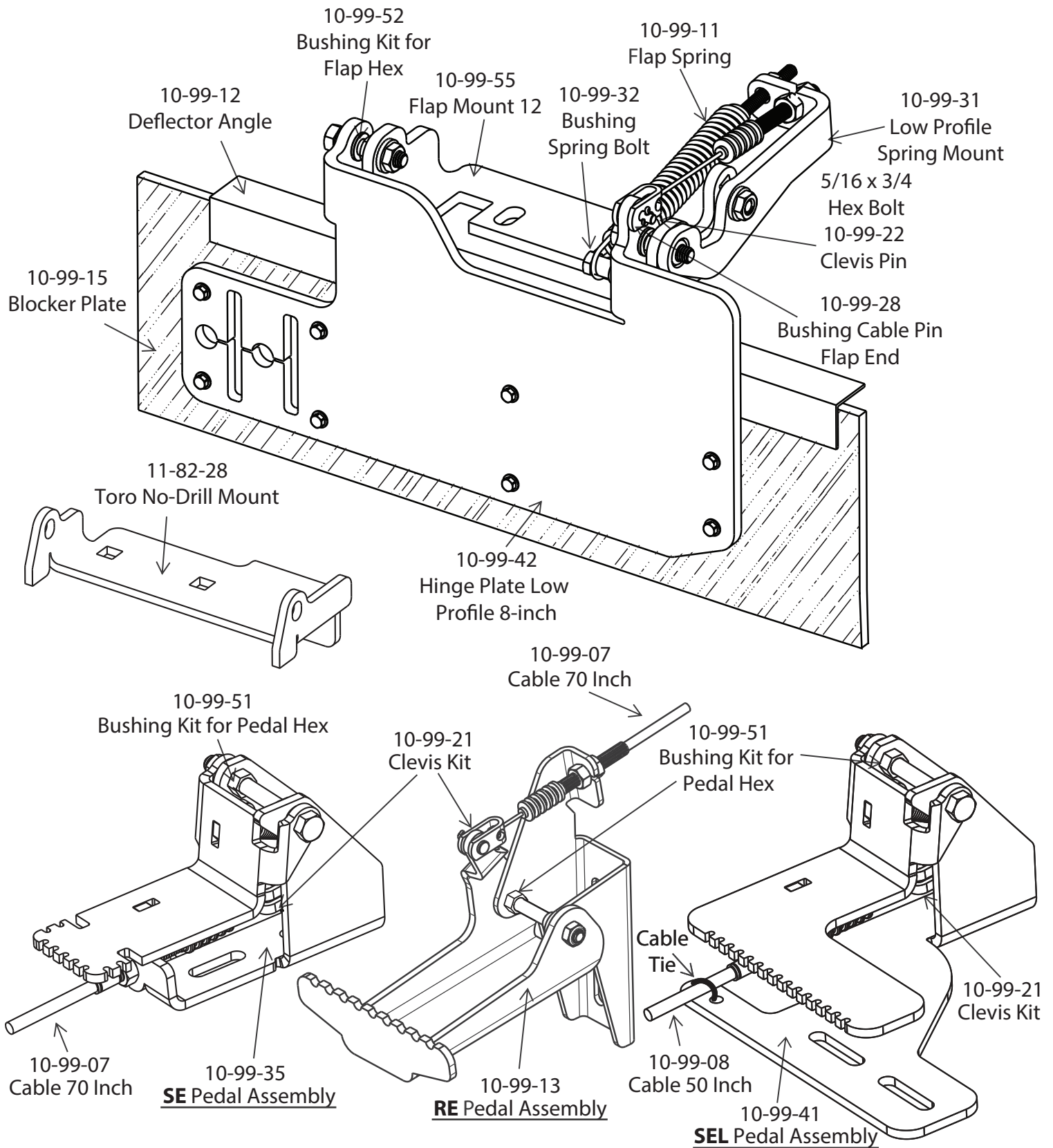


GrassFlap 412T Assembly Instructions

Parts List

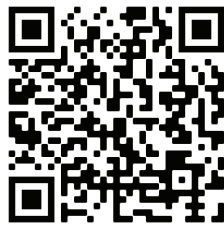


PLEASE READ!

If you are having ANY ISSUES with assembly or operation.

Try these video links (scan QR code with phone camera)

Help on
Youtube:



How to operate
the GrassFlap:



