

## Removing/Installing Drive Wheels



### Assembly, Installation and Operating Instructions

Drive Wheels with Locking Tab Washers

Yes, you can!

### SAVE THESE INSTRUCTIONS

*NOTE: Check all parts for shipping damage. In case of damage, DO NOT use. Contact Carrier/Invacare for further instructions.*

## SAFETY SUMMARY

To ensure the safe installation of the drive wheels with locking tab washers, these instructions must be followed:

### **⚠ WARNING**

**DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely - otherwise injury or damage may result.

### **⚠ INSTALLATION WARNINGS**

This procedure **MUST** be performed by a qualified technician.

Make sure power to the wheelchair is **OFF** before performing this procedure.

After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely - otherwise injury or damage may result.

Failure to properly install locking tab washer can result in wheel separation and potential user injury or property damage. When replacing wheels **ALWAYS** use a new locking tab washer. **DO NOT** reuse locking tab washers.

### **⚠ ACCESSORIES WARNING**

Invacare products are specifically designed and manufactured for use in conjunction with Invacare accessories. Accessories designed by other manufacturers have not been tested by Invacare and are not recommended for use with Invacare products.

*NOTE: Perform all of the procedures in this instruction sheet on one side of the wheelchair at a time.*

For more information regarding Invacare products, parts, and services,  
please visit [www.invacare.com](http://www.invacare.com)

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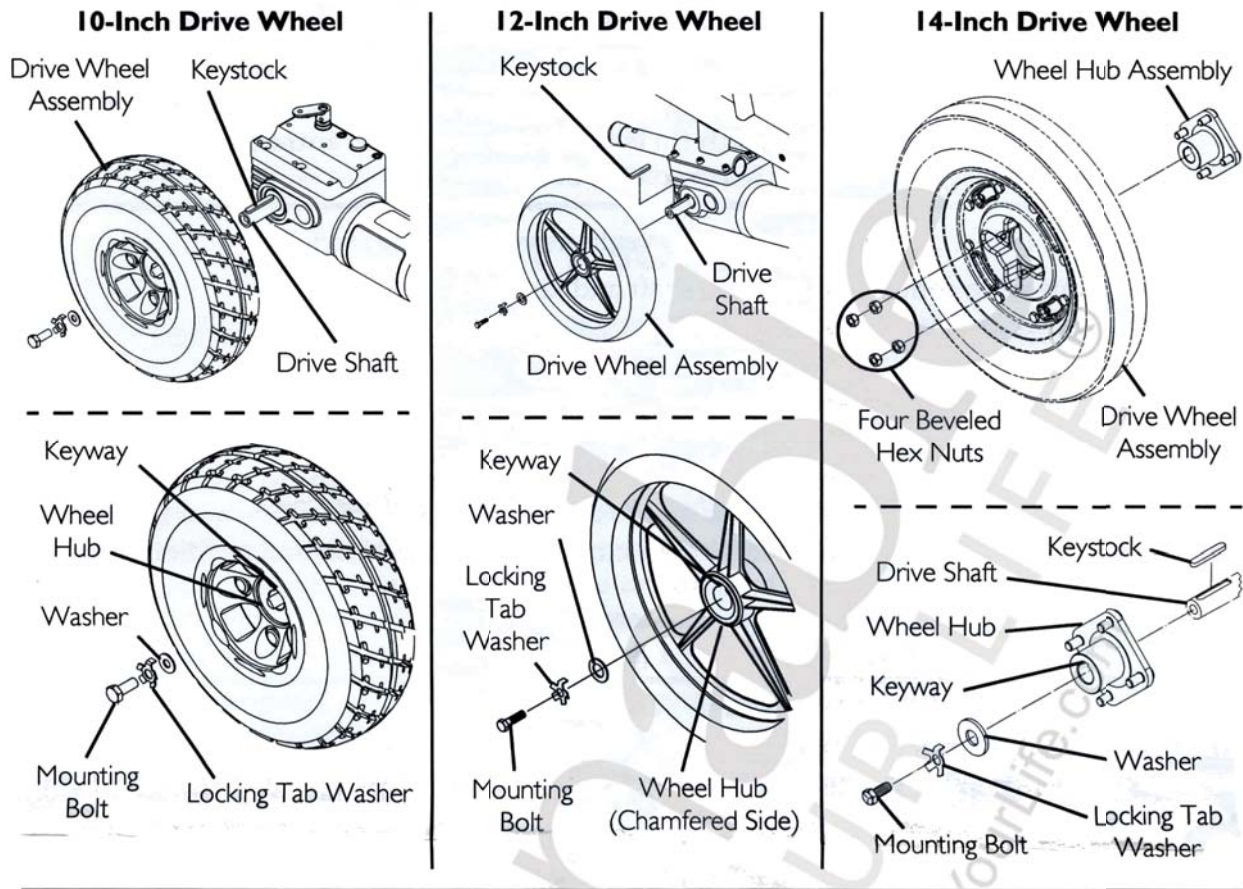
## Removing/Installing the Drive Wheel

