

<b>Date</b>	:	<b>26 July 2012</b>
<b>Release Status</b>	:	<b>Evaluation</b>
<b>Ace One firmware version</b>	:	<b>4.02</b>
<b>Ace Assistant software version</b>	:	<b>2.4</b>

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### Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning
- Semi Auto Takeoff & Landing (Optional)
- Ground Station chargeable functions: View (optional)
- Ground Station chargeable functions: Joystick/Keyboard Mode (optional)
- Ground Station chargeable functions: Click Go Mode (optional)

### Changes:

- None

### What's New ?

- Gimbal Z15 is supported.

<b>Date</b>	:	<b>22 September 2011</b>
<b>Release Status</b>	:	<b>Evaluation</b>
<b>Ace One firmware version</b>	:	<b>4.0</b>
<b>Ace Assistant software version</b>	:	<b>2.2</b>

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## Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning
- Semi Auto Takeoff & Landing (Optional)
- Ground Station chargeable functions: View (optional)
- Ground Station chargeable functions: Joystick/Keyboard Mode (optional)
- Ground Station chargeable functions: Click Go Mode (optional)

## Changes:

- Improves the user experience and security of Assistant Software.

## What's New ?

- LED warning of compass working abnormal.

<b>Date</b>	:	<b>14 July 2011</b>
<b>Release Status</b>	:	<b>Evaluation</b>
<b>Ace One firmware version</b>	:	<b>1.3.2</b>
<b>Ace Assistant software version</b>	:	<b>2.0.19.77</b>

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### Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning
- Semi Auto Takeoff & Landing (Optional)
- Ace One View(Optional)

### Changes:

- More tail gyro servo options.
- Better engine governor performance.

### What's New ?

- Optional chargeable function: Semi auto takeoff and landing.
- Optional chargeable function: Ace One View (ground monitoring function) for real-time monitoring the flight state.
- Customer registration function: Customer information registration, for better customer service.
- Newsletter function: Customers' choice to receive news of products.

Date	:	2011/04/27
Release Status	:	Evaluation
Ace One firmware version	:	1.2.14
Ace Assistant software version	:	2.0.17.72 Beta

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### Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- Modified the control algorithm for Flybarless system, new parameters added and better performance.
- Changed the traditional three control modes **Auto / Attitude / Manual** to four modes **GPS Cruise / GPS Atti. / Atti. / Manual**.
- Optimized engine governor function, new control parameter added.
- BUG fixed for center position recording.
- Improved the Ace Assistant software user interaction.

### What's New ?

- Parameters remote adjusting via transmitter.
- Loader version for main controller is available to display on Ace Assistant software.

**Date** : 2011/04/11  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.1.6  
**Ace Assistant software version** : 2.0.14.69 Beta

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### Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- The maximum climb speed was increased.

**Date** : 2011/03/15  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.1.0  
**Ace Assistant software version** : 2.0.14.69 Beta

## Brand New Autopilot Control Algorithm

### Functions:

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- Gimbal servo working range has been extended from  $\pm 150$  to  $\pm 1000$ .
- Gimbal control parameters changed:
  - ✓ Add new parameters: **Manual Control Speed**.
- Autopilot control algorithm has been changed, base on prunes hovering:

	<i>Auto Mode</i>	<i>Attitude Mode</i>
<b>Command Stick</b>	Flight speed control; Stick center position for 0m/s, its endpoint for maximum speed set by user.	Helicopter attitude control; Stick center position for 0° attitude, its endpoint for 45° which is a fixed limit.
<b>Meaning</b>		
<b>Stick Released</b>	Lock the position if GPS signal well	
<b>Altitude lock</b>	Lock the altitude whatever	
<b>GPS Lost</b>	After 10s when GPS signal lost, system enter <b>Non-GPS ATTITUDE MODE</b> . Only performing attitude stabilizing without position lock.	
<b>Safety</b>	Constant speed	Attitude & speed mixture control ensures the stability
<b>Appropriate Applications</b>	Long and smooth flight route	High agility for complicated area

- Autopilot control parameters changed:
  - ✓ Add new parameters: **Agility, Command Delay**.
  - ✓ Delete parameters: **MAX Accelerate, AVD Ratio**.
- The acceptable R/C receiver frequency has been extended from 100Hz to 200Hz.
- On-line firmware upgrade function has been modified. Upgrade speed is much faster than old version, two servers, one in USA another in CHINA were supported.
- **BUG fixed:** The configuration files import and export function for Ace Assistant software.

### Notices:

Control algorithm has been changed in this version, some parameters changed also.

- You must not use Ace Assistant Ver. earlier than 2.0.14.69 to work with Ace One firmware Ver. 1.1.0.
- You must re-configure your Ace One after firmware upgraded.
- If the firmware version earlier than 1.1.0 connected with Ace Assistant 2.0.14.69, the on-line firmware upgrade will be auto run.

**Date** : 2011/01/25  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.0.26  
**Ace Assistant software version** : 2.0.11.67 beta

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### Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- Improved the performance of Tail Gyro.
- Improved the flight performance during fail-safe return-to-home.

