



FLYDAT CONTROL OPERATOR'S MANUAL



Flydat Control operator's manual
Non TSO approved

Content

Section 1	
Introduction.....	page ii
Section 2	
Description.....	page 1
Section 3	
Description of design.....	page 2
Section 4	
Tecnical data.....	page 3
Section 5	
Battery.....	page 4
Section 6	
Operation.....	page 5 page 6
Section 7	
Acoustic messages.....	page 7

CONTENT OF *Operator's manual*

ROTAX®

Section 8	
Software installation.....	page 8
Section 9	
Data Downloading.....	page 9
Section 10	
Firmware update.....	page 10
Section 11	
Messages and Report of Errors.....	page 11

Dear Customer

Section

1

Congratulations to your decision to use the **Flydat Control**, specially developed for the company Rotax for downloading the measured values from the **FLYdat** in the older version manufactured by the company Contec, Austria.

Prior to taking the **Flydat Control** into service, please, read the Operator's Manual carefully, as it will acquaint you with the basic knowledge of technical data and the safe handling of the **Flydat Control**.

If you do not understand anything in this manual or in case of any question arising, please, contact the nearest authorized ROTAX Distributor or Service Partner.

Please note that the **Flydat Control** is not designed for the new generation of the **FLYdats** manufactured by the company TL elektronik, the Czech Republic.

INTRODUCTION

Thanks

ROTAX®

BRP-ROTAX G.m.b.H & Co.Kg
Aircraft engines division
A-4623, Gunskirchen, Austria

Web side address: <http://www.rotax-aircraft-engines.com>

Except as expressly provided below, no part of this manual may be downloaded, transmitted, copied, reproduced, disseminated or stored in any storage medium, for any purpose without the express prior written consent of the Rotax company. Address your questions about the technical information to Rotax. Other information about sale, distribution should be directed to our exclusive distributors (see World Distributor list on our web pages).

All the information in this Operator's manual is subject to change without a prior notice.

© Copyright 2004, TL elektronik / Rotax. All rights reserved.

Description

Section

2

The **Flydat Control** has not undergone any safety and durability examination to the Standards of Civil Aviation, but it does incorporate the latest technical development and has been tested thoroughly.

Despite the **Flydat Control** being precise equipment, the misinterpretation of data could occur.

While utilizing the **Flydat Control**, the user acknowledges a possible danger and responsibility for all risk.

To minimize the risk, study the Operator's Manual carefully. Before the content of the manual is not understood completely, you may not put it into operation.

INTRODUCTION

Description

ROTAX®

Introduction

Please, pay attention to the following symbols throughout the manual, emphasizing the particular information.

- **ATTENTION:** Identifies an instruction that, if not followed, may severely damage the **Flydat Control**.
- ◆ **NOTE:** Information useful for better handling of the **Flydat Control**.

Description of design

Section

3

The **Flydat Control** represents equipment developed especially for the company ROTAX for the older version of the **FLYdat** manufactured by the company Contec. It enables deleting the "SERVICE" message and downloading the measured values.

- ⇒ **Flydat Control** enables deleting the message "SERVICE", which shows in the **FLYdat** in case that any of the measured values has exceeded the limit.
- ⇒ The **Flydat Control** also enables storing the measured values in the memory, then downloading them into a PC via the USB cable and storing them on the hard disc for further analysis.

INTRODUCTION

Description

ROTAX®

Introduction

The data you can download from the **FLYdat** keep the pilot informed on the following current readings:

- Engine speed
- Cylinder head temperature
- Ambient air temperature (not on engines 912/914)
- Temperature of cooling water (only on engines 582UL, 618UL)
- Oil temperature and oil pressure (only on engines 912/914)

Besides the current data, the **FLYdat** shows also the hours of operation.

Technical Data

Section

4

For correct functioning of the **Flydat Control**, always keep the technical parameters as specified below. Any use of the **Flydat Control** beyond the range of the technical parameters may cause a damage, to which the guarantee will not be related. Do not use the **Flydat Control** beyond the range of the operation temperature and humidity.

- **ATTENTION:** If you move the **Flydat Control** from one place to another with a significant difference in temperature, condensation will occur due to the different temperatures, which can result in wrong functioning or permanent damage to the **Flydat Control**.
- **ATTENTION:** The cylinder connector in the **Flydat Control** can be put only into the **FLYdat**. Putting this connector into a different instrument or equipment; into a different connector; or connecting any voltage to the connector's contacts; or any contact with an object live with static electricity will result in the permanent damage to the **Flydat Control**.

