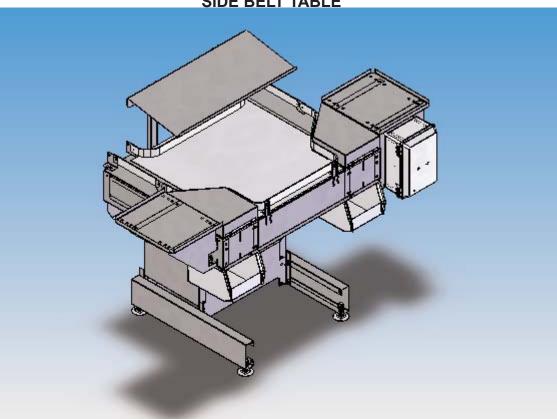


# **Assembly Instructions**

SIDE BELT TABLE



Made to Work. Built to Last. SM P.O. Box 2000 State Road 15 North Milford, IN. 46542-2000 U.S.A. 574-658-4101 Fax 877-730-8825 www.ctbinc.com

Made in the U.S.A.

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wk 11 of 07 16060030

# PARTS LIST AND ASSEMBLY INSTRUCTIONS FOR SIDE BELT COLLECTION TABLE

This guide will address the assembly of and parts identification for the revised side belt collection table. Maintence and repair of the unit is also covered in this manual.



**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

L'installation déplacée, l'ajustement, le changement, le service ou l'entretien peuvent causer les dommages de propriété, la blessure ou la mort. Lire l'installation, fonctionnant et les instructions d'entretien à fond avant d'installer ou entretenir cet équipement.

La instalación impropia, ajuste, modificación, servicio o mantenimiento puede causar dañado propiedad, herida o muerte. Lea la instalación, trabajar y mantenimiento instrucciones completamente antes de instalar o poner en funcionamiento equipo.

# DANGER!



Take necessary precautions when working with sheet metal, edges may be SHARP!

Faites attention quand travaillant avec feuillet, les bords peuvent être AIGUISÉ! ¡Tome las precauciones necesarias al trabajar con metal laminado, las orillas pueden ser AGUDAS!

# **DANGER!**

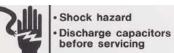


Shock hazard exists! Disconnect all power before opening enclosure for servicing. Allow 5 minutes power off for capacitor to discharge on circuit board. Control must be grounded.

Danger de choc existe! Débrancher tout pouvoir électrique avant d'ouvrir le couvercle. Permettre cinq minutes pour le condensateur pour décharger. Contrôle électronique doit avoir fil de terre.



Calambre peligro existe! Desconecte todo energía eléctrica de controlar antes de abrir la tapa. Permita cinco minutos para condensador de descargar antes de abrir. El control se debe moler.



# **DANGER!**



Beware of pinch point between the small roll (Pinch Roll) and the large roll (Drive Roll) in belt conveyor drive unit.

Avoir conscience de pincer endroit entre le troisième petit rouleau et le quatrième grand rouleau dans transporteuse corroie contrôle.

Tener cuidado de el pellizco punto en medio el tercera pequeño rollo y el cuarta grande rollo en el transportador del cinturón unidad.

# SIDE BELT COLLECTION TABLE AND V SPEED CONTROL INSTALLATION AND OPERATION MANUAL



# A WARNING

Failure to read and understand operator's manual and all safety signs could result in serious injury.

Manual must remain with owner / operator.

# **AWARNING**

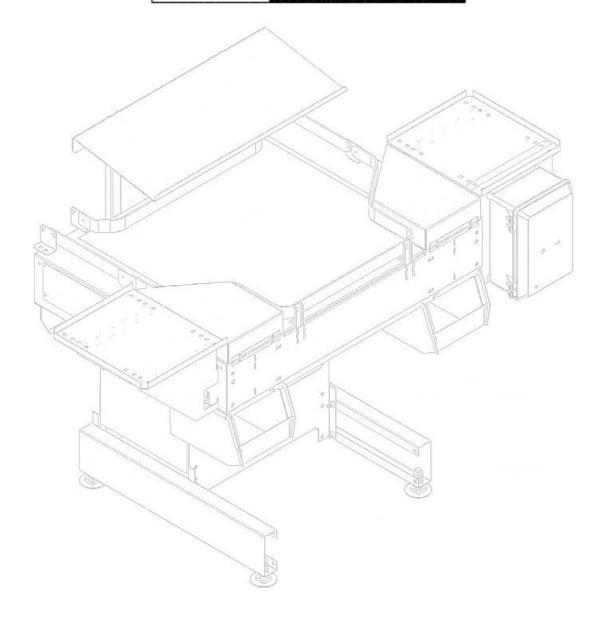


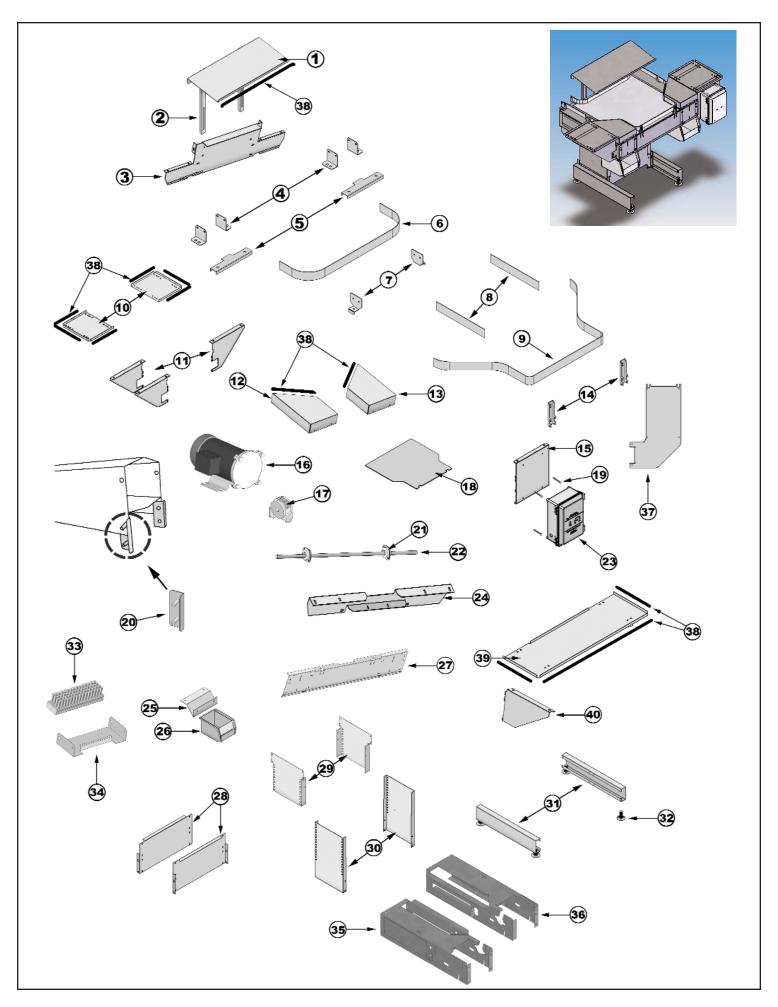
TO prevent serious injury or death, GUARDS, INTERLOCKS, and SAFETY DEVICES should be restored to correct operation when installing parts or making repairs.



