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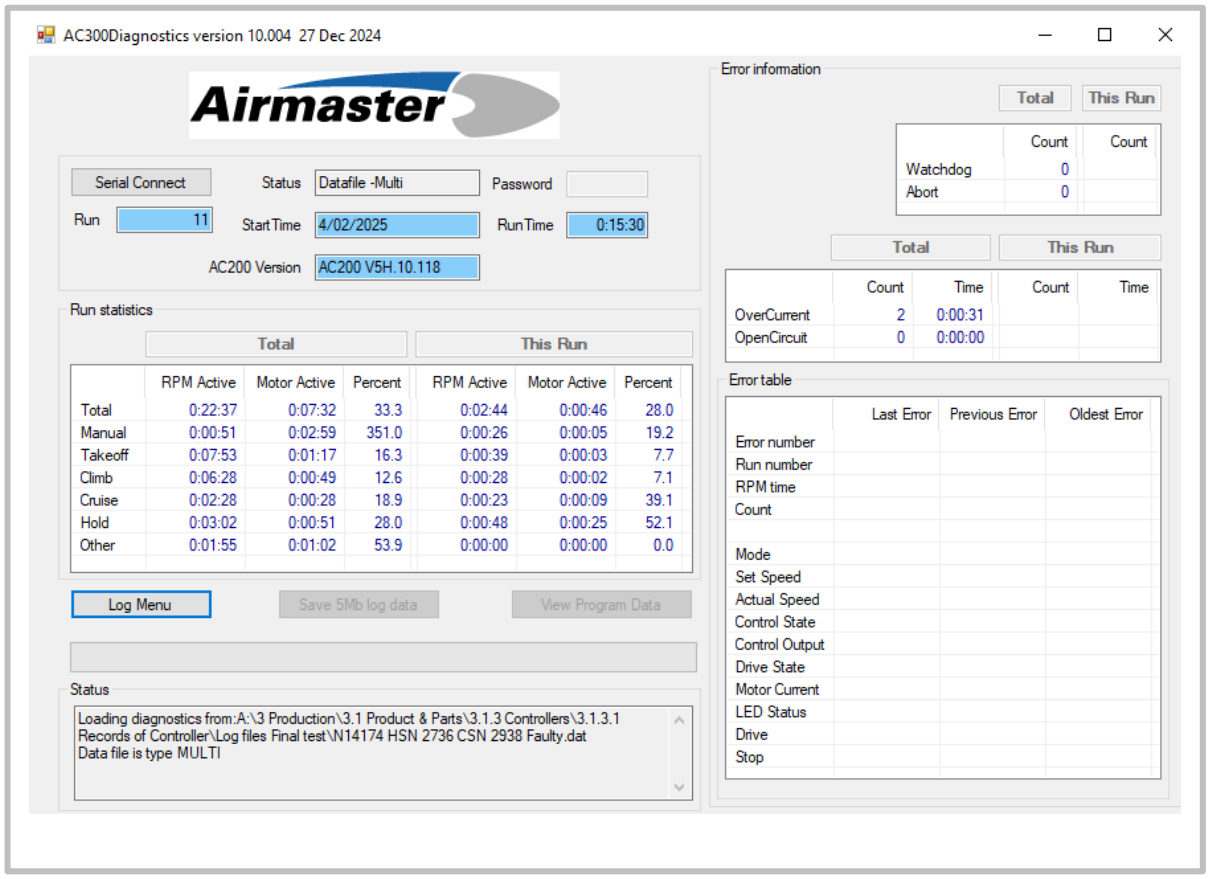
ASI-7-2-4

DOWNLOADING CONTROLLER DIAGNOSTICS (PROPELLER LOG FILES)

PROCEDURE



SUBJECT:

Service & Maintenance

ASSEMBLY NO:	APPLICABILITY:
A0110x or A0170x	AC200 controller hardware versions 5 and up only. All AC300 versions.

1. TOPIC

1.1 Introduction

This document covers the procedure for downloading and viewing the diagnostic data (often referred to as 'log files') from an Airmaster controller.

AC200 controllers that are hardware version 5 or higher, as well as all AC300 controllers (for DSD propeller models) incorporate a diagnostic module that records all propeller activity and statistics (like a 'black box'). This data may be useful for troubleshooting faults or improving propeller tuning.

