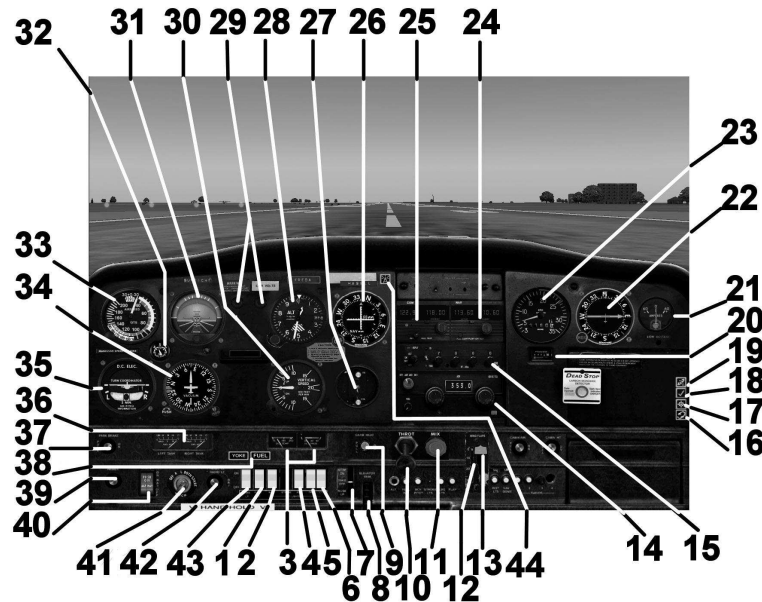


C-152 PANEL

Main instrument panel



- | | |
|---|-------------------------------|
| 1. Pitot heat switch | 30. Engine throttle knob |
| 2. Navigation lights switch | 31. Engine mixture knob |
| 3. Engine oil temperature and oil pressure indicators | 32. Flap position indicator |
| 4. Anti-collision light switch | 33. Flap operating lever |
| 5. Taxi light switch | 34. ADF (NDB) controller |
| 6. Landing light switch | 35. Transponder |
| 7. Elevator trim position indicator | 36. Show/hide ATC window icon |
| 8. Elevator trim wheel | 37. Show/hide map icon |
| 9. Carburettor heat knob | 38. Show/hide checklist icon |

- | | |
|--|---|
| 19. Show/hide GPS unit icon | 32. Suction pressure indicator |
| 20. Hobbs hour meter | 33. ASI (airspeed indicator) |
| 21. Ammeter | 34. DI (direction indicator) |
| 22. ADF (NDB) indicator | 35. Turn and slip indicator |
| 23. Engine RPM indicator | 36. Left and right fuel tank quantity indicators |
| 24. Navigation radio | 37. Parking brake knob |
| 25. Communication radio | 38. Show/hide yokes and fuel switch sub-panel icons |
| 26. VOR – ILS indicator | 39. Engine fuel primer pump knob |
| 27. Master avionics switch | 40. Alternator and battery master switches |
| 28. Altimeter | 41. Magnetos and engine starter switch |
| 29. Low voltage and Starter engaged warning lights (press to test) | 42. Instrument panel lights switch |
| 30. VSI (Vertical Speed indicator) | 43. Dome light switch |
| 31. Artificial horizon | 44. Show/hide large avionics panel icon |

Sub panels

SHIFT+2 Shows/hides the yokes in the 2D panel view

SHIFT+3 Shows/hides the GPS.

SHIFT+4 Shows/hides the magnetic compass

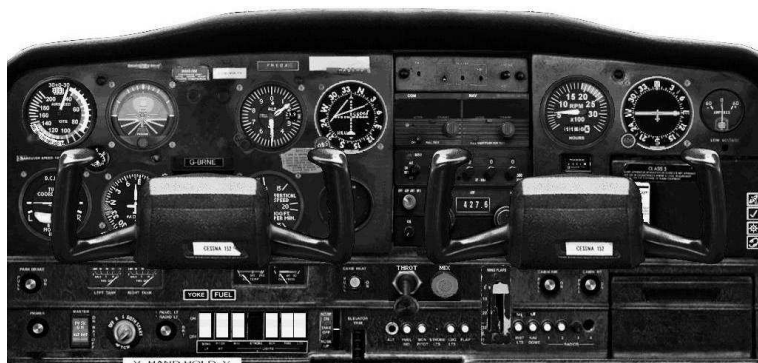
SHIFT+5 Shows/hides the fuel ON/OFF lever

SHIFT+6 Shows/hides the flight timer

SHIFT+7 Shows/hides the large avionics panel



C-152 AVIONICS



This section describes the C152 Avionics package included with this aircraft. The avionics reflect the actual types of avionics that are in the real aircraft featured in Flying Club. Where possible we have implemented the operation of the avionics as far as possible within Flight Simulator – for example the Transponder has a flashing 'IDENT' light. In the real world this light will flash when a ground station interrogates the aircraft, but in FS there is no such feature so, what we have done is mimic this action to add realism to your flying. The package includes the following modifications to the previous version:

- 1) Custom ADF system
- 2) Custom VHF Communication/Navigation Transceiver
- 3) Custom Transponder

OPERATION - GENERAL

Powering ON the avionics

By default when you load a Flying Club aircraft the avionics are OFF.

