WARNING

If incorrectly used, this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust, or service the machine.
This product is intended for use with 7” x 22” (178 x 559 mm) reels.

**CAUTION**

Before you install this kit, read the **Safety & Operation Manual** to become familiar with the mower, the controls and proper use of the equipment.

Stay alert for potential hazards and follow all safety precautions. Read all instructions completely and make sure you understand them before proceeding with the assembly.

1. Park the mower on a flat and level surface, fully lower the cutting units to the ground, engage the parking brake, turn the ignition switch to the OFF position and remove the key.
   a. Wait for all movement to stop before making any adjustments or modifications.
   b. Allow sufficient time for the unit to cool down.
   c. Take this opportunity to thoroughly inspect the equipment and perform other required maintenance.

**Preparation**

1. To help in the assembly process and prevent confusion, completely install each Brush Assembly before starting on the next reel.
   a. Open the carton to inspect and familiarize yourself with the contents.
   b. Keep all components in original carton until ready for assembly.
2. Remove the reels from the mower, following directions given in the mower’s **Parts & Maintenance Manual**.
3. Remove pal-nuts (N), scraper (P), and spring (R).
4. Remove zerk bolts (S) and rear roller (T).
5. Determine if a Turf Groomer® is installed on the reels.
   a. If a Turf Groomer is installed, follow **Brush Assembly with Groomer** instructions starting on Page 3.
   b. If a Turf Groomer is not installed, follow **Brush Assembly without Groomer** instructions starting on Page 5.

**NOTE:** If installing both a Rear Roller Brush Kit and a Turf Groomer Kit on the cutting units, install the Turf Groomer Kit before installing the Roller Brush Kit. Follow Turf Groomer assembly instructions for a reel with the rear roller brush.

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![Figure 1](image1.png)

**WARNING**

Before you attempt to clean, adjust, or repair any of this equipment, disengage all drives, shut down the engine and allow the unit to cool. Remove the key from the ignition switch and disconnect the Negative (BLACK) battery cable to prevent accidental discharge and potential bodily injuries.

![Figure 2](image2.png)

Reel with Turf Groomer Installed

Reel without Turf Groomer Installed
Brush Assembly with Groomer

The following parts were included with the Turf Groomer and are required to install this kit. These parts are not included in the Rear Roller Brush Kit:

**Turf Groomer P/N 67988 (L.H.) or 67989 (R.H.)**
- 4192642 (R.H.) or 4192643 (L.H.) Groomer Belt Cover. Reference (AA)
- 4192640 (R.H.) or 4192641 (L.H.) Inner Brush Belt Cover. Reference (AB)
- 4175226 Outer Brush Belt Cover. Reference (AC)
- 4235040 Bracket, Brush Belt Cover. Reference (AD)
- 4196282 Plug, 5/8" Hole. Reference (AE)
- 403908 Screw, #10-24 x 3/8" Truss Head (2). Reference (AF)
- 452002 Flat Washer, #10 (2). Reference (AG)

**Turf Groomer P/N 67954 (R.H.) or 67973 (L.H.)**
- 4164440 Brush Belt Cover. Reference (AH)
- 4164001 Groomer Belt Cover. Reference (AJ)
- 4156900 Bracket, Brush Belt Cover. Reference (AK)

1. Remove hardware (A) and belt cover (B). Remove plug (W) from cover.

2. Remove 3/8" hardware (C and D) and adjusting link (E). Remove groomer belt (M).

3. Remove hardware (F), brush pulley (G), groomer pulley (H), groomer pulley (N), and inner belt shield (J).

**NOTE:** Inner belt shield is only included with newer turf groomers 67988 and 67989 and may not be present.

4. Remove socket head screws (K) and slide adapter (L) out of bearing housing.

5. Inspect seal and o-ring on adapter plate (L) for damage. If either are damaged, new parts are included in this kit.

6. Assemble brush plate (Item 1) to adapter (L) using two 5/16-18 x 1/2" screws (Item 2) and lockwashers (Item 3).

**NOTE:** New adapter plate is included in this kit. New plate and existing plate are identical, and either can be used.

7. Assemble adapter and brush plate to bearing housing using socket head screws (K). Torque hardware (K) to 32-37 ft. lbs. (43-50 Nm).