Diagnostic data is accessed using Airmaster software running on a MS Windows PC; a laptop is recommended so that it may be taken to the controller inside the cockpit. The controller is connected to the PC using the dedicated USB-serial cable (*A0117*) supplied with the propeller.

> ⓘ *Note* *For more information on interpreting the propeller log files, refer to **ASI-7-3-6**.*

1.2 Prerequisites

Complete the following tasks before proceeding with this instruction:

- Check PC is updated to include .NET Framework 3.5
  https://www.microsoft.com/en-us/download/details.aspx?id=21
- For AC200 controllers, ensure that controller hardware is version 5 or higher.

> ⓘ *Note*
> *The controller hardware version is recorded in the 'ACx00 Controller Firmware & Parameters Sheet' (found in the propeller assembly drawings booklet) as the first number in "Hardware Build State".*

2. MATERIAL REQUIREMENTS

2.1 Parts

ITEM	QTY	PART NO.	DESCRIPTION	IMAGE
1.	1	A0117	USB-Serial Cable	
2.	1	A0110x or A0170x	AC200 or AC300 Controller	

2.2 Tooling

ITEM	QTY	DESCRIPTION	IMAGE
1.	1	MS Windows Laptop	
2.	-	Airmaster Diagnostic Program (*.exe*)	

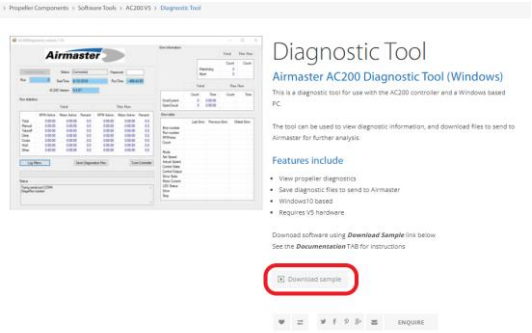
3. PROCEDURE

3.1 Download Airmaster Diagnostic Program

PROCEDURE

Step 1 Download Diagnostic Program

- Download the applicable Airmaster Diagnostic Program from the Airmaster website:
  - AC200 controller (v5 only): *https://www.propellor.com/diagnostic-tool*
  - AC300 controller: *https://propellor.com/ac300-diagnostic-tool*

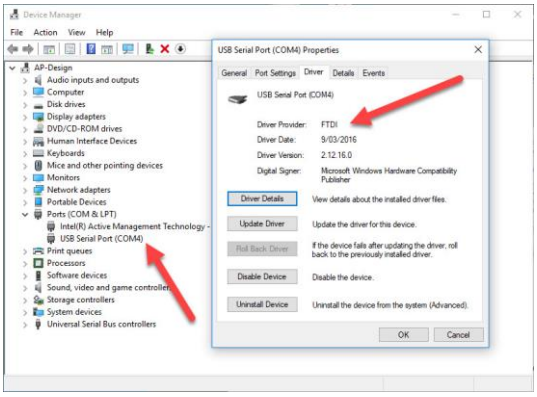


> ⓘ *Note*
> *This program is only compatible with Microsoft Windows operating systems.*

Step 2 Install USB Driver (As Required)

- When the USB-serial cable is connected to a PC for the first time, the required USB driver may need to be downloaded as follows:

> ⓘ *Note*
> *This is typically completed automatically on Windows 10 operating systems.*



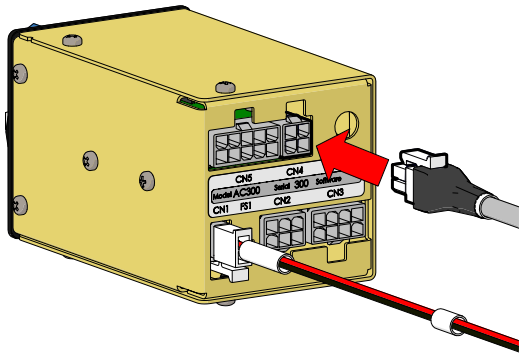
  - Visit the link below and download the “Setup Executable” for your OS: *https://www.ftdichip.com/Drivers/VCP.htm*
  - Open the setup .zip file and choose a convenient folder to unzip the executable.
  - Confirm, accept, and finish the extraction.
  - Check the COM port assigned to the USB-serial cable on PC: Control Panel > Device Manager > USB Serial Port > Driver.

