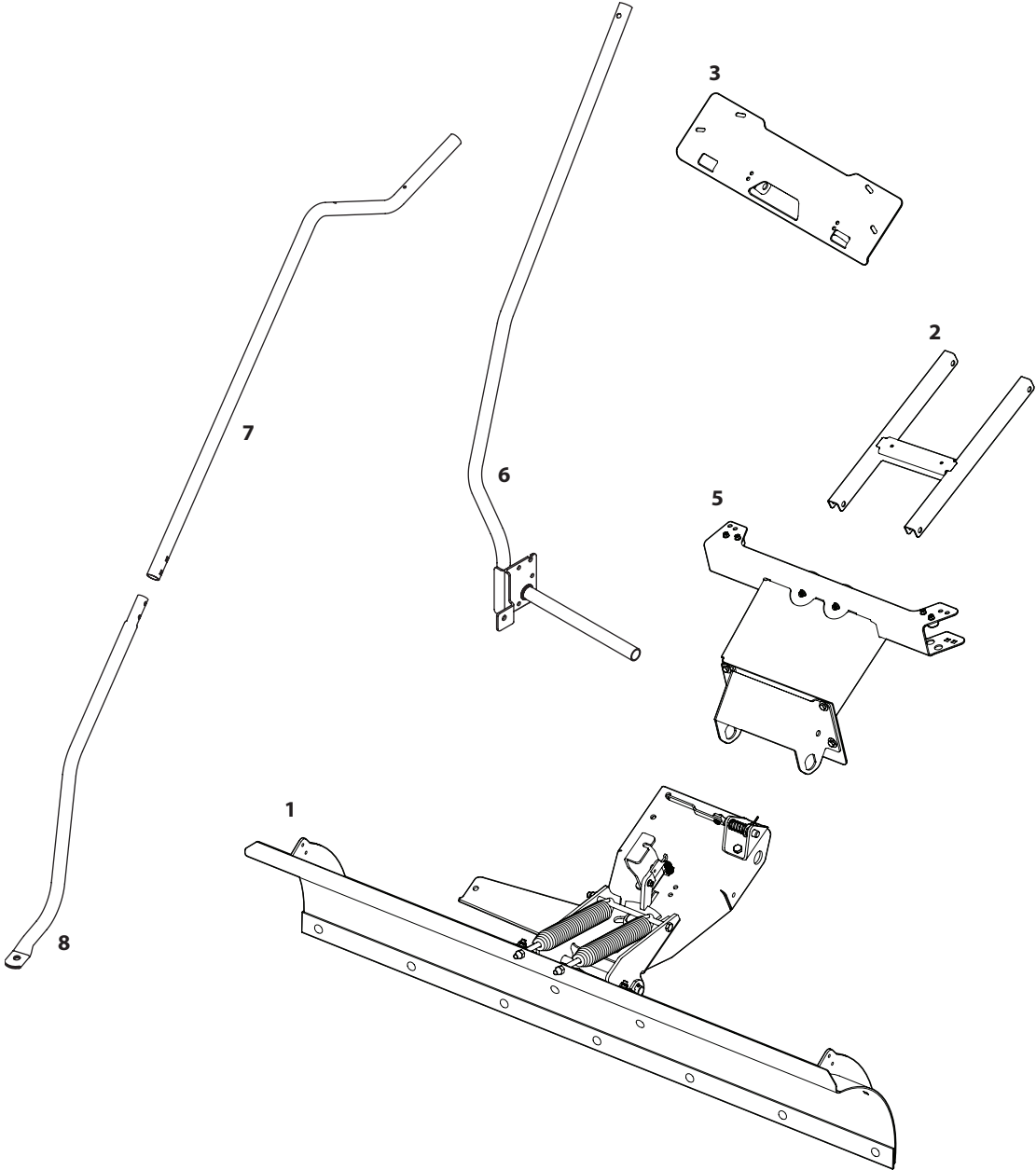


# CONTENTS OF CARTON



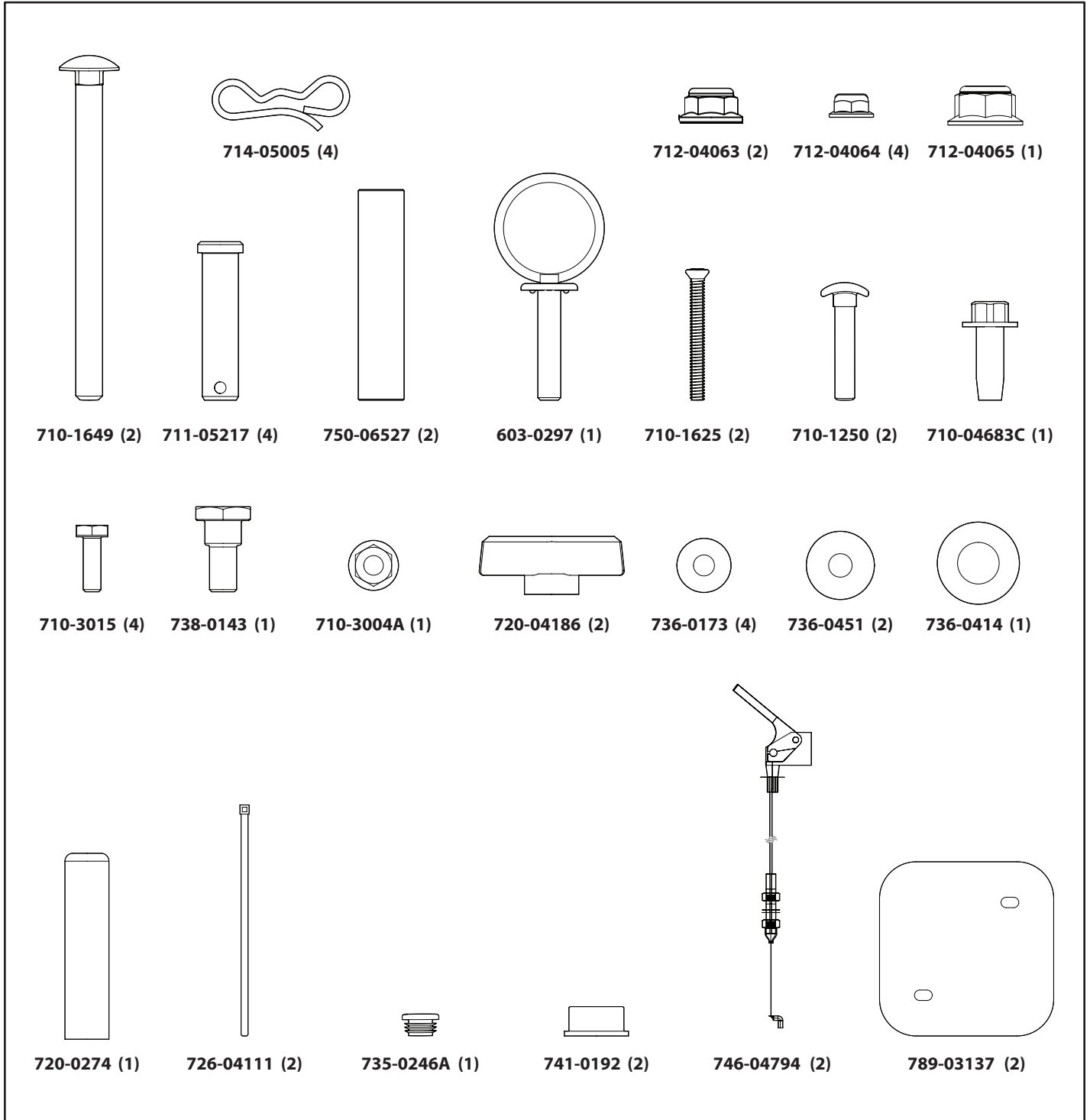
Ref.	Part Number	Description	Qty.
1	689-02100	Plow Assembly	1
2	689-02119	"H" Bracket Assembly	1
3	689-02121	Bottom Plow Mount Assembly	1
4	689-02139	Hardware Pack	1

Ref.	Part Number	Description	Qty.
5	689-02459	Front Mounting Bracket Assembly	1
6	689-02499	Lift Handle Assembly	1
7	749-05855A	Upper Control Tube	1
8	749-07634	Lower Control Tube	1

# CONTENTS OF CARTON

## Hardware Pack

Hardware Pack 689-02139



# ASSEMBLY & SET-UP

## ⚠ WARNING

Disengage the PTO, engage the brake lock, and stop the tractor engine before performing any preparation procedures. Place the tractor on a firm and level surface before beginning installation procedures.

