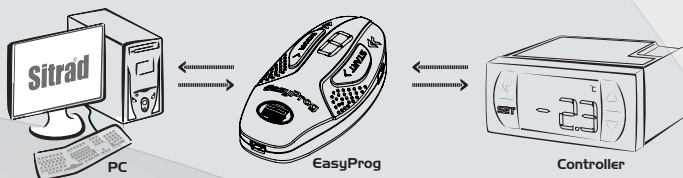


EasyProg

PROGRAMMING KEY

Ver. 03



EASYPROG V04-01T-16699

1. DESCRIPTION

The **EasyProg** is an accessory that has as main function store the parameters of the controllers, load them and unload them quickly and easily. **EasyProg** can help programming a production line, for instance, by copying the information from a standard controller (creating a standard preset) and then downloading it to the other controllers without the need for connecting it to a PC.

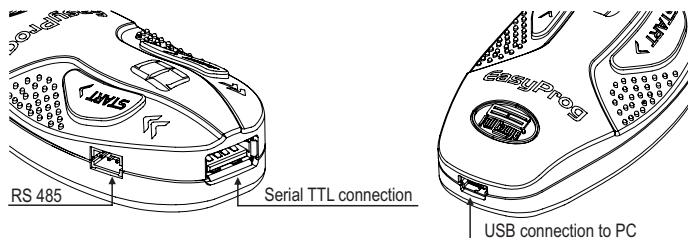
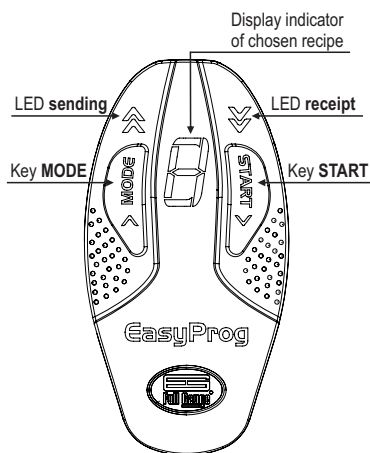
Through a USB port, the **EasyProg** can connect to your PC and modify the parameters for the editor revenue Sitrad. For communication with the instrument contains an RS-485 and TTL Serial.

Note: See the controller's manual to check if it is compatible with **Easyprog ver. 2 or higher**, before connecting them.

2. TECHNICAL SPECIFICATIONS

- **Power supply:** Through the mini USB port or serial TTL
- **Operating temperature:** 0 to 50°C (32 to 122°F)
- **Operating humidity:** 10 to 90% RH (no condensation)
- **Indication:** Led display (seven segments) and two multicolor leds.
- **Size:** 45 X 24 X 87 mm (WxHxD)

3. CONNECTIONS, KEYS AND SIGNALING



LED	STATE	COLOR	DESCRIPTION
▲ and ▼	ON	magenta	Connected to PC
▲ and ▼	flashing	red	Error during initialization of memory. Disconnect the cable and reconnect
▲ and ▼	ON	yellow	Selection of recipes (press START to select)
▲ and ▼	ON	cyan	On power up when fed by Serial TTL or other source with USB connection
▲	ON	cyan	Sending of parameters (waiting press START)
▲	flashing	cyan	Sending of parameters during data transmission
▲	ON	green	Sending of parameters successfully completed
▲	ON	red	Sending of parameters with error (controller model is incorrect or the version is not compatible)
▲	flashing	red	Sending of parameters with error (without communication with the controller)
▼	ON	cyan	Receiving of parameters (waiting press START)
▼	flashing	cyan	Receiving of parameters during data transmission
▼	ON	green	Receiving of parameters successfully completed
▼	ON	red	Receipt of parameters error (controller model is incorrect or the version is not compatible)
▼	flashing	red	Receipt of parameters error (without communication with the controller)

4. FUNCTIONS

The **EasyProg** has a led display (seven segments) that shows the number of selected recipe and two multicolors leds, through which are signaled the following functionality: PC connection, receiving the parameters, selection of recipes and communication with success or error .

By connecting the leds **EasyProg** ▲ and ▼ are lit (magenta when connected to the PC by USB or cyan if connected by Serial TTL).

To select recipes that are sent or received through the serial TTL, you should press the **MODE** key for 15 seconds. The leds ▲ and ▼ will pass to yellow indicating it is in menu selection of recipes. To select the recipe, use the **START** key, pressing briefly until you reach the desired amount of revenue. The **EasyProg** supports store up 9 recipes.

The **MODE** key to be pressed for 10 seconds switches between sending and receiving states, identified through the leds ▲ and ▼.

▲ Send parameters to the controller;

▼ Receive parameters from the controller;

To execute both the sending and receiving commands require pressing the **START** key for 1 second. When the key is released, the communication starts and the corresponding led flashes. When finished, the same led will indicate if the parameter transmission or reception ended successfully or with errors.

5. LOADING AND UNLOADING RECIPES

5.1. Copying a recipe from a controller to EasyProg

1) Connect **EasyProg** to the Controller via Serial TTL or RS-485.

2) If the recipe chosen is the number 1, skip to step 3.

To select the desired recipe, press **MODE** key for 15 seconds then release it (▲ and ▼ lit - yellow). Press the **START** key and select the desired recipe number. Press the **MODE** key for 15 seconds then release it to exit the menu selection of recipes.