3.2 Download Diagnostic Data

PROCEDURE

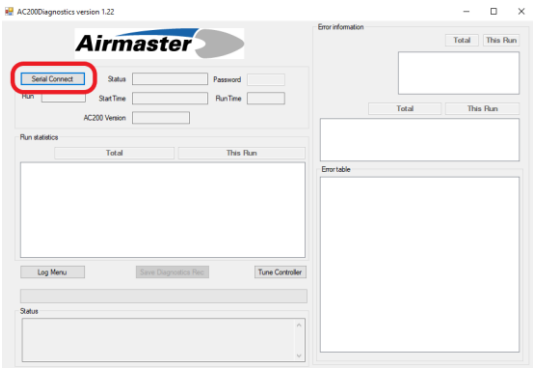
Step 1 Connect Controller to PC

- Plug USB-Serial cable (*A0117*) into USB port on PC.
- Plug USB-serial cable (4-way connector) into rear of AC300 controller [CN4].
- Turn on power supply to controller by turning on aircraft power.



Step 2 Run Application

- Run the Airmaster Diagnostic Program.
- Press '*Serial Connect*'.



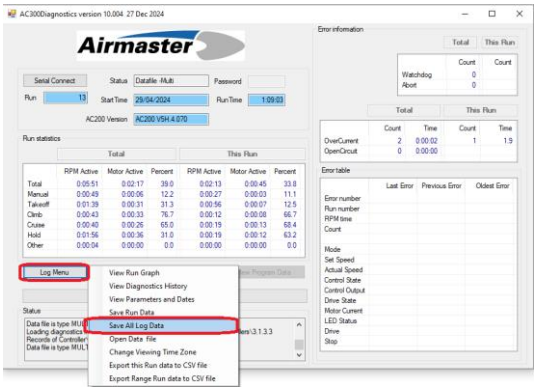
Note
A warning window may appear before opening the program. This is normal, select More Info > Run Anyway.

Note
This program can't be run if another Airmaster application is running and accessing the same COM port assigned to the USB-serial cable.

Step 3 Download All Log Files (As Required)

- Download all diagnostic data saved to the controller:

  Log Menu > Save All Log Data > Yes > Save



Note
E-mail the resultant (.dat) file to Airmaster for review if troubleshooting assistance is required.

3.3 View Diagnostic File

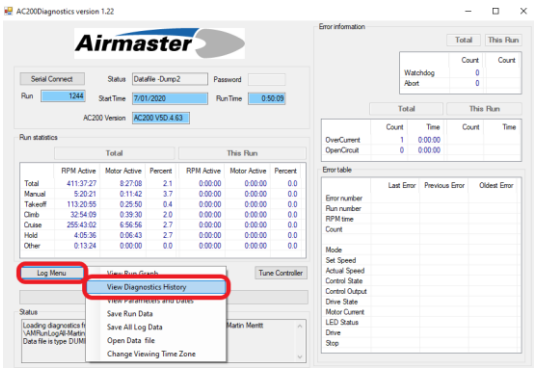
PROCEDURE

Step 1 Open Log File History

- Within the Airmaster Diagnostic Program, select a log file from the diagnostics history menu:

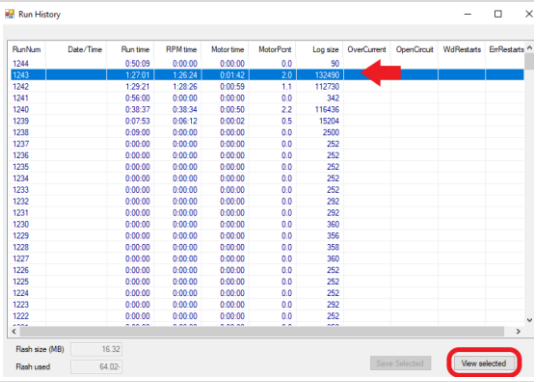
  Log Menu > View Diagnostics History.

> *Note*
> *Contact Airmaster if log data history can't be accessed.*



Step 2 Select Log File

- Select a recorded log file from the history list.
- Press '*View selected*'.



Step 3 View Log File

- Open the selected log file:

  Log Menu > View Run Graph.