
737-400

MANUAL ADDENDUM

**Flight Simulator 2000 and Flight Simulator 2002
UPDATE**
Installation, Fixes, changes and known issues



This addendum will describe certain fixes and changes made to the 737 for FS2000 and FS2002, and will explain any known issues that may exist for FS2002.

Publication Date: 12-12-01

IMPORTANT WARNING!

IMPORTANT INFORMATION FOR FS2002 USERS!

DO NOT, repeat, DO NOT attempt to move the files for GA737 from FS2000 to FS2002. THIS WILL NOT WORK!

You MUST do a fresh install of either the download or CD-ROM version into FS2002, then install the Update. DO NOT attempt to run GA737 in FS2002 without first installing the Update. Complete installation instructions for installing GA737 and the Update to FS2002 appear on the following pages, and should take only a few minutes to accomplish.

Upon installing GA737 and the Update into FS2002, the 737 will appear in the aircraft menu under the heading of **"Flight One and DreamFleet"**. It will **NOT** appear under "Boeing". This is intentional, and how the developers and publishers wish it to be.

Only the British Midland livery will be initially available for use.

If you wish to use other liveries with the GA737, **you will need to re-create these aircraft again**, using the new version of Text-o-Matic that was installed in your system when you installed GA737 to FS2002.

DO NOT, repeat, DO NOT, attempt to use any of the GA737 aircraft that you used with FS2000 in FS2002. They are history, forget about them; DO NOT move them in to FS2002. They will not show up properly in the aircraft menu, and they will not work properly with the panel. You **WILL have problems with them in FS2002!**

If you have GA737 installed into both FS2000 and FS2002 on your system, be sure you determine which desk top icons for the Load Manager, Text-o-Matic, and the FMC are the ones for the FS2002 version, as these are the versions you will need to use.

You can determine this by right clicking on the icon, and selecting "Properties" from the menu that appears, and seeing the path to the version of Flight Simulator that is indicated.

Now, please proceed through the remainder of this documentation, so you can learn how to install GA737 and the Update to FS2002, or install just the Update to FS2000.

737

SYSTEM PERFORMANCE & GA737

To this date, GA737 still remains the most complex aircraft / panel of its type ever created for Flight Simulator. While some similar products may have features GA737 does not, and vice versa, the fact remains that the overall complexity of GA737 remains at the top. In some areas it is 2 to 3 times more complex than similar products. From graphics, to night lighting, to the complex aircraft model, to the fact that it is mostly an analog cockpit, GA737 will put more of a strain on your system than any other similar product.

With the release of **FS2002**, many users are under the somewhat false impression that products such as GA737 should run faster (frames per second) than they did in FS2000; this is only *partially* correct.

FS2002 is more complex from a scenery standpoint than FS2000. From its textures, to AI aircraft, to "Auto Gen" scenery, all of these features tax your system to a greater degree than FS2000 did. A "medium" scenery density setting in FS2002 is still MORE than a "medium" density setting was in FS2000.

For those with slower computer systems especially, it will still be necessary to keep your scenery density at minimum levels, and this may even require decreasing Auto Gen density, and reducing the number of AI aircraft. Remember, FS2000 had none of these features, and these features do degrade performance.

If you find GA737 running slower in **FS2002** than it did in FS2000, then you will need to reduce your scenery density settings further.

Thank you for purchasing "Greatest Airliners 737-400". The response to this simulation since its initial release in July of 2001 has made it one of the most popular products for Microsoft® Flight Simulator 2000.

Now, with this update, we are making "GA737" compatible with Flight Simulator 2002, while also addressing certain issues that existed previously. Whether you are using FS2000 or FS2002, this update will serve both versions equally.

We strongly suggest that those of you still using FS2000 upgrade to FS2002. Even though FS2002 may have some issues with it at present, it remains a far superior simulator to FS2000.

During the time that GA737 was being sold for FS2000, we heard from many users, and the vast majority was very pleased with the product. However, aside from some valid bugs that were reported to us, we did note the following, based on these communications:

1. Many "bugs" or issues that were reported to us were not bugs at all, but were due to either "pilot error", or the user making the assumption that the 737-400 must operate the same way as a 767 or 747-400; this is not the case. In some instances users were expecting a level of "perfection" that does not even exist in the real aircraft!
2. Certain users were under the impression that we designed GA737 as a training simulation, and expected that every aspect of GA737 must be 100% authentic to the real aircraft. As stated in our original documentation, this is not the case. **GA 737 was designed for entertainment only**, and this design philosophy continues. While we do endeavor to make certain aspects of the simulation faithful to the real aircraft, not all aspects are, and the user should understand this. Those seeking formal 737 initial training or re-currency training should investigate flight schools dedicated to this purpose.

Please take the time to fully read this addendum to our manual, especially the pages dealing with "Known Issues". By doing so, you will become familiar with what has changed, and certain limitations you can expect when using GA737 with FS2002.

Our sincere thanks for purchasing GA737, and with this update we hope you will continue to enjoy GA737 well into the future.

This section will cover installing the Update to FS2000 and installing GA737 *and* the Update to FS2002.

FS2000: Update Installation Only

For detailed Update installation information, you can refer to page 1-6, however for many, these simple instructions should suffice.

Simply double click on the .exe file that you downloaded, and follow the instructions. Be sure that the installer shows the correct patch to your FS2000 installation, if it does not, be sure to make any changes necessary to reflect the correct path to your FS2000 installation. The installer only shows the default installation path to C:\Program Files\Microsoft Games\FS2000. Again, if your path is different (example: You have FS2000 installed on your D drive), be sure to make the necessary changes before attempting to complete the installation.

You will be also asked to select the version of FS that you wish to install the update to, be sure that FS2000 is selected (FS2000 should appear by default in the installer)

After installation, start FS2000 and enjoy the 737!

