JaHeLi Simulator

F-16C Gauges

User Manual

For DCS World • Version 1.0



Your F-16C cockpit gauges on a second screen.

DCS script — runs inside DCS World on the PC with the simulator

JaHeLi Gauges — runs on the PC with the extra screens and shows the gauges

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1. Introduction

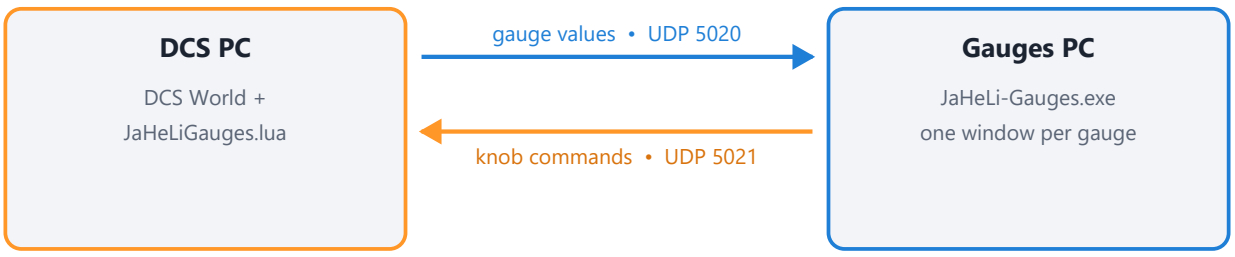
JaHeLi F-16C Gauges shows the cockpit gauges and panels of the DCS World F-16C Viper on an extra screen: the flight instruments, the engine and system gauges, the caution panel, the ICP, the indexers, the eyebrow lights and the MFD frames. Every gauge is a borderless window of its own. You can place and size each window exactly where you want it, for example on a second monitor, on a tablet-sized screen or on an old laptop next to your simulator.

The gauges are alive: they follow your aircraft, and the knobs and buttons on them work. Scroll over the altimeter to set the barometric pressure, click a button of the ICP or an OSB of the MFD frame, and DCS reacts as if you had clicked the real control in the cockpit.

1.1 The two parts

Part	Runs on	File
DCS script	The PC with DCS World (the sim PC), inside DCS	`JaHeLiGauges.lua`
JaHeLi Gauges	The PC with the extra screens (the gauges PC)	`JaHeLi-Gauges.exe`

Both can run on the same PC. The script is free and installs itself; only the JaHeLi Gauges program needs a license (section 11). You can try everything free for 7 days.



Both PCs on the same network, or everything on one PC.

The DCS script sends the gauge values to the gauges PC; the gauges PC sends the knob and button commands back

1.2 How it works

- The DCS script reads the position of every needle, drum and light in the F-16C cockpit and your aircraft data, about **30 times per second**, and sends them as a small UDP message over the network.
- JaHeLi Gauges receives the message and draws every gauge with the artwork of the F-16C cockpit. The gauges move exactly like the ones in the cockpit.
- When you scroll or click a knob, JaHeLi Gauges sends a short command back to DCS. Only a fixed list of controls is accepted (gauge knobs, MFD, ICP and master caution): nothing else in the cockpit can be operated from the network.



Flight and engine gauges, each in its own window

2. Requirements

- **Windows 10 or Windows 11** on the gauges PC and on the sim PC.
- DCS World with the **F-16C Viper**. In other aircraft only the attitude indicator (ADI) works.
- For two PCs: both on the same local network. A wired (Ethernet) connection gives the best results.
- The ports **UDP 5020** (gauge values, to the gauges PC) and **UDP 5021** (commands, to the sim PC) must be allowed by the firewalls (section 3.4).
- Nothing else to install: no Python, no extra software.

3. Installation

JaHeLi Gauges comes with an installer. It puts everything in the right place on each PC. You need to tell it what the PC is: the **DCS PC** (the PC that runs DCS World) or the **gauges PC** (the PC with the extra screens). The installation is different for each. If you use only one PC, it is both.

3.1 The installer (recommended)

1. Run `JaHeLi-F16C-Gauges-Setup-1.0.exe` on each of your PCs. Windows asks for administrator permission; this is needed for the firewall rules.
2. The second page asks **Which PC is this?** and explains the difference. On the next page, choose the installation type for this PC (see the table).
3. Leave the extra tasks ticked: the desktop icon and the firewall rules.
4. Click **Install**. On the DCS PC the installer also places the DCS script; it tells you when that is done.
5. On the DCS PC start a **new mission** in DCS World. On the gauges PC start JaHeLi F-16C Gauges from the start menu or the desktop.

Installation type	What it installs	Firewall rule
Gauges PC - the PC with the extra screens	The gauges program, a start menu entry, a desktop icon and the manual.	UDP port 5020 incoming: the gauge values.
DCS PC - the PC that runs DCS World	The DCS script in *Saved Games\DCS\Scripts\JaHeLi*, and one line in Export.lua. The program is installed as well (it places the script), but there is nothing to start on this PC.	UDP port 5021 incoming: the knob commands.

