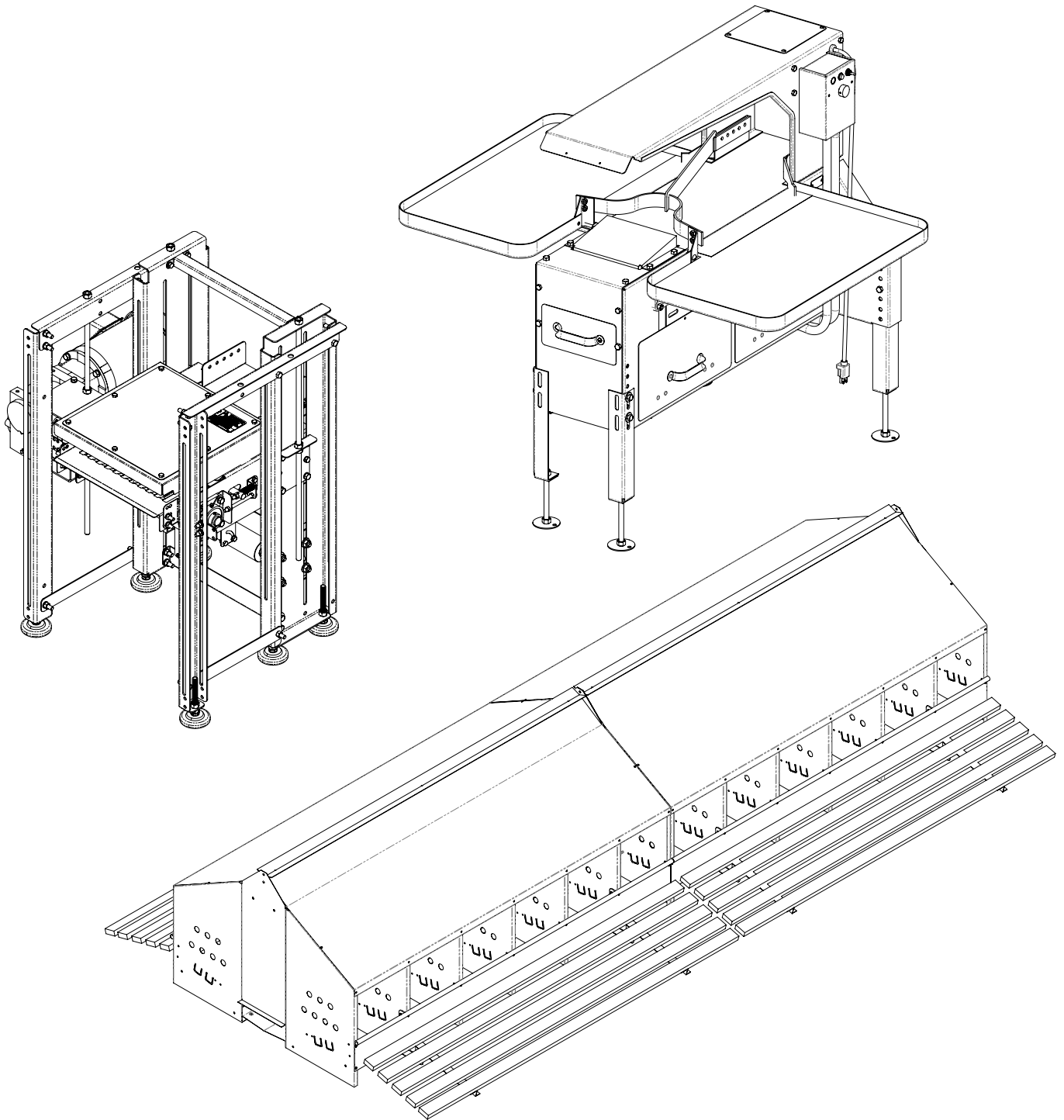




Center Belt Mechanical Nest and Egg Collection Installation and Operator's Manual

413000, 413000-LB, 413056,
413461, 425001, 425002, 425004



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VAL PRODUCTS, INC. WARRANTIES

For Warranty claims information, please see the “Manufactured Products Standard Warranty” form QMS101 available from Val Products, Inc. by:

- Phone: 1-800-998-2526
- Email: marcom@val-co.com
- Online: <http://val-co.it/warranty>

Conditions and Limitations:

- Products and Systems involved in a warranty claim under the “Manufactured Products Standard Warranty” shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Val Products, Inc.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

Symbols

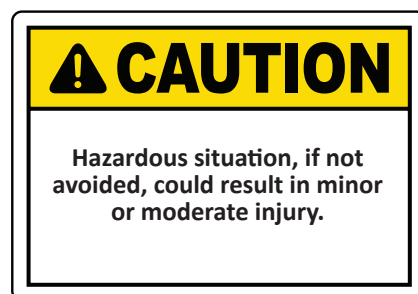
Our concern is for your safety. The safety warnings are included in this manual as a guide to help and encourage the safe operation of your equipment. It is your responsibility to evaluate the hazards of each operation and implement the safest method of protecting yourself as owner and/or operator.



= NOTICE - Important information. Be sure to read.



= WARNING - The safety alert symbol is used on warning signs that describe the importance of a feature or explain a step that one should pay close attention to avoid problems or personal injury.

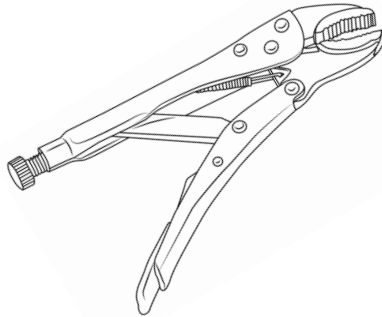


Installation Tools

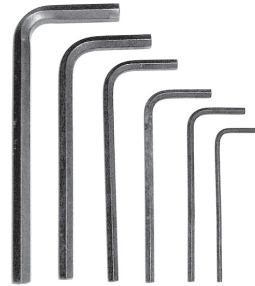
Tools

- *Vise-Grips*
- *Allen Wrench Set*
- *Phillips Screwdriver, #2*
- *Straight Screwdriver, 1/4"*
- *Drill*
- *Driver/Socket/Wrench Set with 6" extension*
- *Open End Wrenches*
- *Adjustable Wrench*
- *Rivet Gun*
- *Miter / Chop Saw*

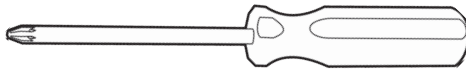
Vise-Grips



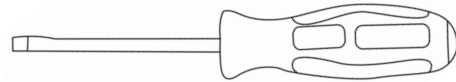
Allen Wrench Set



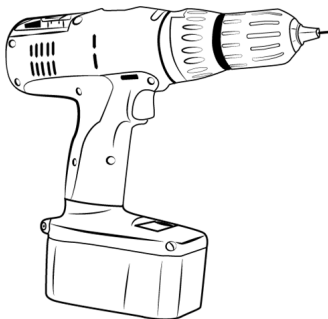
Phillips Screwdriver, #2



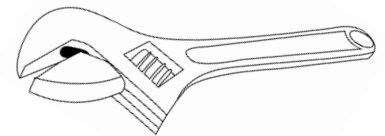
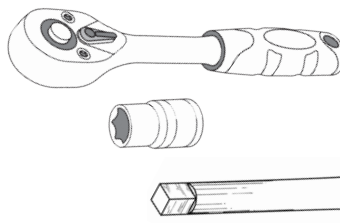
Straight Screwdriver, 1/4"



Drill

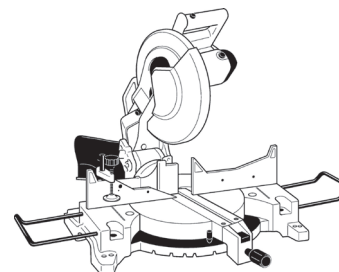
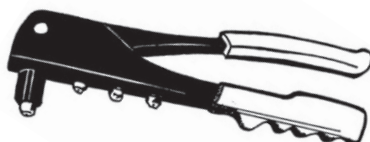


Socket Set, Open End Wrenches, and Adjustable Wrench



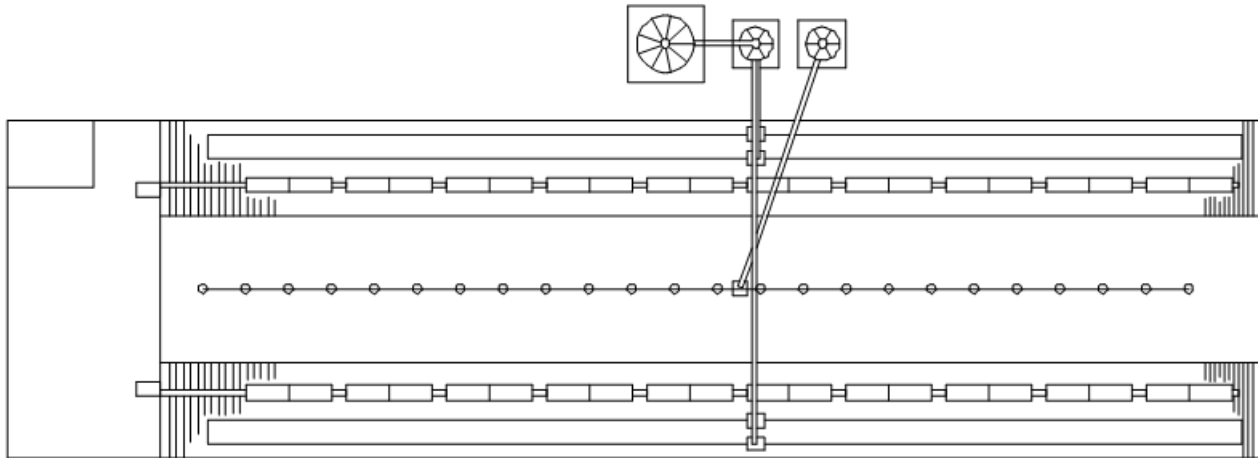
Miter / Chop Saw, with fine-tooth blade

Rivet Gun

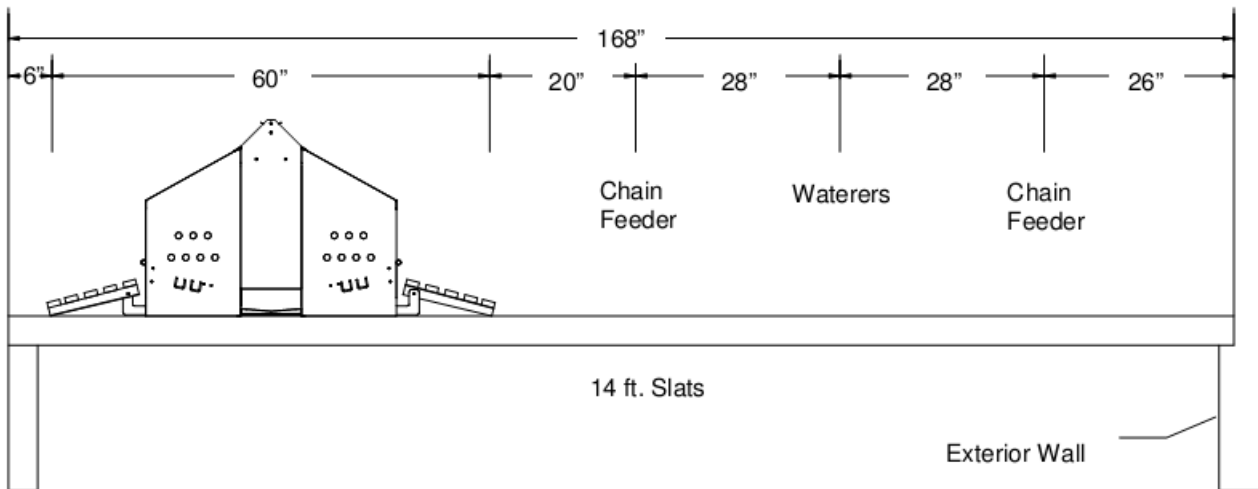


Installation

Nest Installation Layout

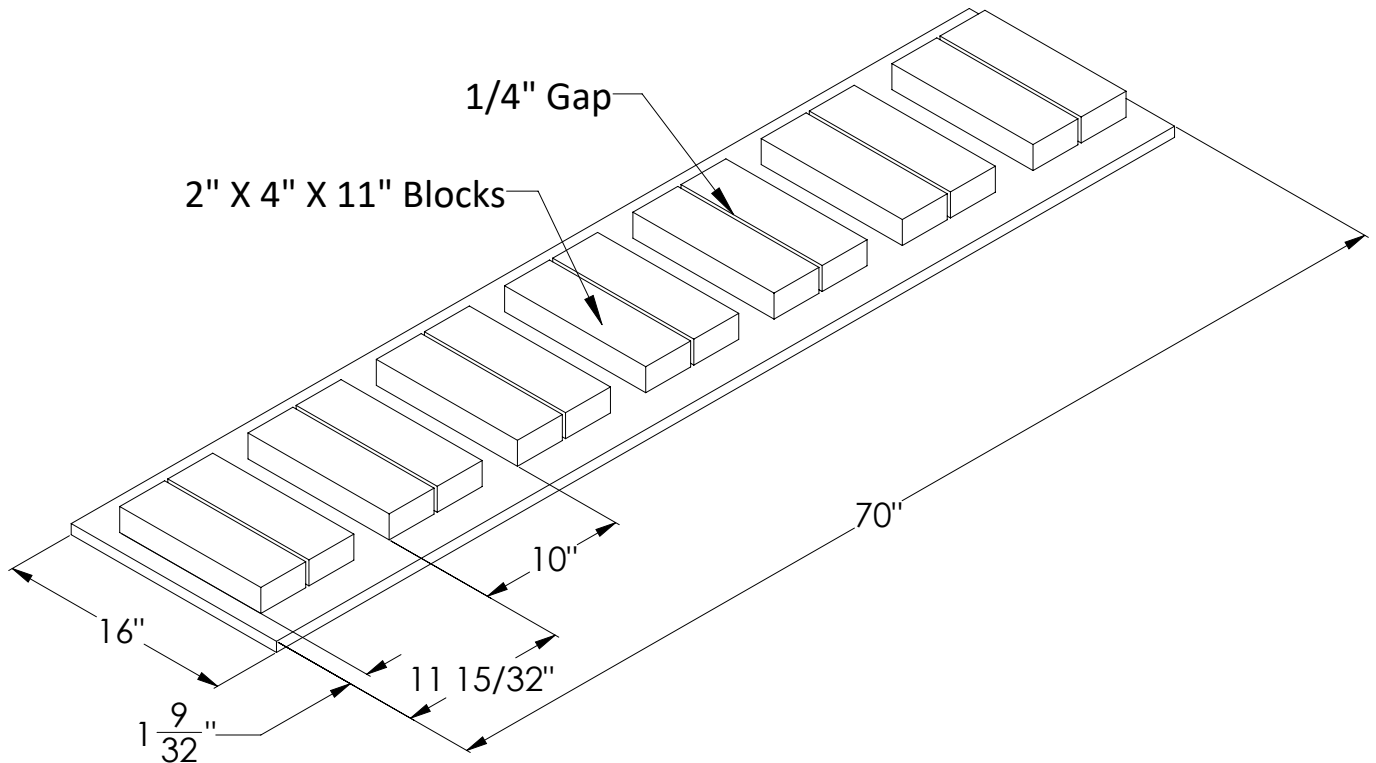


Typical configuration of a mechanical nest in a breeder house.



Typical installation of mechanical nesting system on 14' slats.

Nest Assembly Preparation



Helpful Tip: Build a fixture to hold partitions while assembling the nest.

Nail the 2" X 4" blocks on a 16" X 70" piece of plywood. Starting at one end, the first set of blocks should be 1-9/32" from the edge. Nail the next set of 2 blocks 11-15/32" from the same starting edge, then every 10" from that set of blocks.

REPORT ALL SHORTAGES TO YOUR DISTRIBUTOR:



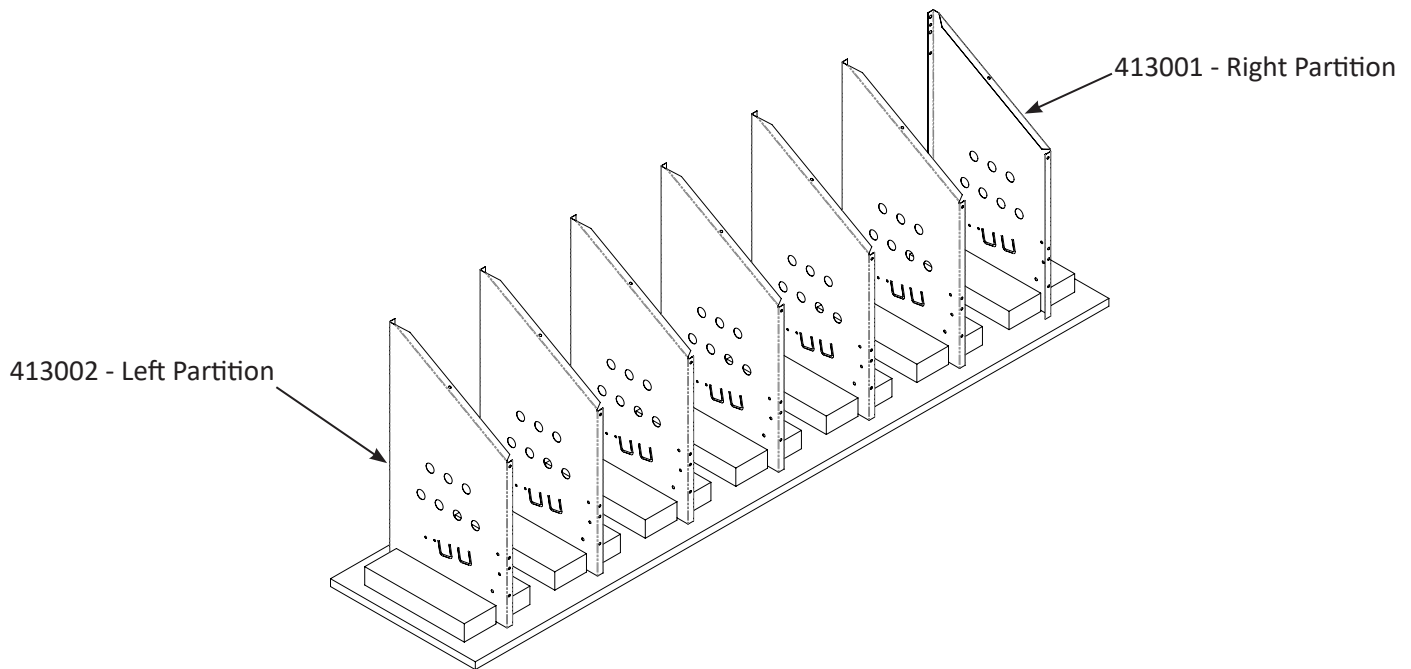
Contact your distributor for repair parts. When ordering try to have the part number and description for quicker assistance. Refer to your manual for part numbers and descriptions.

WARNINGS, CAUTIONS & NOTES:

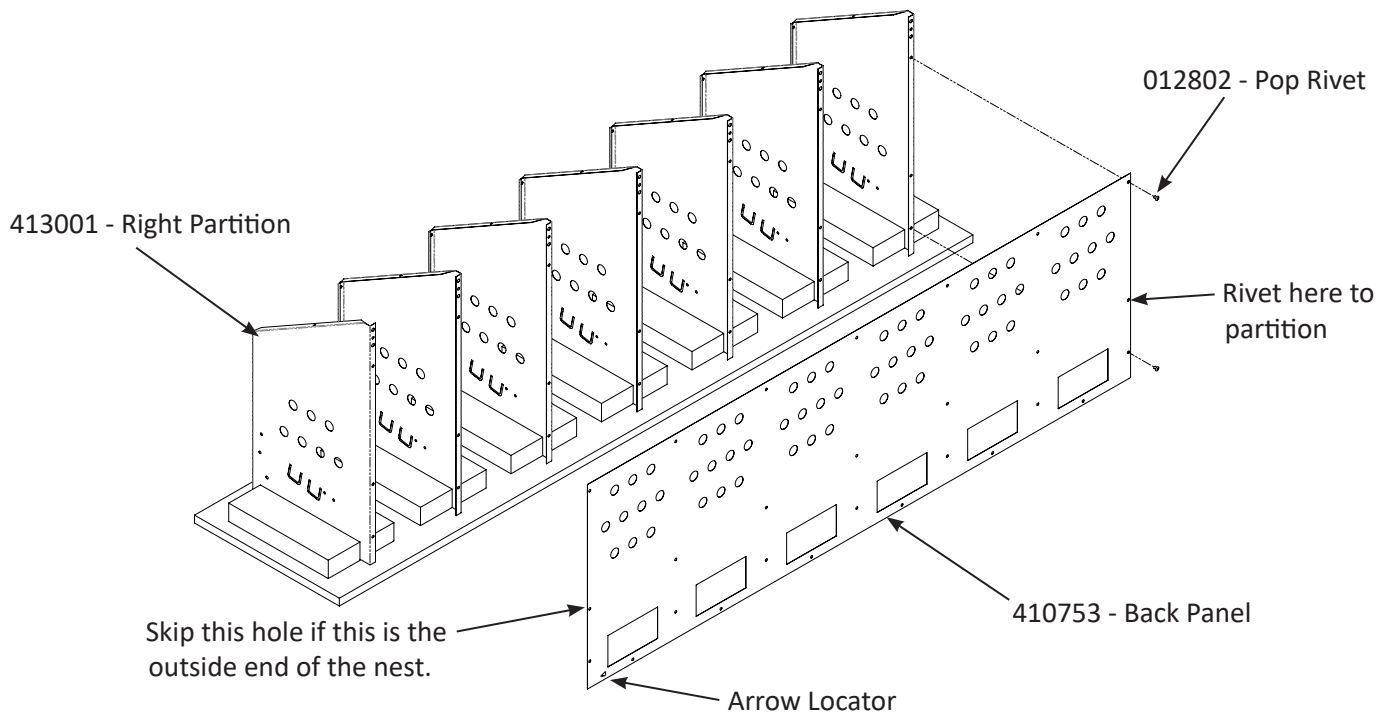


Read and understand this manual before beginning assembly and installation. Disconnect power before servicing equipment or serious bodily and equipment damage could occur. Do not remove guards unless for repair or maintenance. Do not operate equipment unless guards are properly in place.

Nest Assembly - Partitions and Back Panel

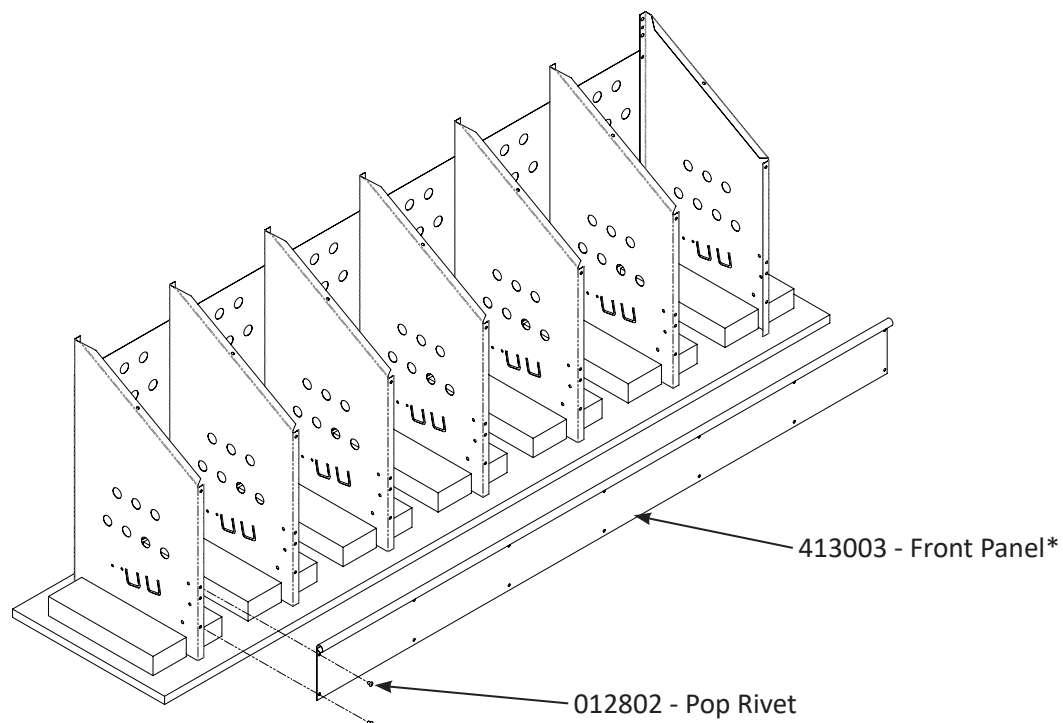


Position the partitions in the fixture as shown. Use (6) of the left partitions and only (1) right partition.