3) When connecting to **EasyProg** on the controller, the LEDs sending ▲ and receive ▼ are lit , to move to the mode receive press the **MODE** button for 10 seconds.

4) To start the receipt of recipe press **START** for 1 second.

5) The same LED will flash and, upon completion, will light up green if the communication is successful, or red if any errors occurred.

5.2. Sending a recipe from a EasyProg to a controller

1) To send the parameters to a controller, a preset must be previously recorded on **EasyProg** (from other controller or using Sitrad 's Preset Editor).

2) Connect **EasyProg** to the controller via Serial TTL or RS-485.

3) If the recipe chosen is the number 1, skip to step 4.

To select the desired recipe, press the **MODE** key for 15 seconds then release it (▲ and ▼ lit - yellow). Press the **START** key and select the number of the desired recipe.

Press the **MODE** key for 15 seconds then release it to exit the menu selection of recipes.

4) Press the **MODE** key until the LED ▲ is on (sending).

5) To start sending the recipe, press the **START** key for 1 second.

6) The same LED will flash and, upon completion, will light up green if the communication is successful, or red if any errors occurred.

5.3. Sending a recipe from a PC for EasyProg

1) Connect **EasyProg** to the PC using the mini USB cable.

2) Use Sitrad 's Preset Editor to create or edit a preset for the required controller.

3) Click the file menu, then **EasyProg**, and a new window will open.

4) In this new window, click on the menu recipes stored in **EasyProg** and choose the desired position. This position corresponds to the number of recipe. After, click the corresponding arrow to send the recipe to **EasyProg**.

5.4. Upload a recipe from a EasyProg to the PC

1) Connect **EasyProg** to the PC using the mini USB cable.

2) Use Sitrad 's Preset editor.

3) Click the file menu, then **EasyProg**, and a new window will open.

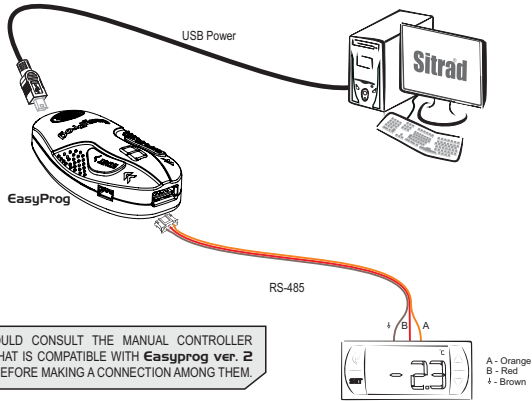
4) In this new window, click on the menu recipes stored in **EasyProg** and choose the desired position. This position corresponds to the number of recipe. After, click the corresponding arrow to send the recipe to **EasyProg**.

5) Upon closing this window, the parameters saved on **EasyProg** will remain on the screen.

6. FORMS OF CONNECTION AND CONNECTION DIAGRAMS

The **EasyProg** has three ways to load or unload the parameters:

- **Serial RS-485:** Connects to the controller via RS-485 network. **EasyProg** must be connected to only one controller in the RS-485 network. In this case, an external power supply through the mini USB port is required. It is connected to the terminals A, B and Ground of the controller through a three-way cable.



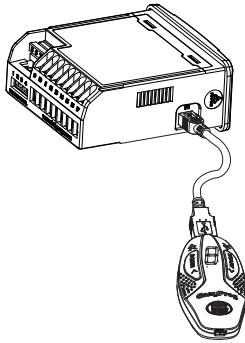
! NOTE: SHOULD CONSULT THE MANUAL CONTROLLER TO VERIFY THAT IS COMPATIBLE WITH **Easyprog ver. 2 or higher**, BEFORE MAKING A CONNECTION AMONG THEM.

! NOTE 2: CONNECTING TO **EASYPROG ver. 4 or higher** ON THE COMPUTER, THE INDICATOR FLASHES TWO SOMETIMES, FIRST INFORMING THE FIRMWARE VERSION AND ITS RELEASE AND THEN IT SHUTDOWNS. AFTER, REMAINS ONLY THE LEDS **A** AND **V** ACCESSORIES ON THE MAGENTA COLOR.

- **Serial TTL:** The controller can be connected directly to the **EasyProg** by Serial TTL through a five-way cable. Thus, **EasyProg** can be powered by the controller, or vice versa.

- **USB:** Can be connected to the computer via USB port, no Windows driver installation is required since **EasyProg** uses HID (Human Interface Device) communication. The parameters can be copied, edited, and saved using Sitrad's Preset Editor. The USB port can also function to supply electric power to **EasyProg** and the Controller (when not used along with USB and Serial TTL).

Note: Always use shielded USB cables with a maximum length of 6 ft (1.8 m).



Note: Whenever the parameters from a controller model are uploaded to **EasyProg**, the information must be downloaded to controllers with the same model.



ENVIRONMENTAL INFORMATION

Package:

The packages material are 100% recyclable. Just dispose it through specialized recyclers.

Products:

The electro components of Full Gauge controllers can be recycled or reused if it is disassembled for specialized companies.

Disposal:

Do not burn or throw in domestic garbage the controllers which have reached the end-of-life. Observe the respectively law in your region concerning the environmental responsible manner of dispose its devices. In case of any doubts, contact Full Gauge controls for assistance.