TRUE-SURFACE® GREENS CARE COLLECTION OWNER'S MANUAL

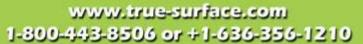


The Greens Care Collection is made to fit Toro, John Deare, Jacobsen, and Ransome triplex mowers.

Collectall 13 Inserts!

USA & Foreign Patents Passed & Pending







TRUE-SURFACE® GREENS CARE COLLECTION

Your investment deserves to be registered!

DATE PURCHASED:
SERIAL NUMBER:
OPERATOR NOTES:
To activate the warranty on your new Greens Care Collection, please fax or email the completed warranty registration in the back of this manual.
Fax: 1-636-356-1218
Email: chris@true-surface.com

For parts or service, please call 1-800-443-8506 and +1-636-356-1210.

TRUE-SURFACE® GREENS CARE COLLECTION

Congratulations on the purchase of your True-Surface® Greens Care Collection from Turfline, Inc.

Please review this owner's manual before unpacking the frames.

It is imperative to complete the warranty form and return it to Turfline, Inc. via fax, email or USPS. Doing this will activate your product's five-year warranty and guarantee that we contact you for any warranty issues or updates.

Maintenance of the collection is minimal. Only 2 lubrication points are located on each Depth of Cut Adjuster. We recommend 1 pump per month with a **food grade**, **non-petroleum based grease** (**DO NOT USE HIGH TEMPERATURE GREASE**). Wipe off all excess grease.

Clean sand and dirt from the Greens Care Collection using **Compressed Air**. Pressure washing units is not advised because it could damage the bearings.

This manual includes the following:

- Installation Instructions
- Parts Drawings and Numbers
- Model/Brand Mounting Kits
- Warranty and Safety Information

If you have technical questions or need to order parts, please call Turfline, Inc. at 1-800-443-8506 or 1-636-356-1210. Turfline, Inc. will try to ship parts orders received by Noon CST the same day via UPS Ground to anywhere in the continental United States.

WE ARE YOUR SUPPORT!

Customer satisfaction is Turfline's top priority! When you call us during our regular business hours, you will always talk to a real person and never an automated operator. We value our customers and accommodate to each individual's needs. Yes, we do business all around the world, but we treat you like our hometown neighbor.

Name	Title	Email
Christopher DeGeare	Inside Sales Coordinator/Parts	chris@true-surface.com
Terry Plemons	Director of Worldwide Sales	terry@true-surface.com
John Humphrey	President	turfline@att.net

Toll Free: 1-800-443-8506 Mailing Address: Shipping Address:

Phone: 1-636-356-1210 712 Jefferson Street, Ste. A 739 Jefferson Street

Fax: 1-636-356-1218 Moscow Mills, MO 63362 Moscow Mills, MO 63362

www.true-surface.com

Thank you for choosing True-Surface®!



True-Surface® Greens Care Collection 5-Year Warranty

To maintain superior warranty service, please call Turfline, Inc. before having work done. We maintain excellent customer service and quality products; keeping us informed of situations allows us to do so.

Within the industry, including the chat rooms of Turfnet and GCSAA, our company is known to be expedient in servicing our warranted products. Turfline, Inc.'s warranty policy is as follows:

Turfline, Inc. will either repair or replace any non-wear part of the True-Surface[®] Greens Care Collection which is defective in workmanship or material for a period of sixty (60) months from the date of delivery of the new product to the original end user determined by the **warranty registration.** These items will be repaired or replaced free of charge and freight free. Warranties on used or ex-demo equipment are limited to 90 days from date of purchase.

Turfline Inc. will cover parts subject to normal maintenance routines as specified in the product's Owner Manual and parts subject to wear and tear during the correct operation of the product. These parts include, but are not limited to; shafts, bearings, belts, blades, spikes, and bristles for a limited 90 days. The 90-day warranty on wear items specifically excludes used or ex-demo units.

Turfline, Inc. will not issue warranty credit for:

- any item that has been damaged by accident, lack of reasonable care and protection, or lack of suitable storage.
- parts that have been altered or modified by anyone other than Turfline, Inc.
- used parts that have been installed in place of failed parts.
- parts that have been installed incorrectly by the end user or its agents.
- parts that have not been maintained as per the Owner's Manual.
- service calls and overtime labor rates as Turfline, Inc. shall be contacted immediately upon encountering any problems.
- any consequential loss, damage, or costs to the equipment caused by (or incidental to) failure of any new
 part supplied with the original purchase or any new part supplied as a replacement for any failed part.

Warranty Claims:

The final purchaser of the True-Surface® Greens Care Collection must file a warranty claim with Turfline, Inc. The final purchaser must provide written evidence detailing the product's delivery date to that purchaser and the reasons why the purchaser believes that the product or part is defective in the categories of faulty material or workmanship. The purchaser is to deliver the faulty product or part to Turfline, Inc. at the purchaser's expense to be reimbursed by Turfline, Inc. if found to be the responsible party. Acceptance or rejection of the Warranty Claim is entirely at the discretion of Turfline Inc.

Turfline, Inc.
712 Jefferson St, Ste. A
Moscow Mills, Mo 63362
1-800-443-8506 or +1-636-356-1210 ~ Please ask for the Warranty Department
www.true-surface.com

TURFLINE, INC. reserves the right to make improvements in design or changes in specifications without prior notice and without prejudice or obligation to original design purchasers.

No person or organization has the authority to modify the terms, conditions, or limitations of this Warranty without the written consent of Turfline, Inc.

Operator Safety/ Machine & Turf Precautions

OPERATOR SAFETY

- 1. Never leave the operator's seat while units are running.
- 2. Never allow co-workers to remove the baskets or make any adjustment while the units are running. Keep co-workers at a distance while units are running.
- 3. Keep all extremities clear of all rotating components.
- 4. Wear protective gloves and clothing when handling and changing inserts.
- Get help with heavy inserts: Greens Spiker, Star Slitter, and NV Roller. Be sure all guards are in place and secured.
- 6. Obey all safety precautions set forth by the manufacturer of your greens mower.

MACHINE AND TURF PRECAUTIONS

- 1. Always be sure to rotate the parking stands into the "park" position before lowering the Greens Care Collection frame to the maintenance facility floor.
- 2. Be sure the parking stands are up in the "run" position before approaching the green.
- 3. Make certain the insert is installed correctly by confirming the drive key orientation (left or right) and the direction of the insert rotation: GCC-07R/L drives keys are stamped with either "L" for left hand thread or "R" for right hand thread. From the operator's seat on your triplex, if the motor is on the left side of the frame, then you will require a left-hand drive key. It is important pay attention to the Drive Key positions in order to run each insert properly.
- 4. Be sure both insert handles are locked in position by both spring plungers before operating.
- 5. Be sure the insert hood is set to the appropriate cutting insert and locked by all 4 spring plungers before operating.
- 6. Be sure the depth of cut desired for the insert has been checked and adjusted before approaching the green.
- 7. Check the following, and be sure all are secure: (a.) All Mounting Connections, (b.) All Lifting Devices, i.e. chains, hooks, etc.
- 8. Be sure all drive motors are installed and secured properly.

Certificate & Declaration of Conformity for CE Marking
Hereby, Turfline, Inc. declares that the True-Surface® Greens Care Collection and all of its
components are in compliance with the essential requirements and other relevant provisions.
The True-Surface® Greens Care Collection is classified within the following EU Directive: EU
Machinery Directive 98/37/EC & 2006/42/EC, and further conform with the following EU

Harmonized Standards: EN 12100-1:2003 EN 12100-2:2003 EN ISO 214121-1:2007 EN ISO 4254-1:2005. © 2009 Turfline, Inc. All rights reserved.

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US & Worldwide patents pending.

Turfline, Inc. operates a policy of ongoing development. Turfline, Inc. reserves the right to make changes and improvements to any of the products described in this document without prior notice.

Weight of the Greens Care Collection Frames and Inserts:

Collection Frame – 46 lbs. (20.9 kg)

Vacu-CutterTM – 17 lbs. (7.7 kg) Vacu-GroomerTM – 13 lbs. (5.9 kg) Vertical Mower – 17lbs. (7.7 kg) Green Sweeper Brush – 10 lbs. (4.5 kg)

Turf Rake -11 lbs. (5 kg)

Vacu-ScarifierTM – 14 lbs. (6.4 kg) Greens Spiker – 59 lbs. (26.8 kg) Star Slitter – 45 lbs. (20.4 kg) Deep Slicer – 12 lbs. (5.4 kg) NV Roller – 74 lbs. (33.6 kg) & 38 lbs.

NV Roller – /4 lbs. (33.6 kg) & 38 lb (17.2 kg) removable weight

Badger Brush – 27 lbs. (12.4 kg)

Greens Care Collection Insert Depths:

Insert	Usual Working Depth	Maximum Working Depth
Vacu-Cutter TM	0-1/8" (0-3mm)	1/4" (6mm)
Vacu-Groomer TM	0-3/32" (0-2mm)	3/32" (2mm)
Vertical Mower	0-1/8" (0-3mm)	9/16" (15mm)
Green Sweeper Brush	zero	zero
Vacu-Scarifier TM	5/16" (8mm)	3/8" (10mm)
Greens Spiker	1/2 - 3/4" (13-20mm)	1" (25mm) *If ground conditions are soft enough
Star Slitter	1/2 - 3/4" (13-20mm)	3/4" (20mm)
Deep Slicer	3/4" (20mm)	3/4" (20mm)
NV Roller	zero	zero
Turf Rake	At or above Zero	zero
Badger Brush	At or above Zero	zero

Working Widths of the Greens Care Collection Inserts:

 $\label{eq:Vacu-Cutter} Vacu-Cutter^{TM}-19\ 5/32"\ (486.7\ mm) \\ Vacu-Groomer^{TM}-20\ 1/8"\ (511.3\ mm) \\ Vertical\ Mower-18\ 11/16"\ (474.7\ mm) \\ Green\ Sweeper\ Brush-19\ 7/8"\ (505.0\ mm) \\ Vacu-Scarifier^{TM}-17\ 59/64"\ (455.2\ mm) \\ \end{array}$

Greens Spiker – 18 1/2" (469.9 mm)

Star Slitter – 18 3/8" (466.9 mm) Deep Slicer – 18 3/8" (466.9 mm) NV Roller – 19 3/4" (501.7 mm) Badger Brush – 19 3/8" (492.1 mm) Turf Rake – 19 3/4" (501.7 mm)

Customer Satisfaction: 5-Year Limited Warranty

Distributors: Worldwide Distribution

US Patent Numbers: 8,316,628 & 7,624,560

Foreign Patents Pending

Figures 1-4

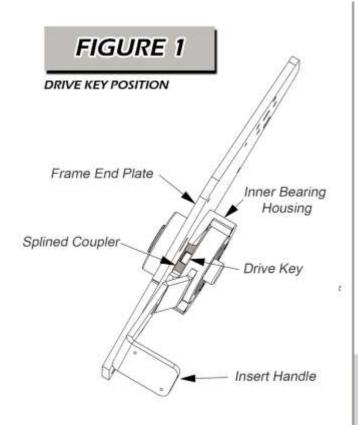
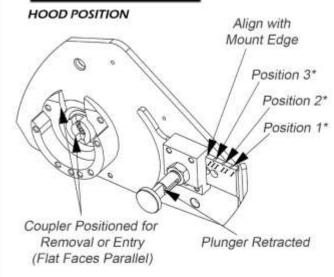


FIGURE 2



* Use the following inserts set at the corresponding positions:

Position 1: Vacu-Cutter,™ Green Sweeper Brush,

Turf Rake, Badger Turf Brush, Vacu-Groomer™.

Position 2: Vacu-Scarifier™ & Vertical Mower.

Position 3: Greens Spiker, Star Slitter, & Deep Slicer

FIGURE 3

PARKING STAND IN WORKING POSITION

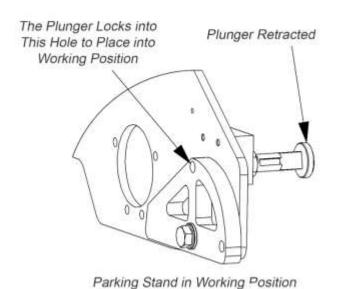
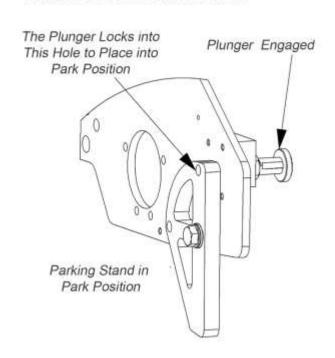


FIGURE 4

PARKING STAND IN PARK POSITION

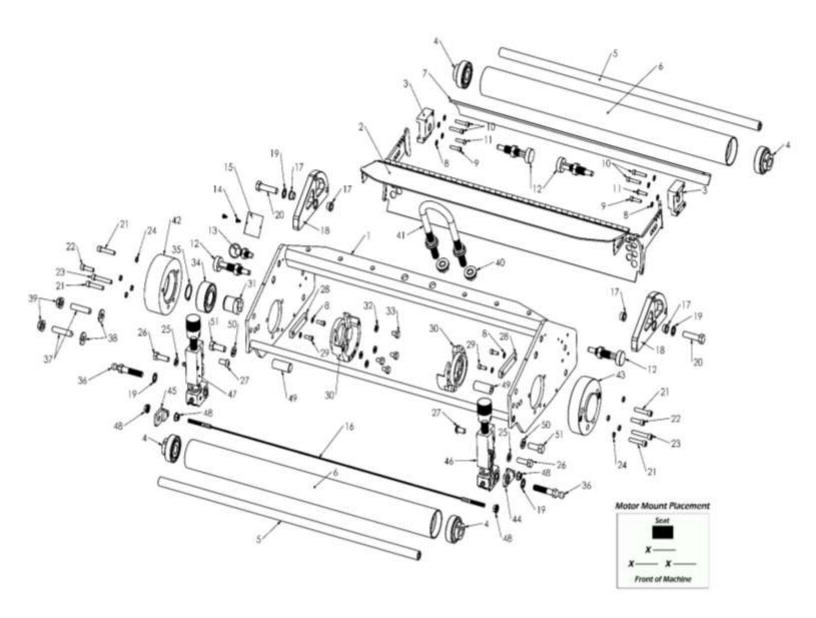


MOUNTING INSTRUCTIONS FOR GM3-3150 & 3250 TORO UNITS

- 1. Remove clipping baskets/buckets. Disconnect pull arms, remove drive motors, and remove cutting units from the triplex/triple greens mower.
- 2. Remove all the components from the boxes; be sure the parking stands are in the "down" or "parked" position before setting on the floor or table to protect the Insert blades. Do this by pulling each plunger behind the hood out approximately ¼" (6.4mm), allowing the stand to swing down. Then, release the plunger and rotate the stand until it locks in position (see Figures 3 & 4 on page 6).
- 3. Each unit will require the installation of a lift hook (37P-7090): Remove one flanged nut (H-1026) from each leg of the lift hook, insert the legs through the two ½" (12.7mm) holes in the frame cross-member, reinstall the nuts, and tighten.
- 4. The hook can be adjusted up or down along the threaded length to accommodate the clearances needed for the triplex/triple greens mower and the turf.
- 5. Slide units under the triplex/triple greens mower and allow the lift arm to pass through the lift hook on each. All unit positions are interchangeable except the Toro 3250 right side unit, which is location-specific to the right front only. This unit has a left-hand drive.
- 6. Attach the pull arm ball coupler sockets to the ball studs (21P-GCC-205) on the front of the Insert frame.
- 7. Loosen or remove the motor-attaching flange nuts from the motor studs, align the motor splines with the coupler splines, rotate, and slide into position. Be sure the motor flanges mount flush to the motor housing. Secure the flange nuts.
- 8. We recommend leaving the parking stands down until the green is reached. To retract the parking stands, pull both spring plungers back approximately ½" (6.4mm), rotate the parking stand up, and release the plunger; continue to rotate the parking stand until it locks into the working position (see Figures 3 & 4 on page 6).

ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING THE UNITS ON THE FLOOR OF THE MAINTENCE FACILITY FOR ANY REASON.