Each radio has its own ON/OFF switch. In order to use the radios you need to switch them ON individually. As in reality the procedure always should be to switch ON radios AFTER the engine has been started and to switch OFF all radios BEFORE engine shutdown.

For details on operation please see the sections below.

OPERATION - ADF



The ADF radio (Automatic Direction Finder) is linked to the ADF indicator on your panel. For details and general advice about using the ADF please see your Flight Simulator 'help' system.

Turning ON/OFF and mode selection

The function selector knob has four settings:

OFF: The ADF is OFF.

ADF: The unit is in ADF mode. This is the standard mode for operation.

ANT: In this simulation the ANT mode is identical to the ADF mode. On a real aircraft ANT provides improved reception from the station tuned.

BFO: In this simulation BFO mode is identical to ADF mode. BFO means 'Beat Frequency Oscillator'. On a real aircraft this mode is used to obtain better reception of un-modulated signals. The switch actuates a signal in the receiver which is added to the incoming signals producing a continuous tone. It has no action in this simulation.

Frequency Selection

The active frequency (to which the ADF is tuned) can be changed by clicking on the frequency select knobs – these are the concentrically placed round knobs left and right of the frequency display. The frequency will increment/decrement according to the areas you click:

Left Knob:

Outer Knob: left half: - 100 kHz

Outer Knob: right half: + 100 kHz

Inner Knob: left half: - 10 kHz

Inner Knob: right half: + 10 kHz

Right Knob:

Outer Knob: left half: - 1 kHz

Outer Knob: right half: + 1 kHz

Inner Knob: left half: - 0.1 kHz

Inner Knob: right half: + 0.1 kHz

Audio on/off

The ADF has an additional button to audibly IDENT the signal broadcasted by most navigational aids. Press the VOL button to hear this Morse code signal, click the button a second time to silence it.



OPERATION - COM / NAV UNIT



This unit combines a VHF COM (COMmunications) radio with a NAV (NAVigation) transceiver (Transmitter-Receiver), linked to the VOR 1 indicator of the aircraft. For general use and operations of the VOR system and indicators please refer to the Flight Simulator 'Help' system.

The left side of the COM/NAV unit has all the displays and controls to operate the COM part, the right side is the NAV part.

Turning ON/OFF

Left-click on the OFF/PULL TEST knob to turn the unit ON or OFF. This will affect the COM and NAV part equally. You will know that the radio is powered ON when the display is active.

Frequency Selection

Both the COM and NAV sections have frequency displays showing an active frequency on the left side of each display and a standby frequency on the right side of each display. The standby frequency can be changed by clicking on the frequency select knobs – these are the concentrically placed round knobs on the right of each unit. The standby frequency will increment/decrement according to the areas you click, similar to the ADF. The standby frequency selected may then be switched into the active window by pressing the rectangular shaped 'swap' buttons between/below the ACTIVE and STANDBY display.

NAV IDENT

The NAV radio has an additional button to audibly IDENT the signal broadcasted by most navigational aids. Press the PULL IDENT/PUSH VOR TEST button to hear this Morse code signal, click the button a second time to silence it.

OPERATION - TRANSPONDER



The Transponder unit is a standard transponder unit similar to default transponder found in Flight Simulator. For general information about transponders please refer to the Flight Simulator 'Help' system.

The function selector knob has five settings:

OFF: The transponder is OFF.

STY: The transponder is in STANdY mode where the unit is kept powered ON but it is neither sending nor responding to any transponder signals. On a real aircraft after engine start the transponder should be set to standby (STY) mode for about 45 seconds to become operational and then be set to either ON or ALT as you depart the airfield.

ON / ALT: The transponder is operating with ON being Mode 'A' operations and ALT being Mode 'C' operations. In the real world Mode A just supplies position information to a ground station and in Mode C as well as position it also supplies the Aircraft's altitude. In this simulation both modes are identical. The orange reply lamp will blink to indicate that the transponder is functioning properly and replying to interrogations from the ground.

Code Selection

The transponder can be set to codes from 0000 to 7777. Each transponder code digit has an adjacent knob with a left and right mouse click area to increment or decrement the number.

Although they have no effect in Flight Simulator as in the real world the recognised Transponder codes are:

- Code 0021 VFR Flight below 5000 ft (Germany)
- Code 0022 VFR Flight above 5000 ft (Germany)
- Code 1200 VFR Flight (USA)
- Code 7000 VFR Flight (UK)
- Code 7500 Hijack
- Code 7600 Radio Failure
- Code 7700 Emergency
- Code 7777 Military Interceptor Operations

IDENT mode

When you are asked to 'Ident or Squawk' by ATC, press the small ID button. The reply indicator will illuminate continuously for 18 seconds during the IDENT interval.



TEST mode

The transponder has a test mode. When pressing and holding the 'TEST' button, the orange reply lamp will illuminate to indicate its functionality.