8. Assemble inner belt shield (J), groomer shaft pulley (N), groomer pulley (H), brush pulley (G), and hardware (F) to reel. Block reel with a piece of wood and torque hardware (F) to 32-37 ft. lbs. (43-50 Nm).

**NOTE:** Assemble groomer pulley (H) with shoulder towards reel.

9. Move groomer shaft in slot so pulleys are as close as possible. Slide belt (M) over pulleys.

10. Loosely assemble adjusting link (E) and 3/8" hardware (C and D).

11. Place a deep well socket over eccentric (D) and turn to tighten belt (M).

**NOTE:** Use a deep well socket without the ratchet. The belt must be adjusted with hand pressure only.

12. Hold socket securely and tighten hardware (C) to 20 ft. lbs. (27 Nm).

13. Remove socket and torque eccentric hardware (D) to 8-10 ft. lbs. (11-13 Nm).

14. Loosely assemble brush shield (Item 4) to brush plate (Item 1) using two 1/4-20 x 1/2" screws (Item 5) and flat washers (Item 6).
15. Loosely assemble left side bearing assembly (Item 7) to reel frame using one 5/16-18 x 3/4” screw (Item 17), lockwasher (Item 3), and flat washer (Item 18).

16. Loosely assemble zerk shoulder bolt (Item 19) through spring washer (Item 20), 1/8” spacer (Item 21), ears of bearing assembly (Item 7), and into rear roller (T).

17. Slide long end of brush shaft (Item 22) through bearing assembly (Item 7), and brush shield (Item 4 - Figure 5).

18. Slide right side bearing assembly (Item 8) onto short end of brush shaft and loosely secure to reel frame with one 5/16-18 x 3/4” screw (Item 17), lockwasher (Item 3), and flat washer (Item 18).

19. Assemble zerk shoulder bolt (Item 19) through spring washer (Item 20), 1/8” spacer (Item 21), ears of bearing assembly (Item 8), and into rear roller (T).

20. Adjust position of brush so brush is parallel to rear roller and the bristles just touch the roller and equal amount along the entire length of the roller. Tighten bearing housing hardware (Item 17), rear roller zerk bolts (Item 19) and brush shield hardware (Item 5 - Figure 5).

21. Torque bearing assembly hardware (AZ) to 30 in. lb. (3.4 Nm). Insert drift pin in hole in bearing collar on bearing assemblies (Item 7 and 8) and rotate collar until the bearing is locked in place on the shaft. Tighten set screw in bearing assemblies.

22. Using hole (U) in brush plate (Item 1) as a guide, drill one 5/16 in. (8 mm) hole in bedknife adjuster block (V).

23. Slide clip (Item 23) over pin (Item 24). Slide clip down to lock in pin groove. Insert pin through brush plate hole (U) and into bedknife adjuster block (V). Secure clip to brush plate using one 1/4-20 x 1/2” screw (Item 5) and flat washer (Item 6).

24. Assemble brush cover bracket (AD or AK) to brush plate (Item 1) using two 1/4-20 x 1/2” screws (Item 5).


26. Reels with Turf Groomer 67988 or 67989: Assemble inner brush belt cover (AB) onto studs of brush cover bracket (AD). Secure to brush plate with #10-24 x 3/8” screws (AF) and flat washers (AG).

27. Loosen set screw (G3) and remove outer half of pulley (G1).

28. Insert key (Item 25) into brush shaft. Slide brush pulley (Item 26) onto brush shaft.

29. Loosely assemble two 5/16-18 x 3/8” set screws (Item 27) into pulley (Item 26). Using a straight edge, align pulleys and tighten set screws.

30. Place belt (Item 29) around brush pulley (Item 26) and inner pulley half (G2). Tighten belt by threading outer pulley half (G1) onto inner pulley as far as possible by hand. Lock adjustment in place with set screw.

31. Assemble belt cover (AC or AH) to bracket. Secure with two 1/4-20 hex nuts (Item 28) and flat washers (Item 6).

32. Reels with Turf Groomer 67988 or 67989: Assemble 5/8” hole plug (AE) into inner belt cover (AB).
1. Loosen clamp (A) and slide counterweight (B) out of bearing housing.

2. Block reel with a piece of wood and remove 5/16" socket head screw (C) from end of reel.

3. Remove 5/16-18 x 2" socket head screws (D) from locations shown.

4. Press seal (Item 30) into adapter (Item 31). Assemble o-ring (Item 32) to adapter. Lubricate o-ring and seal with NLGI Grade 2 LB grease.