Toro GM3 – 3150 Schematic & Parts Listing

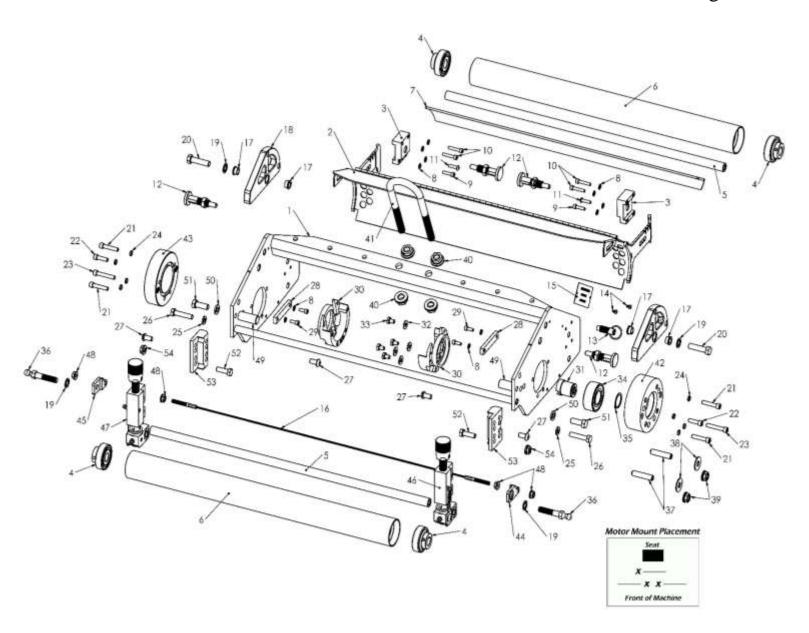


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	CSB 20410 Bearing	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223F	Formed Rear Scraper	3
8	Н	17	#10 Internal Tooth Lock Washer	36
9	Н	16	#10-32 x 3/4" SS SHCS	6
10	Н	24	#10-32 x 1" SS SHCS	12

Toro GM3 – 3150 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
11	Н	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
13	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
14	Н	30	#7 x 1/4" Drive Screw	6
15	21S	SERIAL TAG	Serial Number Tag	3
16	21P	GCC-523	Cable Scraper	3
17	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
18	21P	GCC-13C	Parking Stand	6
19	Н	6106	3/8" Internal Tooth Lock Washer	12
20	Н	21	3/8"-24 x 1-1/2" Hex Bolt	6
21	Н	19	1/4"-20 x 1-1/4" SHCS	12
22	Н	20	1/4"-20 x 7/8" SHCS	6
23	Н	31	1/4"-20 x 1-1/2" SHCS	6
24	30H	6110	1/4" Hi-Collar Lock Washer	24
25	30H	1013	5/16" Split Lock Washer	6
26	30H	1022	5/16"-24 x 1" Hex Bolt	6
27	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
28	21P	GCC-114	Hood Support	6
29	Н	8005	#10-32 x 1/2" SS SHCS	12
30	21P	GCC-03	Inner Bearing Housing	6
21	24 245	CCC 06	Female Splined Coupler	3
31	21P	GCC-06	(Supplied with Snap Ring Item # 35)	
32	Н	51	1/4" SAE Flat Washer	12
33	Н	18	1/4"-20 x 3/8" Hex Bolt	12
34	21P	GCC-111	Drive Coupler Bearing	3
35	37P	1029	Snap Ring	3
36	21P	GCC-205	Ball Stud 10mm	6
37	Н	1402	3/8"-16 x 1-3/4" Motor Stud	6
38	Н	1019	5/16" USS Flat Washer	6
39	Н	1183	3/8"-16 Smooth Flange Nut	6
40	Н	1026	1/2"-13 Serrated Flange Nut	12
41	37P	7090	Toro Lift Hook - Straight	3
42	21P	GCC-02W-6	2 Bolt Wide Motor Mount	3
43	21P	GCC-283	3lb Counterweight	3
44	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount - Left	3
45	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount - Right	3
46	21A	GCC-ADJ Toro 1L	Depth Adjuster Assembly - Left	3
47	21A	GCC-ADJ Toro 1R	Depth Adjuster Assembly - Right	3
48	Н	37	1/4"-20 Serrated Flange Nut	12
49	21P	GCC-005A	Basket Support Pin	6
50	Н	1010	3/8" Split Lock Washer	6
51	Н	1100	3/8"-16 x 1" Hex Bolt	6

Toro 3250 Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223F	Formed Rear Scraper	3
8	Н	17	#10 Internal Tooth Lock Washer	36
9	Н	16	#10-32 x 3/4" SS SHCS	6
10	Н	24	#10-32 x 1" SS SHCS	12

Toro 3250 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY.
11	Н	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
13	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
14	Н	30	#7 x 1/4" Drive Screw	6
15	21S	SERIAL TAG	Serial Number Tag	3
16	21P	GCC-523	Cable Scraper	3
17	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
18	21P	GCC-13C	Parking Stand	6
19	Н	6106	3/8" Internal Tooth Lock Washer	12
20	Н	21	3/8"-24 x 1-1/2" Hex Bolt	6
21	Н	19	1/4"-20 x 1-1/4" SHCS	12
22	Н	20	1/4"-20 x 7/8" SHCS	6
23	Н	31	1/4"-20 x 1-1/2" SHCS	6
24	30H	6110	1/4" Hi-Collar Lock Washer	24
25	30H	1013	5/16" Split Lock Washer	6
26	30H	29	5/16"-24 x 1-1/2" Hex Bolt	6
27	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	12
28	21P	GCC-114	Hood Support	6
29	Н	8005	#10-32 x 1/2" SS SHCS	12
30	21P	GCC-03	Inner Bearing Housing	6
31	21D	21P 1C+C'C'=06 1	Female Splined Coupler	3
31	21P		(Supplied with Snap Ring Item # 1029)	
32	Н	51	1/4" SAE Flat Washer	12
33	Н	18	1/4"-20 x 3/8" Hex Bolt	12
34	21P	GCC-111	Drive Coupler Bearing	3
35	37P	1029	Snap Ring	3
36	21P	GCC-205	Ball Stud 10mm	6
37	Н	1402	3/8"-16 x 1-3/4" Motor Stud	6
38	Н	1019	5/16" USS Flat Washer	6
39	Н	1183	3/8"-16 Smooth Flange Nut	6
40	Н	1026	1/2"-13 Serrated Flange Nut	12
41	37P	7090	Toro Lift Hook - Straight	3
42	21P	GCC-02W-6	2 Bolt Wide Motor Mount	3
43	21P	GCC-283	3lb Counterweight	3
44	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount - Left	3
45	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount - Right	3
46	21A	GCC-ADJ TORCW 1L	Depth Adjuster Assembly - Left	3
47	21A	GCC-ADJ TORCW 1R	Depth Adjuster Assembly - Right	3
48	Н	37	1/4"-20 Serrated Flange Nut	12
49	21P	GCC-005A	Basket Support Pin	6
50	Н	1010	3/8" Split Lock Washer	6
51	Н	1100	3/8"-16 x 1" Hex Bolt	6
52	Н	1105	5/16" x 1-1/4" Hex Bolt	6
53	21P	GCC-ADJ-3250	Depth Adjuster Extension (Toro 3250)	6
54	Н	1147	5/16"-18 Serrated Flange Nut	6

GREENS CARE COLLECTION MOUNTING INSTRUCTIONS FOR TORO TRIFLEX 3300/3400

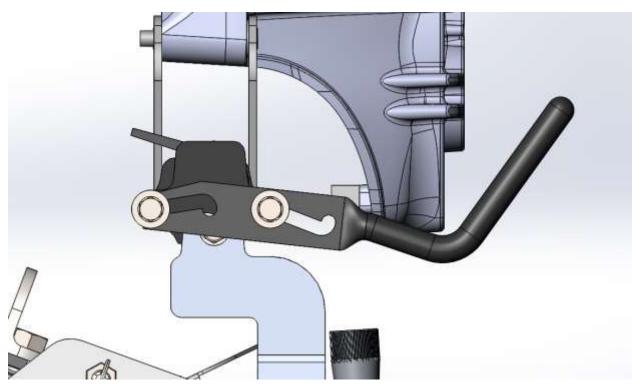
INSTALLATION TO THE TORO TRIFLEX 3300/3400 GREENS MOWER

- 1. Remove all the clipping baskets
- 2. Release the clamps on the motors, and then remove.
- 3. Release the two mounting clamps per each unit on the lifting arm, raise the arm up, and pull the cutting unit out from under the machine.
- 4. Position the Greens Care Collection (GCC) frame under the lifting arm. While keeping the clamps in an "open" position, slide the lifting arm down over items 53, 58, & 59. Hook the clamps to item 53 and lock it into place.
- 5. With the motor locking arms (items 48 & 49) pivoted fully against the GCC frame, install the drive motor make sure to align the splines. When the motor is fully against the mount (item 39), carefully pull items 48 & 49 back away from the frame unit it locks into position to secure the motor.
- 6. Repeat steps 1-5 for all three units.
- 7. Replace all clipping baskets.
- 8. Note: The insert handles will interfere with the lift arms (items 58 & 59) when locked in the standard vertical position by the GCC-400 plunger (item 12). Instead, push the handles back to the frame cross bar and use GCC-233 (item 14) to secure the handle; the GCC-400 (item 12) will be used to secure the hood.

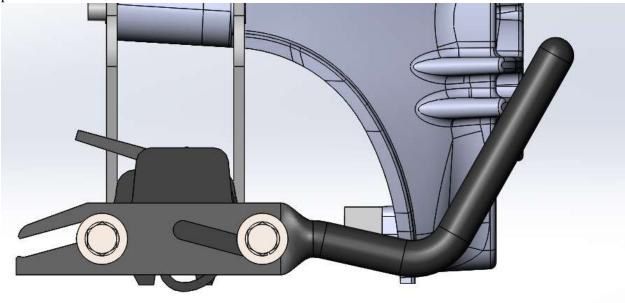
Greens Care Collection Mounting Instructions for Toro Triflex 3300/3400, 3320/3420, 3360/3370

Use the following instructions for S/N GCC08-3861 and up. Please use Rotating Scraper Manual on True-Surface's webpage for reference to older serial numbers.

- 1. The following item numbers refer to the Toro Triflex GCC Schematic with Two Position Basket Horns. You will need two of each items 12, 45, 46, 51, 52, 54, 55, 56, 57, & 64 and one of each item 47, 53, 58, & 59.
- 2. Start with item 55, 56, & 58. Slide the bolt (Item 56) through the bushing (Item 55) and into the hole of the Left Lift Arm (Item 58). Then insert the bolt from the inside to the outside of the frame endplate. Reference the schematic for proper orientation of the Lift Arm (Item 58).
- 3. Insert the bushing (Item 52) from the outside of the endplate into the hole directly below where the bolt (Item 56) came through.
- 4. Slide the Pivot Stop Plunger Mount (Item 51) over the bolt (Item 56). These components are reversible. The thinner wall of Item 51 that slips over the bolt will be against the depth of cut adjuster (Item 43).
- 5. Install the nut (Item 54) onto the bolt (Item 56) and leave loose. Thread the Plunger (Item 12) into the Pivot Stop Plunger Mount (Item 51) so that the plunger passes through Items 52 & 58. Stop and tighten the nut (Item 54), then resume installing the plunger until resistance is met or you see the bottom of Item 51 being pulled away from the frame. Loosen the plunger ½ turn, hold secure, and tighten the jam nut. Note: The Jam Nut only needs to be snug; overtightening will damage the plunger.
- 6. Repeat Step 2 thru 5 with the Right Lift Arm (Item 59) on the opposite side of the frame.
- 7. Remove the Serrated Flange Head Bolts (Item 57) from the Lift Bar (Item 53). With the plungers (previously installed in Step 5) retracted, offset the Lift Arms (Items 58 & 59) from each other momentarily. Slide one end of the Lift Bar into the upper hole of one of the lift arms from the inside until it is approximately 1" past. Install the bolt (Item 57), then align the two lift arms. Slide the lift bar through the opposite arm and install the second bolt.
- 8. Hold a wrench on each bolt (Item 57) and tighten securely.
- 9. With both plungers still retracted, the two lift arms (Items 58 & 59) should pivot forward to a horizontal position. This will allow access for insert removal and installation. Return both lift arms to a vertical position and release the plungers into the slots. This will be the operating position.
- 10. Mount the Stabilizer Spring Contact Bar (Item 47) to the frame cross bar with the ½"-13 x 1" Bolts (Item 45) and associated Serrated Flange Nuts (Item 46). Again, refer to the schematic to ensure proper orientation of Item 47.
- 11. The Two Position Basket Horns (Item 64) will directly replace the standard red Toro Basket Horns. Remove the two 5/16"-18 Flange Head Bolts securing each Toro basket horn and install Item 64 in its place using the same hardware.
- 12. Repeat all steps for the remaining two units.
- 13. If using the True-Surface GCC, the two position basket horns will need to be positioned as shown in the next image. Simple loosen the flange head bolts and slide the basket horns to their front most position. Retighten the bolts after.



14. If using Toro's Cutting Units, the basket Horns will need to be slid back into their rear most position as shown below.



15. Alternatively, the red Toro Basket Horns can be reinstalled if desired when using Toro Cutting Units. We advise using the standard Toro Basket Horns in the Center Right Position on hydraulic units (3300/3400) to avoid contacting the oil filter should the cutting unit swing to the right during travel.

Instructions for installing to the Toro Triflex Traction Unit can be found in the GCC Manual on Page 12.

Toro 3300/3400 & 3320/3420 Counterbalance Adjustment



These two views show the TORO Triflex Counterbalance adjustment.

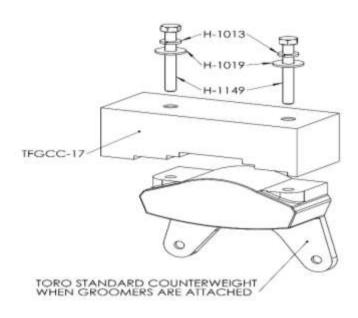
The view on the left shows the setting pin in the second (middle) position, with available increase or decrease in tension (lift) of the suspension arms.

The view on the right shows the retaining pin in the setting pin, as well as the torsion arm, note at the top of the plate the square hole. This is to insert a square drive tool such as a ratchet or break-over bar to release the tension from the retaining pin and adjust to a new position.

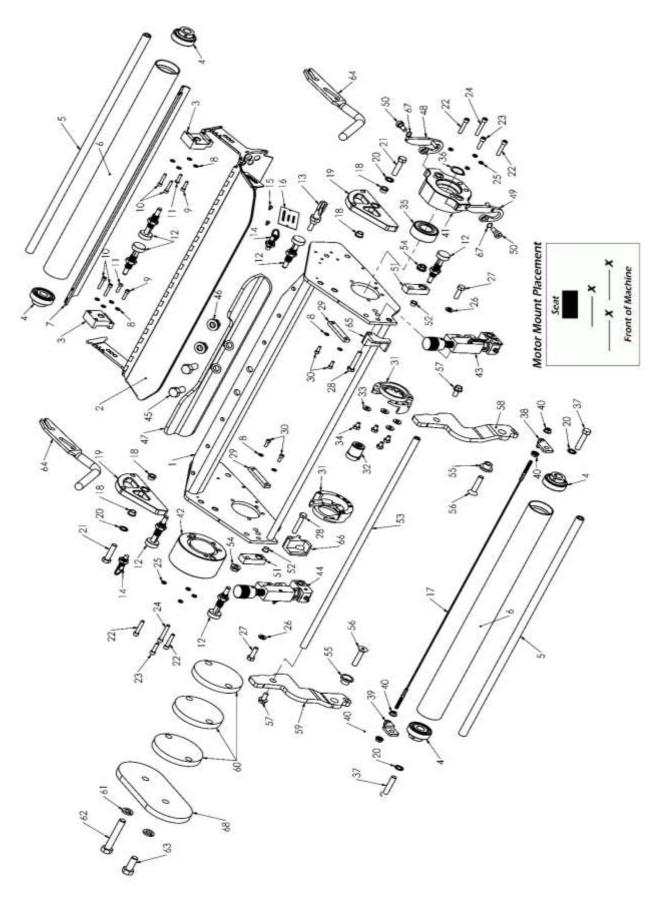
Positions range from resting the plate on top of the pin as shown in any of the available holes, or aligning the oval hole in the plate and passing the pin through it.

It may be more desirable in some cases using the Greens Care Collection to reduce the lift force and allow more downward force for more effective results.

Toro 3320/3420 Groomer Attachment Counterweight Replacement



If using Toro Model 3320 or 3420 with Groomers attached to cutting reels, the top counterweight (TORO part number: 117-6774-03) on the mower frame will interfere with TFGCC-16 basket pin extension sleeve. In this case, you will need to replace counterweights. TFGCC-17 (replacement counterweight) can be supplied to replace Toro's top counterweight to avoid interference with TFGCC-16.



Toro 3300/3400, 3320/3420, 3360/3370 Parts Breakdown

Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAME	Basic Frame Assembly	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
			Insert Guard Hood Assembly (3320/3420)	
2	21A	GCC-08 ELECTRIC	See Page 17 for Details.	3
			DISCONTINUED 8/10/17	
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	CSB 20410 Bearing	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223F	Formed Rear Scraper	3
8	Н	17	#10 Internal Tooth Lock Washer	36
9	Н	16	#10-32 x 3/4" SS SHCS	6
10	Н	24	#10-32 x 1" SS SHCS	12
11	Н	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033) 3300/3400 Uses 18, 3320/3420 Uses 15	15 or 18
13	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle 3320/3420 Motor Side	0 or 3
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6
15	Н	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	Н	6106	3/8" Internal Tooth Lock Washer	12
21	Н	21	3/8"-24 x 1-1/2" Hex Bolt	6
22	Н	19	1/4"-20 x 1-1/4" SHCS	12
23	Н	20	1/4"-20 x 7/8" SHCS	6
24	Н	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	Н	28	5/16"-24 x 1-3/4" Hex Bolt	6
29	21P	GCC-114	Hood Support	6
30	Н	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	Н	51	1/4" SAE Flat Washer	12
34	Н	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	Н	2502	3/8"-24 x 1-3/4" Hex Bolt	6
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3

Toro 3300/3400, 3320/3420, 3360/3370 Parts Breakdown

Item No.	Dept. No.	Part No.	Description	QTY
40	Н	37	1/4"-20 Serrated Flange Nut	12
41	21P	TFGCC-06	Motor Mounting Flange	3
42	21P	GCC-285	5lb Counterweight	3
43	21A	GCC-ADJ Toro 1L	Depth Adjuster Assembly - Left	3
44	21A	GCC-ADJ Toro 1R	Depth Adjuster Assembly - Right	3
45	Н	0013	1/2"-13 x 1" Hex Bolt	6
46	Н	1026	1/2"-13 Serrated Flange Nut	6
47	21P	TFGCC-09	Stabilizer Spring Contact Bar	3
48	31P	TFV5-005C-R Assy.	Motor Locking Arm - Right	3
49	31P	TFV5-005C-L Assy.	Motor Locking Arm - Left	3
50	Н	2582	3/8" x 1/4" x 5/16"-18 Shoulder Bolt	6
51	21P	TFGCC-04	Lift Arm Pivot Stop Plunger Mount	6
52	21P	TFGCC-07	Lift Arm Pivot Stop Pin Bushing	6
53	31P	TFV5-002	Lift Bar	3
54	Н	1016	3/8"-16 Serrated Flange Nut	6
55	21P	TFGCC-03	Lift Arm Pivot Bushing	6
56	Н	1041	3/8"-16 x 1-3/4" Flat Head SCS	6
57	Н	1067	5/16"-18 x 5/8" Serrated Flanged Head Bolt	6
58	21P	TFGCC-23L	Lift Arm - Left	3
59	21P	TFGCC-23R	Lift Arm - Right	3
60	21P	GCC-CW	Stackable Counterweight (3300/3400)	3
60	21P	GCC-CW	Stackable Counterweight (3320/3420)	9
61	Н	0014	1/2" Split Lock Washer	6
62	Н	5010	1/2"-13 x 3" Hex Bolt (3320/3420)	0 or 6
63	Н	1069	1/2"-13 x 1-1/2" Hex Bolt (3300/3400)	0 or 6
64	21P	TFGCC-22	Two Position Basket Horn	6
65	21P	TFGCC-21L	Basket Stop - Left	3
66	Н	TFGCC-21R	Basket Stop - Right	3
67	Н	0393	Triple Wave Washer	6
68	21P	GCC-CW-4	4 lb Stackable Counterweight (3320/3420)	0 or 3

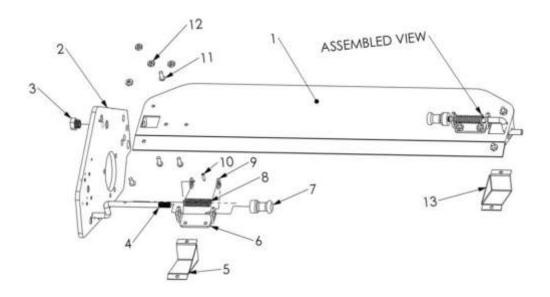
Hood Latch Assemblies Schematic & Instructions

Hood Latch Assemblies GCC-486L & GCC-486R:

The hood mounted latch is designed for Greens Care Collection Frames that are mounted on a Toro, John Deere, or Jacobsen ELECTRIC driven triplex greens mowers. The electric-driven motors are slightly larger and include more features than the hydraulic motors, and therefore interfere with the standard spring plunger we use for GCC Frames mounted to hydraulic driven triplex models. This method, once installed, will allow the user to interchange inserts without the need to remove the drive motors.