*NOTE: For this procedure, refer to FIGURE 1 on page 3.*

### Removing the Drive Wheel

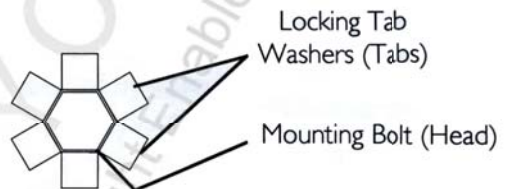
1. Perform one of the following:
  - 10-inch Drive Wheels and 12 inch Drive Wheels of Wheelchairs Built After 6/1/1996 - Proceed to STEP 2.
  - 12-inch Drive Wheels on Wheelchairs Built Before 6/1/1996 - Remove the hex screw, lock washer and washer that secure the existing drive wheel assembly to the drive shaft.
  - 14-inch Drive Wheel Only -
    - i. Remove the four beveled locknuts that secure the drive wheel to the wheel hub.
    - ii. Remove the drive wheel from the wheel hub.
2. Fold down tab of existing locking tab washer (Detail "A").
3. Remove mounting bolt and locking tab washer. Discard existing locking tab washer.
4. Remove the wheel from the drive shaft. If necessary, use wheel puller to remove the drive wheel from the drive shaft.
5. Install the drive wheel. Refer to Installing the Drive Wheel on page 4.



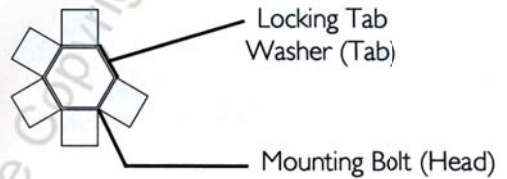


**DETAIL "A"**

*NOTE: Locking tab washer shown with all tabs folded down to remove/install the mounting bolt.*



*NOTE: Locking tab washer shown with one tab folded up to secure the mounting bolt. If necessary tighten (DO NOT loosen) the mounting bolt until the closest flat side of the mounting bolt head and tab of the locking tab washer are parallel.*



**FIGURE I** Removing/Installing the Drive Wheel

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## Installing the Drive Wheel

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### CAUTION

**DO NOT** apply more than a one-inch (in length) thin film of anti-seize compound to the drive shaft. Applying more than one-inch (in length) can cause the anti-seize compound to leak resulting in damage to flooring (carpet, tile, etc.).

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*NOTE: Ensure the anti-seize compound is spread evenly around the drive shaft.*

1. Apply an anti-seize compound to drive shaft and keystock.

*NOTE: Ensure keystock is in the cutout on the drive shaft. The keystock MUST line up with the wheel hub cutout.*

*NOTE: 12-inch Drive Wheels Only: Ensure the chamfered side of the wheel hub is facing out, away from the wheelchair.*

*NOTE: 14-inch Drive Wheels Only: The wheel hub is separate from the drive wheel.*

2. Align the keystock in the drive shaft with the cutout in the wheel hub and position the wheel on to the drive shaft.
  3. Apply Loctite 242® to the mounting bolt.
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### ⚠ WARNING

**Failure to properly install locking tab washer can result in wheel separation and potential user injury or property damage. When replacing wheels ALWAYS use a new locking tab washer. DO NOT reuse locking tab washers.**

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*NOTE: The locking tab of the locking tab washer MUST be inserted into the cutout in the rim and hub.*

4. Using the mounting bolt, washer and new locking tab washer, secure the wheel to the drive shaft.
5. Torque the mounting bolt to 90-in-lbs  $\pm$  20%.

*NOTE: Ensure one tab of the locking tab washer is parallel with one of the flat sides of the mounting bolt head. If necessary tighten (DO NOT loosen) the mounting bolt until the closest flat side of the mounting bolt head and tab of the locking tab washer are parallel.*

6. Fold one tab of the locking tab washer up so that the tab rests against one side of the mounting bolt head (Detail "A").
  7. 14-inch Drive Wheel Only -
    - A. Install the new/existing drive wheel onto the wheel hub.
    - B. Secure the drive wheel onto the drive wheel hub with the existing four beveled locknuts. Torque locknuts to 160-inch pounds.
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