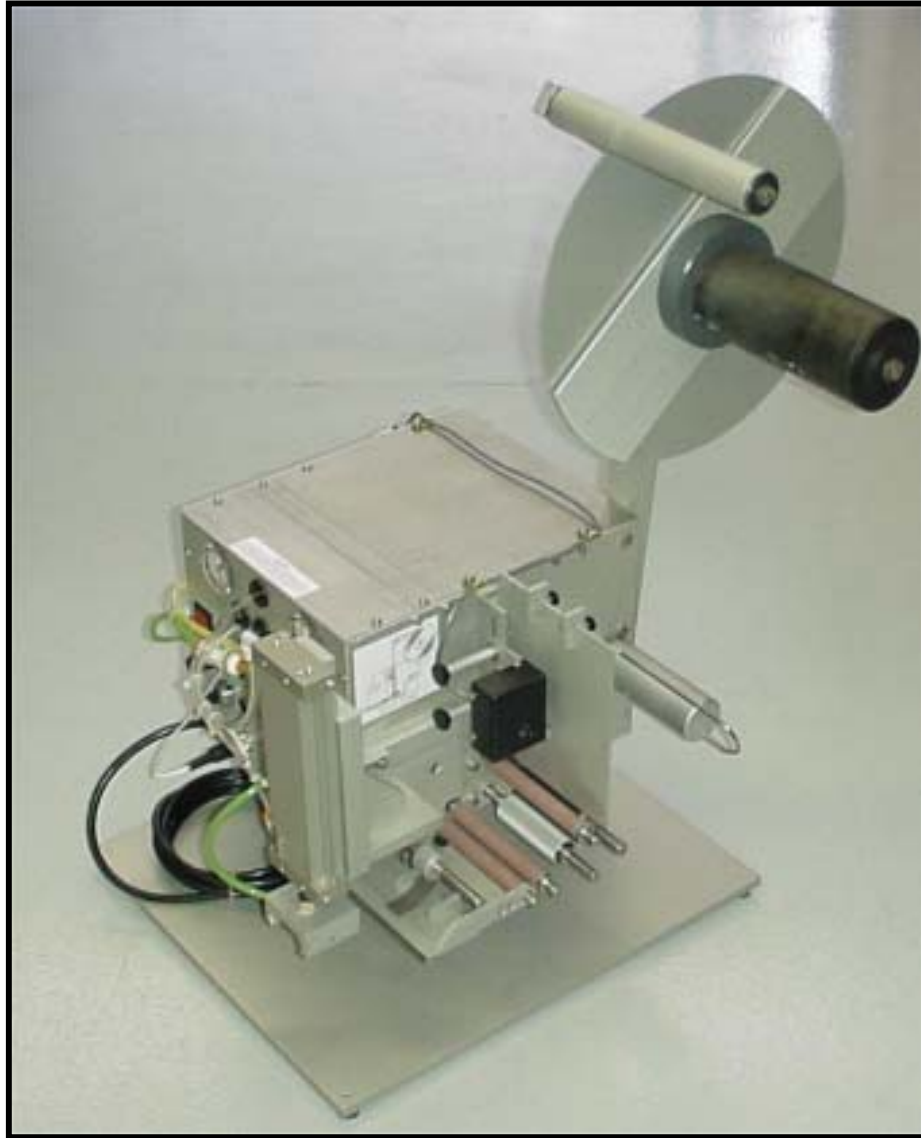


**L60
Label Applier**



Operator's Manual

Serial #

Operator's Manual
Version: D 12/18/2001

The information contained in this manual is the sole property of Universal Labeling Systems, Inc. No parts of this manual may be reproduced or transmitted in any form or purpose other than the purchaser's personal use without prior consent of Universal Labeling Systems, Inc.

Universal Labeling Systems, Inc.
3501 8th Ave South, Saint Petersburg, FL 33711
Phone (727) 327-2123 Fax (727) 323-4403

Table of Contents

SECTION 1	OVERVIEW	4
	INTRODUCTION.....	4
	UN-PACKING INSTRUCTIONS	5
	PRODUCT WARRANTY	6
	SPECIFICATIONS	7
SECTION 2	SETUP AND OPERATION	8
	ASSEMBLING THE L60.....	8
	FUNCTION OF UNWIND ASSEMBLY.....	9
	WASTE REMOVAL	10
	MOUNTING THE L-60.....	11
	THEORY OF OPERATION.....	12
	LOWER “HALL EFFECT” SENSOR (OPTIONAL)	13
	“SMART HEAD” (OPTIONAL)	14
	EXPLANATION OF LABEL TRANSFER.....	15
	WEBBING THE L60	17
	RUNNING THE L60	19
	LABEL SENSING STAR WHEEL	20
	DATA LOGIC SENSOR (OPTIONAL)	21
	LION SENSOR (OPTIONAL)	22
SECTION 3	MAINTENANCE	23
	STARWHEEL MAINTENANCE.....	23
	GENERAL MAINTENANCE	24
SECTION 4	TROUBLESHOOTING	25
	TROUBLESHOOTING (continued).....	26
	TROUBLESHOOTING (continued).....	27
	TROUBLESHOOTING (Registration).....	28
SECTION 5	TECHNICAL	29
	VACUUM HEAD FUNDAMENTALS	29
	TECHNICAL SUPPORT	30
	DRAWINGS AND BILL OF MATERIALS.....	31
	MAIN ASSEMBLY	31
	FRONT SIDE PANEL ASSEMBLY	31
	REAR SIDE PANEL ASSEMBLY	31
	BELT TENSIONER ASSEMBLY.....	31
	TAMP ASSEMBLY	31
	BLOW ASSEMBLY	31
	GAUGE ASSEMBLY	31
	FRONT PANEL ASSEMBLY.....	31
	FRONT PANEL (PLC) ASSEMBLY	31
	GUIDE ASSEMBLY	31
	VALVE ASSEMBLY	31
	UNWIND ASSEMBLY	31
	WEBBING DIAGRAM.....	31
	TAMP PNEUMATIC DIAGRAM	31
	BLOW PNEUMATIC DIAGRAM	31
	LION EYE OPTICAL LABEL SENSOR ASSEMBLY	31
	DATA LOGIC OPTICAL LABEL SENSOR ASSEMBLY	31
	RECOMMENDED SPARE PARTS	31
	POWER MODULE SETUP SHEET	31
	ELECTRICAL DIAGRAM	31
	ELECTRICAL DIAGRAM (PLC)	31

SECTION 1 OVERVIEW

INTRODUCTION

Featuring solid-state circuitry and an AC Synchronous Motor, the L60 is a high performance, low maintenance label applicator. The L60 applicator is designed to apply a pressure sensitive label to a product through the action of an **air-cylinder-mounted**, or **blow-on**, vacuum head. The labeling process can be automatic when interfaced with a conveyor, or semi-automatic with a table-based product fixture. When triggered, the L60 **Tamp** vacuum head extends to meet the product. When the air cylinder returns the vacuum head to the home position, another label is indexed onto the head and is waiting to be applied to the next product. The L60 **BLOW** vacuum head blows the label onto the product, and another label is indexed and ready for the next product.

Switches:

There are two switches on the front panel of the applicator. The Main switch turns the power on or off, and if a Hot Stamp Coder is used, will allow it to heat up. The Motor switch controls the motor that turns the drive roller and waste rewind. Fig 1

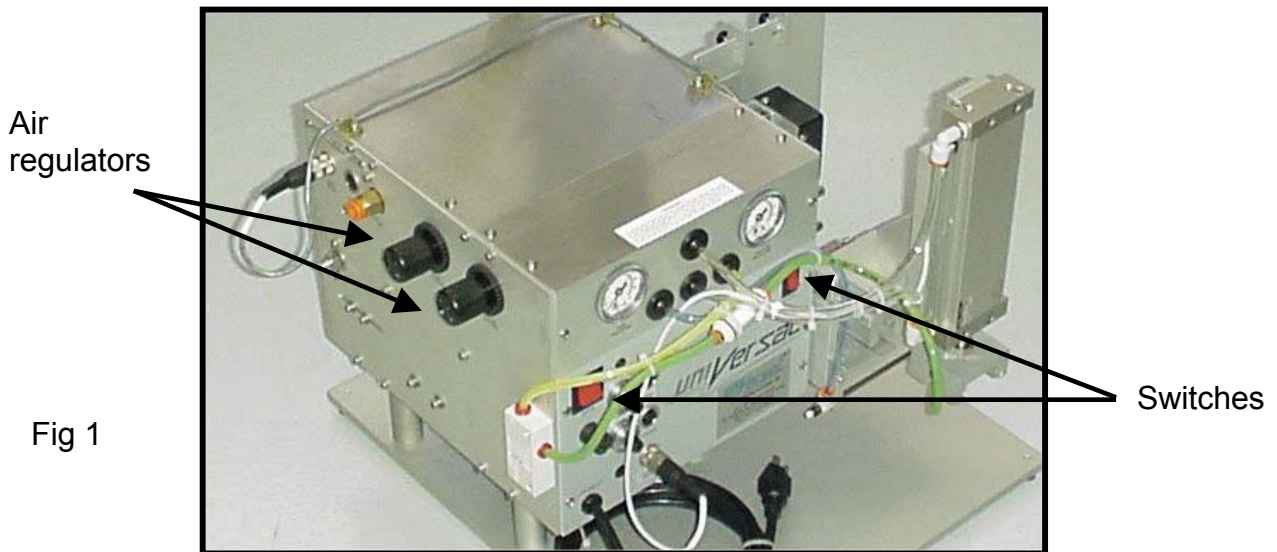
Product Detection:

The product can be detected on the leading or trailing edge. To change from leading to trailing edge, set switch 4 of the power module to the ON position. (See lower left of Drawing L15-D-02)

Recommended Settings:

There are many different label compositions, so there is no one set of machine settings (air pressure, etc.), which will work on all types of labels. The following recommended air regulator settings will give the operator a place to start.

Set the air cylinder pressure to about 15 psi. The vacuum pump input pressure will vary according to label density and size, which you can start at 5-10 psi. Turning the regulator knobs on the side of the machine can regulate air pressures. Fig 1



UN-PACKING INSTRUCTIONS

When the machine is received, the shipping carton will contain the following items.

Fig 2

1. L-60 Body.
2. Unwind assembly.
3. Unwind assembly-backing plate.
4. Unwind assembly label roll retainer.
5. Air Fitting Part #100373 ¼ NPT x 3/8.
6. 10' of 3/8" hose.
7. Product switch in a padded envelope.
8. This manual in manila envelope.

Extended peeler bar assembly (OPTIONAL). See notes below. **

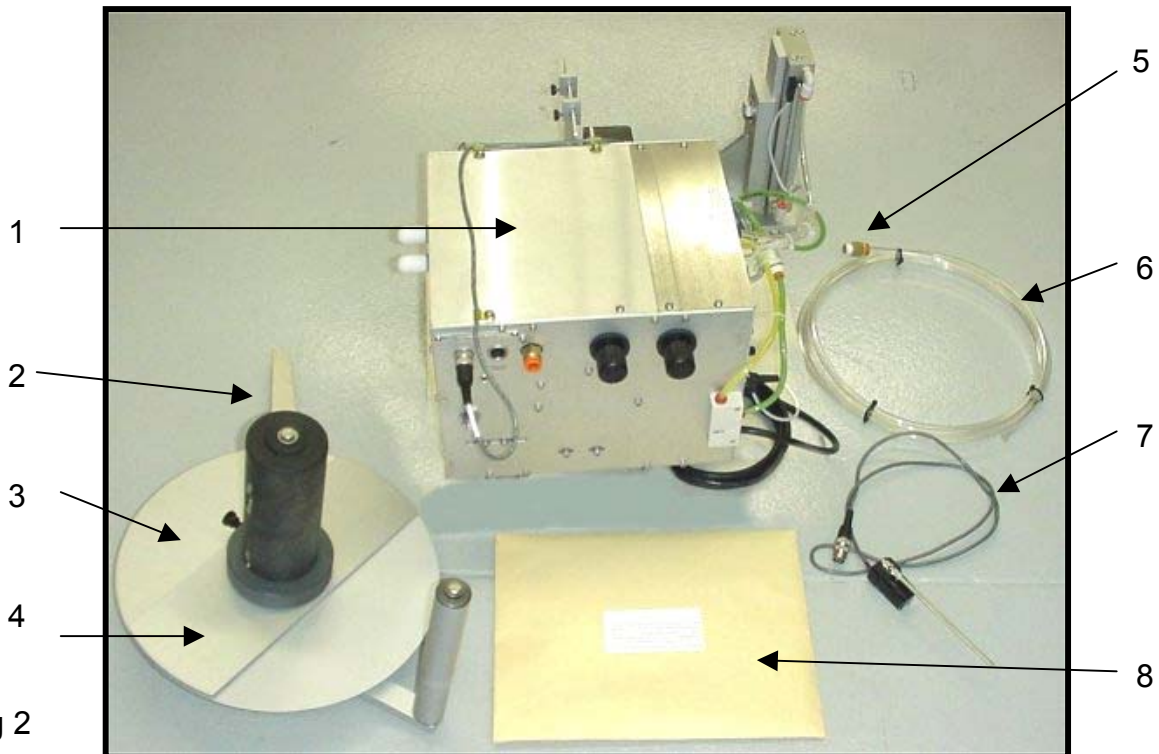


Fig 2

**When the machine is ordered with an extended peeler bar assembly, it will be packed disassembled from the machine body.

Remove the machine body by placing your hands under the bottom for lifting. Refer to the packing list, and check all packing materials to insure all of the machine parts and accessories are accounted for.

PRODUCT WARRANTY

Universal Labeling Systems, Inc. warrants all parts to be free from defects in material and workmanship for a period of one year from the date of shipment from our facility.

This guarantee is based upon equipment being used 8 hours per day, or 40 hours per week, or in any increment which does not total more than a single shift operation, or 2,080 hours per year. Warranty will be reduced proportionally.

This warranty does not cover parts failure caused by lack of normal maintenance, abuse or misuse of the equipment.

PERFORMANCE GUARANTEE

All equipment manufactured by Universal Labeling Systems, Inc. carries a 30-day performance guarantee. If your machinery does not perform as described in our quote to you within 30 days of shipping, Universal Labeling Systems, Inc. will make every attempt to correct it. If after a reasonable period of time, the machinery does not meet the specified performance, we will take your machine back and reimburse you in full.

SPECIFICATIONS

Electrical Power:	115VAC, 3 Amps, 60Hz
Compressed Air:	Clean, Dry, 40PSI, 5CFM
Lubrication:	The L60 label Applicator requires no lubrication
Label Apply speed:	Depends on label size
Label Size:	4-3/8" wide on 3" Core -12" Diameter roll
Optional Wide label kit:	6-3/8" wide on 3" Core -12" Diameter roll
Standard Size:	19" Wide x 21" Deep x 24.75" Tall
Weight:	62 lbs (23.44 Kg)
L60 w/ Base Plate	68 lbs (25.71 Kg)

SECTION 2 SETUP AND OPERATION

ASSEMBLING THE L60

Using a square, mount the Unwind Assembly to the back of the L60 using the 2 screws provided. The top screw is a 1/4-20x1-1/2" socket head cap screw, the bottom screw is 1/4-20x1-1/4".

Please note:
Screws.
Top one is longer.

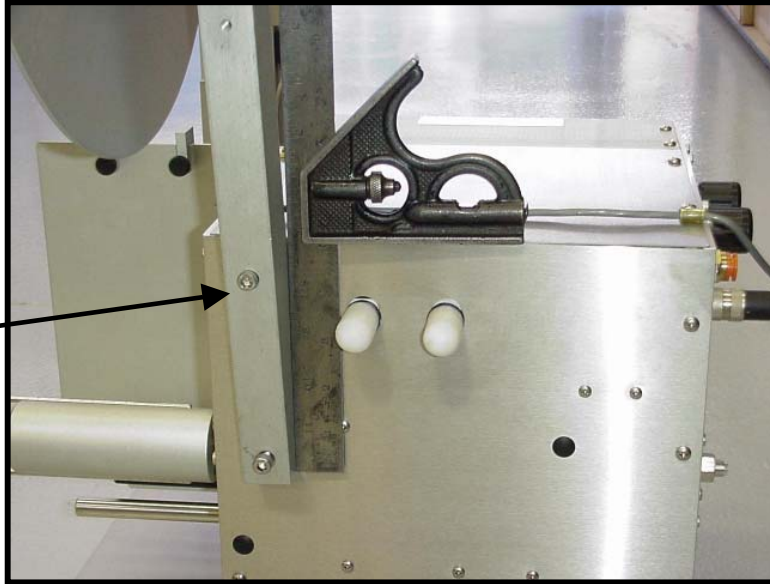


Fig 3

Maximum reliability is assured when the Compressed Air supplied to the L60 is **Clean & Dry**. Over time, moisture will take its toll on the Solenoid Valves and Air cylinder. Also it is not recommended to add Oil to the Compressed Air line supplied to the L60. The air valves and air cylinder will eventually fail and oil will end up on the label from the Air Assist tube which helps feed the label on to the vacuum head. This will cause the label to not adhere properly to the product.