## ⚠ WARNING

The exhaust system and surrounding areas are HOT. To avoid personal injury, allow the tractor to cool before beginning any plow installation or removal procedures.

**NOTE:** The hardware used to install some components on the all season plow has been loosely installed for shipping purposes. To assemble the plow it may be necessary to remove this hardware to complete installation.

**NOTE:** Recommend removing the deck for all models and setting arms in parking brake position.

## Attach Mounting Plates To Tractor

**NOTE:** Top plate location differs by model. To identify correct positioning, see Figure 1.

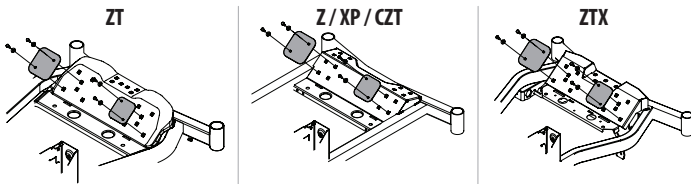


Figure 1

- Place the two top plates (789-03137) on top of tractor foot pan as shown and secure with four hex screws (710-3015) and four flat washers (736-0173) from hardware pack 689-02139. See (1) in Figure 2.

**TIP:** May be necessary to have two people to perform this step. One to secure the plates, and one to lift front of the tractor.

- Bring larger plate (689-02121) up from bottom of foot pan, aligning holes with hex screws and flat washers placed in Step 1. Secure assembly with four flange lock nuts (712-04064) from hardware pack 689-02139 and tighten until flush. See (2) in Figure 2.

**NOTE:** Flanged side of larger plate should be facing down and curving away from the tractor.

**NOTE:** Once installed, plates can remain on tractor. They will not affect function when deck is reinstalled.

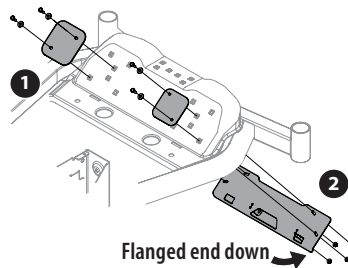


Figure 2

## Install "H" Bracket

- Install "H" bracket assembly (689-02119) to larger plate (689-02121) mounted to underside of foot pan by facing longer arms of "H" bracket toward plate, aligning holes in arms with holes in U brackets on larger plate. See Figure 3.
- Working from inside out, secure plate and "H" bracket together with two clevis pins (711-05217) and two bow tie pins (714-05005) from hardware pack 689-02139. See Figure 3.
- Let "H" bracket assembly hang loose.

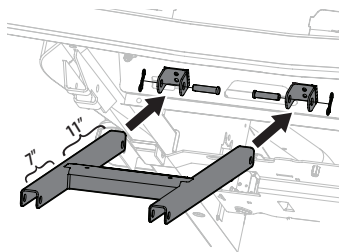


Figure 3

## Install Front Mounting Bracket

**IMPORTANT:** The frame mount hardware installed on the front mounting bracket is for ZT models only. For ZTX models, remove 4 rubber spacers and associated hardware prior to attaching large mounting bracket to tractor frame. See circles and note in Figure 4.

- Mount front mounting bracket assembly (689-02459) by aligning rear of assembly with front of tractor and sliding upper lip over and lower lip under frame. See Figure 4.
- Working from the bottom up, secure bracket to tractor frame with two carriage bolts (710-1649), two spacers (750-06527) and two wing knobs (720-04186) from hardware pack 689-02139. See Figure 4 inset.