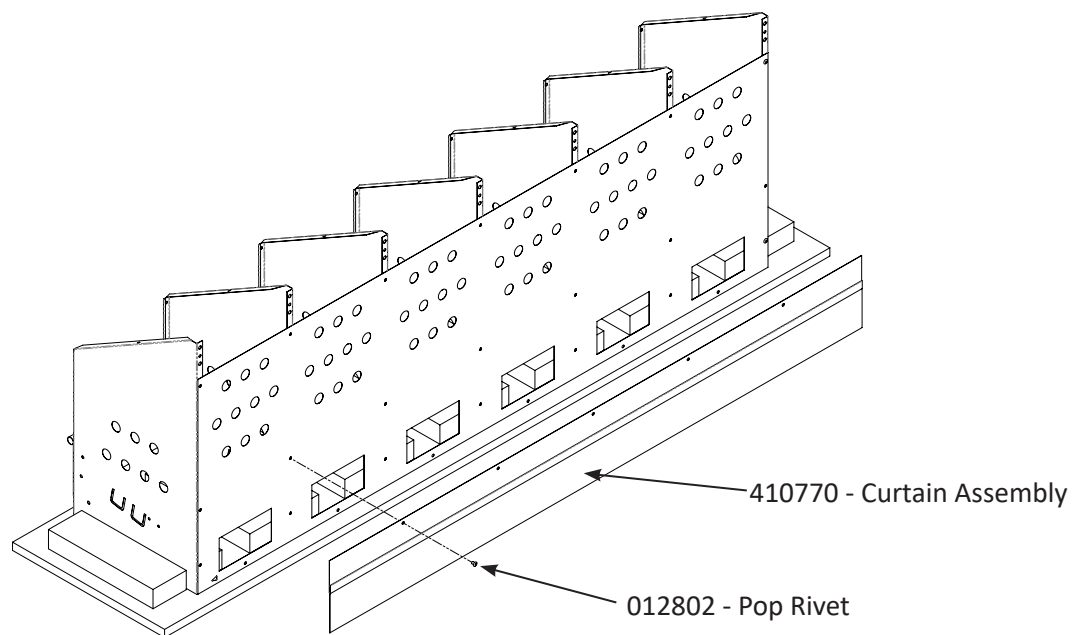
Attach the back panel to each partition using two rivets per partition in the top and bottom holes of the back panel. Be sure to position the arrow locator next to the right partition. Put a rivet in the middle hole of the back panel on the end opposite of the noted hole to skip. This hole will be for the assembly of the end brace. Be sure the bend on the back panel slides under the partitions.

Nest Assembly - Front Panel and Curtain



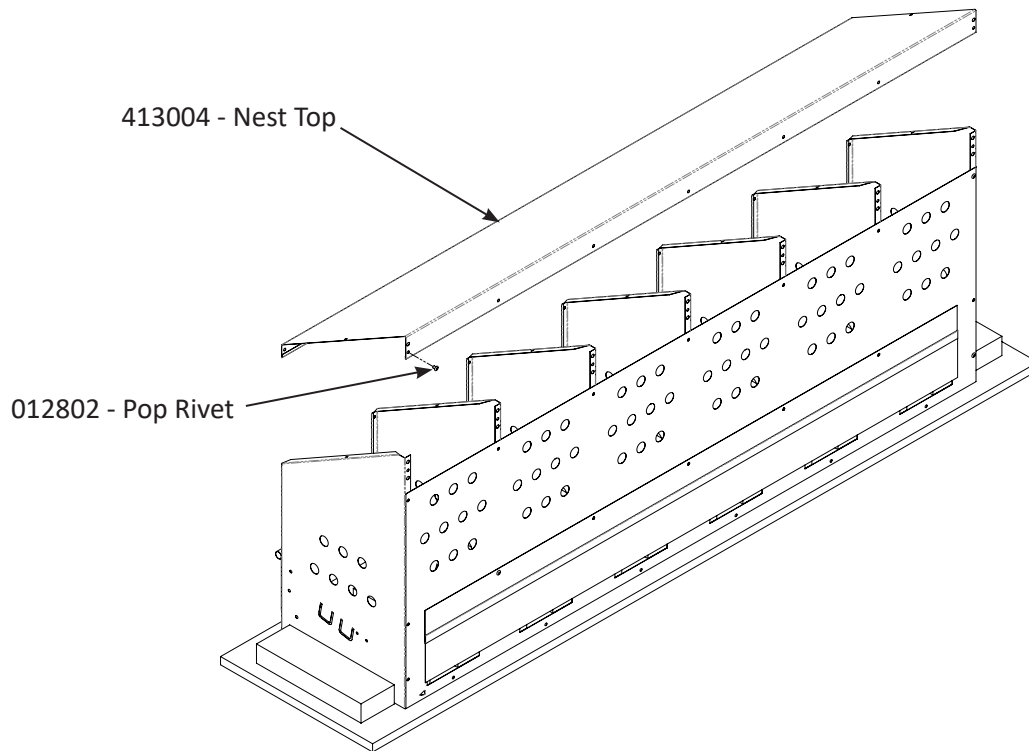
Attach the front panel to the partition using rivets in the holes shown. Repeat for each partition.

***NOTE:** The 413003 front panels are standard for nests 413000 & 413000-LB. The 413056 nest uses 413059 front panels instead of 413003 front panels.

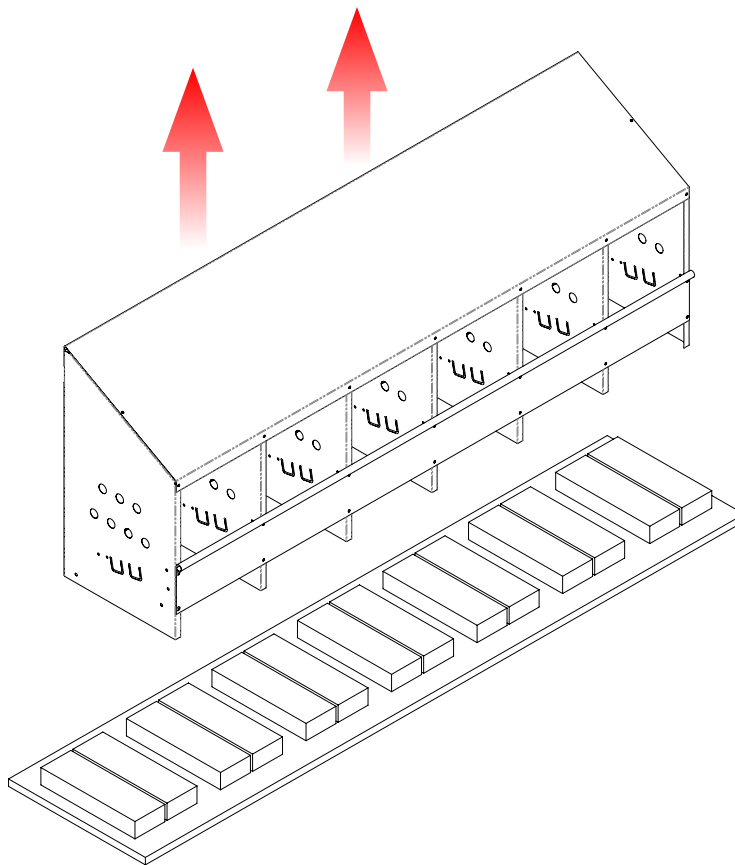


Attach the curtain assembly to the back panel using the remaining middle five holes as shown.

Nest Assembly - Top

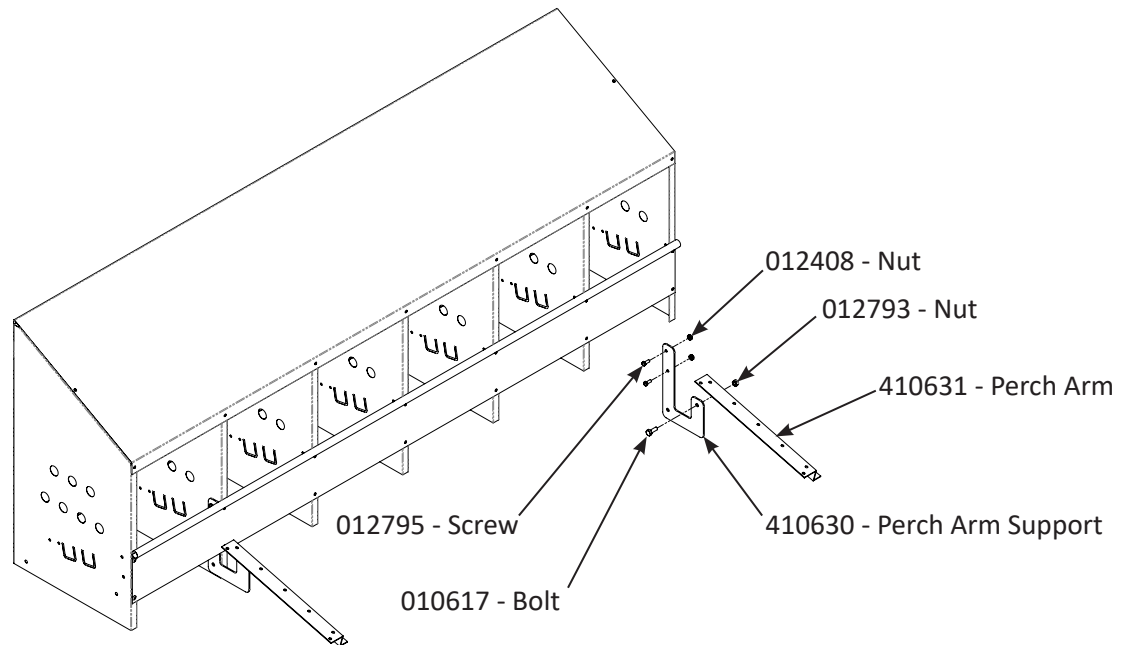


Attach the nest top to the partitions on the front and back sides using (16) rivets. The larger holes in the nest top and partitions will be used later to attach the end and middle braces.

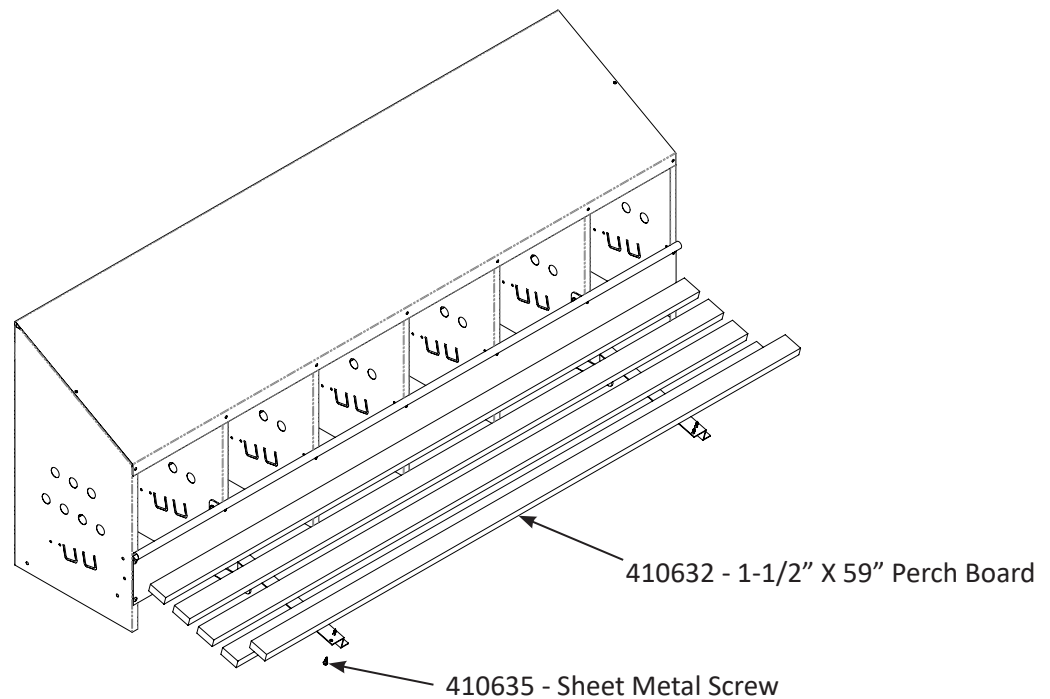


Remove the partial assembly from the fixture for further assembly.

Nest Assembly - Optional Perch

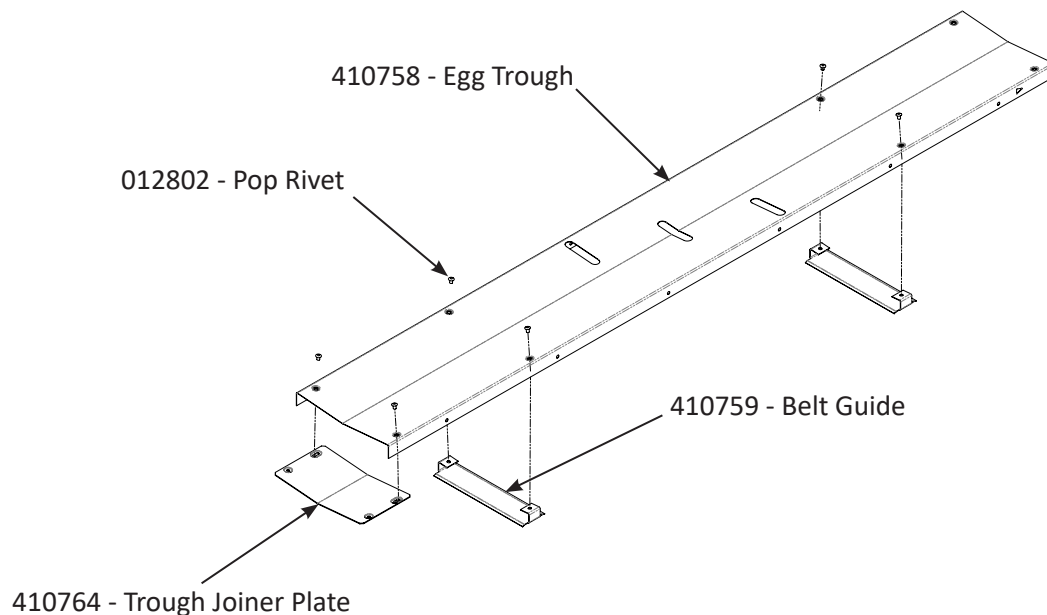


Attach the perch arm supports to the partitions using the 10-24 hardware provided. Fasten the perch arms to the supports using the 1/4" hardware provided, as shown. The perch arm should be able to pivot on the support, so snug the hardware, but do not over tighten.



Attach the perch boards to the perch arms using #8 sheet metal screws through the holes provided in the perch arm. Equally space the perch boards and do not let the perch board extend past the ends of the nest. Trim the boards if necessary.

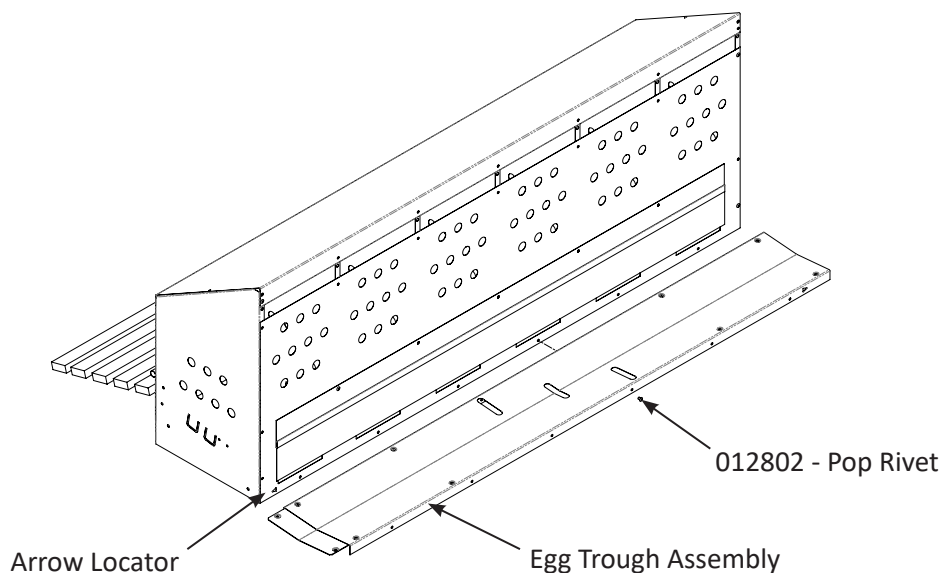
Nest Assembly - Egg Trough



Attach the belt guides and joiner plate to the egg trough, using rivets, as shown.

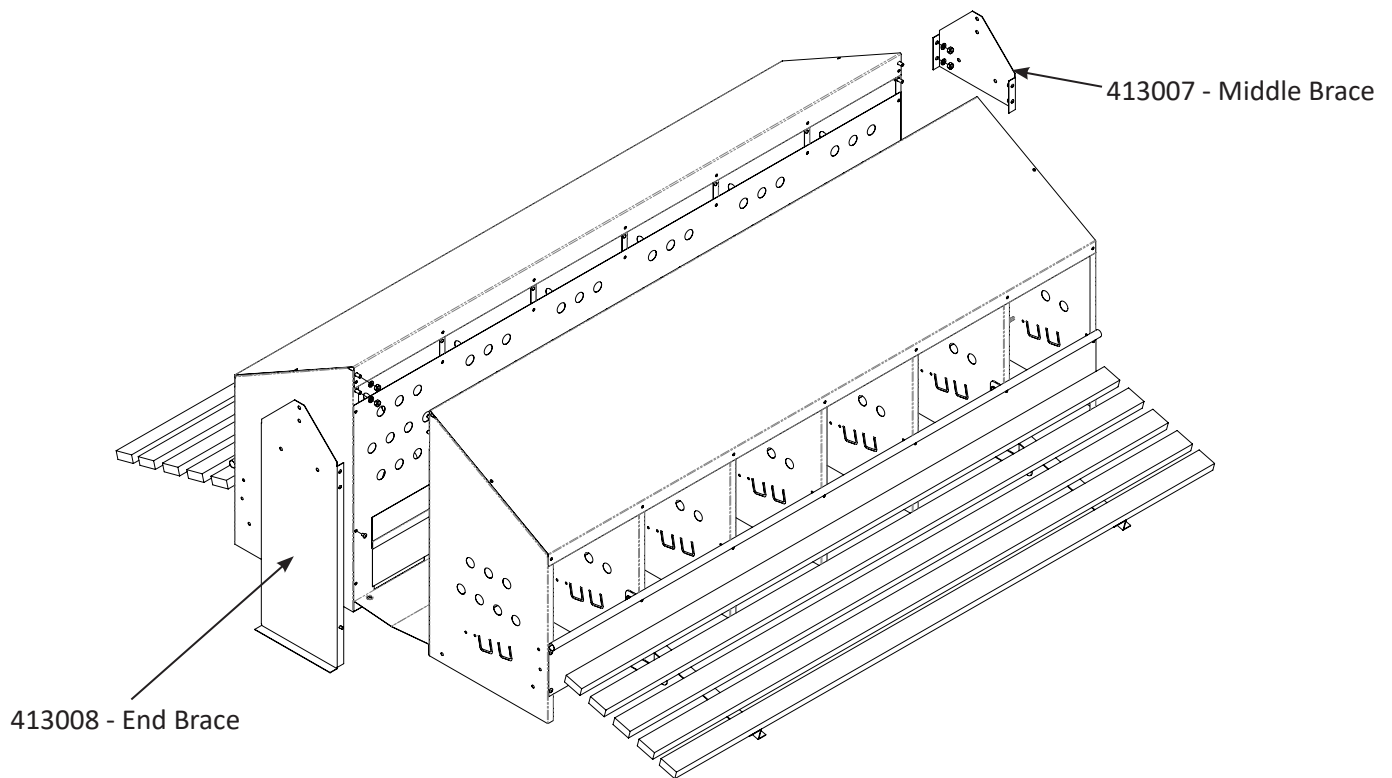


Check for sharp edges after rivets are securely put in place. Sharp edges may rip and/or snag the belt.

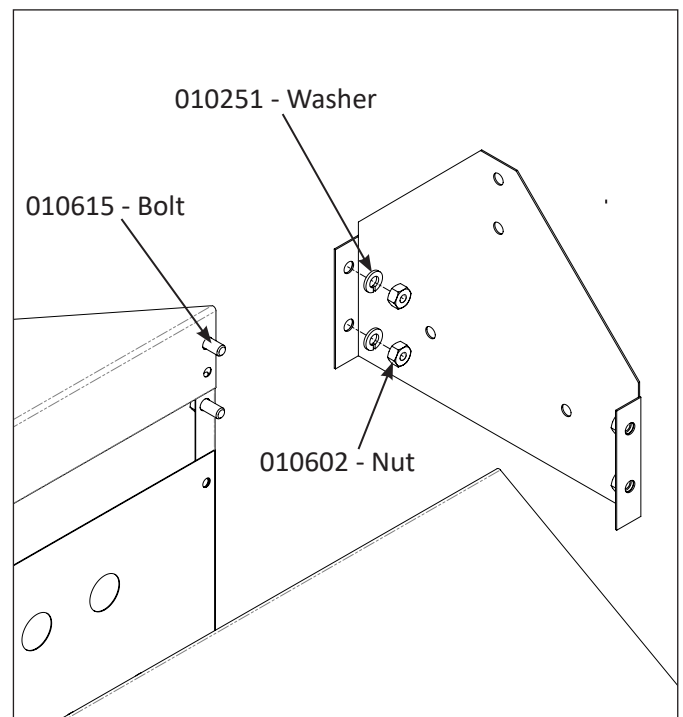
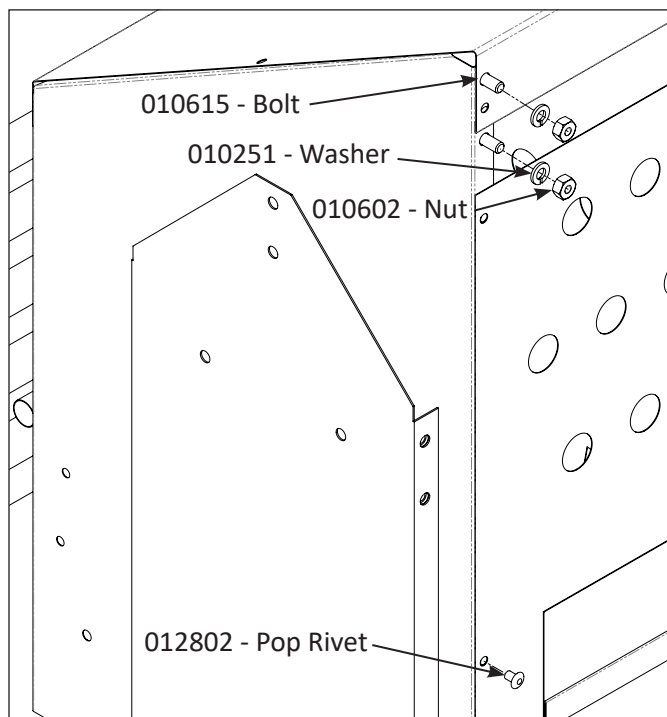


Attach the egg trough assembly to the nest as shown, riveting from underneath the trough assembly using six rivets along the bottom of the back panel. Match up the arrow locators on the trough and back panel for proper alignment. Repeat for other side to join the two nest assemblies. Be careful not to damage this assembly if it's to be moved before end and middle braces are attached. Damage may occur to the back panel or egg trough.

Nest Assembly - End Braces

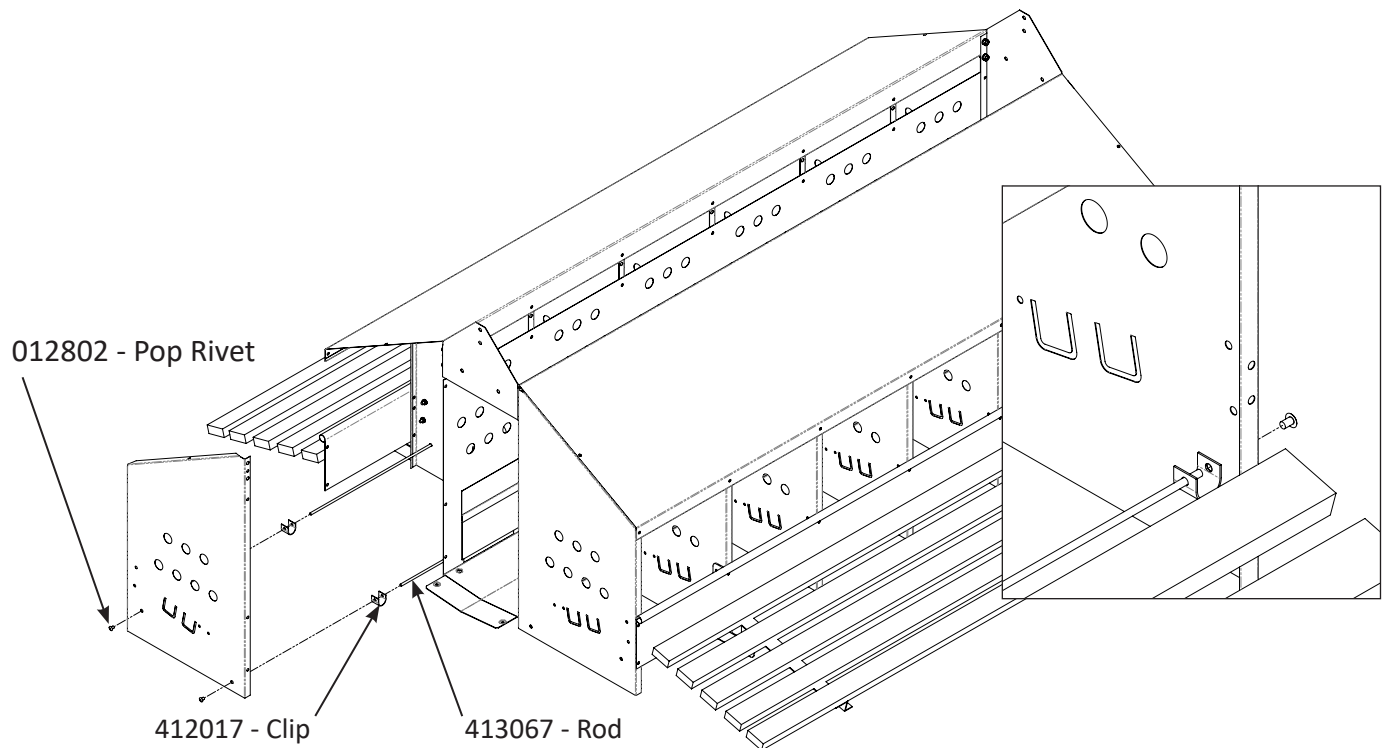


Attach the end and middle braces using the 1/4" hardware provided. Use 1/4" hardware to attach the top of the end brace and rivets to attach the bottom. Use 1/4" hardware to attach the middle braces. Make sure the braces are flush with the ends of the nest.