5. Assemble brush plate (Item 1) to adapter (Item 31) using two 5/16-18 x 1/2" screws (Item 2) and lockwashers (Item 3).

6. Slide adapter/brush plate into bearing housing and secure using two 5/16-18 x 3" socket head screws (Item 34). Torque screws to 32-37 ft. lbs. (43-50 Nm).

7. Insert pulley shaft (Item 33) through seal and into reel coupler. Secure with 5/16-18 x 4" socket head screw (Item 35). Torque screw to 32-37 ft. lbs. (43-50 Nm).

8. Loosely assemble brush shield (Item 4) to brush plate (Item 1) using two 1/4-20 x 1/2" screws (Item 5) and flat washers (Item 6).

9. Loosely assemble left side bearing assembly (Item 7) to reel using one 5/16-18 x 3/4" screw (Item 17), lockwasher (Item 3), and flat washer (Item 18).

10. Loosely assemble zerk shoulder bolt (Item 19) through spring washer (Item 20), 1/8" spacer (Item 21), ears of bearing assembly (Item 7), and into rear roller (T).

11. Slide long end of brush shaft (Item 22) through bearing assembly (Item 7), and brush shield (Item 4).

12. Slide right side bearing assembly (Item 8) onto short end of brush shaft and loosely secure with one 5/16-18 x 3/4" screw (Item 17), lockwasher (Item 3), and flat washer (Item 18).

13. Assemble zerk shoulder bolt (Item 19) through spring washer (Item 20), 1/8" spacer (Item 21), ears of bearing assembly (Item 8), and into rear roller (T).

14. Adjust position of brush so brush is parallel to rear roller and the bristles just touch the roller and equal amount along the entire length of the roller. Tighten bearing housing hardware (Item 17), rear roller zerk bolts (Item 19) and brush shield hardware (Item 5).

15. Torque bearing assembly hardware (AZ) to 30 in. lb. (3.4 Nm). Insert drift pin in hole in bearing collar on bearing assemblies (Item 7 and 8) and rotate collar until the bearing is locked in place on the shaft. Tighten set screw in bearing assemblies.

16. Using hole (U) in brush plate (Item 1) as a guide, drill one 5/16 in. (8 mm) hole in bedknife adjuster block (V).

17. Slide clip (Item 23) over pin (Item 24). Slide clip down to lock in pin groove. Insert pin through brush plate hole (U) and into bedknife adjuster block (V). Secure clip to brush plate using one 1/4-20 x 1/2" screw (Item 5) and flat washer (Item 6).
18. Assemble belt cover bracket (Item 36) to brush plate using 1/4-20 x 1/2" screws (Item 5).
19. Slide pulley (Item 37) onto pulley shaft (Item 33). Secure with set screw on pulley between inner half of pulley and brush plate.

**NOTE:** Pulley spring assembly should face away from reel.
20. Insert key (Item 25) into brush shaft. Place belt (Item 29) around both pulleys and slide brush pulley (Item 26) onto brush shaft.
21. Align pulleys using a straight edge and secure brush pulley (Item 26) to brush shaft using two 5/16-18 x 3/8" set screws (Item 27).
22. Pull out on outer half of pulley (Item 37) and carefully spin reel. Belt will tighten automatically.
23. Assemble cover (Item 38) onto studs of bracket (Item 36). Secure with two flat washers (Item 6) and nuts (Item 28).

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**Final Assembly**

1. Grease bearing assemblies (Items 7 and 8)
If reel is to be installed on the front right or front left reel position of mower, assemble two washers (Item 39) onto lift yoke shaft.

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**Service Parts**

Service parts for bearing housings Item 7 and Item 8 are shown in Figure 15.

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**Support**

If you encounter any problems while installing this kit, contact your Jacobsen Dealer, or contact the Jacobsen Customer Care department.

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**Jacobsen**, A Textron Company  
11108 Quality Drive  
Charlotte, NC 28273  
800-848-1636
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World Class Quality, Performance And Support

Equipment from Jacobsen is built to exacting standards ensured by ISO 9001 and ISO 14001 registration at all of our manufacturing locations.

A worldwide dealer network and factory trained technicians backed by Genuine Jacobsen Parts provide reliable, high-quality product support.