



### Main features

- Configures models 650/1250/1350 with power supply off
- Can save four programs
- Only three keys for simple copying/pasting/checking of selected program
- One bi-color (green/red) LED for clear diagnostics
- Saves programs even when battery is low

### PROFILE

Zapper is the portable, battery-powered device for cloning configuration parameters among Gefran model 650/1250/1350 temperature controllers.

You don't have to know the meaning of the parameters or the programming philosophy: everyone can use Zapper immediately.

With a simple click, Zapper can copy the program (parameters) you need from a PC and GF\_eXpress (Gefran's universal configuration software) or directly from a field device.

The program, saved securely in Zapper, can then be pasted easily into another device, duplicating configurations safely and without mistakes.

You can use Zapper without having to power the controllers. Zapper uses the energy from its batteries and can be used on the device still in its package or on controllers installed on the panel.

**Note:** Zapper can store the data of four different programs.

**The stored configurations are saved and maintained even if the batteries are drained or absent.**

### TECHNICAL DATA

#### Standard case

Self-extinguishing plastic V0 conforms to UL94

#### Standard connector

micro-USB-B

#### Number of keys: 3

#### LEDs

- 1 bi-color (red/green)
- 4 green

#### Power supply

- two AA (1.5 V) batteries
- low battery signal
- autonomy >150 operations (with 1.5V alkaline batteries)

#### Dimensions

70x115x24mm

#### Operating temperature

0 to 50 °C (32 to 122 °F)

#### Storage temperature

-20 to + 70 °C (-4 to 158 °F)

