Interface for a standard slot-in radio receiver card.
Supplied with 4 x Ø16mm cable glands.
Suitable for the control of industrial gates and doors with one three phase motor.

ELECTRONIC CONTROL UNIT, BASIC VERSION
ELECTRONIC PROGRAMMER WITH EXTERNAL CONTROL BUTTONS

ORDER NUMBER

PRG3830CE
Overall dimensions 175 x 265 x 105

PRG383TCE

PRG3840CE

PRG384TCE
ELECTRONIC PROGRAMMERS

MICROPROCESSOR CONTROLLED FOR 24V MOTORS

Electronic devices for the control of automatic opening systems with one or two gate leaves. Powered by 24Vdc they intelligently manage the movement of the gate.

The appliances either work with encoder controlled or timer controlled gate positioning (automatic system detection).

Specially studied and designed for this type of use, these programmers are fitted with digital time programming thus markedly reducing the installation time.

Monitoring the current consumption allows the control of a sophisticated anticrash safety system, and the "soft start" and "soft stop" functions reduce the stress on the mechanical components.

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic and remote control functions and allow the system parameters such as the sequential button mode, automatic reclosing, warning lamp pre-flashing, flashing warning lamp activation, indicator light and photoelectric cell function and electric lock setting etc.

Compatible with the INTPRG-3G/WF system (T624 only) that allows you to control and program the system parameters from a remote location and with the SUN POWER system.

Open collector:
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.
PRODUCT DESCRIPTION

**ELECTRONIC PROGRAMMER FOR ONE 24V MOTOR**
Encoder controlled programmer complete with torque limitation, and deceleration.

**ELECTRONIC PROGRAMMER FOR ONE OR TWO 24V MOTORS**
Encoder controlled programmer with torque limitation, deceleration, inputs for safety edges in both the opening and closing directions, safety device exclusion via dip-switch:
- second channel OC2 output (contact US1);
- connection for the keypad TAST3F;
- BSA and BSC inputs for 8K2 safety edges.

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.
See section 24V ECU INTERFACE DEVICES on page 186

**ADHESIVE KEYPAD**
Adhesive keypad in polycarbonate complete with all wiring and connections. For indoor this keypad is easily attached to the box cover for the ECU model T624.

**BATTERIES WITH SUPPORT BOX**
Battery charger, two 12V 2Ah batteries with supports for fixing the batteries to the cover of the electronic programmer complete with wiring cable.

**EXTERNAL BOX**
with 2 batteries 12V 7Ah.

**BATTERY CHARGER**
for use with 24V programmers.

**POWER SUPPLY KIT**
Solar panels for use with all 24Vdc automation.
Two solar panels complete with adjustable brackets.
Wetertight box with batteries, command electronics and charger.
ELECTRONIC PROGRAMMERS
SINGLE PHASE - THREE PHASE MOTORS FOR INDUSTRIAL INSTALLATIONS

CARDIN TRADE

MAINS POWER SUPPLY 230Vac
MOTOR OUTPUT:
SINGLE PHASE 230Vac
THREE PHASE 400V3~
PROTECTION GRADE IP55
FIREPROOFING GRADE V2

Electronic devices for the control of automatic opening systems with one or two gate leaves. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital time programming.

Dedicated to 230Vac and 400V3~ motors (T400) they intelligently manage the movement of the gate.

The appliances either work with encoder controlled or timer controlled gate positioning (automatic system detection).

The complete range of products have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic and remote control functions.

Compatible with the INTPRG-3G/WF system (T600 only) that allows you to control and program the system parameters from a remote location and with the SUN POWER system.

The complete range of programmers simplifies and solves all possible installation problems. The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

Open collector:
The product range is factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.
### Product Description

