

FMFC Diamond N205DS Hangaring Standard Operating Procedure

There is a high risk of damaging the aircraft in the hangar because of its wingspan; and because of the difficulty controlling a castoring nose-wheel while going backwards.

To facilitate safe hangaring, we have installed **guide rails on the floor**; and we have installed a **power-winch** to assist in pulling the aircraft straight back into the hangar.

Removing Aircraft from Hangar

- Open main door in the usual manner and wait for it to raise to the top and shut off automatically. Make sure the door latches are hanging in the bottom most position (gravity).
- Fold out the floor guides on each side of the main gear.
- Remove the grounding cable and store on the wall; and remove the nose-gear chock.
- Connect tow-bar to the nose-gear.
- Be sure there are no obstacles forward at each wingtip.
- Pull the aircraft STRAIGHT OUT until the main gear is completely clear of the guides before any turns are made.
- Once the aircraft is clear, fold guides back into hangar and close up as usual.



Storing Aircraft Back into Hangar

- Open main door in the usual manner and wait for it to raise to the top and shut off automatically. Make sure the door latches are hanging in the bottom position (gravity).
- Fold out the floor guides.
- Attach tow-bar.

Push plane back between guides.

- Pushing on the prop root and using the tow-bar to control the nose-wheel, manually guide the airplane STRAIGHT BACK. Keep wheels on the painted yellow lines, and then between the raised yellow guides.
- NOTE: the mains should NOT TOUCH the guides. If that happens, pull forward slightly and reposition.
- HINT: DO NOT let anyone assist by pushing back on the wings on either side. This will make the free caster nosewheel turn against your will.
- Once the main gear is close to the lip of the door, you may hook up the winch.



Hook Winch to Tail

- Release the cable lock on the winch and pull just enough cable out to secure the connection to the tail skid.
- Reset the cable lock on the winch.
(DO NOT RUN THE CABLE OUT ELECTRICALLY)
- Unroll the winch handheld control box and position it near the tow-bar at the front of the aircraft. It helps to run the cable outside the floor guides.



Winch plane into hangar

- From the front of the airplane, hold the control switch in one hand and actuate the winch "IN" button to pull the plane rearward. With the other hand, use the tow bar to steer the nosewheel, keeping the mains inside (not touching) the raised guides. If they touch, STOP; then run out enough cable to allow for correction before again winching IN. STOP the winch when the main wheels are within a few inches of the floor chocks.



EMERGENCY NOTE: If the winch control malfunctions and will not shut off, you can stop it by turning off the hangar lights or unplugging the winch at the rear of the hangar.

- Winch the plane back to within a few inches of the chocks. Manually push the plane back to the chocks.
- Fold up the guides.
- Remove the cable from the tail skid plate and stow the winch control cable.
- Attach grounding cable and wheel chock. Close and secure hangar as normal.