FS2002: GA737 *and* Update installation

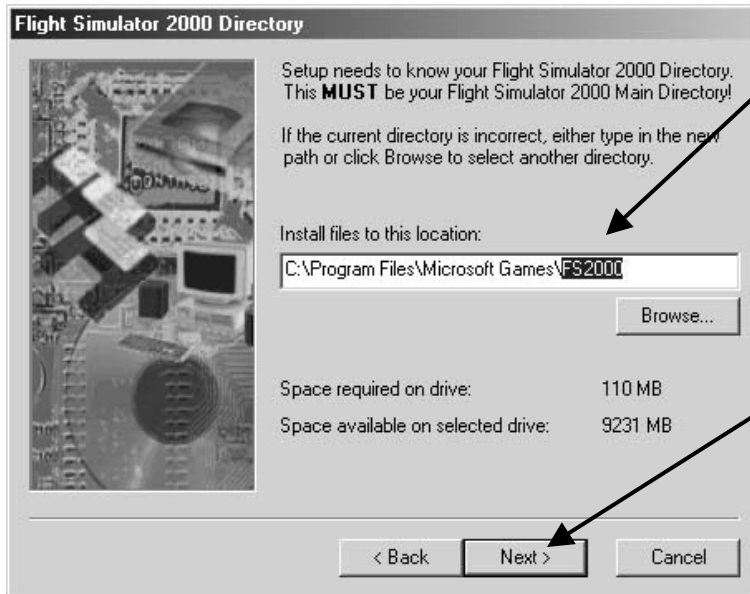
NOTE: DO NOT ATTEMPT TO MANUALLY MOVE THE GA737 FILES FROM FS2000 TO FS2002. YOU MUST FOLLOW THESE INSTRUCTIONS!

We will begin first by installing GA737 to FS2002, via CD-ROM, then installing GA737 via the download version. Finally we will describe installing the Update.

CD-ROM INSTALLATION:

1. Locate your GA737 CD-ROM.
2. Insert the CD, and when the install screen appears, follow the instructions until you reach the point where it asks for the path to Flight Simulator. Here, you will need to make a change, as the installer will default to FS2000!
3. Simply highlight and change the part of the path that says "FS2000" to "FS2002" (see following page for photo). **In addition**, if you use a custom installation path to FS2002 (Example: You have FS2002 installed on your D: drive), then you will also need to change this, or any other part of the path that differs from what is shown.

Continued on next page.



Change this to read FS2002

Also, change any other part of the path, if it differs from where you have FS2002 installed!

Then, click next to proceed with the installation.

Be sure that the path shown in this install window reflects the actual path to FS2002 on your system!

Example: If you have FS2002 installed on your D: drive, in a folder called FS2002, then you should change the path to read: D:\FS2002

4. After changing the path to reflect that to your FS2002 installation, click next, and proceed with the install.

5. After installation of GA737 in FS2002, skip ahead to page 1-6, and the section describing installation of the Update.

NOTE: DO NOT ATTEMPT TO RUN THE 737 IN FS2002 WITHOUT THE UPDATE INSTALLED, IT WILL CRASH! YOU MUST INSTALL THE UPDATE BEFORE ATTEMPTING TO RUN THE 737 IN FS2002.

Continued on Next page.

DOWNLOAD VERSION INSTALLATION:

***** You must be connected to the Internet in order to install the download version! *****

1. Locate the download file for GA737. This is the large .exe file that you downloaded originally, and is named 734download.exe.

2. Locate your key file for GA737. By default, this was originally installed to a folder on your C: drive that is named Flight One Software.

Note: If you have lost the original download file, you will need to download it again.

If you have lost your key file, you will need to write to support@flight1.com in order to obtain a replacement.

3. Double click on the 734download.exe file in order to launch the installer. After launch, and clicking OK on the "Before you Begin" box, you will come to the "purchase screen", which is shown below.

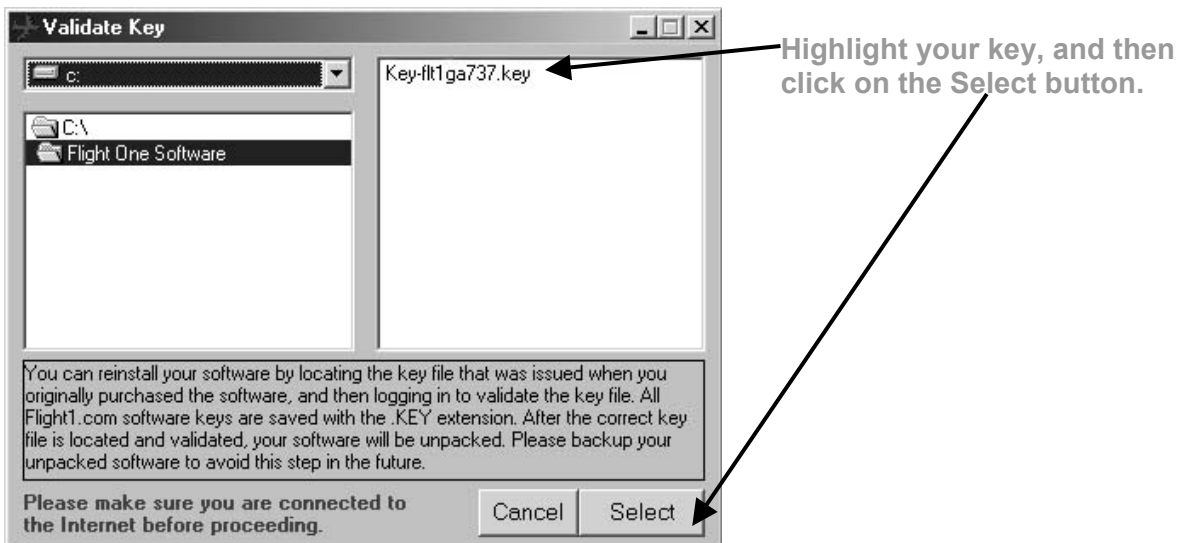
No, you do not need to purchase it again! (Of course, we would not complain if you did!)