Or contact us at:
(502) 594-3546

or

david@grassflap.com

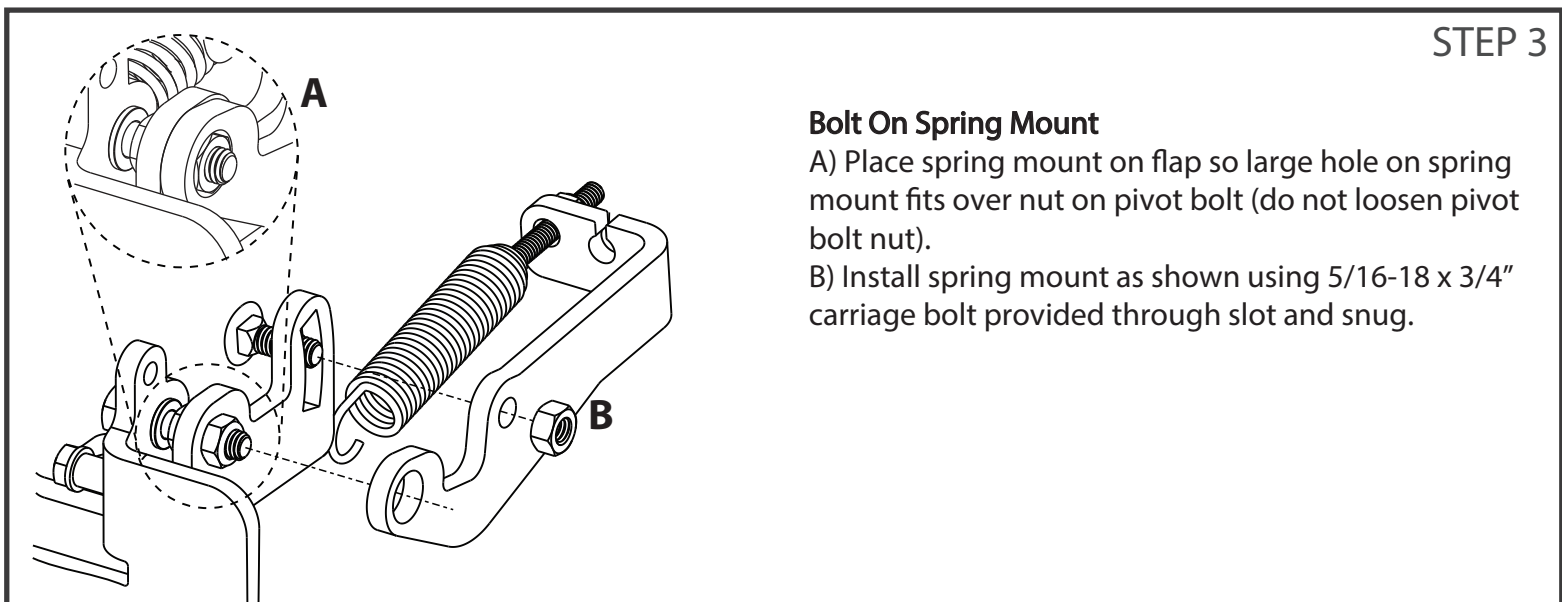
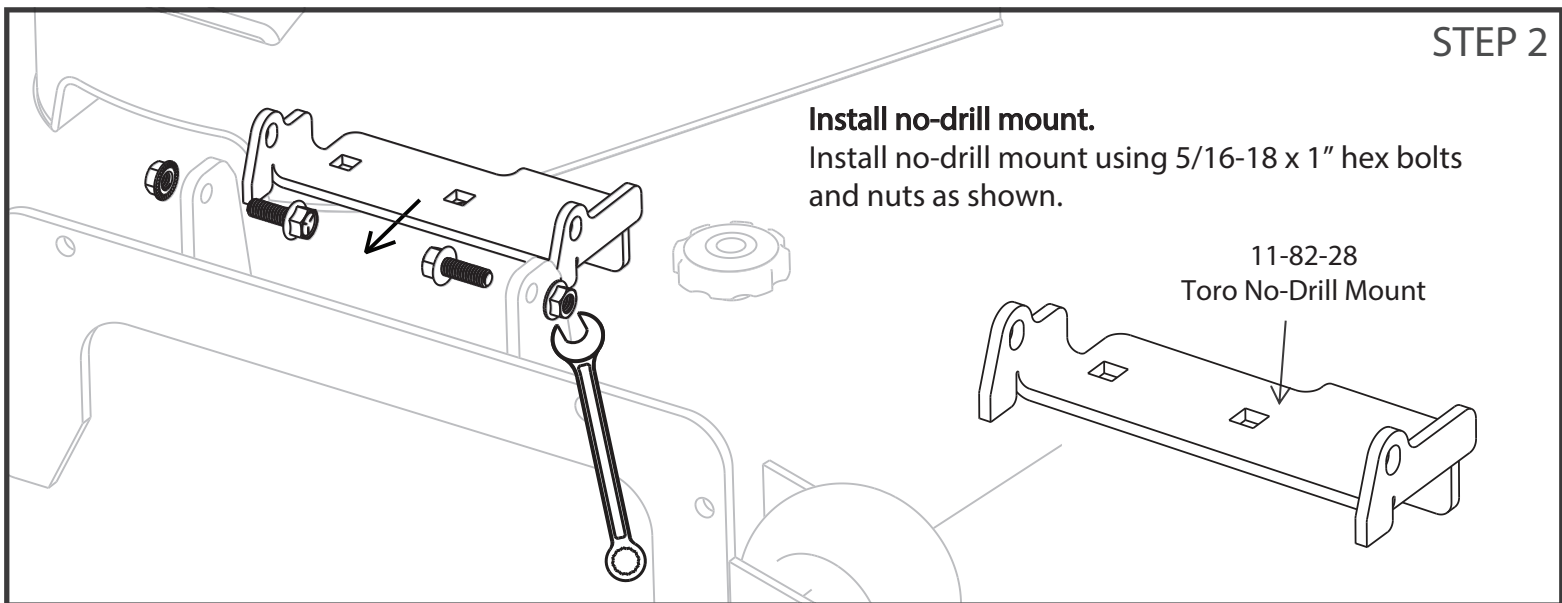
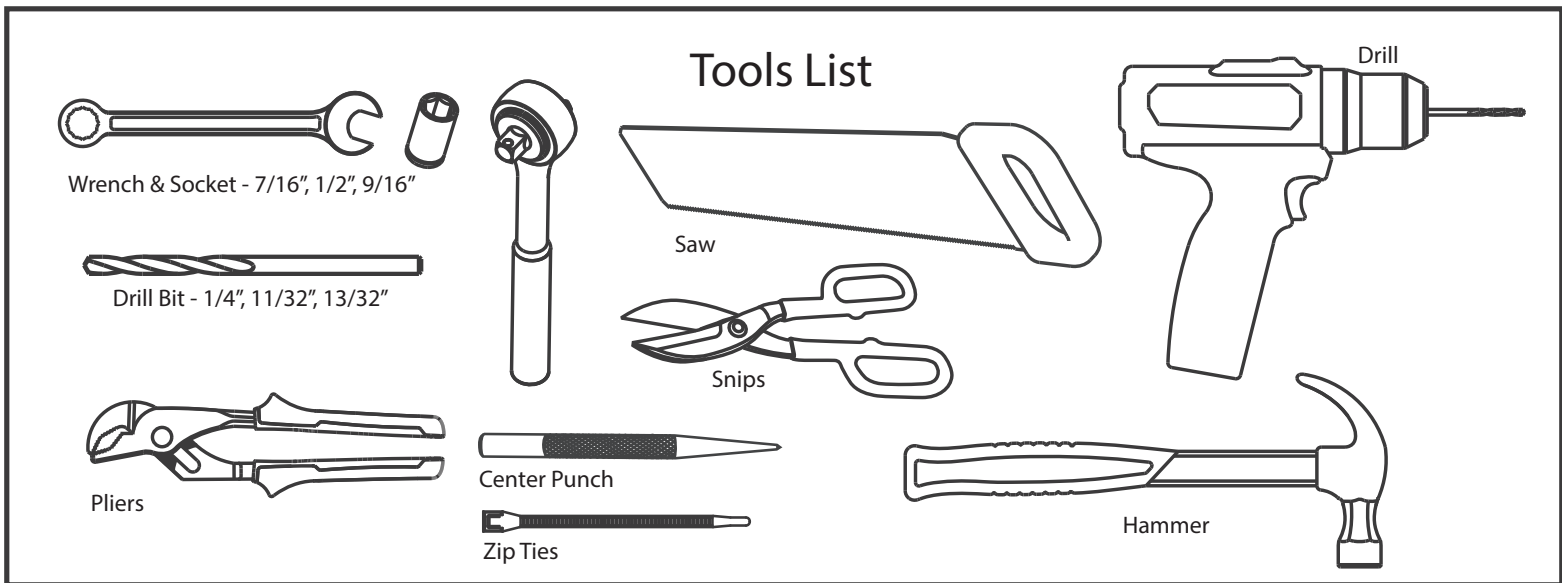
(for quicker response include pictures showing area in question)