Installation type	What it installs	Firewall rule
Both on one PC	Everything above.	Both rules.

Where everything goes. The program and the manual are installed in `C:\Program Files\JaHeLi\F-16C Gauges`. Your layout and your own covers are saved in `%APPDATA%\JaHeLi\Gauges`, so they survive an update. The start menu has an entry *JaHeLi Simulator › F-16C Gauges* with the program, the user manual and the uninstaller.

Uninstalling. Use **Settings › Apps › Installed apps**, or the uninstaller in the start menu. The program and the firewall rules are removed. Your layout, covers and license are kept. The DCS script is left in place; to remove it, delete the folder `Saved Games\DCS\Scripts\JaHeLi` and the line with *JaHeLiGauges.lua* at the end of `Export.lua`.

Windows SmartScreen. The first time you run the installer or the program, Windows may show *"Windows protected your PC"*. Click **More info** and then **Run anyway**. Windows only asks this once.

3.2 The gauges PC (without the installer)

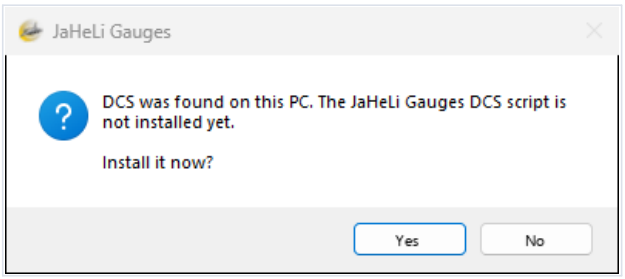
The program is a single .exe file that also runs without the installer, for example from a USB stick.

1. Create a folder on the gauges PC, for example `C:\JaHeLi Gauges`, and put `JaHeLi-Gauges.exe` in it.
2. Start the program by double-clicking it. Create a shortcut on the desktop if you like.

> **Tip:** The program saves your layout and your own covers in `%APPDATA%\JaHeLi\Gauges`, also when you run it without the installer. If your antivirus blocks the .exe in the Downloads folder, move it to its own folder first.

3.3 The DCS script on the sim PC (without the installer)

The installer (section 3.1) does this for you. Without the installer: start JaHeLi-Gauges.exe once **on the sim PC**. When it finds DCS and the script is missing (or too old), it offers to install it:



First start on the sim PC

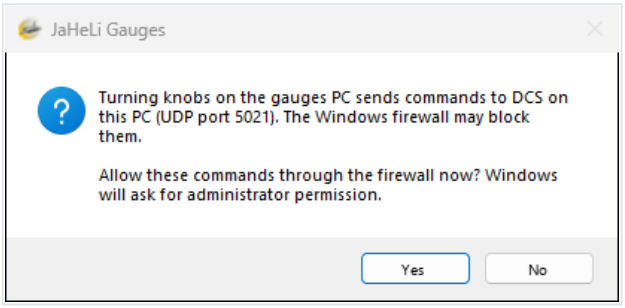
1. Click **Yes** to install the script. The program copies `JaHeLiGauges.lua` to `Saved Games\DCS\Scripts\JaHeLi` and adds one line to your `Export.lua` (once). Other DCS folders, such as DCS.openbeta, are done as well.
2. A second question offers to open the firewall for the knob commands (section 3.4). Click **Yes**; Windows asks for administrator permission.
3. A last question asks whether to show the gauges on this PC. Answer **Yes** when this is also your gauges PC. Answer **No** if the gauges run on another PC: the program then closes.
4. Start a **new mission** in DCS. DCS only loads export scripts at the start of a mission.

You can run the same installation later at any time: right-click a gauge and choose **Install DCS script on this PC ...**. After an update of JaHeLi Gauges, install the script again: the gauges show **OLD DCS SCRIPT** when the script in DCS is older than the program.

3.4 Firewalls and the network

PC	What	How
Gauges PC	Receive the gauge values: UDP port 5020 incoming	The installer adds the rule *JaHeLi Gauges data*. Without the installer, Windows asks "Allow access?" the first time you start the program: tick **Private networks** and click **Allow access**.
Sim PC	Receive the knob commands: UDP port 5021 incoming	The installer adds the rule *JaHeLi Gauges commands*. Without the installer, the program offers this rule when it installs the DCS script (administrator permission needed). Without the rule, the gauges still move, but knobs and buttons do not work.

The question about the firewall during installation:



Allowing the knob commands

Which PC does DCS send to? By default the script sends its messages as a *broadcast* to all PCs in your network, so no address has to be set. If you prefer to send to one PC only (or your network blocks broadcasts), open `Saved Games\DCS\Scripts\JaHeLi\JaHeLiGauges.lua` in a text editor, near the top replace

```
host = "255.255.255.255",
```

by the IP address of the gauges PC, for example

```
host = "192.168.1.20",
```

and start a new mission. The program sends the knob commands back to the PC the gauge values come from.