4. Note in the lower right corner of the purchase screen is a button labeled "Reinstall". Click on that button.

Click on the Reinstall button, and ignore everything else!

Continued on next page.

5. After clicking on the install button, a browser window will open. It is here that you will browse to and select your key file for GA737. This browser will default to opening in the C:\Flight One Software folder, so, if you left your key there when you originally installed GA737, it should appear immediately. Otherwise, you will need to browse for it.



Once you have located your key file, highlight it with a single left click, then click on the Select button.

6. Click on the "I Agree" button on the window that appears next.

7. A box will then appear that tells you that the installer will log in to the server to verify your key. Click the "OK" button on this box to close it. **Remember: You must be on the Internet in order to have your key verified.**

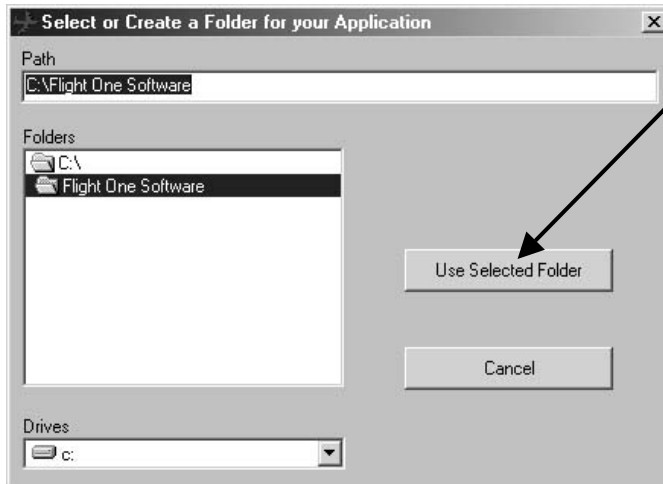
8. After a short while another box will appear, and this should tell you that you have a valid registration key. Click on the "OK" button to close this box.

NOTE: If for some reason you are told that you do NOT have a valid key, you should write to support@flight1.com in order to sort this out.

9. Another box will now appear, indicating that the application will be installed in the C:\Flight One Software folder. Take note of this, and click on the "OK" button.

10. In the next window that appears it is STRONGLY suggested that you simply click on the "Use selected folder" button, and proceed. There is no need to change this path, but you may if you wish.

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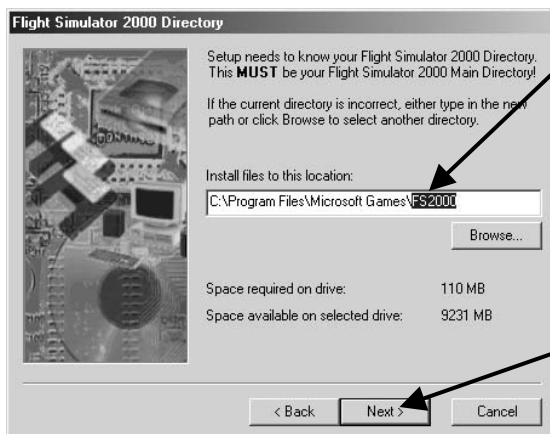
Click here to proceed!

11. After clicking on the Use Selected Folder button, another box will appear. Click the “YES” button on this box.

12. A progress box will appear, and upon completion the installer will launch.

13. Navigate your way through the installation process until you reach the screen where it asks for the location of Flight Simulator, and will show a path to it. Here, you will need to make a change, as the installer will default to the location of FS2000, and you want to install to FS2002!

14. Simply highlight and change the part of the path that says “FS2000” to “FS2002” (see photo below). **In addition**, if you use a custom installation path to FS2002 (Example: You have FS2002 installed on your D: drive), then you will also need to change this, or any other part of the path that differs from what is shown.



Change this to read FS2002

Also, change any other part of the path, if it differs from where you have FS2002 installed!

Then, click next to proceed with the installation.

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Be sure that the path shown in this install window reflects the actual path to FS2002 on your system!

Example: If you have FS2002 installed on your D: drive, in a folder called FS2002, then you should change the path to read: D:\FS2002

15. After changing the path to reflect that to your FS2002 installation, click next, and proceed with the installation.

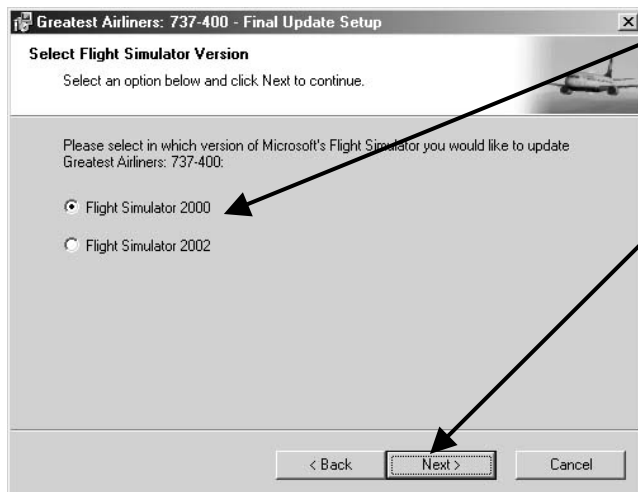
16. After installation of GA737 in FS2002, follow the instructions below for installing the Update.

NOTE: DO NOT ATTEMPT TO RUN THE 737 IN FS2002 WITHOUT THE UPDATE INSTALLED, IT WILL CRASH! YOU MUST INSTALL THE UPDATE BEFORE ATTEMPTING TO RUN THE 737 IN FS2002.