This latch will need to be mounted on the side of the hood that the motor is mounted to the frame. This is referred to as the "Drive-Side." All components shown, except for Reference #'s 5 & 13, are used for either side of the hood. The method of assembly is reversed to create a reversed part.

Remove the standard plunger (GCC-400) from the frame end above the motor and install the end plate bushing (GCC-465).



Item	Dept.	Part	Description
1	21A	GCC-08 ASM	GCC Hood - Not included
2	n/a	n/a	Frame End Plate - Not included
3	21P	GCC-465	End Plate Bushing
4	21P	GCC-462	Latch Pin
5	21P	GCC-464L	Latch Cover Left (GCC-486L Only)
6	21P	GCC-461	Latch Base
7	21P	GCC-466	Latch Knob
8	21P	GCC-463	Latch Spring
9	Н	459	5/16 ID Socket Head Shim
10	Н	458	1/8" x 7/16" Split Spring Pin
11	Н	451	10-32 x 1/2 Round Head Screw
12	Н	452	10-32 Nylon Insert Lock Nut
13	21P	GCC-464R	Latch Cover Right (GCC-486R Only)

MOUNTING INSTRUCTIONS FOR

JOHN DEERE 2500/E MOWERS (Not using QA5 Cutting Reels)

- 1. Remove the clipping baskets/buckets and basket/bucket frames from the John Deere cutting units. Basket frames will be necessary for the Greens Care Collection (GCC).
- 2. Remove the bolts and bushings that attach the lifting yoke to the cutting units. The bushings and yoke will be reused for mounting the GCC.
- 3. Loosen drive motor bolts and remove motors.
- 4. Remove GCC units from boxes, pivot parking stands into parked position by pulling each spring plunger located behind the Insert hood out approximately ¼" (6.4mm), allowing stand to swing down, release plunger, and rotate stand until plunger locks into position (see Figures 3 & 4 on page 6).
- 5. Mount the lift chain U-bolt and lift chain to each unit as shown (Items 51, 52, 53, 54) in assembly drawing, and tighten.
- 6. Slide the GCC units under the mower in their respective positions. Left and center units are interchangeable, but the right-side unit is location specific.
- 7. Remove the yoke-mounting bolts from frame ends, align lifting yoke, insert the saved bushings from the John Deere cutting units, replace bolts and nuts, and tighten.
- 8. Attach the lift chain to the lift arm. Adjust the length to provide adequate ground clearance leave enough slack so that the units do not bind under the greens mower when they are raised or cannot follow the contour of the turf when in use.
- 9. Install the drive motor:
 - a. Hydraulic Drive Units: Make certain the male spline coupler (GCC-06JD/Jac5) and the internal female splined coupler (7704) are installed properly by rotating the motors to align the splines; slide and rotate into position. The motor flanges should mount flush to the motor housing. Tighten the mount bolts.
 - b. Electric Driven Units: Mount the electric units the same as the hydraulic, except that early John Deere Electric models only require the GCC-06JD/Jac5.
- 10. Install the clipping basket frame into the tube on either side of the Greens Care Collection frame, located in the depth of cut adjuster mounting blocks (GCC-ADJ-06JDL & GCC-ADJ-06JDR).
- 11. Check operation; install baskets.
- 12. Leave the parking stands down until the green is reached. To retract them, pull both spring plungers back approximately ¼" (6.4mm), rotate the parking stand up, and release plunger, continue to rotate the parking stand until it locks into the up position (see Figures 3 & 4 on page 6).
- 13. Please see pages 43 & 44 for more counterweight details.

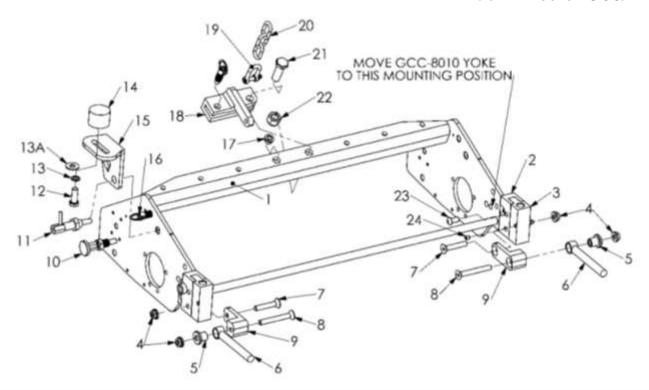
ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING THE UNITS ON THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON.

JD 2500 GCC CENTER UNIT WITH WIRE FRAME MOUNTED BASKET

If your JD 2500 greens mower is equipped with QA-5 cutting reels and uses a wire frame to support and carry the basket for the center unit, follow the below instructions for adapting the GCC frame to fit within this scenario.

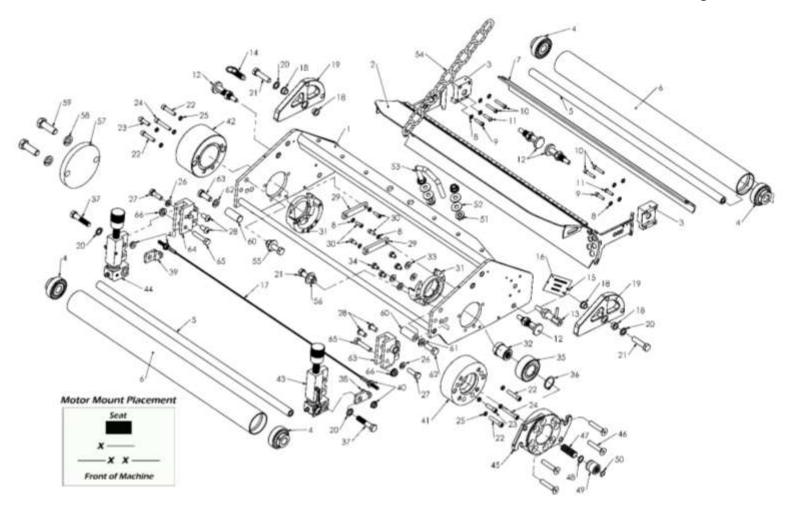
- 1. Remove the GCC-113L & GCC-113R basket mount plates from inside the frame on each depth adjuster. This is done by removing the two flat head screws and one socket head screw at locations # 23, 24 & 7 on the sketch.
- 2. Install screw # 7 through basket mount # 9 and back through its original location. Install nut # 4 and tighten.
- 3. Item # 23 replaces the second flat head screw, and item # 24 replaces the small socket head screw. Item # 24 will need one drop of Loctite and will be screwed in until flush. (Installing Item # 24 past flush will interfere with adjuster shaft and bind the assembly)
- 4. Plunger # 10 or # 11 will need to be removed, and bumper mount # 15 will fit over small plunger # 16. The removed plunger will then need to be re-installed and threaded into the endplate until it is flush to the inside of the endplate when fully retracted. Retighten the jam nut against bumper mount.
- 5. Remove both shoulder bolts from the GCC-8010 yoke and move the yoke forward to the next set of mounting holes. Replace the shoulder bolts and nuts, then tighten.
- 6. Remove the current lift hardware, and install the swing away bracket # 18 using bolt # 21 and nut # 22. Tighten as securely as possible while still allowing the bracket to pivot.
- 7. Insert bushing # 17 into frame opposite of bolt # 21. (Silicone or some adhesive may be used here to secure the bushing)
- 8. Swing the lift bracket into position and lock with plunger # 16.
- 9. Slide the unit under the mower, attach the GCC-8010 yoke ball into mower lift arm socket, replace the cap and bolts, then tighten.
- 10. Position the basket arms, insert bushings # 5, bolts # 8 and secure with nuts # 4.
- 11. Attach lift chain # 20 to the lift arm and replace the cotter pin.
- 12. Attach the drive motor.
- 13. Lift and lower the unit with basket installed to check all clearance areas.

John Deere 2500/E



ITEM #	DEPT#	PART #	DESCRIPTION	QTY.
1	21P	GCC-FRAME	BASIC FRAME	FOR ILLUS.
2	21P	GCC-ADJ-06JD L	JD DEPTH ADJ. MOUNT	FOR ILLUS.
3	21P	GCC-ADJ-06	DEPTH ADJ. MOUNT BLOCK	FOR ILLUS.
4	H	1147	5/16-18 SERRATED FLANGE NUT	4
5	21P	GCC-505	CENTER BASKET MOUNT BUSHING	2
6	N/A	N/A	SECTION OF BASKET FRAME	FOR ILLUS.
7	Н	1146	5/16-18 x 1-3/4" FHSCS	2
8	Н	1046	5/16-18 x 2-1/2" FHSCS	2
9	21P	GCC-511	CENTER BASKET FRAME MOUNT	2
10	21A	GCC-400	SPRING PLUNGER (HYD. UNITS)	1 (supplied in frame)
11	21A	GCC-400-90	SPRING PLUNGER (ELEC. UNITS)	1 (supplied in frame)
12	Н	1100	3/8-16 x 1" GR.5 HEX BOLT	1
13	H	1010	3/8- SPLIT LOCKWASHER	1
13A	Н	1019	5/16 USS FLATWASHER	1
14	37P	7729	BUMPER 1-1/2" DIA. x 1"	1
15	21P	GCC-510-1	BUMPER MOUNT	1
16	21A	GCC-233	HOOD LOCK PLUNGER	1 + 1 SUPD. IN FRAME
17	21P	GCC-513	LOCK CENTERING BUSHING	1
18	21A	GCC-512	SWING AWAY LIFT BAR	1
19	25P	TAS208	CHAIN SHACKLE	1
20	21P	GCC-514	LIFT CHAIN (3 LINKS 2/0 PASSING)	1
21	Н	5008	1/2-13 x 1-3/4" GR.5 HEX BOLT	1
22	Н	1073	1/2-13 NYLON LOCKNUT	1
23	Н	GCC-ADJ-12	5/16-18 x 5/8" BUTTON HEAD	2
24	H	GCC-ADJ-15	1/4-28 x 3/16" SET SCREW	2

John Deere 2500/E (not using QA5 Cutting Reels) Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223F	Formed Rear Scraper	3
8	H	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	H	24	#10-32 x 1" SS SHCS	12
11	H	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033) Electric Units Use 9	9 or 12
13	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle Electric Motor Side	3
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
15	Н	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	Н	6106	3/8" Internal Tooth Lock Washer	12

John Deere 2500/E Parts Listing Continued

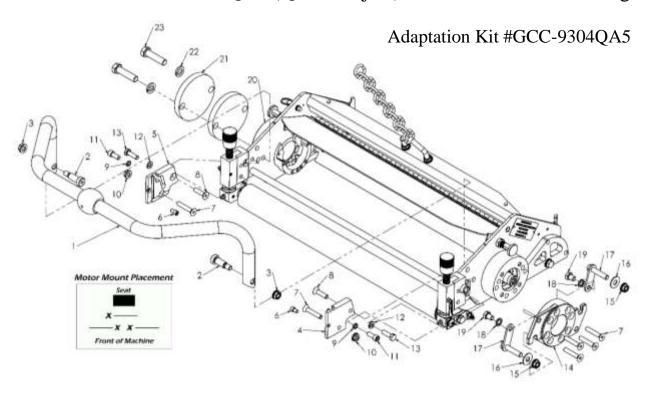
Item No.	Dept. No.	Part No.	Description	QTY
21	Н	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	Н	19	1/4"-20 x 1-1/4" SHCS	12
23	Н	20	1/4"-20 x 7/8" SHCS	6
24	Н	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	12
29	21P	GCC-114	Hood Support	6
30	Н	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	Н	51	1/4" SAE Flat Washer	12
34	H	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	Н	2502	3/8"-24 x 1-3/4" Hex Bolt	6
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	Н	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02W-6	Motor Mounting Flange	3
42	21P	GCC-285	5lb Counterweight	3
43	21A		Depth Adjuster Assembly - Left	3
44	21A		Depth Adjuster Assembly - Right	3
45	37P	7036-3	JD 2500 Motor Mount Flange	3
46	Н	1146	1-3/4" Flat Head SCS	12
47	21P	GCC-06JD/JAC5	Male Spline Coupler to Fit JD2500 & Jac5	3
48	21P	GCC-128	9/16 External Snap Ring	3
49	37P	7704	Internal Female Spline Coupler	3
50	21P	GCC-129	12mm Internal Snap Ring	3
51	Н	1016	3/8"-16 Serrated Flange Nut	12
52	Н	1019	5/16 USS Flat Washer	12
53	21P	GCC-207	Lifting U-Bolt for JD2500	3
54	21P	GCC-212	Lift Chain - 2/0 Passing - 11 Links	3
55	Н	1006	3/8" USS Flat Washer	6
56	Н	6102	3/8"-24 Nylon Lock Nut	6
57	21P	GCC-CW	Stackable Counterweight (Hydraulic Model Only)	0
57	21P	GCC-CW	Stackable Counterweight (Electric Model Only)	6
58	Н	0014	1/2" Split Lock Washer (Eletric Model Only)	6
59	Н	5007	1/2"-13 x 2" Hex Bolt (Electric Model Only)	6
60	21P	GCC-005A	Basket Rest Pin (Not Used on QA5)	6
61	Н	1010	3/8" Split Lock Washer (Not Used on QA5)	6
62	Н	1100	3/8"-16 x 1" Hex Bolt (Not Used on QA5)	6
63	21P	GCC-ADJ-06JD L	Left Adjuster Mount to Fit John Deere	3
64	21P	GCC-ADJ-06JD R	Right Adjuster Mount to Fit John Deere	3
65	Н	1160	5/16"-18 x 1-1/2" Hex Bolt	6
66	Н	1147	5/16"-18 Serrated Flange Nut	6

MOUNTING INSTRUCTIONS FOR JOHN DEERE 2500 QA5 MOWERS

- 1. Remove the clipping baskets, loosen the motor studs and remove the motors. Disconnect the lift chains from the lift arm (chains are supplied with the GCC units). With a hex (ALLEN) wrench, remove the bolts above and below the swivel ball at the center of the lifting yoke, and separate the ball housing.
- 2. Remove the cutting reels from under the mower.
- 3. Locate the lifting brackets (GCC-207) and the lifting chains. One of each will be mounted through the two ½" holes in the frame with a nut and washer on either side and tightened.
- 4. Mount the lifting yokes to the inside of the GCC frame with the shoulder bolts provided and tighten. See Figure 5 on page 27.
- 5. Position units in their proper LEFT, RIGHT, and CENTER position.
- 6. Reassemble the ball housing around the GCC lifting yoke ball; replace the housing bolts and tighten.
- 7. Attach the lifting chain to the lift arm. You will need to determine which chain link to connect the lift arm in order to suit your needs for transport height and allow enough slack to follow your turf contour properly.
- 8. Locate the male spline (GCC-06JD/Jac5) and the female coupler (7704). First, insert the male spline into the drive coupler (GCC-06), and then add the female coupler (7704).
- 9. Align and rotate the motor into position; tighten the nuts over the motor.
- 10. Raise and lower the units to check the lift height or interference of any parts.
- 11. Rotate the parking stands to the park position (see figure 4 on page 6). Install the inserts refer to page 45 for Insert installation instructions.
- 12. Reattach the clipping baskets.
- 13. At the green, raise parking stands, check and set cutting depth, and check operation of units.

ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING THE UNITS ON THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON

John Deere 2500 QA5 (Quick Adjust) Schematic & Parts Listing

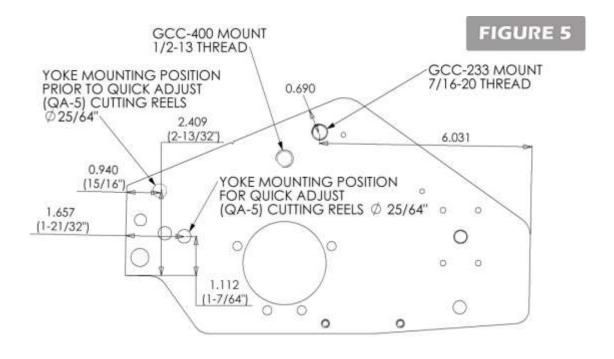


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-8010 asm	Lifting Yoke Assembly	3
2	Н	065	1/2 x 1 x 3/8" - 16 Shoulder Bolt	6
3	Н	1016	3/8" - 16 Serrated Flange Nut	6
4	21P	GCC-113L	QA5 Basket Mount - Left	3
5	21P	GCC-113R	QA5 Basket Mount - Right	3
6	Н	5005	1/4 - 28 x 1/4" Socket Head Cap Screw	6
7	Н	1146	5/16 - 18 x 1 3/4" Flat Head Socket Screw	6*
*T	here are 6 add	ditional H-1146 sc	rews on the JD 2500 QA5 to the standard 12 on the JD 2500	-
8	Н	5004	5/16 - 24 x 1 1/4" Flat Head Socket Screw	6
9	Н	V8001	5/16"- Hi Collar Lock Washer	6
10	Н	1147	5/16 - 18" Serrated Flange Nut	6
11	Н	5003	5/16 - 24 x 3/4" Socket head Cap Screw	6
12	Н	1013	5/16" - Split Lock Washer (Standard on JD 2500)	6
13	Н	1022	5/16 - 24 x 1" Gr 5 Hex Bolt (Standard on JD 2500)	6
14	37P	7036-3	John Deere 2500 Motor Flange	3
15	Н	1183	3/8 - 16 Smooth Flange Nut	6
16	Н	1006	3/8 - USS Flat Washer	6
17	21P	GCC-450	Male Stud Addapter	6
18	Н	6106	3/8" Internal Tooth Lock Washer	6
19	Н	5006	3/8 - 16 x 1/2" Gr 5 Hex Bolt	6
20	21P	GCC-285	5 lb Counter Weight (Standard on JD 2500)	3
21	21P	GCC-CW	Stackable Counter Weight - Refer to page 43	6 or 9
22	Н	0014	1/2" Split Lock Washer	6
23			1/2 - 13 Gr. 5 Hex Bolt (Refer to page 43 for length)	6

JOHN DEERE 2500 QA-5 ADAPTATION KIT PICTURED ON PAGE 26

Use page 23 as a reference to all the components not shown exploded in the JD2500 QA-5 view on page 26. All the components listed for the standard JD2500 or JD2500E on pages 23 & 24 are used when adapting to fit a unit equipped with QA-5 cutting reels, except the following reference numbers: 21(2), 28, 55, 56, 60, 62, 63, & 65. These numbers are replaced by reference numbers: 2, 3, 6, 7, 8, 9, & 11 from the JD2500 QA-5 view on page 26. All the other parts listed are additional, except reference numbers 7, 14 & 20, which are only noted for reference purposes.

