



FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II

Manual

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Note - The FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II will function with any c152. **It is modeled on the Carenado c152II**, but other add-on c152s can be used with it, although their details may differ and this will alter some aspects of your experience.

FSFlyingSchool's software is not to be considered, in any way, implied, certified, suitable or valid for the training of any person for the operation of any aircraft or vehicle of any kind.

Introduction

Welcome to the **FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II!**

To get the most out of this product, please read this manual.

FSFlyingSchool uses sophisticated logic to analyze your flying technique, to help you refine and demonstrate your flying skills. Several of FSFlyingSchool's methods will be new, even to veteran simulation pilots, so please read about them in this manual, to discover how FSFlyingSchool works, what it is telling you, and why.

The FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II adds a whole new level of realism and atmosphere to your flights with FSFlyingSchoolPro.

Not all pilots fly the c152 and this product is therefore offered as an optional add-on for FSFlyingSchoolPro.

As with FSFlyingSchoolPro itself, **everyone can try out the c152 Detail Pack for free** by downloading FSFlyingSchoolPro and flying with a c152 in the FSFlyingSchool demo area near Chicago. If you like the experience, you may wish to purchase your own license key for the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II so that you can fly your c152 *anywhere* with the 'detailed' treatment.

System Requirements

In order to use the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II you must own a **registered** version of FSFlyingSchoolPro (or a later version of FSFlyingSchool).

Installation

For FSFlyingSchool to install and to run correctly, you must be a *Computer Administrator* user and not a *Limited Account* user.

To install, simply run the installation EXE program supplied by FSFlyingSchool. If installing from CD, follow the instructions on the inside of the product case.

The FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II must be installed on a PC with a registered version of FSFlyingSchoolPro or greater on it.

The process of installing the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II is the same as installing FSFlyingSchoolPro itself. Just download, or launch from CD, and install into the same folder as your existing installation of FSFlyingSchoolPro. This will install a *new version* of FSFlyingSchoolPro which has a section at which you can activate your FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II.

Once you have installed the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II, the new features of the Detail Pack *will function in demo mode* until the Detail Pack itself is registered. You will still have all the full features of FSFlyingSchoolPro and be able to fly anywhere you like with an instructor, but you will only get the special Detail Pack treatment of your flight in the FSFlyingSchoolPro demo area near KORD - Chicago O'Hare International Airport.

To *register* your FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II, launch your newly installed FSFlyingSchoolPro and go to the Credits Page, where you will see a new section for "Detail Packs". Enter the registration code for the detail pack you have purchased into the "Key" field and press the "Add" button. Once this is done correctly, the field will turn gray and the name of the Detail Pack thus enabled will be shown. At this point you will be able to fly with the special c152 Detail Pack treatment of your flight *anywhere you fly*.

FSFS-Tip You will *always* get the c152 Detail Pack experience if you fly a c152 within the free demo area near KORD - Chicago O'Hare International Airport.
If you want it elsewhere, you must purchase an FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II **key** from FSFlyingSchool.

Quick Start

Please read this manual if you want to get the most out of flying with the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II.

If you would prefer to do this later and want to jump right into the cockpit, here's what you should do next:

Launch Flight Simulator.

Create or select a flight in Flight Simulator **using a c152**.

Get that plane ready to fly, either in mid-air or on the ground. Get yourself at the controls of the plane.

Launch the FSFlyingSchool program.

Press the *Connect Button* in FSFlyingSchool.

IMPORTANT!

At the Aircraft screen in FSFlyingSchool Pro, make sure that the Cessna 152 Options "Monitor Cessna 152" option is *checked* (that is, it is ON).

Switch back to Flight Simulator and enjoy your flight with FSFlyingSchool by your side!

But – you really should read this too...

There are several new features you will want to understand, including a special new key. Read more about these features in detail in this manual.

Enhanced Instructor Logic

With the addition of the FSFlyingSchoolPro Add-on Detail Pack for Carenado c152II, your instructors will be looking at your aircraft and your performance in it in a lot more detail.

Note that the instructors' advice, warnings and checklist lists are a combination of real world reference sources and of the checklist and reference files supplied for this simulated aircraft. Not all of these sources agree and as a result some of the values or methods used may differ from sources you may have seen yourself.

The following is a list of different stages of flight in which events will cause your instructor to talk to you, with specific reference to the c152 you are flying.