INSTALLING THE FS2000 / FS2002 UPDATE:

If you have arrived here, it means that you have installed GA737 into FS2002, either using CD-ROM or download versions, and now need to install the update, so it will work in FS2002, or you wish more detailed information on installing the update only to FS2000.

1. Double click on the update file that you downloaded.
2. Follow the instructions, and navigate your way through the installer windows that appear, until you see this window:



Select the version of Flight Simulator that you wish to install the Update to, either FS2000 or FS2002. You can only select one.

After selection, click Next.

Continued on next page.

3. Once you have selected the version of Flight Simulator to which you wish to install the update, click on Next, and proceed through the rest of the Update installation.

The Update will also install the latest (December 2001) AIRAC database to the FMC. Because of this, the installation may take some time, depending upon the speed of your machine.

4. Upon completion of the Update installation, you are cleared for takeoff with GA737 in FS2000 or FS2002, but please, first read the remainder of this documentation, so you know what to expect, especially where FS2002 is concerned.

IMPORTANT INFORMATION FOR FS2002 USERS!

Upon installing GA737 and the Update into FS2002, the 737 will appear in the aircraft menu under the heading of “**Flight One and DreamFleet**”. It will **NOT** appear under “Boeing”. This is intentional, and how the developers and publishers wish it to be.

Only the British Midland livery will be initially available for use.

If you wish to use other liveries with the GA737, **you will need to re-create these aircraft again**, using the new version of Text-o-Matic that was installed in your system when you installed GA737 to FS2002.

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If you have GA737 installed into both FS2000 and FS2002 on your system, be sure you determine which desktop icons for the Load Manager, Text-o-Matic, and the FMC are the ones for the FS2002 version, as these are the ones you will need to use.

You can determine this by right clicking on the icon, and selecting “Properties” from the menu that appears, and seeing the path to the version of Flight Simulator that is indicated.

Now, please continue to read the remainder of this documentation, so you will know what to expect, especially where FS2002 is concerned.

FS2002: KNOWN ISSUES & NOTES

Being the newest version of Microsoft® Flight Simulator, and having been recently released, **FS2002 still contains some “bugs” or issues with it.** It is not possible for the developers of Greatest Airlines 737-400 to fix these bugs for Microsoft, and while we have had to enact certain “work arounds” for some issues that surfaced, in order to provide for compatibility with FS2002, we cannot solve all the problems that may exist with FS2002, and leave these to Microsoft to address when they provide an update / patch for FS2002. **Otherwise, we wish to pay our sincere compliments to the Microsoft team for doing an outstanding job with FS2002, it is without a doubt the BEST version of FS yet!**

You will note the following when using the GA737 in FS2002:

1. When selecting the aircraft and viewing it in the **preview window**, the fan blades on the aircraft engines will not appear. This, of course, is a very minor issue, and the aircraft can still be clearly seen and identified for selection purposes. **The fan blades WILL appear when the aircraft is running in FS2002.** This problem is occurring to many 3rd party aircraft.
2. **Moving Thrust reversers** on the aircraft model, which worked in FS2000, will not work in FS2002, and you will not see the thrust reversers deploy when in spot view. However, **reverse thrust is still available, and operates as it should.**
3. The **push back** feature in FS2002 will only allow for a straight pushback with the GA737, you will not be able to turn the aircraft during the pushback. Simply push back as required, and then turn the aircraft manually once the push back is completed. This, of course, would be done using engine thrust and nose wheel steering.
4. While visible from the outside (spot view), **landing lights** will *not* be visible from inside the cockpit.
5. There are no “**reflections**” or turning wheels provided for the aircraft model, as to do so would not only require us to create a new aircraft model, but would also make obsolete the nearly 200 free airline livery textures created by users of the 737!
6. There is **no virtual cockpit** provided for the aircraft model, and you will continue to use the 2D cockpit as you did previously. Several default FS2002 aircraft do not have these virtual cockpits either. This is not an “issue”, but there are those who may assume that because an aircraft is for FS2002, that it must have a virtual cockpit; this is an inaccurate assumption.
7. Using the “**pan view up**” function on your joystick’s hat switch or your keyboard will not allow you to access the **landing view panel**. You will need to use the “look up” keyboard command, or the VCP to access the landing view.

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FS2002 KNOWN ISSUES & NOTES

8. **Glide slope tracking and VOR tracking** in FS2002 is currently not as good as it could be, and you will see this with the GA737 also. **This is especially an issue with glide slope tracking.** This is an FS2002 bug that we have no control over, and this glide slope behavior can also be seen with numerous other aircraft, including the default ones. We hope that Microsoft will fix this in an upcoming patch.
9. You will note that unlike FS2000, the **Overhead panel** will NOT cover over certain other panel windows (AFAS, Gear, Throttles) if these windows are also open at the same time. This is also an FS2002 issue that we could find no work -around for.
10. Microsoft has changed the way certain things are “drawn” to the screen in FS2002, and this has an effect on certain gauges. The **windshield wiper** gauge is affected by this, and will not appear to move properly. In addition, use of the wiper may have an adverse effect on frame rates. It is suggested that you do not use the wiper. If you feel that even having the wiper visible is causing a performance decrease, you can remove it via a simple modification to the panel configuration file. Simply open up the file in notepad, and you will see instructions for how to do this. Unlike the FMC (see below) there was nothing we could do about this issue.
11. While the **FMC is now multi-monitor compatible**, Microsoft made a change in the way things are drawn to the screen in FS2002 (see #10 above), and this caused serious problems with several programs, such as our FMC, that “parent” themselves to FS2002. Users of “Squawk Box” will know this issue well. While it required quite an effort, we were finally able to overcome this issue. However, you will note that at times the FMC may take a second or two to “re-draw” itself after you move it, and there may be other, minor re-sizing issues from time to time. Ultimately much of this will depend on the speed of your machine, type of video card, etc. Not anything serious at all, but we thought we should advise you of this.
12. Not an issue, but a fact that due to changes made to the FMC with this update, **previously saved flight plans no longer work**. You will need to recreate these flight plans again.