Run 40 psi @5CFM minimum compressed air to the L60 and procure necessary fittings to make the connection to the air inlet located on the side opposite the label drive and rewind. **DO NOT CONNECT THE AIR TO THE UNIT AT THIS TIME.**

FUNCTION OF UNWIND ASSEMBLY

The unwind is simple, but important to the operation of the L-60 machine. When the motor starts, the web and labels are pulled through the machine by the drive roller. The label stock pulls on the brake arm, releasing the brake, and allows the roll of labels to unwind. When the motor stops, the brake arm returns to the rest position. This movement tightens the brake band around the 3" diameter main unwind hub and the roll of labels stops unwinding.

The L-60 has a fixed speed, AC drive motor that transmits power to the drive roller. The AC drive is directly influenced by the load it is trying to pull. In this case, the load is the tension of the brake arm spring and the weight of the roll of labels. The brake arm spring shown below in Fig # 4, should be fastened to the unwind assembly mounting bar in the tapped hole which provides the least amount of tension at the brake arm. (The hole closest to the hub.)

If the L-60 is dispensing a long label (10" for example), you may have to increase the tension on the brake arm spring (Move spring attachment point to lower hole - See Fig # 4) to keep the brake arm from bottoming out.

The length and speed figures mentioned above are only examples. Your observation of the unwind operation will be the best indication of when a tension change may be needed.

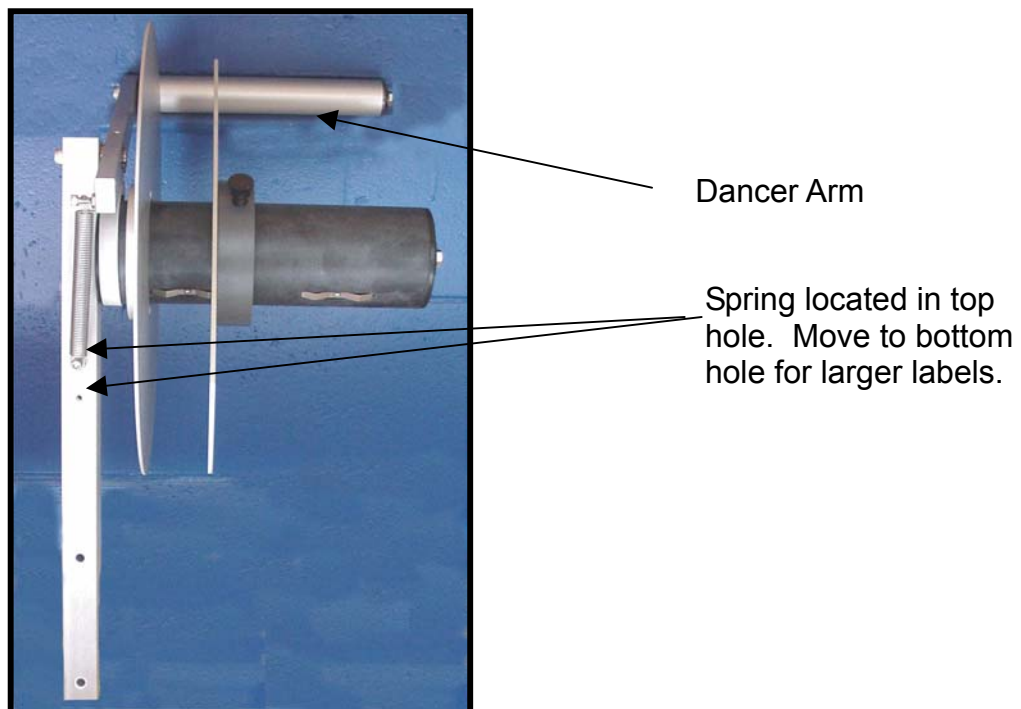


Fig 4

WASTE REMOVAL

1. To remove waste web, turn off the machine, and remove the rewind spool clamp.



Fig 5

2. Tear the web first.
3. While holding the rewind backing plate, turn the whole waste web in the opposite direction and pull.

MOUNTING THE L-60

The L-60 can be mounted from the bottom or the top. The most common method is bottom mount (see Fig 6). Fig 6 shows the L-60 mounted to the optional base plate with standoffs. Fig 7 shows the top of an L-60 ordered with standard mounting and can accept a coder. Fig 8 shows an L-60 Ordered for top mount.

Six holes have been provided in the two lower tie bars. Any combination may be used. The hole pattern most used is 6-1/2" square, which is where the 4 legs are shown in Fig. 6. All the holes are tapped 1/4-20.



Fig 6



Fig 7

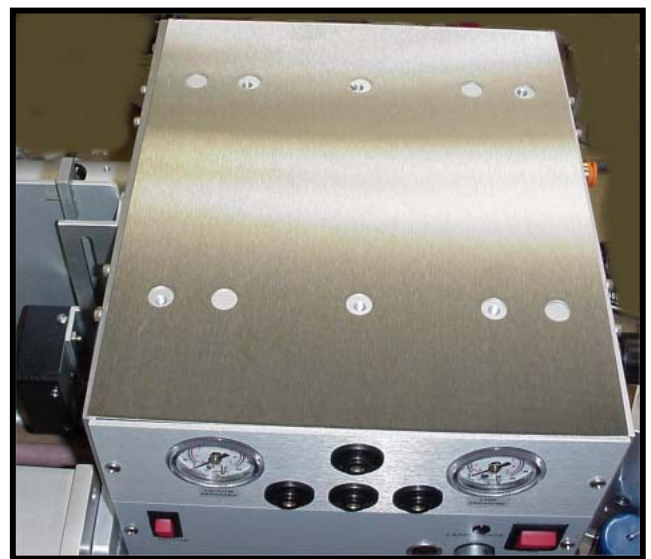


Fig 8

THEORY OF OPERATION

TAMP CYLINDER RETURN OPTIONS

Dwell Timer (Standard on all L60 Tamp Applicators)

“Dwell Time” is the time duration of the signal that opens the valve, which activates the air cylinder. This time duration can be adjusted with the three- turn dial located on the front panel of the machine. Turn the dial clockwise and the duration to

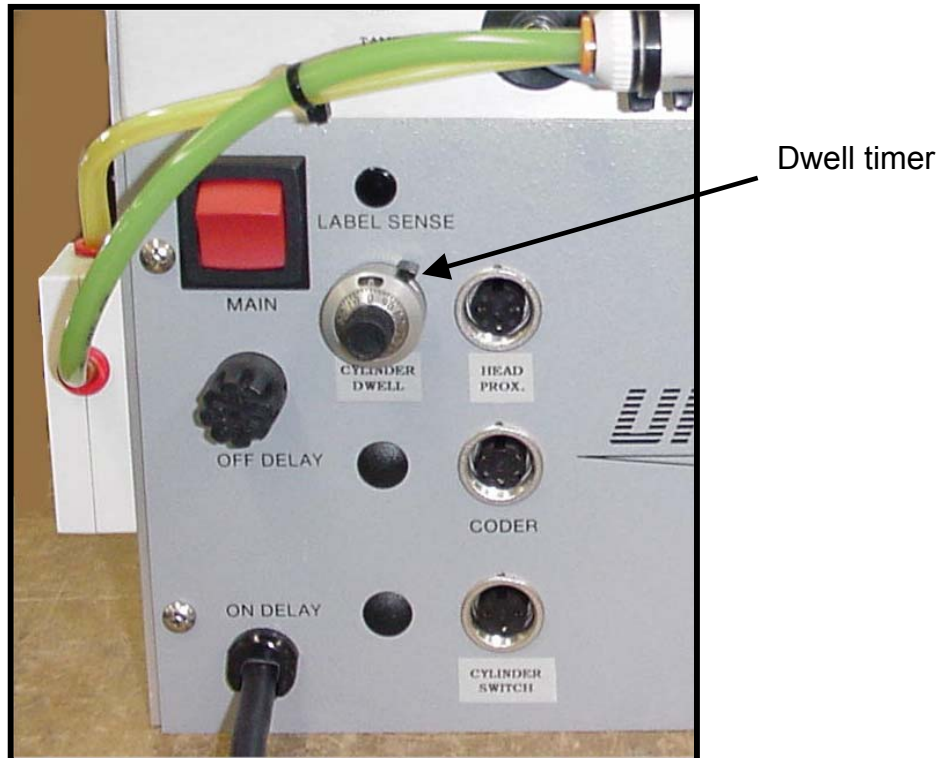


Fig 9

increase the dwell time signal. After the label apply signal is given, the air cylinder extends and the time duration terminates, the air cylinder then retracts and returns the vacuum head to the home position.

Setting the Dwell time:

1. Turn the dial counter-clockwise to “0”.
2. Activate foot switch or product sensor. You will notice that the air cylinder will not extend.
3. Turn the dial to “10”. The air cylinder should extend a short distance and return.
4. Turn the dial until the vacuum head touches the product. The dwell time is now set. The distance of the machine from the product and air pressure will affect this setting.

LOWER "HALL EFFECT" SENSOR (OPTIONAL)

Some L60 tamp label applicators are equipped with two sensors that are attached to the air cylinder. One is located at the top of the cylinder and the other is located below it. The upper sensor sends a signal to the machine so another label will be dispensed onto the vacuum head. The lower sensor can be adjusted to control or limit the stroke of the air cylinder that returns the vacuum head to the home position. The lower sensor is the only one that may require adjustment.



Fig 10



Fig 11

Adjusting the Lower "Hall Effect" Sensor:

1. With Main switch "On" and Motor switch "Off".
2. Disconnect air supply *or* turn tamp regulator "Off".
3. Bring Tamp Head down to new product height.
4. Loosen Phillips screw on Hall Effect Sensor.
5. Slide sensor to top of cylinder, then down until the indicator light on the sensor lights up.
6. Tighten the Phillips screw on the sensor.

“SMART HEAD” (OPTIONAL)

The Smart Head is used if there is a variation in height of the product or the location of the product on the conveyor cannot be controlled. Simply put, the air cylinder is going to travel it makes contact with the product. A “smart head” vacuum head is constructed so that the pad that holds the label compresses when the label is applied. When a sensor detects a specific amount of compression, it sends a signal to the machine telling the air cylinder to return the vacuum head to the home position.

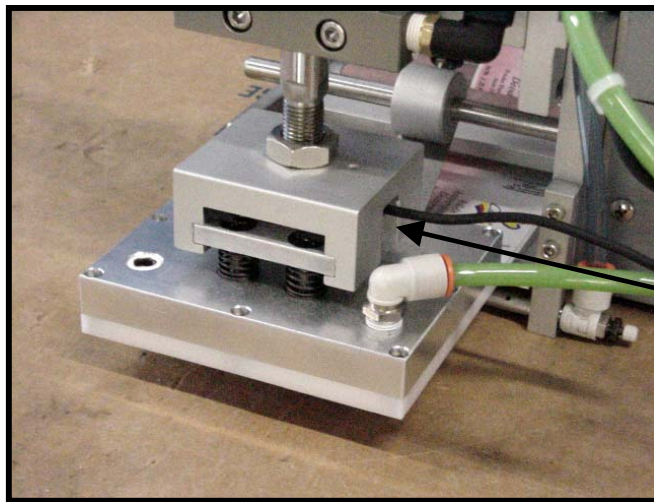


Fig 12



Fig 13

EXPLANATION OF LABEL TRANSFER

As the label is being peeled, it should first contact the center of the bevel on the Vacuum Head. This will deflect the label slightly downward. The air from the Air Assist Tube will keep the label up against the face of the Vacuum Head.

NOTE: The label is deflected downward so that after it is transferred to the head, it will be resting in a position below the peeler plate edge. This is done so the label will not contact the peeler plate edge, as it is being tamped or blown onto the product.

Label
deflecting
off center
of bevel

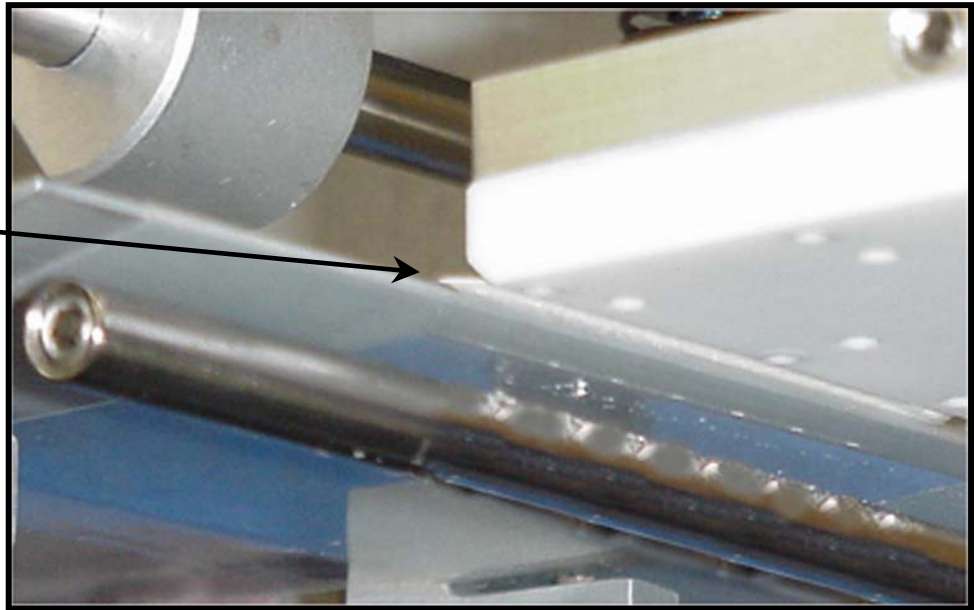


Fig 14

With the product sensor plugged into the proper receptacle, you can cycle the applicator by breaking the beam (photo eye) or tripping the foot switch or micro switch in the fixture. The foot or micro switch in the fixture are used when the L60 is operated as a semi-automatic labeling device, while a photoelectric switch is used when the L60 is mounted in line for automatic label application. When activated, the motor will be turned on and the air will rush through the Air Assist Tube assisting the label transfer. The amount of air rushing through the tube is most critical to a smooth transfer and ultimately the accuracy of the Label Applicator. All the applicators are tested at the factory and the Air Assist Tube airflow is set at that time. However, different label stocks react differently during the transfer process, therefore, the following procedure should be employed if the proper label transfer cannot be achieved.

Air Assist Tube

The Air Assist (Drawing L60-I-30D #26) is a tube with a series of holes through which air rushes assisting the transfer of the label to the Vacuum Tamp or Blow Head. The air will rush through the tube only when the motor is running and the label is being peeled and transferred.



Fig 15

It is our experience that as the roll of labels becomes smaller in diameter, some labels tend to curl after they are peeled from the backing web. The Air Assist tube blows the label up as it is being peeled, assisting the label onto the Vacuum Head. It is regulated by a needle valve (Drawing L60-I-30D #28) attached to the Air Assist Tube on the front of the machine. This air is supplied by the main incoming line and is subject to house line pressure. Experience will tell you how much air is needed to assist the label onto the vacuum head.

Adjusting the Air Assist Tube air pressure

1. Close the needle valve at the end of the Air Assist Tube by turning it clockwise.
2. Cycle the applicator by triggering the Product Switch Assembly.
NOTE: The label will peel, but not transfer to the head.
3. Open the needle valve by turning it counter clockwise $\frac{1}{2}$ turn.
4. Repeat steps 2-3 until the label transfers onto the head with little or no deviation from a straight-line motion.

