

Revision	Change	Approved	Date
1	Initial release	mje	15/03/16



# SUPPLEMENTARY INSTRUCTION

## SI-006 AC200 User Software

### INSTRUCTIONS

Part / Assy #	AC-2xx
Drawing #	
Applicability	AC200 V4
Compliance	

**SUBJECT: AC200 USER SOFTWARE**

#### 1. Introduction

This document is intended to assist the propeller operator in modifying the AC200 control box flight parameters. This is done through the use of software running on a MS Windows PC. A lap-top computer is recommended, to allow it to be taken to the controller in the aircraft.

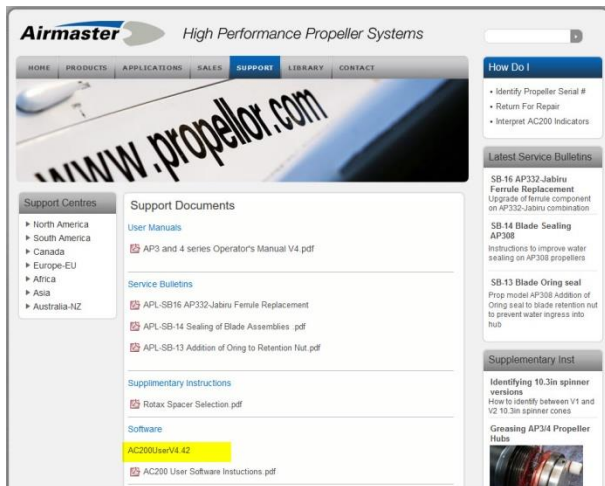
#### 2. Material Information

##### 2.1 Parts Required

Item	Assy No.	Description
1	A0117	AC200 USB serial cable assy
2		User Software AC200UserV4.42

### 3. Download User Software

- a. Download the latest version of the User software from the Airmaster website <http://www.airmasterpropellers.com/support>, scroll down to Software. Unzip to a convenient folder.



### 4. Connecting PC to Controller

Install the USB driver supplied on the minidisk as per its instructions (on disk)

Take the AC200 programming cable supplied, and connect PC and controller as follows:

- a. Connect the USB plug to a USB port on the PC.
- b. Connect the 4 way connector to the connector CN4 on the rear of the AC200 controller.
- c. Turn on the power supply to the AC200 controller by turning on the aircraft power.
- d. Run AC200 User Software on the PC.
- e. Select the applicable port that the USB is using

After a few seconds the software will show that it is connected to the controller.



Select Com Port

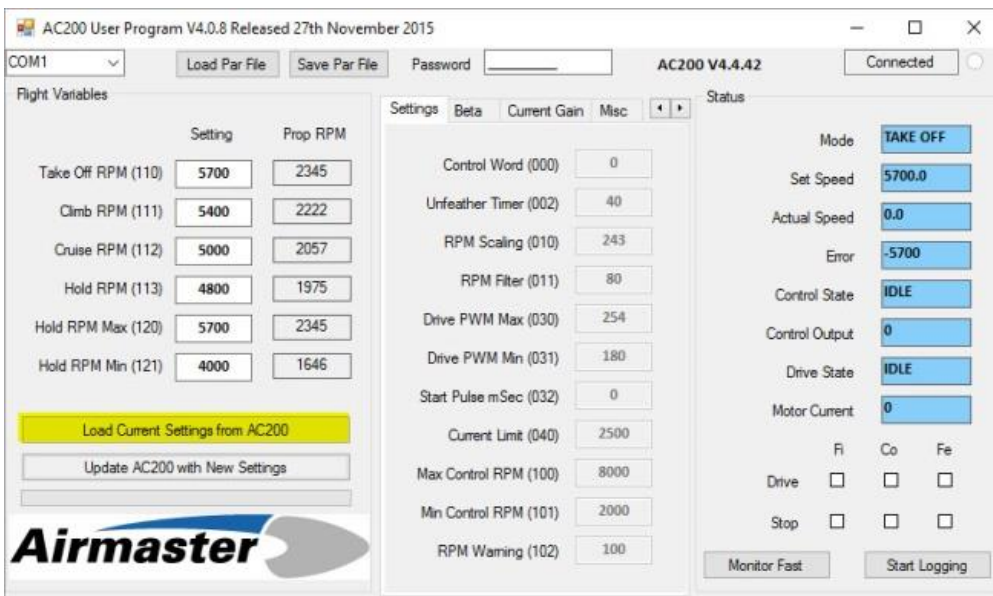


Controller connected

Note: If the software shows that it is not connected, check that the com port selection displayed at the top of the software window is the same as that used by the cable. If this does not work, check that no other software on the PC has taken control of the com port. Contact Airmaster Propellers Ltd if further trouble is experienced.

### 5. Checking Parameter Values

Click the ‘Load Current Settings From AC200’ button on PC. Then the parameter values currently programmed in the controller will appear in the setting windows.



Load parameter file

All of the parameter values may be checked against the values recorded on the “AC200 Software and Parameter” sheet that came with the propeller. By referencing the parameter numbers, the programmed parameter values can be compared with the correct parameter values recorded on the sheet.