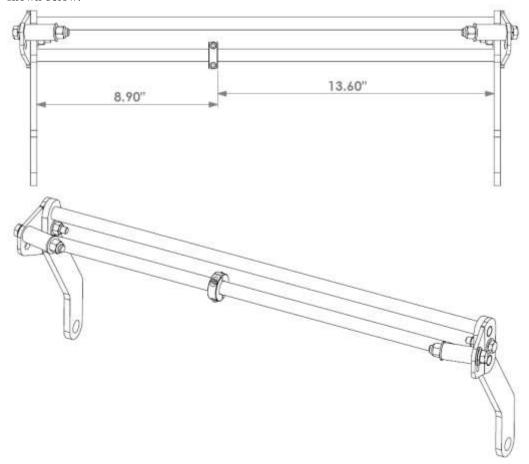
John Deere Yoke Positions:



John Deere 2700/2750 PrecisionCut & E-Cut Hybrid Mounting Instructions

Item numbers referenced in the below installation instructions refer to the John Deere 2700/2750 PrecisionCut & E-Cut Hybrid Triplex Mowers Schematic.

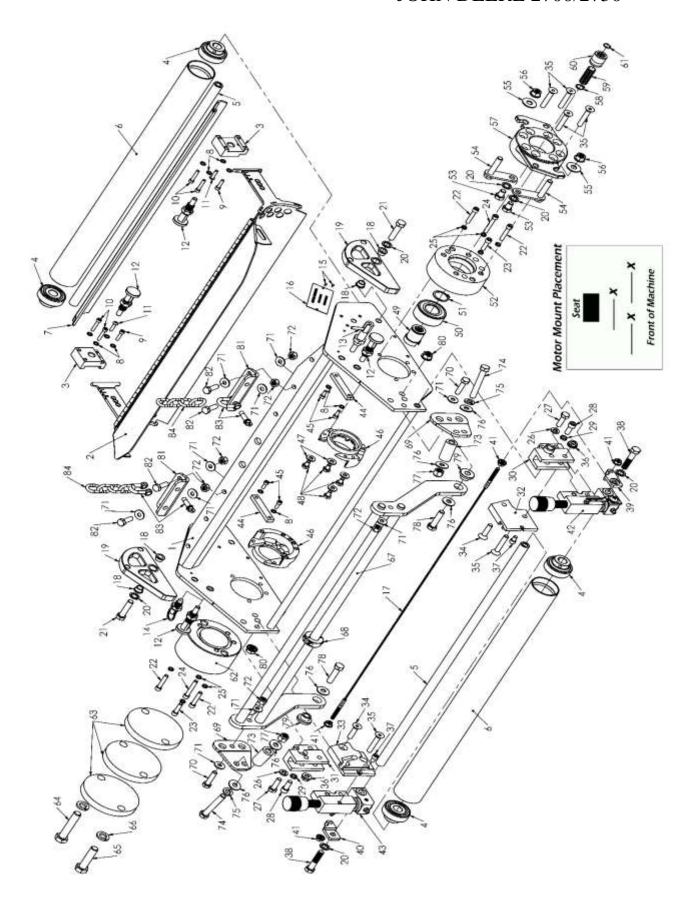
- 1. Unpack the components and locate the GCC Base Frame.
- 2. Remove the Lift Yoke Mounting Hardware (Items 76, 78, 79, 80) which is loosely attached to the Frame. Note how the hardware is ordered and which holes are being used on the Frame. The same holes will be used for mounting the Lift Yoke (Item 67) to the Frame.
- 3. Locate and attach the Lift Yoke (Item 67) to the Frame by installing the Pivot Bushings (Item 79) into the arms of the yoke so that the flange of the bushing will be positioned between the GCC Frame and the Yoke Arms. Slide the Yoke into the Frame and secure by using the hardware removed in Step 2. With the 5/16" Washer (Item 76) on the 3.8" Bolt (Item 78), pass the Bolt through the Pivot Bushing and then the End Plate. Install the Serrated Flange Nut (Item 80) on the bolt and tighten. Please note the orientation of the Lift Yoke (Item 67) on the Schematic when installing.
- 4. The 5/8" Shaft Collar (Item 68) can be positioned to allow for desired overlap, however if you would like the GCC Units to be centered with the Yoke Mount Supports, the Shaft Collar will need to be positioned as shown below.



5. Locate the Lift Chain Mounts (Item 81) and associated hardware. Although the Mounts are symmetrical and can be used on either side, the chains and hardware will need to be installed in the correct locations to properly align with the chain lift points. Reference the schematic to ensure the mounts/chains are installed on the correct sides and positioned properly. Remove the 5/16"-18 Nylon Lock Nuts (Item 72) and adjacent

1/4" Flat Washer (Item 71). Place the Mounts on the frame cross bar, inserting the 5/16"-18 x 1" Hex Bolts (Item 82) into the appropriate holes. Install the Flat Washers and Nuts which were removed previously in this step and tighten. Please note that the inner most bolt on each mount will not have a washer under the bolt head to give the Chain Shackle (Item 83) additional clearance.

- 6. With the clipping baskets off the mower, remove the Motors from the Cutting units.
- 7. Pull the Linch Pins holding the lift chains and set the pins aside for use later. Note how the chains were attached.
- 8. Next remove the cutting units themselves from the mower by loosening and rotating the Block Clamp on front of the Yoke Mount Support. Pulling the cutting units forward will detach them from the mower.
- 9. With the desired insert installed per the standard TRUE-SURFACE GCC Manual, place the GCC units in position under the mower. Hold the Yoke Mount Supports at the ideal height and roll the units back so that the two 5/8" cross bars of the Lift Yoke (Item 67) seat into the pockets of the Yoke Mounts. Rotate the Block Clamp into the locking position but do not yet tighten. Slide the units so that the Yoke Mounts contact the 5/8" Shaft Collar (Item 68). Verify that the GCC units are spaced to your desired requirements and tighten the Block Clamp Nut.
- 10. Attach the Lift Chains (Item 84) using the same linch pins and attachment point from Step 7.
- 11. Install the motors on the GCC units by clocking them into position and tightening the 3/8"-16 Smooth Flange Nut (Item 56). Additional slack may be required for the motors to reach without unnecessary stress on the Hydraulic Hose/Cable. Loosen the Clamps on top of the Yoke Mounts, pull the desired amount of Hose/Cable through and retighten the Clamps if necessary.
- 12. Follow other settings and uses from the standard TRUE-SURFACE GCC Manual.



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223F	Formed Rear Scraper	3
8	Н	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	Н	24	#10-32 x 1" SS SHCS	12
11	H	32	#10-32 x 3/4" Botton Head Screw	6
- 11	- 11	32	Spring Plunger with Nut (Includes H-1033)	
12	21A	GCC-400 ASM	(Electric Units use 9. Hydraulic Units use 12.)	9 or 12
12	2171	GCC 100 / 151/1	90° L-Handle Spring Plunger with Nut (Includes H-1033)) OI 12
13	21A	GCC-400-90 ASM	(Electric Units use 3 on Reel Motor Side)	0 or 3
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
15	H	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21B	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13 Bushing	Parking Stand Planged Bushing	6
20	H	6106	3/8" Internal Tooth Lock Washer	18
21	<u>п</u> Н	21	3/8"-24 x 1-1/2" Hex Bolt	6
22	п Н	19	1/4"-20 x 1-1/4" SHCS	12
23	H	20	1/4"-20 x 7/8" SHCS	6
24	H	31	1/4"-20 x 1-1/2" SHCS	6
25	H	6110	1/4" Hi-Collar Lock Washer	24
26	H	1013	5/16" Split Lock Washer	6
27	H	1022	5/16"-24 x 1" Hex Bolt	6
28	H	5003	5/16"-24 x 3/4" SHCS	6
29	H	V8001	5/16" Hi-Collar Lock Washer	6
30	21P	GCC-ADJ-06JD L	Left Adjuster Mount to Fit John Deere	3
31	21P	GCC-ADJ-06JD R	Right Adjuster Mount to Fit John Deere	3
32	21P	GCC-ADJ-00JD R	QA5 Basket Mount - Left	3
33	21P	GCC-113R	QA5 Basket Mount - Right	3
34	H	5004	5/16"-24 x 1-1/4" Flat Head Socket Screw	6
35	H	1146	5/16"-18 x 1-3/4" Flat Head Socket Screw	18
36	Н	1147	5/16"-18 Serrated Flange Nut	6
37	<u>н</u> Н	5005	1/4"-28 x 1/4" Socket Head Cap Screw	6
38		2502	3/8"-24 x 1-3/4" Hex Bolt	
39	H 21P	GCC-ADJ-27L-CB	Counterbored Cable Scraper Mount - Left	6
40	21P 21P	GCC-ADJ-27R-CB	Counterbored Cable Scraper Mount - Right	3
41	H	37	· · · · · · · · · · · · · · · · · · ·	12
+1	п	31	1/4"-20 Serrated Flange Nut GCC Depth Adjuster JD25 Left	12
42	21.4	GCC ADLID2511	1 0	2
42	21A	GCC-ADJ JD251L	(Includes Items 20, 27, 28, 29, 30, 36, 38, & 39)	3

Item No.	Dept. No.	Part No.	Description	QTY
			GCC Depth Adjuster JD25 Right	
43	21A	GCC-ADJ JD251R	(Includes Items 20, 27, 28, 29, 31, 36, 38, & 40)	3
44	21P	GCC-114	Hood Support	6
45	Н	8005	#10-32 x 1/2" SS SHCS	12
46	21P	GCC-03	Inner Bearing Housing	6
47	Н	51	1/4" SAE Flat Washer	12
48	Н	18	1/4"-12 x 3/8" Hex Bolt	12
49	21P	GCC-06	Female Splined Coupler (Includes Item 51)	3
50	21P	GCC-111	Drive Coupler Bearing	3
51	37P	1029	Snap Ring	3
52	21P	GCC-02W	Motor Mounting Flange	3
53	Н	5006	3/8"-16 x 1/2" Hex Bolt	6
54	21P	GCC-450	Male Stud Adapter	6
55	Н	1006	3/8" USS Flat Washer	6
56	Н	1183	3/8"-16 Smooth Flange Nut	6
57	37P	7036-3	John Deere 2500 Motor Flange	3
58	21P	GCC-128	9/16" External Snap Ring	3
59	21P	GCC-06JD/JAC5	Male Spline Coupler to Fit JD2500 & Jac5	3
60	37P	7704	Internal Female Spline Coupler (Includes Item 61)	3
61	21P	GCC-129	12mm Internal Snap Ring	3
62	21P	GCC-285	5lb Counterweight	3
			Stackable Counterweight (Refer to Page 43 & 44)	
63	21P	GCC-CW	(Electric Units use 9. Hydraulic Units use 6.)	6 or 9
			1/2"-13 x 2-1/2" Hex Bolt (Refer to Page 43 & 44)	
64	Н	5009	(Electric Units use 6. Hydraulic Units use 0.)	0 or 6
			1/2"-13 x 2" Hex Bolt (Refer to Page 43 & 44)	
65	Н	5007	(Electric Units use 0. Hydraulic Units use 6.)	0 or 6
66	Н	0014	1/2" Split Lock Washer	6
67	21A	GCC-542	JD 2700 Yoke Assembly	3
68	Н	6250	2 Pc 5/8" Shaft Collar	3
69	21P	GCC-543	JD 2700 Basket Mount Plate	6
70	Н	1105	5/16"-18 x 1-1/4" Hex Bolt	6
71	Н	1008	1/4" USS Flat Washer	30
72	H	3179	5/16"-18 Nylon Lock Nut	18
73	21P	GCC-544	JD 2700 Basket Rest Pin	6
74	Н	1050	3/8"-16 x 2-1/2" Hex Bolt	6
75	H	1010	3/8" Split Lock Washer	6
76	Н	1019	5/16" USS Flat Washer	18
77	Н	1180	3/8"-16 Nylon Lock Nut	6
78	Н	032	3/8"-16 x 1-1/2" Gr. 8 Hex Bolt	6
79	55P	FW-014	Fairway Lift Yoke Pivot Bushing for GCC	6
80	Н	1016	3/8"-16 Serrated Flange Nut	6
81	21P	GCC-545	JD 2700 Lift Chain Mount	6
82	Н	1101	5/16"-18 x 1" Hex Bolt	12
83	29P	TAS-208	Chain Shackle	6
84	21P	GCC-546	JD 2700 Lift Chain	6

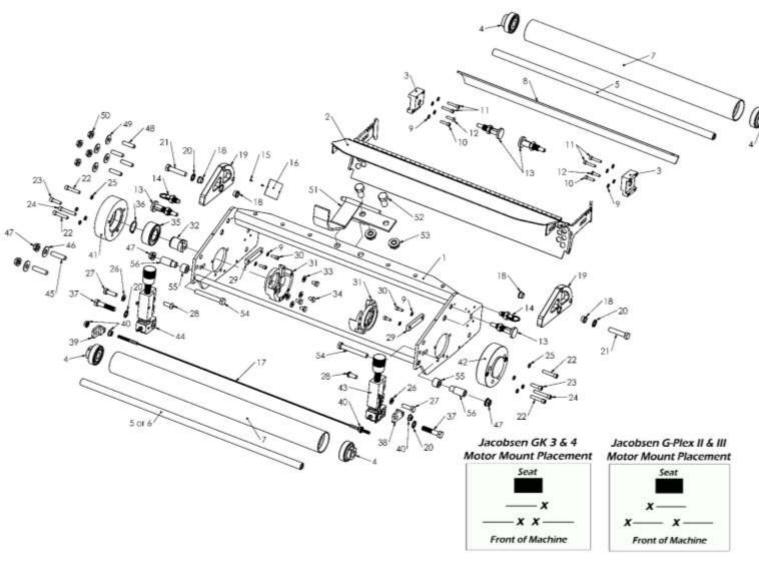
MOUNTING INSTRUCTIONS FOR JACOBSEN GK III - IV, GK V-VI, E-PLEX, GP400 AND RANSOME

- 1. Remove the clipping baskets/buckets and cutting units from the mower by removing the bolts at each side of the cutter frame that attach lift/pull frame to cutting unit and remove the drive motors.
- 2. GCC frames will have all the hardware attached. Remove the frames from the box, lower the parking stands by pulling each plunger behind the hood out approximately ½" (6.4mm), allowing the stand to swing down, release plunger, and rotate stand until it locks into park position (see Figures 3 & 4 on page 6).
- 3. Slide the units under the mower in their respective drive side positions. The Jacobsen III & IV's right and center units are the same, and the left unit is location specific. The E-Plex, GK V & VI, and Ransome's are interchangeable in all 3 locations.
- 4. Remove the flange nut and outer spacer bushing (GCC-216) from each connection point on the frame. Align mounting holes of lift/pull frame with lift bolts and insert the smaller diameter of spacer bushing (GCC-216) into mounting hole of lift/pull frame. Slide bolt completely through, re-install nut and tighten. NOTE: Spacer bushing GCC-216 is reversible. Depending on lift/pull frame width, some units will have the smaller diameter of GCC-216 facing in, and others will be facing out.
- 5. To install drive motors for GK III & IV, E-PLEX, & RANSOME: Remove the flange nuts from the mounting studs (2 or 4 per unit depending on the model). Align the motor splines into the drive coupler and slide the motor into the housing. Make sure the motor flanges mount flush to the motor housing. Replace flange nuts and tighten.
- 6. To install drive motors for GKV&VI: Remove the cotter pin from the motor lock arms. Rotate each arm out approximately 90 degrees; ensure that the male spline (GCC-06JD/Jac5) and female coupler (7704) are fully inserted. Slide the motor into the motor housing and rotate back and forth to align splines. Be sure the motor flanges mount flush to the motor housing. Be sure the anti-rotation pin aligns at the bottom of the motor, close the lock arms, and replace the cotter pin through both lock arms.
- 7. Check operation and replace clipping baskets.
- 8. We recommend leaving the parking stands down until the green is reached. To retract them, pull both spring plungers back approximately 1/4" (6.4mm), rotate the parking stand up, and release the plunger; continue to rotate the parking stand until it locks into the up position (see Figures 3 & 4 on page 6).

ROTATE THE PARKING STANDS INTO THE PARK POSITION BEFORE LOWERING THE UNITS TO THE FLOOR OF THE MAINTENCE FACILITY FOR ANY REASON.

*Please note that the insert handles may interfere with the lifting yoke when fixed in the vertical position with GCC-400 (item 13). If this occurs, rotate the handles back until they touch the frame cross bar and secure with the GCC-233 (item 14).