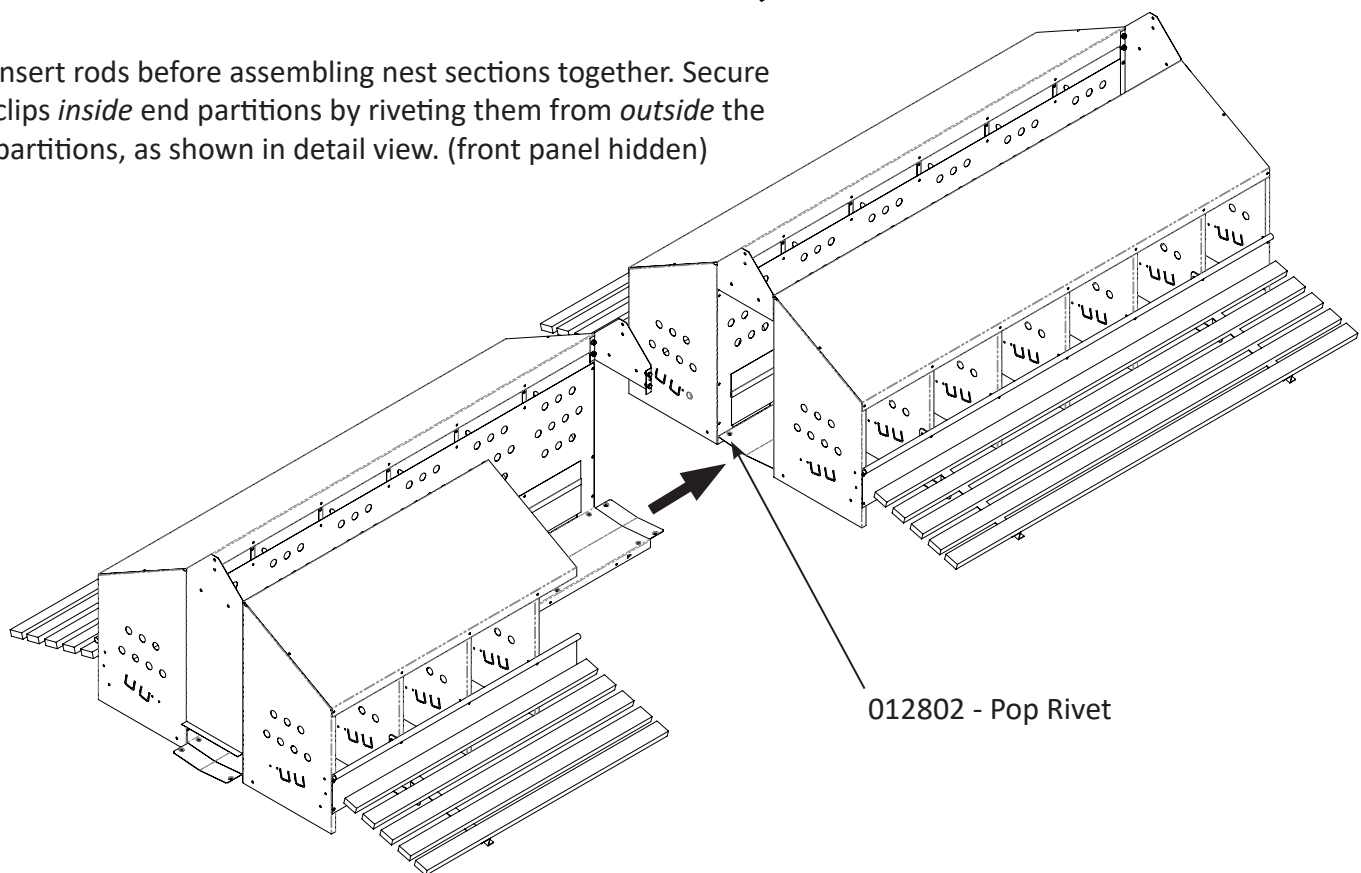


The nests can now be placed on the slats in their predetermined layout. Nests should be placed on slats before being attached as shown on the following page to avoid personal injury or damage to the nest.

Nest Assembly - Joining Sections



Insert rods before assembling nest sections together. Secure clips *inside* end partitions by riveting them from *outside* the partitions, as shown in detail view. (front panel hidden)

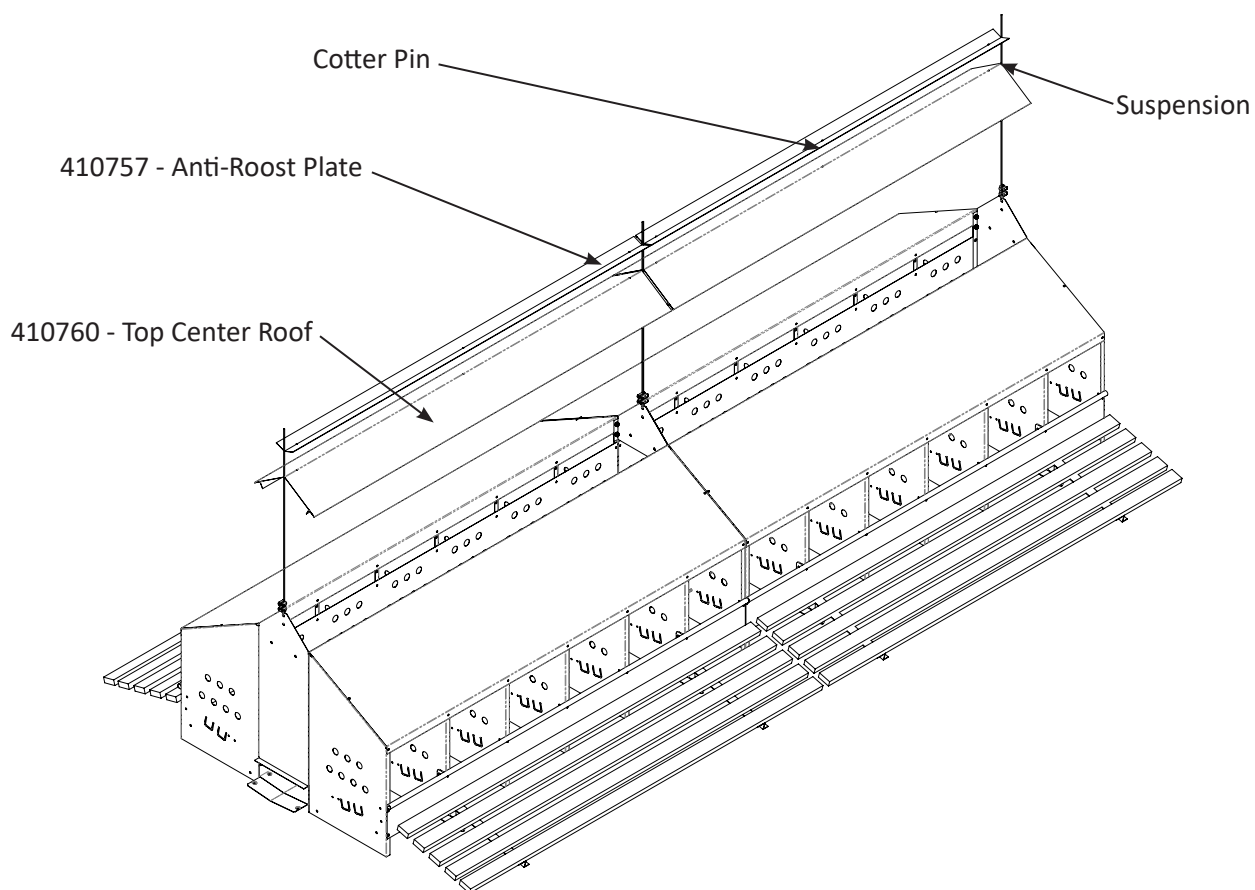
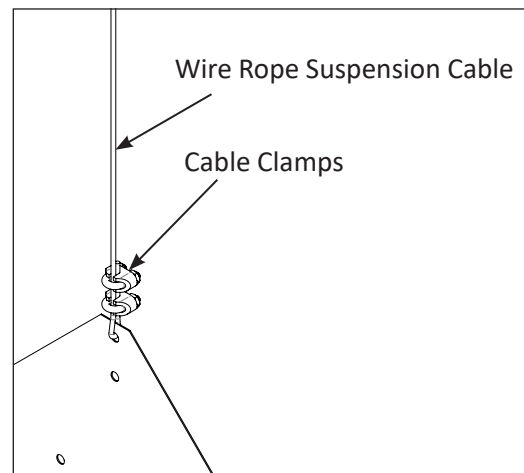


Attach the two nest assemblies using rivets. Be sure the mandrell breaks off cleanly to prevent any sharp edges, which can rip or snag the belt.

Nest Assembly - Suspension

Once the nests are attached, the suspension cables can be fastened to the end and middle braces.

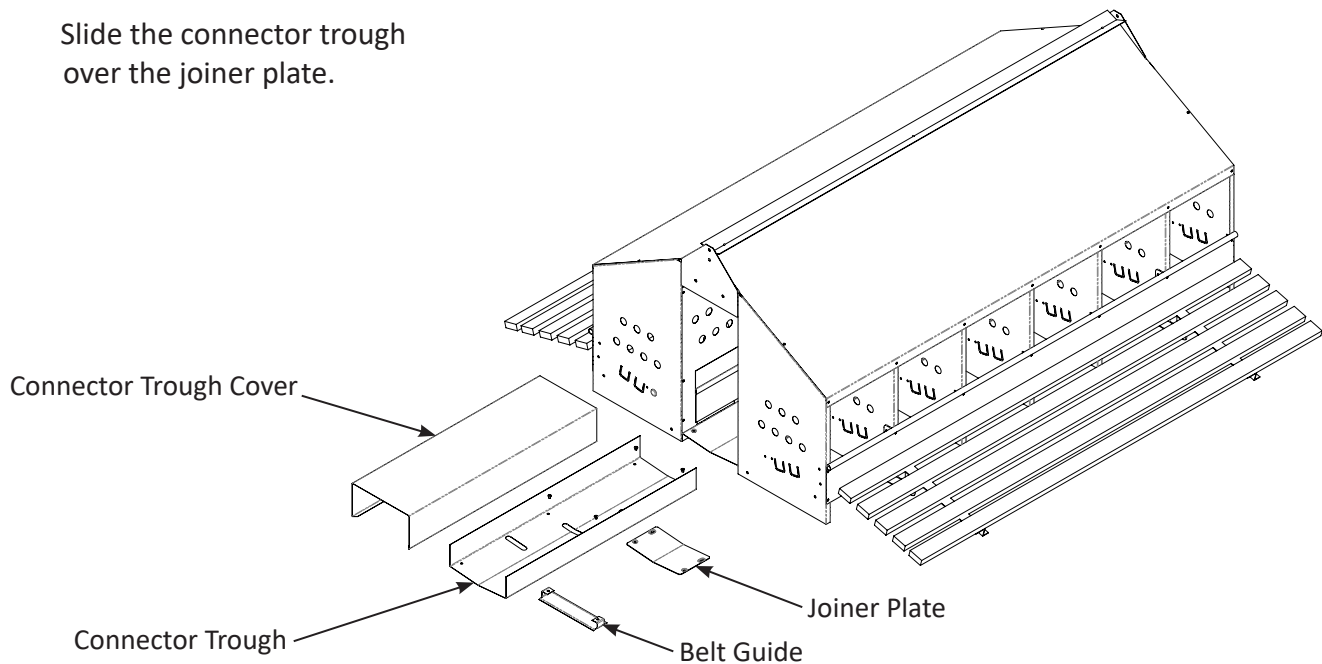
Use cotter pins to secure anti-roost plate to top center roof.



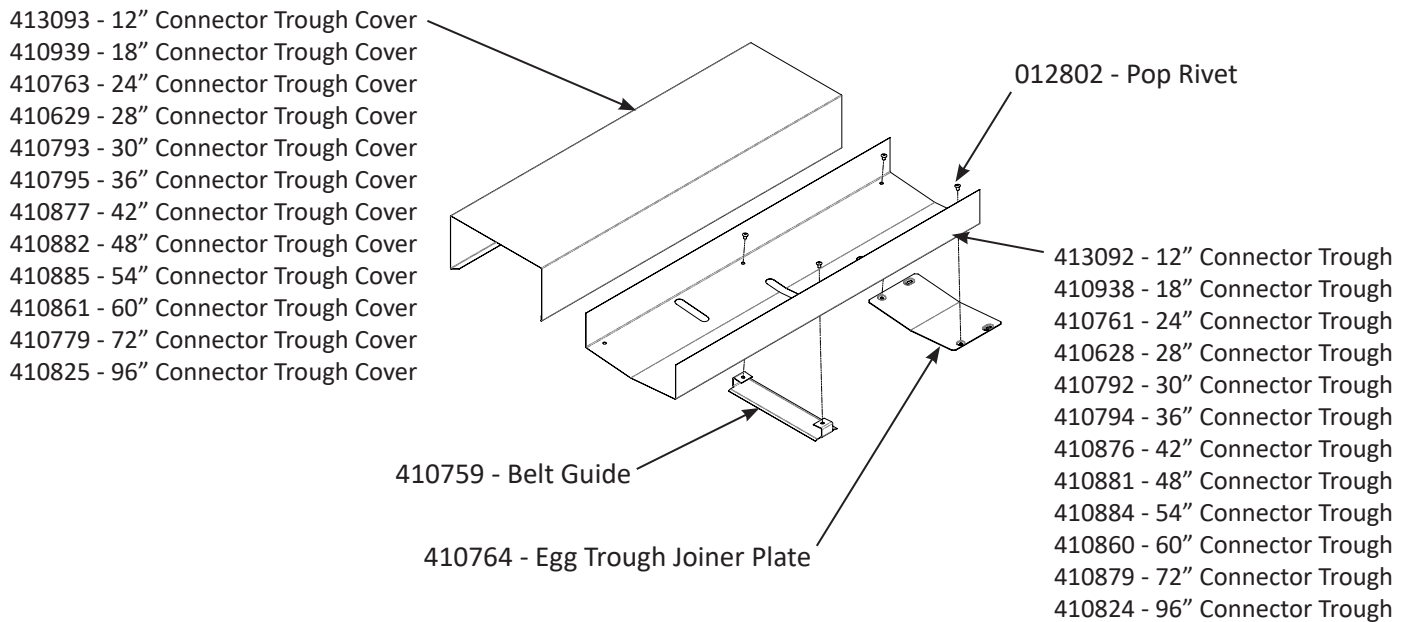
Helpful Tip: Assemble the center roof and anti-roost plate assembly after the belt is installed.

Nest Assembly - Connector Trough

Slide the connector trough
over the joiner plate.

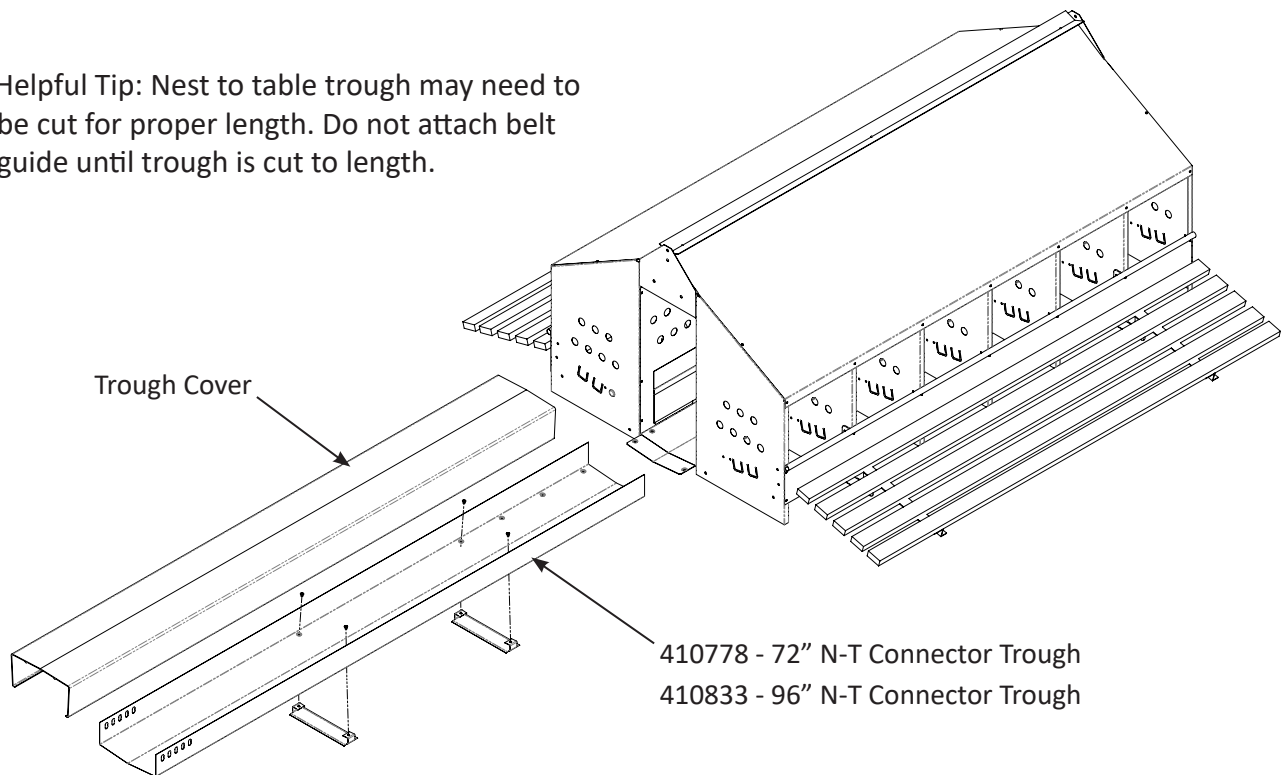


Attach the belt guide to the connector trough. Attach the trough assembly to the nest with rivets, being sure that the rivet mandrels break off cleanly. Attach the other end of the trough to the next nest. The trough cover can be put on at this time by snapping it over the trough and resting the ends on the end braces.



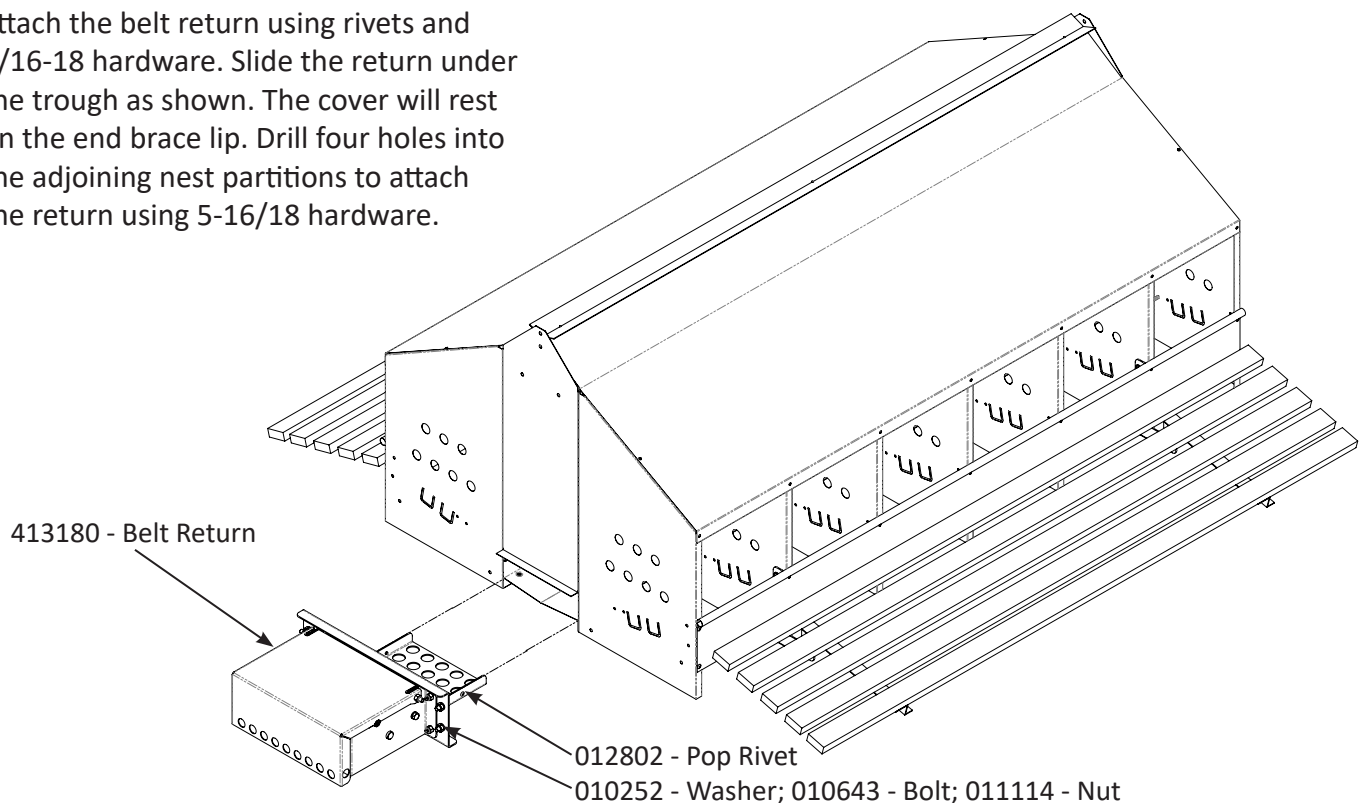
Nest Assembly - Connector Trough and Belt Return

Helpful Tip: Nest to table trough may need to be cut for proper length. Do not attach belt guide until trough is cut to length.



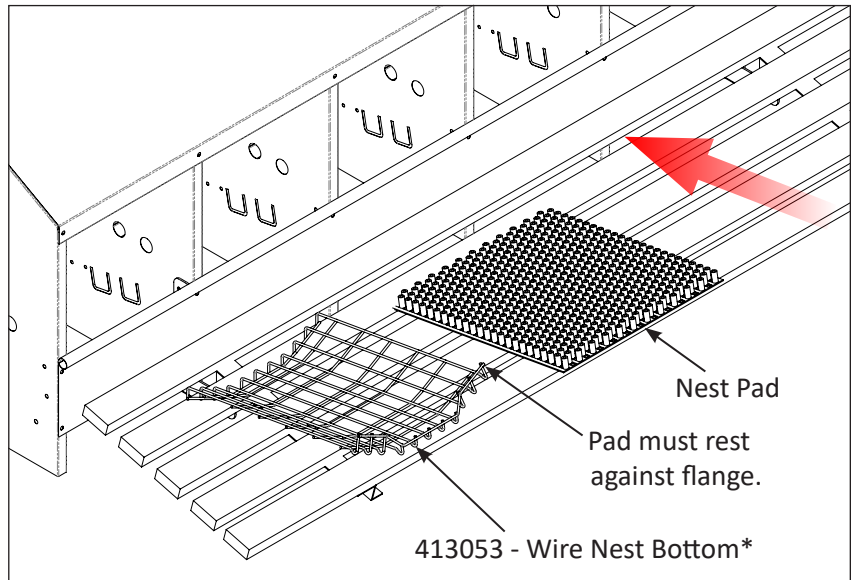
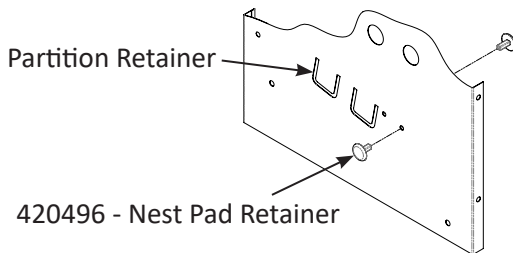
Attach the belt guides to the nest to table connector trough as shown. Attach the trough to the nest the same way as the connector trough on the previous page. The trough may need to be cut to length for proper fit. Be careful of sharp edges on the trough after cutting.