Grass

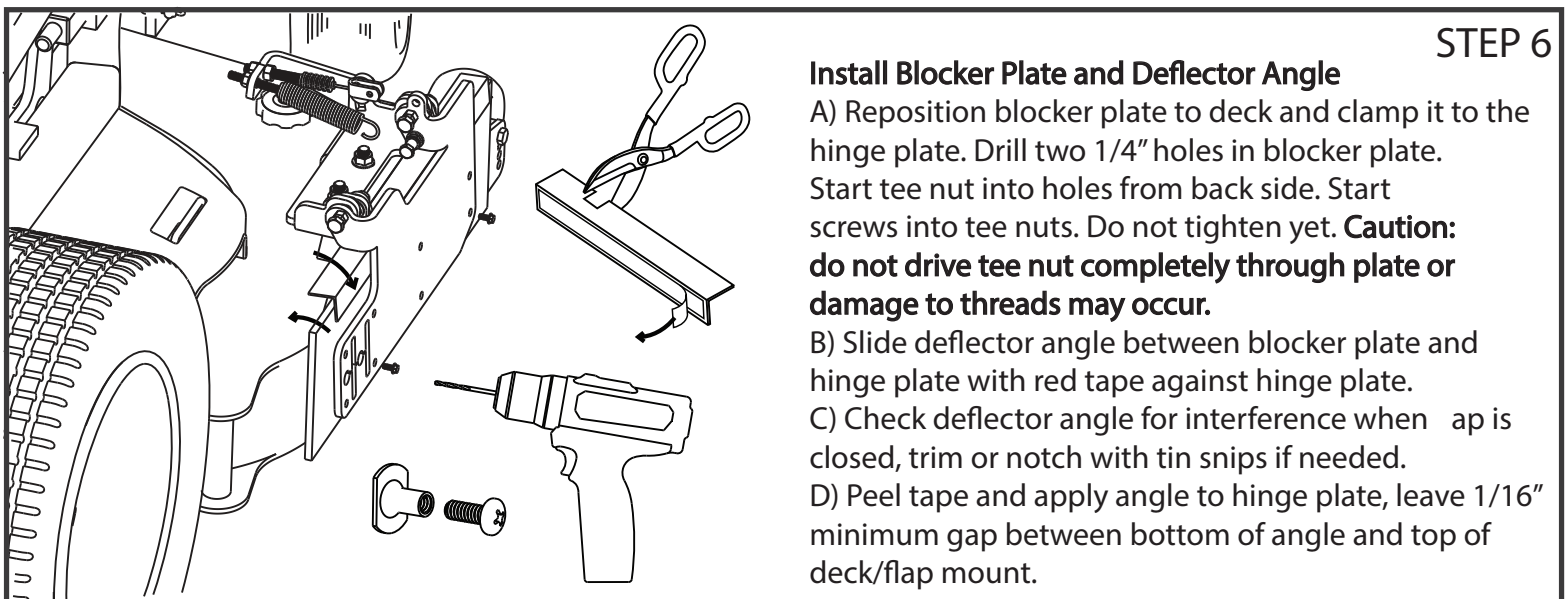
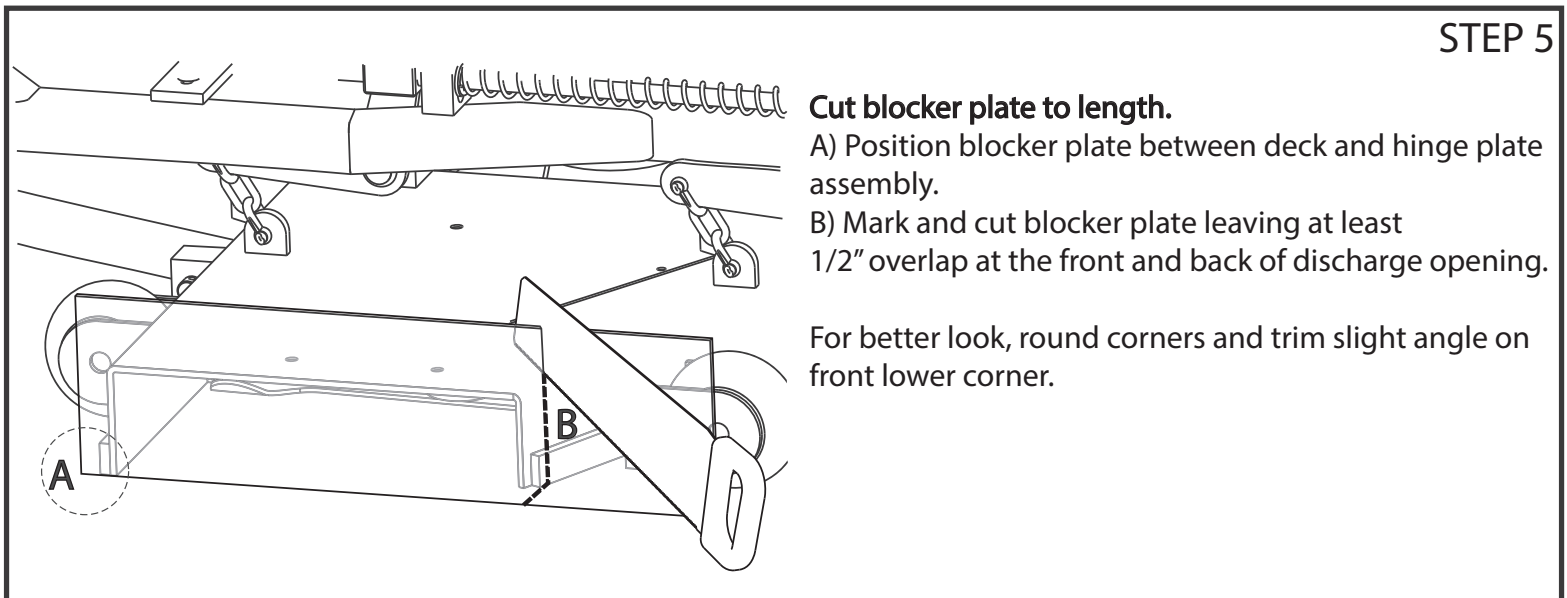
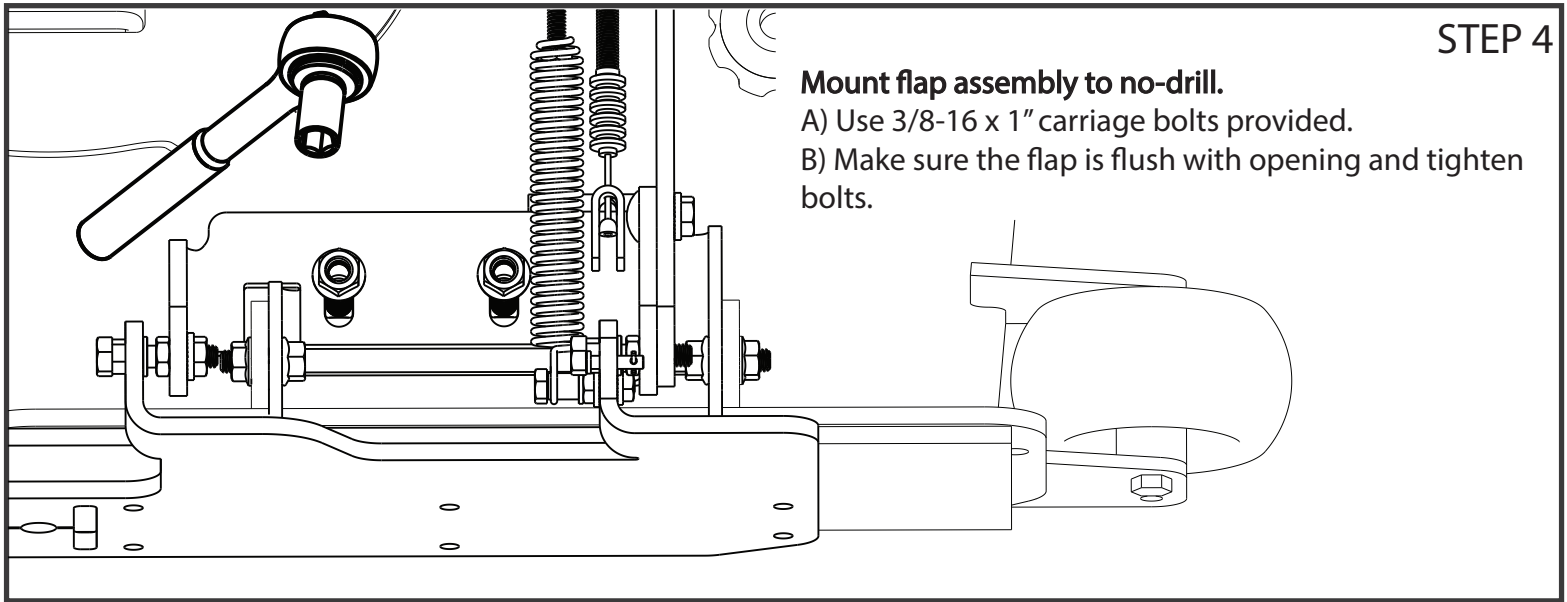
grassflap.com

