



-FS2Crew: iFly 737NG “Voice Commander” Edition-

MAIN OPERATIONS MANUAL

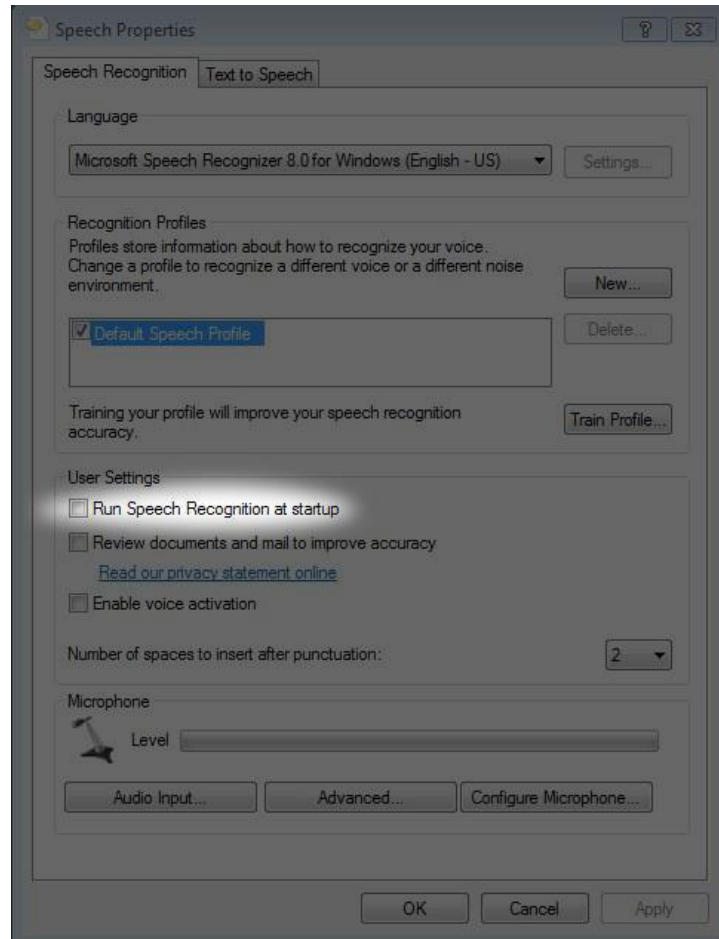
-ALWAYS CHECK THE FS2CREW SUPPORT FORUM AT AVSIM.COM FOR THE LATEST FS2CREW NEWS AND UPDATES!!!-

VERY IMPORTANT!!!!

Vista/Win 7, 8 and 10 users: The **Windows Speech Recognition** system must be **OFF/UNCHECKED** prior to loading FS2Crew or you **WILL** experience problems!

Make sure "RUN SPEECH RECOGNITION AT STARTUP" IS UNCHECKED

Again: **WINDOWS SPEECH RECOGNITION MUST BE OFF PRIOR TO STARTING FS2CREW!**



SUPPORT:

The FS2Crew team works hard to provide its international user base with the friendliest and prompt support in the business.

Please address all support issues on the [FS2Crew Support Forum](#) located at the Avsim website.

You will need to register your free Avsim membership in order to post on this support forum.

Please allow up to 24 hours for a response allowing for international time zone differences.

If you experience difficulties with the forum, please contact FS2Crew support via the Contact form on the [FS2Crew website](#). If you do not receive a response within 24 hours, please check your email's Spam folder.

TROUBLESHOOTING:



Important: When loading Flight Simulator for the first time with FS2Crew iFly 737NG Edition installed, be sure to run Flight Simulator in 'Windowed' mode.

This enables the Audio Engine to display any error messages should you encounter any problems which otherwise would not be displayed under Full Screen Mode.

Please post any error messages to the FS2Crew Forum or email FS2Crew Support. Most issues can be solved by simply installing (or re-installing) the latest version of DirectX which ensures your audio and video drivers are up-to-date.

Also be sure to send FS2Crew Support a copy of your **Cockpit Voice Recorder** to assist us in troubleshooting.

The CVR log, which you can open with Notepad, is available in the following directories:-

C:\Users\<---USER NAME--->\AppData\Roaming\Fly737\Versions\IFLY737\CVR

Note that 'AppData' is a "hidden folder", so you won't be able to see it initially. Just type\AppData\ after your user name in your Address Bar. If using XP, look for the same folder in "Documents and Settings -> User".

FREQUENTLY ASKED QUESTIONS:

Situation: After loading the 737 (in windowed mode), I get an error message related to a missing DLL.

Solution:

Run the FS2Crew installer again. Do NOT click “CANCEL”. Wait for the installer to finish even though it may take a long time.

Situation: My frame rates dropped significantly after loading the 737.

Solution:

Ensure “Language” in the Windows Speech Recognition tab is set to ‘**English – US**’.

Situation: The ‘VOICE’ button on the Main Panel does not stay on.

Solution:

Ensure “Language” in the Windows Speech Recognition tab is set to ‘**English – US**’ (not English – UK or English – SA or English - AU). If using XP, ensure the SAPI speech engine is installed.

Situation: The Flight Crew volume is hard to hear.

Solution:

Using a Headset is HIGHLY recommended (make sure you select ‘HS’ on the FS2Crew Main Panel so you can route the First Officers (FO’s) audio through the headset).

If you do not own a headset and do not wish to buy one, try turning down the Engine sound volume slider via the MSFS sound controls menu, under ‘Settings’. Also set the FS2Crew volume to Max on the FS2Crew Configuration panel.

Situation: When I click the gauge used to open the FS2Crew Main Panel, nothing happens.

Solution:

Open the panel.cfg files for the iFly 737 with notepad. Do you see FS2Crew window and gauge entries on it? If not, it means FS2Crew did not install properly and in all likelihood you have a very common registry problem. Please run the Registry Repair Tool available in the FS2Crew 2010 Configuration Manager and re-install FS2Crew.

Situation: The speech recognition system is not detecting my voice very well.

Solution:

Be sure to run a “Voice Training Session” via the Windows Speech Recognition panel prior to using FS2Crew for the first time. Also we recommend that you use a good quality USB microphone, and when speaking, try to enunciate clearly with an American sounding accent.

Situation: The Speech Recognition system seems too “sensitive” and it appears to be picking up either engine noise or other background sounds.

Solution:

Go to your ‘Windows Speech Recognition’ settings panel and check that your microphone sensitivity has not been reset to full. Only do this AFTER the FS2Crew Main Panel has been loaded. This is especially important for XP users to note.

TIPS FOR USING VOICE CONTROL:

Voice control is not always 100 percent accurate. While speech recognition technology has improved substantially over time, computers are still not as good as the human ear. And even the human ear can make mistakes.

During development, FS2Crew used Windows 7. We found the accuracy of voice recognition to be extremely good. We recommend all users consider upgrading to the English version of Windows 7 (or Windows 7 Ultimate) for non-English users.

Here are some tips to help improve speech recognition accuracy:

- ✓ *Run the Voice Training Profile in the Microsoft Speech Recognition properties.*
- ✓ *Speak clearly and distinctly.*
- ✓ *Use a USB headset.*
- ✓ *Try to reduce ambient background noise.*



If you forget the required checklist response, just say “**NEXT**” or “**CHECKED**” to move to the next checklist item!

THE WAY FS2CREW HANDLES VOICE RECOGNITION:

To improve the end-user’s experience as well as to ensure minimum voice command “false positives”, FS2Crew has taken the following steps.

(By “false positive” we mean an unintended voice command, such as “gear down”, being detected by the voice recognition system and implemented, even when the user didn’t intentionally say “gear down”).

Firstly, FS2Crew has linked many voice commands to selected conditions to reduce the likelihood of a false positive from undermining your in-game simulation experience. For example, the “gear up” command will only work under selected circumstances. Should the speech recognition system accidentally *hear* “gear up”, our system helps prevent an unintentional “gear up” command from being *implemented* by your FO, for example, when you’re doing the pre-flight events or when you’re taxiing.

Note: Autopilot commands will only work while airborne.

