Pushback Express

MAIN OPS MANUAL

Introduction:

Pushback Express is a new pushback tool designed for **Microsoft Flight Simulator (2020).**

As you know, the default pushback system in Flight Simulator is lacking in many, many areas, and we feel that Pushback Express represents a big improvement over the stock pushback system, especially for users who care about realism and convenience.

What is more, Pushback Express was designed to feature an exceptionally low learning curve so you can spend your time flying rather than reading a 100-page manual -all without sacrificing realism.

Indeed, the app makes extensive use of Tooltips which makes learning the software a breeze.

It should take the average user no more than a few minutes to become comfortable with the software.

Features:

- ✓ MSFS Tool Bar integration (new for V2.2)!
- ✓ Directly control MSFS ground service vehicles (catering, fuel, stairs, baggage, and ground power truck). They can be triggered manually or automatically deployed if you run the Pre-Flight Events!
- ✓ Voice Control!
- ✓ Three pushback modes: **RUDDER CONTROL**, **WINDOW BUTTONS** and **DISTANCE**.
- ✓ Ability to steer the tug (self-drive, custom route pushback).
- ✓ Works with any type of aircraft (Airline to GA).
- ✓ Works at all airports.
- ✓ Ability to do a "Push then Pull".
- ✓ Ability to Tow an aircraft (you need to drive the tug though).
- ✓ Pre-Flight events with automatic door and jetway control.
- ✓ A large selection of international voice sets, including German, French and Spanish spoken in actual German, French and Spanish. Also included: Dutch, Italian and Eastern Europe.
- ✓ Built-in tooltips to make learning the software a breeze.
- ✓ And more!

Important Links:

FS2Crew Website

FS2Crew Support Forum

LET'S GO FLYING!

STEP 1 – INSTALLATION:

1. As of **Version 2.2**, Pushback Express will automatically install to your **PROGRAM FILES** folder. Do **NOT** manually move it anywhere else or you will break the MSFS Tool Bar integration.
2. After installing, you will notice a new icon on your desktop that looks like this if you are using the new Microsoft Flight Simulator. There are two ways you can start the program:

   a) **The old way (still works)**. Load MSFS then manually double click the desktop icon shown below:

   b) **The NEW way!** Open the new FS2Crew icon in the MSFS tool bar. Select Pushback Express from the drop-down menu then press the **LAUNCH** button.

STEP 2 – CREATING KEYBOARD ASSIGNMENTS

When interfacing with FS2Crew, you can either press buttons directly on the panel or you can use Hotkey assignments to control select functions.

Hotkeys can be assigned via the **Settings panel**.

If you do not wish to assign a hotkey, select the BLANK space above the "A" key in the dropdown menu.

Note that due a current Simconnect issue in MSFS, joystick buttons cannot currently be assigned as hotkeys until Asobo fixes the issue.

However, if you wish to use joystick buttons you can link an assigned keyboard button with your joystick using FSUIPC or other 3rd party "Joystick to Keys" programs.

STEP 3 – UNDERSTANDING THE MAIN PANEL

Notes:

- Tooltips are available for each button that explain each function.
- Certain buttons will auto hide depending on the selected mode.
- To "**lock**" the Main Panel so it does not hide (or rather go behind the Flight Simulator window) when Flight Simulator is in focus, check the "**PIN**" icon. The panel is pinned by default. If you want to hide the panel while using a single monitor deselect the pin option.

STEP 4 - UNDERSTANDING THE CONFIG PANEL

Notes:

Most items are self-explanatory. However, tooltips are used extensively throughout the program to provide important information. When in doubt, use the Tooltips, or just ask on the support forum.

Important: If using the **MSFS Aerosoft CRJ**, the "**HOLD TOE BRAKES END OF P/B**" option must be **UNCHECKED** or the tug will not release the aircraft properly at the end of pushback.

TUTORIALS (BUTTON CONTROL):

The mini tutorials below cover **BUTTON CONTROL** as the selected **Interface Method**.

If **VOICE CONTROL** is desired, please consult the separate **VOICE CONTROL** manual.

PUSHBACK EXPRESS TUTORIAL 1A – RUDDER CONTROL MODE

We suspect most users will use Rudder Control. The main benefit of Rudder Control is it allows you to "Steer" the tug, thus allowing you to drive around objects and accurately tow the aircraft onto a taxi line or any other desired position.

Naturally, this would need to be done using an external view.