3.5 Manual installation of the script

Rather do it by hand? Copy `JaHeLiGauges.lua` to `Saved Games\DCS\Scripts\JaHeLi\JaHeLiGauges.lua` (create the folder) and add this line to the end of `Saved Games\DCS\Scripts\Export.lua` (create the file if it does not exist):

```
dofile(lfs.writedir()..[[Scripts\JaHeLi\JaHeLiGauges.lua]])
```

Other export scripts (such as DCS-BIOS or the MFD Streamer) can stay in the same Export.lua.

4. The first start

Start JaHeLi-Gauges.exe on the gauges PC. The gauges open in a grid of windows. Until DCS sends data, every gauge shows **NO DATA**, and the right-click menu shows *"Waiting for data from DCS on UDP port 5020 ..."*.

1. Start DCS on the sim PC and begin a mission in the F-16C (or press Fly in the Instant Action).
2. The gauges come alive within a second. The first line of the right-click menu then shows the aircraft and the PC the data comes from.
3. Arrange the windows as you like (section 6), then lock the layout.

4.1 Messages on the gauges

Message	Meaning
NO DATA (red, at the bottom of a gauge)	No message from DCS for one second. DCS is not running, no mission is started, the script is not installed, or a firewall or the network blocks the data.
OLD DCS SCRIPT	The script in DCS is older than the program. Install it again (section 3.3) and start a new mission.
DEMO (diagonal across a gauge)	No license and the 7-day trial is over: demo mode, 30 minutes per start (section 11).
DEMO ENDED	The 30 minutes of the demo are over. The gauges stand still.
"not an F-16C: only ADI attitude available" (menu)	You fly another aircraft. Only the attitude indicator can follow it.

5. The gauges

JaHeLi Gauges has **31 windows**: 22 gauges and 9 panels. Show the ones you need; the others cost nothing (section 6.5).

5.1 Flight instruments

Gauge	Shows
ADI	Attitude indicator: the sky/ground ball with pitch and bank, the localizer and glide-slope bars, the OFF and AUX flags and the pitch trim knob.
AIRSPEED / MACH	Airspeed needle, Mach drum, the maximum-speed marker and the SET INDEX knob.
ALTIMETER	Altitude needle and drums, the barometric setting (Kollsman window), the PNEU flag and the baro setting knob.
VVI	Vertical velocity indicator.
AOA	Angle-of-attack indicator.
STANDBY ADI	The backup attitude indicator with the cage / reference knob and the OFF flag.
STANDBY COMPASS	The standby compass.
CLOCK	The cockpit clock with the elapsed-time (stopwatch) hands, the wind / set knob and the stopwatch button.
PITCH TRIM, ROLL TRIM	The pitch and roll trim indicators.

Gauge	Shows
SPEEDBRAKE	The speedbrake position indicator.



The flight instruments

5.2 Engine, fuel and systems

Gauge	Shows
RPM, FTIT	Engine speed and fan turbine inlet temperature.
NOZZLE POSITION	Exhaust nozzle position (percent open).
OIL PRESSURE	Engine oil pressure.
FUEL FLOW	Fuel flow in pounds per hour (counter drums).
FUEL QTY	Fuel quantity: the AL and FR needles and the total counter.
HYD PRESS A, B	The two hydraulic system pressures.
EPU FUEL	EPU hydrazine fuel quantity.
CABIN PRESS ALT	Cabin pressure altitude.
OXYGEN	Oxygen pressure and the flow indicator.



Engine, fuel and system gauges

5.3 Panels

Panel	Shows	Operation
LEFT MFD, RIGHT MFD	The frame of an MFD with its 20 OSB buttons and the GAIN, SYM, CON and BRT rocker switches. The middle is transparent, so it can sit over the MFD picture (section 8).	Click the OSBs and rockers.
CAUTION PANEL	The 32 lights of the caution light panel. A light turns amber when DCS switches it on.	—
ICP	The Integrated Control Panel: the push buttons, the Data Control Switch, the DED and FLIR rockers, DRIFT C/O, GAIN and four thumb wheels.	Click buttons and switches, scroll the wheels.
AOA INDEXER	The three lights of the AOA indexer (red chevron, green ring, yellow chevron).	—
AR / NWS INDEXER	RDY, AR NWS and DISC lights.	—
LEFT EYEBROW	TF FAIL light.	—
MASTER CAUTION	The MASTER CAUTION light.	Click to reset.
RIGHT EYEBROW	The eight red warning lights: ENG FIRE, ENGINE, HYD / OIL PRESS, FLCS, DBU ON, TO/LDG CONFIG, CANOPY and OXY LOW.	—