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic Programmer for One 230V Motor</strong></td>
<td>T101</td>
</tr>
<tr>
<td>Encoder controlled programmer with torque limitation, deceleration and safety device exclusion via dip switch.</td>
<td></td>
</tr>
<tr>
<td><strong>Electronic Programmer for Two 230V Motors</strong></td>
<td>T600</td>
</tr>
<tr>
<td>Encoder controlled programmer with torque limitation, deceleration and safety device exclusion via dip switch:</td>
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<tr>
<td>- new external 32VA transformer;</td>
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<tr>
<td>- third programming button;</td>
<td></td>
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<tr>
<td>- flashing warning light output;</td>
<td></td>
</tr>
<tr>
<td>- second channel OC2 output (contact US1);</td>
<td></td>
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<tr>
<td>- terminal blocks for motor capacitor connection;</td>
<td></td>
</tr>
<tr>
<td>- connection for the keypad TAST3F;</td>
<td></td>
</tr>
<tr>
<td>- BSA and BSC inputs for B62 safety edges.</td>
<td></td>
</tr>
<tr>
<td><strong>Electronic Programmer for One 400 V Three-Phase Motor or One Single-Phase 230V Motor</strong></td>
<td>T400</td>
</tr>
<tr>
<td>Operation with or without encoder control. Complete with self-learning function, two separate connections for balanced safety edges (EN 12978). Connection for slot-in radio card. Travel limit inputs.</td>
<td></td>
</tr>
<tr>
<td><strong>Electric Lock Module</strong></td>
<td>MES</td>
</tr>
<tr>
<td>Electric lock card for T101.</td>
<td></td>
</tr>
<tr>
<td><strong>Adhesive Keypad</strong></td>
<td>TAST 3F</td>
</tr>
<tr>
<td>Adhesive keypad in polycarbonate complete with all wiring and connections. For indoor use, this keypad is easily attached to the box cover for ECU models: T600 - T400.</td>
<td></td>
</tr>
</tbody>
</table>

Compatible with the data exchange system between digital devices (smartphone, tablet, etc.) and the Cardin multifunctional control units.

See section 24V ECU INTERFACE DEVICES on page 186.
ELECTRONIC PROGRAMMERS
FOR 230V ROLLING GRILLS AND ROLLING SHUTTERS

CARDIN TRADE

MAINS POWER SUPPLY 230Vac
MOTOR OUTPUT 230Vac
MOTOR POWER 1000W.
PROTECTION GRADE IP55
FIREPROOFING GRADE V2

Electronic devices for the control of 230V automatic rolling grills and rolling shutters. Specially studied and designed for this type of use, these Cardin programmers are fitted with digital time programming. Dedicated to 230Vac they intelligently manage the movement of the gate.

The functions are programmed via dip-switches. The electronic programmers T21X and T21B have been designed and constructed in accordance with the safety standards in force and feature automatic, semi-automatic, remote control and deadman operating functions and a 230V non-flashing warning light.

They are also factory set for the insertion of an open collector receiver card that guarantees compatibility with all the radio control series available in the Cardin catalogue.

The high product-quality level together with accurate design and a selective choice of materials allows trouble free operation and maximum reliability under all kinds of working conditions.

The command card T1 is ideal for connecting the digital selector switch APRO and supplies a power output of 1000W for the dead man control of rolling grills or rolling shutters.

OVERALL DIMENSIONS

T21X - T21B

T1
<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>ORDER NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR</strong>&lt;br&gt;ECU for rolling grills or rolling shutters max. 1300W. Ideal for tubular motors or rolling shutters and fitted with with torque limitation, a programmable 24V warning light output (flashing or continuous activation) and a 230V courtesy light output. Protection grade IP55.</td>
<td>T21X&lt;br&gt;Overall dimensions 135 x 175 x 85</td>
</tr>
<tr>
<td><strong>ELECTRONIC PROGRAMMER CONTROLLING ONE 230V MOTOR</strong>&lt;br&gt;ECU for rolling grills or rolling shutters max. 1300W. Supplied with a fitted RSQ504OC2 receiver card. Protection grade IP55.</td>
<td>T21B&lt;br&gt;Overall dimensions 135 x 175 x 85</td>
</tr>
<tr>
<td><strong>COMMAND CARD CONTROLLING ONE 230V MOTOR</strong>&lt;br&gt;Ideal for the manual control of one rolling grill or rolling shutter motor. Protection grade IP55.</td>
<td>T1</td>
</tr>
</tbody>
</table>
POWER SUPPLY KIT FOR SOLAR PANELS

CARDIN TRADE
SUN POWER

This product uses solar energy to power automatic devices for gates, garage doors, and road barriers etc. situated far away from the mains power lines, all without needing any sort of excavation or brick work. SUN POWER is compatible with all the Cardin Trade control units for 24Vdc motors, making them independent, reducing electricity costs and respecting the environment.