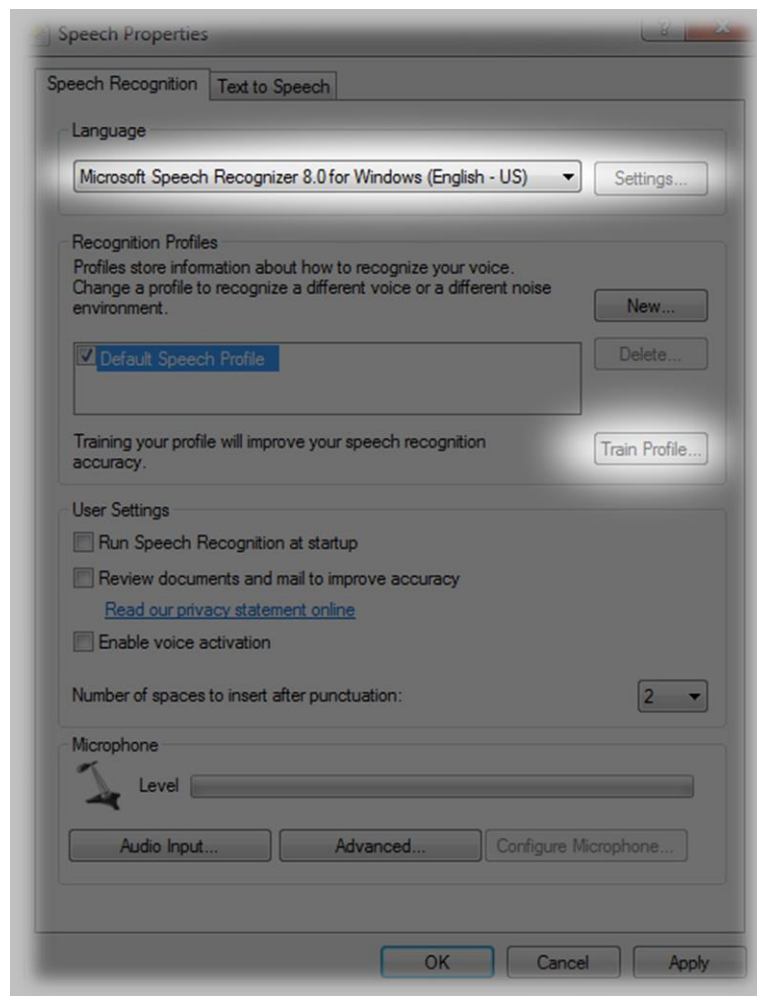
TUTORIAL FLIGHT

STEP 1 (Speech Recognition Engine Setup):

Vista / Windows 7 / 8 and 10 Users:

1. Your Speech Recognizer must be set to **ENGLISH – US**, not English – UK or any other language.

Your **Window Control Panel -> Speech Properties -> Speech Recognition** panel should look like this:



2. **DO NOT FORGET TO RUN THE VOICE TRAINING!!!**
3. **If using Windows 10, you can add ENGLISH – US by following these steps:**

1. Go to Settings > Time & language > Region & language.
2. Select Add a language.
3. Select the language you want to use from the list (ENGLISH)
4. Choose which region's version you want to use (ENGLISH - US)
5. Then you must click 'options' and then click 'download' under the 'speech' category.
6. Go to the speech recognition settings page in the Control panel.
7. English - US should now be visible in the Language drop down menu.

XP Users:

1. XP users may or may not have the required SAPI engine installed on their computer. To check if you already have SAPI voice recognition software on your computer, open the 'Windows Control Panel' and click the 'Speech' icon if it's there. If you can see a 'Speech Recognition' tab, then SAPI is already installed on your computer.

If you're an XP owner, you can download and install SAPI via the following link:

<http://download.microsoft.com/download/B/4/3/B4314928-7B71-4336-9DE7-6FA4CF00B7B3/SpeechSDK51.exe>

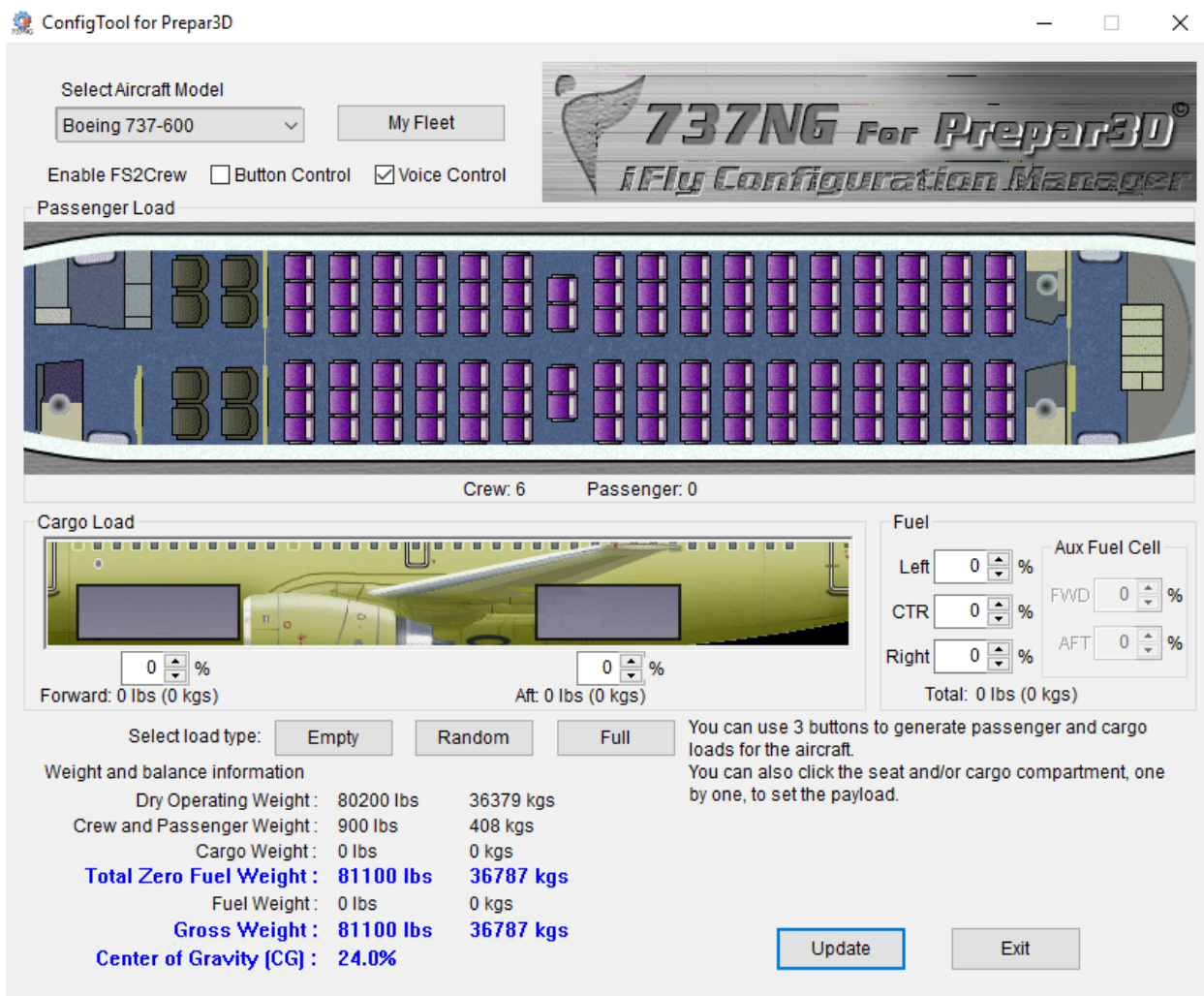
2. Your Speech Properties panel in XP should look like the following picture:



3. DO NOT FORGET TO TRAIN YOUR VOICE PROFILE!

STEP 1 (Adding FS2Crew to the iFly Panel.cfg):

1. Unlike with other versions of FS2Crew, there is no requirement for the 'FS2Crew Configuration Manger' for the iFly version, for the simple reason that it is not necessary!
2. To add or remove FS2Crew for the iFly 737, simply 'check' (or 'uncheck') the button on the iFly Config Manager that says 'Enable FS2Crew' and then press 'Update'. Make sure your run the Config Manager with Admin rights or it may not be able to add FS2Crew to your iFly's panel.cfg.



MAKE SURE YOU RUN THE IFLY CONFIG MANAGER AS AN "ADMIN" OR THE PANEL.CFG MAY NOT UPDATE. RIGHT CLICK THE IFLY CONFIG MANAGER AND CLICK 'RUN AS ADMIN'!!!! ALSO, ADD "WEIGHT" TO EACH MODEL OR THE AIRCRAFT MAY SPIN AROUND WHEN YOU LOAD IT!!

STEP 2 (Getting setup for Flight):

1. Printout this manual if you have not already done so! This document is a must in order to not only understand this programme but also to get the maximum enjoyment out of this software as quickly as possible!
2. Load P3D.
3. Load the iFLY 737NG and select your desired airport and gate/ramp location.
4. To avoid any problems at start up, try not using 'saved situation files' and NEVER load the 737 from a 'Tower', 'Spot' or another aircraft's 'Virtual cockpit'.

STEP 3 (Opening the Main Panel via a Clickspot):

1. To open the FS2Crew Main Panel, left click in the center area of the Standby Attitude Indicator in either the VC or 2D cockpit as shown below:



STEP 4 (Opening the Main Panel via a Key Assignment):

1. OPTIONAL: If you want to toggle open and close the FS2Crew Main Panel using a joystick button or keyboard press, you can do so by creating the following assignment. In the **CONTROLS – ASSIGNMENTS MENU**, assign any desired joystick button and/or keyboard button to:

P3D: “AUTOFEATHER (ARM/OFF)”

Options - Key Assignments

Controller: Logitech Extreme 3D Show: Name

Flight Mode: Normal Event Category: All Events Search...

