Model 312 Pico Programmer Manual

GliderKeeper
Altimeter & TimeKeeper Competition Recording
www.gliderkeeper.com
Pico Programmer

Table of Contents

> **Please carefully read these instructions completely, especially Annex 1: SAFETY INSTRUCTIONS before using GliderKeeper or Pico Programmer**

1. Introduction.

Pico Programmer will help you to update and download data to/from your GliderKeeper Pico from your Windows PC, with the help of an USB type C cable.

2. Connections and preliminary work.

Make sure both sockets for the parallel cable, in the Pico and in the Pico Programmer, are clean and free from any remains from the transparent protective shrinking sleeve, use a sharp cutter to remove unnecessary material:

Good   Not good

Also make sure the USB cable socket is free from any obstruction.

Have downloaded the desktop app from our downloads page.

The Desktop App must be a 3.xx or higher. The xx are the version for the Fw that this App will work with. For instance, the first version is 3.27 and this means that only Fw 3.27 (S, F or STD…) will be available for update. A new version for the App will be needed once we have a newer Fw version.
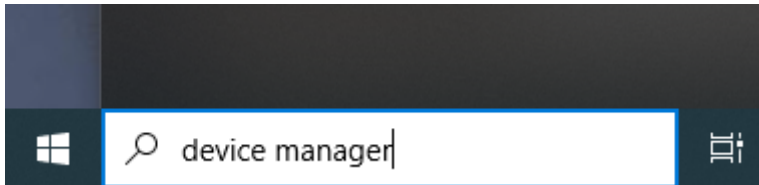
3. Using Pico Programmer the first time in your PC. Check the driver.

First time we use this device in each PC we have to make sure there is a suitable driver for the CH340 USB to uart converter chip installed in the PC.
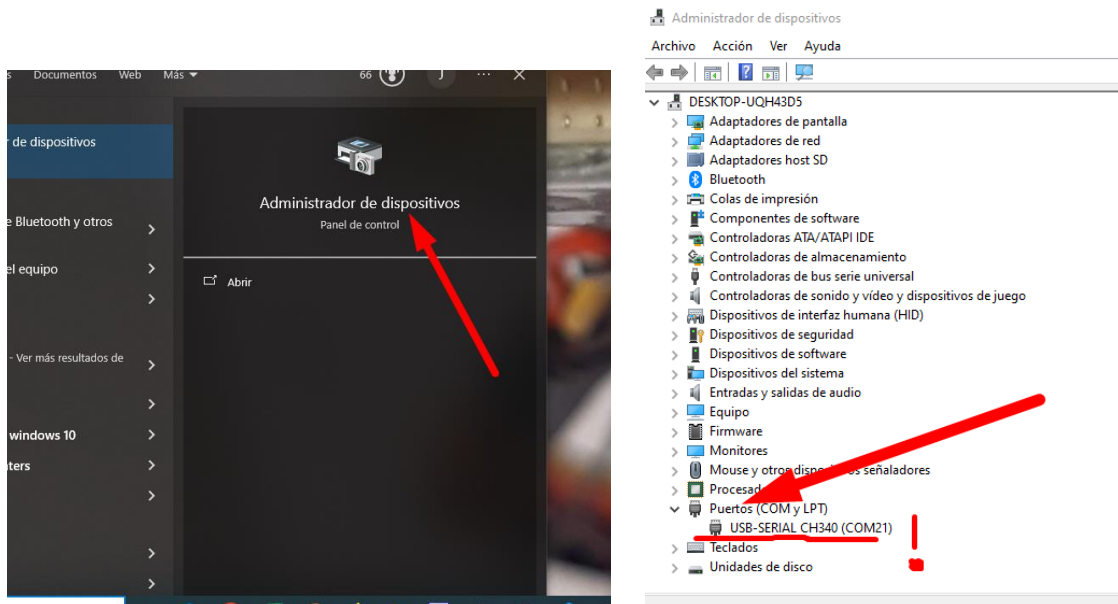
First connect with a suitable USB type cable Pico Programmer to your PC.