Flap

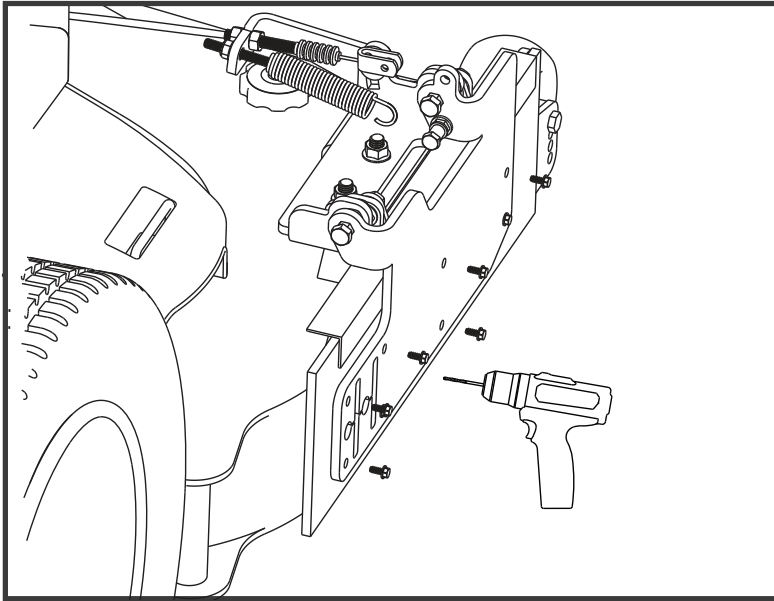
GrassFlap 412T Assembly Instructions



GrassFlap 412T Assembly Instructions



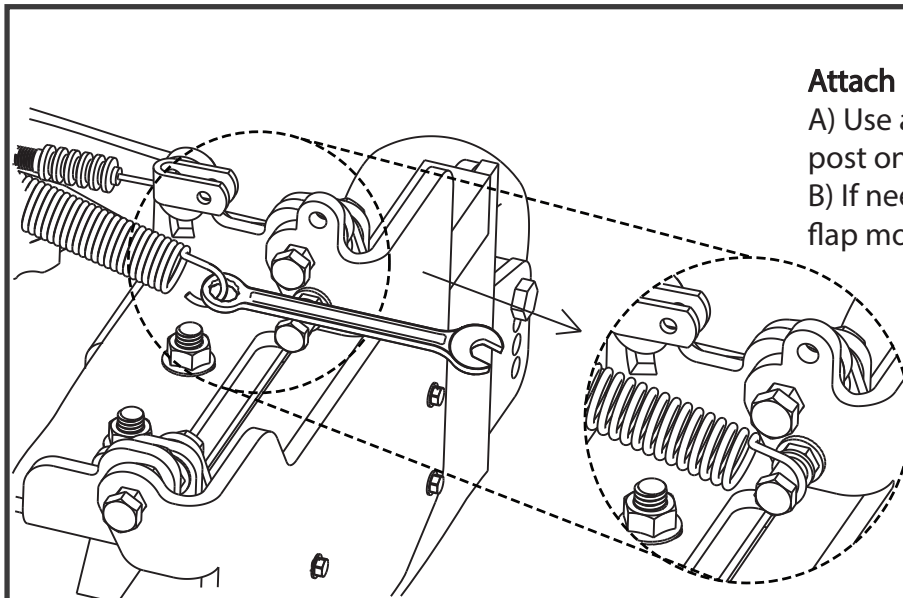
GrassFlap 412T Assembly Instructions



STEP 7

Secure Blocker Plate

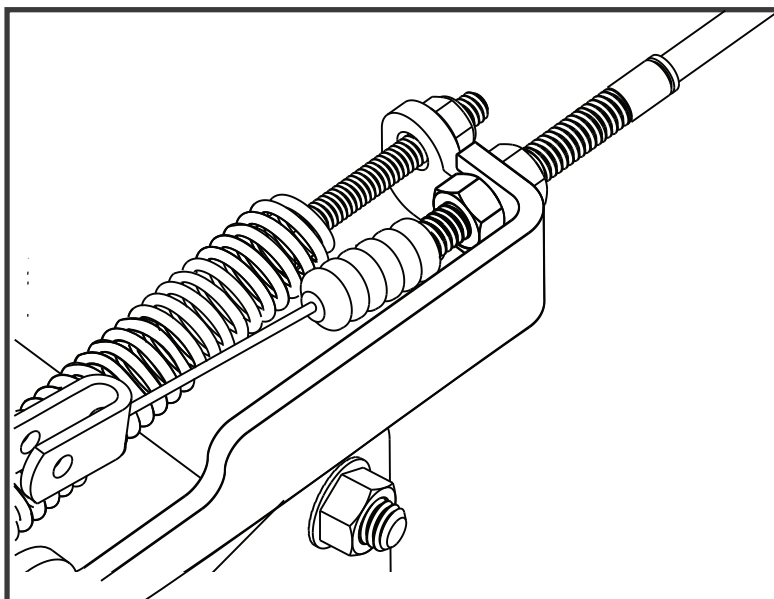
Drill and install six remaining tee nuts and bolts to secure blocker plate.



STEP 8

Attach Flap Spring

A) Use a small box end wrench to hook spring over post on hinge assembly.
B) If needed, reposition flap to make good seal. Tighten flap mounting bolts

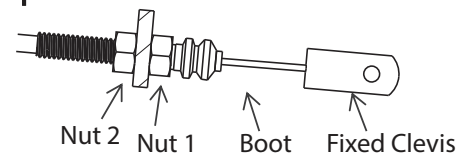


STEP 9

Install Fixed Clevis End to Spring Mount

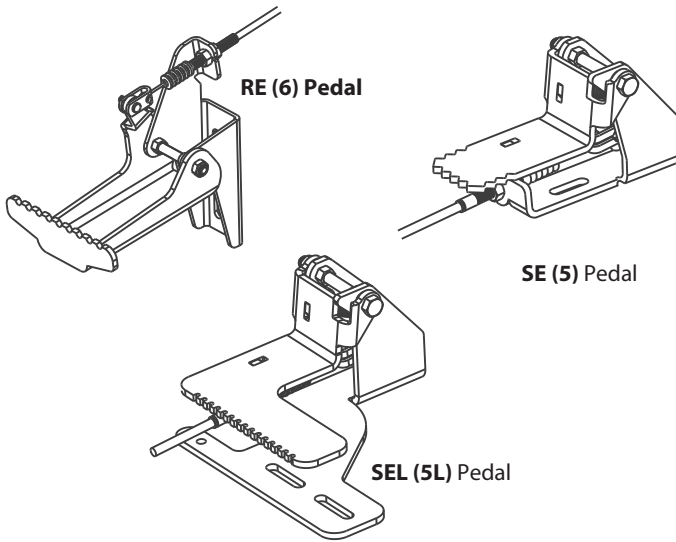
A) Pull rubber boot off end of cable fitting.
B) Remove nut 1 and slip cable wire into slot.
C) Slide cable fitting into hole.
D) Reinstall nut 1 leaving minimum thread showing on fitting as shown below.
E) Snug jam nuts and push rubber boot onto fitting.

**DO NOT connect clevis to flap at the time.
Connect pedal end first.**



GrassFlap 412T Assembly Instructions

STEP 10



Mount Pedal to Foot Platform and Attach Cable

A) Mount Pedal to Foot Platform

SE (5) pedal refer to page 10

SEL (5L) pedal refer to page 11

RE (6) pedal refer to page 12

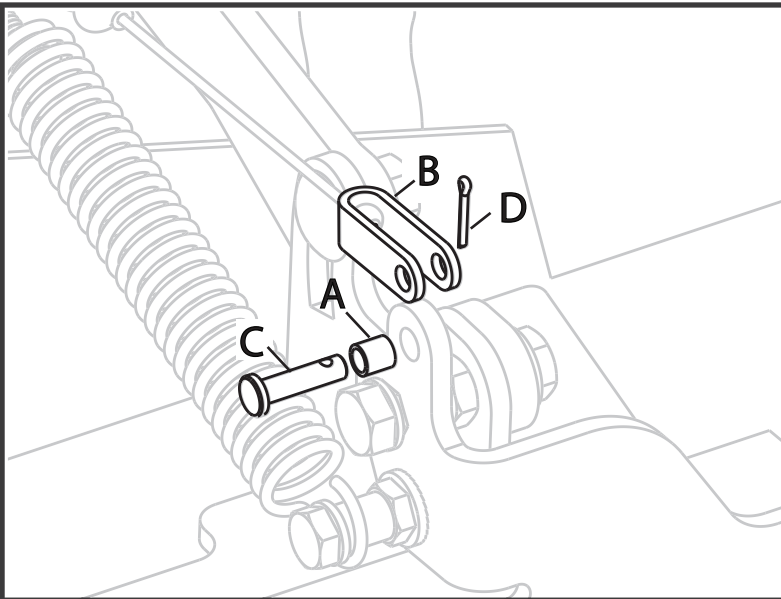
B) Attach Cable to Pedal

SE (5) & SEL (5L) pedal refer to page 9

RE (6) pedal refer to page 12

C) Return to step 11 once pedal and cable installation is complete.

STEP 11



Connect Fixed Clevis to Flap

A) Place 1/4" bushing in flap.

B) Slip fixed clevis onto flap bushing.

C) Insert 3/16" pin with **head on spring side**.

D) Insert cotter pin. Open cotter pin and wrap around 3/16" pin.



Cable Installation Checklist

(use this form to confirm cable is installed correctly)

PEDAL END

- Cable wire was not bent when connecting the cable to the pedal.
- Cable is straight for minimum ½ inch past the end fitting, *(Cable Installation, step 1 and 4, AREAS TO PAY PARTICULAR ATTENTION TO, Recommended cable routing, WARNINGS)*
 - Check with mower deck at mowing height and parking brake released.
 - Check with mower deck in transport position (full up) and parking brake engaged.
- Cable is secured to foot deck to prevent bending at end fitting, *(Recommended cable routing, SECURE WITH CABLE CLAMP/ZIP TIE)*
- Pedal height is set so pedal bottoms out on pedal stop, Test by putting full weight on pedal, pedal should hit hard stop. NOTE: SE pedal with slot on side of pedal only, with flap in closed position; entire head of clevis pin must be visible when looking through slot on side of pedal. *(Cable Installation, step 2, PROPER PEDAL HEIGHT)*
- Minimum ½" of threads visible between rubber boot and jam nut 1.
- Rubber boots is in place on cable fitting, *(Cable Installation, step 3, MAINTAINING THE CABLE)*

FLAP END

- Cable is straight for minimum ½ inch past the end fitting, *(Cable Installation, step 1 and 4, AREAS TO PAY PARTICULAR ATTENTION TO, page 6 installation guide, WARNING)*
 - Check with mower deck at mowing height and parking brake released.
 - Check with mower deck in transport position (full up) and parking brake engaged.
- Brass bushing is installed on flap end of cable.
- Head of clevis pin is on spring side, cotter pin toward front of mower.