# A WARNING

Do not start, operate or service machine until you read and understand operator's manual. Failure to do so could result in serious injury.



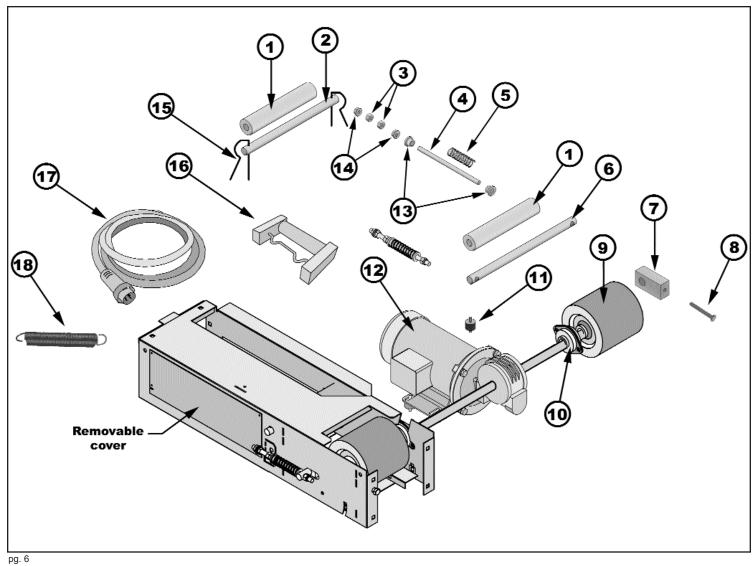


# SIDE BELT TABLE PARTS LIST

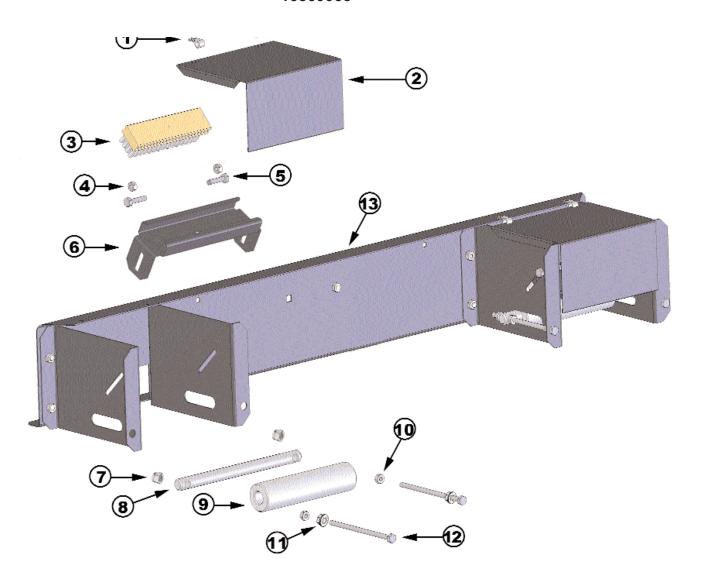
1	16-103655	SHELF: UPPER CSCT	1
2	16500067	BRACKET, UPPER SHELF ADJ.	2
3	16500041	PLATE, BACK TABLE/DECK	1
4	16500048	BRACKET, P-WAY & RAIL	4
5	16500042	SUPPORT, TABLE PASSAGEWAY	2
6	16000041	RAIL, TABLE BACK EGG	1
7	16500053	BRACKET, EGG RAIL PIVOT	2
8	16000039	RAIL,TABLE SIDE EGG	2
9	16000038	RAIL, TABLE FRONT EGG	1
10	16500050	DECK, TABLE SIDE SHELF	2
11	16500049	BRACE, TABLE SHELF	3
12	16500045	COVER, TABLE DRIVE ROLL (RIGHT)	1
13	16500047	COVER, TABLE DRIVE ROLL (LEFT)	1
14	16500054	SUPPORT, EGG RAIL FRONT	2
15	16500056	BRACKET, CONTROL MOUNT (LOW)	1
16	16-37820	MOTOR: 1 HP DC 90 VDC	1
17	16000103	REDUCER, 60:1 HOLLOW SHAFT	1
	16000102	GEARMOTOR, DC 0-1 HP 0-180V(combined drive unit)	
18	16000025	DECK,SEG COLLECTION TABLE HDPE	1
19	16000094	SCREW, HWS SHML 1/4-14 X 3/4"	4
20	16560003	GUARD, P-WAY EDGE BELT	4
21	16-101482	BEARING: FLANGE, 3/4"	2
22	16-102983	SHAFT: DRIVE 3/4" SEGS	1
23		CONTROL, V-SPD 120VAC/90VDC	see pg 6
23 24	16500039	CONTROL, V-SPD 120VAC/90VDC  MOUNT,TABLE GEARMOTOR	see pg 6 1
	16500039 16500055	,	see pg 6 1 2
24		MOUNT, TABLE GEARMOTOR	1
24 25	16500055	MOUNT,TABLE GEARMOTOR SUPPORT, LITTER TRAY	2
24 25 26	16500055 16-101484	MOUNT,TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC	2
24 25 26 27	16500055 16-101484 16500040	MOUNT,TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE	1 2 2 1
24 25 26 27 28	16500055 16-101484 16500040 16500036	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT	1 2 2 1 2
24 25 26 27 28 29 30	16500055 16-101484 16500040 16500036 16500038	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE	1 2 2 1 2 2
24 25 26 27 28 29 30 31	16500055 16-101484 16500040 16500036 16500038 16500037	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD	1 2 2 1 2 2 2
24 25 26 27 28 29 30	16500055 16-101484 16500040 16500036 16500038 16500037 16500035	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE	1 2 2 1 2 2 2 2
24 25 26 27 28 29 30 31 32	16500055 16-101484 16500040 16500036 16500038 16500037 16500035 JD4450	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD	1 2 2 1 2 2 2 2 2
24 25 26 27 28 29 30 31 32 33	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2"	1 2 2 1 2 2 2 2 2 4 2
24 25 26 27 28 29 30 31 32 33 34	16500055 16-101484 16500040 16500036 16500037 16500037 16500035 JD4450 16-35572 16-103679	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT	1 2 2 1 2 2 2 2 2 4 2
24 25 26 27 28 29 30 31 32 33 34 35	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT	1 2 2 1 2 2 2 2 2 4 2 2 2
24 25 26 27 28 29 30 31 32 33 34 35	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT	1 2 2 1 2 2 2 2 2 4 2 2 2
24 25 26 27 28 29 30 31 32 33 34 35	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT CHANNEL, TABLE RIGHT	1 2 2 1 2 2 2 2 2 4 2 2 2
24 25 26 27 28 29 30 31 32 33 34 35 36	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043 16500044	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT CHANNEL, TABLE RIGHT	1 2 2 1 2 2 2 2 2 4 2 2 2
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	16500055 16-101484 16500040 16500036 16500038 16500037 16500035 JD4450 16-35572 16-103679 16500043 16500044	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT CHANNEL, TABLE RIGHT  OPTIONAL EQUIPMENT BRKT:TABLE CNTL MOUNT W/HOLES TRIM-LOK, 0937 DECK, COLLECTION TABLE FRONT	1 2 2 2 1 2 2 2 4 2 2 2 1 1 1 1 1 per ft. 1
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043 16500044 16-103926 JD4495 16500080 16500079	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT CHANNEL, TABLE RIGHT  OPTIONAL EQUIPMENT BRKT:TABLE CNTL MOUNT W/HOLES TRIM-LOK,.0937 DECK, COLLECTION TABLE FRONT BRACE, FRONT SHELF	1 2 2 1 2 2 2 2 2 4 2 2 1 1
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	16500055 16-101484 16500040 16500036 16500037 16500035 JD4450 16-35572 16-103679 16500043 16500044 16-103926 JD4495 16500080	MOUNT, TABLE GEARMOTOR SUPPORT, LITTER TRAY BIN: PLASTIC PLATE, FRONT TABLE PANEL, CENTER FOOT LEG, UPPER TABLE LEG, LOWER TABLE FOOT, COLLECTION TABLE FOOT, ACME THD BRUSH: TAMPICO WHT 5" x 1-1/2" BRKT: BRUSH MNT CSCT CHANNEL, TABLE LEFT CHANNEL, TABLE RIGHT  OPTIONAL EQUIPMENT BRKT:TABLE CNTL MOUNT W/HOLES TRIM-LOK, 0937 DECK, COLLECTION TABLE FRONT	1 2 2 2 1 2 2 2 4 2 2 2 1 1 1 1 per ft. 1