Starting and Takeoff

[Shortly after flight starts on ground with master battery on]

Estimate of current fuel as a percentage of full.

[Engine start attempted and throttle not correctly set]

Advice that throttle should be open about ½ inch when starting.

[Engine start attempted and parking brake not set]

Warning that parking brake must be set when starting the engine.

[Engine start attempted with master battery switch off]

Advice that the master battery switch must be on when starting the engine.

[Shortly after moving in taxi mode]

Advice on which instruments and systems should be checked during taxiing.

[In takeoff mode with more than 10 degrees of flaps]

Warning that you have too much flaps set and that you should use no more than 10 degrees.

[Shortly after beginning takeoff]

Advice to move throttle smoothly up to full.

[Shortly after beginning takeoff]

Advice that the nose wheel can be lifted at 50 KIAS.

[Shortly after takeoff]

Reminder that this aircraft's 'vX' (Best Angle of Climb Speed) is 55 KIAS at sea level. Use this speed to clear runway obstacles or to lift off from a soft field quickly.

[Shortly after takeoff]

Reminder that this aircraft's 'vY' (Best Rate of Climb Speed) is 67 KIAS at sea level. Use this speed to climb after takeoff in normal operations.

[Shortly after takeoff]

Reminder that in this aircraft you should normally turn with a 20 degree bank and when doing so you will want to rollout about 20 degrees before your desired heading.

[Shortly after takeoff]

Advice that if you encounter heavy turbulence you need to be at or below maneuvering speed ('vA') and to remember that this will decrease as you burn fuel.

[Shortly after takeoff]

Advice to use right rudder to correct for any unwanted yawing to the left caused by P factor and torque.

[Entering cruise mode]

Advice to cruise between 1900 and 2550 RPM and to lean the mixture above 3000 feet MSL to obtain maximum RPM.

Descent and Landing

[Descending and below maximum flap speed while landing]

Advice that once below 85 KIAS the pilot may start to lower flaps.

[Descending and decelerating to maximum flap speed while landing]

Advice that once below 85 KIAS the pilot may start to lower flaps.

[Descent to around 600 feet AGL while landing]

Advice to use pitch to control airspeed and power to control rate of descent during approach and landing.

[Descent to around 500 feet AGL while landing]

Advice that you typically want to land with 30 degrees flaps, 1700 RPM and 60 knots IAS.

[Descent to around 400 feet AGL while landing]

Reminder to flare at about 10 to 15 feet above the runway and to lift the nose about 10 degrees.

[Descent to around 300 feet AGL while landing]

Reminder that at about 10 to 15 feet above the runway you should reduce power to idle and flare.

General Warnings and Advice

[Carburetor heat on and neither landing nor attempting engine restart]

Advice that normal operation requires carburetor heat off unless landing or attempting to restart an engine which has failed in flight.

[Carburetor heat off and landing]

Advice that normal operation requires carburetor heat on for landing.

[Primer being used with engine off]

Advice that up to three strokes of the engine primer can be used before starting.

[Primer being used with engine on]

Advice that primer is not used when engine is already running.

[Loss of engine while airborne]

Advice that the best glide speed in this aircraft is 60 KIAS.

[Engine fire started]

Warning that the engine is on fire.

[Shortly after engine has started]

Reminder to check the oil pressure.

[Speed approaching vNO]

Reminder that you need smooth air to fly into the yellow arc on your ASI, above 111 KIAS which is 'vNO' (Maximum Structural Cruising Speed) for this aircraft.

[Speed approaching vNE]

Warning that you are close to exceeding 149 KIAS which is 'vNE' (Never Exceed Speed) for this aircraft.

[Decreasing speed approaching vSO]

Warning that stall speed with full flaps is 43 KIAS which is 'vSO' (Stalling Speed in Landing Configuration) for this aircraft.

[Decreasing speed approaching vS]

Warning that stall speed with flaps up is 46 KIAS which is 'vS' (Stalling Speed with Flaps Up) for this aircraft.

[Left or right fuel level is low]

Warning that one or both fuel tanks are getting low and you may wish to consider your refueling options.

[Flaps down and flying too fast for any flaps]

Advice that once below 85 KIAS the pilot may use flaps.

[Flaps down and flying too fast for that particular flaps setting]

Advice that once below 85 KIAS the pilot may use up to 30 degrees of flaps.

[Master battery switched on]

Estimate of current fuel as a percentage of full.