EVENT	ASSIGNMENT	REPEAT	ON RELEASE
Autobrake (decrease)			<input type="checkbox"/>
Autobrake (increase)			<input type="checkbox"/>
Autofeather (arm/off)	N		<input type="checkbox"/>
Autopilot (decrease max bank)			<input type="checkbox"/>
Autopilot (increase max bank)			<input type="checkbox"/>
Autopilot (select NAV radio)			<input type="checkbox"/>
Autopilot airspeed hold (on/off)	Ctrl + R		<input type="checkbox"/>
Autopilot altitude hold (on/off)	Ctrl + Z		<input type="checkbox"/>
Autopilot approach mode (on/off)	Ctrl + A		<input type="checkbox"/>
Autopilot attitude hold (on/off)	Ctrl + T		<input type="checkbox"/>
Autopilot back course mode (on/off)	Ctrl + B		<input type="checkbox"/>
Autopilot heading bug (decrement)			<input type="checkbox"/>
Autopilot heading bug (increment)			<input type="checkbox"/>
Autopilot heading hold (on/off)	Ctrl + H		<input type="checkbox"/>
Autopilot localizer hold (on/off)	Ctrl + O		<input type="checkbox"/>
Autopilot Mach hold (on/off)	Ctrl + M		<input type="checkbox"/>
Autopilot master (on/off)	Z		<input type="checkbox"/>
Autopilot N1 hold (on/off)			<input type="checkbox"/>

Export... Import... Reset Defaults New... Delete... Change...

Cancel OK

STEP 5 (The FS2Crew Main Panel):



1. Let's examine some of the buttons and features on the Main Panel:

Main Display/ Display Mode:	Active Checklist/Action Mode.
T+	Appears on the Main Display when the Pre-Flight event counter is running. Left click directly on the number to fast forward the time down to engine start.
Up/Down Arrows:	Cycles Checklist/Action Mode forwards and backwards. Note: Modes will normally automatically auto-cycle to the next selection for you.
Voice:	Toggles voice recognition 'on' and 'off'. Generally, you should never need to turn it 'off'. However, if the autopilot values "run-away" after asking the First Officer 'FO' to set the autopilot, you can toggle the voice engine OFF and ON to break this cycle.
DSP:	Toggles green bar on/off which displays what the speech engine hears through your microphone.
HM:	Toggles "Hard Mute" on/off. If Hard Mute is on, the FO will not act on any input detected by the speech recognition engine.

HS:	Routes most First Officer audio through your headset. Ensure the audio device associated with your USB headset is selected in the Headset display in the Configuration panel. First Officer audio that is not routed through the headset includes situations in which the FO would not be wearing his headset during the pre-flight events.
BR:	Press to open the Briefing Panel.
FA:	Press to call the Flight Attendant 'FA' (or press the FA call button on the overhead panel).
CFG:	Opens FS2Crew Configuration Panel.
LK:	Click to LOCK the Main and CFG Panels (to force them to remain open even when FS automatically attempts to close them when you change views). Note that when the panels are “Locked”, an ‘=’ symbol will appear in the lower left hand section of the main display area.
LT:	Toggles night lighting on/off.
VOL:	Use the left/right mouse button to adjust the volume of the FO.
CAB:	Use the left/right mouse button to adjust the volume of the FA Cabin Announcements.
RIGHT SCREW:	Left click to the close the Main Panel.

2. If the FS2Crew Main Panel does not open, please check your iFly 737's panel.cfg file to ensure it has the FS2Crew window and gauge entries included on it.

STEP 6 (SOFT AND HARD MUTING):

SOFT MUTE (VOICE CONTROL)

- Used when you only want to employ Mute *temporarily*, such as when communicating with on-line ATC.
- Works on a "Push-to-Hold" basis.
- If using on-line ATC, you would assign 'Soft Mute' to the same key used for your ATC 'Push-to-Talk (PTT) switch'.
- An "M" symbol will appear in the left hand side of the FS2Crew Main Panel display area when operating.
- To create a Soft Mute key assignment in addition to the default LEFT and RIGHT CONTROL KEY, create a joystick or keyboard button assignment for '**PROPELLER SYNC (ON/OFF)**' in the **P3D 'OPTIONS – KEY ASSIGNMENTS'** menu.
- If using a joystick button, you must set the **REPEAT SLIDER TO FULL RIGHT!**

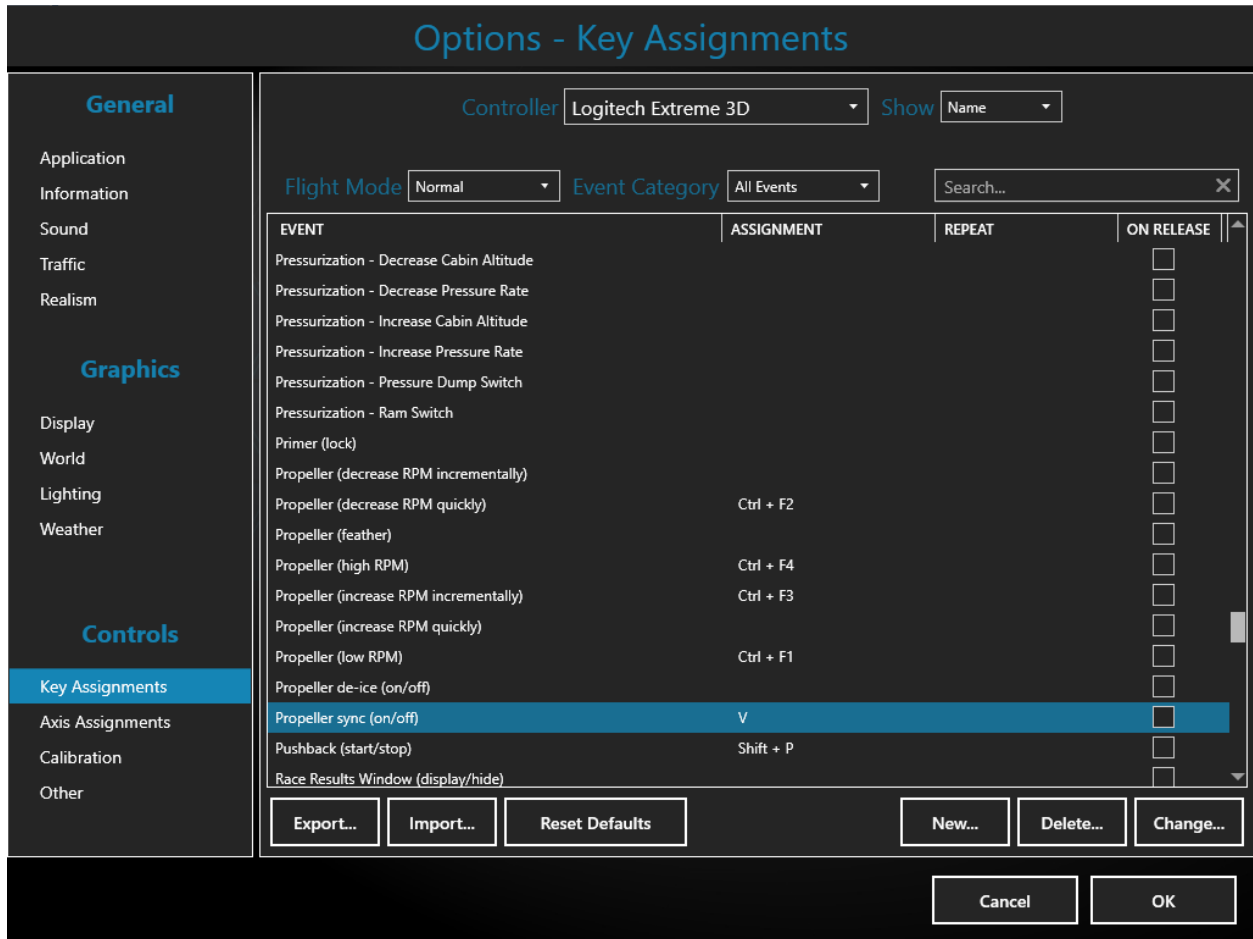
FOR NON-ENGLISH USERS:

GERMAN: PROPELLERSYNC (EIN/AUS)

FRENCH: SYNCHRO DE L'HELICE (ACTIVER/DESACTIVER)

ITALIAN: SINCRONIZZAZIONE ELICA

SPANISH: SINCRONIZACION DE LAS HELICES



HARD MUTE: Left click the LK button on the Main Panel to toggle on/off the permanent (Hard) mute function.