Jacobsen Greensking 3, 4, GP400, & G-Plex II, III Schematic & Parts Listing

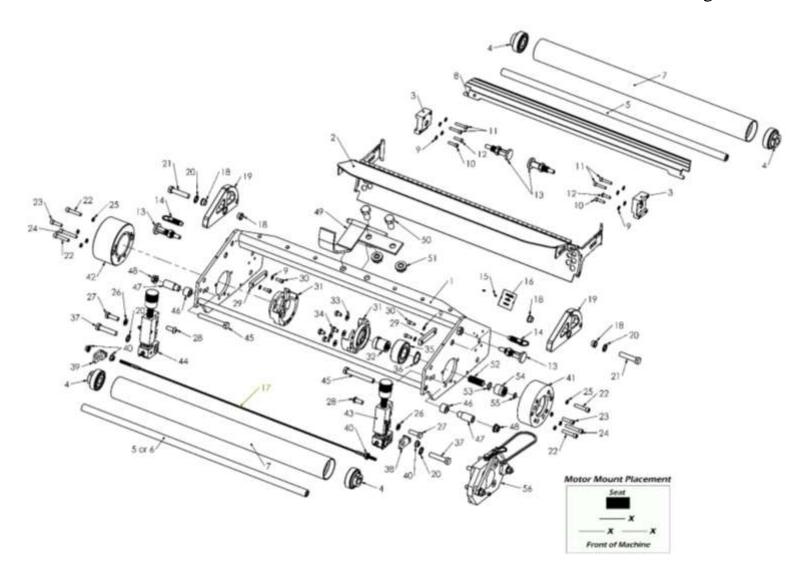


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere.	3 or 6
3	21P		6 Pcs Used After 5/22/19	
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome	0 or 3
6			Models Prior to 5/22/19	
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223F	Formed Rear Scraper	3
9	Н	17	#10 Internal Tooth Lock Washer	36
10	Н	16	#10-32 x 3/4" SS SHCS	6
11	Н	24	#10-32 x 1" SS SHCS	12
12	Н	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6

Jacobsen Greensking 3, 4, GP400, & G-Plex II, III Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
15	Н	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	Н	6106	3/8" Internal Tooth Lock Washer	12
21	Н	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	Н	19	1/4"-20 x 1-1/4" SHCS	12
23	Н	20	1/4"-20 x 7/8" SHCS	6
24	Н	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
29	21P	GCC-114	Hood Support	6
30	Н	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
			Female Splined Coupler	
32	21P	GCC-06	(Supplied with Snap Ring Item # 36)	3
33	Н	51	1/4" SAE Flat Washer	12
34	Н	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
30		2502	3/8"-24 x 1-3/4" Hex Bolt	6
	Н		(Used After 5/22/19)	
37	Н	28	5/16"-24 x 1-3/4" Hex Bolt	
			(Used Prior to 5/22/19)	
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02N-6	Narrow Motor Mounting Flange	3
42	21P	GCC-283	3lb Counterweight	3
	211	GCC-203	Depth Adjuster Assembly - Left	
	21A	GCC-ADJ Toro 1L	(Used After 5/22/19)	3
43	21A	GCC-ADJ Jac/Ran 1L	Jac/Ran Depth Adjuster Assembly - Left	
			(Used Prior to 5/22/19)	
			Depth Adjuster Assembly - Right	
	21A 21A	GCC-ADJ Toro 1R	(Used After 5/22/19)	3
44			Jac/Ran Depth Adjuster Assembly - Right	
		GCC-ADJ Jac/Ran 1R	(Used Prior to 5/22/19)	
45	Н	1402	3/8"-16 x 1-3/4" Motor Stud	6
46	H	1019	5/16 USS Flat Washer	6
47	H	1183	3/8"-16 Smooth Flange Nut	12
48	H	1403	5/16"-18 x 1-1/2" Motor Studs	12
49	H	1008	1/4" USS Flat Washer	12
	H	3147	5/16"-18 Smooth Flange Nut	12
5()			Lift Bracket Assembly	3
50 51	21A	ICiCC-10 ASM		
51	21A H	GCC-10 ASM 0013		
51 52	Н	0013	1/2"-13 x 1" Hex Bolt	6
51 52 53	H H	0013 1026	1/2"-13 x 1" Hex Bolt 1/2"-13 Flange Nut	6
51 52	Н	0013	1/2"-13 x 1" Hex Bolt	6

Jacobsen 5 & 6 Schematic & Parts Listing

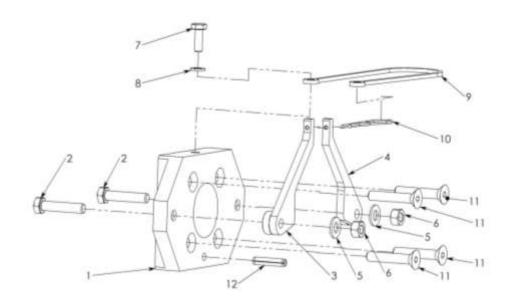


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere. (6 Pcs Used After 5/22/19)	3 or 6
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome (Models Prior to 5/22/19)	0 or 3
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223F	Formed Rear Scraper	3
9	Н	17	#10 Internal Tooth Lock Washer	36
10	Н	16	#10-32 x 3/4" SS SHCS	6
11	Н	24	#10-32 x 1" SS SHCS	12
12	Н	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6
15	Н	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3

Jacobsen 5 & 6 Parts Listing Continued

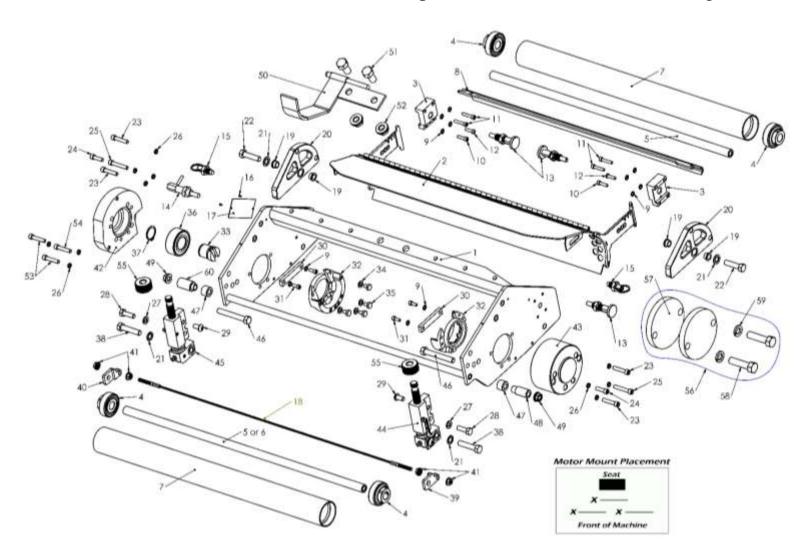
Item No.	Dept. No.	Part No.	Description	QTY
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	Н	6106	3/8" Internal Tooth Lock Washer	12
21	Н	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	Н	19	1/4"-20 x 1-1/4" SHCS	12
23	Н	20	1/4"-20 x 7/8" SHCS	6
24	Н	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
29	21P	GCC-114	Hood Support	6
30	Н	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
			Female Splined Coupler	
32	21P	GCC-06	(Supplied with Snap Ring Item # 36)	3
33	Н	51	1/4" SAE Flat Washer	12
34	Н	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
30	371	1025	3/8"-24 x 1-3/4" Hex Bolt	
	H	2502	(Used After 5/22/19)	
37			5/16"-24 x 1-3/4" Hex Bolt	6
	H	28	(Used Prior to 5/22/19)	
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02W-6	Wide Motor Mounting Flange	3
42	21P	GCC-288	5lb Counterweight	3
72	211	GCC 200	Depth Adjuster Assembly - Left	
	21A	GCC-ADJ Toro 1L	(Used After 5/22/19)	
43			Jac/Ran Depth Adjuster Assembly - Left	3
	21A	GCC-ADJ Jac/Ran 11	(Used Prior to 5/22/19)	
			Depth Adjuster Assembly - Right	
	21A	GCC-ADJ Toro 1R	(Used After 5/22/19)	
44			Jac/Ran Depth Adjuster Assembly - Right	3
	21A	GCC-ADJ Jac/Ran 11	(Used Prior to 5/22/19)	
45	Н	286	3/8"-16 x 2-3/4" Hex Bolt	6
46	21P	GCC-217	Lift Bushing Standoff	6
47	21P	GCC-216	Lift Bushing	6
48	H	1183	3/8"-16 Smooth Flange Nut	12
49	21A	GCC-10 ASM	Lift Bracket Assembly	3
50	H	0013	1/2"-13 x 1" Hex Bolt	6
51	H	1026	1/2"-13 K1 Hex Boil 1/2"-13 Flange Nut	6
52	21P	GCC-06JD/Jac5	JD & Jac5 Male Spline Coupler	3
53	21P	GCC-003D/3ac3	Snap Ring 9/16" External	3
54	37P	7704	Internal Female Splined Coupler	3
55	21P	GCC-129	12mm 1/2" Internal Snap Ring	3
				3
56	21A	GCC-1165	GK 5 Motor Mount Lock Kit (See Page 38)	

21A-GCC-1165 – Motor Mount Lock Kit Assembly



Item No.	Dept. No.	Part No.	Description	QTY
1	37P	6034JV	Greensking 5/6 Motor Adapter Flange	3
2	30H	3107	5/16 Bolt	6
3	30A	3003	Motor Mount Lock Arm RH	3
4	30A	3002	Motor Mount Lock Arm LH	3
5	30H	3158	5/16 Wave Washer	6
6	30H	3179	Nut 5/16 - 18 Lock	6
7	30H	1003	Bolt 1/4 - 20 x 3/4	3
8	30H	1007	Regular LW 1/4	3
9	30M	2528	Lanyard	3
10	30H	2580	Cotter Pin	3
11	30H	1146	Bolt 5/16 - 18 x 1 3/4 FH	12
12	37P	7178	Spring Pin 1/4 x 1 1/8	3

Jacobsen Eclipse 322 Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere. (6 Pcs Used After 5/22/19)	3 or 6
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome (Used Prior to 5/22/19)	0 or 3
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223F	Formed Rear Scraper	3
9	Н	17	#10 Internal Tooth Lock Washer	36
10	Н	16	#10-32 x 3/4" SS SHCS	6
11	Н	24	#10-32 x 1" SS SHCS	12
12	Н	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	9
14	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle for Motor Side	3
15	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6
16	Н	30	#7 x 1/4" Drive Screw	6
17	21S	SERIAL TAG	Serial Number Tag	3

Jacobsen Eclipse 322 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
18	21P	GCC-523	Cable Scraper	3
19	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
20	21P	GCC-13C	Parking Stand	6
21	Н	6106	3/8" Internal Tooth Lock Washer	12
22	Н	21	3/8"-24 x 1-1/2" Hex Bolt	12
23	Н	19	1/4"-20 x 1-1/4" SHCS	12
24	Н	20	1/4"-20 x 7/8" SHCS	6
25	Н	31	1/4"-20 x 1-1/2" SHCS	6
26	30H	6110	1/4" Hi-Collar Lock Washer	33
27	30H	1013	5/16" Split Lock Washer	6
28	30H	1022	5/16"-24 x 1" Hex Bolt	6
29	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
30	21P	GCC-114	Hood Support	6
31	Н	8005	#10-32 x 1/2" SS SHCS	12
32	21P	GCC-03	Inner Bearing Housing	6
22	215	CCC of Face	Female Splined Coupler	
33	21P	GCC-06 E322	(Supplied with Snap Ring Item # 37)	3
34	Н	51	1/4" SAE Flat Washer	12
35	Н	18	1/4"-20 x 3/8" Hex Bolt	12
36	21P	GCC-111	Drive Coupler Bearing	3
37	37P	1029	Snap Ring	3
			3/8"-24 x 1-3/4" Hex Bolt	
	Н	2502	(Used After 5/22/19)	_
38			5/16"-24 x 1-3/4" Hex Bolt	6
	H	28	(Used Prior to 5/22/19)	
39	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
40	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
41	Н	37	1/4"-20 Serrated Flange Nut	12
42	21P	GCC-02-E322	E322 Motor Mount Flange	3
43	21P	GCC-285	5lb Counterweight	3
44	21A	GCC-ADJ JAC E322 1L	Jac E-322 Depth Adjuster Assembly - Left	3
45	21A	GCC-ADJ JAC E322 1R	Jac E-322 Depth Adjuster Assembly - Right	3
46	Н	286	3/8"-16 x 2-3/4" Hex Bolt	6
47	21P	GCC-217	Lift Bushing Standoff	6
48	21P	GCC-216	Lift Bushing	3
49	Н	1183	3/8"-16 Smooth Flange Nut	12
50	21A	GCC-10 ASM	Lift Bracket Assembly	3
51	Н	0013	1/2"-13 x 1" Hex Bolt	6
52	Н	1026	1/2"-13 Flange Nut	6
53	Н	2016	1/4"-20 x 1-3/8" SHCS (Thick Motor Flange)	
33	Н	20	1/4"-20 x 7/8" SHCS (Thin Motor Flange)	6
		10	1/4"-20 x 1-1/4" SHCS	
5 4	Н	19	(Thick Motor Flange at Parking Stand)	2
54		1505	1/4"-20 x 3/4" SHCS	3
	H	1505	(Thin Motor Flange at Parking Stand)	
55	21P	GCC-ADJ-07E322	Lower Height Adjuster Knob	6
56	21A	GCC-350	3.5lb Counterweight Kit	3
57	21P	GCC-CW	Stackable Counterweight	6
58	Н	5007	1/2"-13 x 2" Hex Bolt	6
59	Н	0014	1/2" Split Lock Washer	6
60	21P	GCC-216E322	Lift Bushing for E-322 Motor Side	3

True-Surface® Depth of Cut Adjusters

The depth of cut adjuster is designed to be a reliable method of adjusting the depth of cut to precise increments. Made from stainless steel and quality zinc-plated components, the adjusters are equipped with lubrication points for rotating components. The predetermined "ZERO" settings and incremental markings provide fast and easy operation, setup, and change-over.

- The depth adjuster's "ZERO" setting is indicated on the depth gauge for both Vacu-CutterTM (VCT), Vacu-ScarifierTM (VSC), and Vertical MowerTM (VTM) when aligned with the bottom of the depth adjuster mounting block.
- 2. The "ZERO" setting refers to the depth at which the contact points of the front roller, the rear roller, and the Insert points are theoretically on an equal plane.
 - ***NOTE: THE "ZERO" LINE SHOULD ONLY BE USED AS A REFERENCE WHEN SETTING THE INSERT DEPTH. MOWER MODEL, TURF CONDITIONS, GCC AGE, AND INSERT WEAR ALL WILL IMPACT ACTUAL DEPTH. TRUE "ZERO" SHOULD BE FOUND USING A FLAT REFERENCE GAUGE.***
- 3. Cutting depth: when the Insert points are set lower than the rollers. This can be achieved by rotating the adjuster knob counterclockwise to lift the front roller and to allow the frame and the Insert to move down into the turf.
- 4. The Vacu-CutterTM, Vacu-GroomerTM, NV Roller, and the Vacu-BrushesTM will start around the line marked "VCT" Doing this will establish the "ZERO" setting for these units. From the "ZERO" setting, each ½ turn of the adjuster knob will correlate with a click to hold it in position.
- 5. The Vacu-ScarifierTM has its own "ZERO" reference (labeled **VSC** on the depth gauge).
- 6. The Vertical MowerTM has its own "ZERO" reference (labeled **VTM** on the depth gauge). The zero setting will change over time if the blades ear down from continual use.
- 7. The Star Slitter, Greens Spiker, and Deep Slicer will start at maximum height, and will penetrate approximately 0.150" (4.0mm), 0.19" (5mm), 0.22" (6mm) respectively into the turf. This is the minimum depth.
- 8. Each click represents approximately 0.010" (.254 mm) change in cutting depth, which will equal 0.040" (1.02 mm) change in cutting depth for each full revolution.
- 9. Each complete revolution change is marked as a line on the depth gauge of the adjuster.
- 10. The standard part number for the depth of cut gauge is GCC-ADJ-08 and is used on most Toro and Jacobsen units. However, John Deere 2500 units and Toro 3250 units use the depth of cut gauge GCC-ADJ-08JD. These models are equipped with additional mounting blocks that extend the forward position of the adjuster: GCC-ADJ-06L & R for John Deere and GCC-ADJ-3250 for Toro 3250.

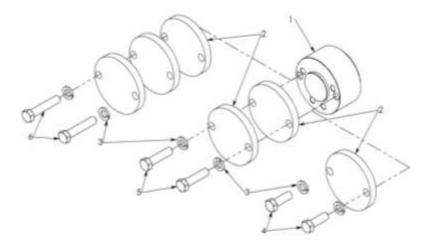
Refer to page 42 for a schematic and parts listing.