IMPORTANT!

In this section we will describe the various fixes and changes made to the 737, and it is absolutely necessary that you read the entire section to see what was accomplished.

This section was compiled directly from the programmer's notes.

The changes and fixes described here apply to both FS2000 and FS2002 versions of the 737, EXCEPT on page 3-10 you will see a listing of changes made *ONLY* to the FS2002 version of the 737, as FS2002 allows for some additional features.

We strongly suggest that if you are continuing to use FS2000 that you upgrade to FS2002, as it is a superior simulator in many, many ways!

FS2000 and FS2002**Main Panel:**

1. (Also throttle quadrant) TOGA modes (with/without F/D) now disengage when auto throttle is disarmed. TO/GA cannot now be armed when auto throttle is off.
2. Tuned navaid course digit brightness now responds to the EHSI brightness control, not the EADI brightness control.
3. Default brightness of white elements increased on EADI and EHSI.
4. EHSI lateral deviation bar, glideslope pointer and altitude range arc movement is now smoother.
5. FMA static separator (vertical) line length slightly shortened.
6. With Flight Director (F/D) on, disengagement of autopilot (A/P) will now result in A/P disengagement only - all active modes will remain on in F/D mode (In FS2000 only SPEED mode will also disconnect). Subsequent disengagement of F/D will then disengage all active modes. This is in accordance with real 737-400 operations.
7. If command pitch and/or roll modes are first engaged in F/D only (i.e., without A/P), subsequent disengagement of F/D will NOT result in disengagement of active pitch/roll mode(s). If the A/P is subsequently engaged with the F/D on, the logic in item 6 above overrides this.
8. EHSI magenta track line now draws a more accurate great circle route.
9. Variable bank angle hold feature now implemented. Bank angle selector knob re-colored for improved visibility. Below 200kts IAS, max bank angle is limited to 15 degrees in HDG SEL mode.
10. EADI and ASI speed bugs now work correctly in all modes. In SPEED mode with mach as the selected display, it may be necessary to press the CO (changeover) button twice to refresh the speed bugs. ***This is applicable to FS2002 only.***
11. EHSI vertical deviation pointer (displayed during VNAV descent) now scales correctly in all screen modes/resolutions.
12. During a F/D take-off, when either A/P is engaged or when the speed selector is rotated, 20 knots IAS is added automatically to the MCP IAS/MACH display. ***It is important to set V2 in the MCP IAS/MACH display before take-off, as per real world operation.***

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13. Start Valve Open lamps now illuminate only when engine starter switches are placed in GRND position.

14. EHSI flight plan drawing modified to present clearer representation of track from runway extension point to runway threshold.

15. V/S mode can now be engaged without A/P or A/T engagement, allowing F/D only flying.

16. (Also Overhead Panel): Instrument electrical logic updated. Instruments and lights are now correctly powered with ac, dc or standby power. If landing with only standby power active, be sure to position the standby switch on the overhead electrical panel from 'auto' to 'bat' before touchdown. The 737 is equipped with a ground sensor that prevents accidental battery drain by de-energizing the standby electrical circuits when the standby power switch is in 'auto' and the aircraft is not airborne.

17. ***A/P can no longer be engaged on the ground!*** It will also disengage automatically on touchdown. It can be engaged at or above 400ft radio altitude and once engaged will remain engaged below 400ft until manual disengagement or touchdown.

18. Gear lever logic updated. With respect to the 'off' position, gear lever can't be moved directly to off position from down position, lever can be moved from up to off and from off to up. No repeat of sounds being played if lever is already in clicked/selected position. From off position, lever will now move down when gear is lowered via keyboard.

Gear / Flap Panel:

17. Autobrake can now be disengaged by 4 methods:

- a) After throttles levers have been retarded to idle on touchdown, increasing throttle lever position to approx 30% position;
- b) Manually positioning the autobrake knob to off;
- c) After speed brake deployment on touchdown, manually closing the speedbrakes;
- d) Activating brakes using the period key (.) or any other key assignment. Note: Flight Simulator must be restarted if the brakes key is reassigned for this function to register.

18. GEAR LEVER PANEL: Gear and flap callouts are now synchronized with the callouts switch on the overhead panel.

Center Console Panel:

19. CENTER CONSOLE PANEL: EFIS button 'ON' lamps now illuminate at night without panel lighting.

20. GPWS callouts can be deactivated by clicking on the "INOP" annunciator light, at the upper left part of the unit, thus simulating a failure of the GPWS, and preventing all GPWS verbal call outs from being played.

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Overhead Panel (and GPWS + misc. items):

21. Callouts switch on mode panel now operating. When green light is off, gear and flap announcements will not play. GPWS announcements can be shut off as described under the changes to the center console.

22. Function to detect situation resets and/or crashes:

The function to detect situation resets and crashes works by checking for sudden and large changes of the aircraft position (latitude, longitude, altitude). Unfortunately FS2000/FS2002 doesn't seem to offer any method to detect if slew mode is active or not, so it might cause this gauge to detect a crash or situation reset and execute the aircraft start-up routine again. What actually happens, depends on the selected start-up mode.

Please note: While this function makes your life easier after crashes and situation resets, it also will reset the panel after repositioning the aircraft, for example, when you change runways.

23. Rework of the standby power system:

The standby power system now resembles the behaviour of the real thing. This means that you won't get standby power when it's set to AUTO while the aircraft is on the ground and only power from the battery is available. There are only two annunciator lights that will work in this situation: "Ground Power available" and "APU Generator off bus".

24. DC volts, DC amps, AC volts, AC frequency meters fixed.

These have been fixed and should act like the ones on the real aircraft. This also includes behaviour during APU start-up.