An “M” symbol will appear in the top left hand corner of the main display area when mute is functioning. If “Hard Mute” is active, the “M+” symbol will appear and it will flash.

A good time to use Hard Mute is when you are in cruise and you **are not required** to make any speech commands.



Special Note:

You can assign a joystick button or key press to toggle HARD MUTE by assigning any button to: **ALTERNATE STATIC SOURCE ON OFF** in the P3D Controls Assignments Menu.

FLASHING DOT: A flashing dot in the upper left hand corner indicates that FS2Crew is in “Descent” mode. Being in “Descent Mode” is a necessary condition for many of the approach and landing events to work.

STEP 7 (Understanding the Config Panel):



To open the Config Panel, press the '**CFG**' button on the FS2Crew Main Panel.

AUDIO SETUP:

HEADSET: If using a headset, the audio device associated with that headset must be selected and displayed here.

CREW REGION: Select the available Crew Accent voice set/region.

PRE-FLIGHT:

TIME: Time remaining to Departure/Engine Start. To 'Pause' the timer, hit the FS 'Pause' button ('P') on your keyboard.

PWR SRC: Power Source to be used during at the Departure and Arrival Gate (APU or External Power and Air). The FO will bring the selected power source on line automatically during his initial setup routine.

Note: If using External Power, you are responsible for manually starting the APU if required for engine start. You are also responsible for disconnecting external power.

RUN PF: Starts the Pre-Flight Events.

Note: Running the Pre-Flight Events is OPTIONAL. You do not need to run it for every flight.

Note: To Fast Forward the time down, left click the Time Remaining value (T + XX) displayed in the Secondary Display Panel on the Main Panel. Click directly on the number itself.

AES: If using AES, select 'Yes'. If 'Yes' selected, FS2Crew will not control either the doors or the air bridge.

DOORS: If you want FS2Crew to control the outer doors, select 'Yes'.

GATE DEP: If departing from a Gate, select 'Yes', otherwise select 'No.' If 'No' is selected, FS2Crew will automatically deploy the air stairs.

GATE ARR: If arriving at a Gate, select 'Yes', otherwise select 'No.' If 'No' is select, FS2Crew will automatically deploy the air stairs.

START-CREW:

PB REQ: Pushback Required (Yes or No).

DIST: Pushback Distance (feet or meters).

TAIL: Left, Right or Straight.

ANGLE: Final Pushback Tail Angle in degrees.

STEP 8 (Interfacing with the Simulation):

1. Print out the Voice Commands, Crew Flows and Checklists from the **attached** Appendixes.
2. The Crew Flows are the heart of the simulation. Once you understand the flows, everything else will fall into place. For most users the ability to understand and start enjoying the benefits and realism of an FS2Crew programme will only take a few short flights at which point it becomes an integral component of your chosen aircraft add-on.

APPENDIX A: REJECTED TAKEOFFS

To initiate a Rejected Takeoff, speak: "**ABORT ABORT**".

Apply maximum 'reverse thrust' and maximum 'braking'.

FS2Crew will change to *ROLL-OUT* mode.

When you exit the runway, you have two options:

1. If you are returning to the gate, speak: "**OKAY TO CLEAN UP**".

The FO will then perform his normal After Landing flow and you can return the gate as per a normal after landing/arrival sequence.

Or:

2. If you want to taxi back for takeoff, speak: "**LETS TAXI BACK TO THE RUNWAY**".

You will then need to run the Before Takeoff Checklist again.

APPENDIX B: GO AROUND PROCEDURES

To initiate a go around, press the TOGA button and make the following commands:

“GOING AROUND”

“FLAPS 15” or as required.

Pitch the nose up to about 15 degrees.

The FO will call *“POSITIVE RATE”*.

After the FO has called *“Positive Rate”* make the following commands:

“GEAR UP”

400 feet above the runway:

“SELECT HEADING SELECT” or **“SELECT LNAV”**

Call for Flap retraction the same way as you would during a regular climb out, and call for the **“AFTER TAKEOFF CHECKLIST”** after the aircraft is in a clean configuration.

Continue to the alternate airport or shoot the approach again. If shooting the approach again, cycle the Mode to *“LANDING”* before calling for Flap Extensions, Landing Gear and commencing the 'Landing Checklist'.

Note: For the “GO AROUND” call to take effect in the simulation, the FS2Crew Display Mode on the Main Panel must display: **LANDING.**

APPENDIX C: SPEECH COMMANDS, CALLS AND DIALOGUES

ALL NUMBERS, AS INDICATED BY 'XXX' MUST BE READ BACK USING THE FOLLOWING SYNTAX AS AN EXAMPLE:

- * ONE ZERO ZERO
- * ONE THOUSAND TWO HUNDRED
- * TWO ONE FIVE
- * ONE ZERO EIGHT POINT FIVE ZERO

Checklist General Management:

- NEXT
- CHECKED
- START AGAIN
- LET'S START AGAIN
- RESTART THE CHECKLIST
- LET'S RESTART THE CHECKLIST
- LET'S RESTART THE CHECKLIST FROM THE BEGINNING
- REPEAT LAST
- SAY LAST

Misc Commands & Announcements:

- LEAVE THE FLAPS UP FOR TAXI
- PREPARE FOR DE-ICE
- RUNWAY ENTRY PROCEDURE
- TAKEOFF
- ABORT ABORT
- GEAR UP
- GEAR DOWN
- OKAY TO CLEAN UP

Briefings:

- ARE YOU READY FOR THE DEPARTURE BRIEF?
- ARE YOU READY FOR THE APPROACH BRIEF?
- ANY QUESTIONS?

Engine Start:

- START ENGINE 2
- START ENGINE 1
- START ENGINE 2 CROSS BLEED START

Radios:

- SET COURSE ON MY SIDE XXX
- SET COURSE ON YOUR SIDE XXX
- SET XXX POINT XX ON NAV 1
- SET XXX POINT XX ON NAV 2
- SET XXX POINT XX ON COMM 1
- SET XXX POINT XX ON COMM 2

Misc:

- FUEL CROSS FEED VALVE CHECK

- SELECT GROUND PROXIMITY FLAP INHIBIT SWITCH TO NORMAL
- SELECT GROUND PROXIMITY FLAP INHIBIT SWITCH TO INHIBIT
- SELECT GROUND PROXIMITY GEAR INHIBIT SWITCH TO NORMAL
- SELECT GROUND PROXIMITY GEAR INHIBIT SWITCH TO INHIBIT
- SELECT GROUND PROXIMITY TERRAIN INHIBIT SWITCH TO NORMAL
- SELECT GROUND PROXIMITY TERRAIN INHIBIT SWITCH TO INHIBIT

FMC

- SET CLIMB THRUST
- SET GO AROUND THRUST
- SET MAXIMUM CONTINUOUS THRUST
- SET CRUISE THRUST
- DELETE THE SPEED RESTRICTIONS

De-Ice Coordinator:

- COCKPIT TO DE-ICE COORDINATOR
- ZULU TIME
- DE-ICE COORDINATE WE ARE READY FOR DE-ICING
- THANK YOU FOR YOUR HELP

Start Crew – Pushback Required

- COCKPIT TO GROUND
- GROUND FROM COCKPIT
- WE ARE READY FOR PUSHBACK
- WE ARE READY FOR PUSHBACK AND ENGINE START
- WE ARE READY FOR AN EXTERNAL AIR ENGINE START
- YOU CAN DISCONNECT THE EXTERNAL AIR AND GPU NOW
- BRAKES RELEASED
- BRAKES SET
- YOU ARE CLEARED TO DISCONNECT AND GO TO HAND SIGNALS

Start Crew – Pushback ‘NOT’ Required

- COCKPIT TO GROUND
- GROUND FROM COCKPIT
- WE ARE READY FOR ENGINE START
- WE ARE READY FOR AN EXTERNAL AIR ENGINE START
- YOU ARE CLEARED TO DISCONNECT AND GO TO HAND SIGNALS

MCP:

- SET FLIGHT LEVEL XXX
- SET ALTITUDE XXXX
- SET SPEED XXX
- SET HEADING XXX
- SET VERTICAL SPEED UP XXXX
- SET VERTICAL SPEED DOWN XXXX
- CANCEL LAST COMMAND *(USED TO STOP THE FO FROM TWISTING THE SPEED, ALT, HEADING OR COURSE KNOBS ON THE MCP. TYPICALLY USED IN AN AUTOPILOT VALUE ‘RUNAWAY’ SITUATION)*

- SET FLAPS UP SPEED
- SET FLAPS 1 SPEED
- SET FLAPS 2 SPEED
- SET FLAPS 5 SPEED
- SET FLAPS 15 SPEED
- SET FLAPS 25 SPEED
- SET FLAPS 30 SPEED
- SET FLAPS 40 SPEED
- SET VREF PLUS XX