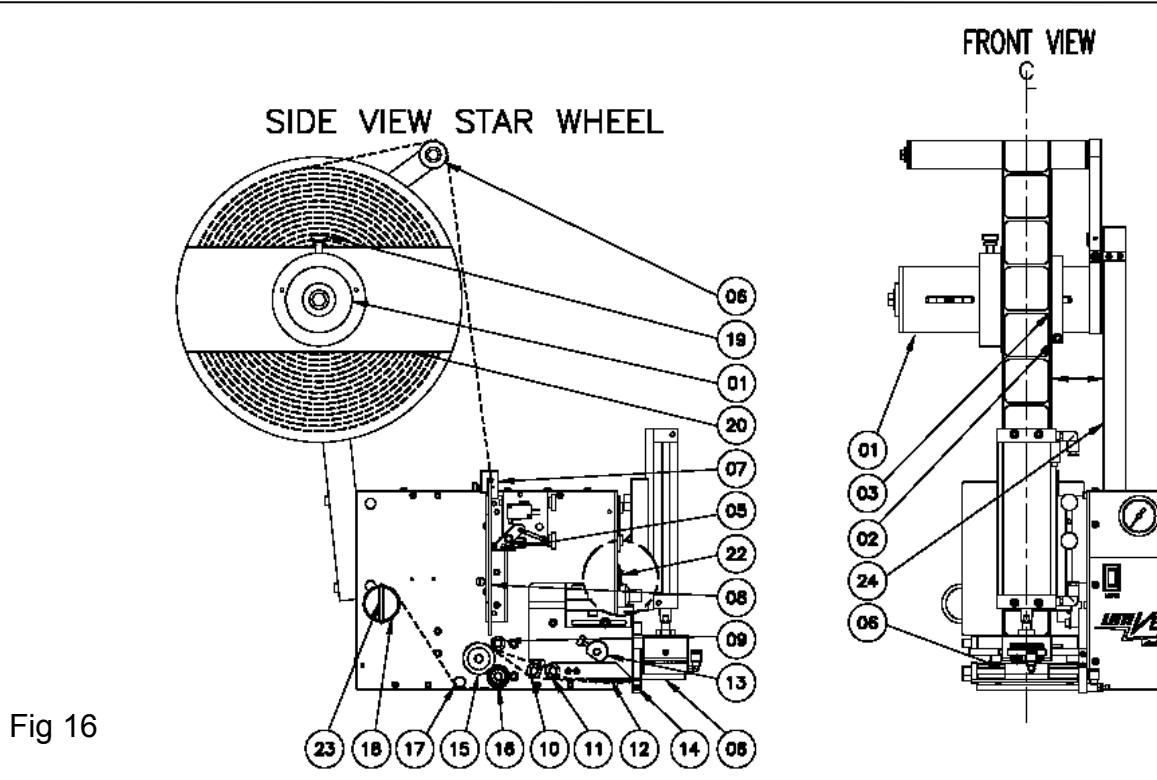


Fig 16

1. Turn off the Main Power switch (22) on the Front Panel
2. Loosen the black thumbscrew (19).
3. Slide off the removable label retainer (20).
4. Place a roll of labels on the Unwind Hub (01).
5. Loosen the Socket Head Cap Screw (02) on the Clamp of the Unwind Backing Disc (03) and position the roll of labels so the labels track centered on the Vacuum Head (06) when peeled off (See FRONT VIEW). (NOTE: For round or oval labels, it is important that the Star Wheel (05) be on the centerline of the label).
6. NOTE: If the unit is equipped with photoelectric label sensing or a clear label sensor, the position of the sensor relative to the label is not critical in most cases. The clear label sensor detects the difference in thickness from the label to the backing material. Metalized graphics or alphanumeric characters will cause this sensor to false trigger. Locate the sensor away from the path of metalized material. (See SIDE VIEW PHOTO SENSOR)
7. Replace the removable label retainer (20) and tighten thumbscrew (19).
8. Pull the web over the Brake Arm (06) and down between the Web Guides (07) on the Label Guide Support Plate (08). (NOTE: If equipped with photoelectric sensor, slide web between white idler roller and web drag (21).
9. Adjust the Web Guides (07), so the web is held with minimum side play but still moves freely.

10. Pull the web under the Star Wheel and down between the first Idler Roll (09) and the Label Guide Support Plate (08), then forward over Idler Roll (10) and under Idler Roll (11).
11. NOTE: There are 2 Web guides located here also. Adjust them as above in Step 8.
12. Next, pull the web between the Peeler Plate (12) and the Web Drag (13).
13. Pull the web until approximately 18" extends from the peeler plate, Remove any labels that are on this part of the web.
14. Bring the web back between the Peeler Plate (12) and Air Assist Tube (14), under Idler Roll (10) then up around the Drive Roller (15).
15. Push the Drive Roller (15) away from the Nip Roller (16).
16. Slide the web between the Nip Roller (16) and Drive Roller (15), under the Web Stand-Off Stud (17) then up to the Rewind Spool (18).
17. Secure the web around the Rewind Spool using Web Retention Clip (23) and turn the Rewind Spool until the web is held firmly. This may require pulling even more web, which will peel off some labels. Catch these labels so they don't stick on something.
18. Grasp the Rewind Spool and turn it counterclockwise for Right Hand, or clockwise for Left Hand to take up slack in the web.
19. Loosen the thumbscrew on the Web Drag Assembly (13) and apply moderate pressure by lifting up on the thumbscrew, forcing the thin Web Drag Plate down on the labels. This will keep the label from buckling as it is fed onto the vacuum head.

RUNNING THE L60

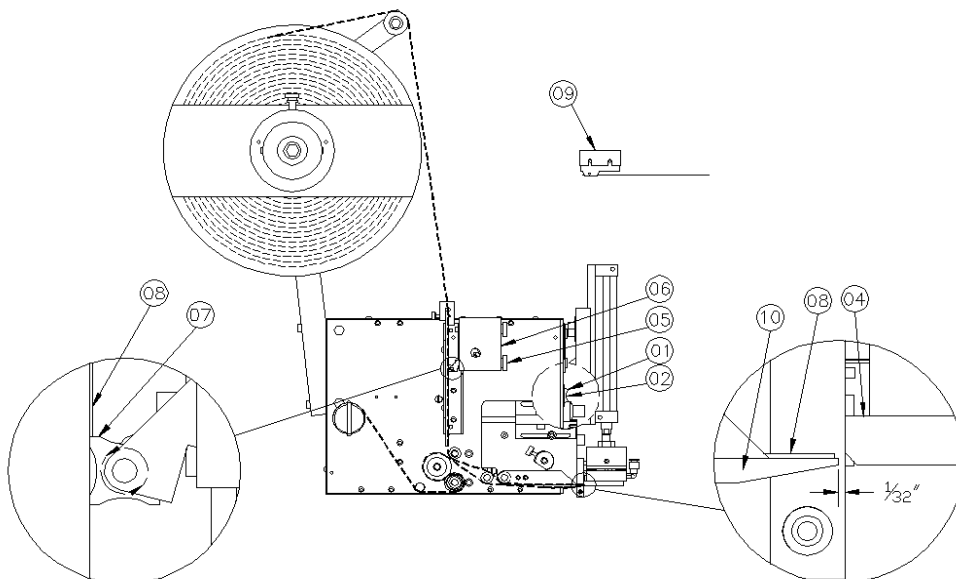
1. Turn the main switch ON (01).
2. Turn motor switch ON (02).
3. Connect air supply. CAUTION: This may bring the Tamp Head up abruptly. Keep fingers clear.
4. Cycle the machine several times (trigger the Product Switch (09)) and observe the label web tracking. Web tracking should settle to a consistent line. Once you have determined a consistent line has been achieved, set the web guides on each side of the web.

NOTE: To ensure the label feeds properly onto the Vacuum Head (04), the Head (04) must be as close as possible to the edge of the peeler bar (10), without hitting it.

1. Loosen the two Thumbscrews (05) that hold the Star Wheel Assembly (06).
2. Slide the assembly up until the Star Wheel completely turns over and is down on a flat side.
3. Next, slide the Star Wheel Assembly (06) up or down until the point of the Star Wheel (07) catches the lead edge of a label (08).
4. Tighten the Thumbscrews (05).
5. Trigger the Product Switch (09) to dispense a label.
6. It may be necessary to repeat steps 5 several times.
7. It may also be necessary to adjust the air assist blow tube pressure (See Air Assist Tube on page 9)

NOTE: The position of the label relative to the peeling edge can also be adjusted via the three-turn dial on the front panel marked "OFF DELAY" if your machine is equipped with this feature. Release the lock (black tab) and turn clockwise for more delay.

Fig 17



LABEL SENSING STAR WHEEL

The star wheel causes the applicator to stop dispensing a label. When the star wheel is down on a flat side, it will slide over the label until the lead edge of the next label contacts the point of the wheel causing the wheel to turn over. As it turns up on a point and back down, the star wheel arm activates a small micro-switch breaking the circuit, thus stopping the advance of the label web. If the star wheel arm fails to activate the switch as it turns over the applier will dispense labels continuously.

NOTE: If the unit is equipped with photoelectric label sensing or a clear label sensor, the position of the sensors relative to the label is not critical in most cases. The clear label sensor detects the difference in thickness from the label to the backing material. Metalized graphics or alphanumeric characters will cause this sensor to false trigger. Locate the sensor away from the path of metalized material.

Star Wheel Adjustment Procedures

Loosen the two screws (2 and 7), which hold the mounting plate (9) to the mounting bracket (1). The screw hole (7) is slotted allowing the plate to move toward or away from the label guide support plate (6). With the star wheel (5) laying flat against the label web, move the mounting plate (9) in toward the label web as far as it will go. Then slowly bring it back until the micro-switch (3) activates. (A small “click” will be heard when this occurs). Tighten the screws (2 and 7) to hold the plate in this position. To be sure that tightening the screws did not change the position of the plate, check by raising the star wheel off the label web. A “click” should be heard when the star wheel is raised and also when it is lowered. A further check should be made by pulling the label web under the star wheel until it starts to turn up on a point. A “click” should be heard at this point and also as the star wheel drops back down onto a flat side. Be sure that the spring (8) is attached to the star wheel arm (4) as this assures a firm contact of the star wheel to the label.

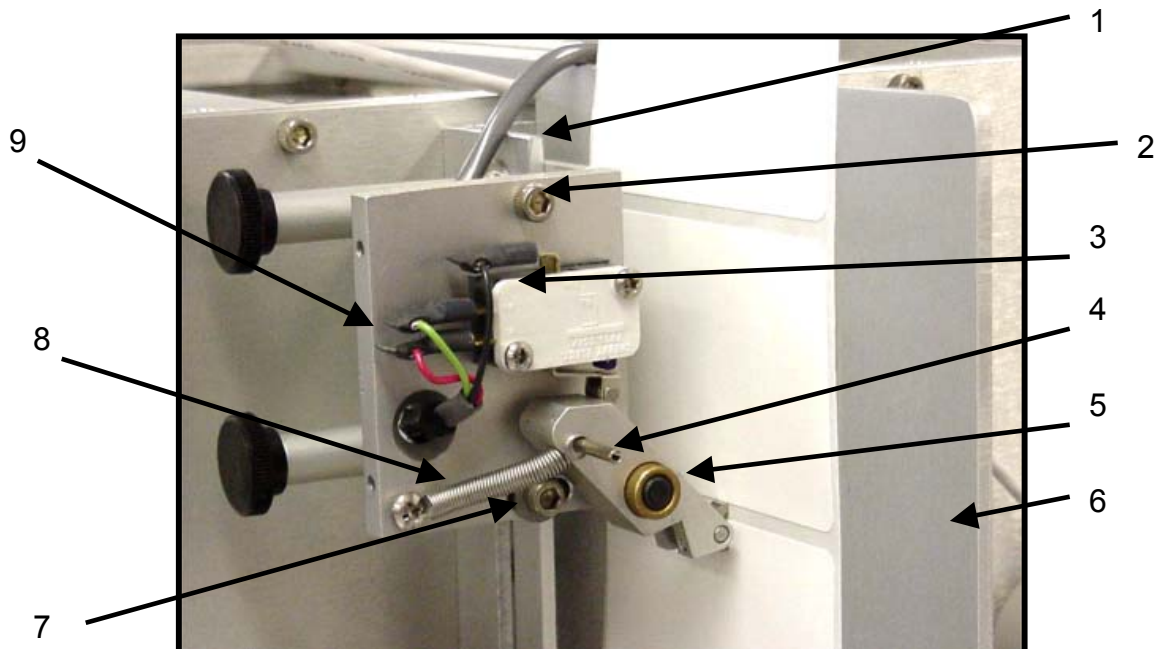


Fig 18

DATA LOGIC SENSOR (OPTIONAL)

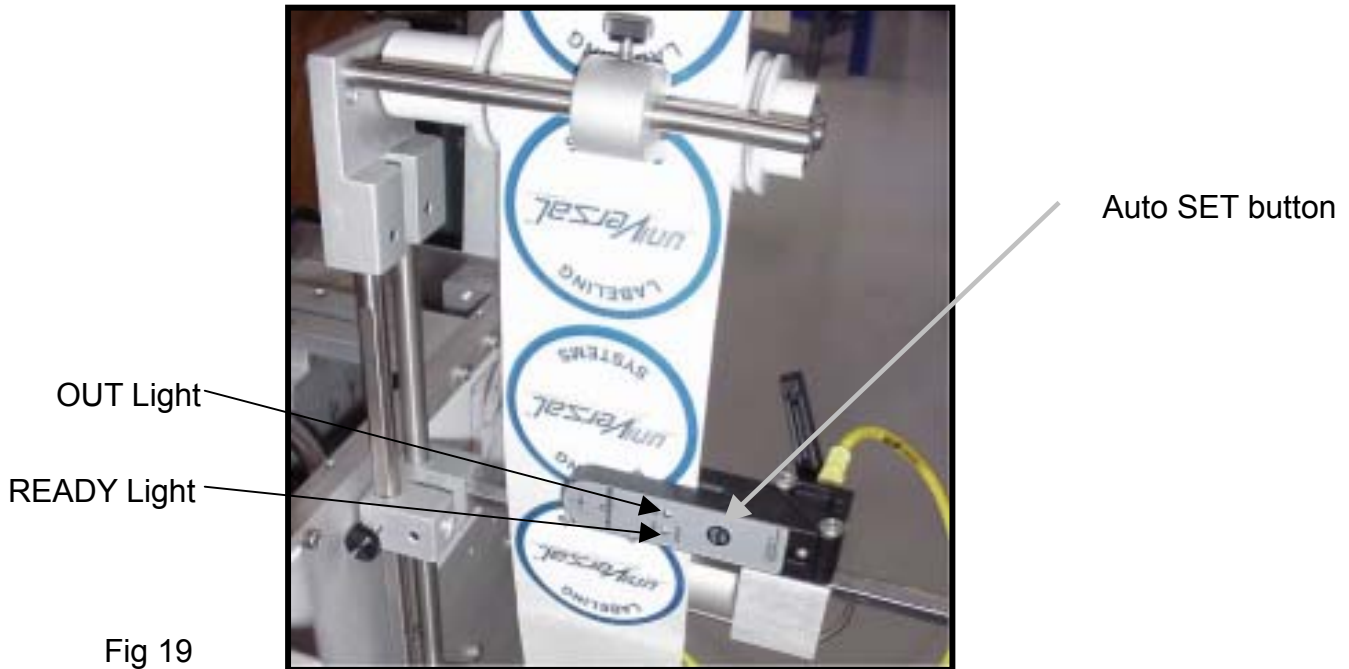


Fig 19

1. Remove one label from the liner to get a bigger liner area.
2. Move the liner underneath the sensor cross hairs. Push and hold "Auto SET" button until the green "READY" light turns off. Let go of the button.
3. The "READY" light will begin to flash.
4. Now move the **label** underneath the cross hairs. Push and hold "AUTO SET" button until green "Ready" light turns off. Let go of the button.
5. The "READY" light will now be **on** solid. The set procedure is now complete. If you make a mistake or something went wrong, you can repeat the procedure.
6. If the sensor is set up correctly, the "OUT" light should come on in the label gap. To make sure that it does, move the label around under the cross hairs to see if it false detects called "hot spots" anywhere on the label.
7. If the sensor detects "hot spots" on the label, repeat steps 1-5 again. This time when you put the label underneath the sensor put the specific "hot spot" under the cross hairs.
8. Turning the power on or off does not affect sensitivity. Once the sensor is programmed the values are burned into the chip inside the sensor.

