



## Cantering Nose Landing Gear Adapter/Receiver Capture and Disconnect Instructions

Use with Cirrus SR20/22, Cessna 350/400, 162, Diamond DA40, DA20, and Grumman AA/AG models

**Warning:** Read, understand, and become familiar with your applicable Lektro operators manual and specific aircraft turning/towing limits before attempting to move the aircraft. When attempting to tow a cantering/cantering nose landing gear aircraft equipped with sloping strut or wheel fairing the following procedure must be applied:

- Check to see that your tug is equipped with the Cantering NLG Adapter, Receiver, and pin caps marked for use with aircraft make and model being towed. (Pin caps available for Cirrus SR20/22, Cessna 350/400, Cessna 162, Diamond DA40, Diamond DA20, and Grumman AA/AG models) Pin caps not installed on the Adapter should be installed on the upper or lower side of the receiver flange for easy access.
- **Note:** At least once every three months, or once a month if the tug is stored outdoors, lubricate the adapter pins, receiver pins and receiver compression spring mechanism, preferably with dry-to-clear aircraft structures rust inhibitor lubricant or white lithium grease
- Whenever possible, capture the aircraft on level ground with the nose wheel straight
- Position the Lektro parallel and centered to the aircraft's nose wheel, with the forward most portion of the cradle approximately 3ft from the front of the nose wheel pant.
- Install both of the two make and model specific towing lug pin caps on the adapter.
- Be aware of the aircraft propeller and take caution not to bump into it.
- Install adapter on the aircraft nose wheel towing lugs, follow the "THIS SIDE UP" or "THIS SIDE DOWN" marking and be careful not to contact the wheel fairing or strut fairing with any part of the adapter.
- Close adapter axial pin, depress the button on the t-handle locking pin and insert it into the adapter pin hole. Confirm that the t-handle pin is locked in place by attempting to remove it without depressing the button.
- Use the Adapter to turn the aircraft nose wheel straight in line with the Lektro
- Move Lektro side gates to the furthest outside position, with lock pins secure in side detents.
- Remove rear gate from adapter post and stow in Lektro side compartment
- Install Receiver onto the adapter post, it may be necessary to gently pull out on the spring mounted receiver pin to clear the top of the adapter post
- Check that the spring mounted receiver pin easily clears through the receiver and adapter post
- **Note:** on some Lektro models It may be necessary to clean the adapter post of burs or dents with an angle grinder and slightly chamfer the corners when first using the receiver.
- Remove the strut strap portion from the winch hook

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- **Caution:** Driving the cradle under the nose wheel with or without an installed wheel pant will damage the aircraft. Operators who ‘scoop’ personally assume responsibility for resulting damage.
- Free spool the winch or spool out to allow for connection to the adapter chain master link
- Insert the hook, untwisted into the exposed larger master link in the chain portion of the adapter
- **Winch the aircraft nose wheel onto the cradle** as close to the cradle's centerline as possible using the sequence detailed in Section 4.03
- Continue winching, the adapter bar will contact the receiver upper or lower flange and depress the spring mounted pin through the receiver and secure it onto the adapter post.
- **Note:** Depending on terrain it may be necessary to guide the adapter into the receiver envelope.
- On some 8700/8750/LX models of Lektro the adapter will contact and depress the winch cut-off and It may be necessary to override the winch cut-off to correctly tension the strap and secure the adapter into the receiver envelope and Receiver onto the adapter post.
- Raise the cradle according to section 4.03a. (Cont.) of your Lektro manual
- Check to see that the receiver pin has been pushed all the way through the back of the receiver and through the adapter post by looking for the green tip and tension the strap so that the tip does appear through the back of the receiver.
- Proceed with repositioning the aircraft according to the “Driving Procedures” and “Aircraft Towing Procedures” of your applicable Lektro operators manual
- **Caution:** Do not turn past aircraft manufactures recommended turning limits
- Check the aircraft nose wheel immediately before entering a turn, at regular intervals while turning and immediately after completing the turn to ensure the wheel fairing remains clear of the tug's, adapter, and receiver structures.
- Lower the cradle entirely
- **Caution:** Backing out with the cradle raised may damage the aircraft wheel pant. Slowly back away from the aircraft, use caution when doing so, ensure no part of the adapter becomes caught on the cradle or receiver.
- Install chocks and secure aircraft.
- Release the winch and disconnect the winch hook from the adapter chain.
- Place adapter chain over the adapter, clear of tug structure and receiver
- Back the tug away from the aircraft using “Driving Procedures” of your tug manual.
- **Remove the adapter** by following initial instructions in reverse order
- **Caution:** Never leave the Adapter installed on an aircraft

If the adapter or pin cap markings become worn or damaged to the extent where one or more is indecipherable, or you have questions or comments relating to the adapter, receiver, or pin caps please contact us for replacements. [mmoore@redfab.com](mailto:mmoore@redfab.com), [www.planesights.com](http://www.planesights.com)

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