TECHNICAL DATA

Technical data

ROTAX®

General parameters

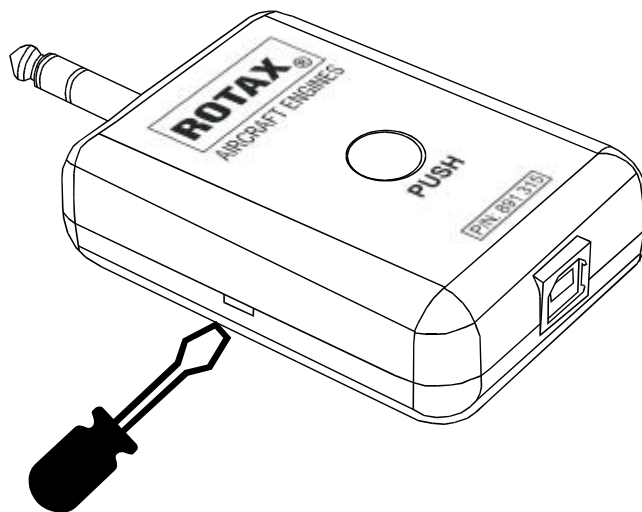
FLYDAT CONTROL	
Power supply:	10,0 to 15,0 Volts
Current consumption:	0,03 Amp@12Volts (without buzzer signal)
	0,045 Amp@12Volts (with buzzer signal)
Operating temperature:	-20°C to 70°C (-4°F to 158°F)
Storage temperature:	-30°C to 85°C (-22°F to 185°F)
Relative humidity:	95% without condensating
Data Retention:	10 years
Memory endurance:	100,000 downloads
Weight:	ca 100grams (0.22lbs)
Design:	Plastic injection molded housing

Battery

Section

5 Before the first use, it is necessary to put the battery, which is the part of the delivery, into the **Flydat Control**.

- ⇒ Put a flat screwdriver into the opening on the side of the **Flydat Control** and turn it carefully.
- ⇒ As soon as the top cover rebounds, repeat the same process on the other side.
- ⇒ Detach the top cover carefully.
- ⇒ Put the battery into the holder. The polarity of the battery is marked next to the battery holder.



OPERATION Battery

ROTAX®

Recommended battery types

For the right functioning of the **Flydat Control**, it is necessary to use a battery with the sufficient capacity.

Here are some of the batteries recommended:

- 12Volts, 55mAh, the manufacturer GP, labelling GP23AE
- 12Volts, 60mAh, the manufacturer Varta, labelling V23GA
- 12Volts, 60mAh, the manufacturer Vinnic, labelling L1028

Operation

Section

6

Using the **Flydat Control** is very simple.

The first turn-on of the Flydat Control:

Make sure that the **Flydat Control** is ready for operation. Take the **Flydat Control** with one hand and press the round button. The **Flydat Control** will signal the turn-on by two short tones and the turn-off by a long tone after approximately 3 seconds. If you hear a different sequence of tones or no tone at all, follow the instructions on page 11.

Working with the Flydat Control can be divided into three functions:

- ⇒ Deleting the "SERVICE" message in the **FLYdat** with help of the **Flydat Control**.
- ⇒ Downloading the data into the User Memory of the **Flydat Control** in case that the "SERVICE" message does not show after turning the **FLYdat** on.
- ⇒ Downloading the data from the **Flydat Control** into your PC via the USB cable.

OPERATION

Flydat Control operation

ROTAX®

Deleting the "SERVICE" message in the Flydat

If your **FLYdat** shows the "SERVICE" message and you want to delete it, then put the **Flydat Control** into the **FLYdat**, which has to be turned off, and press the round button in the **Flydat Control**. After pressing the button, the data will start to be downloaded into the Service Memory, and after this operation has been finished, deleting of the "SERVICE" message will be carried out in the **FLYdat**. As soon as downloading and deleting have been finished, an increasing tone will sound.

- ◆ **NOTE:** While downloading, the **FLYdat** has to be turned off and the **Flydat Control** must not be connected to a PC via the USB cable.
- ◆ **NOTE:** In this way, it is possible to delete the "SERVICE" message 20 times. After the twentieth delete, the **Flydat Control** will announce acoustically that the Service Memory is full and, thus, you will have to send the **Flydat Control** to your authorised ROTAX service so that the memory can be deleted.