The red power led will go ON in Pico programmer.

In the PC look for the "device manager", by typing in the search area:

Type "device manager, no matter what language your system is configured, then select it.

You will see a screen like this in the right. Expand "ports (COM and LPT)" and if you see a CH340 device then you are perfect and can jump to paragraph 5 "Updating FirmWare". If you cannot see it, and the red led of Pico is ON. You must go to next paragraph "Installing the driver".

4. Installing the driver.

You can download the driver for windows systems from our downloads page:
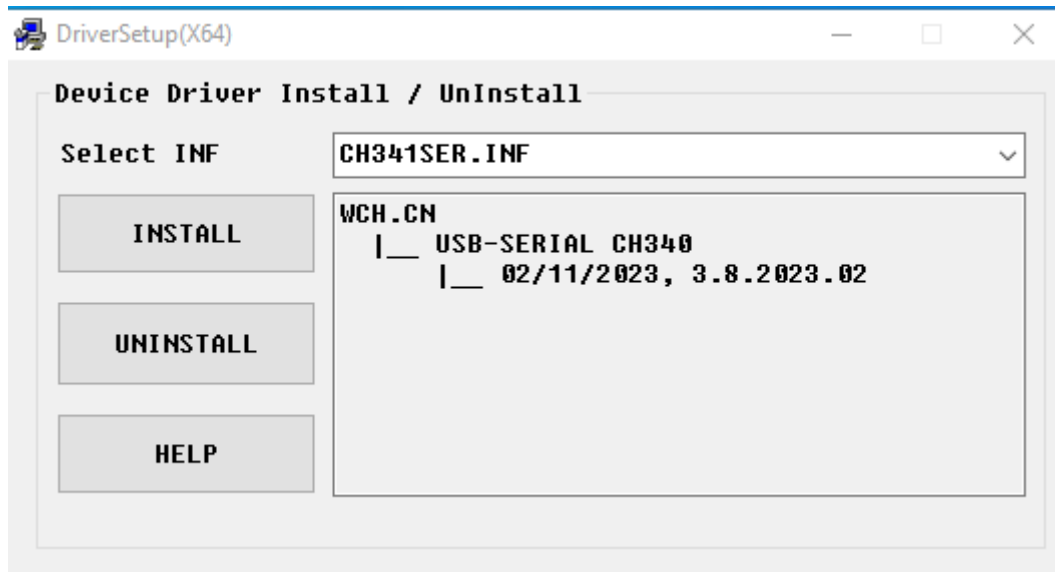
https://gliderkeeper.com/downloads#anchor-pico

Or from the manufacturer´s

https://www.wch-ic.com/downloads/CH341SER_EXE.html

Once downloaded extract the .exe file if required (click on the .zip file and then "extract"). And execute it.

Allow the program "to make changes" in your system and you will see a screen like this:

Click install and this is all.

Close the installer as necessary.

Repeat section 3 to confirm that now your system does recognise Pico Programmer.

If this is not the case you may need to run this installer with administrator privileges, contact your system administrator for help.

5. Updating Fw or UI

Connect GliderKeeper Pico and Pico programmer with the parallel cable. JR connectors must not be powering GliderKeeper.

Install USB Cable in PC socket, while still not connected to Pico Programmer.

While pressing the contact area in Pico Programmer marked as "Press" connect USB C connector into Pico programmer. This step Must be performed each time an update or download is to be performed.