LION SENSOR (OPTIONAL)

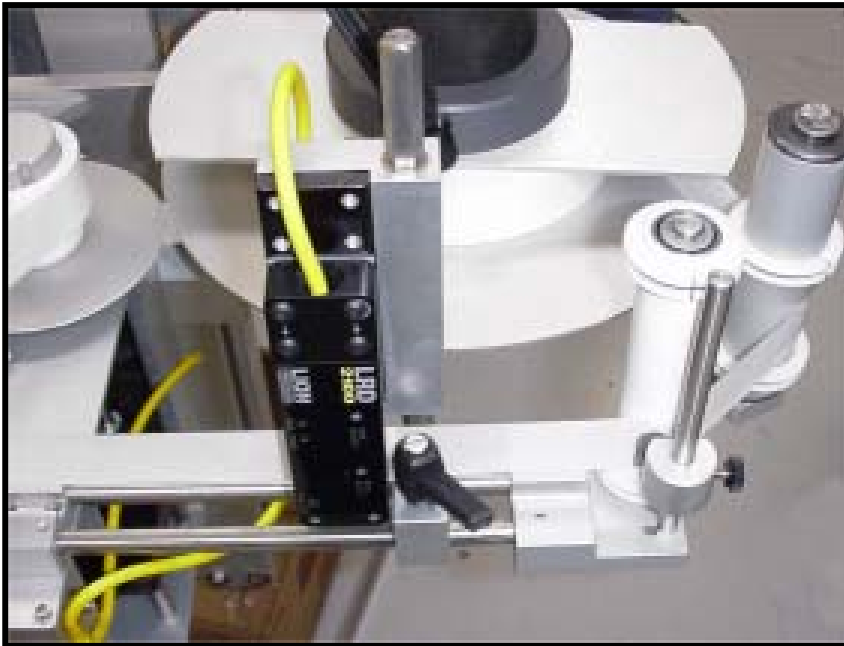


Fig 20

Setup Procedure:

1. Remove labels and web from inside the sensor.
2. Center the "Gain Adjust" by turning it four turns Counter-clockwise.
3. Then, turn the "Gain Adjust" back 2 turns clockwise.
4. Set the "Zero Adjust" to a point where the ZERO light starts to come on.
5. While moving labels on the web through the sensor.
Set the "Gain Adjust" to a point where the "Edge" light starts to flash.
6. Keep Turning the "Gain Adjust" ½ turn clockwise.
7. The sensor is now ready to use.



Fig 20A

Gain Adjust

Zero Adjust

SECTION 3 MAINTENANCE

STARWHEEL MAINTENANCE

After continued use, the starwheel label sensor may become fouled with glue and the points could become dull enough so that it might fail to catch the leading edge of a label, thus allowing more than one label to be dispensed. It should be cleaned and sharpened as follows:

Remove the 3 screws that hold the plastic black cover. Remove the starwheel pivot assembly and clean the starwheel with mineral spirits, lighter fluid, etc., until the wheel turns freely. If the points are dull, sharpen by placing the assembly flat on a piece of crocus cloth or other very fine emery clothes or paper. (See illustration below). Gently hone the points by moving the assembly in one direction until all the points are sharp, i.e.. If you do 10 strokes on one side, do 10 strokes on the other three sides. This will keep the starwheel concentric. Lightly oil the wheel, making sure it turns freely before reinstalling.



Fig 21 Remove 3 Pan head screws

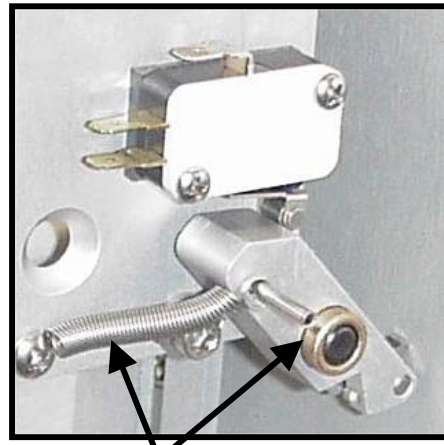


Fig 22 Remove spring and slide Star wheel assembly off.

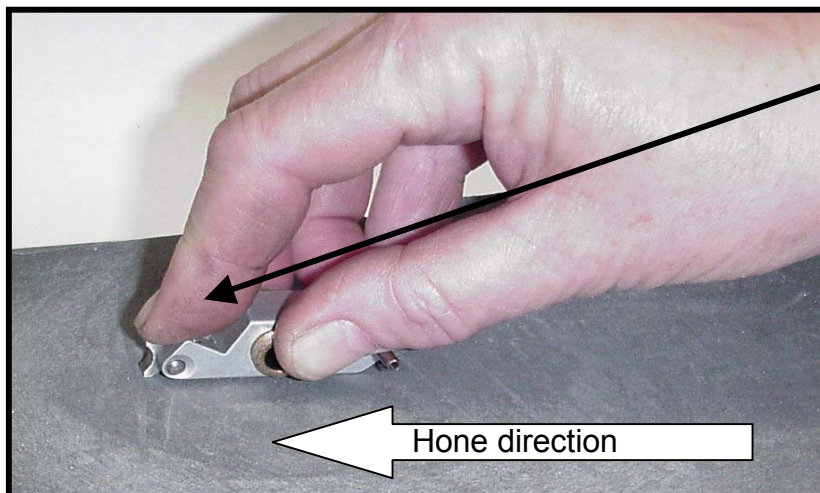


Fig 23

Hold Index finger on top of star to keep it steady.

Hone direction

GENERAL MAINTENANCE

The Drive Roll (**Drawing L60-I-00D #06**) should be kept clean to avoid slippage. This can affect the label transfer onto the Vacuum Head. Clean with lacquer thinner, alcohol or similar cleaner to remove glue build-up.



Fig 24

The Rewind Assembly should be set just tight enough to rewind the waste web. Adjusting the tension of the Rewind Assembly is accomplished by:

1. Loosening the nut that secures the Slip Clutch Spring Retainer (**See Fig 25 below**)
2. With a flat head screwdriver, turn the Slip Clutch Spring Retainer clockwise for more tension, or counter clockwise for less tension.



Fig 25

SECTION 4 TROUBLESHOOTING

Symptom:

Label hesitates on delivery.

Solution:

1. Drive Roll dirty. Clean with mineral spirits.
2. Idler Rollers binding. Clean and adjust if necessary.
3. Pulleys loose on shaft. Tighten carefully. Do not strip threads or Allen wrench receptacle.
4. Drive Belt loose. Tighten Belt Tensioner Assembly.

Symptom:

Label does not always peel from backing web.

Solution:

Try increasing the Web drag tension device.

Symptom:

Label hangs up on peeler bar edge when tamping or blowing onto product.

Solution:

1. Try reducing or increasing the vacuum.
2. Check the air assist pressure.
3. Check the distance from the Vacuum head and peeler edge making sure they are not too close.
4. Check Air supply.
5. Check Solenoid valves.
6. Make sure the Air regulators are turned on.
7. Adjust Vacuum Head. **(See page 29)**

TROUBLESHOOTING (continued)

Should malfunctions occur, the following procedure should determine where the problem is:

1. Remove label web from the machine.
2. Turn the switches "ON".
3. Trip the product-sensing switch. The drive roll should start turning.
4. Slide the label web down under the star wheel, or (through the photo electric or clear label sensor) until the star wheel turns up on a point and back down. The drive roll should stop turning. If the L60 is equipped with photoelectric label sensing or a clear label sensor, pass the label through the opening until the motor stops.

Drive Roll does not *START*, check the following:

1. Is the product-sensing switch plugged in side panel?
2. Is the product sensing switch malfunctioning? Check for make and break of switch; listen for relay operation of electric eye.
3. Is the power module plugged into its receptacle securely? The power module is found on the back of the front panel, inside the machine, and can be seen by removing the top cover.

Drive Roll fails to *STOP* when star wheel turns over:

1. Remove three screws and pull off star wheel cover (See page 13). Lift up and let down star wheel by hand; if drive roller still turns, remove spring from pin on star wheel arm and pull Star Wheel Pivot Arm Assembly off. Activate the switch by hand. If drive roll still turns, check for make and break with ohmmeter, and replace if necessary.
2. Check quick disconnect connections for proper contact.
3. If Drive Roll stops when the switch is operated by hand, replace the star wheel and adjust the star wheel assembly by loosening the two screws that hold the backing plate and move it to a position where the star wheel will open the switch when it turns on a point. **(See page 12 for star wheel adjustment procedures).**

If these adjustments fail to correct the problem, reset the power module. This can be accomplished by removing front panel. Make sure that you ground yourself before touching the circuit board. Static electricity can damage the board. Place fingers on each side of circuit board. (DO NOT TOUCH ELECTRICAL COMPONENTS ON BOARD.) Move board side to side and push down to be sure board is seated in contacts on bottom.

TROUBLESHOOTING (continued)

1. Is machine receiving power from power source? Check the outlet with a voltmeter.
2. Are all electrical connections in place and tight?
3. Does motor and drive train turn freely? (Turn machine off and turn drive roll by hand.)
4. Is machine webbed correctly? (Check webbing diagram)
5. Are drive roll and star wheel clean and operating properly?
6. Is any wiring frayed, chafed, or broken?
7. Is Belt Tensioner Assembly at correct tension? (Taunt)
8. Are adjusting screws and studs tight?
9. Are pulleys tight on shafts? Tighten set screws carefully avoid stripping threads. And /or Allen wrench receptacle.

TROUBLESHOOTING (Registration)

Normally, at average speeds, the Applicator will hold registration to within plus or minus 1/32nd inch.

Variations of more than those limits are normally caused by:

Problem 1:

Label web binding.

Solution:

Check Web Guides (**Drawing L60-I-60D #09 & #10**) and Unwind Assembly (**Drawing UWA-13R-I-00**), for proper clearance. **Is peeler tape worn? (Drawing L60-I-30D #29)**

Problem 2:

Drive Roll glazed (Drawing L60-I-00D #06) and slippery or covered with labels or glue.

Solution:

Clean with mineral spirits, lacquer thinner, alcohol, or other solvent.

Problem 3:

Drive Roll not parallel to Lower Idler Roller (Drawing L60-I-00D #06 & L60-I-10D #05).

Solution:

Turn motor switch "off" and remove label web from Drive Roll and Idler Roller. Push the Drive Roll away from the idler Roller and place two narrow strips of paper between the Drive Roll and Idler Roller at each end of the drive roll. Release the Drive Roll. The two strips, now trapped between the rolls, should have the same "drag" when the strips are pulled in opposite directions. If not, adjustment is made by loosening two bolts on the outside back of the machine, at the opposite end of the Drive Roll Shaft and moving forward and back as required.

SECTION 5 TECHNICAL

VACUUM HEAD FUNDAMENTALS

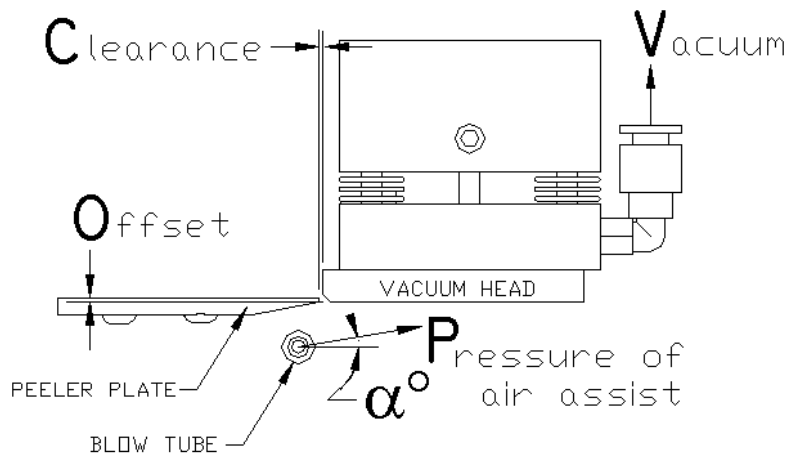


Fig 26`

Variables Affecting Vacuum Head Performance

C = as small as possible w/o the Vacuum Head hitting the Peeler Plate (**typically 1/32"**).

V = Enough Vacuum Pressure to hold the Label on w/o inhibiting label advance.

O = enough to deflect label slightly downward (**typically 1/32"**).

P = Enough Air Pressure to force label up and onto Vacuum Head.

α = Direct Air Assist Tube so Leading edge of label remains in contact with Vacuum Head during label advancement.

TECHNICAL SUPPORT

When calling for Technical Support:
have your Model #: L60
and the Serial Number ready (located on the side opposite the roll of labels).

Email: fjones@universal1.com

Web Site: <http://www.universal1.com>

DRAWINGS AND BILL OF MATERIALS

MAIN ASSEMBLY

See Drawing L60-I-00D

FRONT SIDE PANEL ASSEMBLY

See Drawing L60-I-10D

REAR SIDE PANEL ASSEMBLY

See Drawing L60-I-20D or L60-I-20D1**

BELT TENSIONER ASSEMBLY

See Drawing SL1-I-20

TAMP ASSEMBLY

See Drawing L60-I-30D

BLOW ASSEMBLY

See Drawing L60-I-31D

GAUGE ASSEMBLY

See Drawing L60-I-40D

FRONT PANEL ASSEMBLY

See Drawing L60-I-50D

FRONT PANEL (PLC) ASSEMBLY

See Drawing L60-I-51D

GUIDE ASSEMBLY

See Drawing L60-I-60D

VALVE ASSEMBLY

See Drawing L60-I-70D

UNWIND ASSEMBLY

See Drawing UWA-13R-I-00

WEBBING DIAGRAM

See Drawing L60-W-00D

TAMP PNEUMATIC DIAGRAM

See Drawing L60-P-00D

BLOW PNEUMATIC DIAGRAM

See Drawing L60-P-01D

LION EYE OPTICAL LABEL SENSOR ASSEMBLY

See Drawing OLS-I-04

DATA LOGIC OPTICAL LABEL SENSOR ASSEMBLY

See Drawing OLS-I-05

RECOMMENDED SPARE PARTS

See List

POWER MODULE SETUP SHEET

See Drawing L15-D-02

ELECTRICAL DIAGRAM

See Drawing L60-E-00D or L60-E-00D1**

ELECTRICAL DIAGRAM (PLC)