Caution panel and ICP



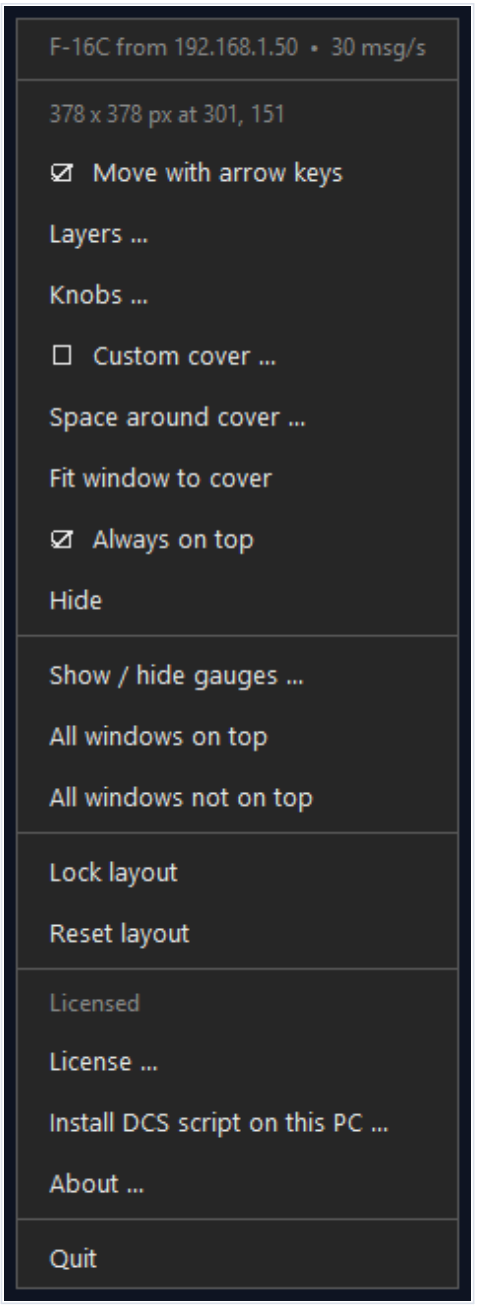
Indexers and eyebrow lights

6. Arranging the windows

The gauge windows have no title bar. Everything is done with the mouse: **right-click** a gauge for the menu. Left-clicking a gauge only does something on a knob or button, or when the layout is unlocked.

6.1 The right-click menu

Menu item	What it does
Status line	Where the data comes from, or "Waiting for data ...".
Size and position	Shows the size and place of this window.
Move with arrow keys	Select this window for the arrow keys (layout unlocked).
Layers ...	Show or hide Knobs, Frontcover and Background (section 9.1).
Knobs ...	Position, size and image of the knobs (section 9.2).
Custom cover ... / Adjust cover ... / Remove custom cover	Your own front plate (section 9.3).
Space around cover ... / Fit window to cover	Window size around the front plate (section 9.4).
Always on top	Keep this window above other windows.
Hide	Close this gauge window (it can be shown again).
Show / hide gauges ...	Choose which windows are shown.
All windows on top / not on top	"Always on top" for all windows at once.
Unlock layout / Lock layout	Allow or block moving and resizing.
Reset layout	Put all windows back in the standard grid.
License ...	Trial status, machine ID and license code (section 11).
Install DCS script on this PC ...	Install or update the DCS script (section 3.3).
About ...	Version, license status and machine ID.
Quit	Save the layout and close the program.



The right-click menu of a gauge

Not every item appears on every window: the panels (MFD, caution panel, ICP, indexers and eyebrows) have a *Background* switch instead of *Layers*, and no custom cover.

6.2 Unlock, move and resize

Right-click and choose **Unlock layout**. Each window now gets an orange frame, an orange corner and a small panel with its name, size and position.

- **Move**: drag the window with the left mouse button.
- **Resize**: drag the orange corner at the bottom right.
- **Exact size and position**: type the width and height (**Size**) or the position on the screen (**Pos**) in pixels and click **OK** (or press Enter). The smallest size is 80 pixels.
- **Arrow keys**: click a window (its frame turns yellow) and move it 1 pixel at a time with the arrow keys, or 10 pixels with Shift.

When everything is in place, right-click and choose **Lock layout**. The frames disappear and the windows can no longer be moved by accident. The layout is saved automatically.



Unlocked: frame, corner and panel

6.3 Always on top

Gauge windows stay above other windows, including DCS and the MFD Streamer, so they never disappear behind them. Switch this off per window with **Always on top** in the menu, or for all windows with **All windows not on top**. If you run the MFD Streamer client on the same PC, the gauges always stay above its windows, even when both have “always on top” switched on.