PRODUCT DESCRIPTION

POWER SUPPLY KIT
Solar panels for use with all 24Vdc automation. Two solar panels complete with adjustable brackets. Watertight box with batteries, command electronics and charger.

SUPPLEMENTARY SOLAR PANEL KIT
Two solar panels complete with adjustable brackets.

GENERAL CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>SUN POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar panel voltage</td>
<td>Vdc 24</td>
</tr>
<tr>
<td>Output voltage</td>
<td>Vdc 24</td>
</tr>
<tr>
<td>Maximum electrical input</td>
<td>A 10</td>
</tr>
<tr>
<td>Power consumption in standby</td>
<td>mA 1</td>
</tr>
<tr>
<td>Battery power supply</td>
<td>Ah 7 (x2)</td>
</tr>
<tr>
<td>Solar panel power</td>
<td>W 5 (x2)</td>
</tr>
<tr>
<td>Solar panel dimensions</td>
<td>cm 290 x 240 x 35 (x2)</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>°C -20°…+55</td>
</tr>
</tbody>
</table>

ORDER NUMBER

SUNPOWER
SPW10

OVERALL DIMENSIONS

OVERALL DIMENSIONS

118
222
280
INTPRG is a device that allows you to remotely monitor and configure the multi-functional electronic control units using the professional App CRDTWO. Bluetooth connection to the ECU is made either by inserting the interface modules or via cable which then connects to the Cardin gateway Cardin via 3G or WiFi. The gateway allows you to set up a direct connection to the ECU connected to the INTPRG using a tablet or smartphone which will allow you to interact with the ECU as if you were on site. The main functions that can be carried out are as follows:

- display the status of the command and security devices including eventual errors;
- set all the ECU’s parameters including timer controlled events, the date and the time;
- send movement commands and launch the self-programming cycle;
- memorise transmitters;
- error messages via email;
- direct communication between mobile devices and Cardin ECU’s via bluetooth.

Furthermore the App can also be used to set and control a webcam (IP video camera) which you can use to monitor the area of the installation allowing you to send commands in total security.
<table>
<thead>
<tr>
<th>PRODUCT DESCRIPTION</th>
<th>ORDER NUMBER</th>
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</thead>
<tbody>
<tr>
<td><strong>3G INTERFACE</strong></td>
<td><strong>INTPRG-3G</strong></td>
</tr>
<tr>
<td>The 3G interface allows the control, diagnostics and programming of system parameters from a remote location using the Cardin App.</td>
<td></td>
</tr>
<tr>
<td><strong>3G INTERFACE + SIM VODAFONE</strong></td>
<td><strong>INTPRG-3G10</strong></td>
</tr>
<tr>
<td>The 3G interface allows the control, diagnostics and programming of system parameters from a remote location using the Cardin App. Includes a Vodafone SIM + ten year subscription.</td>
<td></td>
</tr>
<tr>
<td><strong>WF INTERFACE</strong></td>
<td><strong>INTPRG-WF</strong></td>
</tr>
<tr>
<td>The WF interface allows the control, diagnostics and programming of system parameters from a remote location using the Cardin App.</td>
<td></td>
</tr>
<tr>
<td><strong>DATA INTERFACE MODULE VIA CABLE</strong></td>
<td><strong>MODCA</strong></td>
</tr>
<tr>
<td>The module allows the exchange of information between the motor’s electronic control unit and the Cardin 3G/WF interface and also allows you to connect two motors via cable in order to use the synchronised master/slave function.</td>
<td></td>
</tr>
<tr>
<td><strong>BLUETOOTH MODULE PRO</strong></td>
<td><strong>MODBT</strong></td>
</tr>
<tr>
<td>The module allows the exchange of information between the Cardin Pro motor’s electronic control unit and the Cardin 3G/WF interface via Bluetooth.</td>
<td></td>
</tr>
<tr>
<td><strong>BLUETOOTH MODULE TRADE</strong></td>
<td><strong>MODBT2</strong></td>
</tr>
<tr>
<td>The module allows the exchange of information between the Cardin Trade motor’s electronic control unit and the Cardin 3G/WF interface via Bluetooth.</td>
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</tr>
</tbody>
</table>