Attach the belt return using rivets and 5/16-18 hardware. Slide the return under the trough as shown. The cover will rest on the end brace lip. Drill four holes into the adjoining nest partitions to attach the return using 5-16/18 hardware.



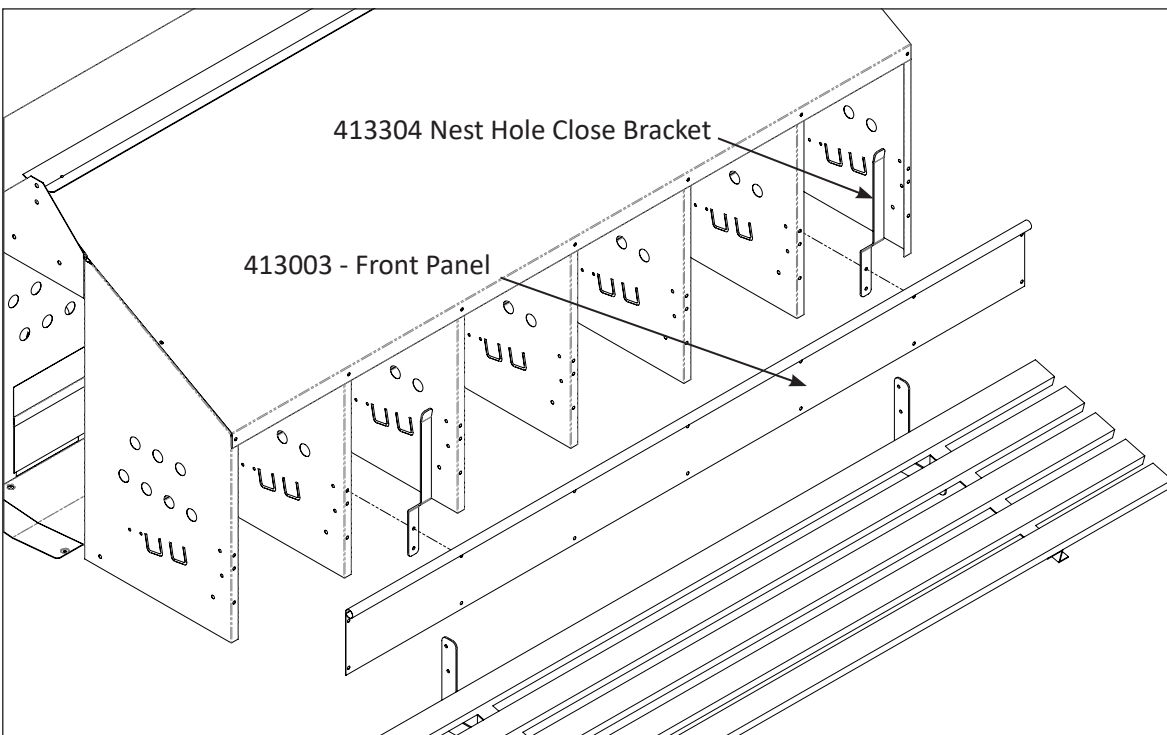
Nest Pad Installation

Insert the wire nest bottom as shown, resting the flanges on the support rods. Insert the nest pads into the nest holes. They can be locked in place by either the pad retainers or the partition retainers.



***NOTE:** The 413053 wire nest bottoms are standard issue for nests 413000 and 413056. The 413000-LB nest is not supplied with a nest bottom.

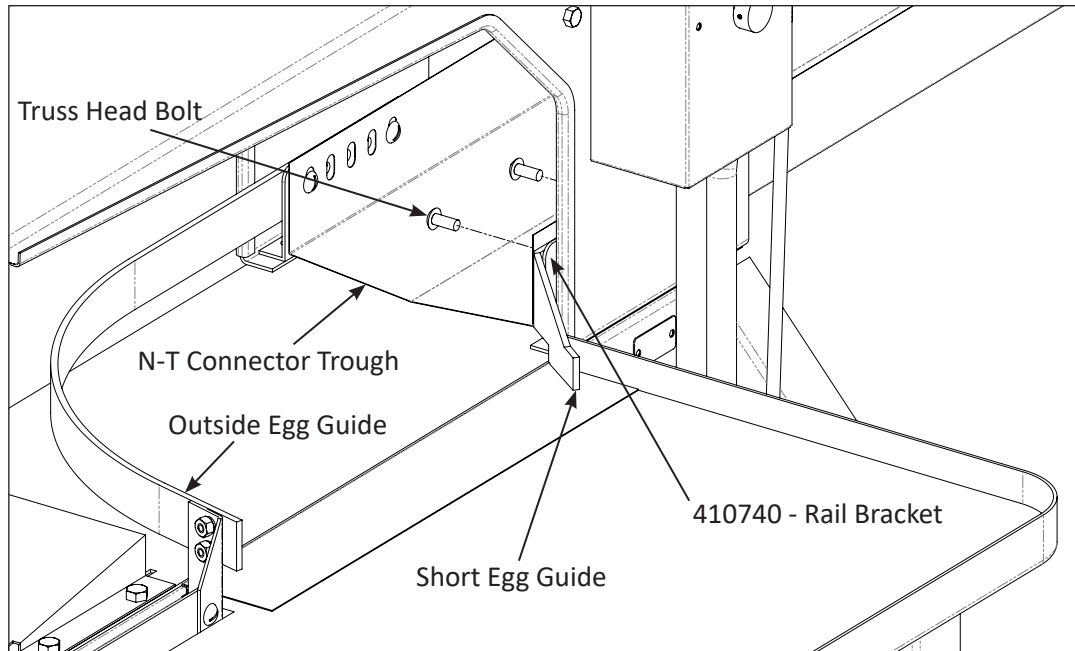
Egg Belt Installation - Nest Closer



If using nest closers, install them as shown, nesting them between the front panel and the partitions, using the top rivet hole in the front panel to attach them. (Extra holes may need to be drilled for extra rivets).

Trough Assembly - Collection Table and Belt Drive

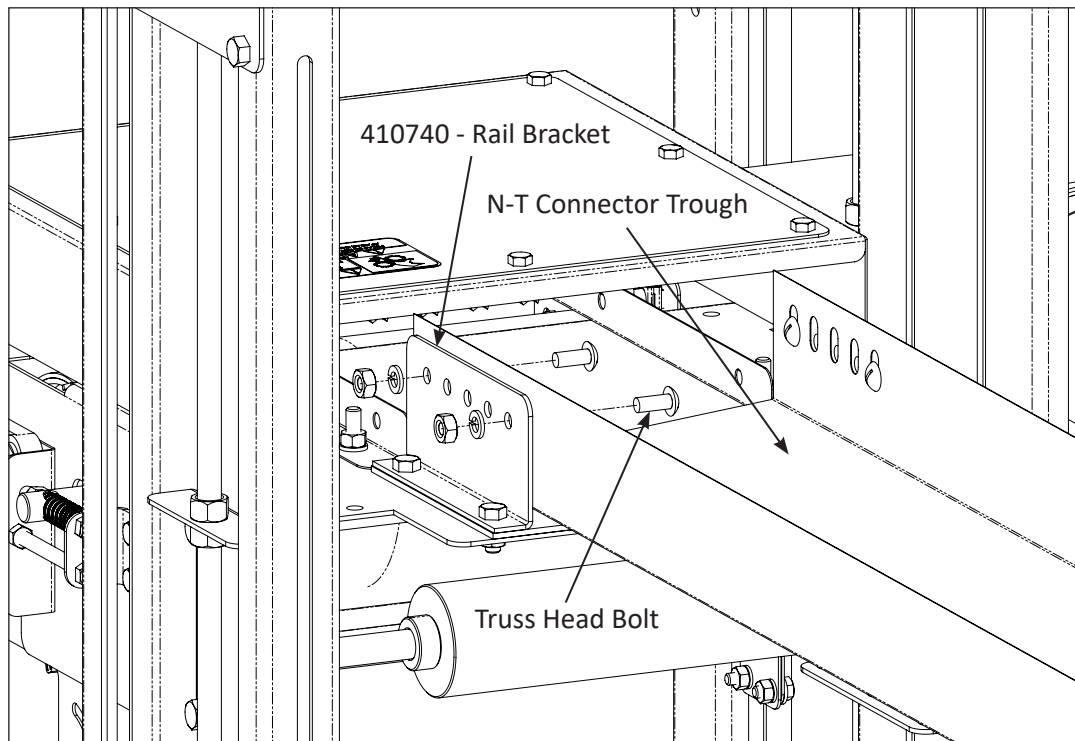
COLLECTION TABLE



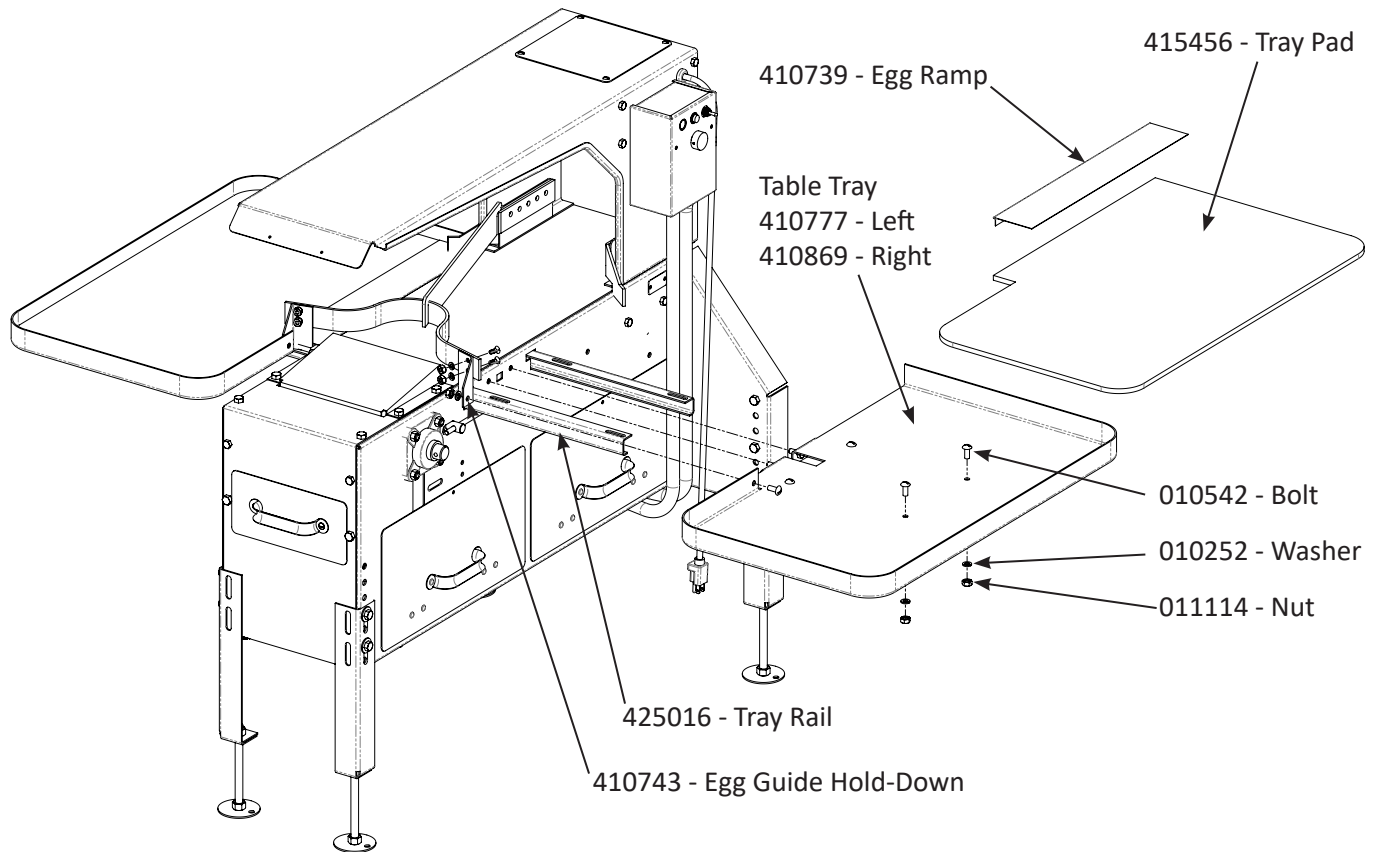
If only using one side of the egg collection table, assemble the trough as shown above. The left and right egg guides go between the rail bracket and the trough using the 5/16" hardware provided in hardware bag 425037. (Hardware detailed in parts pages.)

If using the belt drive, assemble trough as shown below. For both types of assemblies, the truss head bolts should be installed in the orientation shown to prevent possible damage to the eggs.

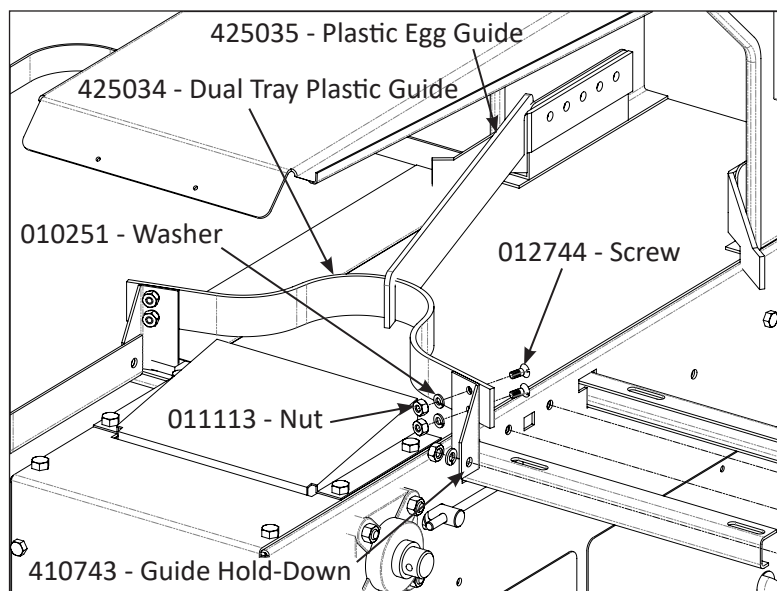
BELT DRIVE



Egg Belt Installation - Egg Table Trays

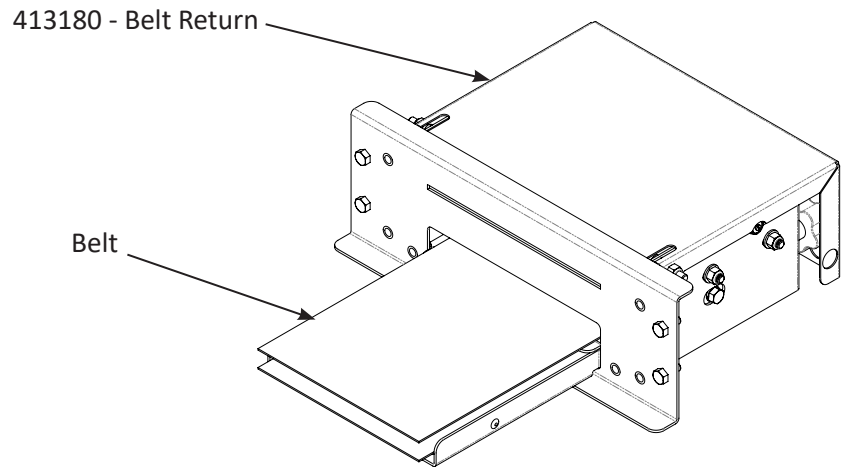


If using both sides of the egg collection table, attach the table trays to the collection table and the tray rails as shown. Use 5/16" truss head bolts to fasten the trays to the rails. (Hardware detailed in parts pages.)

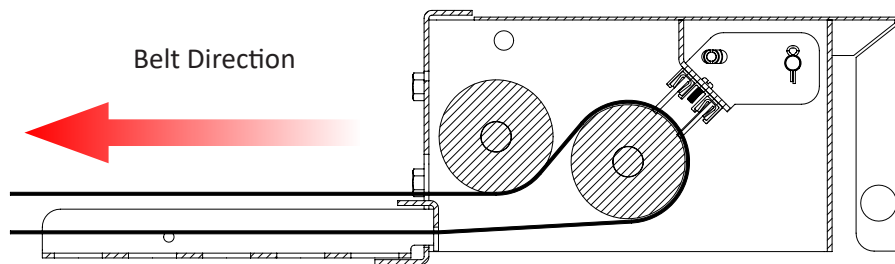


Attach the plastic guide to the hold-down using the countersunk 1/4" hardware as shown. The hold-down should be fastened to the table tray.

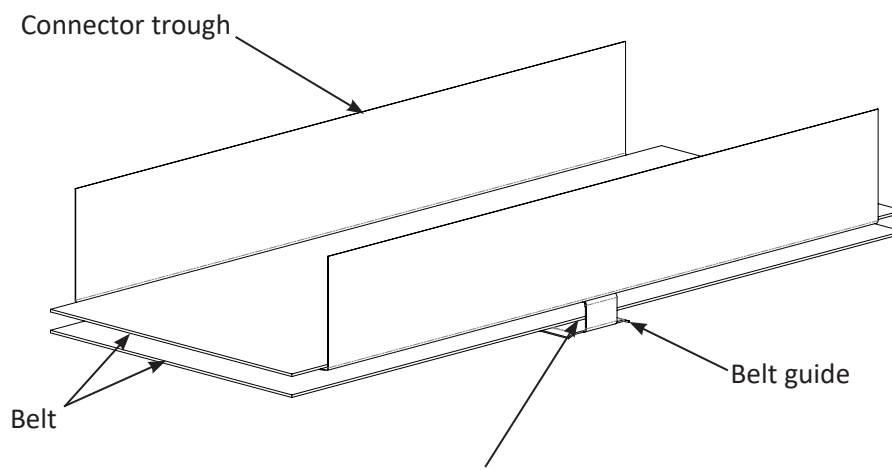
Egg Belt Installation - Feeding the belt



Feed the belt from the table to the return on the bottom side of the trough. Use an improvised set-up to reel the belt off the spool and through the nest. Feed the belt through the return as shown below.



Side view of belt through dual roller return

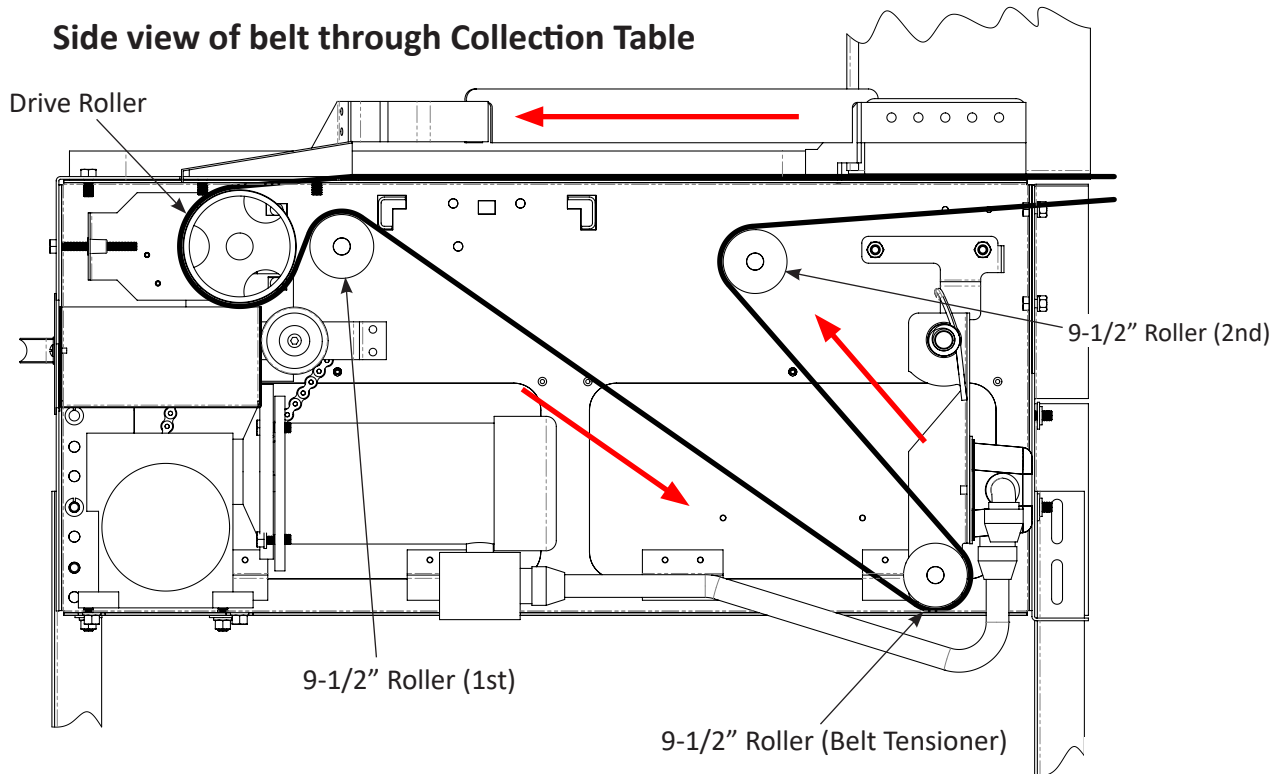


Be sure the belt runs between trough and guide.

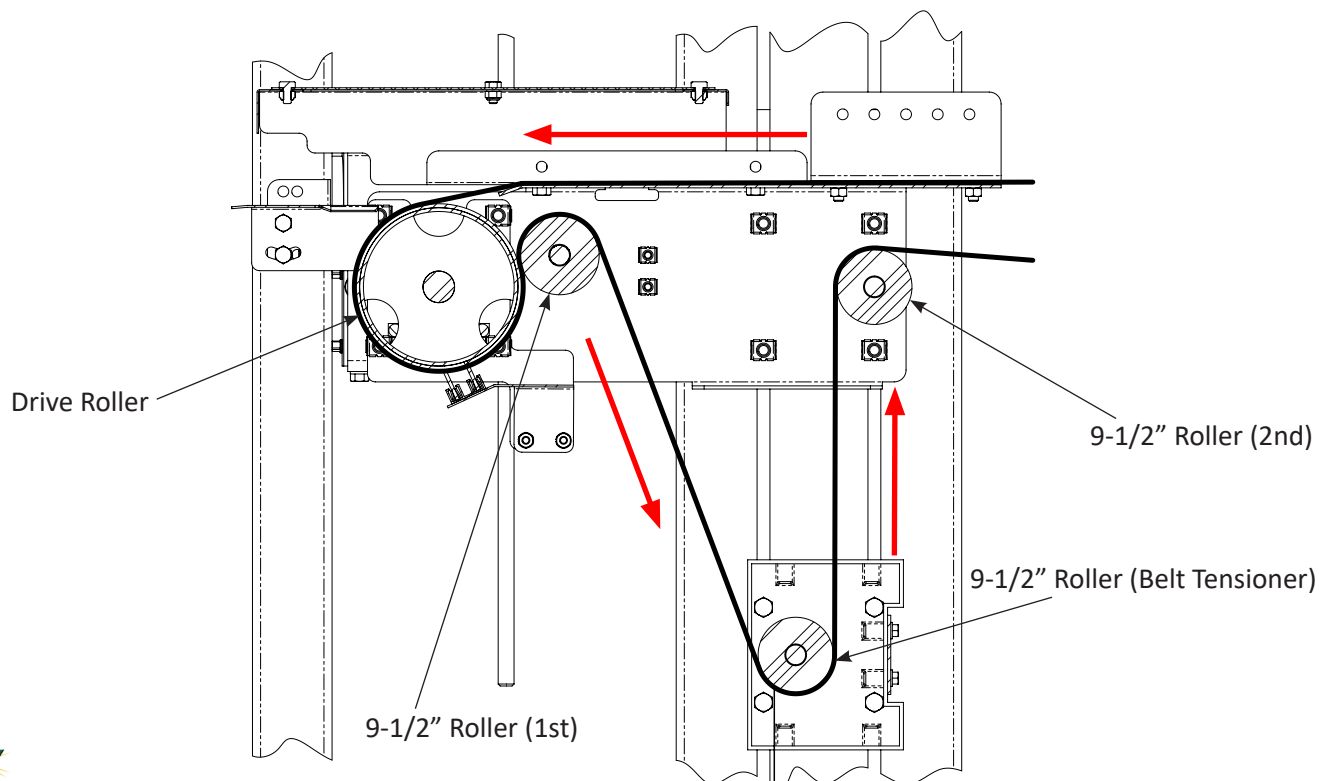
Egg Belt Installation - Feeding the belt, continued

Leave about 9" of belt exposed for splicing. At the collection table or belt drive, feed the belt through the drive roller cover around the drive roller. Then feed the belt through the first 9-1/2" roller, around the belt tensioner, and to the second 9-1/2" roller. Belt path direction and order is the same for both the collection table and the belt drive.