Pico programmer Red light will be ON and Blue LED in GliderKeeper Pico must be steady pale blue, no green led activity in Pico nor in Pico Display if it is connected.
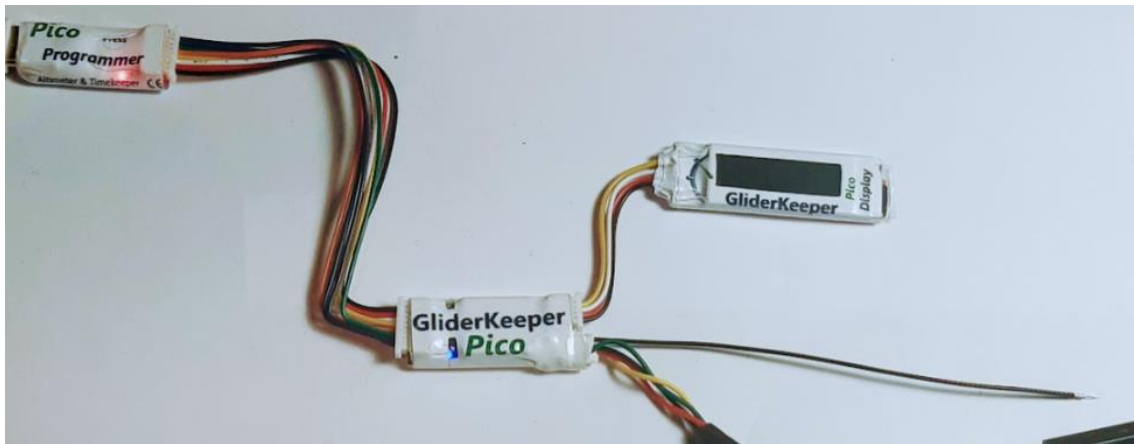
Open Desktop App (it may be already open).

Click in Pico Firmware tab and select the desired FW or UI file to be uploaded.

In PC screen a message will appear.

After a while in Pico programmer GREEN LED will BLINK showing the updating activity.

Wait until in PC the final message appears. Try again if the upload was not successful.

By plugging the USB cable but not pressing the "PRESS" button while applying power, GliderKeeper Pico will be powered up normally and you may enter either in Wi-Fi mode or check the changes in the display.

Note the Pale Blue in Pico and the red in Programmer when ready for download.

6. Downloading FlightData with the Programmer.

Connect GliderKeeper Pico and Pico programmer with the parallel cable. JR connectors must not be powering GliderKeeper.

Install USB Cable in PC socket, while still not connected to Pico Programmer.

While pressing the contact area in Pico Programmer marked as "Press" connect USB C connector into Pico programmer. This step Must be performed each time an update or download is to be performed.

Pico programmer Red light will be ON and Blue LED in GliderKeeper Pico must be steady pale blue, no green led activity in Pico nor in Pico Display if it is connected.

Open Desktop App (it may be already open).

Click in Pico FlightData tab and select the desired action either downloading data or erasing data.

Erasing data is almost instantaneous, while downloading process may be a bit long

Give a name and location for the new FlightData file, for example "myDataOnSunday" and "select a bin file" by the bottom of the selection window.

In PC screen a message will appear.

After a while in Pico programmer GREEN LED will BLINK very pale green light, showing the data download activity.

Wait until in PC the final message appears, be patient. Try again if the download was not successful.

By plugging the USB cable but not pressing the "PRESS" button while applying power, GliderKeeper Pico will be powered up normally and you may enter either in Wi-Fi mode or check the changes in the display.

7. Changing Internal Fw Settings.

Changing internal Fw setting like Wi-Fi credentials Name (SSID) or Password, GliderKeeper name, or STD Fw setting like Altitude Shut is not possible via Pico Programmer as the way this info is stored in GliderKeeper can only be changed via Wi-Fi access.

8. Support

If you need some help, have a suggestion, something to improve, you think you found a bug or just want to share your opinion or pictures, please send us an email to support@gliderkeeper.com with as much detail you have available. Please send us details like ID#, SW version, captured screens, FlightData.bin of your flight and, if available, picture of the model or the airfield… in those questions that having this info can help to diagnose.

We always welcome your contact and will come back to you as soon as possible. It is our understanding that listening Customer Voice is the best way for us to improve.

9. Specifications

Dimensions: 25x 12,5 x 4,2 mm

Weight (including cable): 3,1 gr

Power Supply: 5V via USB type C

Current consumption: <5 mA

Annex 1: SAFETY INSTRUCTIONS

Following the safety instructions below, and using common sense, will be the warranty of enjoying your **GliderKeeper Pico and Pico Programmer** together with your model with no surprises. The following instructions are not essentially different that the ones a responsible hobbyist should follow:

1. Read instructions.

All the safety and operating instructions should be read before GliderKeeper Pico and Pico Programmer is operated.

