



GF-MCP PRO MCP Pro Advanced Auto Pilot Cockpit Control System



Congratulations on your purchase of a **GoFlight MCP Pro** Advanced Autopilot module, part of the extensive family of GoFlight GF-AC Cockpit Control System modules. The GF-MCP Pro is designed to operate with a wide variety of aircraft and is sure to make your flight simulation experience more realistic and enjoyable.

The steps below will assist in the installation, configuration and operation of the GF-MCP Pro. Following these instructions will help to get you up in the “virtual skies” as quickly as possible.

Installing the MCP Pro Software

NOTE If you own other GoFlight hardware and have already installed the same or more recent version of GoFlight software than that was included with your MCP Pro, you do not need to install the software again. Simply skip Step 1 in the instructions below.

1. Get on line and go to www.goflightinc.com.
2. On the GoFlight home page click Support.
3. Click on “GF Config x.xx” to download the latest module drivers and configuration software.
4. Click “Run” or “Save” and follow the instruction to install the software.

If the software installer detects that GoFlight software is already installed on your system, it will prompt you to overwrite. Click the **Yes** button to overwrite the existing version of GoFlight software. This is useful if you wish to keep the configuration settings for other GoFlight modules installed on your system, however, you should first make sure that the software you are overwriting is an older version and not a newer one.

Mounting the MCP Pro

Mounting Options:

1. Desktop: Included are two triangular brackets. Attach these brackets as shown to both ends:



2. AC Rack Mounting:
Remove the MCP Pro's electronic from the case by removing the four front panel screws. Attach the case to the AC Rack with the enclosed screw as shown:



Place the electronic back into the case and attach with the four screws.

3. Over Head Rack Mounting:

Attach the two triangular brackets as shown below.

Remove the two end screws of the Over Head Rack.

Attach the MCP Pro to the OHR with the two 6-32 by ½ " (included) screws as shown below:

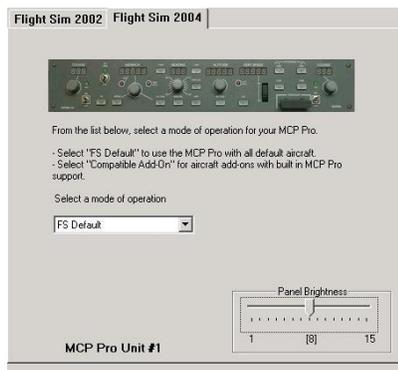


4. Plug the USB cable "B" connector end (square) into the connector on the back of the MCP Pro circuit board.

5. Plug the USB cable "A" connector end (rectangular) to a USB port on your computer. The message "New Hardware Found" will appear briefly, showing that the MCP Pro was detected. When the operating system recognizes the MCP Pro, you will see the MCP Pro's "wakeup" sequence – the LED displays light up with messages "123" in the 3-digit displays and "12345" in the 5-digit displays, sweeping across left to right, followed by a quick left-to-right sweep of all the lighted pushbuttons. This sequence will repeat any time you disconnect and re-connect the module, and each time you start up your computer. It indicates that the MCP Pro is ready to use.

6. After you install the GF-MCP Pro software and connect the MCP Pro for the first time, run the GF-Config program, which is located in your Programs menu under "GoFlight". Verify that GF-Config displays an icon representing the MCP Pro unit on the left-hand side of the window. Left-click on the MCP Pro icon to show the configuration options in the right-hand side of the window.

Configuring the MCP Pro



Using GF-Config, you can change certain characteristics of the MCP Pro's operation, so that it can operate most realistically with different types of aircraft. You select the MCP Pro for configuration by left clicking on its icon in the left-hand portion of the GF-Config window. Once the MCP Pro is selected for configuration, you can then select from the various options presented on the right-hand side of the GF-Config window.

The options presented by GF-Config may change from one release of software to another, as GoFlight is continually developing new software features and releasing them via software updates. Because of this, we suggest that you consult GF-Config's on-line help facility, which contains details about the configuration options available in your release of software.

The sample screen shot above was taken from an earlier version GF-Config, and shows the configuration view for the MCP Pro. If you have a different (newer) version of software, the options and the layout of the window may differ from the one shown here.

MCP Pro Operation

The MCP Pro is designed to closely resemble the look and function of the Boeing 737NG aircraft's **MCP** (Mode Control Panel) in color, control layout, and dimensions. The "real-world" 737NG MCP is a complex piece of equipment with many displays, knobs, and switches. Its purpose is to give the pilot control of all the various modes of auto flight that are managed by the aircraft's multiple on-board autopilots and auto throttle systems.