Side view of belt through Collection Table



Side view of belt through Belt Drive



Egg Belt Installation - Splicing

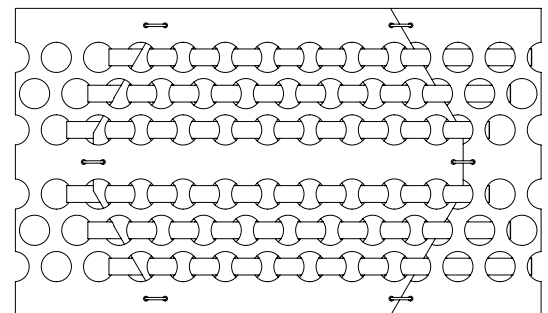
Remove slack from the belt to prepare for splicing. Pull the belt tight from the nest side until the belt tensioner is in the horizontal position, allowing 8" of overlap for splicing. Hold in position by using two "C" clamps with long 2" X 4"'s inside the trough and two short 2" X 4"'s under the trough on each side.

Apply a 1/4" bead of glue according to the glue pattern, keeping the bead about 1/4" away from the edge of the belt, as shown. From the time you start to apply the glue you have approximately 15 seconds "open time" to complete the splice. Position and press the belt from the table drive roller over the belt from the nest, making sure edges are lined up and even. The belt may stretch during early operation. It may be necessary to remove the excess stretch and resplice as needed.

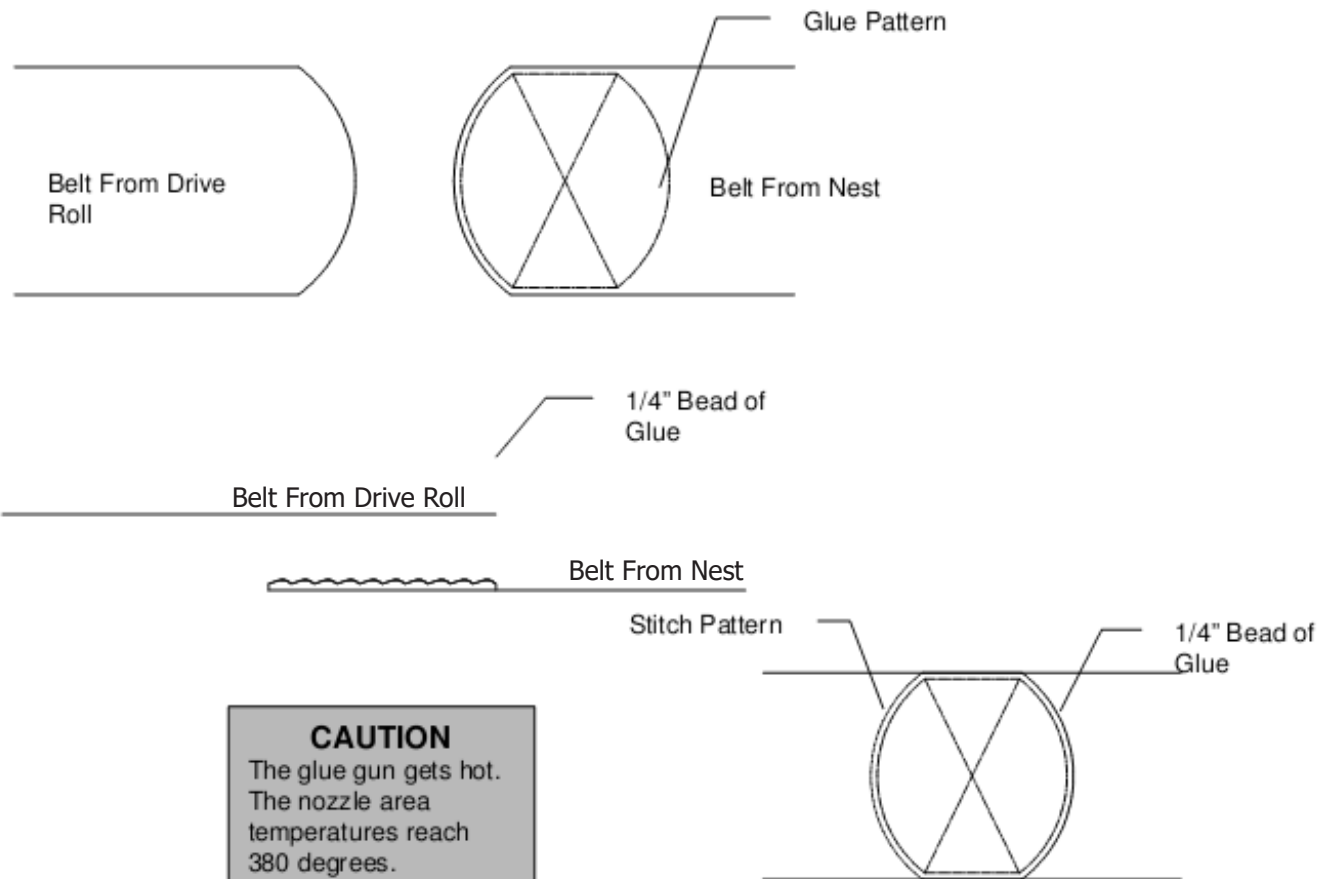
Position the splice under the belt clamp or heavy object. Leave the object on for approximately 2 minutes. Take the object off and allow the glue to harden for about 5 minutes before sewing.

Sew the belt according to the drawing. Sew the belt on the outside of the glue around the edges. Now make an "X" in the middle of the splice. Run a 1/4" bead of glue along the edge to prevent fraying. Allow the glue to harden for about 5 minutes before running your system.

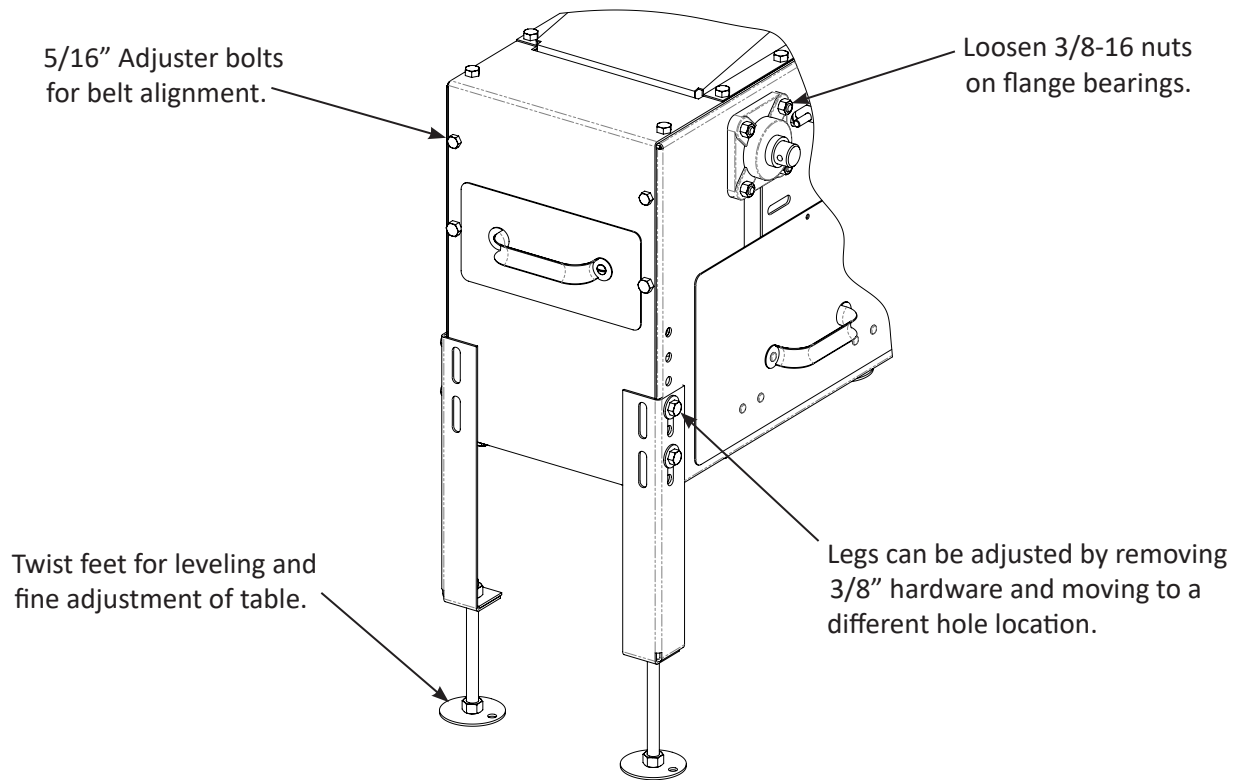
NOTE: If installing poly-belt (as shown to right), please follow instructions provided in 990180 Quick Sheet.



Spliced poly-belt: trimmed, laced & stiched



Egg Belt Alignment - Collection Table



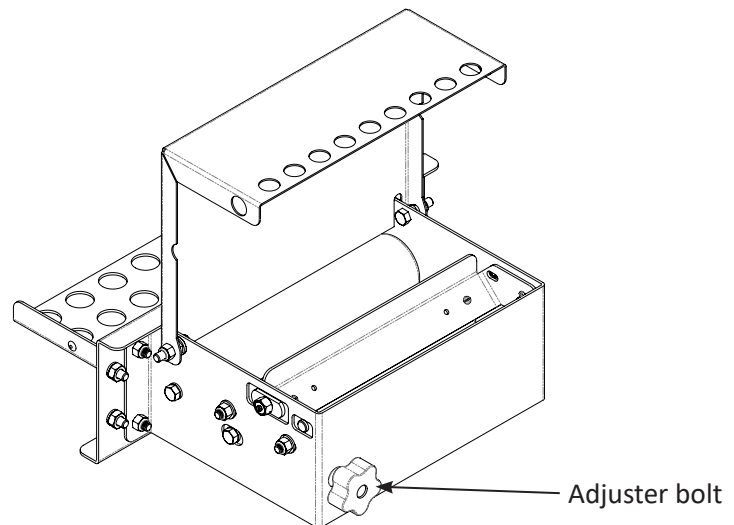
To align the belt at the collection table, loosen the flange bearing hardware (do not remove) and tighten or loosen the adjuster bolts as shown. Tighten the hardware once belt is aligned.

To align the belt at the belt return, loosen or tighten the adjuster bolts while the system is running at its slowest speed.

If the belt still does not align, check your system for straight alignment.

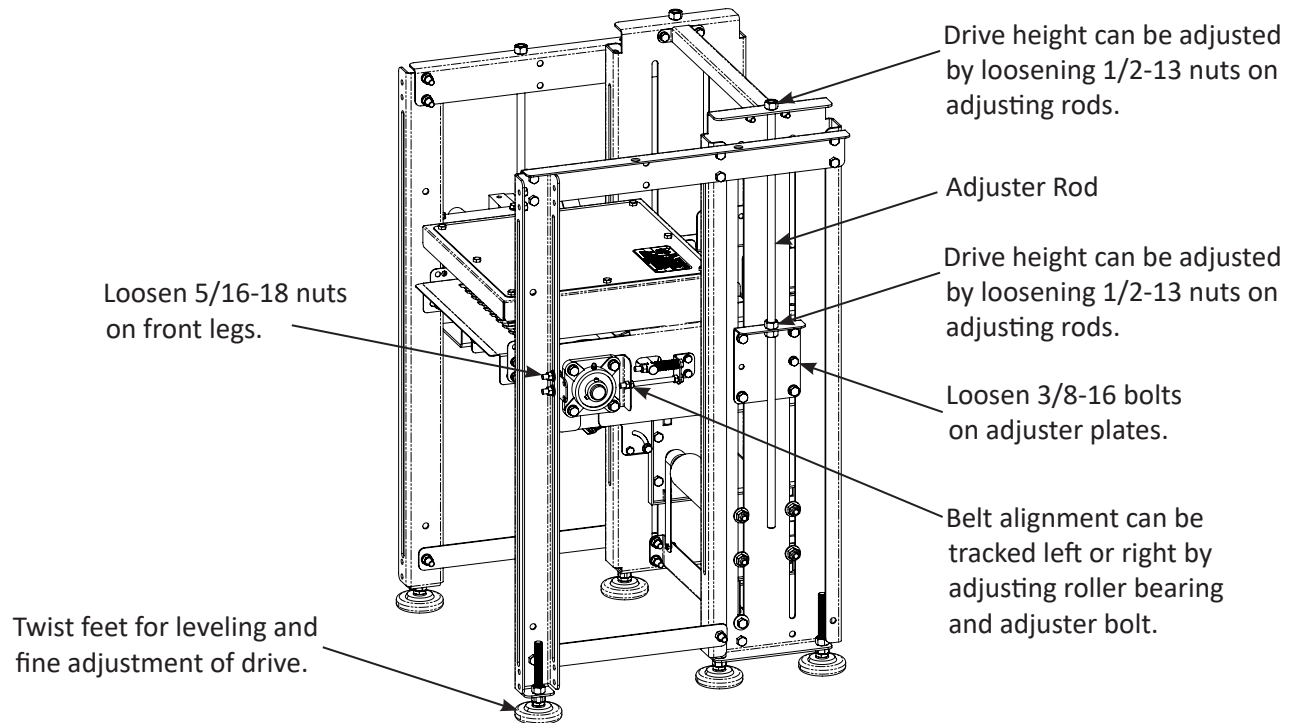
Be sure to tighten any hardware loosened or removed for adjustments.

Check belt alignment periodically to avoid premature belt wear.



Use extreme caution while the belt is running.
Do not wear loose clothing around unguarded movement of system.

Egg Belt Alignment - Belt Drive



To align the belt height at the belt drive, loosen the hardware securing the connector plates to the front legs, the side adjuster plates, and the adjuster rods (do not remove hardware), raise or lower the adjuster rods, and tighten or loosen the adjuster hardware as shown. Tighten the hardware once belt is aligned.

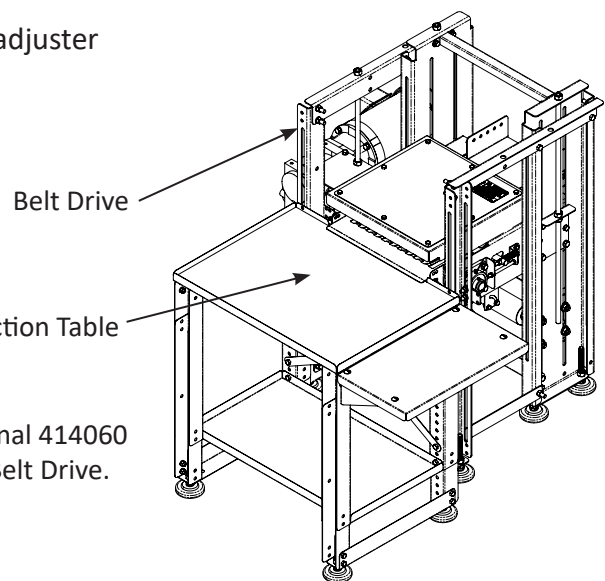
The belt alignment uses the adjuster bolt on the drive roller bearing to align the belt tracking left to right. To adjust belt alignment, loosen bolts on bearing first, then adjusting nuts on adjustment bolt to move the drive roller and bearing forward or backward to track the belt left or right. Be sure to tighten bearing bolts when belt is properly aligned.

To align the belt at the belt return, loosen or tighten the adjuster bolts while the system is running at its slowest speed.

If the belt still does not align, check your system for straight alignment.

Be sure to tighten any hardware loosened or removed for adjustments.

Check belt alignment periodically to avoid premature belt wear.

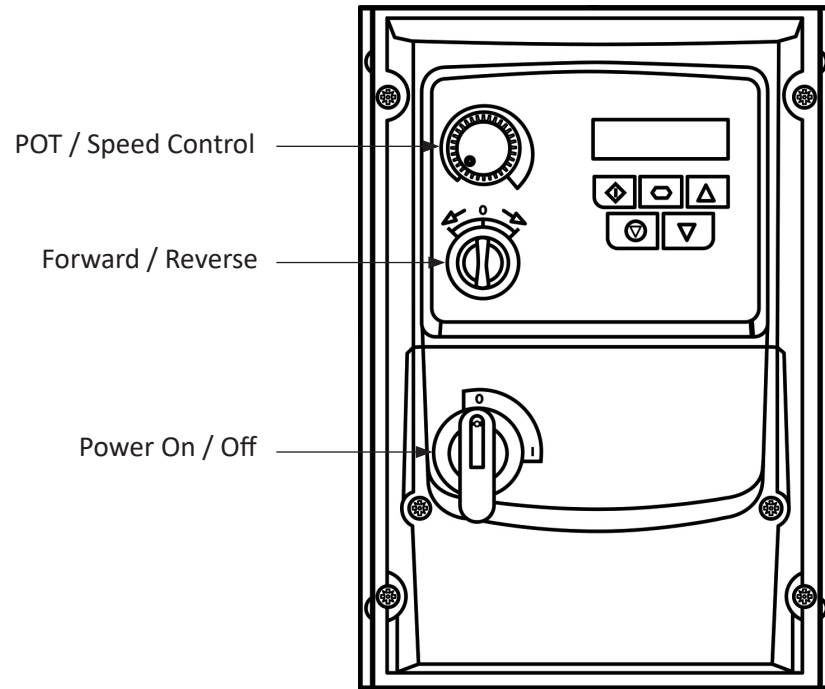


Proper alignment of optional 414060 Egg Collection Table and Belt Drive.



Use extreme caution while the belt is running.
Do not wear loose clothing around unguarded movement of system.

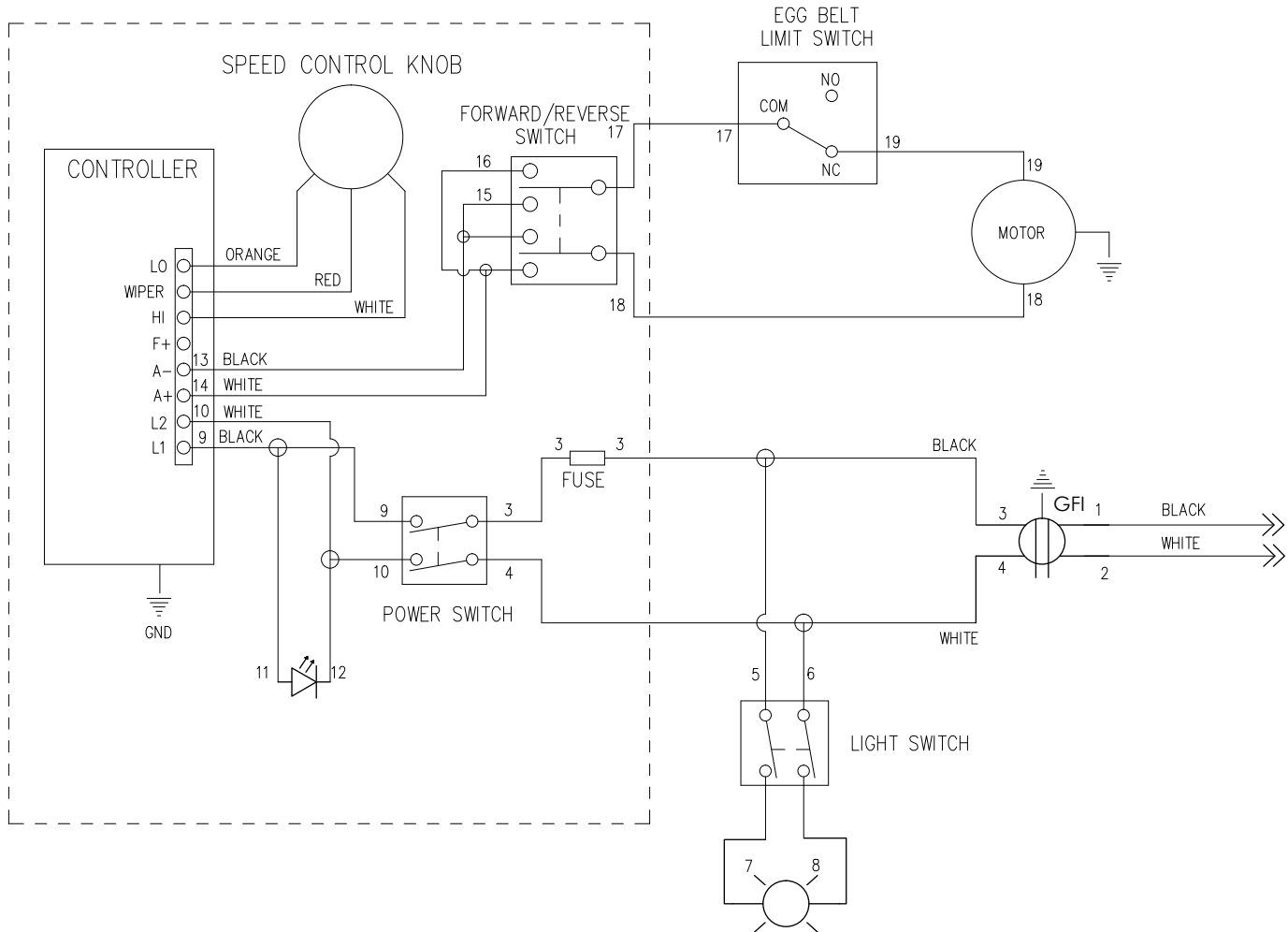
Belt Drive Speed Control



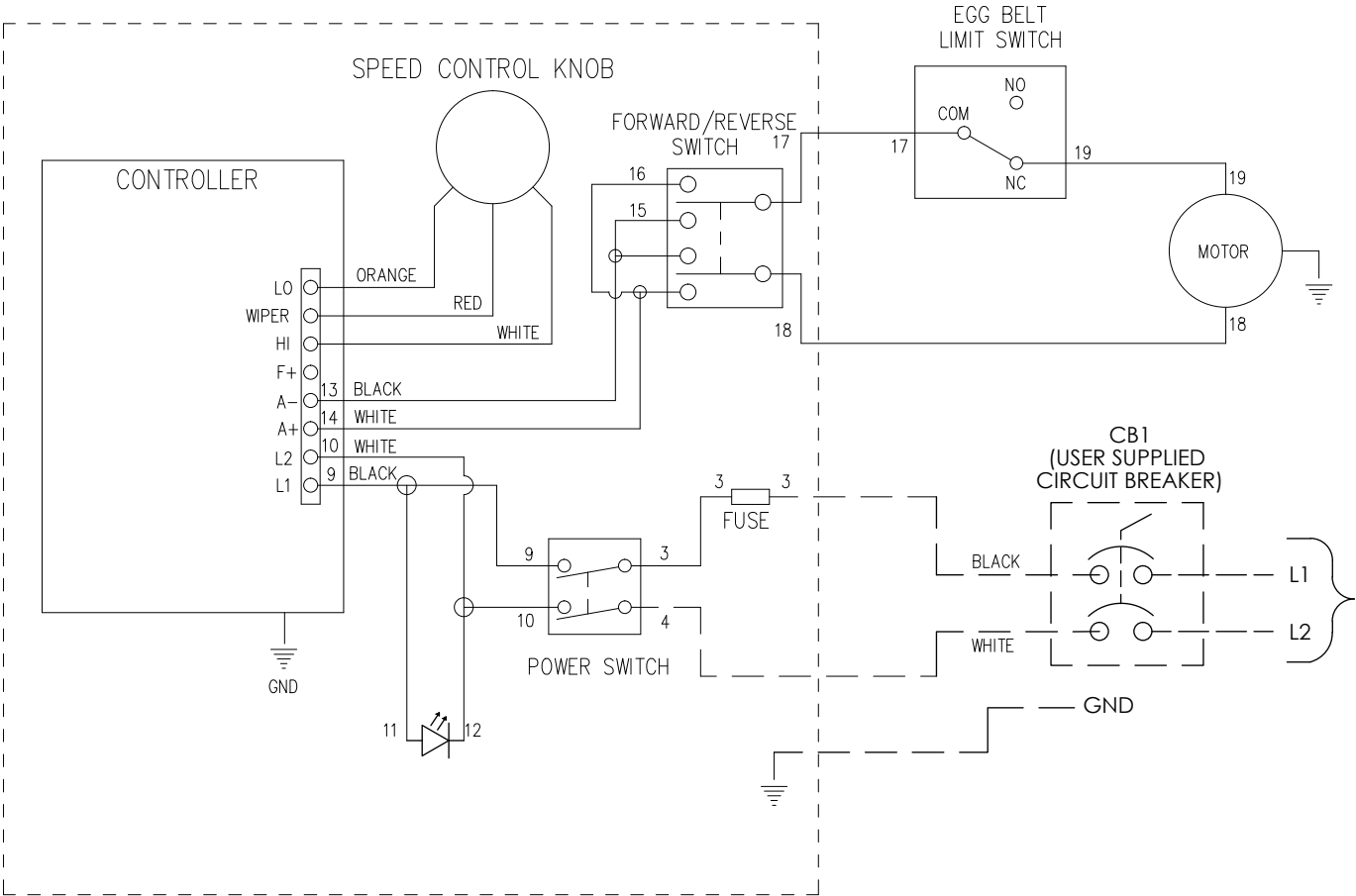
Troubleshooting Guide

Problem	Possible Cause	Corrective Action
Table will not run and overhead light does not turn on.	Ground fault receptacle test button.	Push reset button on receptacle.
	No power from controller.	Be sure switch is in the ON position.
		Check fuse in controller, replace with 8 amp fuse for 1/2 hp units and 12 amp fuse for 3/4 hp units if necessary.
	Belt direction toggle switch.	Be sure toggle switch on controller is either up or down.
Motor does not run but overhead light is on.	Belt tensioner is against the safety switch.	Check for stretched belt or torn belt. Belt stretch is normal and expected during the first few weeks of operation. Cut belt shorter and sew back together as stated in manual.
Motor runs but roller does not turn.	Chain tensioner too loose.	Loosen bolt on chain tensioner and pull tensioner until chain is tight, and retighten bolt.
Belt running in wrong direction.	Belt direction toggle switch.	Flip toggle switch on controller in opposite direction.
Belt slipping on drive roll.	Not enough pressure on pinch roller.	Adjust nuts on pinch roll spring tensioner brackets.
	Belt is stretched.	Belt stretch is normal and expected during the first few weeks of operation. Cut belt shorter and sew back together as stated in manual.
Belt not tracking straight.	Drive roller needs adjusting.	Loosen bolts on outside bearings and turn adjustment bolts on front of table until belt tracks straight, then retighten bearing bolts.
Table has excessive vibrations and noise.	Chain tensioner too loose.	Loosen bolt on chain tensioner and pull tensioner until chain is tight, and retighten bolt.
	Controller settings need adjusted. (See controller instruction manual for correct adjustment procedures).	For a 1/2 hp motor, viewing control board with dials on left side of board, the bottom dial should be set approximately 8 o'clock. The next dial up should be set approximately 7 o'clock. The next dial should be set approximately 8 o'clock. The top dial should be set approximately 5 o'clock.
		For a 3/4 hp motor, set the bottom dial at 7 o'clock, next dial at 7 o'clock, next dial at 10 o'clock, and top dial at 5 o'clock.