**Date** : 2011/01/14  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.0.22  
**Ace Assistant software version** : 2.0.11.67 beta

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### Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- Camera Gimbal
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- Tail Gyro travel range limit increased.
- Led color changed to blue for Tx signal lost.
- PCM transmitter supported.
- Bug fixed, Boot up error under low temperature.

### What's New?

- Oscillation Filter added for autopilot.
- Fail-Safe Go-Home function enabled.
- Camera Gimbal function enabled.
- System error code can be display on Ace Assistant.
- If SD card error happened, red LED flash for 5 second and came back to normal status.



Date	:	2010/12/14
Release Status	:	Evaluation
Ace One firmware version	:	1.0.9
Ace Assistant software version	:	2.0.8.58 beta

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## Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe      **Disable**
- Return-to-Home Fail-Safe      **Disable**
- Camera Gimbal      **Disable**
- Flight-Log file reading
- Low Voltage Warning      (Fixed MIN limit voltage on 4.4v)

## Changes:

- Bug fixed, Menu tab doesn't work on Page-Tx Calibration
- Changed the graphic indication on Page-Sensor Mounting
- Changed text of buttons on Page-System Check
- Changed value limit on Page-Autopilot: Vertical High Frequency Gain, 1-100
- Bug fixed, configuration file cannot be saved correctly with file name which was consisting ''
- Bug fixed, lost red-text indication for swashplate rotation after parameters modified.

## What's New?

- ABOUT→Version re-named as ABOUT→Info, add more information on this page.
- Add license framework to Ace One,  
S/N is required for Ace One functions activation (you can find them on ABOUT→Info).  
Main controller with firmware 1.0.8 was no longer on-line upgrade supported.

## Notice:

- Main controller with firmware version 1.0.8 cannot be upgrade to version 1.0.9.
- Main controller with firmware version 1.0.8 (or earlier) will be hardware upgrade for customer.
- On-line firmware upgrade will not be available for Ace Assistant software before version 2.0.8.58beta.

**Date** : 2010/12/03  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.0.8  
**Ace Assistant software version** : 2.0.5.54 beta

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### Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe **Disable**
- Return-to-Home Fail-Safe **Disable**
- Camera Gimbal **Disable**
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### BUG Fixed :

- Bug Fixed, using the wrong graphic in Ace Assistant software  
SYSTEM CHECK → Controller output check, Rudder.

**Date** : 2010/12/02  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.0.8  
**Ace Assistant software version** : 2.0.1.53 build

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### Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe **Disable**
- Return-to-Home Fail-Safe **Disable**
- Camera Gimbal **Disable**
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

### Changes:

- Ace Assistant software GUI improved

**Date** : 2010/12/01  
**Release Status** : Evaluation  
**Ace One firmware version** : 1.0.8  
**Ace Assistant software version** : 2.0.1.52 build

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## Functions :

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe **Disable**
- Return-to-Home Fail-Safe **Disable**
- Camera Gimbal **Disable**
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

## Changes:

- Autopilot control parameter re-named: Q → AVD Ratio  
I → IFD Ratio
- Fixed LED bug.
- TOOL-> Firmware upgrade, operation has been simplified.
- TOOL-> Read sd card, Ace Assistant will be close when you click it.
- SYSTEM CHECK → Controller Output Check, speed increased the.
- Bug Fixed, SYSTEM CHECK→Controller Output Check, Reverse button.
- UI changed in page Tx Calibration
- Delete Exit button in Wizard.
- Vertical-IFD Ratio linking with Vertical-Low Frequency gain,  
Vertical-Low Frequency gain: Vertical-IFD Ratio = 20:8
- Reduced the number of Flybarless parameters,

## What's New?

- d the default button in wizard.
- Add, SYSTEM CHECK->Battery Performance Test
- Add, Swashplate graphics indication

## What's coming soon?

- build-in operation guidance

- Autopilot
- Tail Gyro
- Engine Governor
- Flybarless
- Auto Hover Fail-Safe **Disable**
- Return-to-Home Fail-Safe **Disable**
- Flight-Log file reading
- Low Voltage Warning (Fixed MIN limit voltage on 4.4v)

- Main function status display on status bar of Ace Assistant:
 

Autopilot	(PILOT)	:	Manual / Attitude / Auto
Tail Gyro	(GYRO)	:	Rate/Head-Hold & gyro sense in percentage
Engine Governor	(ENG)	:	Direct Output / Speed Control
Flybarless	(FBL)	:	ON / OFF
- <System check> in Ace Assistant instead the <Feedback Test>.
- Autopilot control parameter re-named: Gain → High Gain  
 P → Low Gain
- 4 mounting direction for IMU
- Engine Governor will be force to work on <Direct output mode> if throttle servo working range setting error.
- Reset center position for command input by 3 time fast switch on G channel.

- Battery performance test
- Auto Hover Fail-Safe
- Return-to-Home Fail-Safe
- build-in operation guidance
- Graphics & text indication
- Exit Ace Assistant software automatically after <Flight-log reading> selected.
- Firmware upgrade will be simplified, you don't have to select firmware version.
- Gyro sense pre-set in Ace Assistant