6.4 Reset layout

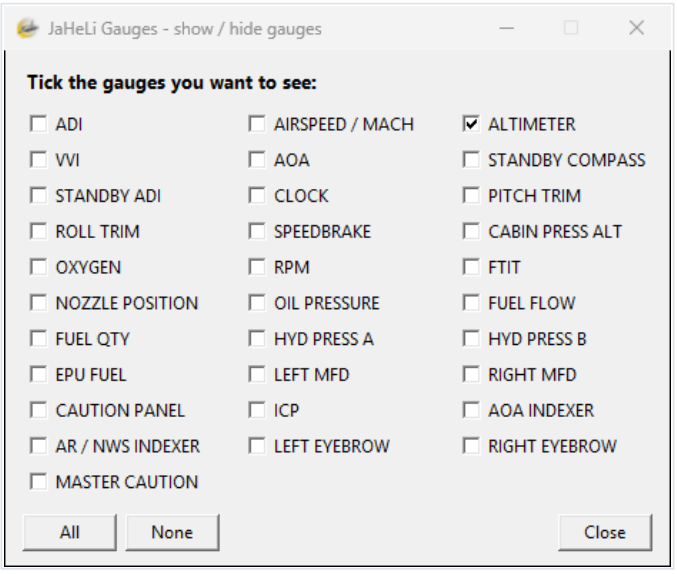
Reset layout puts all open windows back in a grid of six columns at the top left of the screen. Use it when a window ended up outside your screen.

6.5 Show and hide gauges

Choose **Show / hide gauges ...**. Tick a gauge to show its window; untick it to hide it. **All** and **None** switch everything at once. The choice and the place of each window are saved.

A window that is hidden keeps its place, size and settings, so it returns exactly as it was.

When you hide the last window, the list opens by itself so there is always something to click.



Choosing the gauges

7. Knobs and buttons

The knobs and buttons on the gauges control the real cockpit in DCS. This needs the DCS script (section 3.3) and the firewall rule on the sim PC (section 3.4).

Action	How
Turn a knob	Scroll with the mouse wheel over the knob: up is clockwise. Hold **Shift** to turn 4 times as fast. Scrolling over the gauge, but not over a knob, turns the first knob of that gauge.
Press a button	Click it. The button is pressed in DCS as long as you hold the mouse button.
Rocker switch	Click the upper half for up, the lower half for down. The switch stays as long as you hold the mouse button.

7.1 Which controls work

Gauge	Control	Scroll wheel	Click
ALTIMETER	Baro setting knob (bottom left)	Sets the pressure	—
AIRSPEED / MACH	SET INDEX knob (bottom right)	Moves the index marker	—
CLOCK	Wind / set knob (left), elapsed-time knob (right)	Winds and sets the clock	Left knob: pull / set. Right knob: start, stop and reset the stopwatch.
STANDBY ADI	Cage / reference knob	Moves the reference symbol	Cages the instrument
ADI	Pitch trim knob	Sets the pitch trim	—
PITCH TRIM, ROLL TRIM	The trim wheels	Moves the trim	—
LEFT / RIGHT MFD	20 OSB buttons and the GAIN, SYM, CON and BRT rockers	—	Presses the button or rocker.

Gauge	Control	Scroll wheel	Click
ICP	Buttons, Data Control Switch, rockers, DRIFT C/O, GAIN	Turns the SYM, BRT, RET DEPR and CONT wheels	Presses the control.
MASTER CAUTION	The light is a push button	—	Resets the master caution.

Tip: In demo mode (after the 7-day trial) the knobs stop working when the 30 minutes are over (section 11).

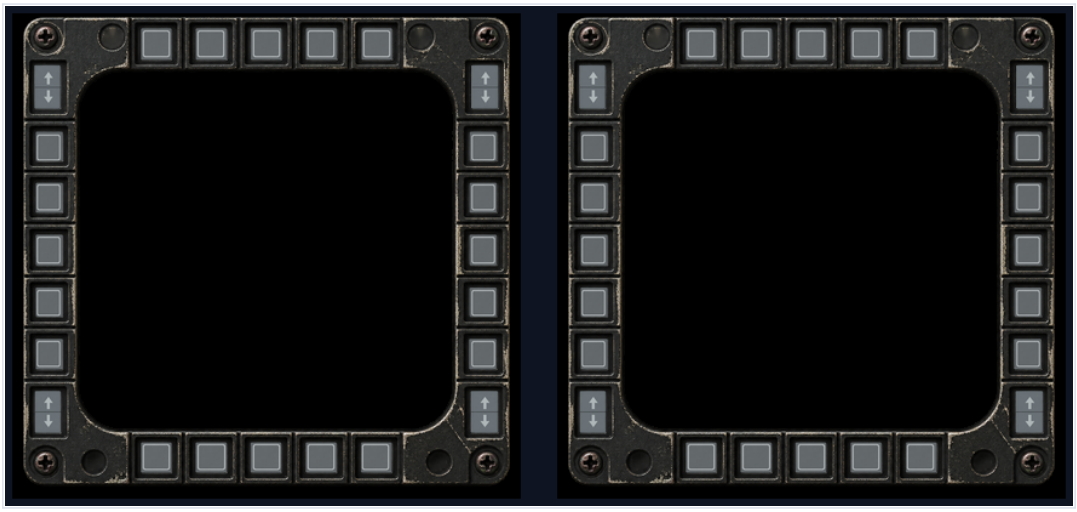
8. Together with the MFD Streamer

The **LEFT MFD** and **RIGHT MFD** windows of JaHeLi Gauges show the frame of an MFD with working buttons. The middle of the frame is transparent. Together with the **JaHeLi MFD Streamer**, which shows the MFD picture on the same PC, you get a complete MFD: the picture from the MFD Streamer, the frame and the clickable buttons from JaHeLi Gauges.