1. Select "**Rudder Control**" as the pushback mode on the Settings panel.

2. Tell the ground crew that you will be ready to go shortly. Press the button with the yellow connect icon. The tug will then connect to the aircraft and <u>hold position.</u>

3. It will take the default tug several seconds to reach and connect to the aircraft.

   Note: Tug visibility is controlled by the airport scenery designers. Pushback Express uses the default tug in MSFS. <u>If no tug is physically visible at your location</u>, you can still pushback, but you will not see a physical tug model during pushback.

4. Important! As of V2.1, the tug will now stay connected to the aircraft. It will NOT AUTOMATICALLY START PUSHING BACK!
5. When ready to pushback, press the Green Button or the associated hotkey.

6. Ensure the parking brake is released and, if using any 3rd party aircraft that models "chocks", **ensure the chocks are removed as well**. Otherwise the aircraft will not move.
7. As the aircraft is being pushed, use your rudder to steer the tug left or right.
8. When ready to stop, press the same button or hotkey you used to start the pushback. Do not accidentally press the "Kill All" button.

   The "**Stop Pushback**" button is on the left and the "Kill All" button is on the right. Do not confuse them!

9. After the tug has stopped, the ground crew will tell you to set the parking brakes.
10. Set the parking brake.
11. The ramper will inform you that the tug has been disconnected. You'll then clear him to disconnect, and he'll wish you a safe flight. That concludes the pushback. Pushback Express will auto-shutdown a few moments later.

PUSHBACK EXPRESS TUTORIAL 1B – RUDDER CONTROL WITH A 'PUSH AND PULL'

At some airports, aircraft are pushed into position, then "pulled" to a new position. Pushback Express allows users to simulate this.

1. Select "**Rudder Control**" as the pushback mode on the Settings Panel.
2. Check "**Control Tug**" speed on the Settings Panel.
3. Follow the same procedures used during a normal Rudder Control pushback.
4. Use the Elevator to control the tug speed. Forward stick pressure makes the tug speed go up. Back stick pressure makes the tug speed go down.
5. When you want to start "pulling" the aircraft, apply forward stick pressure and the tug will slow down then start moving forward.
6. Use left/right rudder to steer the tug left or right.
7. When ready to stop, slow the tug down so it stops, then press the same button/hotkey you used to start the pushback. The tug will then disconnect. Follow the ramp agent's audio instructions.

PUSHBACK EXPRESS TUTORIAL 2 – WINDOW BUTTONS MODE

If you do not have a joystick, you may wish to steer the tug using buttons located on the Main Panel.

1. Select "**Window Buttons**" as the pushback mode on the Settings Panel.
2. If desired, check "**Control Tug Speed**" option on the Settings Panel if you want to do a "push and pull" or if you want to control the speed for whatever reason.
3. Follow the same procedures used during a normal Rudder Control pushback. The only difference is that on the Main Panel, you will see an extra set of buttons you can use to control the tug.
4. **Important:** When controlling the tug's speed, only press the increase or decrease speed button **once**. Pressing the increase or decrease speed button will cause the tug to increase/decrease speed linearly. *In other words, the tug's speed will keep accelerating or decelerating until the maximum speed is reached, or until you press the "Hold Speed" or "Stop Pushback" button.*

   If you are pushing the aircraft back and you press "Decrease Speed", the tug will decelerate, reach speed 0, then start accelerating up the back side of the curve.

PUSHBACK EXPRESS TUTORIAL 3 – DISTANCE MODE

Use this mode to remain inside the cockpit during pushback without going to an external view. The only current drawback is that it is hard to guess the distance required to hit the taxiway line.

1. Select "**Distance**" as the pushback mode on the Settings panel.
2. Select the desired distance using the slider, and if you want to pushback left, right or go straight.
3. Start the pushback.
4. The pushback will stop by itself at a computed point.
5. **Helpful hint:** Check "**Use Aileron to initiate final turn**" if you want to force the tug to start the turn early using left or right aileron. This can be helpful if you find you are being pushed back too far and you want to turn early. Left aileron will make the aircraft go left for the final segment. Right aileron will make the aircraft go right for the final segment.

PUSHBACK EXPRESS TUTORIAL 4 – TOWING

To tow an aircraft (Airliner or General Aviation), check "**Disable Voices (Towing)"** on the Settings Panel. All this will do is suppress any Pushback Express audio. You can then move the aircraft using **Rudder Control** or **Window Buttons** mode.

Note: If you tow the aircraft to another gate, you may spawn another tug because Pushback Express is firing the stock toggle pushback command used in Flight Simulator.

-MANUAL END-