#### Humidity

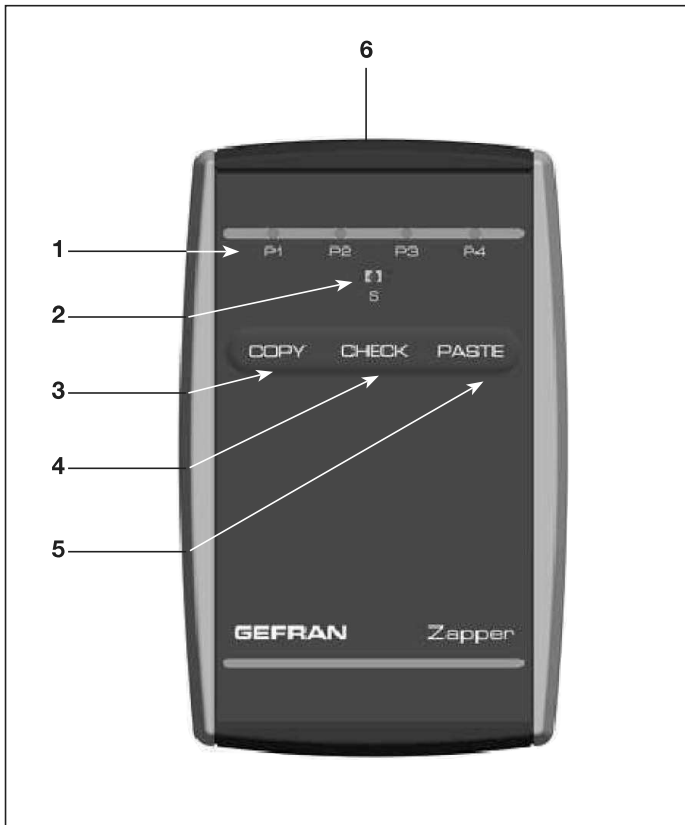
20 to 80 % RH non condensing

#### Pollution level: II

#### Weight

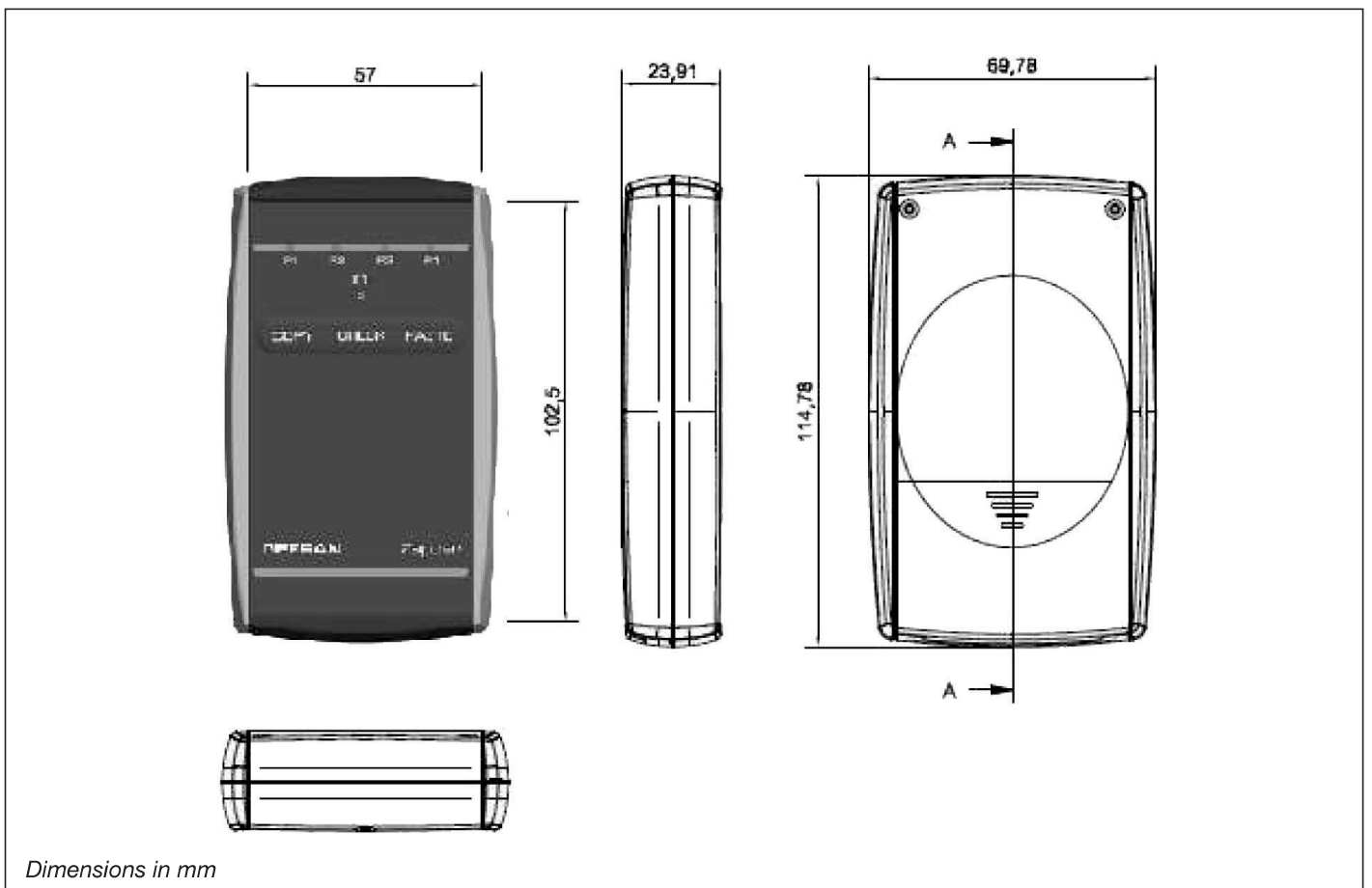
80g. (without batteries)

## FACEPLATE DESCRIPTION



1. Green LEDs P1, P2, P3, P4 show selected recipe
2. Bi-color (red/green) S LED
3. COPY key
4. CHECK key
5. PASTE key
6. microUSB connector

## DIMENSIONS



## OPERATING NOTES

### DIALOG BETWEEN ZAPPER AND DEVICE

#### DOES NOT require power supply

Zapper supplies the required power to the controller during data transfer, so the controller does not necessarily have to be powered by the primary power supply.

#### Selecting the program

LEDs P1, P2, P3, P4 show the programs saved in Zapper. To select the number of the program shown by LEDs P1, P2, P3, P4, press the PASTE and COPY keys simultaneously: after 1 second the green LED for the selected program will start flashing; after 5 seconds the next LED starts flashing.