1	16-101468	ROLLER,PLASTIC 1.5ODx.64IDx8.0
2	16-103703	SHAFT: RETURN ROLL
3	16-63702	NUT: HEX 3/8-16 - PLATE
4	16-5031	ROD:TIE THRD SEGS-T/200
5	16-37039	SPRING: COMPRESSION 3"
6	16-103702	SHAFT: PINCH ROLL
7	16-103621	ADJUSTER: BELT DRUM
8	16-101498	SCREW: HEX TAP 3/8-16X3-1/2
9	16-101483	PULLEY: DRUM 5"
<u>10</u>	16-101482	BEARING: FLANGE 3/4" DIA
11	16-101412	ISOLATOR: VIBRATION
12	16000102	GEARMOTOR, DC 0-1 HP 0-180V (Components - See Pg. 3)
13	16-13191700	WASHER: NYLON SHOULDER
14	16-13200550	NUT: HEX FLG LCK 3/8-16
<u>15</u>	16-101158	CLIP: HITCH PIN 1/8 D. X 2-1/2
<u>16</u>	16560005	TAKE UP ASSY, 4" EGG BELT
17	16-103931	CORDSET: MALE GRAHAM CMPLT
18	16-101485	SPRING: EXTENSION 5/8 X 4-1/2

MOTOR REPLACEMENT PARTS (not shown)
19 16-37816 BRUSH:LEESON DC MOTOR CARBON



# IDLER ROLLER ASSY, SB NEST 16560065



1	16-8904	CLAMP: HINGE SS 3/8 WID	4	
2	16560061	DUST COVER,SB IDLER ROL	2	
3	16-35572	BRUSH: TAMPICO WHT 5" x	2	
4	16-13200550	NUT: HEX FLG LCK 3/8-16	8	
5	16-63700	SCREW: HEX 1/4-20 X 1/2	4	
6	16560060	BRACKET,BRUSH SB IDLER	2	
7	16005182	NUT 3/8-16 NYLON LOCK	4	
8	16-102977	SHAFT: ADJ ROLLER 5/80D	2	
9	16060012	ROLLER, TAKE-UP 1.5 x 6.	2	
10	16-63702	NUT: HEX 3/8-16 - PLATED	2	
11	16-35629	NUT: HEX 1/4-20 SERR FL	4	
12	16000006	BOLT, CARR SHORT NECK 5/16x3/4	2	
13	16560064	MOUNTING FRAME,SB IDLER	1	

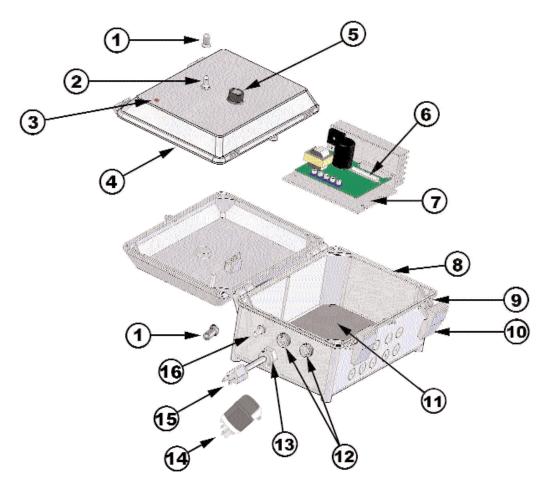
# **TABLE CONTROL - Variable Speed DC**



# **COMPLETE ASSEMBLIES:**

16500061 16500062 CONTROL, V-SPD 240VAC/90VDC CONTROL, V-SPD 120VAC/90VDC

# **COMPONENT PARTS**



1	16000047	BOOT, TOGGLE SWITCH
2	13005282	SWITCH TOGGLE SING PO
3	15100589	PILOT LIGHT 250 VOLT
4	16500088	LID, V-SPEED CONTROL
5	16-101540	POTENTIOMETER: & KNOB
6	16000126	FUSE: 8 AMP SLOW BLOW
		(MDA-8)
7	16500065	BOARD, CRCT PRPROG
		120VAC/90VDC
	16500064	BOARD, CRCT PRPROG
		240VAC/90VDC
1		

8	16500087	BOX: V-SPEED CONTROL
9	30863	PIVOT, CNTL BOX LATCH
10	30862	LATCH,CNTL BOX
11	16500084	BASE PLATE W/WELD STUDS
12	16-101524	DISCONNECT: QUICK, FEM
13	13008107	WIRE STRAIN RELIEF
14	16060017	PLUG, ELEC 230V NEMA 6-15P
15	16-10062	CORD: SJT-O W/PLUG 14/3
16	13005283	SWITCH TOGGLE DOUBLE

V-SPEED CONTROL WIRING DIAGRAM White Black Rev Plug Green Aluminum Heat Sink JUMPER WIRE PS PS PS PS PS White I Black FWD Plug Green င္မွ (A- ) Hard Wired QC2 Green Red LED LED 115V / 230V In Removable Fuse Black МІСКО Green 3 -White Black-Green -||| -Black--White ∟ OPF DPST White BOX -Red -Black 9 Pause Run SPST Red Pilot Light —White —Orange —Red — Potentiometer

# Adjustment Procedure for the Gemini DC Variable Speed Control Board

Model 12M04-00222 w/5M12-46 Chip (120V) or w/5M12-41 Chip (240V)