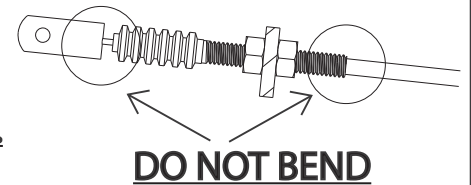
ROUTING

- Cable is protected from heat of muffler, *(Cable Installation, step 4, AREAS TO PAY PARTICULAR ATTENTION TO)*
- Cable bends not less than 6-inch radius, *(Cable Installation, step 5, REFERENCE 6" RADIUS)*
- Cable has enough freedom on flap end to travel with mower deck, *(See recommended cable routing)*

GrassFlap Cable Installation

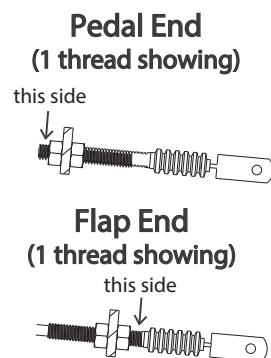
WARNING: PROPER CABLE INSTALLATION AND MAINTENANCE IS CRITICAL TO LIFE OF CABLE

1) Improper cable routing WILL cause failure, usually within the first month of use. The first 1/2 inch of cable conduit (black flexible part) must be straight in line with the end fitting. Cable wire near ball must not be bent during installation.



2) PROPER PEDAL HEIGHT:

1. Adjust pedal height so pedal bottoms out with full pressure to prevent cable from carrying full weight of operator. Start with cable fitting as shown - adjust pedal end to raise pedal, adjust flap end to lower pedal. Verify pedal height with flap in balance (half open) position.



How to set pedal height:



3) MAINTAINING THE CABLE:

1. Be sure the rubber boot is in place to keep dirt and water out of cable.

4) AREAS TO PAY PARTICULAR ATTENTION TO ARE:

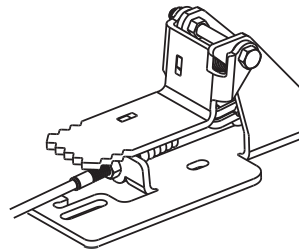
1. Do not bend cable wire.
2. Make certain the cable is not in a bind when the deck is raised either manually or when mowing.
3. Leave enough slack where the cable is tied to mower to keep out of the belts for the deck to raise and lower without straining the cable.
4. Avoid direct heat on cable, do not route near muffler
5. Maintain recommended bend radius of 6 inches for all bends.

5) MINIMUM BEND RADIUS

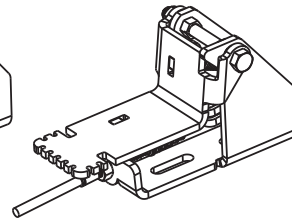
Reference 6" radius for cable routing.

SE & SEL Pedal Cable Installation

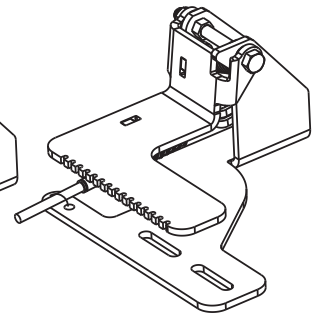
For video showing how to install cable on pedal scan using phone camera.



SED (5D) Pedal



SE (5) Pedal



SEL (5L) Pedal

Step 1

Pull **rubber boot** off of cable fitting and spin **nut 1** off of cable fitting. Spin **nut 2** onto fitting so one thread is showing.

Step 2

A) Slip **cable wire** into slot.
 B) Spin **nut 1** onto fitting to secure cable to pedal.
DO NOT OVERTIGHTEN NUTS.
 C) Push **rubber boot** back onto fitting.

Step 3

Position **removable clevis** onto cable ball.

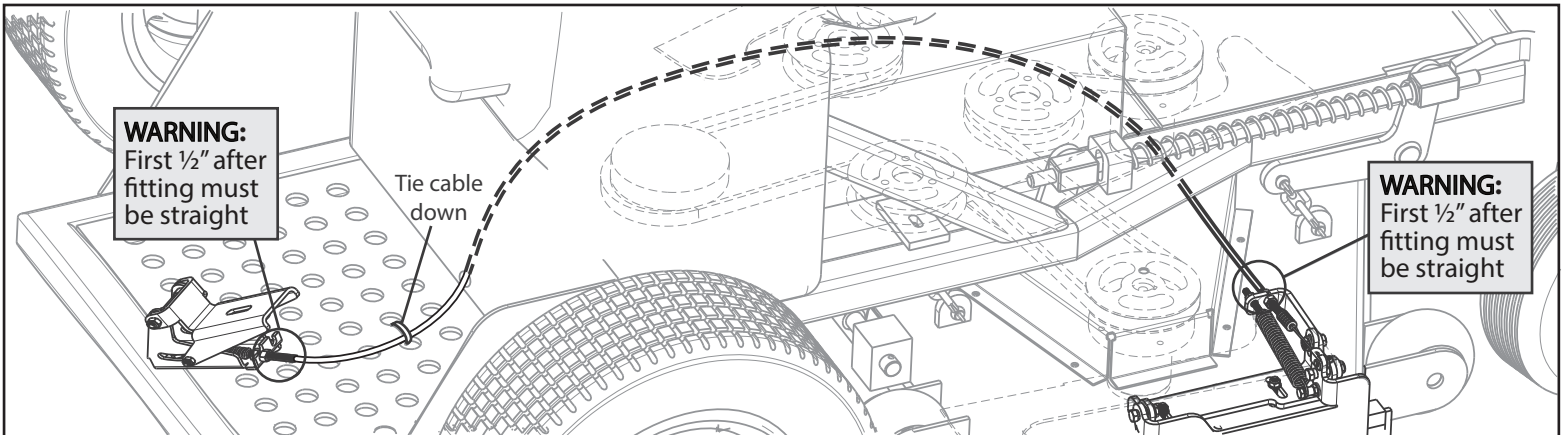
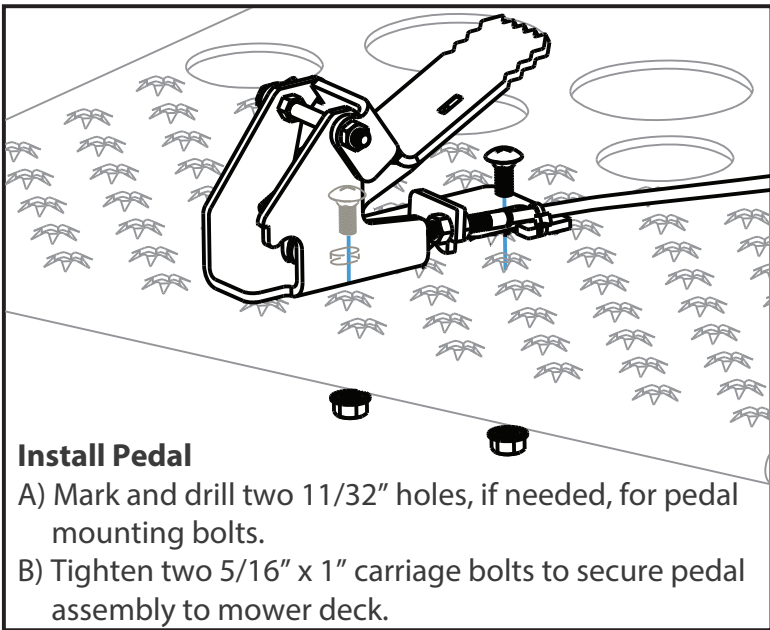
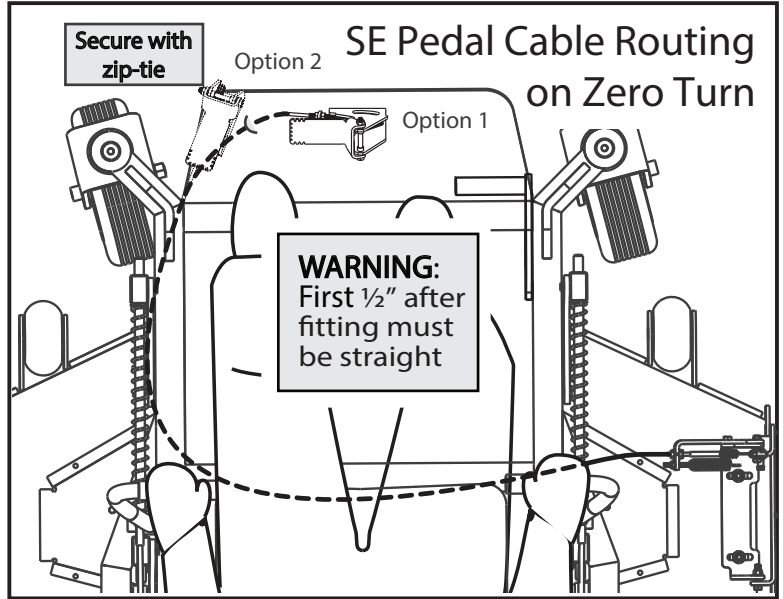
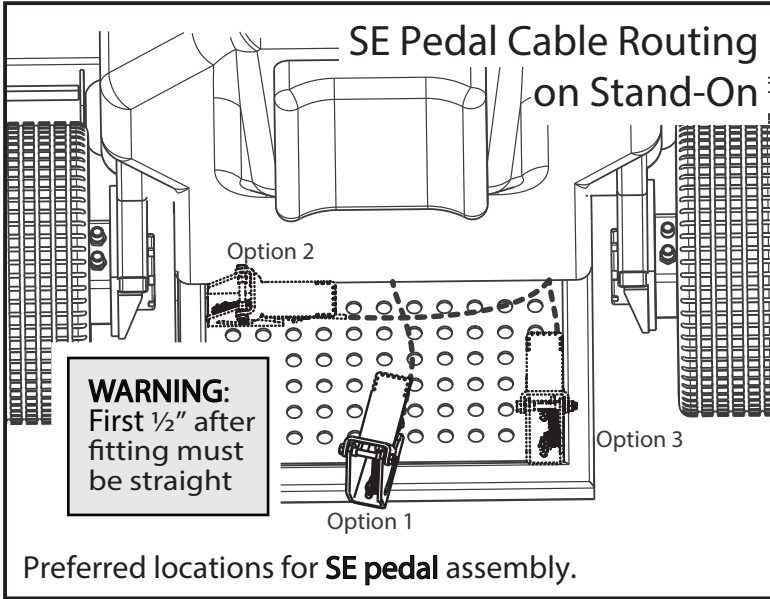
Step 4

