



### **BELT DIRECTION REVERSING**

Picture shows the conveyor end on the right side of an oven. This is the end with the direct drive coupling and control box.

This belt is arranged to carry product from the left of the oven through to the right side. The hooks on the end of the belt are facing to the rear as the belt travels along. All the edges at the front are rounded and smooth.

The hooks are bent in and there is clearance from the side of the conveyor frame. However, it is always better to reverse the belt in the conveyor frame before reversing the motor. If the belt were forced to the side, the smooth bent wire would help it be pushed back in line rather than catching on the frame and damaging the belt or stopping the conveyor.





# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction



### **LOCATE THE BELT JOINT**

Four clips are used to join the ends of the belt together. There will appear to be one wire missing between two clips, breaking up the pattern of the wire grid. Each clip has hooks on each end rather than just on the outside edges of the belt.

Place the conveyor assembly on a bench or countertop and move the belt until the clips are easily reached.



# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction



### **Remove first hook**

Start with the inside hook of one of the outside clips. A small, straight-blade screwdriver works well to leverage the hook out of position. The ridges on this style of screwdriver are actually helpful to grip the strong and smooth wire of the clips. A 3/32-1/8 ball end hex key (Allen wrench) also works good using the groove around the end to keep the wire from moving.



# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction



### **Remove first hook cont'd**

Pull the hook across the vertical wire underneath it and then use the tool to push it below. It will then be disengaged from the section of belt closest to you, but still loosely hooked in the other section of belt. Fingers work best to push the hook back through the opening. Tension in the belt will likely help spring it loose.

**STAR** ULTRA-MAX IMPINGEMENT CONVEYOR OVENS  
Instructions: Reversing Belt Direction



### **Remove outside hook**

Use the end you just released to leverage the other hook around and separate the two belt sections. Repeat the steps on the opposite side of the belt and then the two middle clips.



# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction



### Reverse the belt in the framework

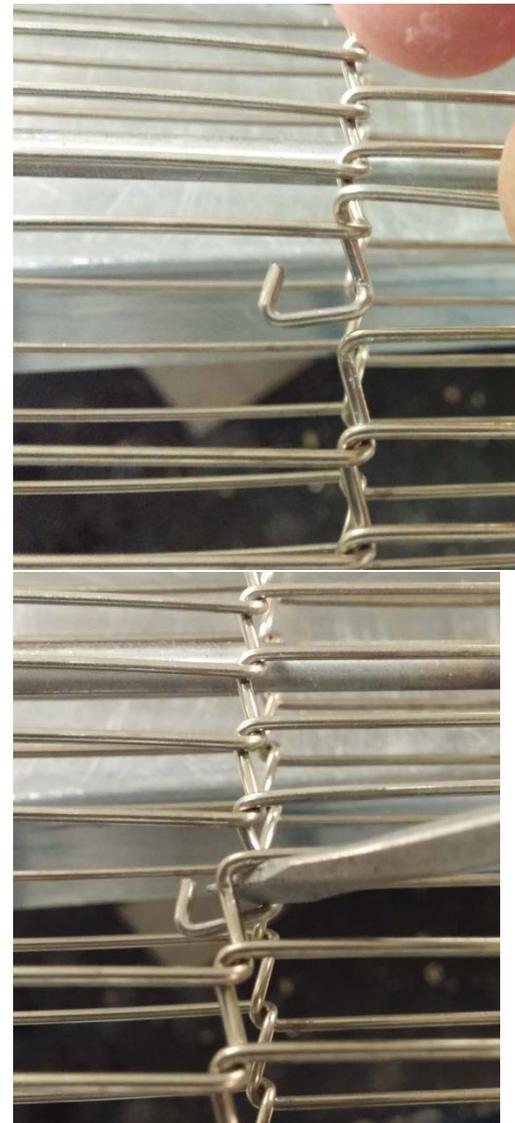
This is a view with the UM1850 conveyor assembly upside down. The belt travels under (in this view) the small rollers on either side of the driveshaft shaft. This helps hold the belt engaged with the teeth of the drive sprockets. Also be aware of “top” and “bottom” of the belt. Product should always ride on the top of the belt. The sprockets should touch and drive on the bottom. In fact, the belt will not wrap around the sprockets if the top is wrapped under. The center photo shows the limited flexibility when wrapped in the wrong direction. It may help to pull the belt off, spin (not flip) it around and feed it back into the framework the way it came out. The belt, under light tension, holds the end shafts in place. It may be helpful for another person to help hold these in place while you feed the belt back into the framework with the hooks pointing in the opposite direction.

Instructions: Reversing Belt Direction

**Reattach the belt in the framework**

Check that the belt is going in the direction desired, the wrap is correct and the end shafts have not dropped out of position.

Pull the belt ends close and reverse the directions to reattach the clips. It may be easier to move to the opposite end of the conveyor frame to reverse the assembly process with the belt hooks facing in opposite directions.





# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction



### **Final belt check**

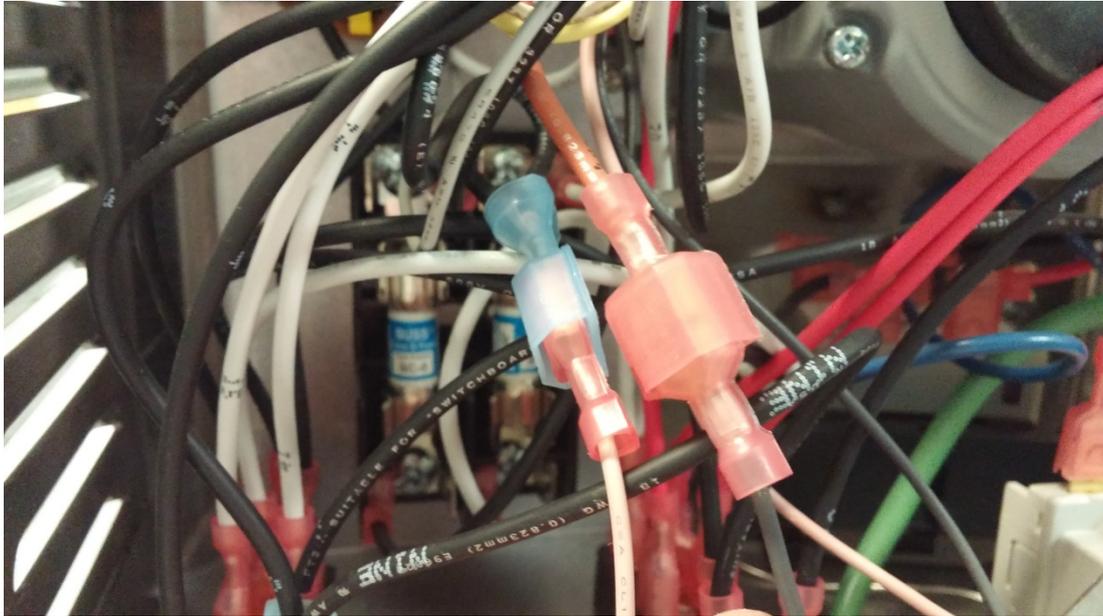
Straighten any bent wires in the clips or surrounding belt with needle-nosed pliers or similar. Check that the belt moves easily. Sitting on a bench, unattached to the drive motor, you should be able to easily move the entire belt manually. Run the belt around the full conveyor length several times to check for any clearance issues.

You are now ready to reverse the motor rotation to match the updated belt.