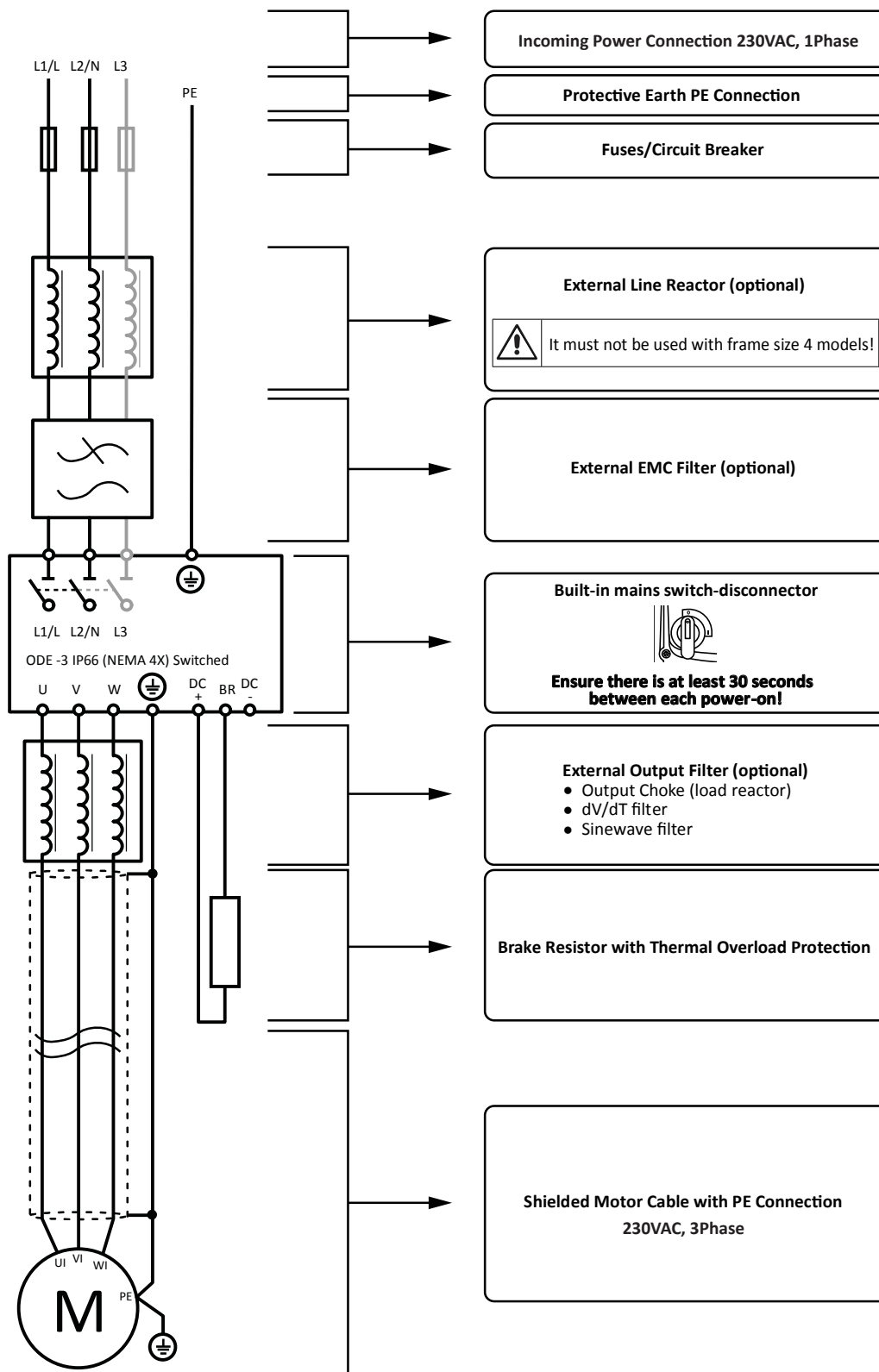
Wiring Schematic, Egg Collection Table, 115V



Wiring Schematic, Egg Collection Table, 230V



Wiring Schematic, Belt Drive Speed Control, 230V

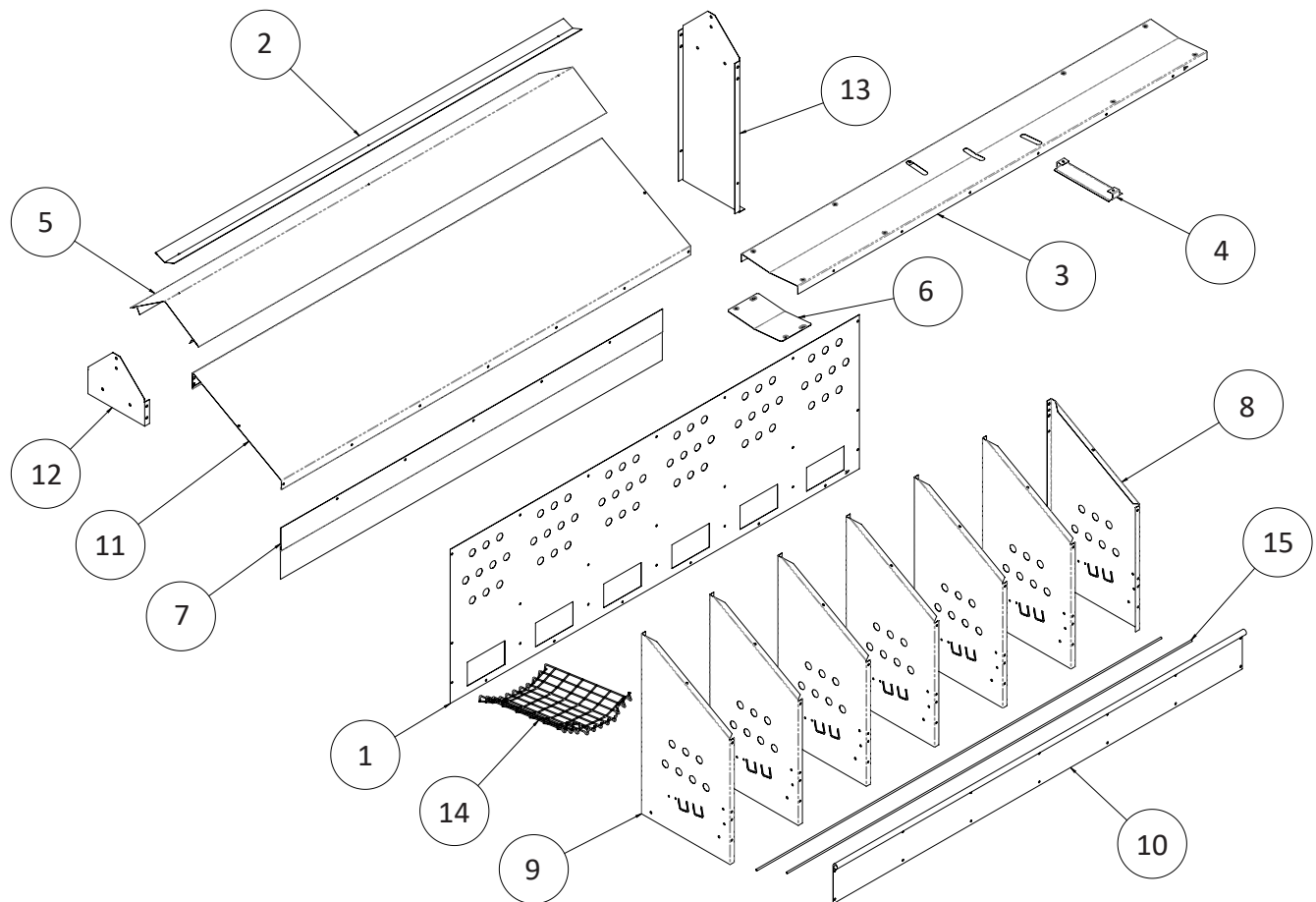


Parts Pages

Automatic Nest Components

ITEM #	PART #	QTY	DESCRIPTION	ITEM #	PART #	QTY	DESCRIPTION
413000 AUTOMATIC NEST - PARTS				413000 AUTOMATIC NEST - PARTS			
1	410753	2	BACK PANEL	9	413002	12	LEFT NEST PARTITION
2	410757	1	ANTI-ROOST PLATE	10	413003	2	FRONT PANEL
3	410758	1	EGG TROUGH	11	413004	2	NEST TOP
4	410759	2	BELT GUIDE	12	413007	1	MIDDLE BRACE
5	410760	1	TOP CENTER ROOF	13	413008	1	END BRACE
6	410764	2	EGG TROUGH JOINER PLATE	-	413011	1	HARDWARE BAG
7	410770	2	CURTAIN ASSEMBLY	14	413053	12	NEST BOTTOM
8	413001	2	RIGHT NEST PARTITION	15	413067	4	59.375" GALV WIRE ROD

NOTE: Components in hardware bag 413011 not depicted in exploded view of nest assembly. Refer to assembly instructions for placement of hardware.

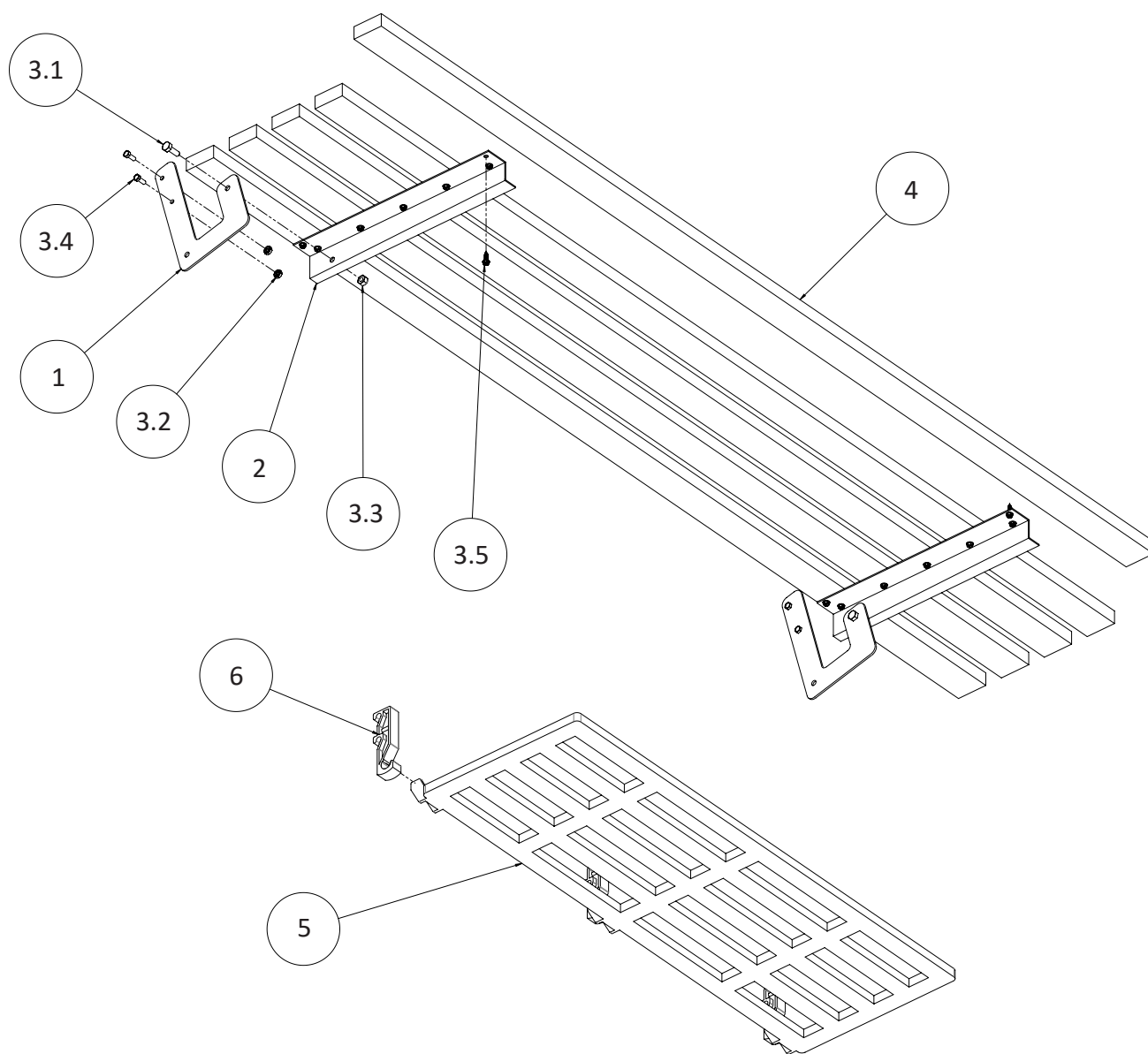


NOTE: The 413003 front panels are standard for nests 413000 and 413000-LB. The 413056 nest uses 413059 front panels instead of 413003 front panels.

Perch Options

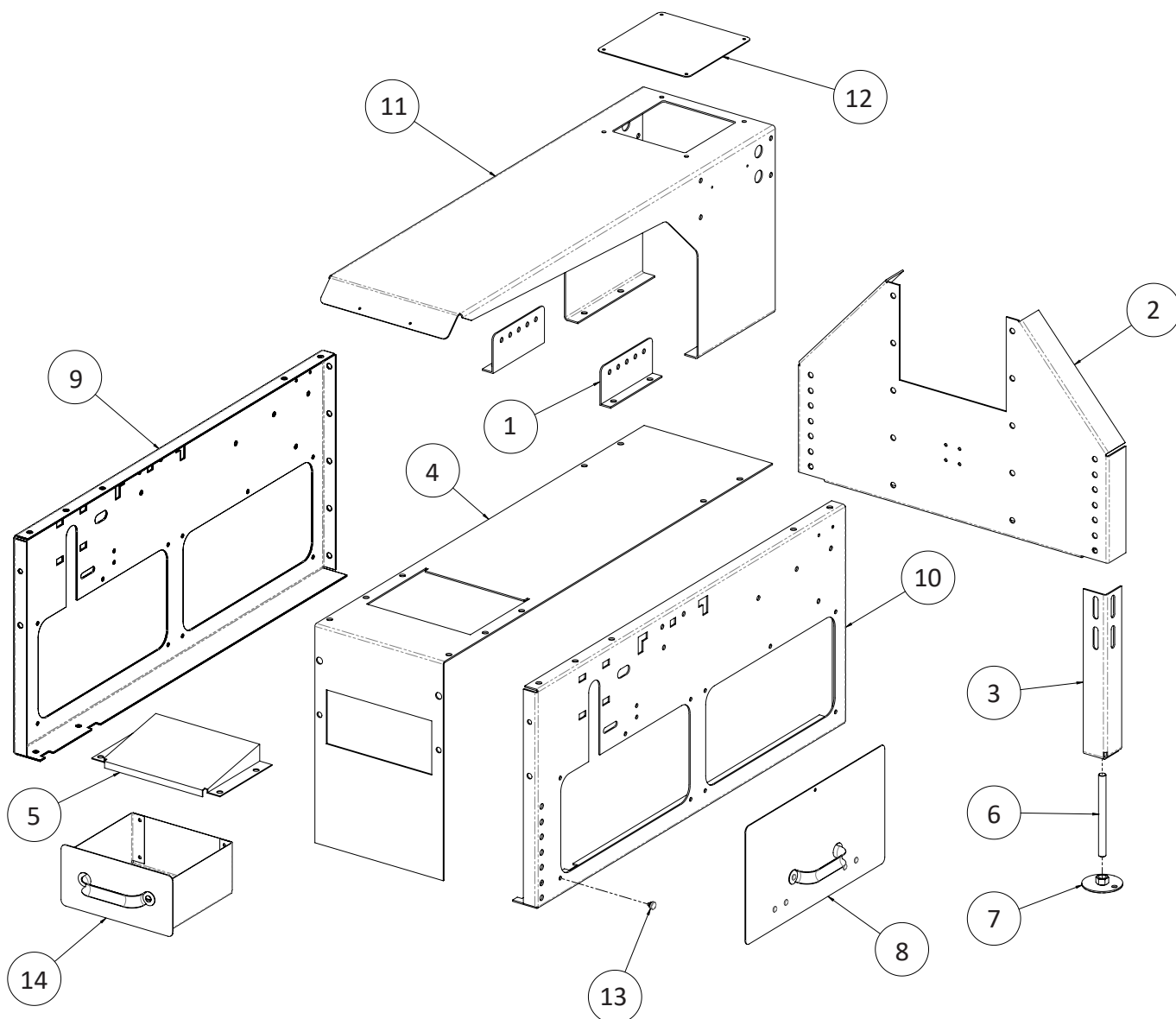
ITEM #	PART #	QTY	DESCRIPTION
413060 SET OF GALVANIZED PERCH ARMS - PARTS			
1	410630	4	"J" ARM SUPPORT
2	410631	4	PERCH ARM - RAMP STYLE
3	413019	1	HARDWARE BAG
3.1	010617	4	1/4-20 X 3/4" HEX BOLT
3.2	012408	8	#10-24 HEX LOCKNUT
3.3	012793	4	1/4-20 NYLOCK NUT
3.4	012795	8	#10-24 X 1/2" HEX HEAD SCREW
3.5	410635	28	#8 X 5/8" SHEET METAL SCREW

ITEM #	PART #	QTY	DESCRIPTION
413065 SET OF 10 PERCH BOARDS - PARTS			
4	410632	10	PERCH BOARD
410618 OPTIONAL PLASTIC PERCH KIT - PARTS			
5	410619	4	PLASTIC PERCH RAMP & CLIP
6	410620	12	DOUBLE NOTCH HANGER



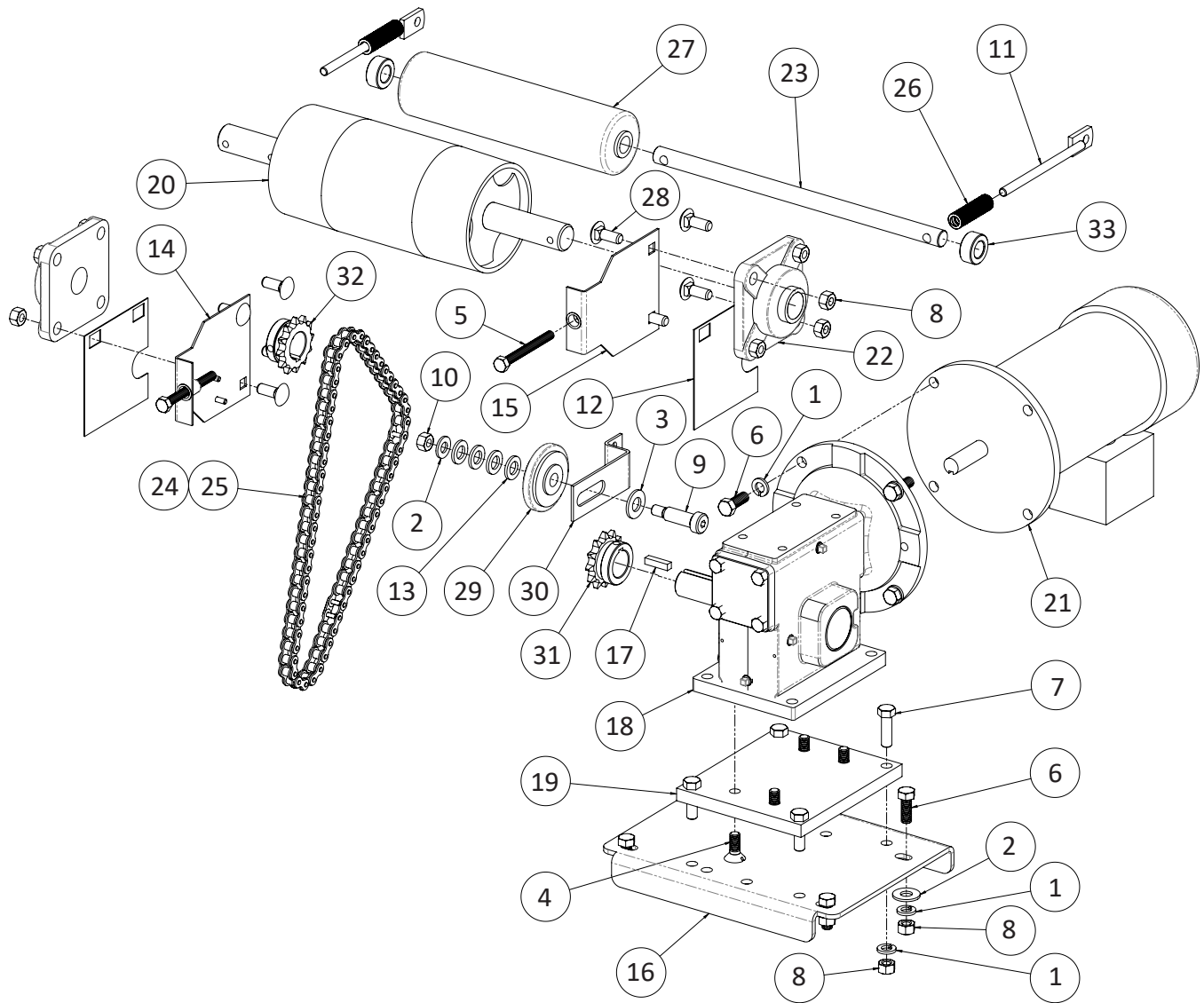
Collection Table Components

ITEM #	PART #	QTY	DESCRIPTION	ITEM #	PART #	QTY	DESCRIPTION
COMMON COLLECTION TABLE - PARTS				COMMON COLLECTION TABLE - PARTS			
1	410740	2	RAIL BRACKET	8	410950	4	ACCESS DOOR
2	410773	1	TABLE BACK PANEL	9	425005	1	LEFT TABLE SIDE
3	410775	4	TABLE LEG	10	425006	1	RIGHT TABLE SIDE
	410858	4	LONG TABLE LEG <i>(optional)</i>	11	425010	1	TABLE RACK
4	410783	1	TOP FRONT PANEL	12	425015	1	JUNCTION BOX COVER
5	410813	1	DRIVE ROLL COVER	13	425036	16	RUBBER BUMPER
6	410895	4	ADJUSTABLE LEG ROD	14	425057	1	LITTER DRAWER
7	410897	4	FOOT ASSEMBLY WITH NUT				



NOTE: Factory assembled hardware not depicted in exploded view of Egg Collection Table. Refer to assembly instructions for location and types of adjustable hardware.