A) Position **removable clevis** on pedal with clevis slot on cut out side of pedal.
 B) Insert **1/4 pin** with head on same side as clevis slot.
 C) Insert **cotter pin** and wrap around pin to secure.

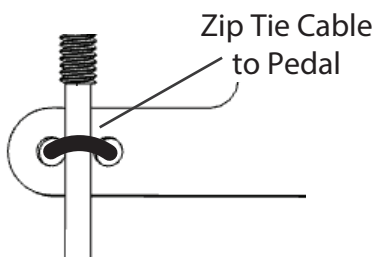
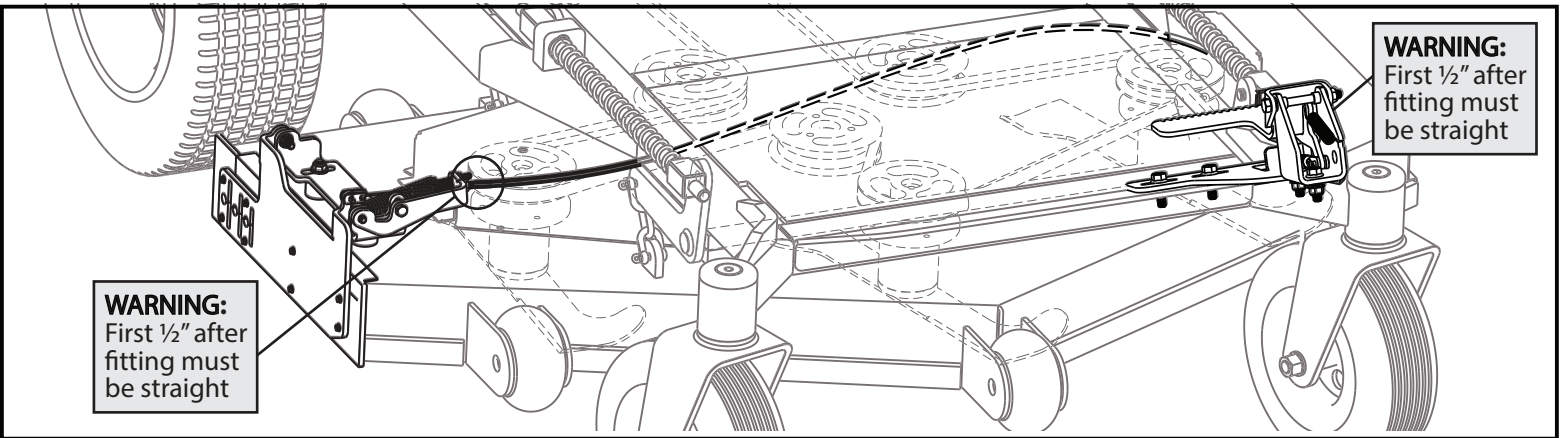
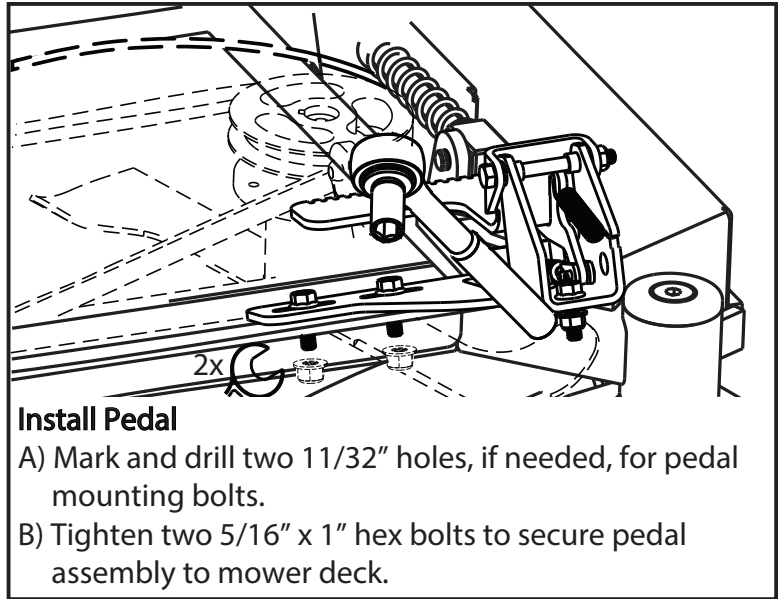
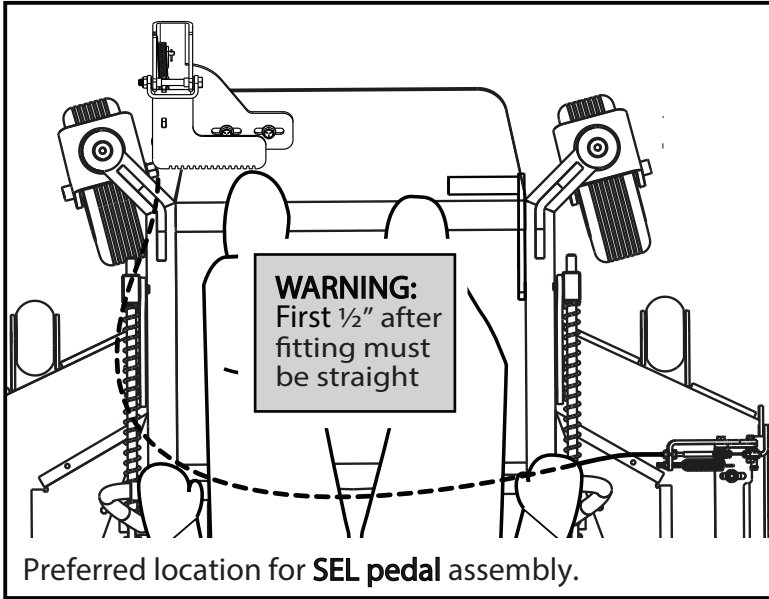
Step 5

A) Once pedal is installed on mower attach cable clamp or zip tie to secure cable.
 B) Verify everything is in place and secure.