[Master battery on and fuel level getting low]

Estimate of current fuel as a percentage of full as fuel falls below 50%, 25%, 10%, 5% and 3%.

Checklists

Overview

The primary function of FSFlyingSchool is to provide virtual instructors who are watching you and helping you be your best in the area of *airmanship* – how well you *fly your airplane* – and to have fun doing it. It certainly does a lot of other things in several other areas, but airmanship is its main focus.

We do not concentrate on teaching checklists and indeed there are other products which concentrate on just such training. As a result, we have not concentrated on checklists in this detail pack, but have instead added several simple checklist reminders from the instructor that can be requested by the pilot with a single simple keystroke.

Because the keystroke is always the same:

Ctrl Shift N

the process could not be simpler to remember. Your instructor will determine which checklist is the logical one at that point in your flight. In reading a checklist, the instructor will take several seconds to list all of its points, during which time you can follow along performing and checking the actions required, or you can use the checklist to make sure that you have already performed those actions.

The name of the checklist currently being read is shown on your screen in Flight Simulator immediately after the checklist key is pressed. Pressing **Ctrl Shift B** displays which checklist would be read out by the instructor if the checklist key Ctrl Shift N were to be pressed.

A key point to understand is that the checklists are not *interactive*, which means that the instructor is not waiting for you to perform each action. The instructor will read the entire checklist from start to finish regardless of what the pilot does. This is because checklists are not our main focus and also because your FSFlyingSchool instructor *is always* looking at your flight to see if anything is not as it should be – not just when a checklist is being read.

For example, if you failed to switch something on during a checklist, you can be sure that if it is ever off, or on, at the wrong time, your instructor will bring this to your attention – not just when a checklist is being read.

FSFS-Tip Remember it's handy to press Ctrl Shift B to see which checklist **would be** read out by the instructor if the checklist key Ctrl Shift N were to be pressed.

Note also that when Ctrl Shift B is pressed, the instructor will also describe the sky condition.

Checklists

(Press Ctrl Shift N to hear the current checklist)

Cold and dark

[Taxi mode and master battery off]

This is a combination of a before start and engine start checklist.

Parking brake SET
Electrical equipment OFF
Avionics master switch OFF
Mixture FULL RICH
Carburetor heat COLD
Prime as required up to 3 strokes
Throttle open half an inch
Propeller area CLEAR
Shout "Clear Prop!"
Master switch ON
Ignition switch START
Wait for engine start and then... Ignition switch RELEASE

Run up

[Taxi mode and engine running and not yet done run up for current flight]

This is part of a before takeoff checklist.

Select location free of debris and with no people, aircraft, animals or vehicles downwind (behind your airplane)
Stop while facing into wind
Parking brake SET
Throttle 1700 RPM
Prepare to turn ignition key to check magnetos
Confirm less than a 125 RPM drop on each magneto
Confirm less than a 50 RPM difference between magnetos
Turn key to left magneto
Turn key to right magneto
Turn key back to left magneto
Turn key to both magnetos
Carburetor heat ON
Confirm approximately 50 RPM drop
Carburetor heat OFF
Throttle IDLE

Takeoff

[Takeoff mode and on ground]

This is a takeoff checklist.

Radios SET
Avionics SET
Trim SET FOR TAKE OFF
Flaps 0 or 10 degrees as necessary
Brakes OFF
Mixture FULL RICH (or leaned if above 3000 MSL for maximum RPM)
Throttle FULLY OPEN
Lift nose wheel at 50 knots indicated airspeed
Climb between 65 and 75 knots indicated airspeed.

Descent

[Landing mode and above 1000 feet AGL]

This is a descent checklist.

Power AS DESIRED
Magnetos BOTH
Mixture FULL RICH (or leaned if above 3000 MSL for maximum RPM)
Carburetor heat ON

Before Landing

[Landing mode and below 1000 feet AGL]

This is a before landing check list.

Magnetos BOTH

Mixture FULL RICH (or leaned if above 3000 MSL for maximum RPM)

Carburetor Heat ON

Landing lights ON

Shut down

[Taxi mode and aircraft has flown since FSFS Pro started]

This is chiefly a securing airplane checklist.

Taxi to parking place

Parking brake SET

Flaps FULLY RETRACTED

Mixture OFF

Avionics OFF

Lights OFF

Alternator OFF

Master battery OFF

Ignition key OFF

Remove ignition key

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