25. Switch positions after loading the panel:

Engine hydraulics and engine bleed switches are now on, pack switches are off when you enter the cockpit in OFF mode. We obtained this information from one of our 737 pilots. That's the way the overhead looks when he enters the cockpit before the first flight in the morning.

26. Emergency exit lights not armed annunciator fixed. Now, the light is on when the Emergency exit lights are OFF or ON

27. OFF annunciator lights for equipment cooling added

28. Flight control low pressure lights fixed

29. Door annunciator lights extinguish when anti-collision light is switched on.
This was done at the request of one of our real 737 pilots.

30. Mix valve behaviour fixed.

Continued on next page.

31. Dual bleed annunciator light fixed.

This is now “on” as soon as a dual bleed (= APU bleed + engine #1 bleed) *COULD* happen. This is a warning annunciator, not one that displays the actual condition.

32. Yaw damper connect to battery switch fixed. Yaw damper switch is now independent from the battery status.

33. FUEL, AICE and CTRLS master cautions fixed.

The fuel caution light doesn't flicker anymore. The anti-ice caution light now also works when the pitot heat is switched by keyboard (Shift + H). The same fix has been made to the flight controls caution light

34. Generators off after loading aircraft in TAXI mode fixed.

Sometimes the generators didn't connect when the aircraft was loaded in TAXI mode.

35. All amber lights in flight controls panel cause FLT CONT master caution

In the previous version only the switched off yaw damper caused this caution light

36. Rework of the engine start logic.

There's no need to switch on the fuel pumps before engine start (bleed air rotates the fans and, as a side effect, the engine-driven fuel pumps (not the electrical ones) get fuel from the wing tanks in the engine)

37. Rework of the bleed air logic.

The duct pressure indicator doesn't ignore the packs anymore. There have been a lot of minor improvements to this system.

38. Some lighting issues with the nose wheel steering system and the engine instruments have been fixed.

39. GPWS double-callouts have been fixed.

40. GPWS “glideslope” warning is now less sensitive during final approach.

41. GPWS toggle on/off - now ON when loading the 734 for the first time.

For those pilots who want to use S-COMBO or similar programs, we added a GPWS inhibit function. You can actually de-/activate the GPWS by clicking on the “INOP” annunciator light on the GPWS panel on the center console.

On some systems the GPWS would be inhibited by default because the needed registry key couldn't be created. This has been fixed by automatically adding the registry keys during set-up.

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Flight Management Computer Update Fixes

Flight Management Computer Final Update Fixes for *Greatest Airlines: The 737-400*

The following is a list for all fixes to the Flight Management Computer and FMC Autopilot flying functions in the Final Update. This list includes fixes from the initial patch for *Greatest Airlines: The 737-400* as the final update is the ONLY patch needed for the product.

- **FLIGHT MANAGEMENT COMPUTER FIXES**

- Full Microsoft Flight Simulator 2002 support available as well as full FS2000 support. FMC works the same on both platforms.
- All times in the FMC will no longer be higher than 2359. Check code eliminates the problem of times reported as 2515, 2434, etc
- Route Discontinuities can now be cleared using the appropriate select/insert method described in the FMC Manual. Route Discos will no longer “hang” in the FMC and be unable to be cleared.
- Save and Resume FULL Flight feature has been removed from the FMC. This feature is not supported in FS2002 and for congruity it was removed from FS2000 support as well.
- POS INIT prompt on the ROUTE page was non-functioning after the CLEAR ROUTE prompt had been selected. The POS INIT prompt now works when route is cleared.
- The Top-of-Climb Temperature can now be entered in both Fahrenheit and Celsius on the PERF INIT page. Previously only Fahrenheit could be entered.
- All displays of Wind in the FMC are fixed to display proper magnetic heading and speed in knots in both FS2000 and FS2002
- Keyboard input has been fixed for proper “capture” of the keystrokes from the user. Scroll Lock must be on for the FMC to accept keystrokes.
- International Keyboard support is better in its implementation.
- Dashed lines on the LEGS page that occasionally overwrote text have been cleaned up to write only to edge of text, not behind or over the text.
- Speed / Altitude restriction text on the FMC overwrote itself, the font problems has been cleaned up to fix this.
- Pausing FS2000 or FS2002 for greater than 2 hours no longer causes runtime error in the FMC.

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- Standard Instrument Departures and Standard Terminal Arrivals can be viewed with the SID/STAR viewer.
- AIRAC monthly update databases are now the base navigational data.
- Runtime Errors eliminated from FMC

- **FMC AUTOPILOT FUNCTION FIXES**

- When leveling off shortly after takeoff, target airspeed now calculated properly.
- MCP entered altitude restrictions are now followed.
- Depending on currently engaged mode, the throttles will move slower when under VNAV, Level Change, or TOGA control. This eliminates the majority of over speed problems.
- Pitch command in VNAV, Level Change, V/S, and Alt Modes significantly smoother and more precise.
- Autopilot (CMD A) not required to be engaged in FS2002 for throttles to function properly when in Level Change, VNAV, or TOGA modes.
- Pitch Trim input by the pilot is now captured and checked to ensure smaller trim adjustments. This greatly enhances ability to hand fly aircraft at level attitudes.
- All V/S and Alt Holding Modes removed from the FS autopilot and handled internally.
- Thrust Mode Annunciations now calculated full time, no longer leaving behind incorrect values in the TMA section on the engine gauges.
- Wing rocking due to continual heading change requests in LNAV now scalable to allow damping of LNAV changes.
- All level off code is now scalable in the FMC configuration file to allow pilot to adjust for their system speed/performance.
- LNAV now follows flight path better, and predicts turn points earlier based on airspeed.
- VNAV no longer “gets lost” as to the mode it should be in. Better VNAV performance overall.