Operation

Section

6 Using the **Flydat Control** is very simple.

Downloading the data into the User Memory in the Flydat Control

If the "SERVICE" message does not show after turning the **FLYdat** on, then you can download the values measured by the **FLYdat** into the **Flydat Control** by pressing the button. As soon as the **Flydat Control** has finished downloading, an increasing tone will sound.

◆ **NOTE:** While downloading, the **FLYdat** has to be turned off and the **Flydat Control** must not be connected to a PC via the USB cable.

◆ **NOTE:** It is possible to download the measured values from the **FLYdat** into the User Memory of the **Flydat Control** 60 times. After the sixtieth download, the **Flydat Control** will announce acoustically that it is necessary to download the data from the User Memory of the **Flydat Control** and then delete the User Memory for the next use.

OPERATION

Flydat Control operation

ROTAX®

Downloading the data from the Flydat Control into your PC

If you want to go through the measured values from the **FLYdat**, which you have downloaded into the User Memory of the **Flydat Control**, and if you have already installed the program from the micro disc or the CD, then connect the **Flydat Control**, using the delivered USB cable, with your computer and run the TL Control.exe program. Follow the instructions on page 9.

◆ **NOTE:** While downloading, the **Flydat Control** must not be put in the **FLYdat** and must be connected to a PC via the USB cable.

◆ **NOTE:** Connect the **Flydat Control** with the USB only after you have installed the downloading program, which is a part of the delivery of the **Flydat Control** in the form of a micro disc or a CD. If you have not installed the program in your PC, do not connect the **Flydat Control** and install the program according to the instructions on page 8.

Acoustic messages

Section

7

The **Flydat Control** signals its current state with help of the acoustic signal. These states are described in the table on the right.

◆ **NOTE:** If the **Flydat Control** signals a state not included in the table on the right, it means that the **FLYdat** signals an error. See the table on page 11.

OPERATION

Flydat Control operation

ROTAX®

Possible states of the Flydat Control

Acoustic signalization	State
Two short tones	Turn-on of the Flydat Control
Long tone	Announcing an error and turn-off of the Flydat Control
Three successive longer tones – repeated for three times	Battery low
Repeated short beep	Data-download from the Flydat to the Flydat Control is running
Increasing tone for 2 seconds	Confirming the successful data-download from the Flydat to the Flydat Control
Ringing tone for 3 seconds	Full service memory – necessary to send the Flydat Control to an authorized Rotax service for deleting the memory
Chirp - repeated for four times	Full user memory – necessary to delete with help of the program delivered

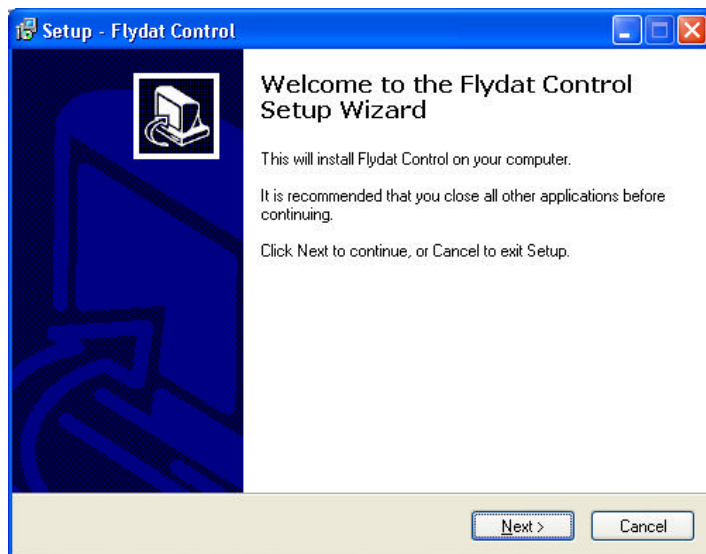
Software installation

Section

8

Before connecting the **Flydat Control**, using the USB cable delivered, to a PC, it is necessary to install the software, which is a part of the delivery of the **Flydat Control** in the form of a micro disc or a CD.

Run the setup.exe program and wait until the installation is finished.