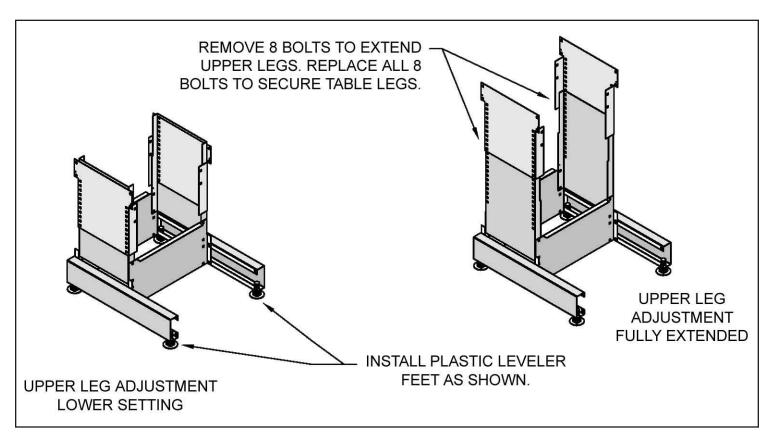
ALL ADJUSTMENT MUST BE DONE WITH A FULL BELT SYSTEM OR SIMULATED LOAD ON THE MOTOR

- 1. With the main power off, turn the Speed Control on the front of the control box counterclockwise until it stops. This will be the minimum speed setting. Open the control box. Attach probes to read Voltage between A+ and A- terminals as labeled on the board. Turn the main power switch ON. Adjust the MIN SPEED potentiometer (P1) on the circuit board so that the voltage is between 0 and 5 VDC.
- 2. Turn the main power OFF. Turn the speed control located on the front of the control box clockwise until it stops. This will be the maximum speed setting. Open the control box and attach the probe to read voltage between A+ and A- terminals. Turn the main power switch ON. Adjust the MAX SPEED potentiometer (P2) on the circuit board so that the voltage is between 112 and 116 VDC.
- 3. Adjust the I.R. COMP potentiometer (P3) on the circuit board to 1/4 travel from full counterclock wise. Turn the P3 Potentiometer slowly clockwise until you can hear the motor RPM oscillate, and then back off slightly from that point. If the belt stalls during normal operation, increase the P3 set point gradually by turning the P3 potentiometer clockwise. When properly adjusted, the motor will be able to hold speed with sudden increases in the loading without P3 set at full clockwise.
- 4. The ACCEL potentiometer (P4) an adjustment for belt starting acceleration. When set fully counterclockwise, it will operate with instant motor drive acceleration (rapid). With P4 turned fully clockwise, the motor accelerate the slowest. This can be set to the operator's preference, but ½ turn from full counterclockwise is recommended..
- 5. Set the CURRENT LIMIT (P5) to fully clockwise and then back off slightly. The control current limit is set at 11 amps DC instantaneous when set at maximum and is predetermined by the components installed on the board.
- 6. The removable fuse is an 8 amp slow-blow type such as an MDA-8
- 7. The Green LED on the circuit board indicates Power ON.
- 8. The Red LED on the circuit board indicates CURRENT LIMIT is activated.

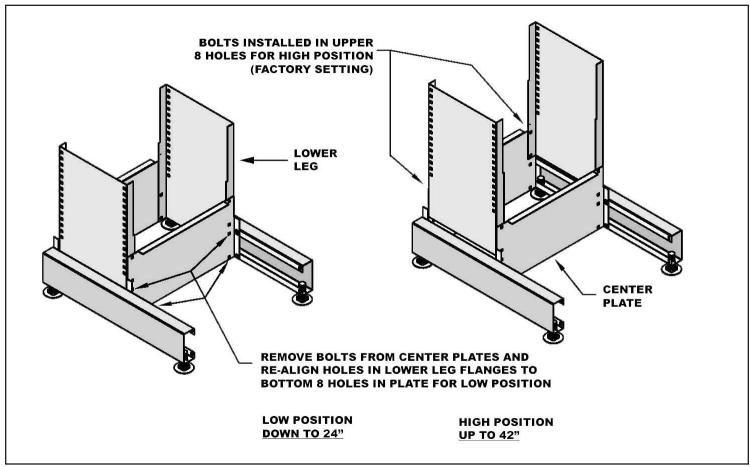
Revised 2/16/06

# TABLE SET-UP AND ASSEMBLY

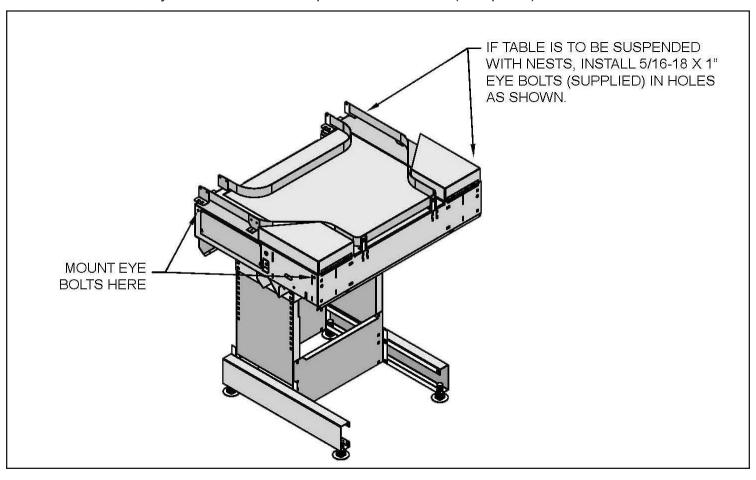
**STEP 1.** Install Plastic Feet (as shown). **STEP 2.** LEG ADJUSTMENT.



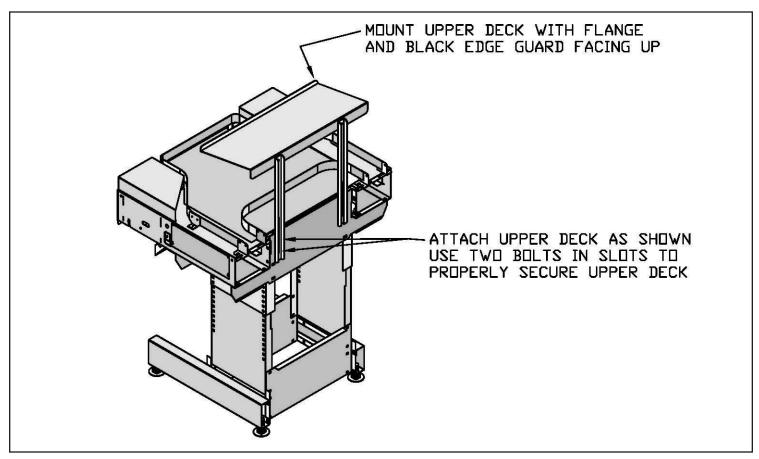
**STEP 3.** BASE ADJUSTMENT (if needed).