(Fix List Complete)

	DIR TO / INTC TO	PURPOSE AND USE
PAGE ACCESS	DIR/INTC Mode Key	<ul style="list-style-type: none"> Provides method for selecting waypoint to fly directly to or intercept to via LNAV. Direct To flies present position to waypoint course line. Intercept To flies present position to intercept point for inbound to waypoint.

ACT RTE LEGS 1 / 2

HDG	Distance	Altitude
045°	8.1 NM	250 / 7497
VXV		
178°	39.6 NM	306 / FL200
SABIN		
177°	55.3 NM	306 / FL200
MACEY		
225°	16.3 NM	306 / FL200
WOMAC		
224°	11.4 NM	299 / 17621
LOGEN		
DIRECT TO INTC LEG		
□□□□□ TO □□□□□		

- DIRECT TO LINE**
 - Used to enter the waypoint identifier for the “go-to” waypoint.
 - Allows flight from the present aircraft position to the entered waypoint.
 - Entry may be via the keyboard or selection of an existing down path waypoint.
- INTERCEPT TO LINE**
 - Used to enter the waypoint identifier of the “intercept leg to” waypoint.
 - Allows interception of any leg to the specified waypoint.
 - Entry may be via the keyboard or selection of an existing down path waypoint.

- INTERCEPT POINT**
 - Point being flown towards to intercept the inbound course for the following waypoint.
 - Calculated by the FMC.
 - Heading and distance are dynamic based on aircraft position.

MOD RTE LEGS 1 / 2

HDG	Distance	Altitude
047°	7.7 NM	250 / 9611
INTC		
177°	39.0 NM	306 / FL200
SABIN		
177°	55.3 NM	306 / FL200
MACEY		
225°	16.3 NM	306 / FL200
WOMAC		
224°	11.4 NM	299 / 17621
LOGEN		
..... INTC CRS		
< ERASE 178 >		

- INTERCEPT COURSE LINE**
 - Intercept course to fly inbound to intercept the selected intercept waypoint.
 - If selected intercept point is an existing flight plan course this value will be the original flight plan course
 - Intercept course will be direct course for non-flight plan waypoints.
 - Entry via the keyboard
- ERASE PROMPT**
 - Used to Erase DIR/INTC changes before they are executed.

Flight Management Computer Additions for *Greatest Airlines: The 737-400*

The following is a list for all additions to the Flight Management Computer and FMC Autopilot functions in the Final Update. This list includes additions from the initial patch for Greatest Airlines: The 737-400 as the final update is the ONLY patch needed for the product.

- **FLIGHT MANAGEMENT COMPUTER**

- Speed Restrictions can now be entered on the LEGS page. Be sure to use the appropriate slash rule when entering speed and altitude restrictions.
- Mach number displayed for altitudes above 26000 feet. Mach can be entered for a speed restriction.
- Speed restrictions cannot be changed for Cruise Waypoints. Speed for these waypoints must be changed via the CRZ Page.
- Speeds must fall within the limits defined on the PERF LIMITS Page.
- Base 250/1000 restriction can now be changed on the CLB and DES Pages. Be sure to use the correct slash rule when entering a new value. Example to change the restriction of 250 knots to 6000 feet would be 250/6000.
- Settings Page entry for Altitude Acquire Values. Select prompt to cycle values

- **FMC AUTOPILOT FUNCTIONS**

- Altitude Acquiring is now pilot controllable via the FMC configuration file or the FMC Settings Page
- Altitude Acquire can be set to 3 basic modes or individual values can be changed for “tweaking” for the acquire mode. Please see comments in the FMC configuration file for information concerning each value

(Addition List Complete)

737 FIXES & CHANGES

Utility programs Final Update Fixes for *Greatest Airlines: The 737-400*

The following is a list for all fixes to the Load Manager and Text-o-Matic in the Final Update. This list includes fixes from the initial patch for Greatest Airlines: The 737-400 as the final update is the ONLY patch needed for the product.

- **Load Manager**

- Passenger count included on the load screen
- Use of font size other than “small fonts” on the users system no longer creates odd display problems.

- **Text-o-Matic***

- **FS2002 Version Only** – Asian Windows systems no longer have problem assigning new textures
- **FS2002 Version Only** - Option to delete an aircraft added.
- **FS2002 Version Only** – Aircraft can have a call sign assigned for use in the FS2002 ATC system.
- **Both Versions** - Use of font size other than “small fonts” on the users system no longer creates odd display problems.

*WARNING!

As previously stated, FS2000 GA737 aircraft CANNOT be used in FS2002. You must re-create these aircraft again, using the FS2002 version of Text-o-Matic.

If you attempt to use FS2000 GA737 aircraft in FS2002, you will suffer serious problems.

Miscellaneous Changes:

1. Eye points adjusted in various panel views, including cockpit left, cockpit right, both wing views, cabin seat view, and landing view.

FS2002 ONLY

In addition to all the previous changes / fixes described, these are additional changes you will see if you are using the 737 in FS2002.

1. **CENTER CONSOLE PANEL:** Com 2 radio added. Operates identically to Com1.
2. **CENTER CONSOLE PANEL:** Audio selector panel upgraded to allow Com 1, Com 2 or both com 1 and com 2 selections to be made using the VHF1 (com 1), VHF2 (com 2) and VHF3 (both) receiver buttons. This is for ATC compatibility. SO THERE IS NO MISUNDERSTANDING: IN ORDER TO ACTIVATE THE "BOTH" FUNCTION ON THE ASP, YOU NEED TO SELECT "VHF3". We did not re-label this switch, as to do so would decrease the realism of the ASP.
3. **CENTER CONSOLE PANEL:** Marker button on Audio selector panel now toggles inner, middle and outer marker audio.
4. **MAIN PANEL:** MCP modified to allow SPEED mode selection independent of A/P engagement.
5. **THROTTLE/MAIN PANEL:** Throttles will automatically retard to idle at approx 27ft radio altitude during a single or dual A/P approach.
6. **AIRCRAFT:** FS2002 position lights, strobes, etc. added to the aircraft.
7. **AIRCRAFT:** Smoke system added. Press the "I" key to make your CFM-powered 737 look like a JT-3 powered 707 in flight! This was added at the request of a beta tester, and we included it, as you can toggle the feature on/off.
8. **TEXT-O-MATIC:** Asian Windows systems no longer have problem assigning new textures
9. **TEXT-O-MATIC:** Option to delete an aircraft added.
10. **TEXT-O-MATIC:** Aircraft can have a call sign assigned for use in the FS2002 ATC system.