Example:

Green LED P2 will light up if the last program selected was P2. After the PASTE and COPY keys are pressed, LED P2 will start flashing for 1 second; after 5 seconds LED P3 will be selected and LED P3 will start flashing, and so on.

Releasing the PASTE and COPY keys confirms the selection of the chosen program and the corresponding green LED stays on solid (not flashing).

**NOTE:** the program number is saved and shown the next time the Zapper is switched on.

#### Keys and functions

Activating a COPY, CHECK, PASTE function begins by pressing its key on the Zapper.

- COPY = program is copied from controller's memory to Zapper's memory.
- PASTE = program is pasted from Zapper's memory to memory of new controller to be configured. Before data is transferred, a check is run to ensure that the program is compatible for the family of devices.
- CHECK = checks that the program in Zapper is the same as in the controller to be configured.

In addition:

- key pressed  $\geq$  1 second:  
LED S flashes green to show that the function is on
- error: LED S flashes red to signal any error.  
To exit the error condition, press any key to return to wait condition (green LED S on).

### DIALOG BETWEEN ZAPPER AND PC

GF\_eXpress software lets you operate Zapper connected to a PC with accessory cable **F060800** USBTTL USB-TTL 3V+cable 1M8+microUSB.

LED S lights up solid green to signal activation of the connection with the PC.

When interrogated by GF\_eXpress, the corresponding program launches based on Modbus address: 1= P1, 2= P2, 3= P3, 4= P4

You can:

- Paste the program from the PC to the Zapper's memory.
- Copy the program from the Zapper to the PC. When the cable is disconnected from the PC, the Zapper returns to Master mode and LED S lights up solid green.

Approximate data transfer times: ZAPPER / device	
with device not powered	
COPY / CHECK	30"
PASTE	60"
with device powered by HV or LV line	
COPY / CHECK	150"
PASTE	200"

Approximate data transfer times: PC / ZAPPER	
Read ALL	40"
Write ALL	40"

Approximate data transfer times: PC / device	
with device not powered	
Read ALL	40"
Write ALL	75"
with device powered by HV or LV line	
Read ALL	150"
Write ALL	270"

**ZAPPER is normally OFF with LEDs off.**

**Pressing any key for more than 3 seconds switches it on, with indication of the following states:**

**LED S slow flashing green** = Device waiting for connection  
The device will turn off after an idle time of about 60 "

**LED S solid green** = Zapper ready  
The Zapper will shut off if no key is pressed for about 60".

**LED S flashing green** = data being transferred, **DO NOT disconnect Zapper**. When transfer is done LED returns solid green to indicated Zapper is ready.

**LED S flashing red** = copy/paste or check operation failed.  
Dialog error or configuration NOT compatible, **Press any key to return to Zapper ready state**.

#### ERROR SIGNALS

**Operation - LED S flashing red rapidly**

**Action: press any key to return to Zapper ready state.**

**Repeat operation after checking connection or configuration.**

An incomplete configuration may have been loaded on Zapper.

## INSTALLING THE BATTERIES

### LOW BATTERY SIGNAL

In OFF state, all LEDs flash simultaneously for 3 seconds when any key is pressed. Zapper shuts off immediately and returns to OFF state

### INSTALLING THE BATTERIES

Zapper uses 2 AA batteries (included in the pack).

These batteries are not pre-installed: you have to install them before using Zapper.

Install as follows:

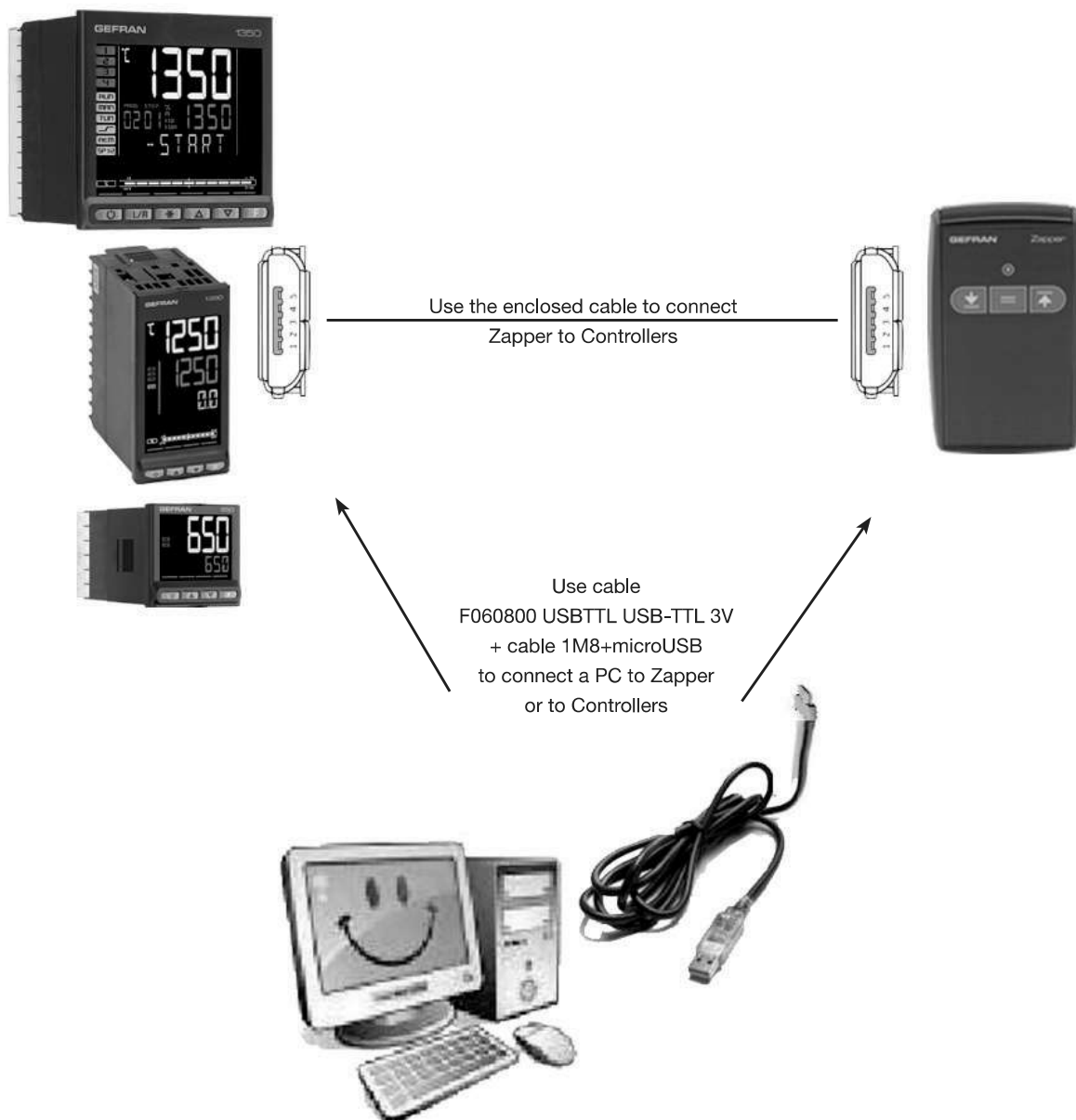
1. Remove the cover of the battery compartment.
2. Insert the batteries in the compartment, checking that the “+” sign on the batteries is in the same direction as the “+” sign on the battery compartment
3. Replace the cover of the battery compartment



### IMPOTANT:

remove the batteries if you do not expect to use Zapper for a long period of time.

## CONNECTION



## ORDER CODE

### code F060908 - GF\_ZAP

Zapper portable battery-powered configurator for Controllers, complete with:

- cable for connection to Controllers,
- 2 batteries,
- instruction sheet

## ACCESSORIES

Code	Description
F060800	Cable for programming with PC, USB-TTL 3 V with USB – microUSB connectors, length 1.8 m
F043958	“GF_eXpress” software CD
F060909	Configuration kit for new GF_eXK-3-0-0 controllers

GEFRAN spa reserves the right to make aesthetic and functional changes at any time and without notice.



Conforms to Directive 2004/108/CE: Immunity in industrial environment: EN 61000-6-2; Emissions in industrial environment: EN 61000-6-3; Emissions in residential environment with HV supply; Safety: EN 61010-1