- SELECT BANK SELECTOR 10
- SELECT BANK SELECTOR 15
- SELECT BANK SELECTOR 20
- SELECT BANK SELECTOR 25
- SELECT BANK SELECTOR 30

- SELECT FLIGHT DIRECTOR ON
- SELECT FLIGHT DIRECTOR OFF
- SELECT SPEED INTERVENE
- SELECT ALTITUDE INTERVENE
- SELECT N1
- SELECT AUTO THROTTLE OFF / ON
- SELECT AUTOPILOT OFF
- SELECT LNAV
- SELECT VNAV
- SELECT HEADING SELECT
- SELECT LEVEL CHANGE
- SELECT VERTICAL SPEED
- SELECT COMMAND A
- SELECT COMMAND B
- SELECT ALT HOLD (SELECT ALTITUDE HOLD)
- SELECT CONTROL WHEEL STEERING A
- SELECT CONTROL WHEEL STEERING B
- ARM LOCALIZER
- ARM APPROACH
- CLIMB THRUST

- **SPEED INTERVENE** (*USED TO ANNOUNCE WHEN MANUALLY PRESSING SPEED INTERVENE*)
- **ALTITUDE INTERVENE** (*USED TO ANNOUNCE WHEN MANUALLY PRESSING ALTITUDE INTERVENE*)

OVERHEAD:

- SELECT TAXI LIGHT OFF
- SELECT TAXI LIGHT ON

- SELECT SEATBELTS ON
- SELECT SEATBELTS OFF
- SELECT SEATBELTS AUTO

- SELECT WING ANTI ICE ON
- SELECT WING ANTI ICE OFF

- SELECT ENGINE ANTI ICE ON
- SELECT ENGINE ANTI ICE OFF
- SELECT PACKS HIGH
- SELECT PACK AUTO
- SELECT PACKS OFF

- SELECT ENGINE BLEED ONE ON
- SELECT ENGINE BLEED ONE OFF
- SELECT ENGINE BLEED TWO ON
- SELECT ENGINE BLEED TWO OFF
- SELECT ENGINE BLEEDS OFF
- SELECT ENGINE BLEEDS ON

- SELECT APU BLEED ON
- SELECT APU BLEED OFF

- SELECT LEFT WIPER TO PARK
- SELECT LEFT WIPER TO INTERMITTENT
- SELECT LEFT WIPER TO LOW
- SELECT LEFT WIPER TO HIGH

- SELECT WIPERS ON
- SELECT WIPERS OFF

- SELECT RIGHT WIPER TO PARK
- SELECT RIGHT WIPER TO INTERMITTENT
- SELECT RIGHT WIPER TO LOW
- SELECT RIGHT WIPER TO HIGH

- SELECT IGNITION SELECTOR TO LEFT
- SELECT IGNITION SELECTOR TO RIGHT
- SELECT IGNITION SELECTOR TO BOTH

- SELECT ENGINE ONE START SWITCH TO GROUND
- SELECT ENGINE ONE START SWITCH TO FLIGHT
- SELECT ENGINE ONE START SWITCH TO CONTINUOUS
- SELECT ENGINE ONE START SWITCH TO AUTO
- SELECT ENGINE ONE START SWITCH TO OFF

- SELECT ENGINE TWO START SWITCH TO GROUND
- SELECT ENGINE TWO START SWITCH TO FLIGHT
- SELECT ENGINE TWO START SWITCH TO CONTINUOUS

- SELECT ENGINE TWO START SWITCH TO AUTO
- SELECT ENGINE TWO START SWITCH TO OFF

- SELECT BOTH START SWITCHES TO GROUND
- SELECT BOTH START SWITCHES TO FLIGHT
- SELECT BOTH START SWITCHES TO CONTINUOUS
- SELECT BOTH START SWITCHES TO AUTO
- SELECT BOTH START SWITCHES TO OFF

- SHUTDOWN ENGINE NUMBER ONE
- SHUTDOWN ENGINE NUMBER TWO

- START THE APU
- APU ON THE BUS
- TURN OFF THE APU

FLAPS:

- FLAPS UP
- FLAPS 1
- FLAPS 5
- FLAPS 10
- FLAPS 20
- FLAPS 25
- FLAPS 30

APPROACH CALLS:

- SELECT RAW DATA ON YOUR SIDE

PRE-FLIGHT EVENTS DIALOG:

When asked if ready to start the boarding:

- YES

When accepting the Loadsheet from the Gate Agent:

- THANK YOU

When the FA tells you the cabin is ready for Pushback:

- THANK YOU

GATE ARRIVAL DIALOG:

When the FA contacts the cockpit (you'll hear a chime).

- YES

When Engineer contacts you:

- GO AHEAD

APPENDIX D: FLIGHT ATTENDANT CONVERSATIONS

Press the FA button on the FS2Crew Main Panel to call the FA and initiate a conversation.

- ONE COFFEE PLEASE
- ONE TEA PLEASE
- A COFFEE AND A TEA PLEASE
- ONE JUICE PLEASE
- ONE WATER PLEASE
- SOME LUNCH PLEASE
- SOME DINNER PLEASE
- SOME BREAKFAST PLEASE

To inform the FA of an event (such as go-around, etc), use your own words, BUT you must end your conversation with one of the following phrases.

- I WILL KEEP YOU UPDATED
- I WILL KEEP YOU IN THE LOOP
- I WILL KEEP YOU INFORMED



You MUST pause a second before saying one of the preceding phrases so the speech recognition engine can properly detect it.

APPENDIX E: NOISE ABATEMENT DEPARTURE PROFILES (NADP)

The following two profiles may be used during the initial climb sequence. These profiles were formally known as ICAO 'A' and 'B' respectively.

NADP 1:

- From runway to 1500 AGL:

- *Takeoff Power & Takeoff Flaps
- *Climb at $V_2 + 10$ to 20 Knots

- At 1500 feet AGL:

- *Reduce to Climb Thrust & continue climbing at $V_2 + 10$ to 20 Knots

- At 3000 feet AGL:

- *Accelerate to Flaps Up Speed
- *Retract Flaps/Slats on Schedule

NADP 2:

- From runway to 1000 AGL:

- *Takeoff Power & Takeoff Flaps
- *Climb at $V_2 + 10$ to 20 Knots

- At 1000 feet AGL:

- *Accelerate to Flaps Up speed
- *Retract Flaps/Slats on Schedule
- *When flaps up, maintain Flaps Up speed + 10 knots maximum

- At 3000 feet AGL:

- *Accelerate to en-route climb speed

APPENDIX F: USING EXTERNAL POWER/AIR

If External Power/Air has been selected as the power source for pre-flight, FS2Crew will automatically connect External Power and Air after you start the Pre Flight Events sequence.

Note: If want to use the APU for engine start, you will need to manually start the APU prior to Engine start and turn on the APU Bleed before commencing the engine start sequence. You will also need to confirm on the FS2Crew Config Panel that the Ground Power/Air option has automatically updated to 'APU' (the APU bleed switch is the trigger for this to occur. Time remaining to engine start must also be less than 25 minutes). If it remains on EXT, the FS2Crew FO will think you're still using External Power/Air and perform his actions accordingly.

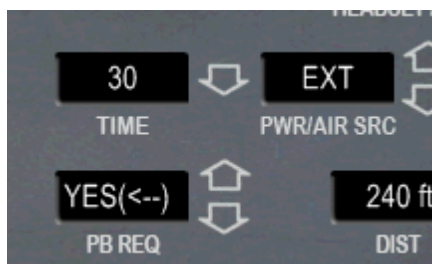
Note: Due to the way the iFly 737NG works, the parking brake must be set in order for ground power to connect or stay connected. Be mindful of this during shutdown when the engineer gives you the okay to release the parking brakes.

*Note: When using External Power/Air for engine start, you **start** the left engine (Engine #1 first).*

Note: When using External Power/Air for start with Pushback required, you have two options:

Option #1: Start Both Engines at the Gate Prior to Pushback:

- i) In the 'PB REQ' box select the ← option.



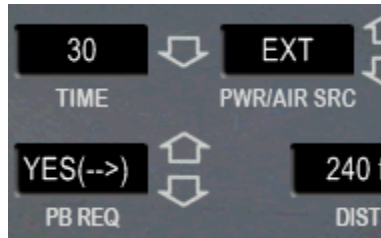
- ii) The ← indicates that you will start both engines prior to pushback.
iii) Speak: "**WE ARE READY FOR AN EXTERNAL AIR ENGINE START**".
iv) Instruct the FO to start number #1. Speak: "**START ENGINE ONE**".
v) After starting engine #1 (the left engine), manually connect the left engine generator to the bus and switch the Ground Power Switch on the overhead to 'off'. (refer picture on following page)



- vi) Next, instruct the ground crew to disconnect external air and the GPU. Speak: **“YOU CAN DISCONNECT THE EXTERNAL AIR AND GPU NOW”**.
Be sure to do this AFTER you have connected Engine Generator 1 to the bus or you will lose power.
- vii) The ground crew will clear you to Start #2 when he informs you that the external air and power have been removed.
- viii) To start #2, speak: **“START ENGINE TWO CROSS BLEED START”**.
- ix) Next, after both engines have started, call for pushback. Speak: **“WE ARE READY FOR PUSHBACK”**.
- x) Complete a normal pushback *sequence*.