See Drawing L60-E-01D or L60-E-01D1**

** Note: If your "serial number" ends with D1 then look at the drawings above that end in D1.

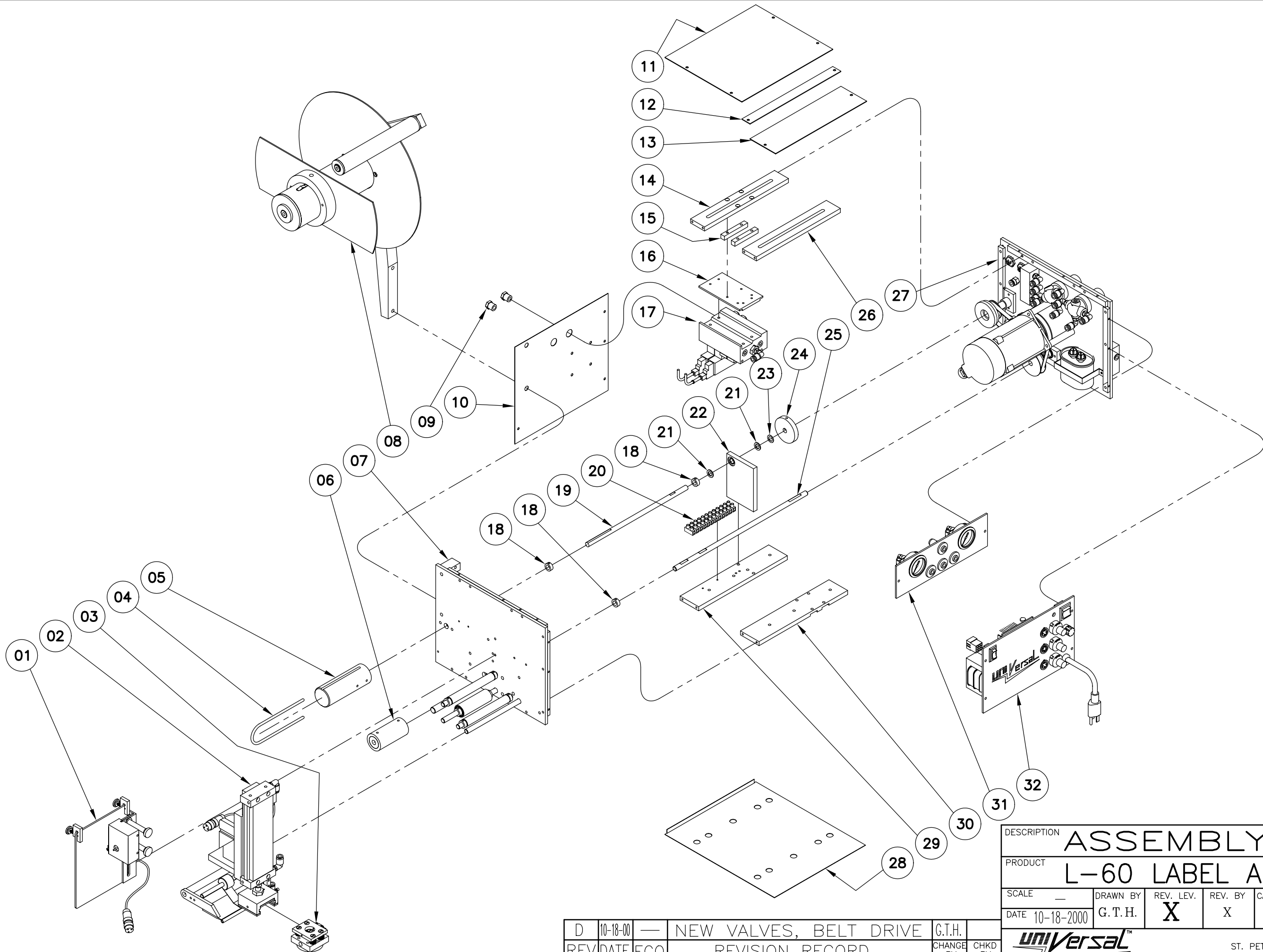
Bill of Material

L60 LABEL APPLICATOR

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01(D)	L60-I-60D	ASSEMBLY, GUIDE	1
02(D)	L60-I-30D	ASSEMBLY, TAMP	1
02(D)	L60-I-31D	ASSEMBLY, BLOW	1
03(E)	VH-L60	ASSEMBLY, L-60 VACUUM HEAD	1
04	L-128-C	CLIP, (4-1/2 WEB) RETENTION	1
04(B)	L-128-C-A	CLIP, (6-1/2 WEB) RETENTION	1
05	L-128-D	SPOOL, (4-1/2 WEB) REWIND	1
05(B)	L-128-D-A	SPOOL, (6-1/2 WEB) REWIND	1
06	L-137-D	ROLL, DRIVE	1
07(D)	L60-I-10D	ASSEMBLY, FRONT SIDE PANEL	1
08(D)	UWA-13R-I-00	ASSEMBLY, R. H. 13" UNWIND	1
08(A)(D)	UWA-13L-I-00	ASSEMBLY, L. H. 13" UNWIND	1
09	100234	FTNG, EXHAUST MUFFLER	2
10	L60-0018A	PANEL, BACK	1
11	L-154-C-02	COVER, TOP REAR SS	1
12	L-153-C-02	COVER, TOP CENTER SS	1
13	L-152-C-02	COVER, TOP FRONT SS	1
14	L-108-T1	BAR, REAR ACCESSORY MOUNTING	1
15	L60-1014	SPACER, MOUNT	2
16	L60-1013	MOUNT, 4 STATION BASE	1
17(D)	L60-I-70D	ASSEMBLY, VALVE	1
18	SC-006	COLLAR, SET .376 X .62 X .250	3
19	L-139-P-2	SHAFT, REWIND	1
20	200255	STRIP, 12 TERMINAL EURO	1
21	L-172-01	WASHER, ALUM. 062 x 375 x 625	2
22	L-212	BLOCK, INBOARD REWIND BEARING	1
23	L-172-02	WASHER, UHMW 031 X 375 X 625	1
24	L-140-F-3	COLLAR, REWIND SLIP	1
25	L60-0028	SHAFT, (4-1/2 WEB) DRIVE	1
25(B)	L60-0028-W	SHAFT, (6-1/2 WEB) DRIVE	1
26	L-108-T	BAR, ACCESSORY MOUNTING	1
27(D)	L60-I-20D	ASSEMBLY, REAR SIDE PANEL	1
27(D)	L60-I-20D1	ASSEMBLY, REAR SIDE PANEL	1
28	L-155-C-02	COVER, BOTTOM SS	1
29	L-114-T	BAR, LOWER REAR TIE	1
30	L-113-T	BAR, LOWER FRONT TIE	1
31(D)	L60-I-40D	ASSEMBLY, GUAGE	1
32(D)	L60-I-50D	ASSEMBLY, FRONT PANEL	1
32(C)(D)	L60-I-51D	ASSEMBLY, FRONT PANEL (PLC)	1

- (A) = Left Hand Machine**
- (B) = Wide Label**
- (C) = PLC Models**
- (D) = See Drawing**
- (E) = Custom, Per Label Size**



D	10-18-00	—	NEW VALVES, BELT DRIVE	G.T.H.	
REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY

DESCRIPTION					
ASSEMBLY, MAIN					
PRODUCT					
L-60 LABEL APPLICATOR					
SCALE	—	DRAWN BY	REV. LEV.	REV. BY	CAD NO
DATE	10-18-2000	G.T.H.	X	X	L60-I-00D



LABELING SYSTEMS INC.

3501 8TH AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33711
TEL. (727) 327-2123

PART NUMBER
L60-I-00D

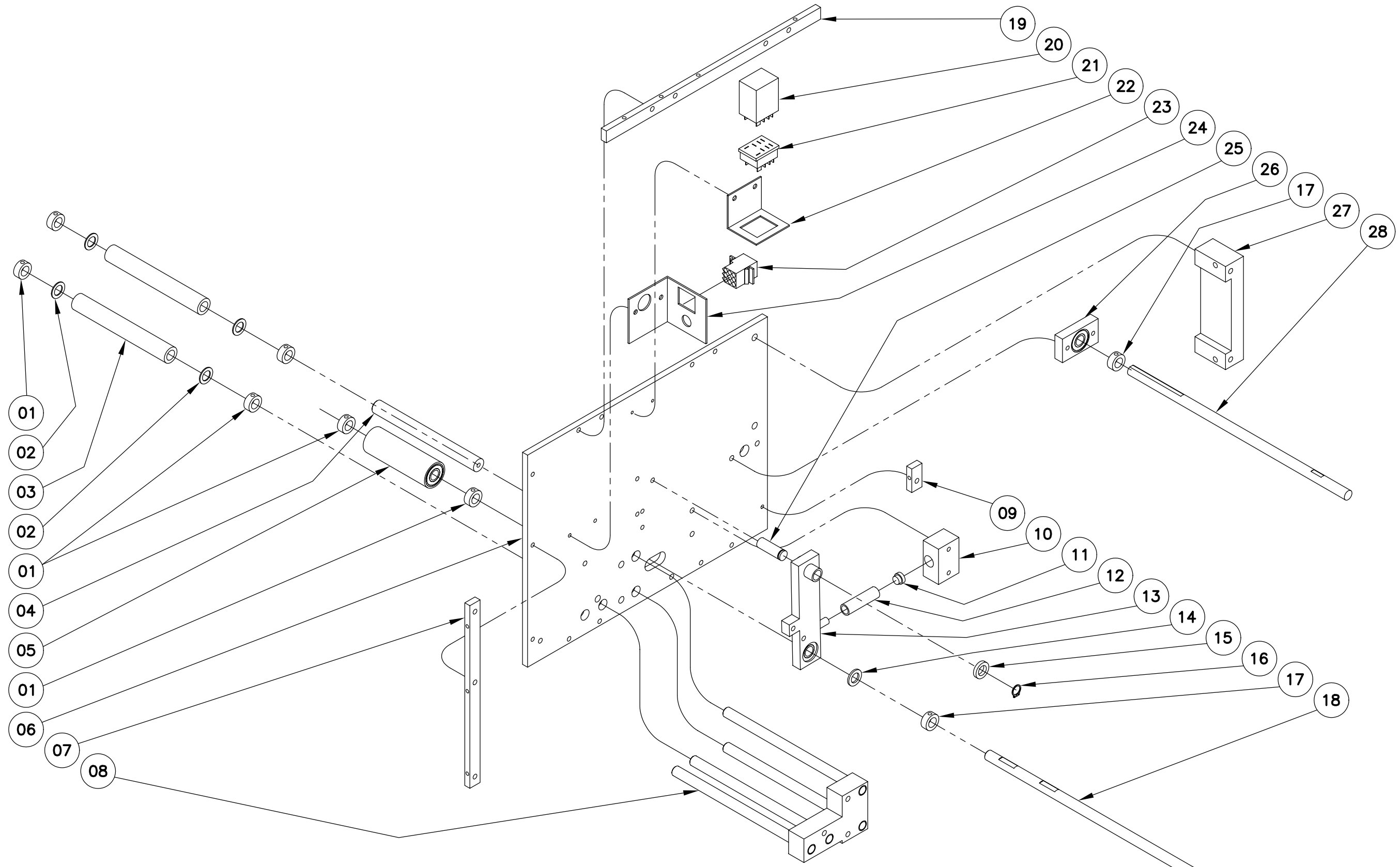
Bill of Material

ASSEMBLY, FRONT SIDE PANEL

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	SC-006	COLLAR, SET .376 X .62 X .250	6
02	L-172-02	WASHER, UHMW 031 X 375 X 625	4
03	L60-0036	ROLL, (4-1/2 WEB) UPPER IDLER	2
03(A)	L60-0037	ROLL, (6-1/2 WEB) UPPER IDLER	2
04	L-121-D	STUD, (4-1/2 WEB) STAND OFF	1
04(A)	L-121-D-1	STUD, (6-1/2 WEB) STAND OFF	1
05	L-143	ROLLER, 3" LOWER IDLER (ALUM.)	1
05(A)	L-143-1	ROLLER, 6" LOWER IDLER (ALUM.)	1
06	L60-0093	PANEL, FRONT SIDE	1
06(D)	L60-0093S	PANEL, STAINLESS FRONT SIDE	1
07	L60-0008	BAR, COVER SUPPORT	1
08	L60-0007R	ASS'Y, (4-1/2 WEB) RH IDLER	1
08(A)	L60-0007RW	ASS'Y, (6-1/2 WEB) RH IDLER	1
08(B)	L60-0007L	ASS'Y, (4-1/2 WEB) LH IDLER	1
08(C)	L60-0007LW	ASS'Y, (6-1/2 WEB) LH IDLER	1
09	L60-0008A	BAR, COVER SUPPORT	1
10	L-167	BLOCK, COMP SPRING RETAINING	1
11	L-165	FOLLOWER, SPRING	1
12	420185	SPRING, .42X1-1/2 COMP MW	1
13	L-104-FR	ASS'Y, RIGHT PIVOT ARM	1
13(B)	L-104-FL	ASS'Y, LEFT PIVOT ARM	1
14	L-172-03	WASHER, UHMW 062 X 380 X 625	1
15	L-172-04	WASHER, UHMW 125 X 380 X 625	1
16	856002	RING, 3/8" EXT. RETAINING	1
17(F)	SC-006	COLLAR, SET .376 X .62 X .250	2
18(F)	L60-0028	SHAFT, (4-1/2 WEB) DRIVE	1
18(A)(F)	L60-0028-W	SHAFT, (6-1/2 WEB) DRIVE	1
19	L-162	SUPPORT, TOP COVER	1
20	200009	RELAY, 12VDC 10AMP DPDT	1
21	200011	SOCKET, 10 AMP RELAY	1
22	MD-722	BRACKET, RELAY	1
23	200028	CONNECTOR, MALE 9 PIN MOLEX	1
23(E)	200148	CONNECTOR, MALE 12 PIN MOLEX	1
24	L-151-M-R	BRACKET, RIGHT MOLEX CONNECTOR	1
24(B)	L-151-M-L	BRACKET, LEFT MOLEX CONNECTOR	1
24(E)	SL1-005	BRACKET, MOLEX CONNECTOR	1
25	L-133-P	STUD, PIVOT ARM	1
26	L-144-M-1	BLOCK, WITH BEARING	1
27	L-123-M	BRACKET, UNWIND MOUNTING	1
28(F)	L-139-P-2	SHAFT, REWIND	1


- (A) = Wide Label**
- (B) = Left Hand Machine**
- (C) = Left Hand Wide Label**
- (D) = Stainless Steel Machine**
- (E) = PLC Models**
- (F) = Reference Only**



DESCRIPTION					ASSEMBLY, FRONT SIDE PANEL				
PRODUCT					L-60 LABEL APPLICATOR				
SCALE	—	DRAWN BY	REV. LEV.	REV. BY	CAD NO				
DATE	10-18-2000	G. T. H.	X	X	L60-I-10D				

PART NUMBER
L60-I-10D

REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
—	—	—	—	—	—


 3501 8TH AVENUE SOUTH
 ST. PETERSBURG, FLORIDA 33711
 TEL. (727) 327-2123

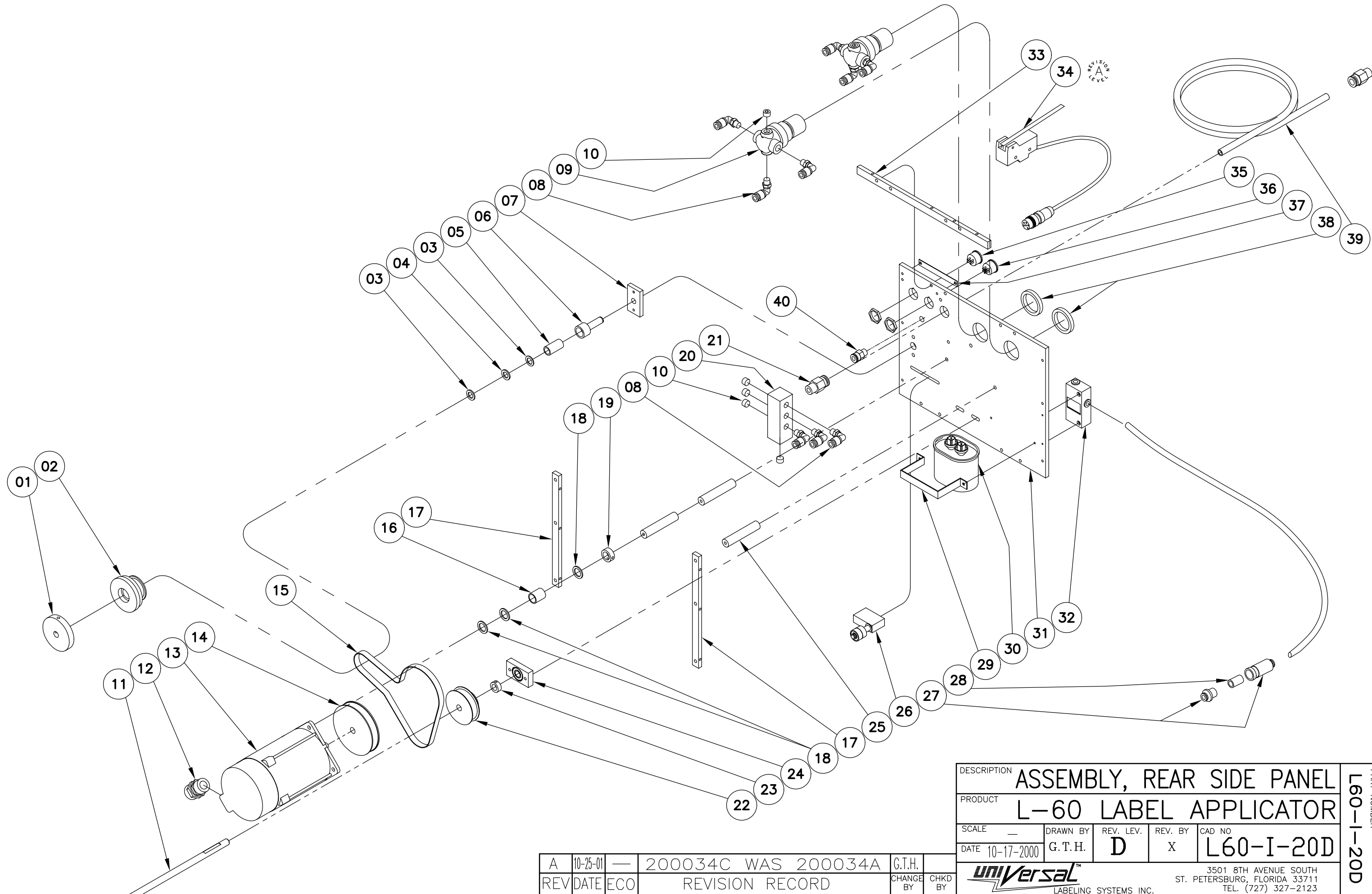
Bill of Material

ASSEMBLY, REAR SIDE PANEL

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01(D)	L-140-F-3	COLLAR, REWIND SLIP	1
02	SL1-023	ASS'Y, REWIND HUB	1
03	400010	RETAINER, 3/8" HARDENED BRNG.	2
04	400009	BEARING, 3/8" THRUST	1
05	420170	SPRING, .54 X 1.5 COMP. S.STL	1
06	L-140-F	RETAINER, SLIP CLUTCH SPRING	1
07	L-140-F-1	BLOCK, SLIP CLUTCH RETAINER	1
08	100345	FTNG, SWVL EL 1/8 X 1/4"	9
09	100300	REGULATOR, AIR	2
10	100299	FTNG, 1/8" NPT BLACK PLUG	6
11(D)	L60-0028	SHAFT, (4-1/2 WEB) DRIVE	1
11(A)(D)	L60-0028-W	SHAFT, (6-1/2 WEB) DRIVE	1
12	210065	RELIEF, BANNER STRAIN	1
13	300066	MOTOR, AC SYNC SUPERIOR	1
14	L60-0029B	PULLEY, DRIVE	1
15	600184	BELT, TIMING	1
16	L60-0089	ROLLER, IDLER	1
17	L60-0008	BAR, COVER SUPPORT	2
18	L-172-16	WASHER, UHMW 063 X 505 X 750	3
19	SC-007-1	COLLAR, SET .501 X .75 X .297	1
20	L60-0088	MANIFOLD, AIR	1
21	100373	FTNG, STRT 1/4 X 3/8	2
22	400165	PULLEY, 30XLB037 TIMING	1
23	SC-006	COLLAR, SET .376 X .62 X .250	1
24	L-144-M-1	BLOCK, WITH BEARING	1
25	SL1-019	STUD, MOTOR STAND-OFF	3
26(B)	SL1-I-20	ASS'Y, BELT TENSIONER	1
27	100250	FILTER, VACUUM WITH 1/4" FTGS	1
28	100251	ELEMENT, FILTER (REPLACEMENT)	1
29	L60-0026	BRACKET, CAPACITOR	1
30	200117	CAPACITOR, 15VF 370VAC	1
31	L60-0094	PANEL, REAR SIDE	1
31(C)	L60-0094S	PANEL, STAINLESS REAR SIDE	1
32	100125	VACUUM EJECTOR W/1/4" PORTS	1
33	L-162	SUPPORT, TOP COVER	1
34	200032C	ASS'Y, PRODUCT SWITCH	1
35	200015	AMPHENOL, 4 PIN FEMALE	1
36	200019	AMPHENOL, 6 PIN (FEMALE)	1
37	UNIV-02	PLATE, UNIVERSAL SERIAL NUMBER	1
38	100321	NUT, PANEL MOUNT AIR REGULATOR	2
39	100415-120	AIRLINE, 3/8" X 10' CLEAR	1
40	100211	FTNG, 1/8 TO 1/4 STRT CONN.	1