# ULTRA-MAX IMPINGEMENT CONVEYOR OVENS

## Instructions: Reversing Belt Direction

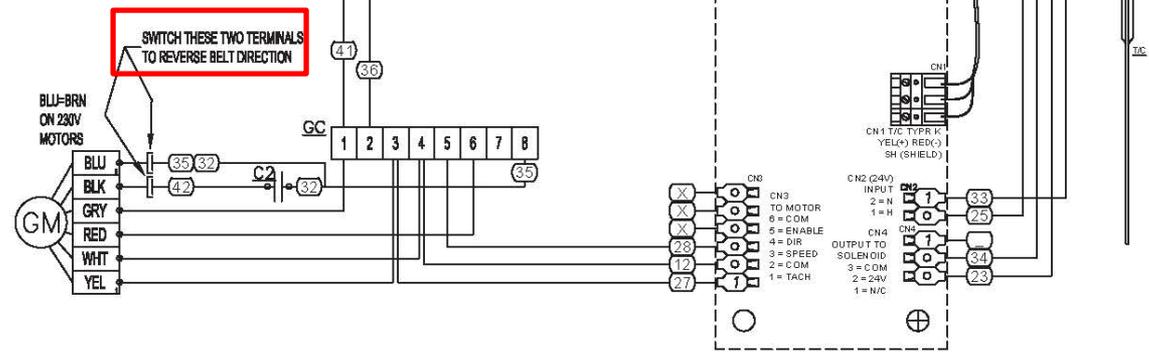
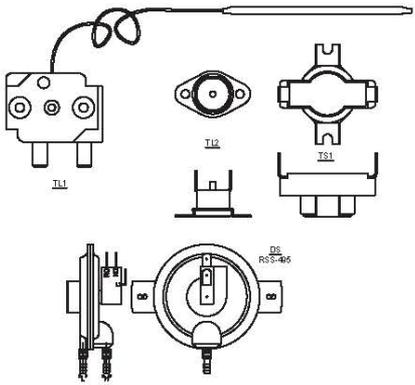
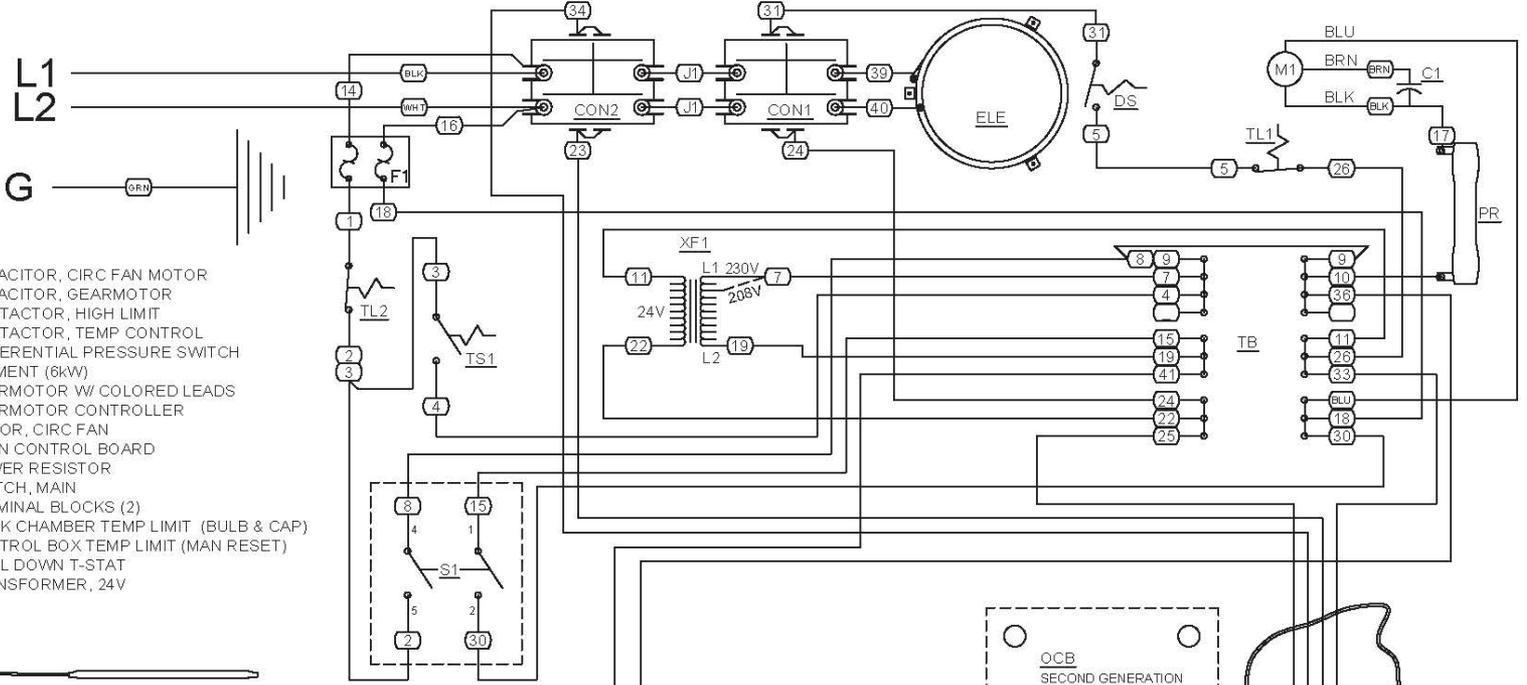


### **Motor direction reversal (disconnect power before opening control box)**

Refer to the wiring diagram in the manual or on the unit. It will reference two wire connections that need switched to reverse conveyor motor direction. You will likely need to remove a wire tie bundling the wires from the motor. Once free, these two connections are the ones referenced in the wiring diagram. The blue connector has two wires entering it and the red has a single. Each attaches to a wire going to the conveyor motor. Separate each pair of connectors and switch them. Check that no wires have been loosened, bundle the wires neatly and close the control box. Reconnect power and check motor rotation. Reinstall conveyor assembly.

INCLUDE THIS PRINTED DIAGRAM  
W/ MANUAL & INSTALLATION INFO

- C1 - CAPACITOR, CIRC FAN MOTOR
- C2 - CAPACITOR, GEARMOTOR
- CON1 - CONTACTOR, HIGH LIMIT
- CON2 - CONTACTOR, TEMP CONTROL
- DS - DIFFERENTIAL PRESSURE SWITCH
- ELE - ELEMENT (6kW)
- GM - GEARMOTOR W/ COLORED LEADS
- GC - GEARMOTOR CONTROLLER
- M1 - MOTOR, CIRC FAN
- OCB - OVEN CONTROL BOARD
- PR - POWER RESISTOR
- S1 - SWITCH, MAIN
- TB - TERMINAL BLOCKS (2)
- TL1 - COOK CHAMBER TEMP LIMIT (BULB & CAP)
- TL2 - CONTROL BOX TEMP LIMIT (MAN RESET)
- TS1 - COOL DOWN T-STAT
- XF1 - TRANSFORMER, 24V



SWITCH THESE TWO TERMINALS  
TO REVERSE BELT DIRECTION

CUSTOMER RESPONSIBLE FOR FINAL  
INSTALLATION PER LOCAL CODES.  
DEDICATED 1Ø 50A CIRCUIT REQUIRED.  
NEMA 6-50 CORD SUPPLIED

MODEL: UME 208-240/1Ø

STAR MANUFACTURING INTERNATIONAL, INC.  
2M-Z13287 REVA 2010-07-27 DR: RDL