Option #2: Start Left Engine at Gate and Right Engine at end of Pushback:

- i) In the 'PB REQ' box select the → option.



- ii) The → indicates that you will start the left engine prior to pushback and the right engine at the end of the pushback.
- iii) Speak: **“WE ARE READY FOR AN EXTERNAL AIR ENGINE START”**.
- iv) Instruct the FO to start number #1. Speak: **“START ENGINE ONE”**.
- v) After starting engine #1 (the left engine), manually connect the left engine generator to the bus and switch the Ground Power Switch on the overhead to 'off'. (refer picture on following page)



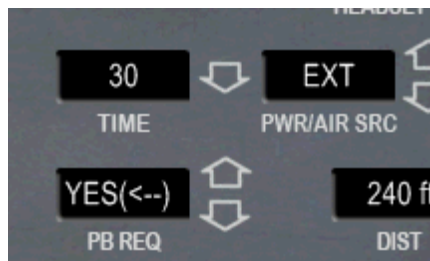
- vi) Next, instruct the ground crew to disconnect external air and the GPU. Speak: **“YOU CAN DISCONNECT THE EXTERNAL AIR AND GPU NOW”**.
Be sure to do this **AFTER** you have connected Engine Generator 1 to the bus or you will lose power.
- vii) Next, call for pushback. Speak: **“WE ARE READY FOR PUSHBACK”**.
- viii) Start Engine 2 when cleared by the ground crew. The ground crew will clear you to start Engine 2 near the end of the pushback sequence.

Using the GPU at the ARRIVAL Gate:

Many airports do not want you use to the APU. In those cases, you need to connect the GPU at the arrival gate.

To do that, please do the following:

- i) Prior to landing, select EXT in the PWR/AIR SRC box.



- ii) During his after landing flow, the FO will NOT turn on the APU.
- iii) When you arrive at the gate, shutdown only Engine #2 (the right engine).
- iv) Next speak: **“COCKPIT TO GROUND”**. The engineer will reply.
- v) Next speak: **“PLEASE CONNECT THE GPU AND EXTERNAL AIR NOW”**.
- vi) The engineer will then connect the GPU and External Air. The engineer will then clear you to shut down Engine #1 (the left engine).
- vii) After both engines have been shutdown, the FO will commence his shutdown flow.

APPENDIX G: THRU FLIGHT PROCEDURES

FS2Crew models thru-flight procedures. You do not need to reload the aircraft to fly additional legs or sectors.

To make a thru flight, simply cycle the *Left Display* forward using the down arrow button to return to the 'Pre-Flight Checklist'.

Do this after completing the 'Shutdown' checklist.

Do *NOT* run the 'Secure' aircraft checklist as you would only do this if it was the last flight of the day and you were handing the aircraft over to engineering.

Next, start the 'Pre-Flight Events' if desired, and follow the same procedures used during the 1st leg.

Note that the FO will not perform all the same actions during his pre-flight setup flow as many of the items are only done on the first flight of the day only.

APPENDIX H: DE-ICING PROCEDURES

FS2Crew for the iFly-737 models de-icing procedures.

Notes:

You should radio the de-icing coordinator at least 15 minutes prior to engine start.

To initiate the conversation, speak:

“COCKPIT TO DE-ICE COORDINATOR”

You will then tell the De-Ice Coordinator what your requirements are for de-icing and your estimated departure time in 'Zulu' time.

The trigger speech phrase to close the conversation is **“ZULU TIME”**.

Just prior to de-icing and if you want to de-ice at the gate prior to engine start, command the FO to prepare for de-icing by speaking:

“PREPARE FOR DE-ICE”.

Note that if you are de-icing at a remote pad, you would speak **“PREPARE FOR DE-ICE”** just prior to the start of de-icing procedures.

The FO will then perform his de-ice prep flow: APU Bleed Off and Engine Bleeds Off. As Captain, you are responsible for setting the stab trim full nose down. The FO will leave the APU running if it is already on. If you wish to have the APU off during de-icing, you must manually shut-it down, however, ensure the ground power is connected or you will lose power. If you're at a remote pad, leave the engines running. Make sure Wing Anti-Ice is 'off'.

After the FO has completed his de-icing flow, speak: **“DE-ICE COORDINATOR WE ARE READY FOR DE-ICING”** to tell the De-Ice coordinator that you're ready to start the de-icing.

The de-icing team will then de-ice the aircraft. This procedure takes approximately 3 minutes.



When de-icing is complete, the De-Ice Coordinator will radio you, and provide you with his employee number, the start and end time, etc.

Speak **“THANK YOU FOR YOUR HELP”** to disconnect the De-Ice Coordinator; that phrase is also the trigger for the FO to configure the aircraft after the de-icing.

Note that the FO will wait one before before turning the bleeds back on to prevent de-icing fumes from being ingested into the aircraft. Please be patient during this period.

APPENDIX I: COLD WEATHER PROCEDURES

FS2Crew for the iFly-737 models cold weather procedures. If the route to the runway is heavily contaminated, you may wish to use cold weather procedures. This entails taxiing to the runway with the flaps up, and then selecting the takeoff flaps just prior to running the 'Before Takeoff Checklist'.

SPEECH COMMAND NOTES FOR COLD WEATHER PROCEDURES:

1. Where you would usually call for the takeoff flaps prior to calling for the 'Before Taxi Checklist', speak **"LEAVE THE FLAPS UP"**. This will trigger the FO to start his 'Before Taxi flow', but he'll leave the flaps up for the taxi (after doing a flap movement check).
2. You will need to call for the Takeoff Flaps right before calling for the 'Before Takeoff' Checklist' by speaking **"FLAPS 1"**, **"FLAPS 5"**, etc.

To enable cold weather procedures, select **"CONTAM – CLD PROC (Y)"** in the departure brief. Note that 'Y' stands for 'Yes'. If you select 'N' for 'No', the FO will not use cold weather procedures.



If you wish to use cold weather procedures at the arrival airport, select '**CONTAM – CLD PROC (Y)**' in the 'Approach Brief' section. When this option is selected, the FO will NOT raise the flaps all the way up during his 'After Landing flow'; instead, he'll only retract them to flaps 15. Once you arrive at the gate, the engineers would then inspect the flap tracks to ensure they are clear of snow and slush.

Important: If the flaps are left down, you will need to manually raise them after being cleared by the ground crew to do so.

You will also need to manually shut off the 'ELEC HYD PUMPS' after the flaps have been raised.



APPENDIX J: CIRCUIT TRAINING/TOUCH AND GO'S

FS2Crew for the iFly-737 models Circuits/Touch and Go's.

To put FS2Crew into circuits mode, select 'CIRCUIT TRAINING' for the Approach Type. You would use this mode if you wish to make practice circuits.

Circuits are modeled on the standard Boeing circuits profile.

Notes:

1. Automation is generally not used during circuit training.
2. Circuits are usually flown with the Flaps at 5.
3. On touchdown, the FO will automatically raise the Flaps to 15.



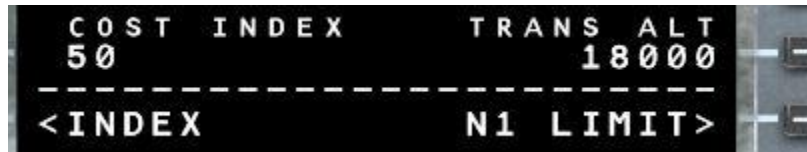
APPENDIX K: CREW FLOWS

B737NG CREW FLOWS

CAPTAIN/PILOT FLYING:

Pre-Flight

1. Turn on the aircraft battery to power the FS2Crew unit.
2. Optional: Run the Pre-Flight events by pressing 'RUN PF' on the FS2Crew Config Panel.
3. Set up 'Comm' and 'Nav' Radios and the 'FMC'.
4. Do not forget to enter the Transition Altitude on the FMC 'PERF INIT' page; the FO uses this altitude as the trigger to call "Transition Altitude".



5. Setup EFIS panel as desired.
6. Input the landing elevation in the pressurization panel
7. Confirm speedbrake is in the down detent.
8. Call "**PRE-FLIGHT CHECKLIST**" after the FO has also finished his Pre-Flight procedure.
9. When ready, open the Departure Briefing Panel and perform the Departure Brief.