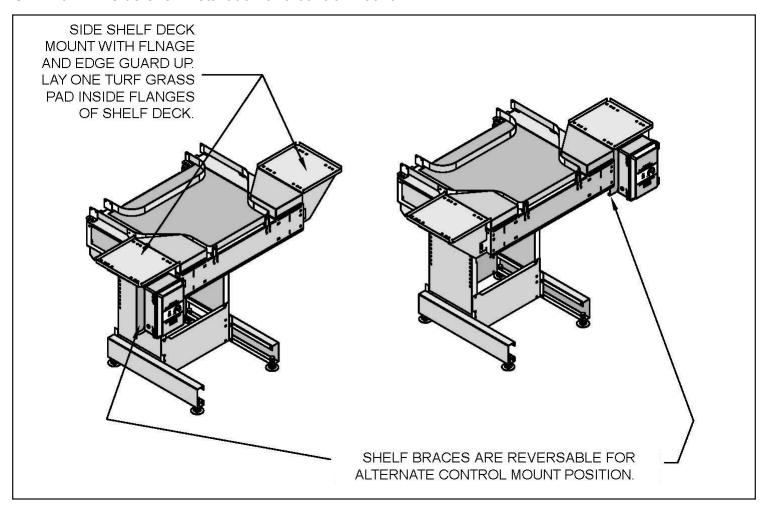
**STEP 4.** Install Eye Bolts for Table Suspension with nests (if required).



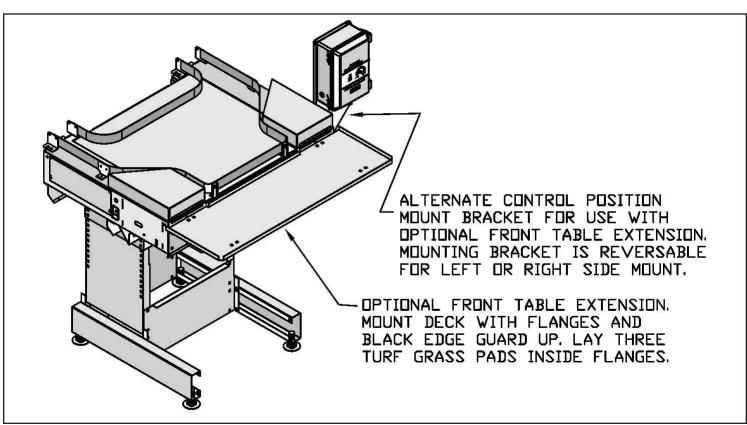
**STEP 5.** Install Upper Shelf Deck (as shown).



**STEP 6.** Side shelf installation and control mount.



**STEP 7. Optional** front table extension with alternate control mounting. Kit # 16500057.

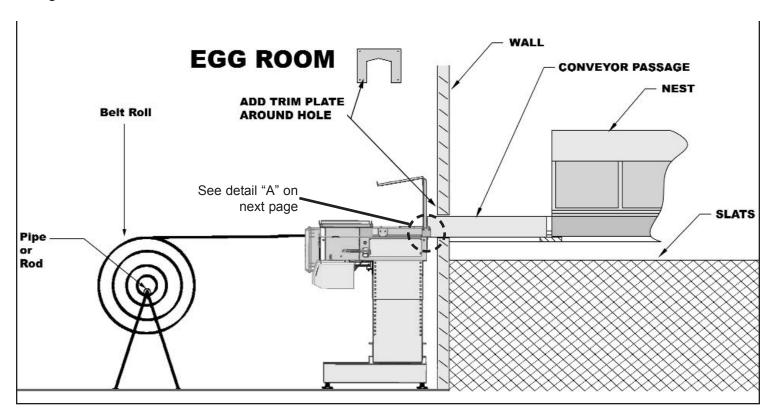


## **BELT INSTALLATION**

## **NEST SYSTEM**

Lift nest system if winch is used, to facilitate threading of belt. If winch is not used, follow the same procedure with system sitting on slats.

Thread conveyor belt from the drive end. Insert pipe or rod through roll of belt. Pull belt off roll through top of conveyor tray to return end at back of house. Thread belt around idler roll and thread belt over belt guides in nest on return run to table.



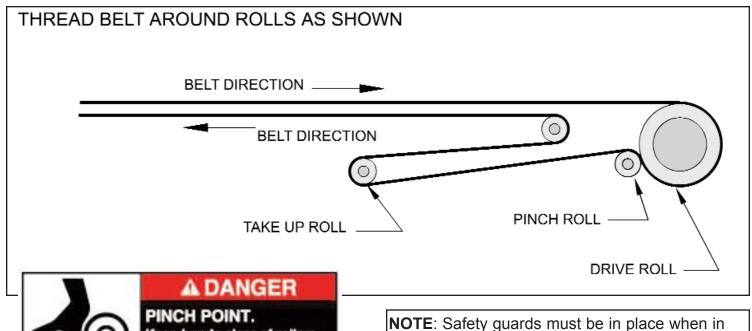


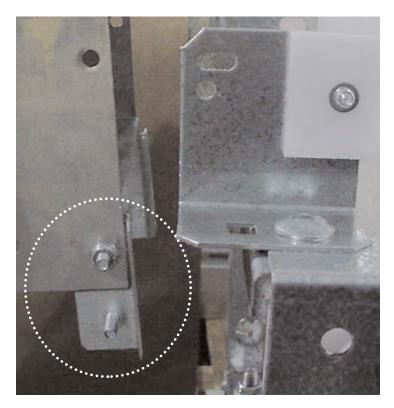
table is in operation.

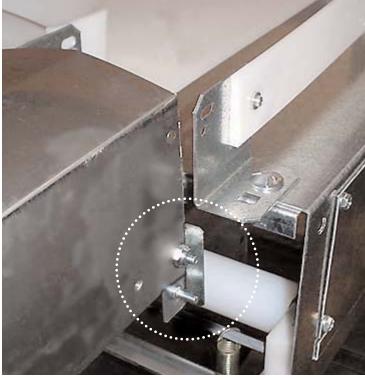
Keep hands clear of rollers.

Do not operate with guard removed. Disconnect power before servicing

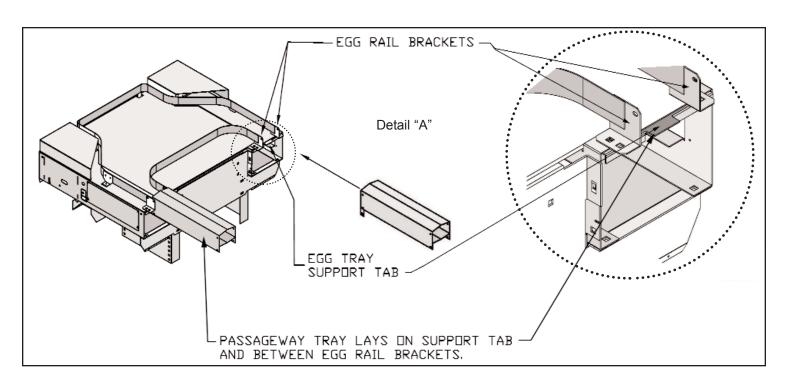
# **CONNECTION OF TABLE TO PASSAGEWAY**

Install Passageway Belt Edge Guard as shown. Passageways slide into guides on the back top edge of the table.