- (A) = Wide Label**
- (B) = See Drawing**
- (C) = Stainless Steel Machine**
- (D) = Reference Only**



REV	DATE	ECO	200034C WAS 200034A	G.T.H.
			REVISION RECORD	CHKD BY

DESCRIPTION					ASSEMBLY, REAR SIDE PANEL				
PRODUCT					L-60 LABEL APPLICATOR				
SCALE	—	DRAWN BY	REV. LEV.	REV. BY	CAD NO				
DATE	10-17-2000	G.T.H.	D	X	L60-I-20D				
					3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123				

PART NUMBER
L60-I-20D

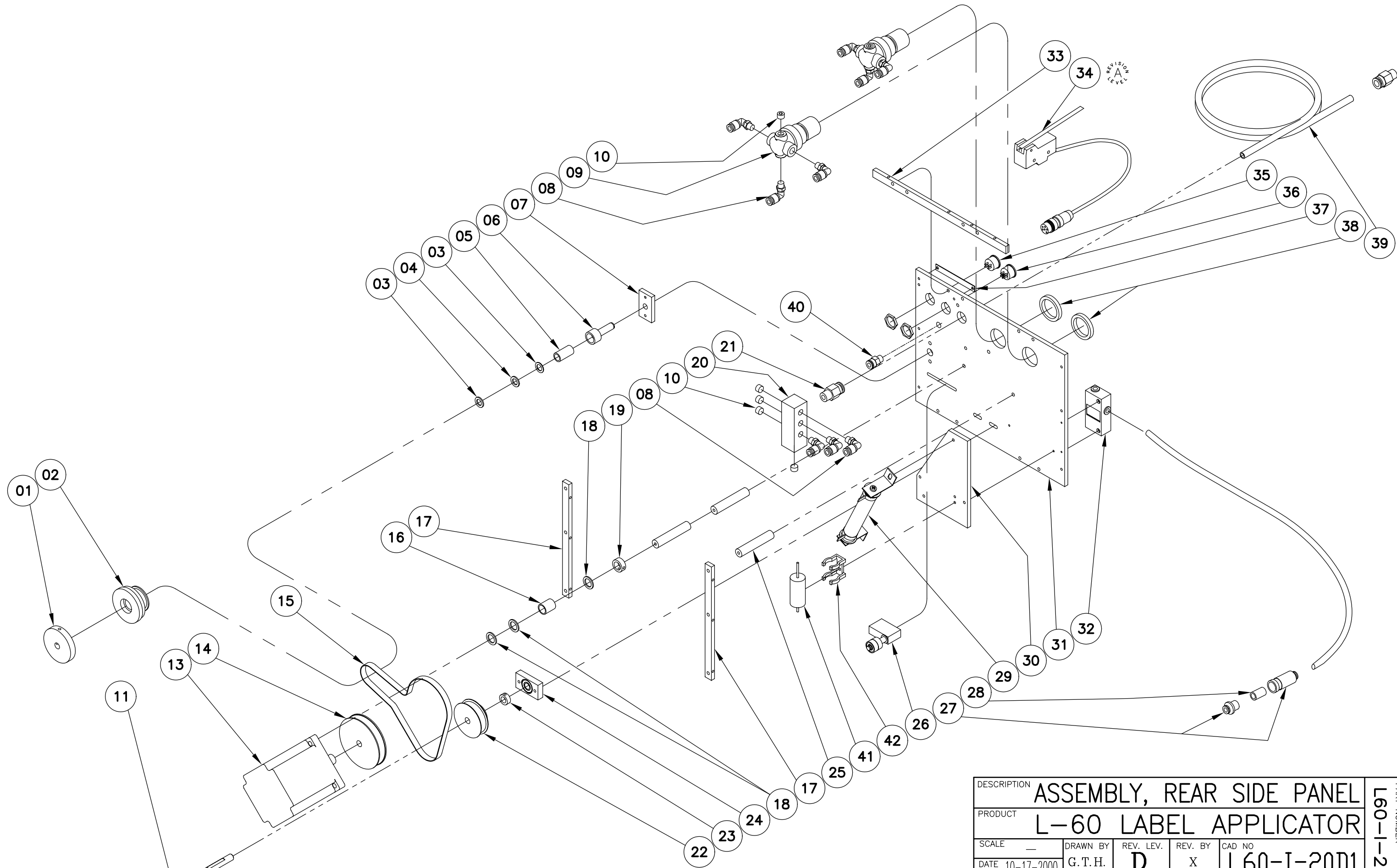
Bill of Material

ASSEMBLY, REAR SIDE

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01(D)	L-140-F-3	COLLAR, REWIND SLIP	1
02	SL1-023	ASS'Y, REWIND HUB	1
03	400010	RETAINER, 3/8" HARDENED BRNG.	2
04	400009	BEARING, 3/8" THRUST	1
05	420170	SPRING, .54 X 1.5 COMP. S.STL	1
06	L-140-F	RETAINER, SLIP CLUTCH SPRING	1
07	L-140-F-1	BLOCK, SLIP CLUTCH RETAINER	1
08	100345	FTNG, SWVL EL 1/8 X 1/4"	9
09	100300	REGULATOR, AIR	2
10	100299	FTNG, 1/8" NPT BLACK PLUG	6
11(D)	L60-0028	SHAFT, (4-1/2 WEB) DRIVE	1
11(A)(D)	L60-0028-W	SHAFT, (6-1/2 WEB) DRIVE	1
12	210065	RELIEF, BANNER STRAIN	1
13	300066-TEMP	MOTOR	1
14	L60-0029B	PULLEY, DRIVE	1
15	600184	BELT, TIMING	1
16	L60-0089	ROLLER, IDLER	1
17	L60-0008	BAR, COVER SUPPORT	2
18	L-172-16	WASHER, UHMW 063 X 505 X 750	3
19	SC-007-1	COLLAR, SET .501 X .75 X .297	1
20	L60-0088	MANIFOLD, AIR	1
21	100373	FTNG, STRT 1/4 X 3/8	2
22	400165	PULLEY, 30XLB037 TIMING	1
23	SC-006	COLLAR, SET .376 X .62 X .250	1
24	L-144-M-1	BLOCK, WITH BEARING	1
25	SL1-019	STUD, MOTOR STAND-OFF	3
26(B)	SL1-I-20	ASSY. BELT TENSIONER	1
27	100250	FILTER, VACUUM WITH 1/4" FTGS	1
28	100251	ELEMENT, FILTER (REPLACEMENT)	1
29	210118	RESISTOR, KIT	1
30	L60-0095	PLATE, CAPACITOR/RESISTOR MNT.	1
31	L60-0094	PANEL, REAR SIDE	1
31(C)	L60-0094S	PANEL, STAINLESS REAR SIDE	1
32	100125	VACUUM EJECTOR W/1/4" PORTS	1
33	L-162	SUPPORT, TOP COVER	1
34	200032C	ASS'Y, PRODUCT SWITCH	1
35	200015	AMPHENOL, 4 PIN FEMALE	1
36	200019	AMPHENOL, 6 PIN (FEMALE)	1
37	UNIV-02	PLATE, UNIVERSAL SERIAL NUMBER	1
38	100321	NUT, PANEL MOUNT AIR REGULATOR	2
39	100415-120	AIRLINE, 3/8" X 10' CLEAR	1
40	100211	FTNG, 1/8 TO 1/4 STRT CONN.	1
41	210119	CAPACITOR	1
42	100250-1	MOUNT, FILTER	1

- (A) = Wide Label**
- (B) = See Drawing**
- (C) = Stainless Steel Machine**
- (D) = Reference Only**



REV	DATE	ECO	DESCRIPTION	CHG BY	CHKD BY
A	10-25-01	—	200034C WAS 200034A	G.T.H.	
			REVISION RECORD		

DESCRIPTION					
ASSEMBLY, REAR SIDE PANEL					
PRODUCT					
L-60 LABEL APPLICATOR					
SCALE	—	DRAWN BY	REV. LEV.	REV. BY	CAD NO
DATE	10-17-2000	G.T.H.	D	X	L60-I-20D1
				3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123	

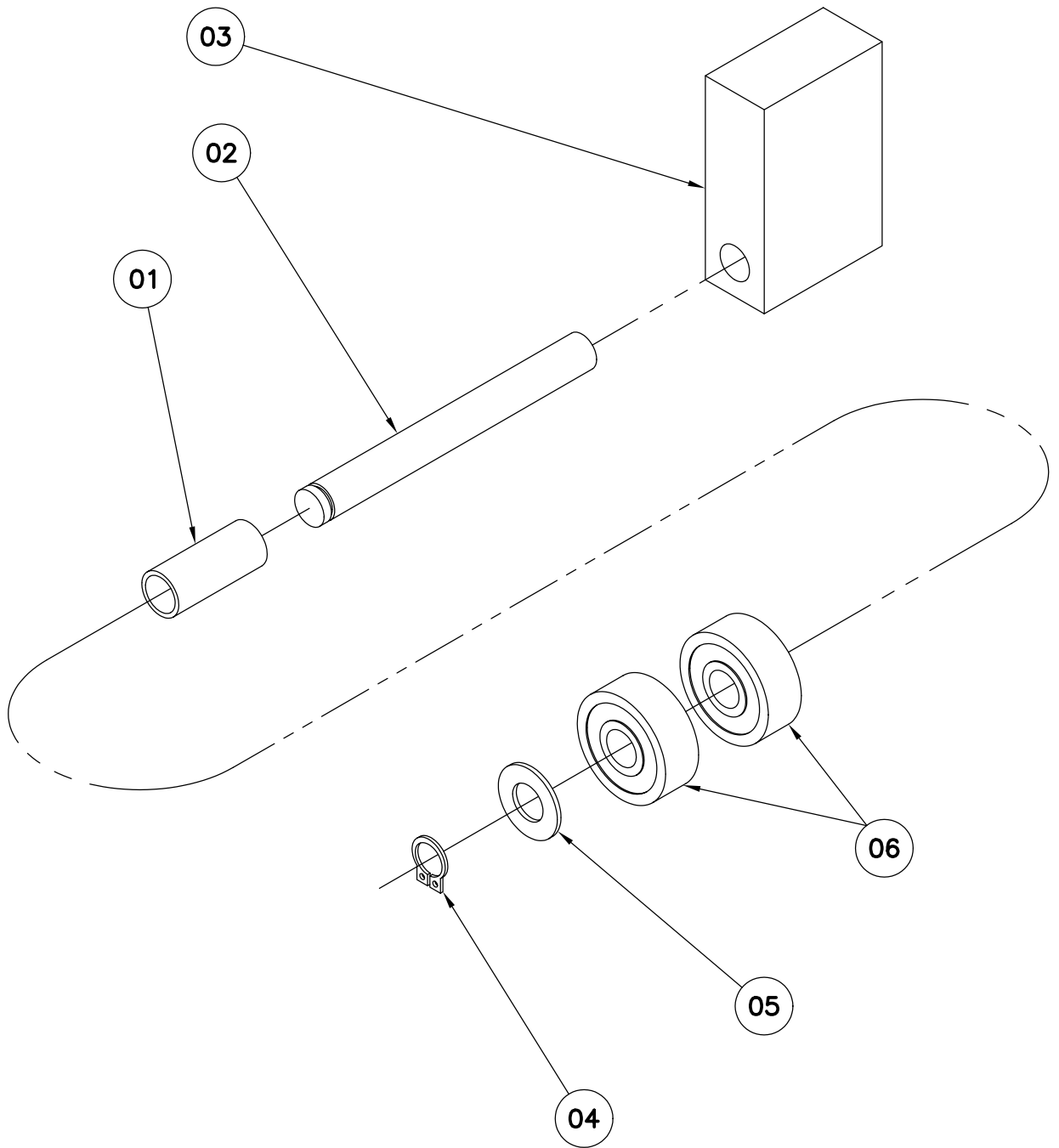
PART NUMBER
L60-I-20D1


Bill of Material

ASSEMBLY, BELT TENSIONER

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	430140	BUSHING, 313 X 250 X 750	1
02	L-132-P-2	PIN, IDLER ROLL	1
03	L-132-P-1	BRACKET, IDLER ASSY	1
04	856001	RING, 1/4" EXT. RETAINING	1
05	L-172-09	WASHER, UHMW 032 X 257 X 500	1
06	400015	BEARING, 1/4" ROLLER	2



DESCRIPTION					ASSEMBLY, BELT TENSIONER				
PRODUCT					SL-1000, L60 LABEL APPLICATORS				
DATE	DRAWN BY	REV. LEV.	REV. BY	CAD FILE:					
4-29-1999	G. T. H.	X	X	SL1-I-20					
					3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123				