Quantities are for a set of 6 DOC Adjusters to fit 3 Frames

DEPTH OF CUT ADJUSTER	19 18 21 17 28 10
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Hem No.	Dont No	Hem No Dent No Part No	Description	VI.O
1	210	GCC-ADI-06	Mounting Block	9
	210	CCC ADI 03	Adjustment Knob (Will Not Fit	ų
ų m	21P	GCC-ADJ-07E322	Jacobsen E322) Adjustment Knob (Fits Jacobsen E322 Only)	9
4	21P	GCC-ADJ-15	1/4"-28 Set Screw	12
ın	21P	GCC-ADJ-12	5/16"-24 x 5/8" Round Head Bolt	9
9	I	1013	5/16" Split Lock Washer	9
7	Ι	1022	5/16"-24 x 1" Hex Bolt	9
00	21P	ADJ-14	8mm Set Screw	9
đ	21P	GCC-ADJ-13	Detent Spring	9
10	21P	GCC-ADJ-14	Detent Ball	9
11	21P	GCC-ADJ-16	Adjuster Shaft Seal	ø
12	21P	GCC-ADJ-04	Roller Mount Block	9
13	21P	GCC-ADJ-09	Isolator	9
14	21P	GCC-ADJ-10	S.S. Sleeve	9
14	21P	GCC-ADJ-10 Jac/Ran	S.S. Sleeve (Used on Jacobsen/Ransome Prior to 5/22/19)	9
15	21P	GCC-ADJ-3414	Axle Rotation Stop (Used Prior to	9
45	3	6106	3/11/19)	14
17	21P	GCC-ADI-17	5/8" External Snap Ring	0
00	21p	GCC-ADI-19	Depth Gauge Mount Screw	œ.
13	21P	GCC-ADJ-20	Depth Gauge Mount Washer	9
20	21P	GCC-ADJ-08	Depth Gauge	9
20	21P	GCC-ADJ-08JD	Depth Gauge (Fits John Deere and Toro 3250)	9
21	I	1681	Steel Grease Fitting	12
22	Ξ	6014	Set Screw 1/4"-20 x 1/4"	9
23	21P	GCC-ADJ-03	Adjuster Shaft	9
24	21P	GCC-ADJ-25	Depth Adjuster Isolator Bushing	9
24	21P	GCC-ADJ-25 Jac/Ran	Depth Adjuster isolator Bushing (Used on Jacobsen/Ransome Prior to 5/22/19)	9
25	21P	GCC-ADJ-26	O-Ring Isolator	12
26	21P	GCC-ADJ-06JD-L	Left Mounting Block (John Deere Only)	m
56	21P	GCC-ADJ-06JD-R	Right Mounting Block (John Deere Only)	m
27	21P	GCC-ADJ-3250	Left and Right Mounting Block (Toro 3250 Only)	9
28	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount Tab Left (Replaced GCC-ADJ-3414 on 3/11/19. Used on Toro GM3 - 3250)	м
28	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount Tab Right (Replaced GCC-ADJ-3414 on 3/11/19. Used on Toro GM3- 3250)	m

True-Surface® Counterweight Kits:



Item No.	Dept. No.	Part No.	Description
1	21P	GCC-285	5 lb. Counter Weight
1	21P	GCC-283	3 lb. Counter Weight (Not Shown)
2	21P	GCC-CW	1.75 lb. Counter Weight
3	Н	0014	1/2" Split Lock Washer
4	Н	1069	1/2 - 13 x 1 1/2 Gr. 5 Hex Bolt
5	Н	5007	1/2 - 13 x 2 Gr. 5 Hex Bolt
6	Н	5009	1/2 - 13 x 2 1/2 Gr. 5 Hex Bolt

Refer to the counterweight schematic above:

	21A	-GCC-175 - 1	.75 lb Counter Weight Kit Includes:	
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	3
3	Н	0014	1/2" Slit Lock Washer	6
4	Н	1069	1/2 - 13 x 1 1/2 - Gr. 5 Hex Bolt	6
21A-GCC-350 - 3.5 lb Counter Weight Kit Includes:				
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	6
3	Н	0014	1/2" Slit Lock Washer	6
5	Н	5007	1/2 - 13 x 2 Gr. 5 Hex Bolt	6
21A- GCC-525 - 5.25 lb Counter Weight Kit Includes:				
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	9
3	Н	0014	1/2" Slit Lock Washer	6
6	Н	5009	1/2 - 13 x 2 1/2 Gr. 5 Hex Bolt	6

True-Surface® Counterweight Kits

True-Surface® Greens Care Collection Counterweight Chart

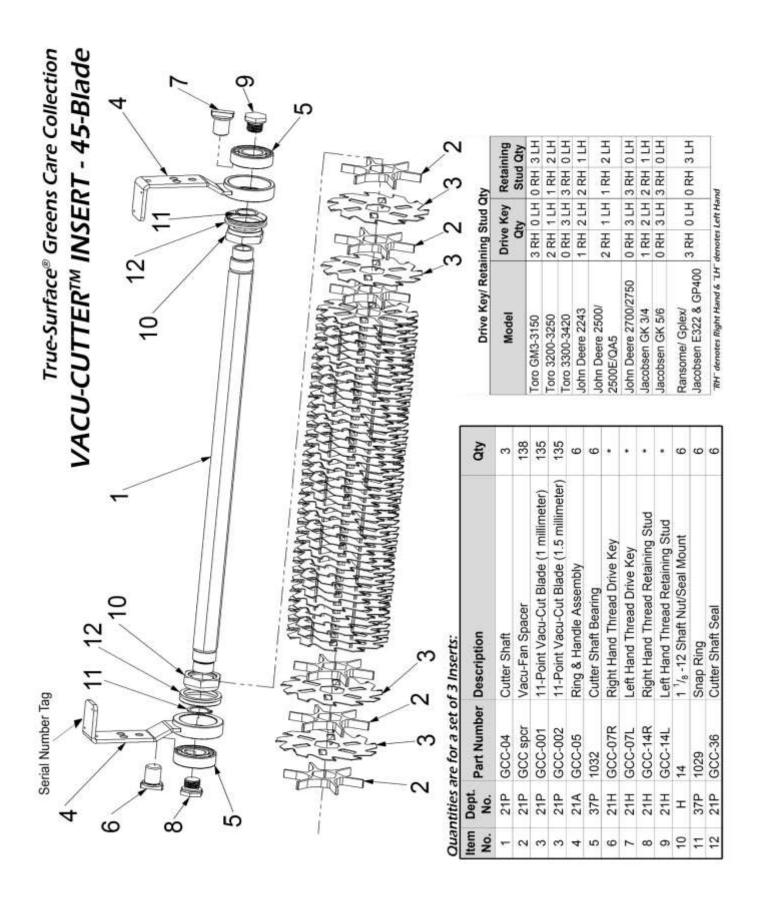
	Counter Weight	Qty per	Additional Counter	Qty per
Model Mower	Needed	Frame	Weights Needed	Frame
Toro 3100	GCC-283	1		
Toro 3250	GCC-283	1		
Toro 3300/3400	GCC-285	1	GCC-CW	1
Toro 3320/3420	GCC-285	1	GCC-CW & GCC-CW-4	3 & 1
John Deere 2500	GCC-285	1		
John Deere 2500E	GCC-285	1	GCC-CW	2
JD 2500 QA5	GCC-285	1	GCC-CW	2
JD 2500E QA5	GCC-285	1	GCC-CW	3
JD 2700/2750	GCC-285	1	GCC-CW	2
JD 2700E/2750E	GCC-285	1	GCC-CW	3
John Deere 2243	GCC-285	1		
Jacobsen 3/4	GCC-283	1		
Jacobsen 5/6	GCC-285	1		
Jacobsen E322	GCC-285	1	GCC-CW	2

GREENS CARE COLLECTION INSERT INSTALLATION AND REMOVAL

The Greens Care Collection (GCC) is a true "wrench/spanner free" interchange system. It is possible to exchange GCC inserts on most triplex/triple models with the frames still installed on the greens mower.

- 1. Assuming you are working on a bench, to exchange any of the inserts rest each roller on a ³/₄"-1" (19mm 25.4mm) strip of board to gain clearance under the insert, so they can be adjusted at any cutting depth.
- 2. Pull outward and rotate all four retractable spring plungers 90 degrees. This will release the insert handles and the hood rails.
- 3. Pull the insert handles forward, then retract the small lock spring plunger on each side. Lift the front of the hood, lock the spring plungers into position so that the hood is held in the up position, and slide the hood back as far as possible
- 4. View the drive motor side of the cutting unit. Align the square drive key between the insert handle and the frame, so it is angled slightly forward (12 degrees) (see Figure 1 on page 6).
- 5. Taking one handle in each hand, lift the unit out at a slight forward angle to the frame; be sure to use equal force on each end and keep it parallel with the frame while doing so.
- 6. Installation is the opposite. Align the Insert shaft drive key so that when looking down above the housing it will align with the drive coupler and the unit will rest into the bottom of the housings. Do this evenly to avoid a jam of the insert in the frame. Non-driven units: Star Slitter, Greens Spiker, and the NV Roller do NOT have a drive key that needs to be aligned.
- 7. Lower the hood top section and slide the hood assembly forward until indicator notches are aligned with rail mount block to match the Insert installed (see Figure 2 on page 6).
- 8. Turn the hood rail plungers another 90 degrees, and allow them to return through the rail, frame and parking stand. Position the stand so it will support the back of unit off the surface (see Figure 3 & 4 on page 6). Some slight sliding of the hood back and forth may be necessary to properly align plunger holes, so that plunger will slip into position.
- 9. Rotate the insert handle back to 90 degrees with frame and release the plungers on the frame, so they pass through the insert handles and into the slot on the underside of the top hood section.
- 10. When performing the above operations while mounted on a mower and the drive motor is installed, the motor will provide adequate resistance to the coupler, so that when it is rotated into removal/installation position, it will remain in the required position.
- 11. When changing without the motor installed, a simple square L-Key tool is supplied to insert into the coupler, if necessary, and allow it to rest on the bench to prevent rotation of the coupler during removal and installation of the insert.

NOTE: The serial number tag on the insert will always be installed on the right side of the insert from the factory as seen from sitting in the operator's seat. If a power-driven insert is installed backwards, the drive key has the potential to unthread during operation, potentially causing damage to the GCC Frame. The drive keys and retaining studs are also stamped with left and right to indicate the correct orientation prior to insert installation.



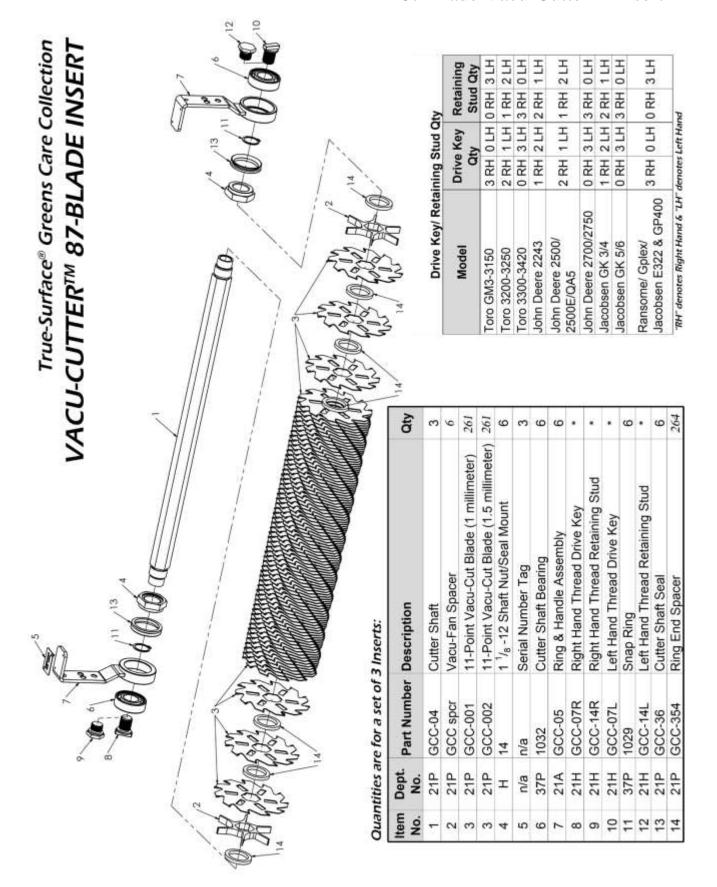
True-Surface® Greens Care Collection VACU-CUTTER™ 32-BLADE INSERT

Model	Drive	Drive Key Qty	Retaining Stud Oty	ining Qty
Toro GM3-3150	3 RH	0 LH	3 RH O LH O RH	3LH
Toro 3200-3250	2 RH	2 RH 1 LH 1 RH	1RH	2LH
Toro 3300-3420	0 RH	3 LH	3 RH	O LH
John Deere 2243	1 R	2LH	1 RH 2 LH 2 RH 1 LH	₽
John Deere 2500/ 2500E/QA5	2 RH	1-	2 RH 1 LH 1 RH 2 LH	217
John Deere 2700/2750	0 RH	3 LH	0 RH 3 LH 3 RH 0 LH	0
Jacobsen GK 3/4	1 RH	2 LH	2 RH	Ī
Jacobsen GK 5/6	0 RH	3.1	3 RH	O LH
Ransome/ Gplex/ Jacobsen E322 & GP400	3 RH	OLH 0	3RH OLH ORH 3LH	3.4

å 96 96 11-Point Vacu-Cut Blade (1.5 millimeter) 11-Point Vacu-Cut Blade (1 millimeter) Right Hand Thread Retaining Stud Left Hand Thread Retaining Stud 1 1/8 -12 Shaft Nut/Seal Mount Right Hand Thread Drive Key Left Hand Thread Drive Key Ring & Handle Assembly Cutter Shaft Bearing Serial Number Tag Vacu-Fan Spacer Ring End Spacer Part Number Description Cutter Shaft Snap Ring GCC spcr GCC-07R GCC-14R GCC-002 GCC-001 GCC-07L GCC-14L GCC-354 GCC-04 GCC-05 GCC-36 1029 1032 n/a 21A 21P 21P 37P 21H 21H 21H 37P n/a 9 2 ∞ 6

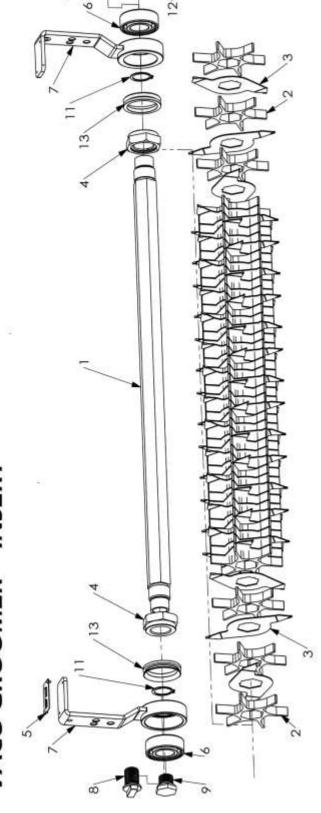
Quantities are for a set of 3 Inserts:

87-Blade Vacu-CutterTM Insert



Vacu-GroomerTM Insert

True-Surface® Greens Care Collection VACU-GROOMER™ INSERT



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Juan	

Retaining Stud Qty

Drive Key

Model

Drive Key/ Retaining Stud Qty

3 RH 0 LH 0 RH 3 LH

2 RH 1 LH 1 RH 2 LH 0 RH 3 LH 3 RH 0 LH 1 RH 2 LH 2 RH 1 LH 2 RH 1 LH 1 RH 2 LH

No.	Dept. No.	Dept. No. Part Number Description	Description	Qt
	21P	GCC-04	Hex Driven Cutter Shaft	က
	21P	GCC spcr	Vacu-Fan Spacer	138
	21P	GCC-359	2-Point Vacu-Groomer Blade	135
	I	14	1 1/8 -12 Shaft Nut/Seal Mount	9
	n/a	n/a	Serial Number Tag	က
	37P	1032	Cutter Shaft Bearing	9
	21A	GCC-05	Bearing Ring & Handle	9
	21H	GCC-07R	Right Hand Thread Drive Key	
	21H	GCC-14R	Right Hand Thread Retaining Stud	•
	21H	GCC-07L	Left Hand Thread Drive Key	•
	37P	1029	Snap Ring	9
	21H	GCC-14L	Left Hand Thread Retaining Stud	•
	21P	GCC-36	Cutter Shaft Seal	9

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1	9
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3 RH 0 LH 0 RH 3 LH

