

Quick Reference

Preflight Checklist:

1. Verify **Yoke Collar Clamp** Thumbscrews are tight. Check **Yoke Clamp** and yoke alignment and verify Thumbscrews are tight.
2. Inspect all interconnects.
3. **VNAV** models: Power up aircraft panel, insert **Servo Carrier** and retract **Elevator Actuator**, then remove **Servo Carrier** and shutoff panel power.

First Flight in an aircraft:

1. Verify aircraft voltage is compatible with **PortaPilot** and power up aircraft panel.
2. Select **Yoke Clamp** rotation display: **SETUP**→**CENTR DISPLAY**→**Clamp Rotation**.
3. Take off and reach a stabilized straight and level cruise at 2,000' AGL or above.
4. Insert **Servo Carrier** and push towards panel to avoid engaging the magnetic couplers (slide rail to remain fully retracted). **Elevator Actuator** must be in downward position.
5. Press **NAV** key to activate **LVL** mode.
6. Pull on the **Servo Carrier** to engage it with the **Yoke Clamp** coupler(s).
7. Monitor **CLAMP** rotation, let it settle, and incrementally rotate the **Yoke Clamp** to diminish the indicated value.
8. Mark the position of the **Yoke Clamp** onto the aircraft Yoke.

Normal Autopilot Operations:

LVL mode: Keep wings leveled or steer the aircraft.

1. Climb to a safe altitude (2,000' AGL or above) and insert the **Servo Carrier**. Push it towards the panel to avoid engaging the magnetic couplers.
2. Press the **NAV** key and select **LVL** mode.
3. Pull on the **Servo Carrier** to engage it with the **Yoke Clamp**.

Turning in LVL mode: Steer the aircraft at selectable rate.

1. While in **LVL** mode, the **←** and **→** keys steer the aircraft.
2. Press the **NAV** key to resume normal **LVL** mode.

HDG mode: Hold a magnetic heading.

1. While in **LVL** mode, pressing the **NAV** key selects **HDG*** operation.
2. The **SETUP** key provides means to change the current heading. Use the **←**, **→**, **↑** and **↓** keys to do this, and the **NAV** or **HLD** keys to exit Setup.

NAV mode: Track Direct-To or active flight plan.

1. While in **HDG***, the **NAV** key selects **NAV*** operation.

Altitude Hold: Hold current altitude (VNAV models only).

1. Fly straight and level with stabilized airspeed, and minimal vertical speed.
2. Align the **Elevator Actuator** couplers with the **↑** and **↓** keys, and engage them.

3. If necessary, use the **↑** and **↓** keys to adjust pitch attitude for minimal vertical speed.
4. Press the **HLD** key to hold the current altitude.
5. Press **SETUP** key, and use the **↑** and **↓** keys to edit the target altitude.
6. Pressing the **HLD** key again terminates altitude hold.

Normal Servo Carrier Removal:

1. **VNAV** only: Push down on the **Elevator Actuator** to disengage the coupler and lower it.
2. Hold the yoke and Push the **Servo Carrier** handle forward, towards the aircraft panel, to disconnect it from the **Yoke Clamp Fork**.
3. Pull up the **Servo Carrier** handle to remove it from its cradle.
4. Stow away from the aircraft magnetic compass.

Expedited Servo Carrier Removal:

1. Hold the yoke firmly and forcefully pull up onto the **Servo Carrier** handle to remove it.
2. Stow away from the aircraft magnetic compass

VFR into IMC Emergency: (Servo Carrier engaged)

1. If the PortaPilot is in Setup mode, exit by pressing either the **NAV** or **HLD** keys.
2. Press and hold down the **NAV** key until the three **NAV** indicators flash. After completion of the **Course Reversal** procedure, wait about two more minutes to exit the clouds.
3. Without active **Altitude Hold**, use aircraft elevator trim wheel to help maintain altitude.

Emergency during IFR flight in IMC conditions: (Servo Carrier engaged)

1. Enroute use **NAV*** to track flight plan, **HDG*** to steer the aircraft, **LVL** if no GPS.
2. ATC vectors to final use **HDG*** mode, or **LVL** if no GPS.
3. Once in range with the approach Established, use **NAV*** mode to intercept and track the final approach inbound. Adjust power to remain on the glide slope.
4. On a missed approach, either use optional **IFR HOLD**, or **NAV**, **HDG** and **LVL**.

While Servo Carrier is Engaged:

1. Keep vigilant, and monitor for errors and warnings.
2. Scan for coupler disconnections and loose cables.
3. Whenever in doubt, remove the Servo Carrier.

No Overriding:

1. Overriding the PortaPilot by force while it is engaged may cause damage to the unit.

Post-Flight Checklist;

1. Stow **Servo Carrier** in a padded bag for protection. Keep away from metallic items, and any items sensitive to magnetic fields.
2. Optional: loosen the Thumbscrews holding the **Yoke Clamp** and **Yoke Collar Clamp**

* Requires GPS