PART NUMBER
SL1-I-20

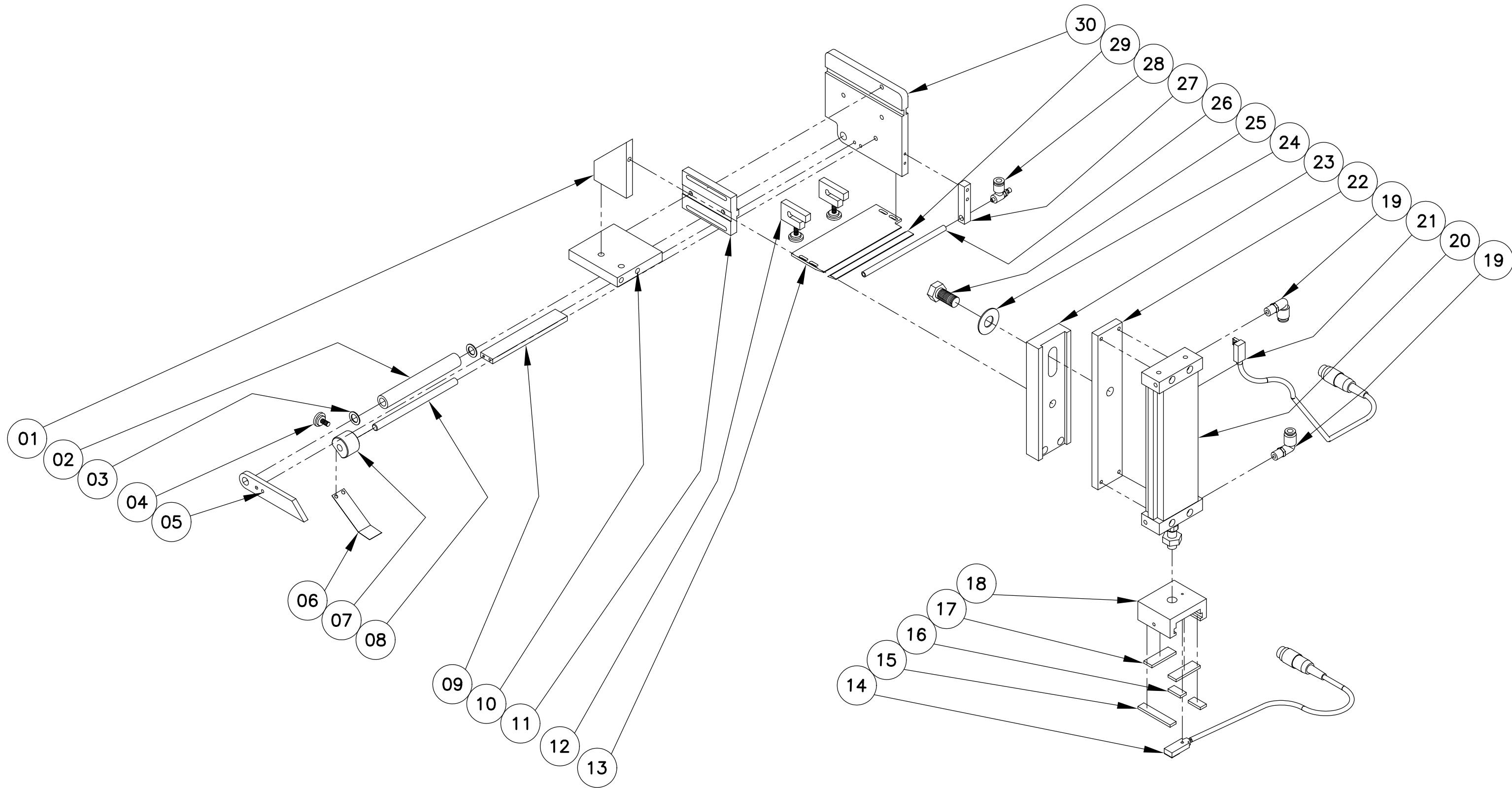
Bill of Material

ASSEMBLY, TAMP

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	SS-115	GUSSET, SUPPORT	1
02	L60-0036	ROLL, (4-1/2 WEB) UPPER IDLER	1
02(B)	L60-0037	ROLL, (6-1/2 WEB) UPPER IDLER	1
03	L-172-02	WASHER, UHMW 031 X 375 X 625	2
04	850041T	THUMBSCREW, 8-32 X 5/8"	1
05	L60-0010	PLATE, SIDE RAIL PEELER	1
06	MP-2500-9	PLATE, WEB DRAG PRESSURE	1
07	L60-0035	BLOCK, WEB DRAG	1
08	L60-0011	SHAFT, WEB DRAG	1
08(B)	L60-0011-W	SHAFT, WEB DRAG	1
09	L-150-2-A	BAR, (4-1/2 WEB) PEELER TIE	1
09(B)	L-150-2-B	BAR, (6-1/2 WEB) PEELER TIE	1
10	L60-0003A	BRACKET, AIR CYLINDER MOUNTING	1
10(B)	L60-0003W	BRACKET, (6-1/2" WEB) AIR CYL.	1
11	L60-0003B	BRACKET, AIR CYLINDER ADJUST	1
12	L-105-DA	ASS'Y, WEB GUIDE CLAMP	2
11(E)	L60-0003F	BRACKET, LONG LABEL (2'-8')	1
13	L60-0019	PLATE, RH (4-1/2 WEB) PEELER	1
13(B)	L60-0019-W	PLATE, RH (6-1/2 WEB) PEELER	1
13(A)	L60-0020	PLATE, LH (4-1/2 WEB) PEELER	1
13(C)	L60-0020-W	PLATE, LH (6-1/2 WEB) PEELER	1
14	210052-1B	ASSY. PROX SENSOR W/ CONNECTOR	1
15	L60-0092	CUSHION, 1/8 X 3/8 X 2	1
16	L60-0091	CUSHION, 1/8 X 3/8 X 3/4	2
17	L60-0090	CUSHION, 1/8 X 3/8 X 1-1/2	1
18	L60-0062	BRACKET, L60 VACUUM HEAD	1
19	100078	FTNG, METRIC ELBOW	2
20(D)	100027	CYLINDER, SMC 2" STROKE	1
20(D)	100025	CYLINDER, SMC 4" STROKE	1
20(D)	100070	CYLINDER, SMC 6" STROKE	1
20(D)	100026	CYLINDER, SMC 8" STROKE	1
21	100071C	ASSY. PROX SENSOR W/ CONNECTOR	1
22(D)	L60-0061E	PLATE, 2 & 4" CYL. MOUNTING	1
22(D)	L60-0061	PLATE, 6" CYLINDER MOUNTING	1
22(D)	L60-0061A	PLATE, 8" CYLINDER MOUNTING	1
23	L60-0060	BRACKET, AIR CYLINDER ADJUST	1
24	400098	WASHER, 1/2 FLAT S.S.	1
25	851001	SCREW, 1/2-13 X 1" HHMS	1
26	L60-0014	TUBE, 5" AIR ASSIST	1
26(B)	L60-0014-W	TUBE, 7" AIR ASSIST	1
27	L60-0013	BRACKET, BLOW TUBE MNTG.	1
28	100326	VALVE, METER-IN 1/4" X 10-32	1
29	600300-4.50	UHMW, TAPE, 1" x 4-1/2"	1
29(B)	600300-6.75	UHMW, TAPE, 1" x 6-3/4"	1
30	L60-0009	PLATE, SWING	1

- (A) = Left Hand Machine
- (B) = Wide Label
- (C) = Left Hand Wide Label
- (D) = Per Stroke Size
- (E) = When Needed



REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						ASSEMBLIES, PEELER AND TAMP					
PRODUCT						L-60 LABEL APPLICATOR					
SCALE	-	DRAWN BY	I.S.V.	REV. LEV.	D	REV. BY	-	CAD NO	L60-I-30D		
DATE	9-25-2000										



3501 8TH AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33711
TEL. (727) 327-2123

PART NUMBER
L60-I-30D

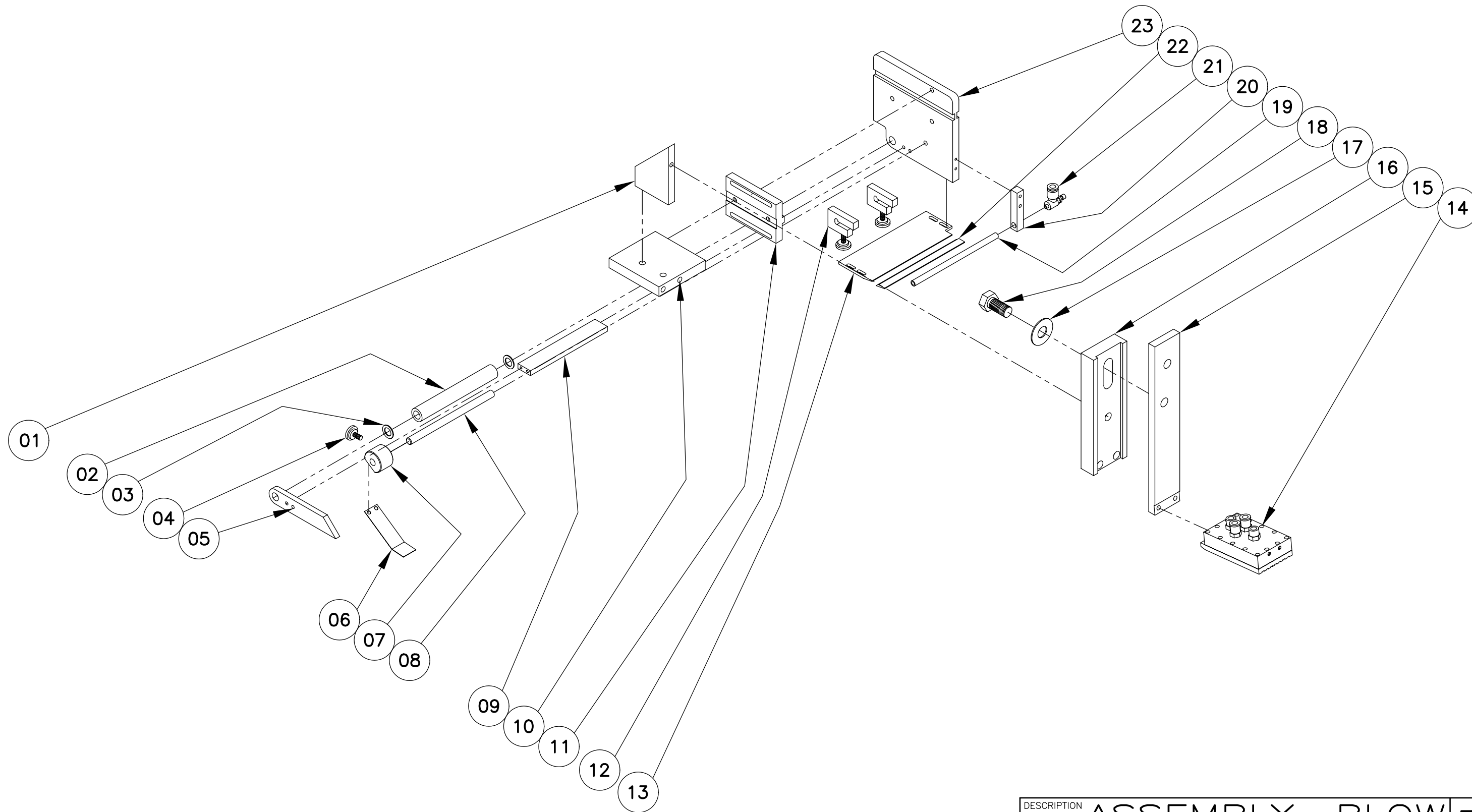
Bill of Material

ASSEMBLY, BLOW

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	SS-115	GUSSET, SUPPORT	1
02	L60-0036	ROLL, (4-1/2 WEB) UPPER IDLER	1
02(B)	L60-0037	ROLL, (6-1/2 WEB) UPPER IDLER	1
03	L-172-02	WASHER, UHMW 031 X 375 X 625	2
04	850041T	THUMBSCREW, 8-32 X 5/8"	1
05	L60-0010	PLATE, SIDE RAIL PEELER	1
06	MP-2500-9	PLATE, WEB DRAG PRESSURE	1
07	L60-0035	BLOCK, WEB DRAG	1
08	L60-0011	SHAFT, WEB DRAG	1
08(B)	L60-0011-W	SHAFT, WEB DRAG	1
09	L-150-2-A	BAR, (4-1/2 WEB) PEELER TIE	1
09(B)	L-150-2-B	BAR, (6-1/2 WEB) PEELER TIE	1
10	L60-0003A	BRACKET, AIR CYLINDER MOUNTING	1
10(B)	L60-0003W	BRACKET, (6-1/2" WEB) AIR CYL.	1
11	L60-0003B	BRACKET, AIR CYLINDER ADJUST	1
12	L-105-DA	ASS'Y, WEB GUIDE CLAMP	2
13	L60-0019	PLATE, RH (4-1/2 WEB) PEELER	1
13(B)	L60-0019-W	PLATE, RH (6-1/2 WEB) PEELER	1
13(A)	L60-0020	PLATE, LH (4-1/2 WEB) PEELER	1
13(C)	L60-0020-W	PLATE, LH (6-1/2 WEB) PEELER	1
14(D)	VH-L60-B	ASS'Y, BLOW VACUUM HEAD	1
15	L60-0061B	PLATE, VACUUM HEAD MOUNTING	1
16	L60-0060	BRACKET, AIR CYLINDER ADJUST	1
17	400098	WASHER, 1/2 FLAT S.S.	1
18	L60-0054	BRACKET, BLOW TUBE MNT	1
19	L60-0014	TUBE, 5" AIR ASSIST	1
19(B)	L60-0014-W	TUBE, 7" AIR ASSIST	1
20	L60-0054	BRACKET, BLOW TUBE MNT	1
21	100326	VALVE, METER-IN 1/4" X 10-32	1
22	600300-4.50	UHMW, TAPE, 1" x 4-1/2"	1
22(B)	600300-6.75	UHMW, TAPE, 1" x 6-3/4"	1
23	L60-0009	PLATE, SWING	1

- (A) = Left Hand Machine**
- (B) = Wide Label**
- (C) = Left Hand Wide Label**
- (D) = Custom, Per Label Size**



REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						ASSEMBLY, BLOW					
PRODUCT						L-60 LABEL APPLICATOR					
SCALE	-	DRAWN BY	I.S.V.	REV. LEV.	D	REV. BY	-	CAD NO	L60-I-31D		
DATE	9-25-2000										

UniVersal™
 LABELING SYSTEMS INC.
 3501 8TH AVENUE SOUTH
 ST. PETERSBURG, FLORIDA 33711
 TEL. (727) 327-2123

PART NUMBER
L60-I-31D

Bill of Material

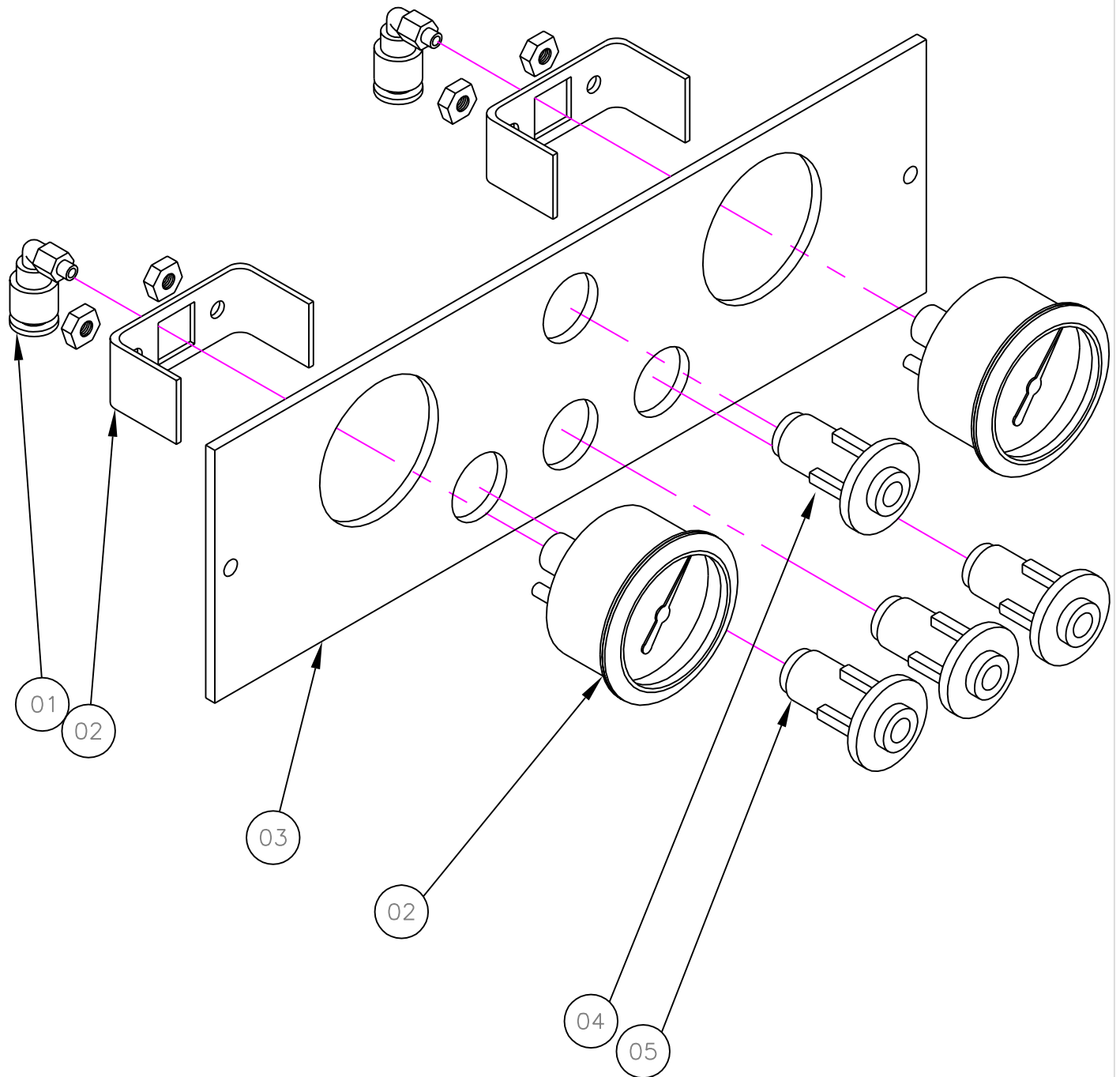
ASSEMBLY, GAUGE

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	100351	FTNG, 1/4 X 10-32 ELBOW	2
02	100319	GAUGE, PANEL MOUNT PRESSURE	2
03(A)	L60-0017	PANEL, (TAMP) PNUMTIC FRONT	1
03(B)	L60-0017-B	PANEL, (BLOW) PNUMTIC FRONT	1
04(B)	100310	FTNG, 3/8 BULKHEAD UNION	1
05(A)	100309	FTNG, 1/4 BULKHEAD UNION	4
05(B)	100309	FTNG, 1/4 BULKHEAD UNION	2

(A) Tamp Machine

(B) Blow Machine



DESCRIPTION	ASSEMBLY, GAUGE			
PRODUCT	L-60 LABEL APPLICATOR			
DATE	DRAWN BY	REV. LEV.	REV. BY	CAD FILE:
9-24-2000	I.S.V.	D	-	L60-I-40D

universal™
LABELING SYSTEMS INC.