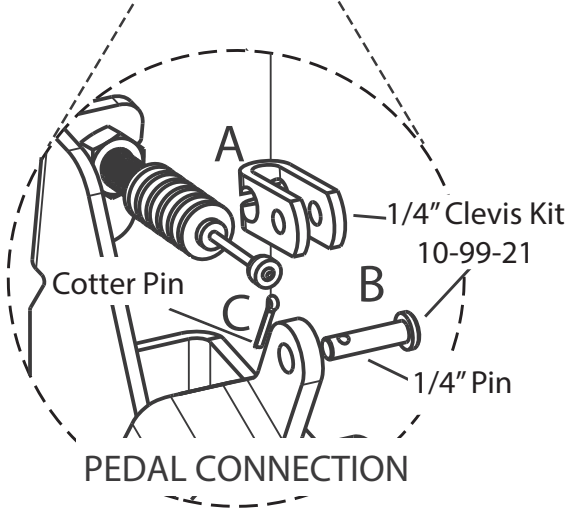
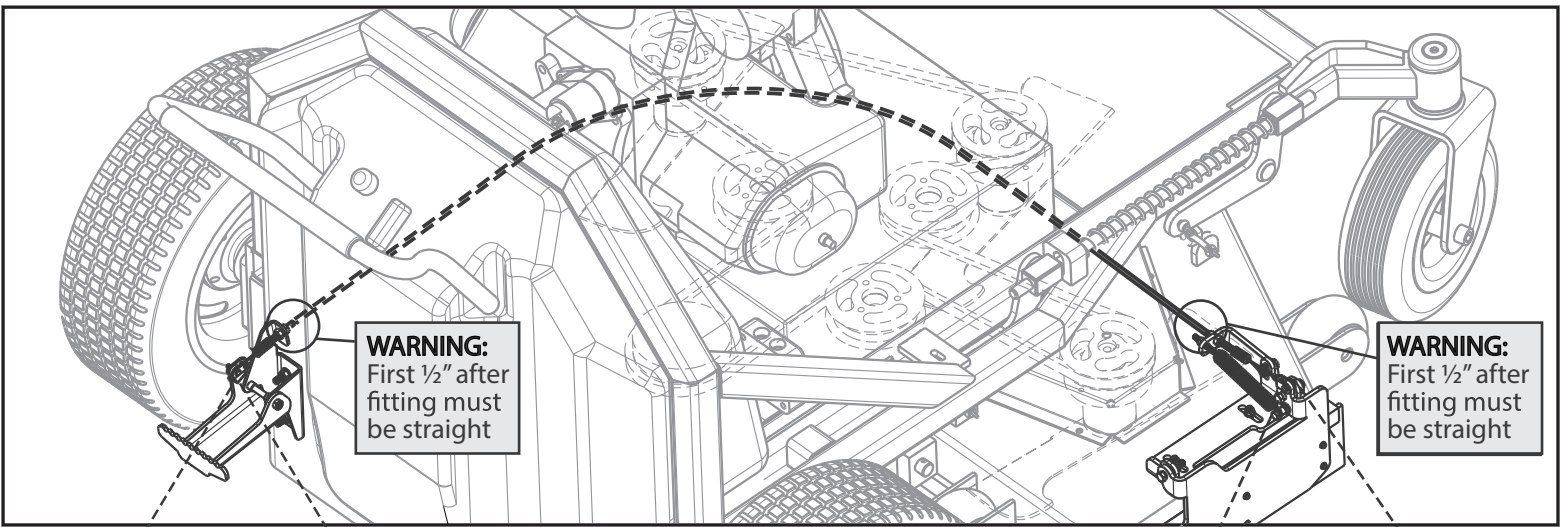
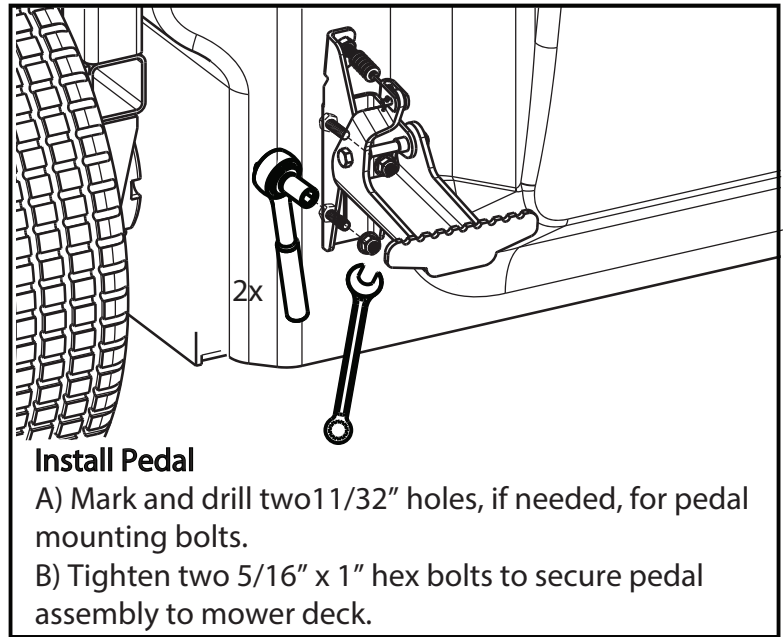
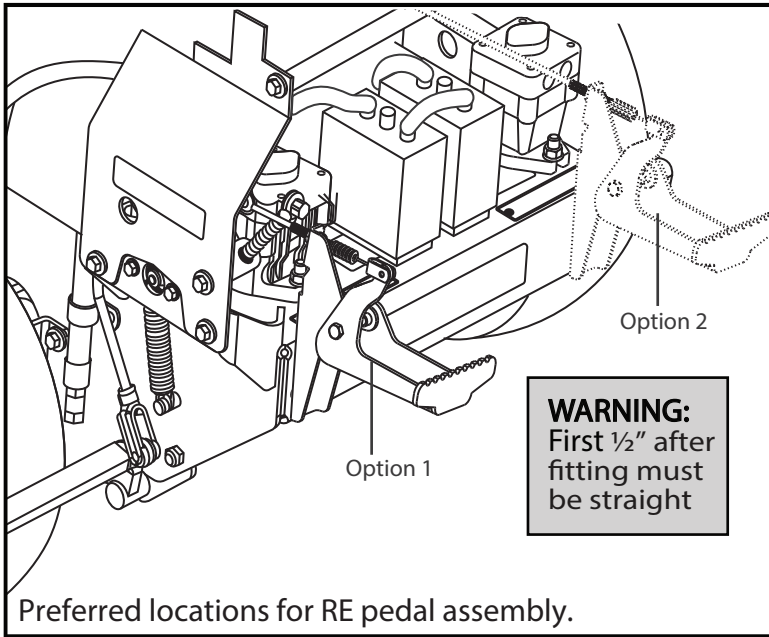
SE Pedal Location & Cable Routing



SEL Pedal Location & Cable Routing



RE Pedal Location & Cable Routing

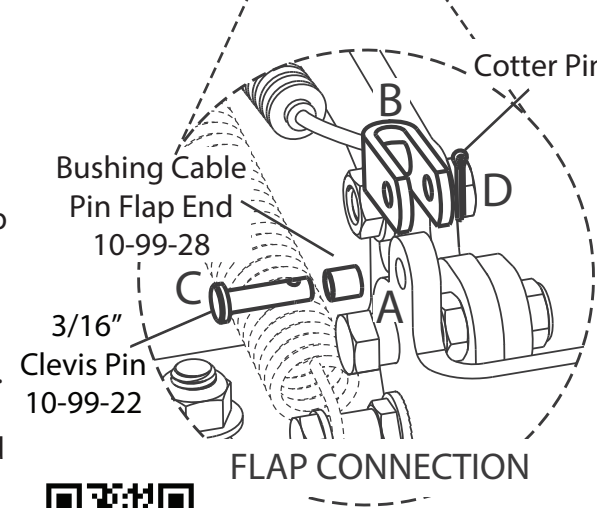


Pedal Connection:

- Place clevis on cable ball and squarely seat in bottom of clevis.
- Insert 1/4" diameter pin.
- Insert cotter pin and wrap around pin.

Flap Connection:

- Place 1/4" bushing in flap.
- Slip clevis onto flap.
- Insert 3/16" pin with head on spring side.
- Insert cotter pin and wrap around pin.



FLAP CONNECTION

GrassFlap's Frequently Asked Questions

WHAT TO DO IF YOUR CABLE BREAKS

DO NOT REMOVE cable conduit from the mower, this makes it impossible to determine cause of failure.

FIRST ATTEMPT TO DETERMINE THE CAUSE OF THE FAILURE.

1. **REVIEW THE CABLE INSTALATION USING THE CABLE INSTALLATION CHECKLIST**, look at each item on the list from the original installation and confirm the cable is still installed properly. If you find the set-up has changed then most likely this is the cause of the failure.