0RH 3LH 3RH 0LH 1RH 2LH 2RH 1LH 0RH 3LH 3RH 0LH

John Deere 2700/2750

John Deere 2500/

2500E/QA5

John Deere 2243

Toro 3200-3250 Toro 3300-3420

Toro GM3-3150

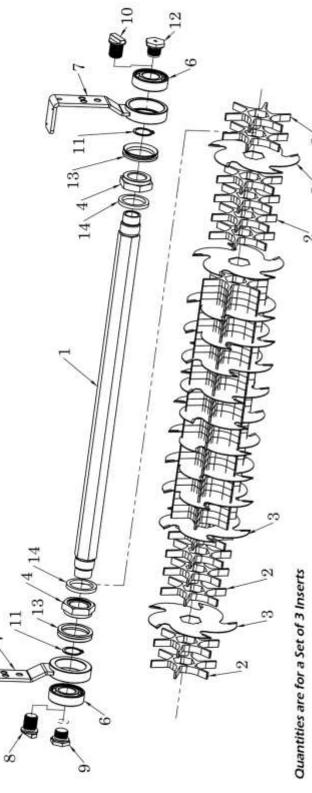
Jacobsen GK 3/4 Jacobsen GK 5/6

Jacobsen E322 & GP400

Ransome/ Gplex/

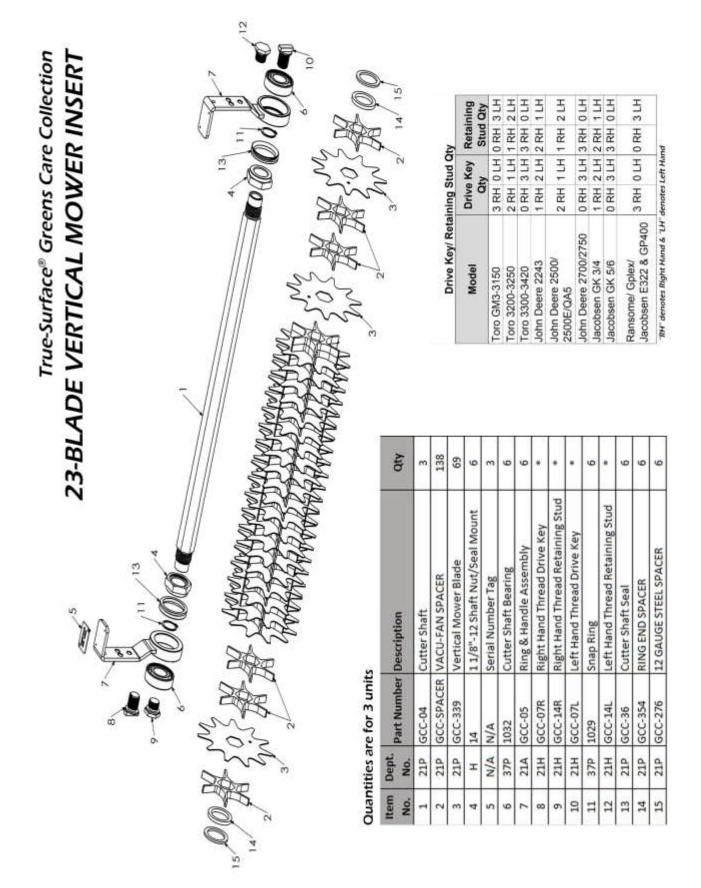
True-Surface® Greens Care Collection

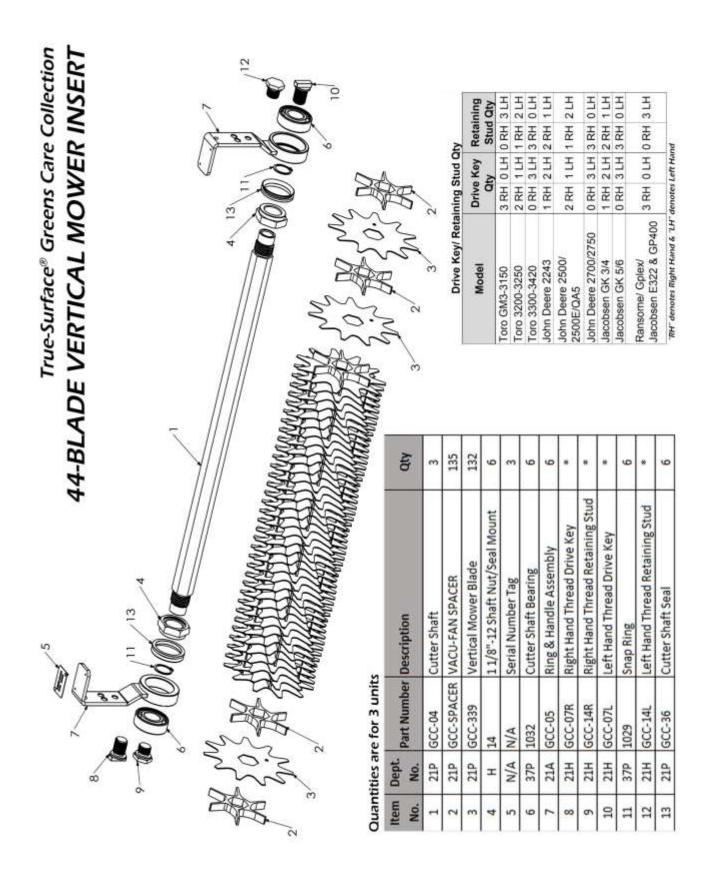
VACU-SCARIFIERTM INSERT

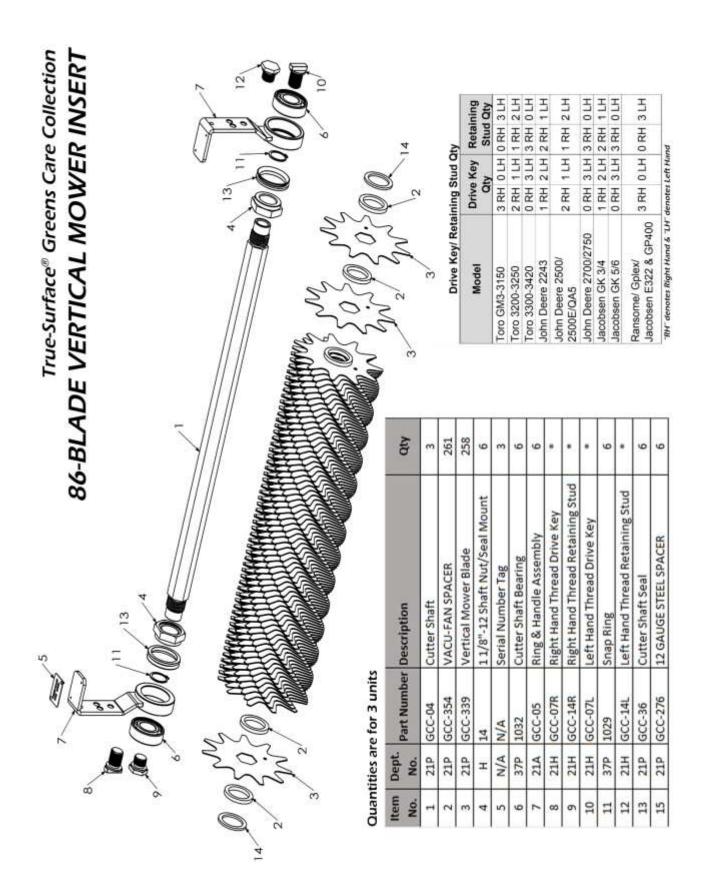


Model	Drive	Drive Key Otv	Retaining Stud Qtv	ining
Toro GM3-3150	3 RH	O.LH	3 RH O LH O RH 3 LH	31
Toro 3200-3250	2 RH	1	2 RH 1 LH 1 RH 2 LH	214
Toro 3300-3420	0 RH	0 RH 3 LH	3 RH	O LH
John Deere 2243	1 RH	2LH	1 RH 2 LH 2 RH 1 LH	=
John Deere 2500/ 2500E/QA5	2 RH	1.H	2 RH 1 LH 1 RH 2 LH	211
John Deere 2700/2750	0 RH	3LH	ORH 3LH 3RH OLH	0
Jacobsen GK 3/4	1 RH	1 RH 2 LH 2 RH	2 RH	=======================================
Jacobsen GK 5/6	0 RH	3 LH	3 RH	O.L.
Ransome/ Gplex/ Jacobsen E322 & GP400	3 RH	0 LH	3RH OLH ORH 3LH	3.1

Qty	8	144	36	9	3	9	9	•	•		9	•	9	9
Description	Hex Driven Cutter Shaft	Vacu-Fan Spacer	5-Point Vacu-Scariffer Blade	1 1/8 -12 Shaft Nut/Seal Mount	Serial Number Tag	Cutter Shaft Bearing	Ring & Handle Assembly	Right Hand Thread Drive Key	Right Hand Thread Retaining Stud	Left Hand Thread Drive Key	Snap Ring	Left Hand Thread Retaining Stud	Cutter Shaft Seal	Ring End Spacer
Part Number Description	GCC-04	GCC spcr	GCC-322	14	n/a	1032	GCC-05	GCC-07R	GCC-14 R	GCC-07L	1029	GCC-14L	GCC-36	21P GCC-354
Dept. No.	21P	21P	21P	I	n/a	37P	21A	21H	21H	21H	37P	21H	21P	21P
Item No.		2	က	4	2	9	7	00	6	10	=	12	13	14

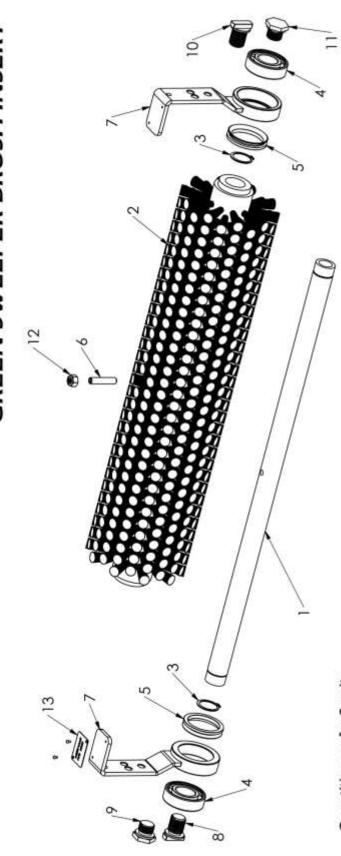






Green Sweeper Brush Insert

True-Surface® Greens Care Collection GREEN SWEEPER BRUSH INSERT

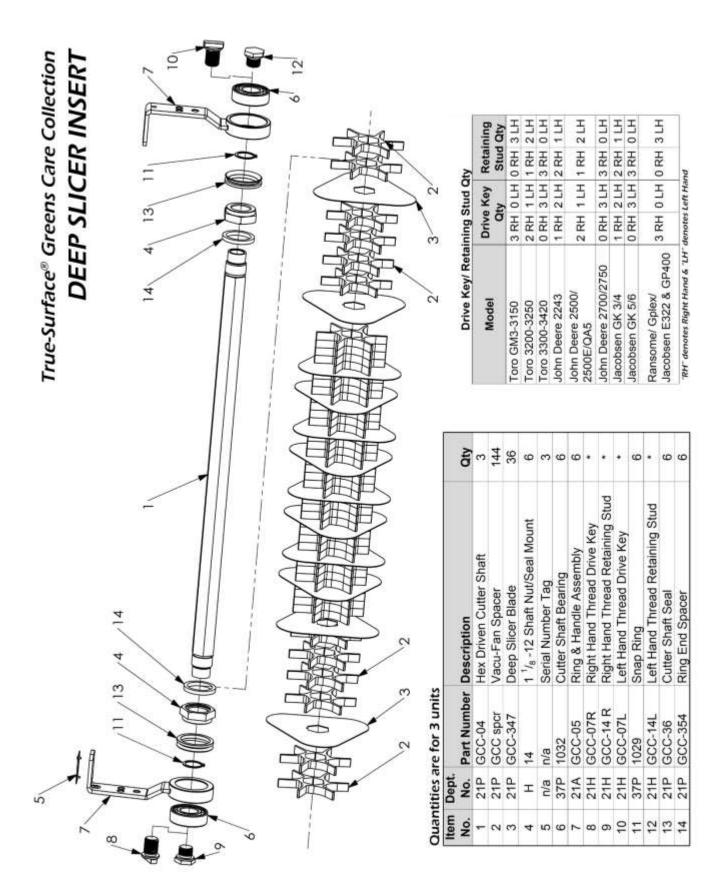


Model	Drive	Drive Key Qty	77-3	Retaining Stud Qty
Toro GM3-3150	3 RH	O LH	3 RH O LH O RH 3 LH	3.LF
Toro 3200-3250	2 RH	크	2 RH 1 LH 1 RH 2 LH	2 LF
Toro 3300-3420	0 RH	3LH	0 RH 3 LH 3 RH 0 LH	마
John Deere 2243	1 RH	2 LH	1 RH 2 LH 2 RH 1 LH	1,1
John Deere 2500/ 2500E/QA5	2 RH	±.	2 RH 1 LH 1 RH 2 LH	2 LF
John Deere 2700/2750	0 RH	3LH	0 RH 3 LH 3 RH 0 LH	아나
Jacobsen GK 3/4	1 RH	2LH	2 RH 1 LH	#
Jacobsen GK 5/6	0 RH	3 LH	0 RH 3 LH 3 RH 0 LH	0 다
Ransome/ Gplex/ Jacobsen E322 & GP400	3 RH	O LH	3 RH 0 LH 0 RH 3 LH	31.

"RH" denotes Right Hand & "LH" denotes Left Hand

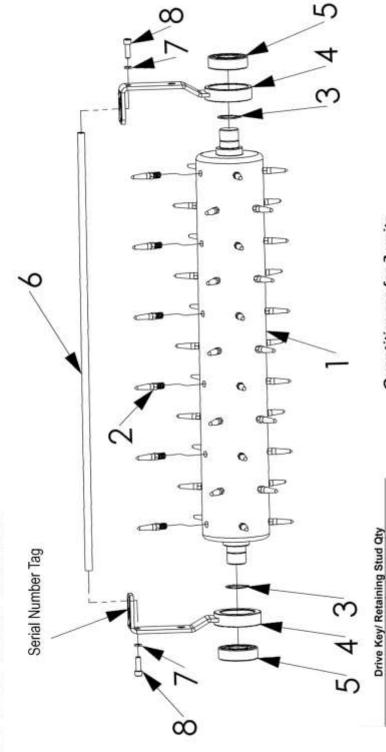
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o urnus	Part No. Description	21P GCC-RBS VACU-BRUSH SHAFT	21P GCC-329 GREEN SWEEPER BRUSH CORSE	Snap Ring	Cutter Shaft Bearing	Cutter Shaft Seal	5/16-18X1 1/2 SOCKET SET SCREW	21A GCC-05 Ring & Handle Assembly	21H GCC-07R Right Hand Thread Drive Key	21H GCC-14R Right Hand Thread Retaining Stud	21H GCC-07L Left Hand Thread Drive Key	21H GCC-14L Left Hand Thread Retaining Stud	5/16-18 NYLON LOCK NUT	Serial Number Tag
Cuantities are for 5 units	Part No.	GCC-RBS	GCC-329	37P 1029	1032	21P GCC-36	1403	GCC-05	GCC-07R	GCC-14R	GCC-07L	GCC-14L	Н 3179	n/a
unes	Item Dept. No. No.	21P	21P	37P	37P	21P	Ι	21A	21H	21H	21H	21H	I	n/a n/a
Cuar	Item No.	н	2	е	4	2	9	7	00	6	10	11	12	13

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Greens Spiker Insert

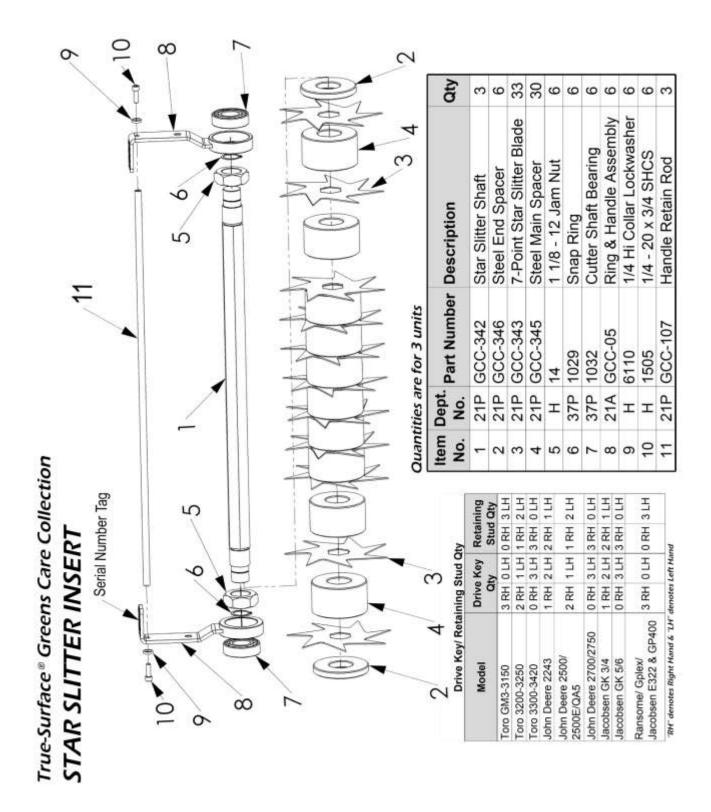
True-Surface @ Greens Care Collection GREENS SPIKER INSERT



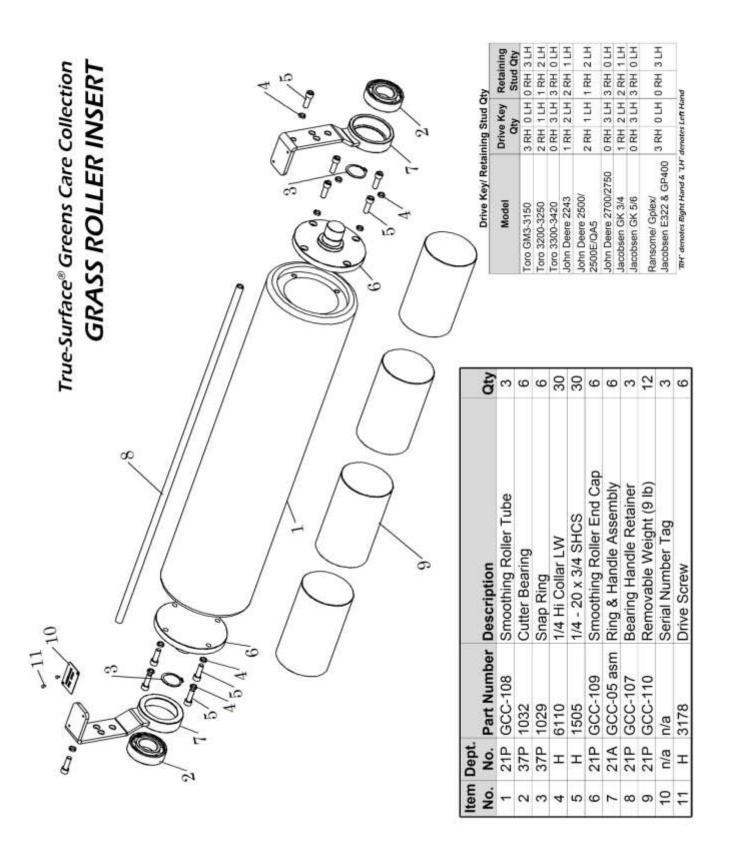
Item No.	Dept. No.	Part Number Description	Description	Qty
	21P	GCC-348	Spiker Drum	က
	21P	GCC-349	Spiker Points	165
	37P	1029	Snap Ring	9
	21A	GCC-05	Bearing Ring & Handle	9
	37P	1032	Cutter Shaft Bearing	9
	21P	GCC-107	Handle Retaining Rod	က
	I	6110	1/4 Hi Collar LW	9
	I	1505	1/4 - 20 x 3/4 SHCS	9

Quantities are for 3 units

Model	a a	Drive Key Qty	Reta	Retaining Stud Qty
Toro GM3-3150	3 RH	0 LH	3 RH O LH O RH 3 LH	317
Toro 3200-3250	2 RH	2 RH 1 LH	1 RH	2LH
Toro 3300-3420	0 RH	3LH	3 RH	O.H
John Deere 2243	H.	1 RH 2 LH	2 RH	그
John Deere 2500/ 2500E/QA5	2 RH	H.	2 RH 1 LH 1 RH 2 LH	2 LH
John Deere 2700/2750	0 RH	3LH	ORH 3LH 3RH OLH	9
Jacobsen GK 3/4	1 RH	2LH	2 RH	T.
Jacobsen GK 5/6	0 RH	3 LH	3 RH	0 LH
Ransome/ Gplex/ Jacobsen E322 & GP400	3 RH	O LH	3RH OLH ORH 3LH	3.7



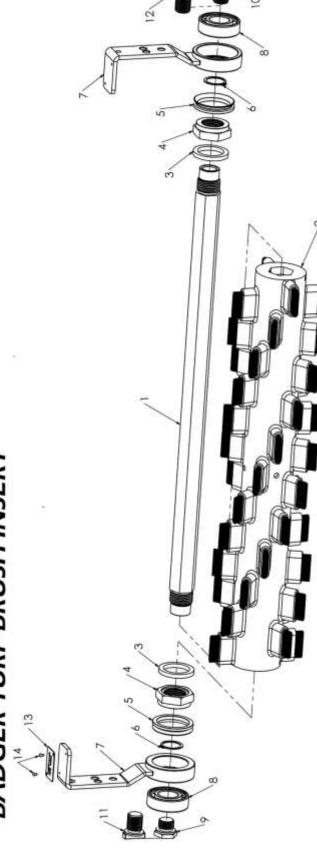
Grass Roller Insert



Badger Turf Brush

True-Surface® Greens Care Collection

BADGER TURF BRUSH INSERT



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Item No. Dept. No. Part No. Description	Cutter Shaft	GCC-320 Badger Turf Brush	GCC-354 Ring End Spacer	1 1/8"-12 Shaft Nut/Seal Mount	Cutter Shaft Seal	Snap Ring	Ring & Handle Assembly	Cutter Shaft Bearing	GCC-14R Right Hand Thread Retaining Stud	GCC-14L Left Hand Thread Retaining Stud	GCC-07R Right Hand Thread Drive Key	GCC-07L Left Hand Thread Drive Key	Serial Number Tag	#2 Drive Screw
Part No.	GCC-04	GCC-320	GCC-354	14	GCC-36	1029	GCC-05	1032	GCC-14R	GCC-14L	GCC-07R	GCC-07L	n/a	50
Dept. No.	21P	21P	21P	I	21P	37P	21A	37P	21H	21H	21H	21H	n/a	I
Item No.	-	2	3	4	2	9	7	00	6	10	11	12	13	14