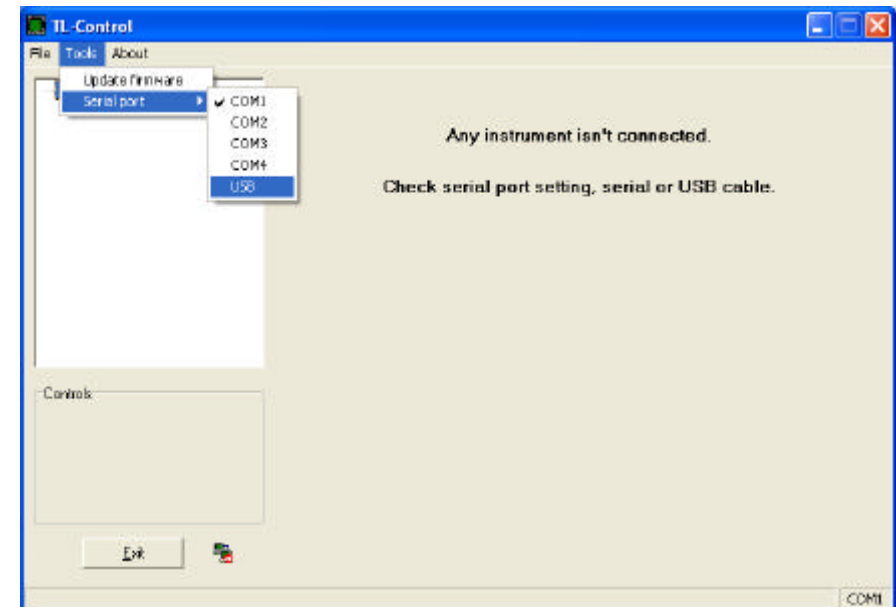
OPERATION

Software Installation

ROTAX®

First running of the program

Connect the **Flydat Control** with help of the USB cable to your PC and run the program. Before the first use, it will be necessary to set up USB in the folder Tools / Serial port.

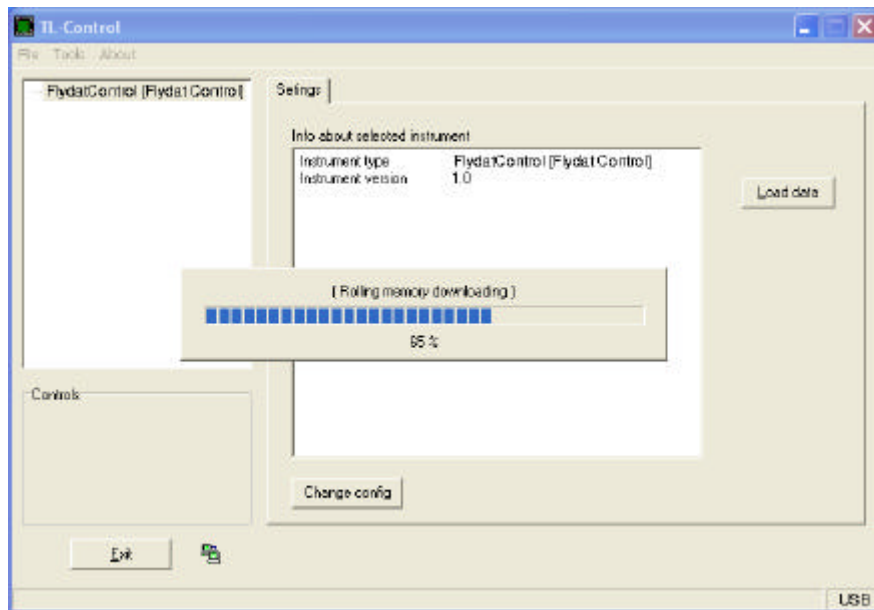


Operation

Data downloading

Section 9

Connect the **Flydat Control**. If you have downloaded some data from the **FLYdat** into the **Flydat Control**, then after pressing the button **LOAD**, the data will be downloaded into your PC and you can store them on the hard disc for further analysis.



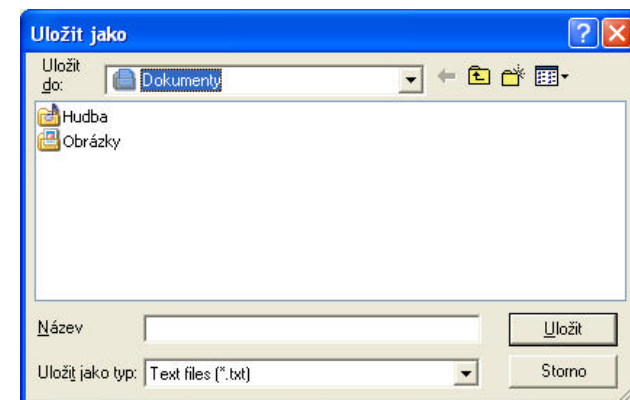
OPERATION

Data downloading

ROTAX®

Storing the data on the hard disc

After downloading the data from the Flydat Control, a dialog will show for storing the downloaded data on your hard disc for further analysis. Always remember the directory as well as the name of the file, in which you have stored the data, so that later you can find them easily.