2. Retain instructions.

The safety and operating instructions should be retained for future reference (for inst.: file it in your mobile).

3. Follow instructions.

Operating manual should be followed.

4. Persons.

GliderKeeper Pico and Pico Programmer can generate Radio Electric signals and are not a wearable. Use at more than 20 cm from human body. Special care should be taken for those that use an implanted medical device like a pacemaker.

5. Children

GliderKeeper Pico and Pico Programmer are not a toy and should be used by adults or with a direct supervision on younger pilots.

6. Commercial Aviation.

As Wi-Fi equipment, always follow instructions from the crew when using inside a commercial airplane cabin.

7. Water and Moisture.

GliderKeeper Pico and Pico Programmer are not water resistant. It should not be used in condensing environments.

8. Power Supply.

GliderKeeper Pico and Pico Programmer works better in a battery power source: V_{min} 3.5vdc V_{max} 8.4vdc. Recommended less than 5.5V when in Wi-Fi AP mode.

9. Ventilation and cooling.

GliderKeeper Pico and Pico Programmer uses an analogue power supply, which means it will dissipate excess voltage in heat. Care should be taken for dissipation and ventilation means when operating for long periods of time, especially in Wi-Fi AP mode, in case of powering above 5vdc.

10. Installation.

GliderKeeper Pico and Pico Programmer will not need routinely disconnection from its model for maintenance or configuration. However before connecting it, make sure both connectors for each side are not worn or damaged such as they could impair the proper operation of the model.

11. Damage Requiring Service.

Disconnect **GliderKeeper Pico and Pico Programmer** from your model and take to qualified service personnel under the following conditions:

a) When signal and power cable is damaged

b) If liquid has been spilled inside the device.

c) If the product has been exposed to rain or water.

d) When an error message "error x" appears in the screen.
Note: "Error 6" or "Err input" means no receiver signal present and may be caused by not having your RC transmitter ON or a faulty connection, sometimes this is useful for easy access to Wi-Fi mode. See the manual.

e) If the product has been dropped or damaged in any manner.

f) When **GliderKeeper Pico and Pico Programmer** does not work as expected.

12. Servicing.

The user should not attempt to service this product beyond that described in the operating instruction. There are no user serviceable parts inside **GliderKeeper Pico and Pico Programmer**.

13. SW Updates.

Always update **GliderKeeper Pico and Pico Programmer** firmware and User Interface with firmware coming from GliderKeeper Pico and Pico Programmer.com.

14. Disposal.

When your **GliderKeeper Pico and Pico Programmer** has reached the end of its useful life do not dispose in regular waste. Contact your local authorities for disposing in an approved electronic equipment recycling container.

Declaration of Conformity:

CE

Konformitätserklärung
Declaration of Conformity
Déclaration de conformitè
Dichiarazione di conformità
Declaración de conformidad

Hersteller / Verantwortliche Person
Manufacturer / responsible person
Fabricant / Personne responsable
Fabbricante / Persona responsabile
Fabricante /Persona responsable

Marta Lopez Lopez/ GliderKeeper.com

erklärt, dass das Produkt
declares that the product
déclare que le produit
dichiara, che il prodotto
declara que el product

Pico Programmer Model 312

folgenden Normen entspricht:
complies following standards:
correspond aux suivantes norms:
corrisponde alle seguenti norme:
cumple las siguientes normas:

2014/53/UE	
2014/30/UE	
2011/65/UE	
2001/95/CE	
Draft EN 301 489-1	Mar, 2017
Draft EN 301 489-17	Mar, 2017
EN 300 328	Nov, 2016
EN 55024	Nov, 2010
EN 55032	Aug, 2015
EN 60950-1	2006
EN 60950-1/A1	Mar, 2010
EN 60950-1/A11	Mar, 2009
EN 60950-1/A12	Feb, 2011
EN 60950-1/A2	Aug, 2013
EN 62311	Jan, 2008

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