Collection Table - Motor Components: Exploded View



Collection Table - Motor Components: Parts List

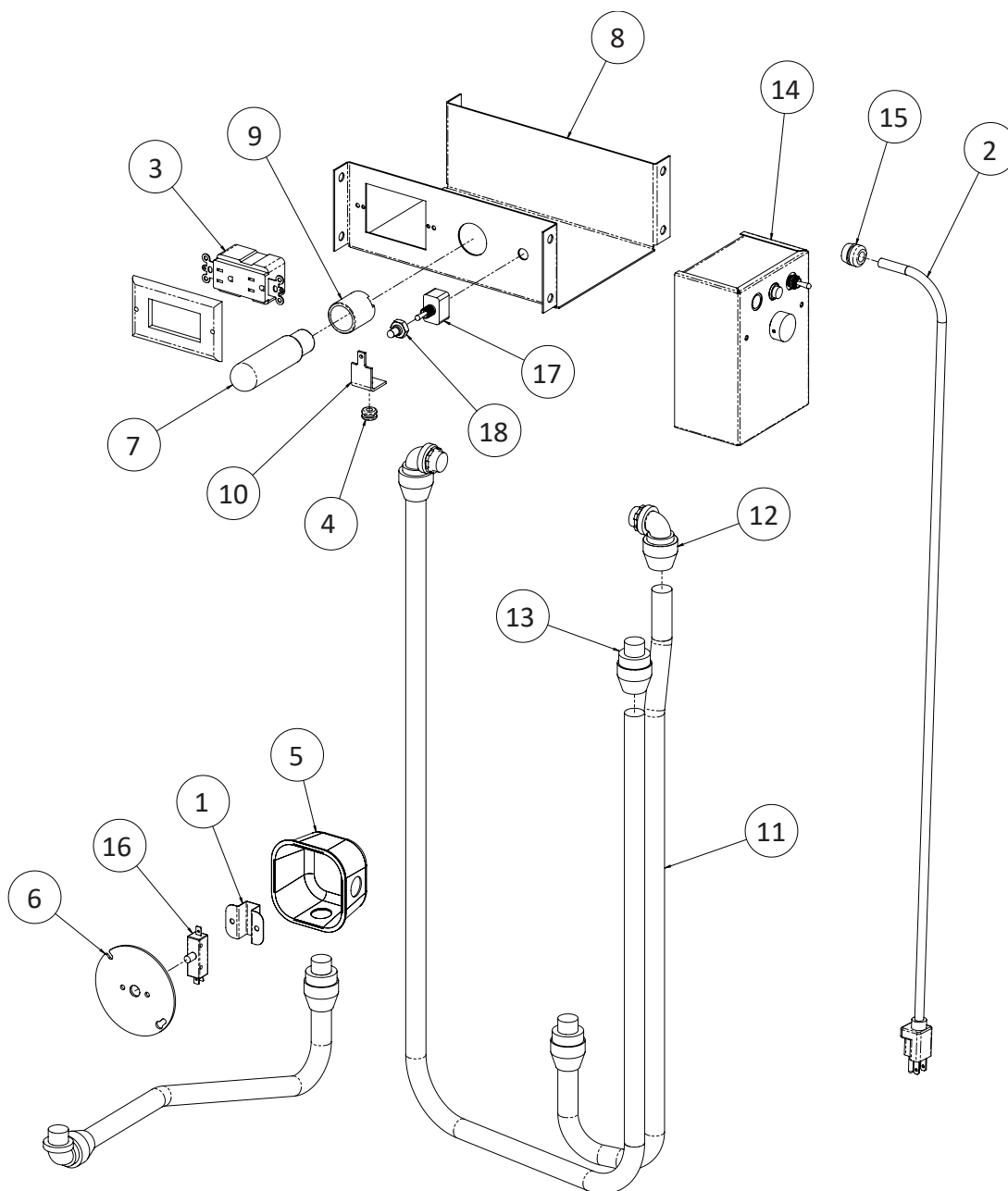
ITEM #	PART #	QTY	DESCRIPTION
COLLECTION TABLE - MOTOR PARTS			
1	010253	12	3/8" LOCK WASHER
2	010430	5	3/8" FLAT WASHER
3	010437	1	1/2" FLAT WASHER
4	010441	4	3/8-16 X 1" FLAT HEAD SCREW
5	010654	2	5/16" X 3" HEX BOLT
6	010664	8	3/8" X 1" HEX BOLT
7	010666	4	3/8" X 1-1/4" HEX BOLT
8	011115	16	3/8-16 HEX NUT
9	011385	1	1/2" X 1-1/4" SHOULDER BOLT
10	011386	1	3/8-16 REVERSE LOCK HEX NUT
11	410745	2	PINCH ROLLER SPRING BRACKET
12	410838	2	CHAIN GUARD
13	410863	4	.51 ID / .875 OD WASHER
14	410975	1	LEFT BOLT TENSIONER BRACKET
15	410976	1	RIGHT BOLT TENSIONER BRACKET
16	410987	1	TABLE MOTOR MOUNT
17	412135	1	1/4" X 1/4" X 1" KEY
18	412528	1	REDUCER
19	412529	1	MOUNTING PLATE
20	420440	1	DRIVE ROLLER ASSEMBLY
21	420449	1	MOTOR 1/2HP 90VDC
	415408	1	MOTOR 3/4HP 90VDC
	410268	1	MOTOR 3/4HP 180VDC
22	420451	2	BEARING
23	420456	1	5/8" X 12-5/8" SHAFT
24	420462	3	#40 ROLLER CHAIN
25	420463	1	#40 MASTER LINK
26	420464	2	PINCH ROLLER SPRING
27	420465	1	9.5" ROLLER
28	425019	8	3/8" X 1-1/4" CARRIAGE BOLT
29	425053	1	ROLLER CHAIN TIGHTENER
30	425066	1	CHAIN IDLE SUPPORT BRACKET
31	425083	1	SPROCKET, #40 16T ROLLER CHAIN
32	425084	1	SPROCKET W/HOLE, #40 16T ROLLER CHAIN
33	713414	2	5/8" LOCKING COLLAR

Note: If replacing motor 415408 (Item 21), then (1) 425045 (Item 12, next page) should also be ordered when replacing the motor.

Collection Table - Electronic Control Components

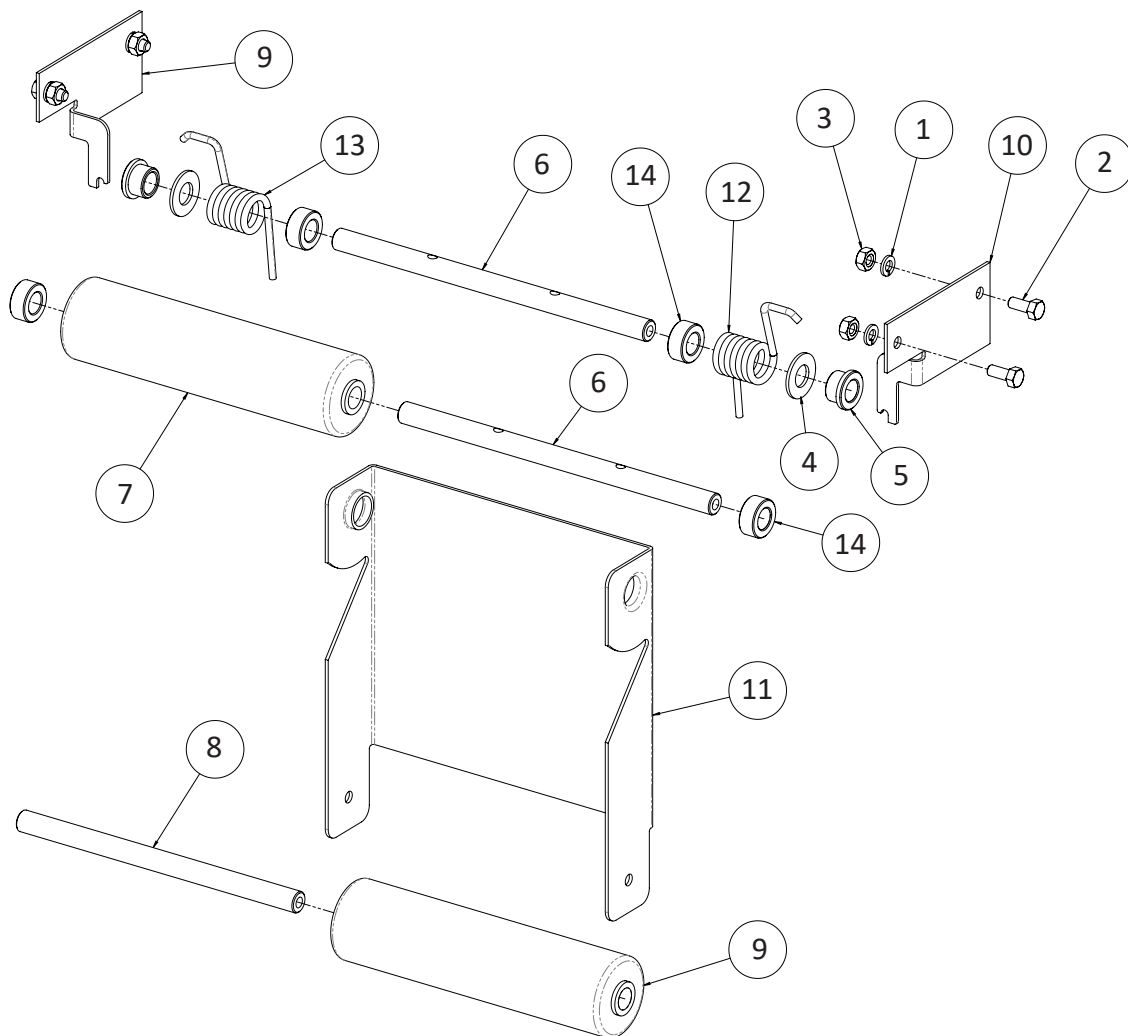
ITEM #	PART #	QTY	DESCRIPTION
COLLECTION TABLE - ELECTRONIC CONTROL PARTS			
1	410744	1	AUTO SHUTOFF SWITCH BRACKET
2	412191	1	120V ELECTRIC CORD
3	415411	1	GROUND FAULT INTERRUPTER
4	415441	1	RUBBER GROMMET
5	420469	1	4" JUNCTION BOX
6	420470	1	4" JUNCTION BOX COVER
7	425013	1	LIGHT BULB
8	425014	1	OUTLET SWITCH BRACKET
9	425017	1	LIGHT SOCKET
10	425018	1	LIGHT SOCKET BRACKET

ITEM #	PART #	QTY	DESCRIPTION
COLLECTION TABLE - ELECTRONIC CONTROL PARTS			
11	425044	12	1/2" FLEXIBLE TUBING
12	425045	3	1/2" 90 DEGREE CONNECTOR
13	425046	3	1/2" STRAIGHT CONNECTOR
14	425086	1	1/2HP 120V CONTROL
	425087	1	3/4HP 120V CONTROL
	425089	1	3/4HP 230V CONTROL
15	450404	1	STRAIN RELIEF
16	720017	1	SNAP ACTION SWITCH
17	723424	1	TOGGLE SWITCH
18	750657	1	TOGGLE SWITCH BOOT

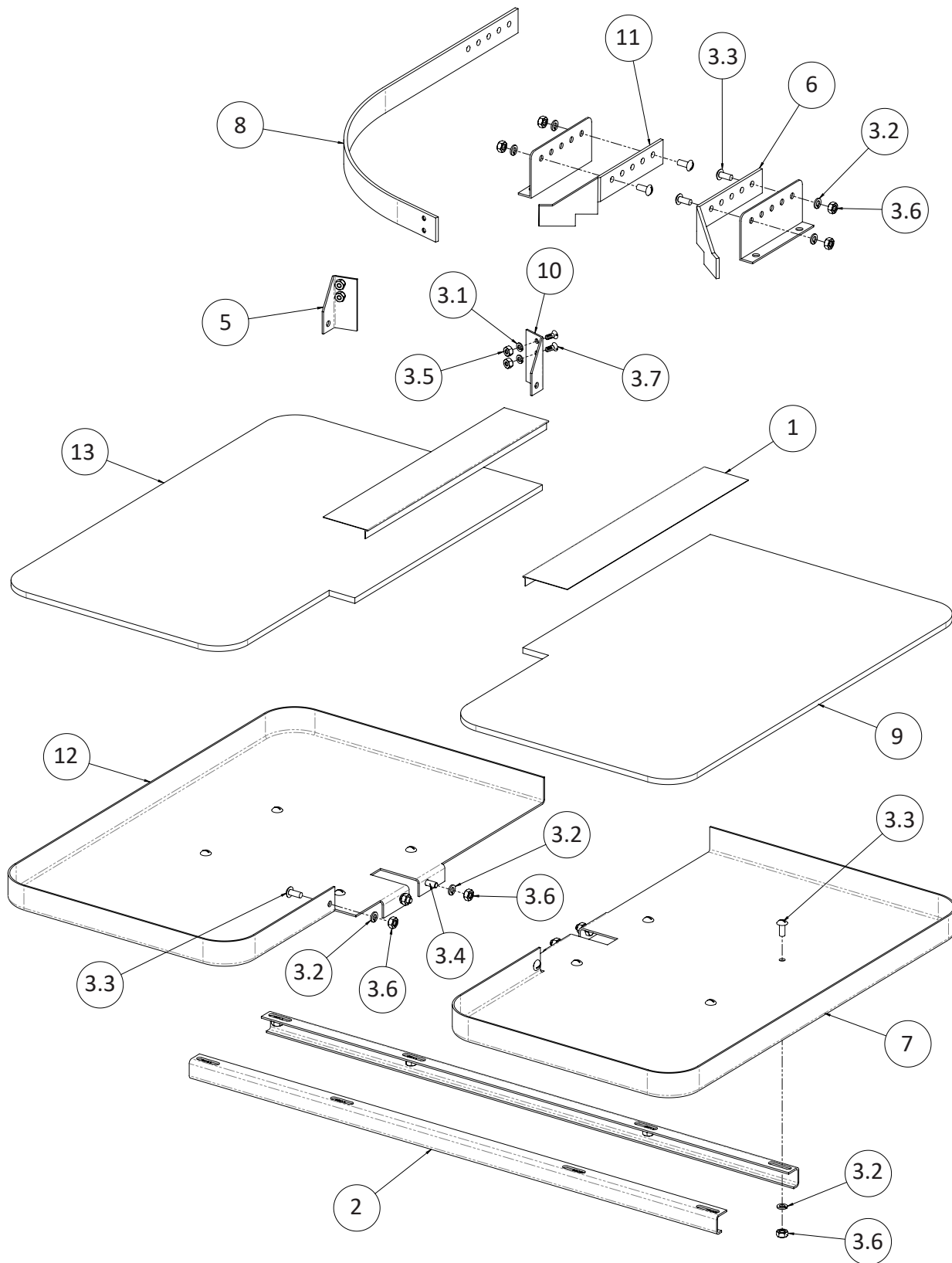


Collection Table - Tensioner Components

ITEM #	PART #	QTY	DESCRIPTION
COLLECTION TABLE - TENSIONER PARTS			
1	010252	4	5/16" LOCK WASHER
2	010643	4	5/16-18 X 3/4" HEX BOLT
3	011114	4	5/16-18 HEX NUT
4	012691	2	5/8" FLAT WASHER
5	415427	2	.627" X 5/8" BEARING
6	420448	2	5/8" X 10-5/8" SHAFT
7	420465	2	9-1/2" ROLLER
8	420485	1	5/8" X 9-9/16" SHAFT
9	425011	1	LEFT BELT TENSION BRACKET
10	425012	1	RIGHT BELT TENSION BRACKET
11	425043	1	TABLE BELT IDLER BRACKET
12	500482	1	RIGHT HANDLE LOCK SPRING
13	500492	1	LEFT HANDLE LOCK SPRING
14	713414	4	5/8" LOCKING COLLAR



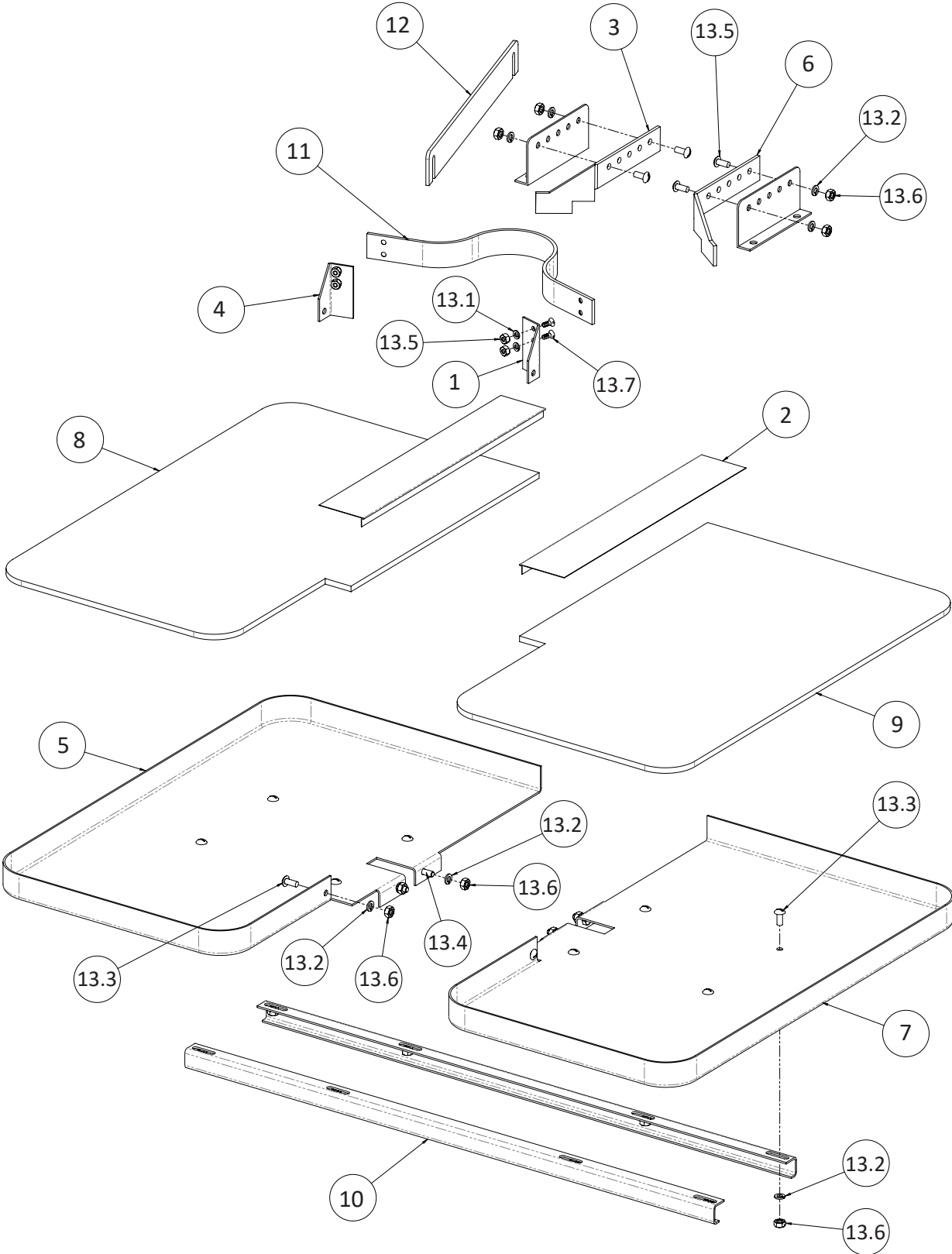
Left Hand and Right Hand Table Tray Components: Exploded View



Left Hand and Right Hand Table Tray Components: Parts List

ITEM #	PART #	QTY	DESCRIPTION
425028 AND 425029 - COMMON PARTS			
1	410739	2	EGG TRAY RAMP
2	410787	2	TRAY RAIL
3	425037	1	HARDWARE BAG
3.1	010251	2	1/4" LOCK WASHER
3.2	010252	11	5/16" LOCK WASHER
3.3	010542	9	5/16" X 3/4" TRUSS BOLT
3.4	010643	2	5/16-18 X 3/4" HEX BOLT
3.5	011113	2	1/4-20 HEX NUT
3.6	011114	11	5/16-18 HEX NUT
3.7	012744	2	1/4-20 X 5/8" FLAT HEAD BOLT
4	425054	6	VINYL EDGE TRIM (not shown)
425028 RIGHT HAND TABLE TRAY - PARTS			
5	410743	1	75 DEGREE RH RAIL BRACKET
6	410780	1	SHORT RIGHT HAND EGG GUIDE
7	410869	1	RIGHT HAND EGG TRAY
8	410910	1	RIGHT O/S EGG GUIDE
9	415456	1	RIGHT HAND PAD FOR TRAY
425029 LEFT HAND TABLE TRAY - PARTS			
10	410738	1	75 DEGREE LEFT HAND RAIL BRACKET
11	410742	1	SHORT LEFT HAND EGG GUIDE
12	410777	1	LEFT HAND EGG TRAY
8	410902	1	LEFT O/S EGG GUIDE
13	415455	1	LEFT HAND PAD FOR TRAY

Dual Table Tray Components: Exploded View



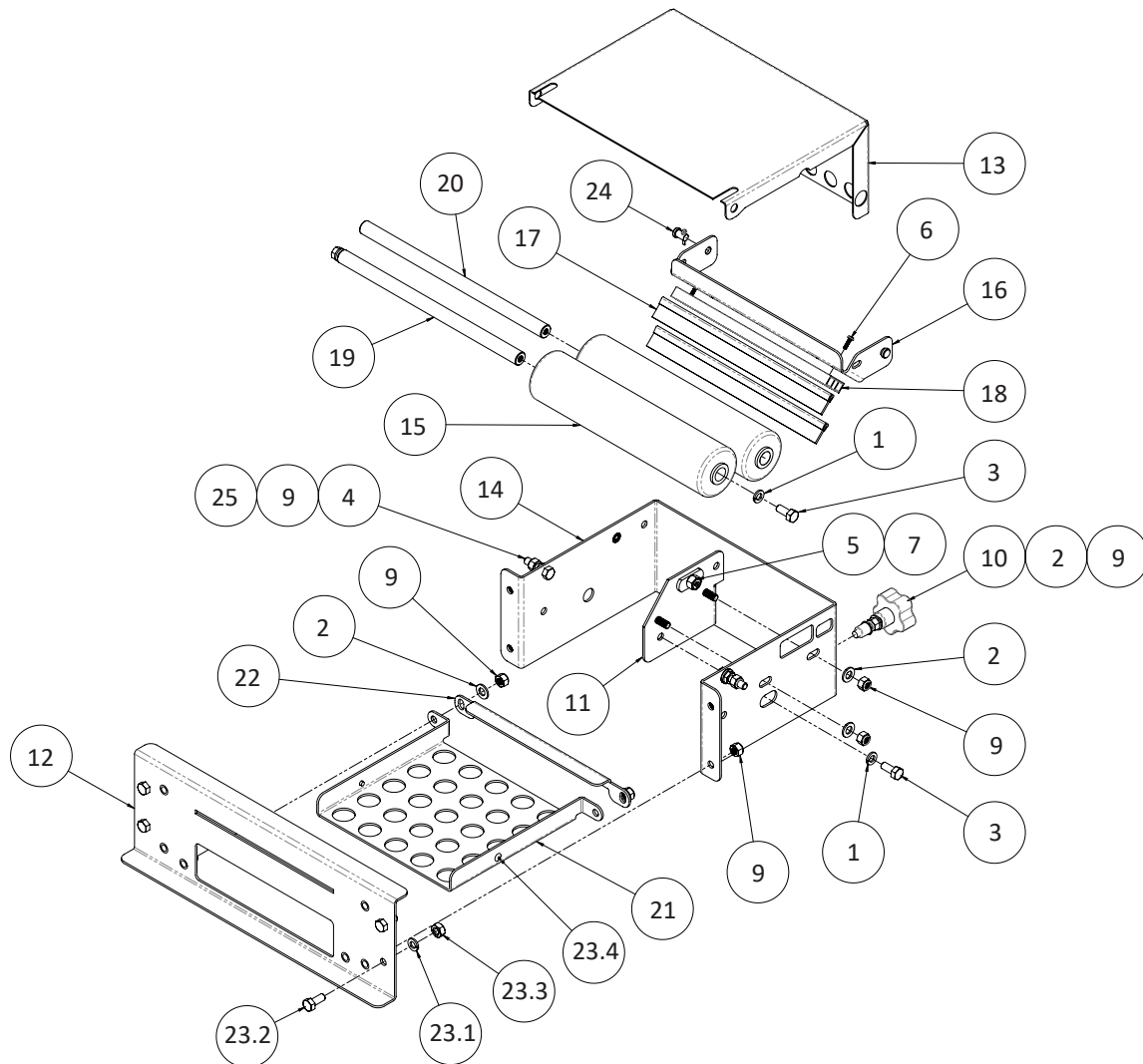
Dual Table Tray Components: Parts List

ITEM #	PART #	QTY	DESCRIPTION
425028 AND 425029 - COMMON PARTS			
1	410738	1	75 DEGREE LEFT HAND RAIL BRACKET
2	410739	2	EGG TRAY RAMP
3	410742	1	SHORT LEFT HAND EGG GUIDE
4	410743	1	75 DEGREE RIGHT HAND RAIL BRACKET
5	410777	1	LEFT HAND EGG TRAY
6	410780	1	SHORT RIGHT HAND EGG GUIDE
7	410869	1	RIGHT HAND EGG TRAY
8	415455	1	LEFT HAND PAD FOR TRAY
9	415456	1	RIGHT HAND PAD FOR TRAY
10	425016	2	DUAL TRAY RAIL
11	425034	1	DUAL TRAY GUIDE
12	425035	1	PLASTIC EGG GUIDE
13	425038	1	HARDWARE BAG
13.1	010251	4	1/4" LOCK WASHER
13.2	010252	18	5/16" LOCK WASHER
13.3	010542	14	5/16" X 3/4" TRUSS BOLT
13.4	010643	4	5/16-18 X 3/4" HEX BOLT
13.5	011113	4	1/4-20 HEX NUT
13.6	011114	18	5/16-18 HEX NUT
13.7	012744	4	1/4-20 X 5/8" FLAT HEAD BOLT
14	425054	6	VINYL EDGE TRIM (not shown)