Product	Contributes
MFD Streamer client	The live MFD picture, in its own window.
JaHeLi Gauges (LEFT MFD / RIGHT MFD)	The frame with the 20 OSB buttons and 4 rockers, on top of the picture.

1. Start the MFD Streamer client and place its window for this MFD where you want the MFD to be.
2. Start JaHeLi Gauges and show **LEFT MFD** (or RIGHT MFD) with **Show / hide gauges ...**.
3. Unlock the layout (section 6.2) and move and size the frame window so the transparent middle of the frame lies exactly over the picture. Use the Size and Pos fields of both programs for an exact fit, then lock both layouts.

Tip: The frame window stays above the MFD Streamer window by itself. Clicks on the transparent middle go through to the window below; clicks on the buttons go to DCS.



Both MFD frames; the transparent middle shows the MFD picture below it

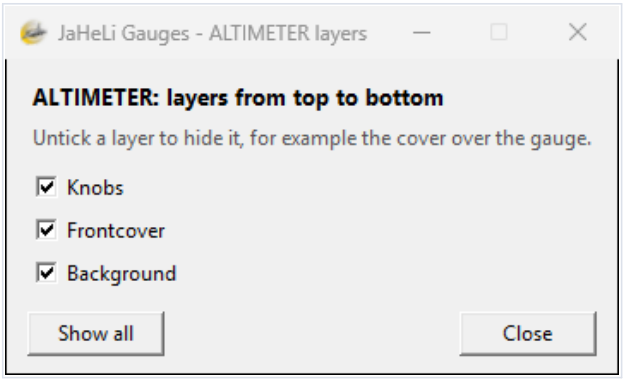
9. Making it your own

The gauges use the F-16C artwork and need no setup. If you want a different look, every dial gauge can be adjusted.

9.1 Layers

Choose **Layers ...**. Untick a layer to hide it:

- **Knobs**: the knobs that JaHeLi Gauges draws (the knobs keep working while hidden).
- **Frontcover**: the front plate with the screws and the bezel.
- **Background**: the dark background of the window. Switched off, the window is transparent and clicks go through to whatever is below.

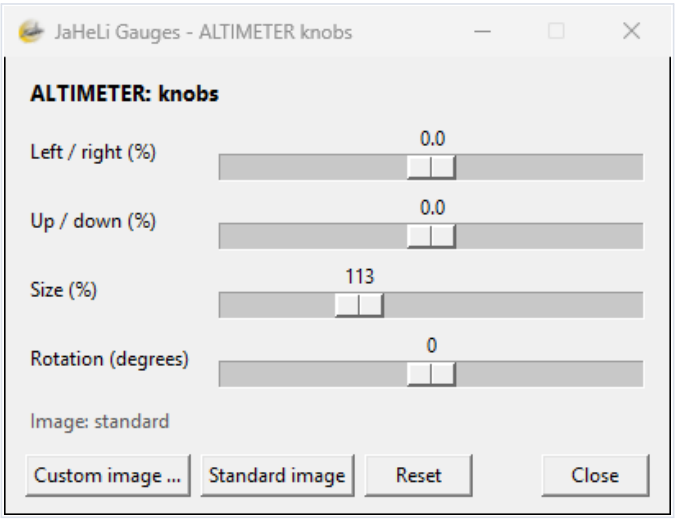


The layers of the altimeter

9.2 Knobs

Choose **Knobs ...**. With several knobs on one gauge, pick the knob first (right-click directly on a knob to preselect it). Then use the sliders:

- **Left / right** and **Up / down** (percent): move the knob.
- **Size** (percent): make the knob larger or smaller.
- **Rotation** (degrees): turn the knob so its mark points the right way.
- **Custom image ...**: use your own knob picture (PNG, drawn upright, with a transparent background). **Standard image** brings the original knob back and **Reset** restores position and size.