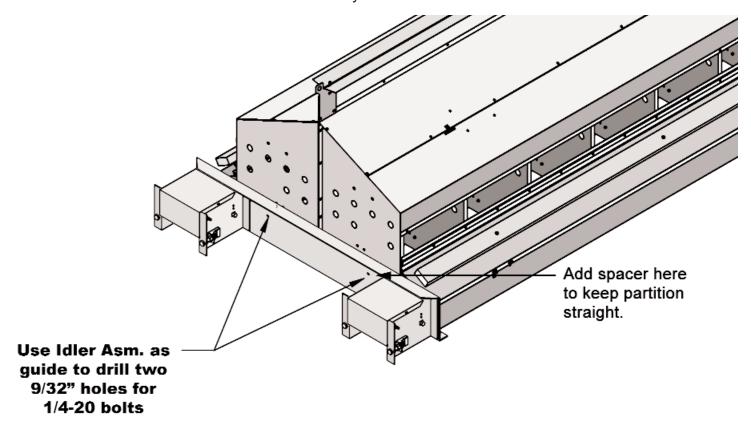




# Passageway to table connection:



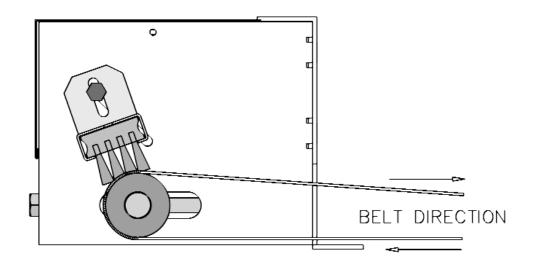
# REAR RETURN ROLLER Assembly Installation



To mount Idler Roll Assembly:

- 1. Drill two holes in nest partitions. Mark holes (for 1/4-20 bolts)
- 2. Align Idler Roll to nest.
- 3. Bolt Idler Roll Assembly to nest partitions using two 1/4-20 x 1/2 bolts.
- 4. Verify that all bolts are secure. Verify that both sets of rolls are mounted square to the nest.

Make sure brush is adjusted to keep belt clean.



### BELT SPLICING INSTRUCTIONS

# NOTE: FOR BEST RESULTS, READ THE INSTRUCTIONS COMPLETELY BEFORE BEGINNING THIS PROCEDURE.

# Tools required:

Belt clamp - 16-37163
Belt glue - 16-37165
Sewing Egg Belt Kit - 16-37179
Large scissors
40 watt hot melt glue gun (optional)
Three blocks of wood (approx. 1 x 2 x 8)

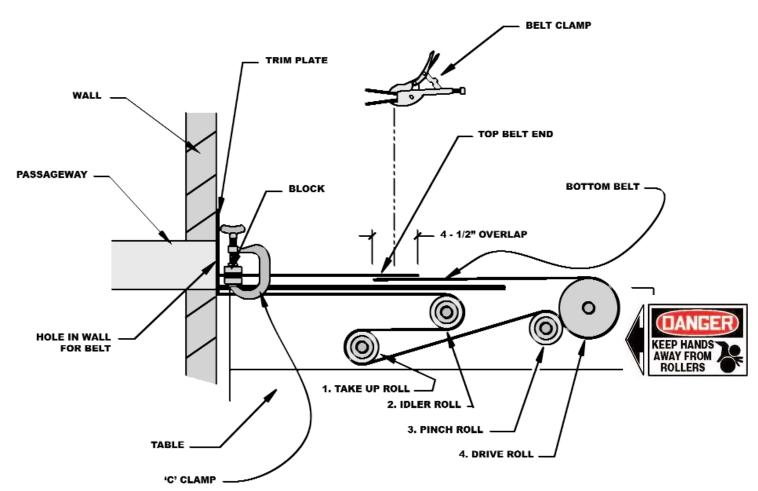
After belt has been installed on system, carefully thread the bottom or return belt through the four rolls as shown in the drawing below. It is necessary to put the drive motor in reverse to thread between the 3rd and 4th rolls. Run the motor (in reverse) so that there are 8 to 10 inches of belt through the drive roll. This is enough belt for the "work area" to sew and glue the belt.



# Beware of pinch point between the 3rd small roll (Pinch Roll) and the 4th large roll (rubber Drive Roll)

Pull the top belt so that the take up roll is all the way forward. Note where the belt will be spliced (approximately 4 1/2" overlap) then pull an additional 18-24 inches to cut off so the the belt will be properly tightened.

Mark the belt where the end will be cut off (approximately 4 1/2" overlap). Pull an additional 10 inches of top belt to provide "work area". Clamp the belt between two 10 inch or longer pieces of wood at the wall end of the table (as shown below). Cut the belt at the mark.



**NOTE: DO NOT OVER TIGHTEN THE BELT.** An over tightened belt causes decreased belt life, poor performance and excessive wear on the drive system. The belt may become cupped and allow eggs to go underneath it. The belt may become permanently creased. The belt should be pulled snug and slightly stretched.

# Be sure to leave enough slack in the belt at the splice area for the following cutting/sewing operations.

Cut the belt as shown, with tapered ends.

Use a cigarette lighter or match to singe the cut edges of the belt to deter unravelling of the fibers. A minor singe is adequate.

# NOTE: Be sure not to over singe the edges (identified by extreme indentations into the belt).

Overlap the belt ends approximately 4" to 6" so that when the belt is pulled toward the table, the end that is pulling is on the bottom. (This will keep the belt edge from catching or snagging on the joints in the passageway.)

# Do <u>not</u> splice belt using glue only! You may sew only, but using glue AND sewing is recommended.



**CAUTION!** When using hot glue, do not let it come in contact with skin!

Apply a 1/4" bead of glue across the middle splice area on bottom belt (as shown in drawing).

Note sewing pattern in drawing. Avoid glue in sewing pattern as it is difficult to sew through glued belt.

# **NOTE:** The splice MUST be made within 15 seconds from the time application of glue is started.

Work fast, align edges and press together. Immediately apply belt clamp over splice. Clamp and lock for 60 seconds.

Take the needle and waxed thread out of the Belt Sewing Kit (part 16-37179 or equivalent substitute). Cut approximately six feet of the waxed thread and thread it through the needle. Use a 1/4" running stich on the sides and a whip stich with 1/4" minimum between the singed edge and the interior of the belt. Knot thread, leaving end to tie off and sew the belt together up the right edge, along the top of the belt splice and down the left edge.

Without cutting the thread, turn the belt over and sew along the bottom belt splice. Tie off the start and end threads.

# To protect the splice, hot glue over whip sewn ends only.

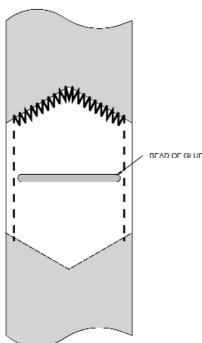
Gluing over the sides will create a stiff, board-like splice that will not flow well over rolls. Use belt clamp to flatten glued ends.

Switch on drive motor and watch for constant sag in belt beneath table. If sag occurs, either the belt is catching or it is too long.

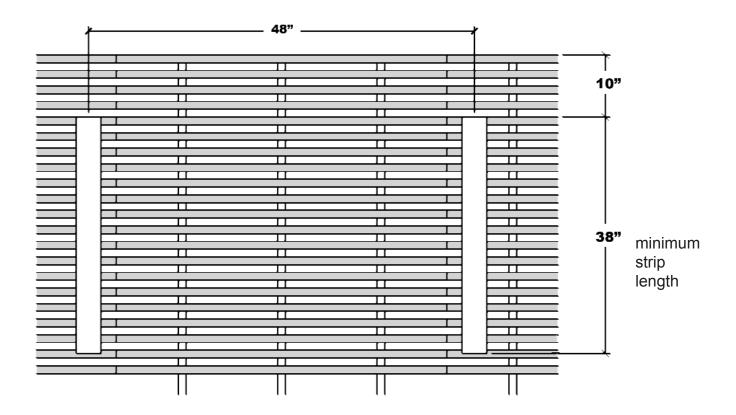
If belt is catching, find the point of restriction and release belt.