IF YOU ARE NOT ABLE TO DETERMINE THE CAUSE OF THE FAILURE AND WOULD LIKE HELP DETERMINING IT, proceed as follows

2. **TAKE PICTURES** of cable conduit as it is routed on the mower with broken cable wire alongside the conduit, just as if wire were run in the conduit. Picture must show both the cable and the conduit in same picture.

Pictures required for warranty claim.

3. **CIRCLE BROKEN END OF WIRE** in picture from step 2, most phones will let you edit the picture.
4. **EMAIL TO**, david@grassflap.com
5. **INCLUDE ALL ITEMS LISTED BELOW**
 - a. Pictures of broken cable, (from step 2 above),
 - b. Picture of Completed "Cable Installation Checklist", (from step 1 above).
 - c. Approximate purchase date of current cable.
 - d. Where was cable purchased and name purchased under
 - e. Subject line "BROKEN CABLE"

If you need a cable right away it is suggested that you purchase one online so it is headed your way while we review the information.

MY FLAP ONLY OPENS HALFWAY

The flap is designed to open halfway with the pedal full down. Pushing harder will not cause flap to move. The proper operation is to push the pedal down until the flap approaches the half open position then at that point pressure on the pedal should be release to allow the pedal to rise as the flap passes the halfway point.

CAN THE FLAP BE POSITIONED PARTIALLY OPEN?

Yes, the flap can be held in a partial open position using the foot pedal. Simply hold the pedal in the desired position. One of the nice features of the GrassFlap is the way the pedal operates to open and close the flap without having to push on a separate pedal. You are able to push and release the pedal in one smooth motion to flip it open and the same motion, push and release will the flip it back to the closed position. In order to lock it somewhere between full open and full closed would require a second motion to lock and release it.

WILL THE FLAP PUSH OPEN?

Given enough pressure it will push open. It is held close with a spring; the same spring also holds the flap in the open position. By the time the flap gets pushed open there is typically enough grass behind it that you are no longer making a good cut.

HOW DO I RETURN GRASSFLAP IF I CHANGED MY MIND?

GrassFlap will only accept returns with prior approval. If you wish to return a product please send an email to david@grassflap.com explaining the reason for the return request. You will receive a confirmation email with return policy and return shipping label. A \$35.00 restocking fee will apply, see return policy for additional fees that may apply.

CAN THE DEFLECTOR ANGLE BE MOUNTED TO THE DECK INSTEAD OF THE FLAP?

The deflector angle should travel with the flap to prevent clippings from blowing straight up as the flap begins to open. As it first starts to open there is not enough angle to deflect the clippings down so they end up going both ways up and down. Without the angle they will go straight up on onto the operator. Mounting the angle to the deck would only provide a good seal when the flap is fully closed.

Safety and Warnings

Thrown objects

Mowing with power equipment involves certain risk including but not limited to thrown objects. Be sure to clean up the area to be mowed and remove objects that could be thrown by the blades BEFORE you start mowing

Once the grass flap is installed your mower will be equipped with an operator controlled discharge chute (OCDC). Do not operate the mower if the OCDC is not properly attached. This discharge chute has a variable adjustment from fully open to fully closed. In the closed position it will serve to keep some of the clipping material under the mower deck for a longer period of time, in order to enhance the mulching capabilities, as well as function as a safety shield. The discharge chute should ALWAYS BE IN THE CLOSED POSITION WHEN MOWING WHILE PEOPLE ARE PRESENT IN THE IMMEDIATE VICINITY.

Do not allow anyone in the area while mowing. If someone does enter the area, stop mowing immediately until they leave.

Moving parts

The mower deck has spinning mower blades that can amputate hands and feet. Do not allow anyone near the mower while it is running! Keep safety devices (guards, shields, and switches) in place and working.

Children

Tragic accidents can occur with children. Do not allow them anywhere near the area of operation. Children are often attracted to the unit and mowing activity. Never assume that children will remain where you last sat them. If there is a risk that children may enter the area where you are mowing, have another responsible adult watch them.

General Safety Precautions

1. Do not mow when children, pets, or others are present. The operator is responsible for the safety of others within the vicinity of the operation of your mower.
2. Keep hands, feet, and clothing away from rotating blades or other rotating parts while the engine is running.
3. Do not attempt to open or close the flap at the discharge chute while the engine is running, doing so could result in personal injury including loss of hands, feet or death.
4. Clear work area of objects (wire, rocks, and debris of any kind) that can be picked up and thrown by the mower, and possibly damage the equipment or cause personal injury to the operator.
5. Do not attempt to adjust or repair the mower deck, grass flap, or related components while the engine is running. You must disengage power to attachments, disengage PTO, set parking brake, set steering controls to neutral, shut off the engine, and remove the key before making any repairs or adjustments or attempting any of the following tasks:
 - a. Flap connecting linkage adjustment
 - b. Flap removal or cleaning
 - c. Unclogging the chuteFailure to comply can result in personal injury, loss of limb, or death.
6. Keep all nuts, bolts, screws, and other fasteners in place and properly secured to be sure equipment is in safe working condition.
7. Keep equipment and attachments in good operating condition and keep safety devices, such as guards, shields and covers in place and working.
8. Do not operate the mower or attachments if any guards are missing or not functioning.
9. Stop the mower and attachments, secure the mower, and inspect for damage after striking a foreign object. Repair any damage before restarting and operating the equipment.
10. Use personal protective equipment when operating mower or performing maintenance, such as (but not limited to) protection for eyes, feet, and head. Do not operate or service the mower when barefoot or wearing open-toed sandals.
11. Obey all safety decals.

SAFE OPERATION OF MOWING EQUIPMENT IS THE RESPONSIBILITY OF THE MOWER OPERATOR! THE GRASS FLAP WHEN CLOSED WILL REDUCE BUT NOT ELIMINATE THE RISK OF OBJECTS BEING THROWN FROM THE DISCHARGE CHUTE! BE AWARE OF SURROUNDINGS AT ALL TIMES!

WARRANTY

There are no understandings, agreements, representations, or warranties expressed or implied (including but not limited to any regarding the merchantability or fitness for a particular purpose) not specified herein, regarding equipment which is the subject of this warranty.

Owner operator Knowledge Responsibility

As a condition of the Grass Flap warranty, the owner operator(s) are fully responsible for having read, and reasonably understanding the proper operation and care of the Grass Flap unit before attempting to operate the unit.

Product warranty if for a period of 90 days from date of purchase. Warranty covers defects in workmanship and materials ONLY.

Limitations of warranty

Proof of purchase including purchase date is required for claim validation. It is the discretion of the manufacture as to replace or repair a warranted product.

All warranty work must be performed by an authorized Grass Flap servicing dealer **ONLY**.

This Warranty only covers Grass Flap complete units that have been maintained and operated under conditions considered normal for turf equipment.

Expressly not covered

- a) Damage, defects or deterioration due to normal use, wear, or exposure to the elements.
- b) Damage or defects resulting from misuse, neglect, alteration, accident or negligence.
- c) Damage or defects resulting from repairs by person(s) other than the manufacturer or a manufacturer's representative.
- d) Repair or replacements resulting from operation of Grass Flap equipment that has been modified, or effected with respect to the intended use of the product
- e) Repair or replacement as a result of Grass Flap equipment operated in a manner which is not in accord with the instructions as specified in the operator section or other instructions provided by Grass Flap.

Grass Flap is not responsible for (nor limited to the following)

- f) Travel time, overtime, after hours time or other extraordinary repair charges or charges relating to repairs or replacements outside of normal business hours at the place of business of the authorized Grass Flap service dealer.
- g) Rental of like or similar equipment during the time of any warranty, or replacement work.
- h) Loss, cost or expense relating to transportation of Grass Flap equipment from location of owner or location where used by owner to or from any authorized Grass Flap dealer
- i) Any claims for lost revenue, lost profit or additional cost or expenses incurred as a result of a claim of breach of warranty.
- j) Loss or damage to person or property other than that covered by the terms of this warranty.
- k) Losses or damage related to equipment the Grass Flap is mounted on.
- l) Any telephone, telegram, travel charges, or attorney's fees.

Disclaimer

Any and all statements or representations made by seller of this equipment, including those set forth in any sales literature or made orally by and sales representative are superseded by the terms of this warranty. There are no representations or warranties, which have been authorized and provided to the buyer of Grass Flap equipment, other than as set forth in this warranty. Any affirmation of fact or promise made by Grass Flap or any of its representatives to the buyer which relates to the goods that are the subject of this warranty shall not be regarded as part of the basis of the bargain and shall not be deemed to create and express warranty that such goods shall conform to the affirmation or promise