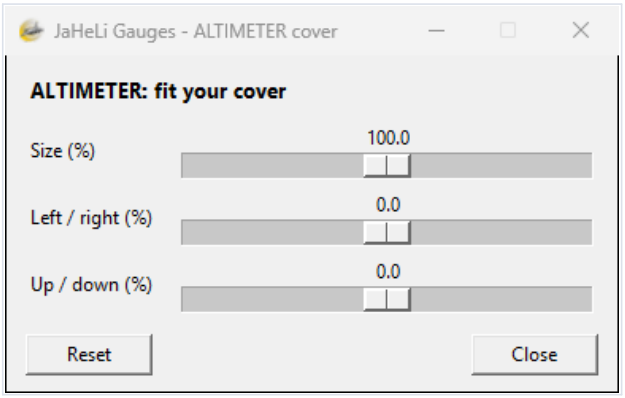
Adjusting the baro knob

9.3 A custom cover

A **cover** is the front plate of a gauge: a PNG picture with a transparent opening where the dial shows through. Choose **Custom cover ...** and select your PNG file; it is copied to the `covers` folder next to the program. The original front plate is hidden (bring it back with **Layers ...** or **Remove custom cover**).

Then choose **Adjust cover ...** to fit it over the dial with the sliders:

- **Size** (50–150 percent);
- **Left / right** and **Up / down** (±25 percent).
- **Reset** puts the cover back to its original size and place.

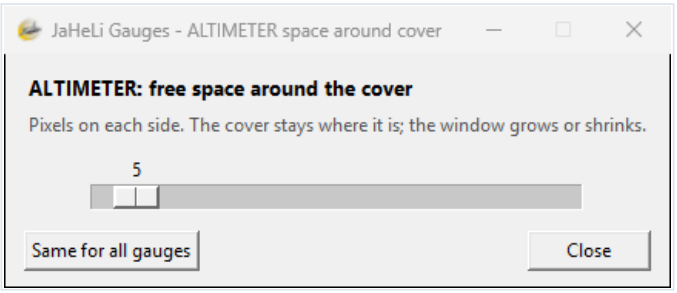


Fitting a custom cover

9.4 Space around the cover

By default the window sits tightly around the front plate, with 5 pixels of free space. **Space around cover ...** sets this free space (0–100 pixels per side). The cover stays where it is on the screen; the window grows or shrinks around it.

Same for all gauges applies the value to every gauge. **Fit window to cover** snaps the window back around the cover after you have resized it by hand.



Free space around the cover

10. Tips

- **One gauge per screen area.** A small screen next to your cockpit can hold a whole row of gauges. Lock the layout when you are done.
- **Size matters little.** The gauges are drawn at the size of the window, so they stay sharp when you resize them. Keep them small enough to read at a glance.
- **Same PC as DCS?** Everything works on one PC as well. Put the gauge windows on a second monitor.
- **More PCs?** The gauges can run on several PCs at once, each with its own license (section 11.5).
- **Wired network.** Use a wired connection for the smoothest movement. The data is tiny (about 30 messages per second), so a normal network is plenty.
- **Copy your layout.** To use the same layout on another PC, copy gauges_layout.json and the covers folder from %APPDATA%\JaHeLi\Gauges (section 13).

11. License

11.1 Trial version

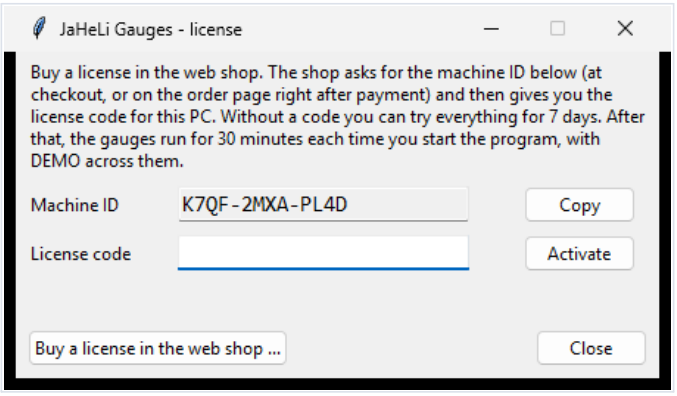
Without a license you can try JaHeLi Gauges for **7 days**. During these 7 days everything works without limits and there is no DEMO. The right-click menu shows how many days are left. The 7 days start the first time you start the program.

The trial cannot be restarted: reinstalling the program, using another Windows user or changing the clock does not give new days. If the Windows clock is set back, the program treats the trial as ended.

After the trial: demo mode. When the 7 days are over, the gauges keep working as a demo: **30 minutes** each time you start the program, with the word **DEMO** across every gauge all the time. When the 30 minutes are up, the gauges stand still on their last values, the knobs stop working and the license window opens. Close the program and start it again for another 30 minutes, or enter a license code.

11.2 Buying a license

1. Start JaHeLi Gauges on the **gauges PC**, right-click a gauge and choose **License ...**.
2. The **Machine ID** of this PC is shown.
3. Click **Buy a license in the web shop ...**. The product page opens and your machine ID is copied automatically.
4. Order the license. The shop asks for the **machine ID** (at checkout, or on the order page right after payment): paste it there (Ctrl+V).
5. You receive the **license code** on the confirmation page and by email.