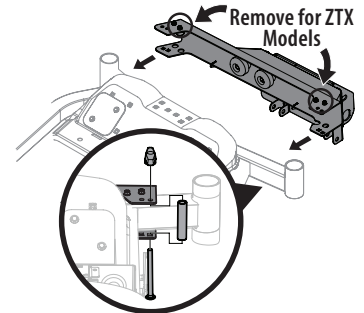


Figure 4

**NOTE:** Hole placement differs between models. Use inner holes for ZT models and outer holes for ZTX models. See Figure 4.

- Swing "H" assembly bracket previously installed up to meet front mounting bracket. See Figure 5.

**NOTE:** "H" bracket assembly arms should fit between the two sets of U-channels on backside of front mounting bracket. See Figure 5.

- Working from the inside out, secure with two clevis pins (711-05217) and two bow tie pins (714-05005) from hardware pack 689-02139. See Figure 5 inset.
- Insert flanged bearings (741-0192) from hardware pack 689-02139 into front mounting bracket. See Figure 6.

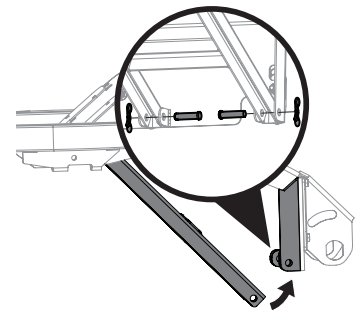


Figure 5

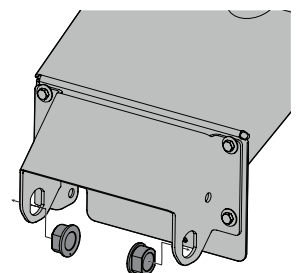


Figure 6

## Attaching Plow and Lift Handle Assemblies

- Bring plow assembly (689-02100) up from underneath front mounting bracket (689-02459) and fit between flanged bearings (741-0192). See (1) in Figure 7.
- TIP:** May be necessary to have two people to perform this step.
- Holding plow assembly in place, slide lift handle assembly (689-02499) into position, making sure to slide shaft through both bearings. See (2) in Figure 7.

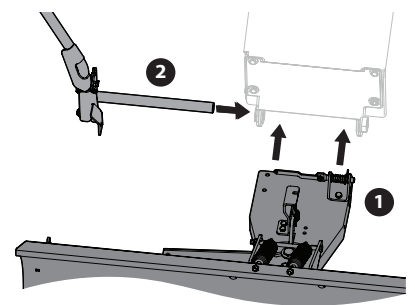


Figure 7

# ASSEMBLY & SET-UP

- Secure with self-tapping screw (710-04683C) from hardware pack 689-02139. See Figure 8.
- With lift handle in up position and plow resting on the ground, feed one cable (746-04794) through arc-shaped hole in front mounting bracket assembly (689-02459) and frame. See Figure 9.
- Reaching between front mounting bracket assembly (689-02459) and plow assembly (689-02100), draw cable and lock pin arm through curved slot. See Figure 10.
- Attach end of plow lift cable lever by inserting z-bend of cable into hole located on lock pin and rotating z-bend. See Figure 11.
- Slide top nut and washer up and into mounting slot located on lift handle assembly (689-02499). See Figure 11.
- Pull lock pin assembly cable taut, use 1/2" wrench to hold inside nut while tightening outside nut with second 1/2" wrench.

**NOTE:** Cable is adjustable by loosening or tightening the nuts.

## Attach Cable to Lever Lock

- Attach end of pivot release cable lever to lever lock by inserting z-bend of cable into hole located on lever lock assembly and then rotating cable assembly vertically.
- Slide top nut and washer up and into mounting slot located on lever lock mounting bracket. See Figure 12.
- Pull pivot release cable taut, use 1/2" wrench to hold bottom nut while tightening top nut with second 1/2" wrench.

## Attach Control Handle To Pivot Assembly

- Working from top-down, secure lower control tube (749-07634) to plow assembly (689-02100) pivot plate on right side directly behind plow with shoulder screw (738-0143), flat plastic washer (736-0414) and hex flange lock nut (712-04065) from hardware pack 689-02139. See Figure 13.

**NOTE:** Flat plastic washer (736-0414) should be installed on top side of bracket under lower control tube (749-07634). See Figure 13.