The following are generalized descriptions of each of the panel elements on the MCP Pro control panel, and the corresponding autopilot or auto throttle functions that they perform. (**Note:** the behavior of certain autopilot functions will vary depending upon the flight simulator software being used, and whether you are flying built-in vs. add-on aircraft packages for products such as Microsoft Flight Simulator.) For specific details about autopilot operation, please refer to this manual's section "*Using the MCP Pro with Microsoft Flight Simulator Default Aircraft*", or consult the documentation included with your other Flight Sim or add-on software. The descriptions below are in alphabetical order, based on each control's label on the MCP Pro panel.

A CMD Button

This button controls the activation of "Autopilot A". When the button's internal LED is lit, "Autopilot A" is engaged.

A CWS Button

This button allows the activation of control wheel steering for “Autopilot A”. When the button’s internal LED is lit, control wheel steering for “Autopilot A” is active.

A/T ARM Toggle Switch and Indicator

This toggle switch controls the arming state of the auto throttle. When the toggle switch handle is in the UP position the auto throttle is armed, and the indicator will light up. To disarm the auto throttle, move the toggle switch handle to the DOWN position.

ALT HLD Button

This button controls activation of the “Altitude Hold” mode of the autopilot. When the button’s internal LED is lit, “Altitude Hold” mode is active.

ALT INTV Button

This controls the activation of the “Altitude Intervention” function of the autopilot.

ALTITUDE Adjustment Knob and Display

This knob selects an altitude value, and is used to establish and maintain the aircraft’s altitude whenever the “ALT HLD” button beneath the knob is activated. The currently-selected altitude is shown on the 5-digit LED display beneath the ALTITUDE label on the panel.

APP Button

This button controls the activation of the “Approach mode” of the autopilot. When the button’s internal LED is lit, “Approach mode” is active.

B CMD Button

This button controls the activation of “Autopilot B”. When the button’s internal LED is lit, “Autopilot B” is engaged.

B CWS Button

This button allows the activation of “control wheel steering” for Autopilot B. When the button’s internal LED is lit, “control wheel steering” for Autopilot B is active.

COURSE Adjustment Knob and Display

There are two independent COURSE knob/display sets on the MCP Pro, one located at the far left of the panel, and the other at the far right. The knobs allow selection of value from 1 to 360 degrees. The displayed values represent radials to VOR stations that are tuned on the NAV1 and/or NAV2 radios. The VOR LOC button, located between the HEADING and ALTITUDE knobs, is used in conjunction with the COURSE function of the MCP Pro.

C/O Button

The Change Over button is used to toggle the speed display between IAS (Indicated Airspeed) and MACH (Mach Number) readout.

DISENGAGE Control Bar

The disengage control bar's purpose is to quickly turn off any and all functions of the autopilot. This allows the pilot to regain manual control of the aircraft at any desired time. When the disengage control bar is in the DOWN position, the autopilot is disengaged and no autopilot modes will function. When the bar is in the UP position, the autopilot can be activated, and its modes engaged or disengaged using the individual panel buttons.

Note that the disengage control bar does not affect the operation of the auto throttle, or any of the auto throttle-related modes.

F/D Toggle Switch and Indicator

There are two independent sets of F/D (Flight Director) toggle switch/indicator pairs on the MCP Pro; one located at the far left of the panel, and the other located at the far right. These switches allow activation and deactivation of the Flight Director function of the autopilot, and allow either left- or right seat pilot to optionally show the Flight Director bars on their respective flight display.

HDG SEL Button

This button controls activation of the Heading Hold function. When the button's internal LED is lit, the Heading Hold mode is engaged.

HEADING Adjustment Knob and Display

This knob selects a heading value from 1 to 360 degrees, and is used to establish and maintain the aircraft's heading when the HDG SEL button beneath the knob is activated. The currently-set value is shown on the 3-digit LED display beneath the HEADING label on the panel.

IAS/MACH (Speed) Adjustment Knob and Display

This knob selects an airspeed value, displayed in either Knots Indicated Airspeed (IAS) or MACH Number, on the 3-digit LED display under the IAS/MACH label on the panel. On aircraft featuring an auto throttle, this is used to establish and maintain the aircraft's speed when the SPEED button beneath the knob is activated. Pushing the C/O button located underneath the display causes the speed readout to alternate between IAS and MACH units.