If you are using the 737 in FS2002, be certain that you consult section 2 of this manual for KNOWN ISSUES.

TCAS IS ONLY AVAILABLE IN FS2002, AS THERE IS NO AI AIR TRAFFIC IN FS2000.

As a last minute “gift”, we decided to include TCAS in the 737. This TCAS is to be considered a preliminary version, may not be 100% accurate to what is found on a real 737, and will most likely undergo revisions in the future. There are no verbal callouts associated with our TCAS system at present, and its operation is explained below:

TCAS Operation

1.0) General

The TCAS provides conflict detection and displays intruders on the EHSI in MAP and CTR MAP modes in ranges 40nm or lower. It does not issue verbal commands to avert a conflict

1.1) Modes

Mode selection is via the altitude-reporting toggle switch on the transponder (upper left corner of unit) or the hidden click spot on the EHSI, which is located in line with the upper right corner of the VCP, and is just above the click spot for EHSI range decrease.

The TCAS has 3 modes:

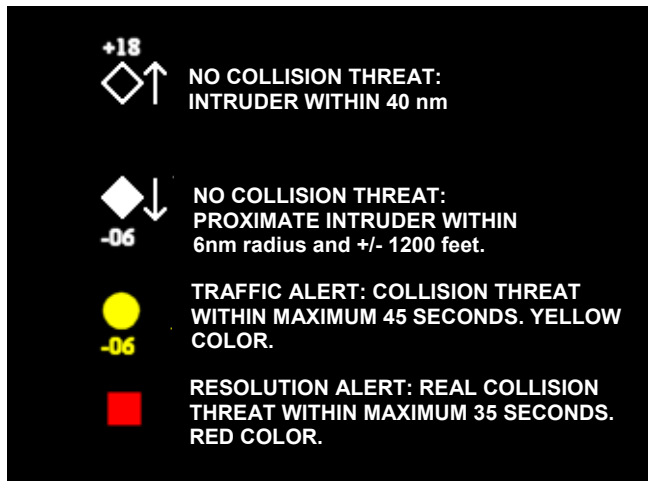
- 1) **OFF** - TCAS is disabled. This is the center position for the Transponder switch.
- 2) **RA/TA** - reports both resolution advisories (RA) and traffic alerts (TA). This is switch position “1” on the Transponder.
- 3) **TA** - reports traffic alerts only. All RAs are converted to TA. This is switch position “2” on the Transponder.

In modes 2 and 3, proximate and other intruders are always reported. Mode status is displayed in green on the EHSI.

Continued on next page.

1.2) Symbolology

The symbology is industry standard. Four basic symbols depict the type of intruder:



Intruder vertical direction is indicated by an arrow to the right of the symbol when vertical speed is $\geq +500\text{ft/min}$ or $\leq -500\text{ft/min}$. An 'up' arrow means the intruder is climbing, a 'down' arrow means the intruder is descending.

Relative altitude is displayed above or below the symbol in hundreds of feet to a maximum of 9,900ft (± 99). When the intruder is above own present position, relative altitude is displayed above the symbol, prefixed with a plus (+) sign. When the intruder is below own present position, relative altitude is displayed below the symbol, prefixed with a minus (-) sign. When relative altitude $< 100\text{ft}$, relative altitude is not displayed.

Any symbol type can display a vertical direction arrow and a relative altitude.

1.3) Collision Threat Detection

A complex algorithm computes predicted aircraft trajectories and predicted closest points of approach in four dimensions for all aircraft within a 6nm range. Minimum separations are $\pm 1200\text{ft}$ vertical and 1nm lateral. Predictions at or within these minimums will generate TA and RA alerts. RA and TA alerts will also be generated for intruders beyond these minimums, depending on relative trajectories - the algorithm is specifically designed to predict threat of collision in addition to simply displaying the relative proximity of intruders.

RA and TA alerts are altitude dependent. At higher altitudes and lower relative altitudes there is more likelihood of a RA.

A "Reduce Range" message is displayed on the EHSI if a collision threat is detected when the selected EHSI map range is not 40nm or less. The message color corresponds to the type of alert (RA or TA) generated. This message is not displayed if TCAS mode is OFF.

1.4) TCAS coverage: TCAS is limited to a 40nm radius and $\pm 9900\text{ft}$ relative altitude.

737 TECHNICAL SUPPORT

For technical support you have two choices:

1. E-mail the publisher, Flight One Software at support@flight1.com

This e-mail address is for technical support questions only. It is not for questions concerning operation of the 737.

Do not e-mail any of the development team directly with support questions of any kind, as these e-mails will not be answered.

2. Visit the developer's technical support forum at:

<http://www.flightsimnetwork.com/cgi/dcforum/dcboard.cgi?az=list&forum=DCForumID3&conf=DCConfID1>

This forum is also linked from the main page of the developer's web site at:

<http://www.dreamfleet2000.com>

It can also be accessed from the Main Menu at:

<http://www.flightsim.com>.

Please note: You will need to register to post messages at this forum. This forum is a private, moderated and strictly monitored message board, and is for technical support questions only. Posts made at this forum that are deemed inappropriate by the moderators will be removed.