Firmware Update

Section

10 The **Flydat Control** offers the possibility of firmware update by means of a PC and the programme, which is delivered on a disc or CD and which is a part of the **Flydat Control** delivery.

Since the firmware for your **Flydat Control** is to be improved and completed with other functions, you may download the latest firmware version with the detailed description of the updated features and other functions on the address:

<http://www.rotax-aircraft-engines.com>

REQUEST

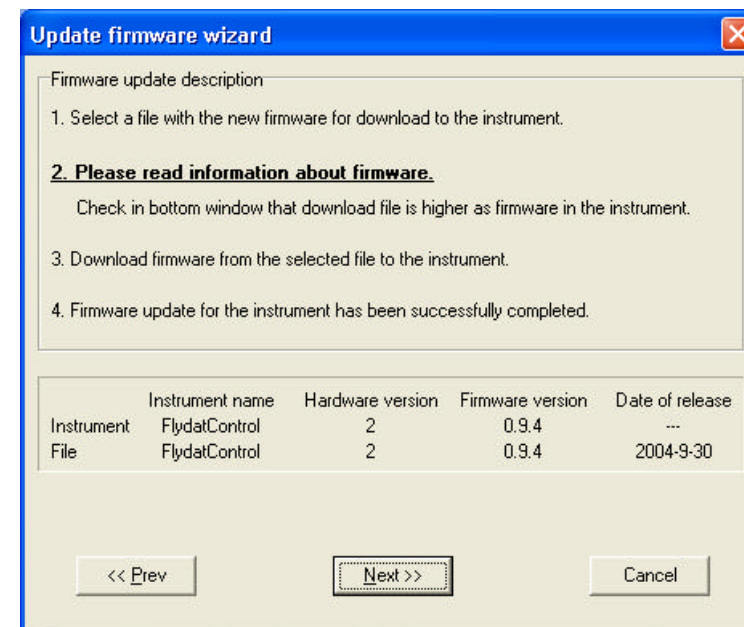
Having any suggestion about the **Flydat Control**'s functions, firmware or software, please contact the local distributor of the company ROTAX.

OPERATION

Firmware update

ROTAX®

To carry out the firmware update, first, download the latest version of the file with the ".tfs" ending on your disc. Then press the button "Firmware" and follow the process shown in the dialogue.



Messages and Report of Errors

Section

11 The **Flydat Control** can signal acoustically, or after putting the top cover off also optically, the current state of the **Flydat Control**. The visual signalization is provided by the red and the green lamp and is described in the table on the right.

The problem solution:

Description	Solution
The Flydat Control is signalling the low battery, or downloading from the Flydat is not finished and the finishing tone does not sound	Change the battery in the Flydat Control
The Flydat Control is signalling an error	Send the Flydat Control to an authorised ROTAX service for repair
The Flydat Control is signalling that it is now in the Bootloader mode	Record the firmware into the Flydat Control. This process is described on page 10.
The Flydat Control is signalling the full Service Memory	Send it to an authorised ROTAX service for deleting the memory
The Flydat Control is signalling the full User Memory	Delete the User Memory with help of a PC and the program delivered with the Flydat Control

REPORTS

Errors

ROTAX®

Possible errors and service states of the Flydat Control.

Acoustic signalization	Visual	State
Long tone	Long switch-on of the red lamp	Announcing an error and turn-off of the Flydat Control
Three successive longer tones – repeated for three times	Three successive blinks of the red lamp – repeated for three times	Battery low
Ringing tone for 3 seconds	Quick blinking of the red lamp for 3 seconds	Full service memory – necessary to send the Flydat Control to an authorized Rotax service for deleting the memory
Chirp - repeated for four times	Four successive blinks of the red lamp	Full user memory – necessary to delete with help of the program delivered
Short low tone followed by a few short beeps announcing the type of an error	Switch-on of the red lamp for 1 second followed by a few blinks announcing the type of an error – the red lamp will then remain switched on	Error in the Flydat Control
Short beeps in the 4-second interval	Alternating switch-on and switch-off of the red and green lamp	Bootloader mode – the Flydat Control awaits downloading the new firmware

NOTES

Notes

ROTAX®

This page is intentionally left blank

This page is intentionally left blank



BRP-ROTAX G.m.b.H & Co.Kg
Aircraft engines division
A-4623, Gunskirchen, Austria

Web side address: <http://www.rotax-aircraft-engines.com>