Before Start

1. Call “**BEFORE START PROCEDURE**” just prior to pushback
2. Autopilot panel:
 - i) IAS selector in autopilot panel to V2.
 - ii) Initial heading set.
 - iii) Initial altitude set.
3. Taxi and takeoff briefing.
4. Obtain Pushback/Start clearance.
5. Set Trim for takeoff.
6. Call “**BEFORE START CHECKLIST**”.
7. At first movement or just prior to engine start, announce via the PA: “**CABIN CREW ARM SLIDES**”. (Note there is no response in the simulation to this call).

Engine Start (NO EXTERNAL AIR USED)

1. Call “**START ENGINE 2**”.
2. At approx 20 percent N2, select fuel lever #2 to run (idle detent).
3. Call “**START ENGINE 1**”.
4. At approx 20 percent N2, select fuel lever #1 to run (idle detent).

Engine Start (EXTERNAL AIR USED)

1. Same procedure as above, BUT you will start the left engine (Engine #1) first. See 'Appendix F' for more information.

Before Taxi

1. After both engines have stabilized, arm auto throttle.
2. Call “**FLAPS ____**” as needed for takeoff (Unless Icing Conditions).
3. Check flight controls with slow and deliberate movements.
4. Call “**BEFORE TAXI CHECKLIST**”.

Before Takeoff

1. Call “**BEFORE TAKEOFF CHECKLIST**” after FO informs you that the cabin is secure for takeoff.

Takeoff

1. Announce “**RUNWAY ENTRY PROCEDURE**” when cleared on to the runway.
2. Call “**TAKEOFF**” when starting the takeoff roll.
3. Advance throttles to approx 40% N1. Let the engines stabilize. Then set takeoff power (press TOGA).

Climb

1. Call “**GEAR UP**” after PNF announces “POSITIVE RATE”.
2. 400 feet: Call roll mode: “**SELECT HEADING SELECT**” or “**SELECT LNAV**”.
3. 1500 or 1000 feet: Call “**CLIMB THRUST**” depending on your profile.
4. Call “**SET FLAPS UP SPEED**” or “**LEVEL CHANGE**” as required.

5. Call “**FLAPS ___**” to retract the flaps on schedule.
6. After flap retraction is complete, call for “**SELECT VNAV**”.
7. Engage autopilot: Call “**SELECT COMMAND A**”.
8. Call “**AFTER TAKEOFF CHECKLIST**”.

Prior to Top of Descent

1. Set autobrake for landing.
2. Select the landing VREF and Flap on the INIT Page in the FMC.
3. Set the Decision Altitude or Decision Height.

If shooting a CAT II or CATIII Monitored ILS approach, you must set the DH selector to RADIO and select a Radio Altimeter value (i.e., 100 feet, 50 feet, etc).



If shooting a non-Monitored Approach (ILS, VOR, NDB, RNAV), then you must set the DH selector to BARO, and select the Barometric Decision Altitude as found on your approach chart.

If shooting a normal CAT 1 ILS approach, the barometric Decision Altitude is usually 200 feet above the runway elevation. So, for example, if the runway elevation is 150 feet, the Decision Altitude (BARO) is probably about 350 feet.



4. Set the Transition Level in the FMC 'DES FORECASTS' Page. (The FS2Crew FO will use the entered value for his 'Transition Level' call).



5. Brief for the Approach.
6. Call "DESCENT CHECKLIST".

Approach

1. Call "APPROACH CHECKLIST" at 10,000 feet or the Transition Level, whichever is lower.
2. Setup Nav Radios for the approach.

Landing

1. Call "FLAPS ___" as required to bring the flaps down on schedule.
2. At glide slope alive, call "GEAR DOWN" and "FLAPS 15".
3. Call "LANDING CHECKLIST".
4. The FO will run the checklist but will hold the checklist at the landing flap challenge.
5. Call for the final landing flaps. The FO will then complete the 'landing checklist'.

6. At 500 feet call “**CLEARED**”.
7. At minimums call “**LANDING**” or “**GOING AROUND**”.

After Landing

1. Speedbrake lever down or call “**OKAY TO CLEAN UP**”. Either action will trigger the FO to start his After Landing flow.
2. If the taxiway is contaminated with snow or slush, set the stab trim full nose down (0 – 2 Units) to prevent melting ice/slush from getting into the balance bays.

Pre-Shutdown

1. When at the gate, set the 'parking brake'.

Shutdown

1. After FO calls: “**READY FOR SHUTDOWN**”, set engine start levers to cut-off. (If using the GPU at the arrival gate, shut down **engine #2** first, connect the GPU, and then shutdown **engine #1**). See 'Appendix F' for more information.
2. The FA will call the cockpit. You will hear a ‘chime’ sound and the FA button on the FS2Crew Main Panel will say ‘On’. Speak “**YES**” to reply to the FA.
3. After the slides have been reported disarmed, announce via PA: “**CABIN CREW – DOORS MAY BE OPENED**”.
4. Call “**SHUTDOWN CHECKLIST**”.

Secure

1. Call “**SECURE THE AIRCRAFT PLEASE**” if you will be leaving the aircraft unattended.
2. After FO completes the Securing Aircraft procedure, turn off the APU and/or Ground Power Switch.
3. If APU was operating, wait two minutes after the APU GEN OFF BUS light extinguishes before placing the Battery Switch to Off.

FIRST OFFICER/PILOT MONITORING:

* = First Flight of Day only

Pre-Flight Electrical

Trigger -> Pressing the Start button in the Pre-Flight Section on the Config Panel.

1. Master Battery on.
2. Parking brake set.
3. Bus Xfer switch auto.
4. Standby power on.
5. If BBJ model (Aux fuel bleeds off & Gnd Xfer off).
6. Fire tests (only if using APU).*
7. Start APU or Connect External Power/Air.
8. If using APU, check APU Gen Voltage on Voltmeter before connecting APU generators. If using GPU, check GND pwr.
9. Left Aft Fuel Pump on for APU if APU selected as power source.
10. Left Center Fuel Pump if center fuel quantity > 1000 pounds (APU only)
11. Position lights on.
12. Wing lights on for exterior walkaround if flying at night.
13. IRS's to NAV.
14. EEC 1 and EEC 2 on.

Pre-Flight Main Procedure

Trigger -> Pre-Flight Time Remaining +18 minutes.

1. Yaw damper on.
2. IFE on.
3. Fire tests (only if using GPU).
4. Emergency lights arm.
5. No smoking on.
6. Fasten seatbelts auto.
7. Window heat test and window heat on.
8. Eng Hyd Pump A and B on.
9. Elec Hyd Pump A and B off.
10. Trim air on.
11. Recirc fans auto.
12. Pack auto.
13. Isolation valve open.
14. Engine Bleeds on.
15. APU bleed on (Only if APU running. If external ground air is not available, manually start the APU now for air conditioning).
16. Ignition selection switch set.
17. Logo light if night on.
18. Flight directors on.
19. Set altimeters.
20. Oxygen test*.
21. Autopilot disengage light test*.
22. GPWS test*.
23. Fuel flow Reset.
24. Autobrake RTO.
25. If BBJ: Aux fuel bleeds off.
26. Cargo fire test*.
27. Push master fire warning*.
28. VHF 1 and 2 test (and RTP 1 and 2 test if BBJ model)*.
29. TCAS test (IRS must be aligned first)*.
30. Overspeed test*.
31. Stall test*.
32. Verify FMC pages.

Before Start

Trigger -> Command: "**BEFORE START PROCEDURE**".

1. FO's FMC to legs page.
2. Fuel pumps on.
3. Seatbelt sign on.
4. Isolation valve open.
5. Electrical Hydraulic pumps on.
6. Beacon on.
7. Lower display to Engine.

Engine Start

Trigger -> Command: "**START ENGINE ONE / START ENGINE 2**".

1. Packs off.
2. Ignition to ground.

Before Taxi

Trigger -> Calling for the takeoff flap selection. If cold weather procedures are in effect, the trigger phrase is "**LEAVE THE FLAPS UP**".

1. Set takeoff flaps (if non-cold weather procedure in effect).
2. Confirm Gen 1 voltage on Voltmeter.
3. Engine Generators on.
4. Probe Heat on.
5. Engine and Wing Anti Ice as required.
6. Packs auto.
7. Isolation Valve auto.
8. APU Bleed off.
9. APU off.
10. Reset Packs.
11. Engine Start Switches to Cont (only if 'Auto' not available).
12. Blank lower display unit.
13. Recall.

Note: If a 'Bleeds Off' takeoff was briefed for in the Departure Brief, the FO will configure for a bleeds off takeoff during his Before Taxi flow assuming EAI or WAI is not required for taxi. If EAI or WAI is required for taxi, the FO will configure for a bleeds off takeoff during his Before Takeoff flow.

Note: If cold weather procedures were selected, the FO will perform a 'flaps movement check' by extending the flaps to 40 before bringing them back up. When using cold weather procedures, you will taxi with the flaps up.