To reduce the length of the belt, cut out excess at an existing splice and re-splice the belt. Check for proper belt clearance and repeat until belt moves freely through tray.

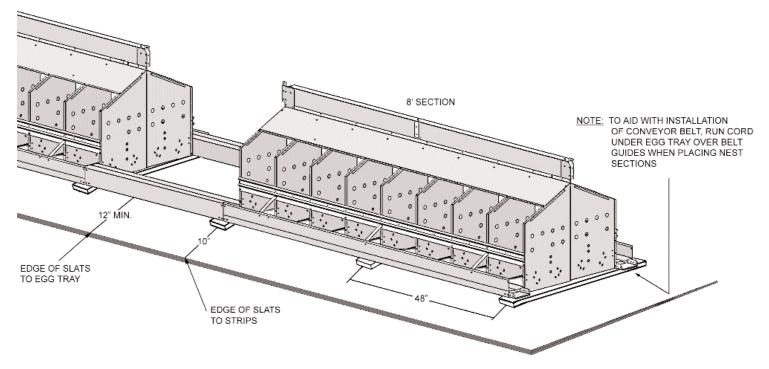
The belt may stretch some over time. When belt stretches beyond the action of the pinch roll adjuster, cut the belt at an existing splice, remove excess and re-splice.



When placing the nest system on slats, whether wooden or plastic, Agile Mfg. requires that the nest line be level along the entire length of the line. This can be accomplished by placing 1" x 4" strips over the slats and underneath the nests as a base to shim the nests.



8' SECTION PLACEMENT OF 1 x 4 x 38 STRIPS



PLACEMENT OF NEST ON STRIPS

# **ATTENTION:**

# **Nest Line Alignment Notice**

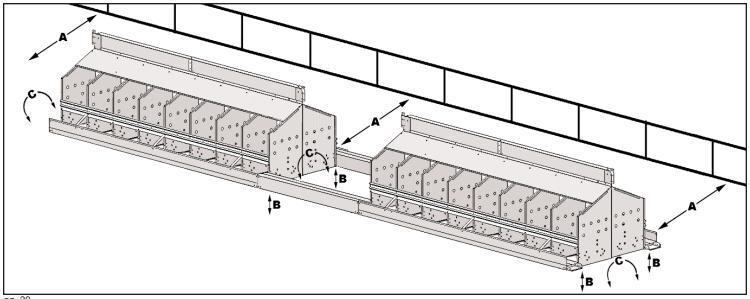
Nest Lines MUST be aligned and straightened after installation and before egg collection begins at the start of each flock. Once the nests are resting on the slats, the nest egg trays must be straightened with each other horizontally from side to side, and vertically. Shims may be required to lift the nests from underneath off the slats for vertical leveling the egg trays.

Failure to complete this alignment of the nest line WILL result in premature egg belt wear, belt edge fraying, eggs under belts, and possible belt breakage. In addition, badly frayed and worn belts can cause damage to the egg belt drive system and control.

Also, the nests must be adjusted to be level from side to side to insure the correct bottom and pad angle for proper egg roll-out from the nest pads to the egg belt and trays. Nests that are not level from side to side may have eggs remaining in the nest hole on one side of the line, while the other side will be too steep and may cause egg shell checks and cracks. Again, shims may be required to lift the nests from underneath off the slats for vertical leveling the nest bodies.

- A Dimensions from nest to outer wall or slat system wall. Dimension "A" assumes wall on stem wall is straight. Buildings may vary. Adjust nest line side to side to make "A" dimension equal on all nests in the line.
- **B-** Vertical adjustment. Shim nest lines on slats in "B" direction (up or down)as required to make egg tray surfaces between nest bodies and nest bodies and passageways flush at connection joints.
- **C** Line leveling. Egg trays should be level from side to side to insure correct floor angle in nest bodies.

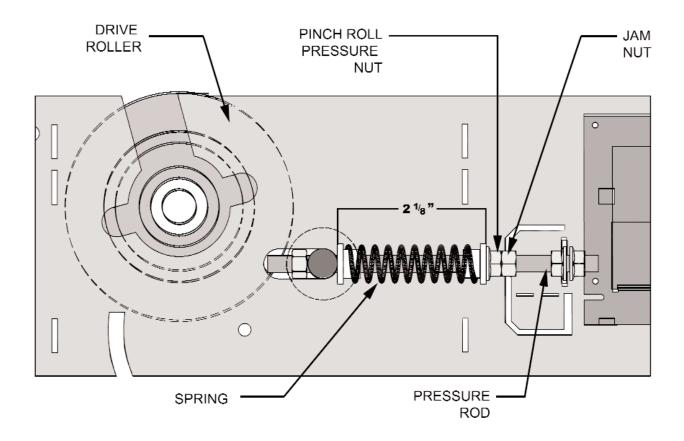
Note: A laser level can be used for A,B, and C.



# PINCH ROLL ADJUSTMENT

There is a spring and pressure rod assembly on both sides of each belt line and drive roller/pinch roller assembly.

To increase pinch roller pressure, loosen the jam nuts on each pressure rod and tighten the pressure adjustment nuts as needed to prevent belt slippage. The springs are pre-set at the factory, compressed to 2 1/8". Adjust as required.



## **BELT TRACKING ADJUSTMENT**

Once the belts have been installed and spliced, they will need to have the tracking adjusted to keep them aligned with the center of the egg trays, passageways, and drive rollers. This will keep the edges of the belts away from sides of the egg trays and passageways and prevent wearing and fraying and causing premature belt failure.

# TRACKING ON DRIVE ROLLERS AT TABLE.

Open the drive roller covers on top of the tables and locate the lock nuts on the tracking adjustment bolts on the inside of front table plate. Loosen these nuts to free the tracking bolts for adjustment.

With the table running, turn each tracking bolt clockwise or counterclockwise as needed to adjust the belt position on the drive roller from left or right to center as needed. Repeat as needed if necessary.

NOTE: make small adjustments and let the belt respond to the adjustment before continuing. Several yards or meters of belt will need to cross the roller to complete the adjustment.

Once the belts are centered and track well, re-tighten the lock nuts on the tracking bolts inside of the front table plate to secure the tracking adjustment.

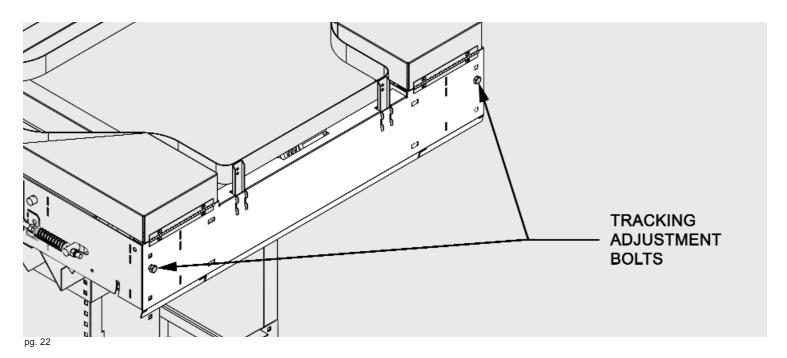
# TRACKING ON RETURN ROLLERS AT BACK END OF NEST LINE.