The controller software revision may also be checked by comparing the revision displayed at the top of the software window with that recorded on the “AC200 Software and Parameter” sheet.

## 6. Changing Parameter Values

The flight variables (parameters 110 to 121) are available to be changed by the operator. These values are recorded in the leading particulars section of the propeller logbook, as well as on the “AC200 Software and Parameter” sheet. The values recommended by Airmaster are listed in chapter 9 of the “Operators Manual”, which came with the propeller.

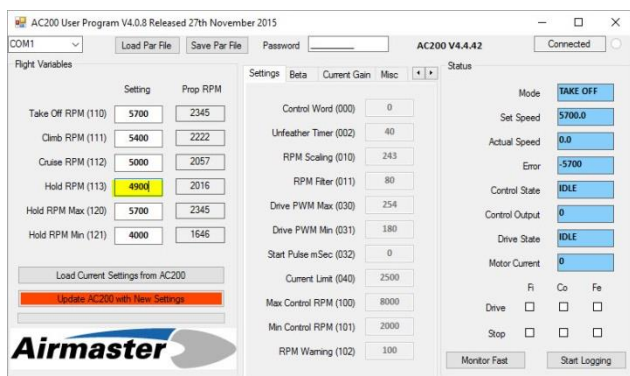
**Note:** The other parameters; setting variables and control variables, are not available to be changed by the operator. These parameters are protected by a password in the operator program software. Contact Airmaster Propellers Ltd for further advice should these parameters require changing.

If the operator wishes to alter the operation of the controller, the flight variables may be changed as follows:

- a. Enter new values in the setting windows beside each parameter. Ensure that the following conditions are met:
  - i. That ‘Take-Off RPM’ and ‘Hold RPM Max’ are both at least 100rpm less than the maximum speed for the engine concerned (eg 5700rpm or less for Rotax engines).
  - ii. That the calculated propeller speed (Prop RPM) ‘Take-Off RPM’ and at ‘Hold RPM Max’ (see values in Prop RPM column) are within allowable ratings for the Airmaster hub being used.
  - iii. That ‘Climb RPM’ is at least 100rpm less than the maximum continuous speed for the engine concerned (eg 5400rpm or less for Rotax engines).

**Note:** Current versions of the controller software apply other checks to the parameters programmed in the controller. For instance, the controller will not allow a value for ‘Hold RPM Max’ to be higher than ‘Take-Off RPM’.

- b. Click ‘Update AC200 with New Settings’ button. The new values for the parameters will be loaded into the controller.



**Change Flight Parameter**



**Parameters Updating**

- c. Record the new flight variable parameter values in a new column in the following locations:

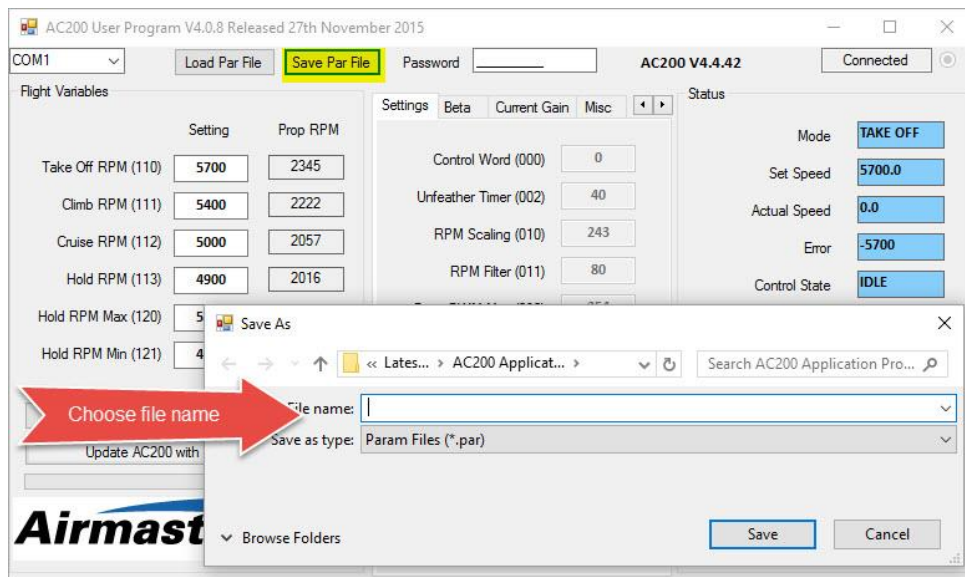
- i. The “AC200 Software and Parameter” sheet.
  - ii. The leading particulars section of the propeller logbook.
- d. Make an entry in the propeller logbook to record the action carried out.

**Note:** The parameter values actually programmed in the controller may be checked at any time by clicking the ‘Load Current Settings From AC200’ button. This function resets any values entered into the setting windows to the values currently programmed into the controller.

When the operator is satisfied that the desired parameters are programmed into the controller, the reprogramming should be completed by closing the software on the PC, turning off the power supply to the controller, and disconnecting the cable from the controller.

## 7. Making a copy of Parameter Values

Select ‘Save Par File’, then choose a file name and path to store the file.



The resultant file is a text based with an extension of .par

You can view the contents of the file with a text editor like ‘Notepad’