LNAV Button*

This button controls activation of the LNAV (Lateral Navigation) function of the autopilot. When the button's internal LED is lit, the VNAV mode is engaged.

LVL CHG Button

This button controls activation of the Flight Level Change function of the autopilot. When the button's internal LED is lit, the Flight Level Change mode is engaged.

N1 Button

This button controls the activation of the THRUST N1 function of the auto throttle. When the button's internal LED is lit, the THRUST N1 mode is engaged.

VERT SPEED Adjustment Wheel and Display

The Vertical Speed adjustment wheel selects a rate of climb or descent. The aircraft will attempt to maintain the selected rate whenever the V/S button beneath the wheel is activated. The currently elected rate is shown on the 5-digit LED display beneath the VERT SPEED label on the panel.

SPEED Button

This button controls activation of the “Speed Hold” function of the auto throttle. When the button’s internal LED is lit, the “Speed Hold” mode is engaged.

SPD INTV Button*

This button controls the activation of the “Speed Intervention” function of the autopilot.

V/S Button

This button controls the activation of the “Vertical Speed Hold” function of the autopilot. When the button’s internal LED is lit, “Vertical Speed Hold” mode is engaged.

VNAV Button*

This button controls the activation of the “VNAV” (Vertical Navigation) function of the autopilot. When the button’s internal LED is lit, “VNAV” mode is engaged.

VOR LOC Button

This button controls the activation of the “VOR LOC” (Localizer) Hold function of the autopilot. When the button’s internal LED is lit, “VOR LOC” Hold mode is engaged.

* These controls can be used with advanced add-on aircraft products for Microsoft® Flight Simulator that are available from third party developers. When operating in FS DEFAULT mode with Flight Simulator’s built-in aircraft, these controls do not function because these functions are not programmed or included by Microsoft.

Using the MCP Pro with Microsoft Flight Simulator Default Aircraft

To use the MCP Pro with the built-in aircraft included in Microsoft® Flight Simulator 2004 and FSX, run GF-Config and select the MCP Pro device, then choose the **FS DEFAULT** mode selection in the MCP Pro Configuration View. This allows you to use your MCP Pro for more realistic operation of the Boeing aircraft included with Flight Simulator. Due to some functional limitations of the autopilot built into all Microsoft Flight Simulator aircraft, not all of the controls on the MCP Pro panel can be used when in the FS DEFAULT mode. The following describes some of these limitations and how they affect the functioning of the MCP Pro.

- * Flight Simulator’s autopilot has only one Engage mode (no distinction between A and B), so the A CMD and B CMD buttons both serve to engage and disengage the autopilot. Both buttons light when the autopilot is engaged.
- * Flight Simulator’s autopilot does not support a Control Wheel Steering function, and so the A CWS and B CWS buttons are programmed as Autopilot Engage/Disengage buttons, performing the same function as the A CMD and B CMD buttons.
- * Flight Simulator’s autopilot and primary flight display supports only one Flight Director. Both left and right F/D switches can be used to control the state of this single Flight Director. When the Flight Director is activated, both left and right F/D LEDs light up.
- * The following buttons are non-functional because Flight Simulator’s autopilot does not support their corresponding functions:
 - LVL CHG
 - VNAV
 - LNAV
 - SPD INTV
 - ALT INTV

Several add-on aircraft packages are available for Microsoft Flight Simulator that provide a much fuller simulation of these advanced aircraft autopilot systems, and allow high fidelity use of most, if not all, MCP Pro controls. For more information, we encourage you to visit the following software publishers' Web sites.

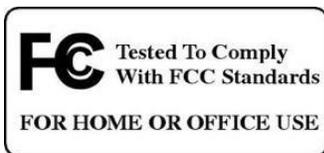
ProSim 737 www.prosim.com
PMDG737NGX www.pmdg.com
Ifly 737 www.iflysimsoft.com
Areosoft www.aerosoft.com.au/home/home.html
Level-D 767 Simulations www.leveldsim.com
Project Magenta www.projectmagenta.com
CRGSim 777 http://www.crgsim.com/Code/
More support being added Soon

MCP Pro Warranty

This product is warranted to the original purchaser to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. During this warranty period, GoFlight Technologies, Inc. ® (“GoFlight”) will, at its option, repair or replace, at no charge, any component determined to be defective. The liability under this warranty is limited to the repair and/or replacement of the defect or defective part, and does not include shipping expenses. This warranty does not apply if, in the determination of GoFlight, this product has been damaged by accident, abuse, improper usage, or as a result of service or modification by anyone other than GoFlight.

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This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



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