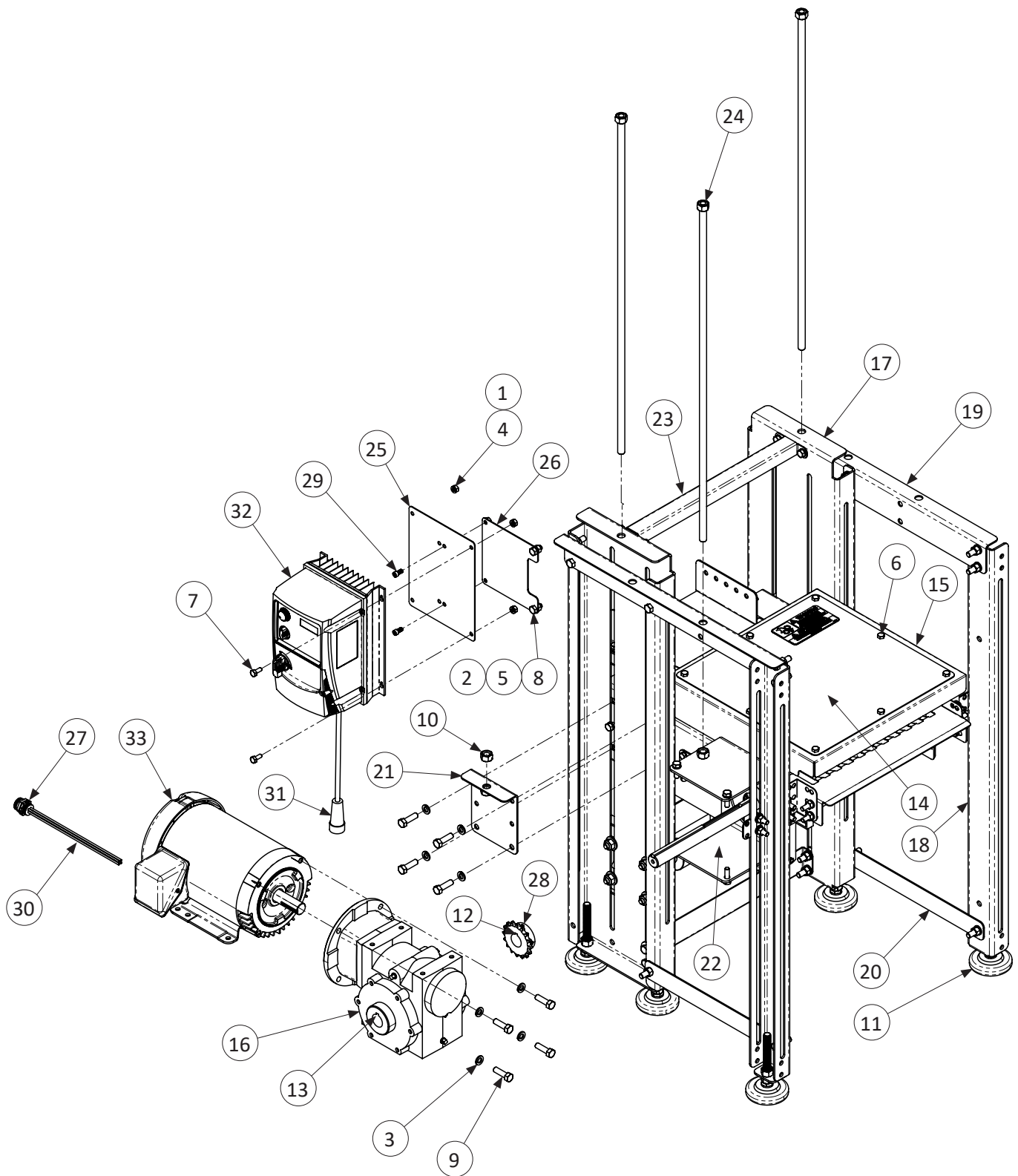
Dual Roller Belt Return Components

ITEM #	PART #	QTY	DESCRIPTION
413180 DUAL BELT RETURN - PARTS LIST			
1	010252	3	5/16" LOCK WASHER
2	010426	6	5/16" FLAT WASHER
3	010643	3	5/16-18 X 3/4" HEX BOLT
4	010647	2	5/16" X 1-1/4" HEX BOLT
5	011115	2	3/8-16 HEX NUT
6	011380	2	8-32 X 3/8" SCREW
7	011461	2	3/8" SPRING PLUNGER
8	012660	2	7/64" X 3/4" COTTER PIN
9	012789	11	5/16-18 NYLOCK NUT
10	412133	1	ADJUSTER KNOB
11	412173	1	RIGHT ADJUSTER BRACKET
12	413181	1	RETURN BACK PANEL
13	413182	1	RETURN BELT COVER
14	413183	1	RETURN HOUSING
15	413184	2	10-3/4" ROLLER

ITEM #	PART #	QTY	DESCRIPTION
413180 DUAL BELT RETURN - PARTS LIST			
16	413185	1	RETURN BRUSH BRACKET
17	413186	2	10-3/8" BRUSH
18	413187	1	9-1/2" BRUSH RETAINER
19	413188	1	DOUBLE ROLLER SHAFT
20	413189	1	SINGLE ROLLER SHAFT
21	413190	1	RETURN TROUGH BRACKET
22	413191	1	RETURN BELT SHIELD
23	413195	1	HARDWARE BAG
23.1	010252	4	5/16" LOCK WASHER
23.2	010643	4	5/16-18 X 3/4" HEX BOLT
23.3	011114	4	5/16-18 HEX NUT
23.4	012803	2	#64 X 3/16" POP RIVET
24	500478	2	5/16" X 1/2" CLEVIS PIN
25	501441	2	5/16-18 HEX NUT



Belt Drive - Motor Components: Exploded View

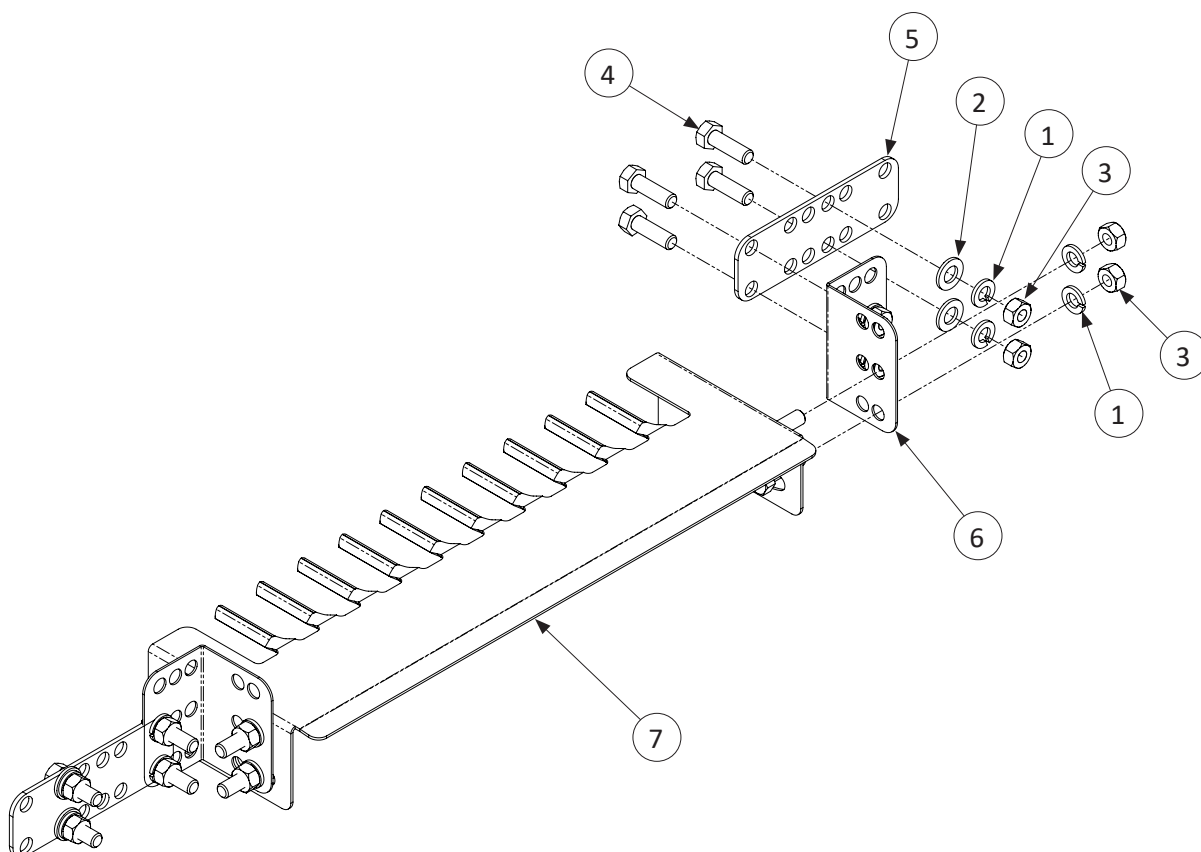


Belt Drive - Motor Components: Parts List

ITEM #	PART #	QTY	DESCRIPTION
BELT DRIVE - MOTOR PARTS			
1	010251	14	1/4" LOCK WASHER
2	010252	32	5/16" LOCK WASHER
3	010253	40	3/8" LOCK WASHER
4	010602	13	1/4-20 HEX NUT
5	010603	26	5/16-18 HEX NUT
6	010615	8	1/4-20 X 1/2" HEX BOLT
7	010616	12	1/4-20 X 5/8" HEX BOLT
8	010642	2	5/16-18 X 5/8" HEX BOLT
9	010666	48	3/8-16 X 1-1/4" HEX BOLT
10	011117	18	1/2-13 HEX NUT
11	412118	6	LEVELING FOOT PAD
12	412135	1	1/4" X 1/4" X 1" KEY
13	412523	1	1/4" X 1/4" X 5" KEY
14	414056	1	COVER, WINDOW ASSEMBLY, DRIVE ROLL
15	414058	1	COVER, HOUSING, DRIVE ROLL
16	414107	1	HOLLOW OUTPUT REDUCER
17	414109	2	BACK LEG, BELT DRIVE
18	414110	2	FRONT LEG, BELT DRIVE
19	414111	2	UPPER CONNECTOR LEG, BELT DRIVE
20	414112	2	LOWER CONNECTOR LEG, BELT DRIVE
21	414113	2	ADJUSTABLE LEG PLATE
22	414115	1	REDUCER MOUNT, BELT DRIVE
23	414172	1	12" STABILIZER, BELT DRIVE
24	414174	3	ADJUSTING ROD, BELT DRIVE
25	414187	1	DRIVE MOUNT, NEST
26	414188	1	DRIVE MOUNT SUPPORT, NEST
27	420473	1	1/2" CONDUIT NUT
28	425083	1	SPROCKET, #40 ROLLER CHAIN
29	690340	2	1/4-20 X 1/2" SOCKET BOLT
30	921968	1	4 PI MALE RECEPTACLE, MALE
31	921972	1	6-1/2' CABLE VFD ASSEMBLY
32	922002	1	VFD, 200-240V, 7.5A, 1PH IN
33	980149	1	MOTOR, 1 HP, 143TC, TEFC, 3 PH

Belt Drive - Transfer Components

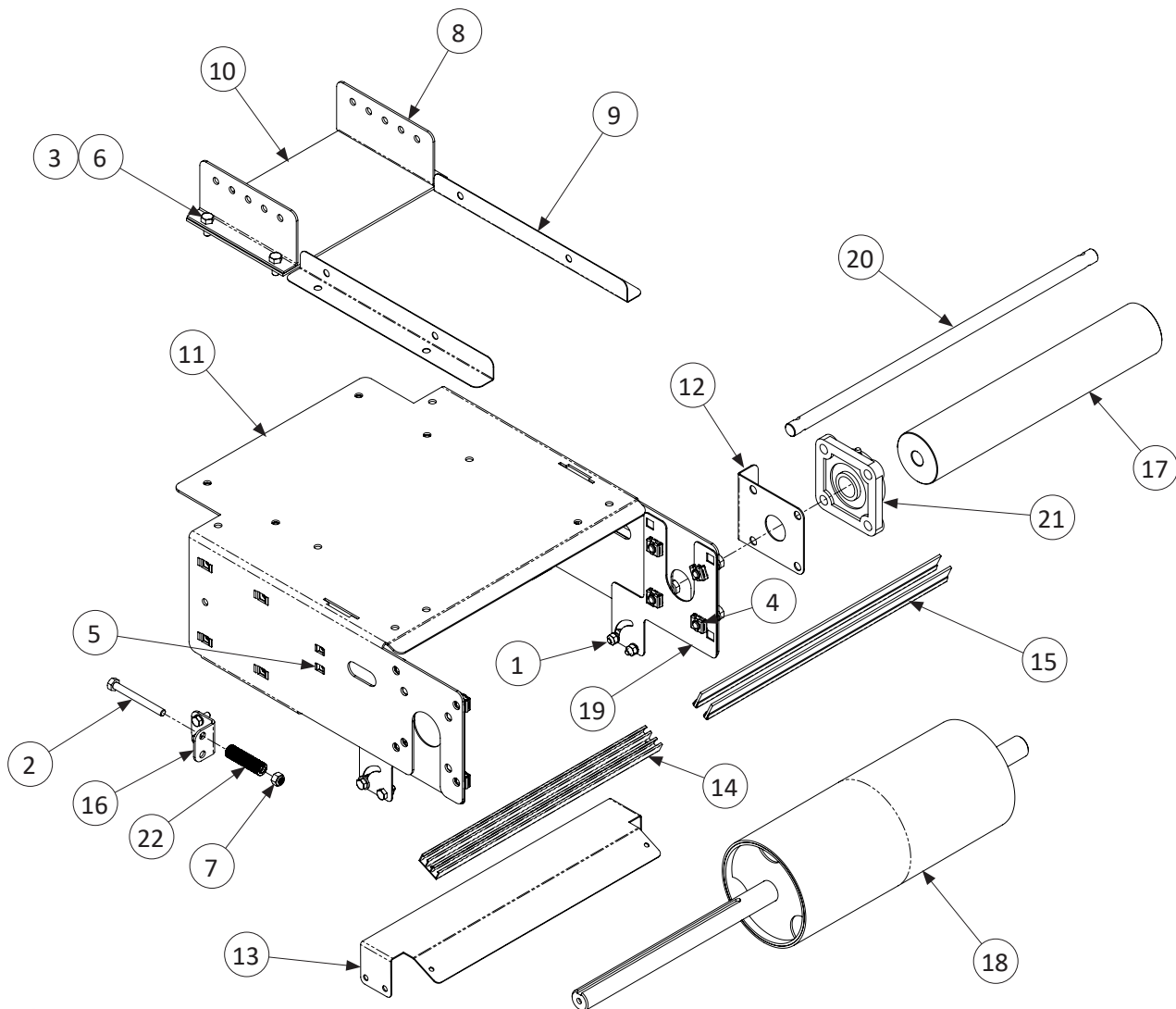
ITEM #	PART #	QTY	DESCRIPTION
BELT DRIVE - TRANSFER PARTS			
1	010252	32	5/16" LOCK WASHER
2	010426	4	5/16" FLAT WASHER
3	010603	26	5/16-18 HEX NUT
4	010645	26	5/16-18 X 1" HEX BOLT
5	414121	2	DRIVE BELT CONNECTOR
6	414162	2	ELEVATOR TRANSFER BRACKET
7	414163	1	ELEVATOR TRANSFER PLATE



Belt Drive - Drive Roller Components

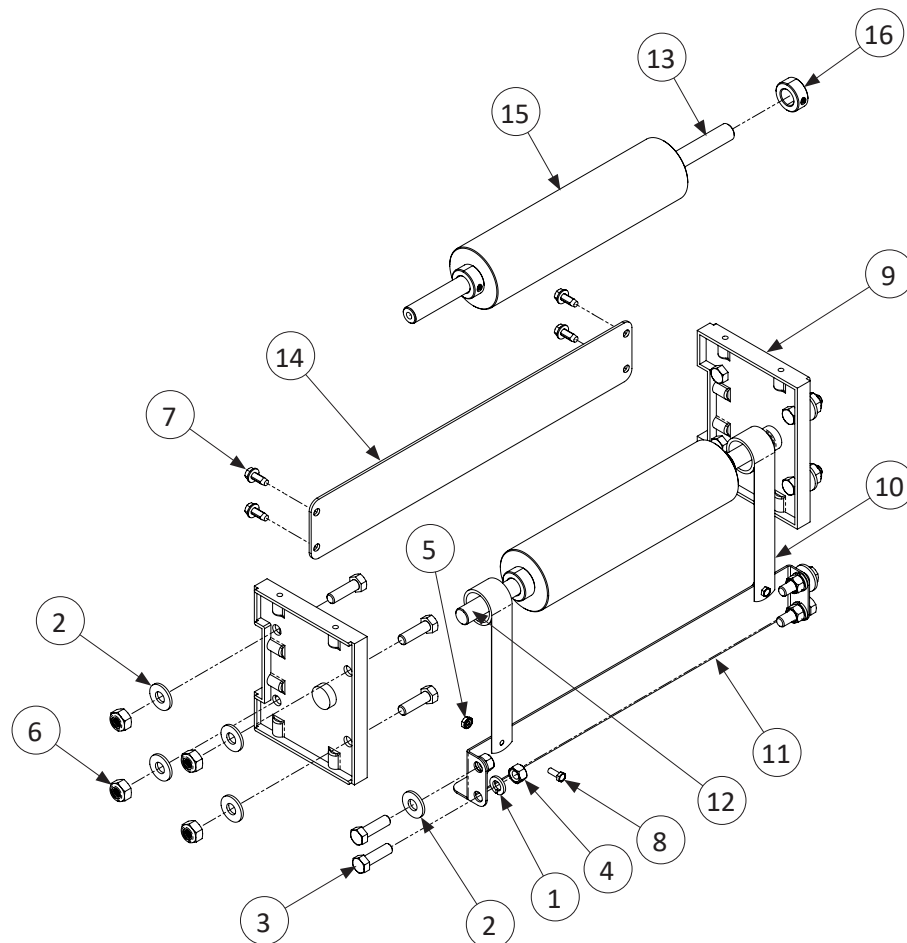
ITEM #	PART #	QTY	DESCRIPTION
BELT DRIVE - DRIVE ROLLER PARTS			
1	010424	2	1/4" FLAT WASHER
2	010654	2	5/16-18 X 3" HEX BOLT
3	011231	4	5/16-18 X 3/4" HEX BOLT
4	011405	16	3/8-16 RETAINER NUT
5	011407	4	1/4-20 RETAINER NUT
6	012781	4	5/16-18 HEX NUT
7	012789	2	5/16-18 NYLOCK NUT
8	410740	2	RAIL BRACKET
9	413467	2	EGG BELT DRIVE RAIL
10	413468	1	8" INSULATOR TROUGH PLATE
11	414106	1	NEST HOUSING, BELT DRIVE

ITEM #	PART #	QTY	DESCRIPTION
BELT DRIVE - DRIVE ROLLER PARTS			
12	414116	1	ADJUSTER PLATE, DRIVE ROLL
13	414117	1	BRUSH RETAINER BRACKET
14	414118	1	BRUSH RETAINER
15	414119	2	12" BRUSH
16	414120	2	PINCH ROLL SPRING PLATE
17	414122	1	12" PINCH ROLLER, DRIVE BELT
18	414124	1	12" DRIVE ROLLER, DRIVE BELT
19	414128	2	ADJUSTER MOUNT PLATE
20	414182	1	PINCH ROLLER SHAFT
21	420451	1	1" FLANGE BEARING
22	420464	2	PINCH ROLLER SPRING



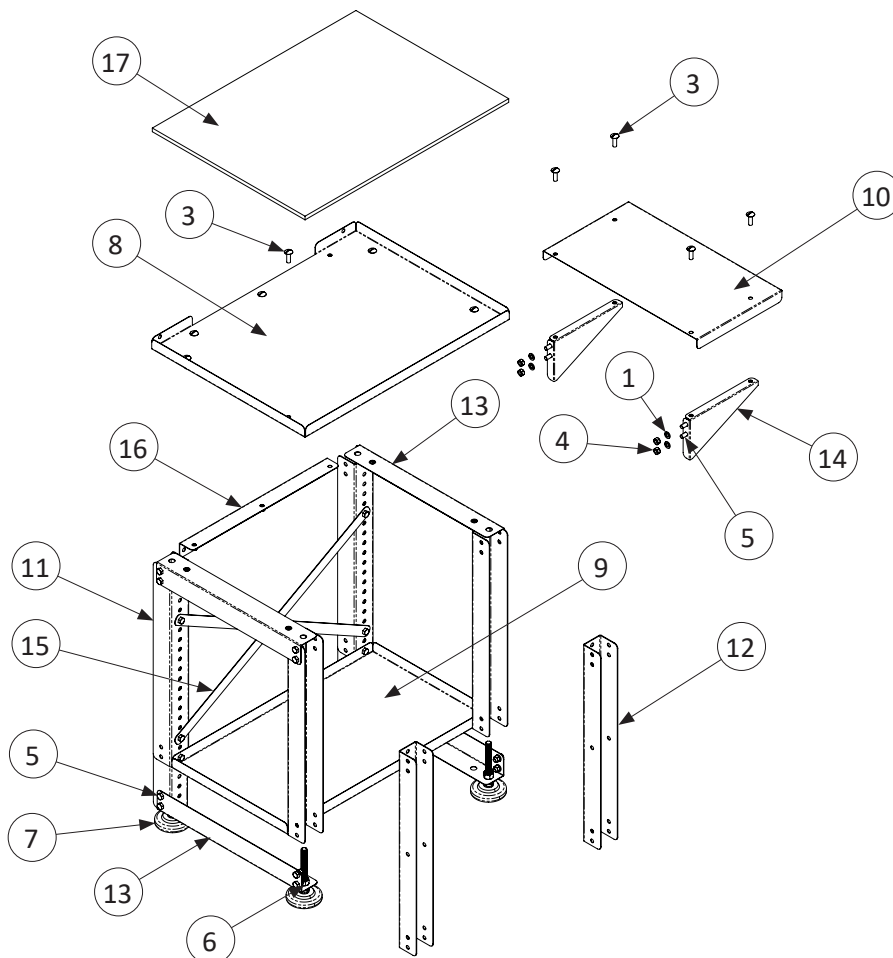
Belt Drive - Tensioner Components

ITEM #	PART #	QTY	DESCRIPTION
BELT DRIVE - TENSIONER PARTS			
1	010253	40	3/8" LOCK WASHER
2	010430	10	3/8" FLAT WASHER
3	010666	48	3/8-16 X 1-1/4" HEX BOLT
4	011115	20	3/8-16 HEX NUT
5	012403	2	#10-24 K-LOCK HEX NUT
6	012481	8	3/8-16 NYLOCK HEX NUT
7	012585	4	1/4-20 X 5/8" TAPTITE SCREW
8	012795	2	#10-24 X 1/2" HEX BOLT
9	412124	2	TENSIONER SLIDE
10	412651	2	1" CONSTANT FORCE SPRING
11	413462	1	BELT TENSION SPRING BRACKET
12	413463	1	TENSION SHAFT, BELT DRIVE
13	413464	1	IDLER SHAFT, BELT DRIVE
14	413465	1	8" BELT TENSIONER PLATE
15	420465	2	9-1/2" ROLLER
16	713414	4	5/8" LOCKING COLLAR



Egg Collection Table Components

ITEM #	PART #	QTY	DESCRIPTION
EGG COLLECTION TABLE - PARTS			
1	010252	38	5/16" SPLIT LOCK WASHER
2	010458	4	5/16" FLAT WASHER
3	010544	11	5/16-18 X 1" TRUSS BOLT
4	010603	38	5/16-18 HEX NUT
5	010642	27	5/16-18 X 5/8" HEX BOLT
6	011117	8	1/2-13 HEX NUT
7	412118	4	LEVELING FOOT PAD
8	414145	1	TOP, EGG TABLE
9	414146	1	SHELF, EGG TABLE
10	414147	1	SIDE SHELF, EGG TABLE
11	414148	4	UPPER LEG, EGG TABLE
12	414149	4	LOWER LEG, EGG TABLE
13	414150	4	FRAME, EGG TABLE
14	414151	2	SIDE SHELF SUPPORT, EGG TABLE
15	414152	2	X BRACE, EGG TABLE
16	414157	1	CONNECTOR ANGLE, ELEVATOR
17	414183	1	COLLECTION MAT, EGG TABLE



Customer Service

Dealer Name: _____

Street / PO Box _____

City _____

State / Province _____

Zip / Postal _____

Phone _____

Fax _____

E-mail _____

Website _____

Customer Service
210 E. Main Street
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