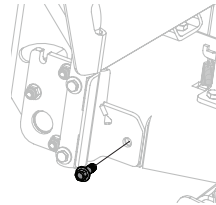


Figure 8

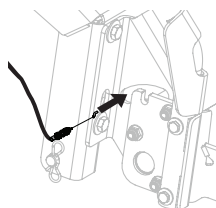


Figure 9

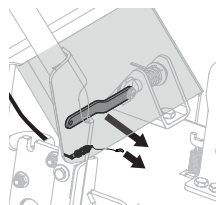


Figure 10

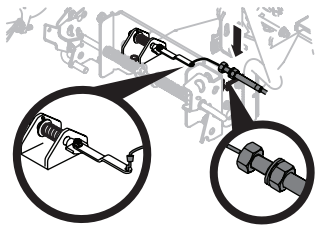


Figure 11

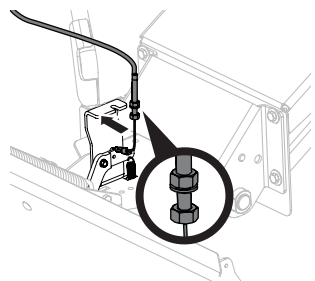


Figure 12

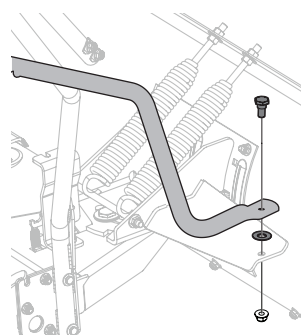


Figure 13

- Connect ring (603-0297) to lift handle assembly (689-02499) with hex flange lock nut (712-3004A) from hardware pack 689-02139. See Figure 14.
- Feed upper control tube (749-05855A) through guide ring on lift handle. See (1) in Figure 15.
- Working from inside-out, attach upper control tube (749-05855A) to lower control tube (749-07634) with two curved carriage bolts (710-1250), two curved washers (736-0451) and two hex flange lock nuts (712-04063). See (2) in Figure 15.
- Install end plug (735-0246A) from hardware pack 689-02139 into end of lift handle (689-02499).
- Mount cable levers (746-04794) from hardware pack 689-02139 to upper control tube with two screws (710-1625). See Figure 16.

**NOTE:** Cable closest to grip goes to lock pin and forward cable goes to lever lock.

- Secure cables to control tube with two zip-ties (726-04111) from hardware pack 689-02139 - one two inches below ring on lift handle and one near bottom bend of lower control tube.
- Slide grip (720-0274) from hardware pack 689-02139 over upper end of control tube (749-05855A).

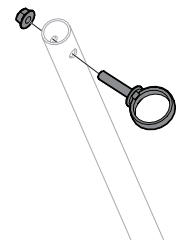


Figure 14

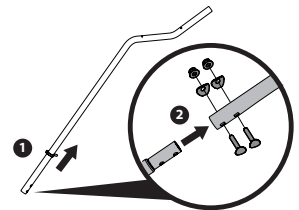


Figure 15

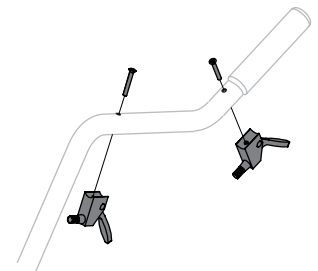


Figure 16

## Plow Removal

To remove the plow continue as follows:

- Lock plow in up position.
- Remove front mounting bracket from frame by unscrewing two wing knobs (720-04186) and carriage bolts (710-1649).
- Remove "H" bracket assembly from larger plate mounted to underside of tractor foot pan by removing the two clevis pins (711-05217) and two bow tie pins (714-05005).
- Move plow to down position.
- Slide plow assembly away from tractor. See Figure 17.

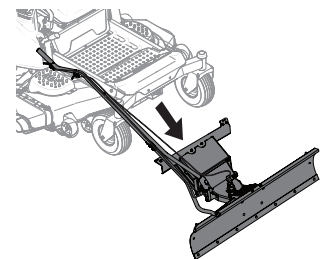


Figure 17