Before Takeoff

Trigger -> Announcing takeoff clearance has been received with the command: "RUNWAY ENTRY PROCEDURE".

1. Strobes on.
2. Landing Lights on.
3. Runway Turnoff Lights on.
4. Taxi Lights off.
5. Center Fuel Pumps off (only if center fuel less than 2300 Kgs).
6. Traffic/Terrain/Weather display.
7. Xponder TA/RA.

Initial Climb

Trigger -> Gear up.

1. Runway Turnoff Lights off.

After Takeoff

Trigger -> Flaps Up.

1. Engine start switches to off (only if Engine/Wing Anti Ice not on).
2. Autobrake off.
3. Gear levers handle off.

Note: If a 'Bleeds Off' takeoff was briefed for, the FO will restore the bleeds after the 'Climb Thrust' call and turn WAI back on if it was off.

10,000 Feet in Climb

1. Landing lights off.
2. Seatbelt switch auto.
3. Center fuel pumps on (if quantity greater than 500 kgs and they were 'Off' for takeoff).

Cruise and Descent

1. Check FMC pages. Select VOR – Update Off on Nav Options (only if RNAV/RNP app)
2. FMC to 'Legs' page.
3. Center fuel pumps off if quantity falls below 500 kgs.
4. In descent, center fuel pumps off if quantity falls below 1400 kgs.
5. High Alt Button on if landing elevation greater than 8400 feet.

10,000 Feet in Descent

1. Landing lights on.
2. Seatbelt signs on.
3. Select RNP Progress Page and verify RNP.
4. PA: “**CABIN CREW PREPARE FOR LANDING**”.

Landing

1. After Flaps 1, make PA: “**CABIN CREW TAKE YOUR SEATS**”.
2. Select RNP Progress Page if RNAV/RNP approach.
3. Engine Start Switches to Cont and Runway Turnoff lights on (tied to gear down call and only if 'auto' not avail for the Start Sw's).
4. If Flap 15 used for landing, set Ground Proximity inhibit switch to 'Flap Inhibit'.

After Landing

Trigger -> Captain announces "OKAY TO CLEAN UP" or speed brake stowed.

1. Start APU (Only if Power Source on Config Panel preselected to APU)*
2. Flaps up (or flaps 15 if cold weather procedures in effect).
3. Probe heat off.
4. Landing lights off, Strobes off, Taxi light on.
5. Engine start switches off (if EAI/WAI not on).
6. Autobrake off.
7. Transponder standby.

Note: If 'EXT' is selected as the Power Source for the Gate, use the following procedure: After arriving at the Gate, shutdown engine #2 (the right engine). Contact the ground crew and instruct them to connect the GPU and External Air. Wait 30 seconds for the ground crew to connect the GPU and EXT (they'll notify you when it's connected). Once the GPU and External Air have been connected, you can shut down engine #1 (the left engine).

Pre Shutdown

Trigger -> Parking Brake Set.

1. PA: "CABIN CREW DISARM SLIDES".
2. Confirm APU GEN on voltmeter (if using APU).
3. APU Generator on and Taxi light off (if using APU).

Shutdown

Trigger -> Engine Fuel Levers to Cut-Off.

1. Seatbelt signs off.
2. Beacon off.

3. Fuel pumps off (except left Aft for APU and Left Center if fuel in center tank).
4. Wing and Engine anti-ice off (if left on during taxi in).
5. Electrical Hydraulic pumps off.
6. Isolation Valve open.
7. APU Bleed on.
8. Reset Packs.
9. Flight Director off.

Securing Aircraft

Trigger -> Captain announces "SECURE THE AIRCRAFT PLEASE".

1. IRSs
2. Emergency Exit Lights
3. Window Heat
4. Packs

APPENDIX L: NORMAL CHECKLIST

B737NG NORMAL CHECKLIST

PREFLIGHT

Oxygen	Tested, 100 percent
Inst Xfer & Display Switches	Normal, Auto
Window Heat	On
Pressurization Mode Selector	Auto
Flight Instruments	Set
Parking Brake	Set
Engine Start Levers	Cutoff

BEFORE START

Flight Deck Door	Closed and locked
Fuel	___ KGS/LBS, Pumps On
Passenger Signs	On
Windows	Locked
MCP	Set
Takeoff Speeds	Set
CDU Preflight	Completed
Rudder & Aileron Trim	Free and Zero
Taxi & Takeoff Briefing	Completed
Anti Collision Lights	On

BEFORE TAXI

Generators
Probe Heat
Anti-Ice
Isolation Valves
Engine Start Switches
Recall
Autobrake
Engine Start Levers
Flight Controls
Ground Equipment

On
On

Auto
Continuous
Checked
RTO
Idle Detent
Checked
Clear

BEFORE TAKEOFF

Flaps
Stabilizer Trim

____, Green Light
____ Units

AFTER TAKEOFF

Engine Bleeds
Packs
Landing Gear
Flaps

On
Auto
Up and Off
Up, No Lights

DESCENT

Pressurization
Recall
Autobrake
Landing Data
Approach Briefing

Landing Alt _____
Checked

VREF ____ Minimums ____
Completed

APPROACH

Altimeters

_____ Set

LANDING

Engine Start Switches

Speed Brake

Landing Gear

Flaps

Continuous

Armed

Down

_____, Green Light

SHUTDOWN

Fuel Pumps

Probe Heat

Hydraulic Panel

Flaps

Parking Brake

Engine Start Levers

Weather Radar

Off

Off

Set

Up

Cutoff

Off

SECURING AIRCRAFT

IRS's

Emergency Exit Lights

Window Heat

Packs

Off

Off

Off

Off

**APPENDIX M: EXPANDED CHECKLIST WITH
REQUIRED/AVAILABLE SPEECH RECOGNITION RESPONSE
'TRIGGER PHRASE' IN RED**

B737NG NORMAL CHECKLIST

PREFLIGHT CHECKLIST

Oxygen	Tested, 100 percent
Inst Xfer & Display Switches	Normal, Auto
Window Heat	On
Pressurization Mode Selector	Auto
Flight Instruments	Set
Parking Brake	Set to Park
Engine Start Levers	Cutoff

BEFORE START CHECKLIST

Flight Deck Door	Closed and locked
Fuel	___ KGS/LBS, Pumps On *
Passenger Signs	On
Windows	Locked
MCP	Set
Takeoff Speeds	Set
CDU Preflight	Completed
Rudder & Aileron Trim	Free and Zero
Taxi & Takeoff Briefing	Completed
Anti Collision Lights	On

***Responses also available for**

Fuel:

Kilograms Pumps On

Tons Pumps On

Pounds Pumps on

Pounds

Kilograms

BEFORE TAXI CHECKLIST

Generators	On
Probe Heat	On
Anti-Ice	_____ *
Isolation Valves	Auto / Closed / Open
Engine Start Switches	Continuous/ Auto
Recall	Checked
Autobrake	RTO
Engine Start Levers	Idle Detent
Flight Control	Checked
Ground Equipment	Clear

***Responses also available for Anti-Ice:**

On
Off
Engine Anti Ice On
Both On

BEFORE TAKEOFF CHECKLIST

Flaps	____, Green Light *
Stabilizer Trim	____ Units *

***Example responses for Flaps:**

Flaps 1 Green Light
Flaps 5 Green Light
Flaps 10 Green Light
Flaps 15 Green Light
Flaps 25 Green Light

***Example responses for Stab**

**Trim. Units must end in
'Point Zero' or 'Point Five'.**

Four Point Zero Units
Four Point Five Units
Five Point Zero Units
Five Point Five Units

AFTER TAKEOFF CHECKLIST

Engine Bleeds
Packs
Landing Gear
Flaps

On
Auto
Up and Off
Up, No Lights

DESCENT CHECKLIST

Pressurization
Recall
Autobrake
Landing Data
Approach Briefing

Landing Alt _____
Checked _____
VREF___ Minimums___
Completed

APPROACH CHECKLIST

Altimeters

_____ Set

***'Set' is the trigger that switches the Mode to Landing**

LANDING CHECKLIST

Engine Start Switches
Speed Brake
Landing Gear
Flaps

Continuous / Auto
Armed
Down
____, Green Light *

***Example responses for
Flaps:**

Flaps 15 Green Light
Flaps 30 Green Light
Flaps 40 Green Light

SHUTDOWN CHECKLIST

Fuel Pumps
Probe Heat
Hydraulic Panel
Flaps
Parking Brake
Engine Start Levers
Weather Radar

Off
Off
Set
Up
Released / Set to Park
Cutoff
Off

SECURING AIRCRAFT CHECKLIST/ SECURE THE AIRCRAFT PLEASE

IRS's
Emergency Exit Lights
Window Heat
Packs

Off
Off
Off
Off

-MANUAL END-