The license window

Important: The license code only works on the PC whose machine ID you entered. Always take the machine ID from the **gauges PC** (the PC that runs JaHeLi-Gauges.exe). The machine ID of a PC is the same for the JaHeLi MFD Streamer and JaHeLi Gauges, but each product has its own license code.

Tip: One machine ID per license. If you order the F-16C Gauges together with the MFD Streamer, or more than one gauges license, the shop asks for a machine ID for each license. Use the machine ID of the PC where that program will run: the gauges on the PC with the extra screens, the MFD Server on the PC that runs DCS. If both run on one PC, enter the same machine ID for both.

11.3 Activating

Open **License ...**, type or paste the code into **License code** and click **Activate**. The menu then shows *"Licensed"*, and the time limit and the DEMO watermark are gone. You only need to do this once. Upper or lower case and the dashes do not matter.

Activation works offline: no account and no internet connection are needed. The code is stored for your Windows user account; if you use another Windows account on the same PC, enter the same code there once. The DCS script on the sim PC needs no license.

11.4 New PC or reinstalled Windows

A new PC, or a fresh installation of Windows, gives a new machine ID, so your old code no longer works. You can request a new license code **once, free of charge**. Contact us via www.jahelisimulator.com with your order number and your new machine ID.

11.5 More than one gauges PC

You can run JaHeLi Gauges on several PCs at the same time: the DCS script sends the gauge values to all PCs in your network, so every PC shows the same live gauges, in step with each other. The knobs and buttons work on every PC.

Important: Each PC needs its own license. A license code only works on the PC whose machine ID you entered at checkout. For a second gauges PC, buy another license and enter the machine ID of that PC. Without a license, a PC runs the trial version. The DCS script on the sim PC needs no license, however many gauges PCs you use.

12. Updates

When you start JaHeLi Gauges, it looks (at most once a day, in the background) on the JaHeLi website to see whether a newer version exists. If there is one, the program shows a message once, and the right-click menu gets a line **Update available: version ...**. Click it to open the download page: **www.jahelisimulator.com/shop/download/**. Download the new installer there and run it over the old version; your layout, covers and license are kept. After an update, run the installer on the DCS PC as well, so the DCS script is updated too (the gauges show **OLD DCS SCRIPT** until you do).

- Nothing is downloaded or installed by itself, and no personal data is sent: the program only reads a small file.
- Without an internet connection nothing happens and the program works as usual.
- To switch the check off, remove the tick at **Check for updates automatically** in the right-click menu.

13. Files

File	Where	Contents
`gauges_layout.json`	%APPDATA%\JaHeLi\Gauges	Position, size and settings of every window, and whether the layout is locked.
`covers\`	%APPDATA%\JaHeLi\Gauges	Your own covers and knob pictures.
`JaHeLi-Gauges.exe`	C:\Program Files\JaHeLi\F-16C Gauges	The program, and the manual in the folder Manual.
`JaHeLiGauges.lua`	Saved Games\DCS\Scripts\JaHeLi	The DCS script.
`Export.lua`	Saved Games\DCS\Scripts	Has one added line that starts the script.

Tip: To start over with the layout, close the program and delete gauges_layout.json. To use your layout on another PC, copy the layout file and the covers folder to the same folder there. Press Windows + R and type **%APPDATA%\JaHeLi\Gauges** to open the folder.

14. Troubleshooting

Problem	Solution
The gauges show NO DATA	Check that a mission is running in DCS and that you started a **new** mission after installing the script. Check that the line in Export.lua exists (section 3.5). On two PCs: both on the same network, and the firewall on the gauges PC allows the program (UDP 5020). If broadcasts are blocked, put the IP address of the gauges PC in the script (section 3.4).
The menu says "not an F-16C"	Only the F-16C is supported. In other aircraft only the ADI follows the attitude.
The gauges show OLD DCS SCRIPT	Install the script again (section 3.3) and start a new mission.
Gauges move, but knobs and buttons do nothing	The commands do not reach DCS. Allow UDP port 5021 incoming on the sim PC (section 3.4), or choose **Install DCS script on this PC ...** on the sim PC and answer Yes to the firewall question. Also check that the demo has not ended.
A window cannot be moved	The layout is locked: choose Unlock layout.
A window is outside the screen	Choose Reset layout.
A gauge window is gone	Choose **Show / hide gauges ...** and tick it.
The frame of an MFD does not match the MFD picture	Unlock the layout and fit the frame window over the picture with the Size and Pos fields (section 8).
The gauges stopped, DEMO ENDED	The 30 minutes of the demo are over. Restart the program for another 30 minutes, or enter a license code (section 11).
"This code does not belong to this PC"	The code was made for another machine ID. Compare the machine ID in the license window with the one in your order.

15. Support

Questions, problems or a new license code? Visit **www.jahelisimulator.com**. When you contact us, please include:

- the version (**About ...** in the right-click menu);
- your order number (for license questions) and the machine ID;
- a short description or a screenshot of the problem.