2 RH 1 LH 1 RH 2 LH 0 RH 3 LH 3 RH 0 LH

Toro 3200-3250 Toro 3300-3420

Toro GM3-3150

1 RH 2 LH 2 RH 1 LH

2 RH 1 LH 1 RH 2 LH

3 RH 0 LH 0 RH 3 LH

Retaining Stud Qty

Drive Key

Model

Drive Key/ Retaining Stud Qty

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Jacobsen E322 & GP400

1RH 2LH 2RH 1LH 0RH 3LH 3RH 0LH

0 RH 3 LH 3 RH 0 LH

John Deere 2700/2750

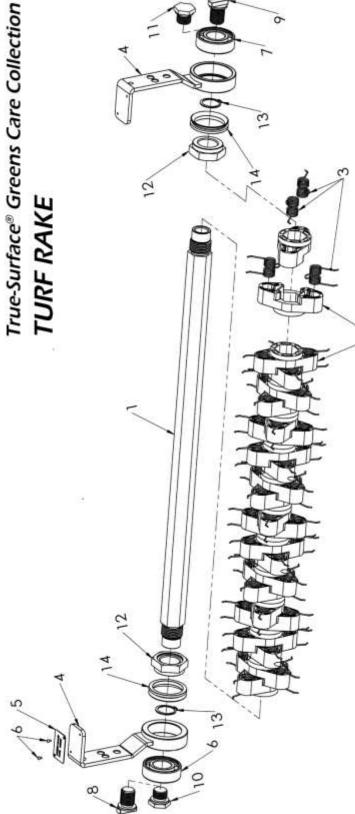
Jacobsen GK 3/4 Jacobsen GK 5/6 Ransome/ Gplex/

John Deere 2243 John Deere 2500/

2500E/QA5

3 LH

3 RH O LH O RH



Quantities are for 3 units

scription	Cutter Shaft	GCC-622 Turf Rake Double Spring Holder	GCC-623 Turf Rake Torsion Spring	Ring & Handle Assembly	Serial Number Tag	#2 Drive Screw	Cutter Shaft Bearing	GCC-07R Right Hand Thread Drive Key	GCC-07L Left Hand Thread Drive Key	GCC-14R Right Hand Thread Retaining Stud	GCC-14L Left Hand Thread Retaining Stud	1 1/8"-12 Shaft Nut/Seal Mount	Snap Ring	Cutter Shaft Seal
2	3	Ē	Ē	Rin	Ser	#2	5	Rig	Lef	Rig	Lef	11	Sn	5
Part No. Description	GCC-04	GCC-622	GCC-623	GCC-05	n/a	50	1032	GCC-07R	JCC-025	GCC-14R	GCC-14L	14	1029	GCC-36
Dept.	21P	21P	21P	21A	n/a	I	37P	21H	21H	21H	21H	Ξ	37P	21P
No.	1	7	ю	4	2	9	7	00	6	10	11	12	13	14

2 RH 1 LH 1 RH 2 LH

3 RH 0 LH 0 RH 3 LH 2 RH 1 LH 1 RH 2 LH 0 RH 3 LH 3 RH 0 LH 1 RH 2 LH 2 RH 1 LH

> Toro 3200-3250 Toro 3300-3420

Toro GM3-3150

Retaining Stud Qty

Drive Key

Model

Drive Key/ Retaining Stud Qty

9 9

144 9

Jacobsen E322 & GP400	3 RH 0 LH 0 RH 3 LH	т
"RH" denotes Right Hand & "LH" denotes Left Hand	denotes Left Hand	7

1RH 2LH 2RH 1LH 0RH 3LH 3RH 0LH

0 RH 3 LH 3 RH 0 LH

John Deere 2700/2750

Jacobsen GK 3/4 Jacobsen GK 5/6

John Deere 2500/ John Deere 2243

2500E/QA5

GREENS CARE COLLECTION FRAME DRIVE END REVERSAL

A drive-end reversal may be necessary on your Greens Care Collection frame when adapting it to fit another greens mower model. Please refer to the motor mount diagram located on the schematic for the model greens mower you are adapting to, and decide which units need a drive end reversal.

Please refer to the assembly page for the GCC frame unit as assembled or the model to which it will be adapted, and follow the instructions below:

- Remove bolts H-19, H-20, and H-31 from the drive, or motor side, and the counterweight, or non-drive, side of the frame.
- Remove counterweights, motor mounts, and inner bearing housings from the frame. Move them to the opposite side of the frame and replace.
- It is critical that when re-installing the inner bearing housings that the insert installation slot is angled slightly forward (approximately 15 degrees) and that bolts are re-installed in the same locations from which they were removed.
- Important: when tightening these bolts, do so in a crisscross fashion, similar to installing a wheel on a vehicle, so that the inner bearing housing and motor mount or counterweight align properly with each other as well as the frame.

INSERT DRIVE END REVERSAL

If your power-driven insert* requires a drive end reversal, you will need to change out the drive keys (part GCC-07R or GCC-07L) and the retaining studs (part GCC-14L or GCC-14R) according to the chart on your Insert Schematic Page. Refer to the Drive Key & Retaining Stud Quantities Chart on the insert schematics located on pages 46-60. This chart will help you determine how many of each will be required for your specific greensmower model.

The insert shafts are threaded with a standard right-hand thread in one end, and a standard left hand thread in the other so that when a motor is mounted to the right side of the frame (viewed from the operator's position, facing forward, with unit mounted to the machine) a right hand GCC-07R, when threaded into the shaft, will continuously tighten itself into the shaft as it is being used. The same holds true for when the motor is on the left side of the frame and the left hand GCC-07L is used.

Drive keys and retaining studs are installed with anti-seize when produced at our manufacturing facility. We recommend replacing them with the same for ease of dismantling.

Non-powered inserts** are ground-driven and do not require drive keys. However, the Star Slitter Insert does require a specific travel direction; refer to the schematic on page 57. The illustration of the Star Slitter Insert shows the front or forward-facing section of the unit facing outward. If the design of the blade in the schematic is orientated to the unit on the machine, it should be clear what the forward direction of the Star Slitter is intended to be.

^{*}Power-Driven Inserts include: All Types of Vacu-Cutters, Vacu-Groomer, Vacu-Scarifier, Vertical Mower, All Types of Vacu-Brushes, & Deep Slicer

^{**}Non-Powered Inserts: Star Slitter, Greens Spiker & NV Roller

GREENS CARE COLLECTION ADAPTATIONS

Love your Greens Care Collection (GCC), but now you need to attach them to a different greens mower... You're in luck, because the GCC can easily be adapted! With the purchase of a simple adaptation kit, you can change your Greens Care Collection to fit any Toro, Jacobsen, John Deere, and Ransome greens mowers!

The GREENS CARE COLLECTION frame and inserts are adaptable by simply changing the motor mount & lifting hardware on the frames and switching out the drive keys and retaining studs on the inserts. In some cases, you may also need to change the drive position of the frame. Instructions to perform this drive end reversal can be found on page 62.

NOTE FOR ALL ADAPTAION KITS:

When adapting the GCC Frame from a Toro GM3 – Toro 3150 or a John Deere 2500 (not equipped with the QA5 Reels) and have a GCC Frame serial # GCC08-0730 or lower (purchased prior to February 2011), you will need to remove the welded basket pin (GCC-005A).

To remove the welded pin, grind the small flat weld on the outside of the frame flush to the surface. Next, tap the opposite end of the pin back and forth with a hammer to crack the remaining weld. Using a 5/16" diameter punch, drive the pin out. There is no need to fill in the hole, because it may be necessary if you decide to adapt your frames to a different model. It may be necessary to use a 3/8" drill or round file to remove remaining burrs for the installation of new hardware.

Units dated after February 2011 and have a serial # GCC08-0731 or higher will not need to perform the above procedure because the GCC-005A is bolted for easy removal.

Toro Models Adapting to John Deere 2500

Adaptation kit required: 21A-GCC-9304, 21A-GCC-9304E, or 21A-GCC-9304QA5 Please refer to the John Deere 2500 schematic found on page 23.

To adapt your GCC from a Toro GM-3 – Toro 3150 to a John Deere 2500, a drive end reversal will be required for only 1 of the frames (right front). Please refer to page 62 for drive end reversal instructions. If you are adapting from a Toro 3200 or Toro 3250, a drive end reversal is not necessary.

- 1. Remove the lift hooks and the entire front roller assembly, including the depth of cut adjusters, from the GCC Frames.
- 2. Frames prior to July 2010 and have a serial number of GCC08-0570 or lower, require you to drill a hole in order to mount the John Deere lifting yoke. Mark the position as shown in figure 5 on page 27 and use a 25/64" drill to drill through. Frames with a serial number GCC08-0571 and higher already include the hole on the frame.
- 3. Attach the 21A-GCC-ADJ-06JD-L and 21A-GCC-ADJ-06JD-R depth adjuster mounts to the left and right side of the frame respectively. (Items 63 and 64)
- 4. Reinstall the front roller and depth adjuster into the mounts.
- 5. Remove the ball studs from the front rollers. Install the scraper 21P-GCC-233B (item 17) then install the bolts H-2502 (item 37) and tighten.
- 6. Replace the counterweights 21P-GCC-283 with new larger 21P-GCC-285 (item 42) counterweights. This also is the ideal time to reverse the drive end on one of the units. Refer to the drive end reversal instructions on page 62.

- 7. Replace the 21P-GCC-02W motor mounts with the new 21P-GCC-02W-6 (item 41) motor mounts. Press the 21P-GCC-06 (item 32) driver coupler and the 21P-GCC-111 bearing (item 35) out of the current mounts and install new mounts (Item 41) before attaching to the frame.
- 8. Attach the 37P-7036-3 John Deere motor flanges (item 43) to motor mounts.
- 9. Attach the 21P-GCC-207 (Item 53) lift chain U-bolt and the 21P-GCC-212 (Item 54) lift chain to the frame in place of the lift hook.
- 10. For hydraulic John Deere units: insert the 21P-GCC-06JD/Jac5 male spline (item 47) shaft into the drive coupler. Slide the 37P-7704 female spline coupler (item 49) over the male spline shaft. Install the motor. Note: Some early model electric John Deere units will not need the 37P-7704 female spline coupler (item 49)
- 11. Please refer to page 20 for instructions to attach the GREENS CARE COLLECTION to the triplex greens mower.

Toro Models Adapting to Jacobsen GK 3 and 4

Adaptation kit required: 21A-GCC-9302

Please refer to the Jacobsen GK 3 and 4 schematic found on page 34.

To adapt your GCC from a Toro GM-3 – Toro 3150 to a Jacobsen Greensking 3 or 4, a drive end reversal will be required for 2 of the frames (right front & center). Please refer to page 62 for drive end reversal instructions. If you are adapting from a Toro 3200 or Toro 3250, a drive end reversal is only necessary on one unit.

- 1. Remove the lift hooks from the frames.
- 2. Replace the ball studs in the front roller with the H-2502 bolts. (Item 37)
- 3. Replace the current motor mounts with the 21P-GCC-02N-6 motor mounts (item 41) This is also an opportune time to reverse the drive ends; instructions can be found on page 62.
- 4. Refer to the "NOTE FOR ALL ADAPTATIONS" on page 61 explaining how to remove the GCC-005A basket pin.
- 5. Install the 21P-GCC-217 lift bushing standoff (item 55) on the immediate outside of the frame and the 21P-GCC-216 lift bushing (item 56) in conjunction with the Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 56) is reversible to suit what type of lifting yoke is used on the machine.*
- 6. Attach the 21A-GCC-10 lifting bracket (item 51) to the frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
- Please refer to page 33 for instructions on mounting the GREENS CARE COLLECTION to the triplex mower.

Toro Models Adapting to Jacobsen GK 5 and 6

Adaptation kit required: 21A-GCC-9307

Please refer to the Jacobsen GK 5 and 6 assembly found on page 36.

To adapt your GCC from a Toro GM-3 –Toro 3150 to a Jacobsen Greensking 5 or 6, a drive end reversal is required for all 3 units. To adapt your GCC from a Toro 3200 or Toro 3250 to a Jacobsen Greensking 5 or 6, a drive end reversal will be required for 2 of the frames. Please refer to page 62 for drive end reversal instructions.

- 1. Remove the lift hooks from the frames.
- 2. Replace the ball studs in the front roller with H-2502 bolts. (Item 37)
- 3. Replace the current motor mounts with the 21P-GCC-02W-6 motor mounts (item 41). This would be the opportune time to reverse the drive ends as well.
- 4. Refer to the "NOTE FOR ALL ADAPTATIONS" on page 63 explaining how to remove the GCC-005A basket pin.

- 5. Install the 21P-GCC-217 lift bushing standoff (item 46) on the immediate outside of the frame, and the 21P-GCC-216 lift bushing (item 47) in conjunction with Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 47) is reversible to suit what type of lifting yoke is used on the machine.*
- 6. Attach the 21A-GCC-10 lifting bracket (item 49) to frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
- 7. Insert the 21P-GCC-06JD/Jac5 male spline (item 52) into the 21P-GCC-06 coupler (item 36), and then add the 37P-7704 female coupler (item 54).
- 8. Please refer to page 33 for instructions on mounting GREENS CARE COLLECTION to the triplex mower.

Toro Models Adapting to Jacobsen/Ransome G-Plex 2 and 3

Adaptation kit required: 21A-GCC-9305

Please refer to Jacobsen GK 3 and 4 schematic found on page 34.

To adapt your GCC from a Toro GM-3 – Toro 3150 to a Ransome or G-Plex II & III, a drive end reversal is not necessary. However, to adapt from a Toro 3200 or Toro 3250 you will need to perform a drive end reversal on the right frame. Please refer to page 62 for drive end reversal instructions.

- 1. Remove the lift hooks from the frames.
- 2. Replace the ball studs in the front roller with the H-2502 or H-28 bolts. (Item 37)
- 3. Replace the current motor mounts with the 21P-GCC-02N-6 mounts (item 41). This would be the opportune time to reverse the drive ends as well.
- 4. Install the 21P-GCC-217 lift bushing standoff (item 55) on the immediate outside of the frame, and the lift bushing (item 56) in conjunction with Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 56) is reversible to suit what type of lifting yoke is used on the machine.*
- 5. Refer to the "NOTE FOR ALL ADAPTATIONS" on page 63 explaining how to remove the GCC-005A basket pin.
- 6. Install 1 plunger (item 14) to each frame opposite the currently mounted plunger. The outer/threaded body of each of the plungers will need to be flush to the inside of the frame, and then the jam nut secured. This will be the new locking location for the inserts to provide clearance for the lift yoke. The standard plungers (item 13) will still support the hood. If your hoods do not have this plunger mounting location, refer to Figure 5 on page 27. Turfline has a kit available to locate, drill and tap this hole.
- 7. Attach the 21A-GCC-10 lifting bracket (item 51) to the frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
- 8. Please refer to page 33 for instructions on mounting GREENS CARE COLLECTION to the mower.

Any Model Adapting to Toro Triflex 3300/3400 or 3320/3420

Adaptation kit required: 21A-GCC-9306 or 21A-GCC-9306E

Please refer to Toro TriFlex Schematic found on page 16.

You will need to perform a drive end reversal on all 3 units if you are adapting from a Toro GM-3 – 3150, Ransome, G-Plex, or Jacobsen Eclipse 322. You will need to perform a drive end reversal on only 2 units if you are adapting from a Toro 3200, Toro 3250, or John Deere 2500/E/QA5. When adapting from a Jacobsen 3 or 4 you need to perform only 1 drive end reversal. And no drive end reversal is needed when you adapt from a Jacobsen 5 or 6. Please refer to page 62 for drive-end reversal instructions.

1. If your units have a 3 lb. counterweight (GCC-283), remove the counterweight. You will replace it with a 5 lb. counterweight later.

- 2. Remove all motor mounts currently attached and determine which units require a drive end reversal.
- 3. Remove the GCC-005A; refer to the NOTICE FOR ALL ADAPTATIONS on page 63 for removal instructions.
- 4. If adapting from a John Deere 2500 or Toro 3250 model, remove the adaptor block from between the frame and the depth adjuster and replace the depth adjuster directly to the frame with one button head screw (H-GCC-adj-12) and one5/16-24 x 1" bolt (H-1022).
- 5. Remove the drive coupler bearing (GCC-111) and the drive coupler (GCC-06) together from the current housing and reinstall them into the TriFlex motor Flange (TFGCC-06).
- 6. Reassemble the new motor flange through the frame using the GCC-03 inner bearing housing with the handle retaining washer and bolts on the motor side. Make certain that the GCC-03 housings are position, so the entry slot of the inserts is angled approximately 15 degrees forward and that the bolts are re-installed in the same locations from which they were removed.
- 7. Attach the 5 lb. counterweight (GCC-285) to the opposite side with the remaining GCC-03 housing and in the same orientation as the motor side.
- 8. Attach additionally counterweights if needed. See the counterweight cart on page 43 & 44.
- 9. Refer to page 12 for set up and mounting instructions.

Optional Equipment

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MODEL:	SERIAL NUMBER:		
for delivery before deliver to to the purchaser; that a copy	the purchaser; that both the operation and	s carefully inspected, adjusted and prepared I maintenance of the machine were explained given to the purchaser and his/her attention	
DEALER:		STATE:	
BY:		DATE:	
explained to him; acknowled manual.	<u> •</u>	e of the above described machine has been ual and our warranty policy printed inside the	
SUPERINDENT:			
CITY:	STATE:	ZIP:	
EMAII.		DATE	

PLEASE FAX, EMAIL OR MAIL A COPY TO:

Turfline, Inc.
712 Jefferson Street, Suite A
Moscow Mills, MO 63362

Fax: 636-356-1218
Email: chris@true-surface.com

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