The rollers on the Return Idler Roller Assembly can also be adjusted for proper belt tracking. Lift the roller covers on top of the return assembly and locate the lock nuts on the tracking adjustment bolts on the housing. Loosen these nuts to free the tracking bolts for adjustment.

With the table running, turn one of the tracking bolts on each roller clockwise or counterclockwise as needed to adjust the belt position on the roller from left or right to center as needed. Repeat as needed if necessary.

NOTE: make small adjustments and let the belt respond to the adjustment before continuing. Several yards or meters of belt will need to cross the roller to complete the adjustment.

Once the belts are centered and track well, re-tighten the lock nuts on the tracking bolts and replace the covers over the rollers.



### **OPERATIONAL MAINTENANCE**

- The Gearmotor assembly and drive shaft Bearings installed on the table are sealed and permanently lubricated. There are no ports or zerks on these components to apply additional lubrication.

If a problem develops with the Gearmotor or Bearings, the drive system is overloaded due to issues with the belt runs. Check the system for the following possible problems:

- a. Belts snags and or restrictions in the return side (underside) of the egg trays and nests,
- b. Over-tightened or jammed cleaning brushes,
- c. Mis-aligned egg trays and/or passageways,
- d. Rollers in the table and or return assemblies that do not rotate freely,
- e. Belt has been installed in the table incorrectly,
- f. Belt splices are oversized (wider than belt width) or splice is poor & unraveling causing it to hang up,
- g. Belt tension is too high,
- h. Belt slack adjustment assembly is jammed and cannot slide,
- i. Belt tracking is out of adjustment at the front and back of conveyor.
- j. Belt is rolled over or creased,
- Lubricate the plastic rollers in the table and return roller assemblies with a <u>silicon</u> or <u>graphite</u> base spray lubricant.

# DO NOT USE WD-40 OR OTHER TYPES OF PETROLEUM BASED SPRAY LUBRICANTS.

The rollers will absorb petroleum based lubricants, causing the rollers to swell and become more restricted.

- Check the belt tension periodically If the belt stretch exceeds the slack take-up action in the table, cut out a section of belt at an existing field splice and re-splice to shorten the overall length.
- Check the belt splices periodically. This can be done while collecting eggs. If the splice is ragged, frayed, or worn, trim and re-fasten.
- Check the belt brushes and adjust as required. With the sweeping action properly adjusted, the wear on the brush should be minor. See Brush Position on page 14.
- Check the table drive rollers for wear and buildup. Clean as required. Keep all safety guards in place during operation to avoid accidents and injury.
- Clean the plastic egg gathering gathering deck regularly with soap and water to keep the incoming eggs free of contamination from broken eggs and manure.
- Clean the egg belts regularly per the guidelines specified by your Poultry Company.
- Clean the cooling fan on the gearmotor and throughout the inside of the table with compressed air or a blower. **DO NOT** clean with liquids of any type.

### **EGG BELT CARE**

The following are recommendations for the care and maintenance of the egg collection belt.

The belt is warranted against manufacturing defects.

Inspect belt during installation and after final adjustments have been made.

# Install belt as per provided instruction:

- Shim nests so that they are level and the belt is traveling on a level plane.
- Assemble equipment properly so that there are no sharp edges or rivet ends in or obstructing the path of the belt.
- Align system (including the table) so that the belt is in a straight line from the table drive rollers to the return rollers at the back.
- Make sure that the belt splices are not wider than the belt itself and that all joints are straight and true.

Keep the belt clean. (Follow instructions of your integrator as to what may be used to clean the belt).

- Clean up any broken eggs or debris and sanitize (remove all residue as applicable)

If picking, snags, tears, or any other evidence of trouble occurs in or on the belt, immediately investigate and correct the problem.

- Check for rodents in the house. Rodent damage to belts will cause snags, jams and possible table damage.
- Check tracking of the belt. (It should be traveling down the center of the tray, not against the edges)
- Check for proper installation of the equipment. (sharp edges or rivet ends in or obstructing the path of the belt)

### **SEGS MANAGEMENT GUIDE**

## PRE LAY PERIOD

- 1. As hens are put in house, place on slats (if winched, nest can be raised initially to encourage traffic to feed and water).
- 2. Nest should remain closed in order to train the birds not to roost in the nest. **Once birds are** near lay or first egg has been found, the nest should be opened.

# **INITIAL START OF LAY**

- 3. When the first egg is found, a diligent program must be initiated.
  - A. Search for floor and slat eggs at least four times in the morning and two times during the afternoon.

**NOTE: DO NOT** disturb birds inside the nest to assure them that the nest is a secure place to lay.

- B. Place the eggs either on the conveyor belt or in baskets as per instructions of the contracting company.
- C. **DO NOT** allow eggs to accumulate in any specific location. This will deter other hens from laying in the same spot and encourage them to use the nest.
- D. Care should be taken not to disrupt hens in the nest.
- 4. During start up, floor and slat eggs will be at a higher percentage than what will be achieved later in the flock but will reach a very satisfactory level when this guide is followed.
- 5. Close nest after last collection and re-open after lights go off.

**Note**: This will train the birds not to sit in nest at night or perch on the stringer.

## PRODUCTION PERIOD

- 6. Collect eggs at least four times per day or as per instructions of the contracting company.
- 7. Do not allow eggs to build up on the tables during collection. This can cause cracks and cross-contamination of eggs.
- 8. Continue to monitor floor and slat eggs at least four times per day for the remainder of the flock.
- 9. Clean belt debris early each morning by running belt one complete revolution.
- 10. Any wet manure or broken eggs should be removed immediately.
- 11. Check brushes at rear of house to ensure proper cleaning.

## WARRANTY

**Manufacturer** warrants each new product manufactured by it to be free from defects in material or workmanship for one (1) year from and after the date of initial installation by or for the original purchaser. If such a defect is found by Manufacturer to exist within the one-year period, the Manufacturer will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

# **Conditions and Limitations**

- 1. The product must be installed by and operated in accordance with the instructions published by the **Manufacturer or Warranty will be void**.
- 2. Warranty is void if **all components** of the system are not original equipment supplied by the Manufacturer.
- 3. This product must be purchased from and installed by an authorized distributor or installer or a certified representative thereof **or the Warranty will be void**.
- 4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity, shall not be considered defects under the Warranty.
- 5. This Warranty applies only to systems for the care of poultry and livestock. Other applications in industry, commerce, or residential applications are not covered by this Warranty and are **strictly prohibited**. Any such use **will void the Warranty**.

Manufacturer shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in the product. "**Consequential**" or "**Special Damages**" as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.

THIS WARRANTY CONSTITUTES THE MANUFACTURER'S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for the products in addition to those terms expressly stated above. An officer of the Manufacturer must authorize any exceptions to this Warranty in writing. Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

Effective 01/07

# NOTES

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