3501 8TH AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33711
TEL. (727) 327-2123

PART NUMBER
L60-I-40D

Bill of Material

ASSEMBLY, FRONT PANEL

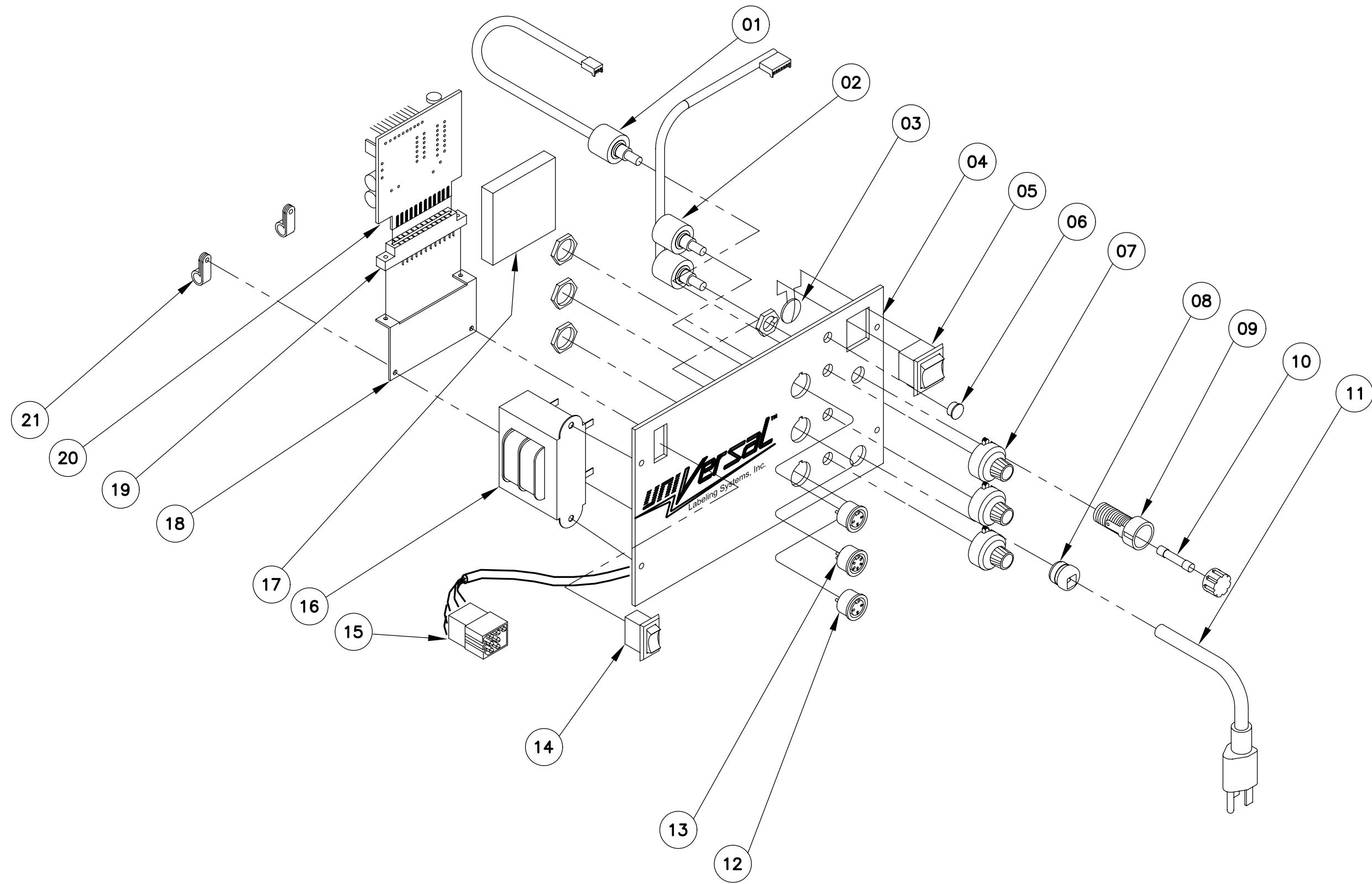
L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01(C)	200216C	ASS'Y, CYLINDER DWELL TIME	1
02(C)	200216B	ASS'Y, TIME DELAY ON / OFF	1
03	200057	VARISTOR	1
04	L-100-R2	PANEL, R.H. FRONT	1
04(A)	L-100-L2	PANEL, L.H. FRONT	1
05	200006	SWITCH, DPST ROCKER (MAIN)	1
06	210067	PLUG, 5/16 HOLE	1
07(C)	200192	DIAL, 10 TURN POT	3
08	200035	RELIEF, 1/8" STRAIN	1
09	200005	HOLDER, PANEL MOUNT FUSE	1
10	200042	FUSE, AGC 3 A	1
11	200036	CORD, 18/3 8FT. SJT POWER	1
11(B)	200279A	ASSY. CONVEYOR POWER CABLE	1
12	200013	AMPHENOL, 3 PIN (FEMALE)	2
13	200017	AMPHENOL, 5 PIN (FEMALE)	1
14	200007	SWITCH, SPST ROCKER (MOTOR)	1
15	200029	CONNECTOR, FEMALE 9 PIN MOLEX	1
16	200160	TRANSFORMER, 12-VOLT	1
17	600345A	RUBBER, CIRCUIT CARD BACKING	1
18	L-181-B	BRACKET, EDGE CARD	1
19	200022	CONNECTOR, 15 PIN EDGE	1
20	200198	MODULE, POWER	1
21	200023	CLAMP, 1/4" CABLE-AMBER	2

(A) = Left Hand Machine


(B) = Machine on Conveyor

(C) = Optional



REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						ASSEMBLY, FRONT PANEL					
PRODUCT						L60 LABEL APPLICATOR					
SCALE	-	DRAWN BY	I.S.V.	REV. LEV.	D	REV. BY	-	CAD NO	L60-I-50D		
DATE	9-25-2000										


 3501 8TH AVENUE SOUTH
 ST. PETERSBURG, FLORIDA 33711
 TEL. (727) 327-2123

PART NUMBER
L60-I-50D

Bill of Material

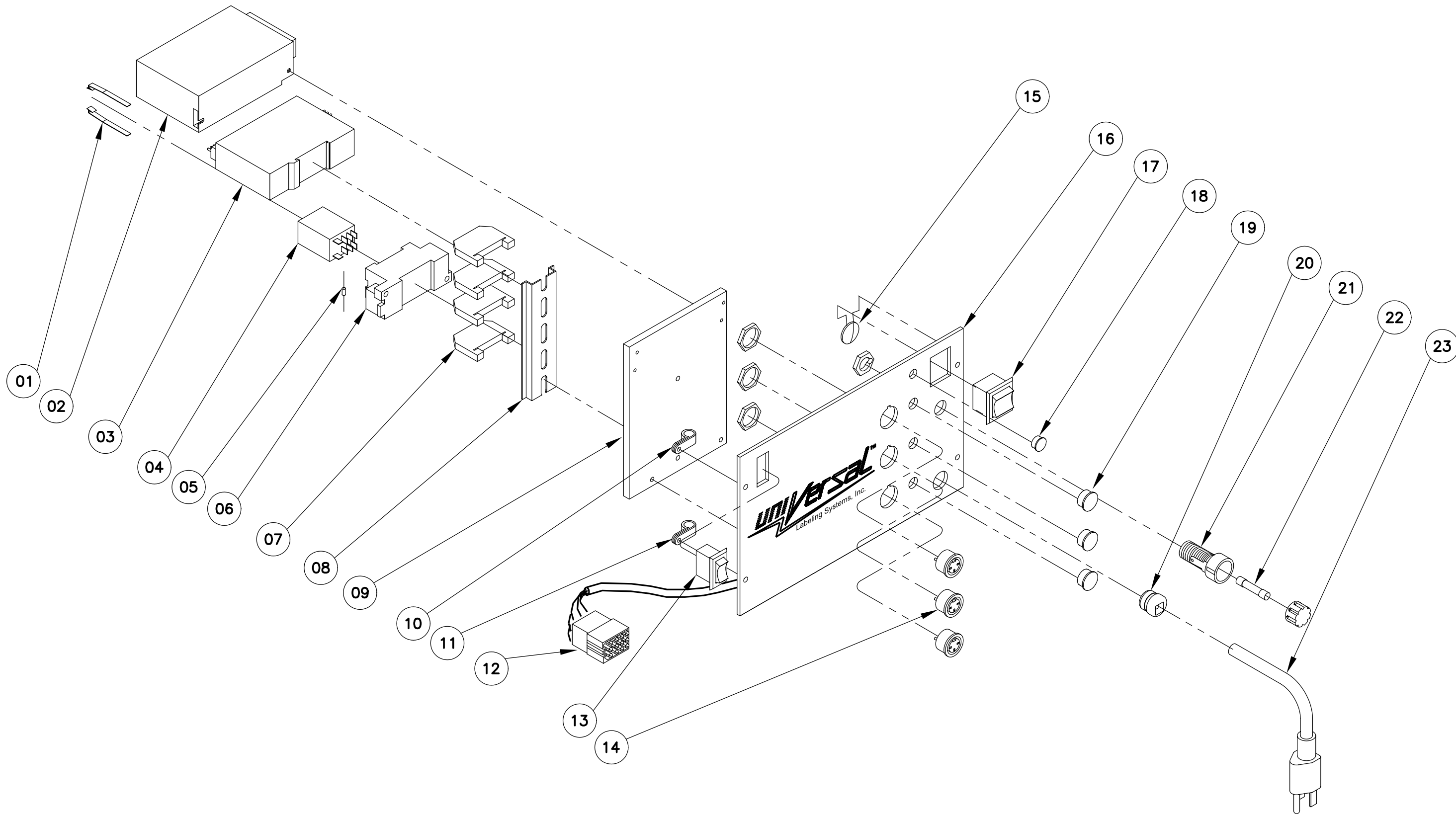
ASSEMBLY, FRONT PANEL (PLC)

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	209021-1	CLIP, RELAY SOCKET	2
02	100541	SUPPLY, 120Vac TO 24Vdc POWER	1
03	240261	PLC, 14I/0 RELAY (AROMAT)	1
04	209020	RELAY, 24VDC 10AMP DPDT	1
05	200228	DIODE	1
06	209021	SOCKET, RELAY	1
07	200314	STOP, DIN RAIL (WAGO)	4
08	200308-4.375	RAIL, 4-3/8" DIN	1
09	L60-0072	PLATE, PLC MOUNTING	1
10	200061	CLAMP, 1/8 CABLE	1
11	200025	CLAMP, 3/8" CABLE-AMBER	1
12	200149	CONNECTOR, FEMALE 12 PIN MOLEX	1
13	200007	SWITCH, SPST ROCKER (MOTOR)	1
14	200013	AMPHENOL, 3 PIN (FEMALE)	3
15	200057	VARISTOR	1
16	L-100-R2	PANEL, R.H. FRONT	1
16(A)	L-100-L2	PANEL, L.H. FRONT	1
17	200006	SWITCH, DPST ROCKER (MAIN)	1
18	210067	PLUG, 5/16 HOLE	1
19	700050	PLUG, 3/8 HOLE	3
20	200035	RELIEF, 1/8" STRAIN	1
21	200005	HOLDER, PANEL MOUNT FUSE	1
22	200042	FUSE, AGC 3 A	1
23	200036	CORD, 18/3 8FT. SJT POWER	1
23(B)	200279A	ASSY. CONVEYOR POWER CABLE	1

(A) = Left Hand Machine

(B) = Machine on Conveyor



REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION					ASSEMBLY, FRONT PANEL (PLC)				
PRODUCT					L60 LABEL APPLICATOR				
SCALE	—	DRAWN BY	I.S.V.	REV. LEV.	D	REV. BY	—	CAD NO	L60-I-51D
DATE	10-5-2000								
					3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123				

PART NUMBER
L60-I-51D

Bill of Material

ASSEMBLY, GUIDE

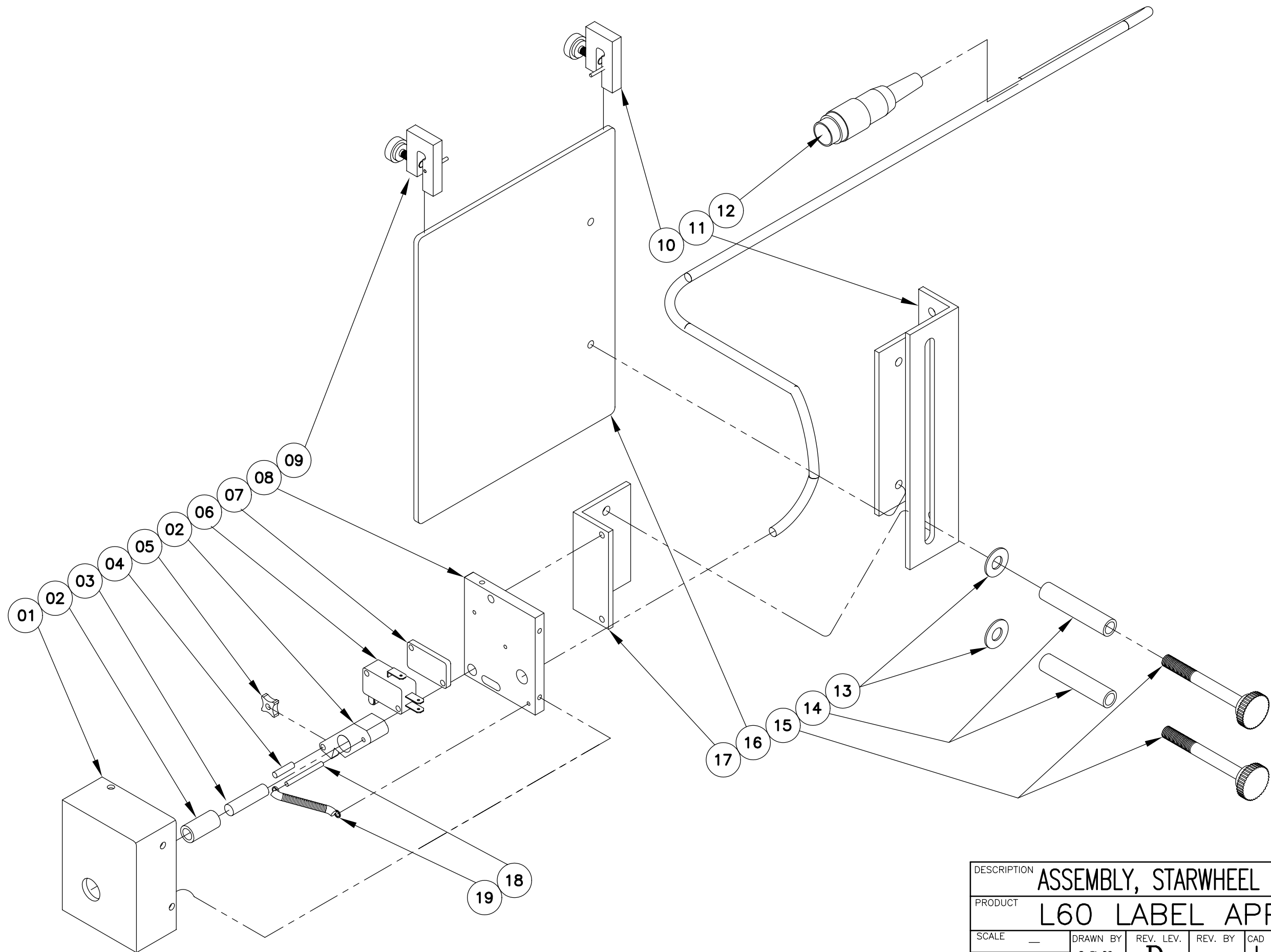
L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	L-168-A	COVER, RIGHT STAR WHEEL	1
01(A)	L-168-B	COVER, LEFT STAR WHEEL	1
02	430165	BUSHING, 375 X 250 X 750	1
03	L-109-S-3	PIN, STARWHEEL PIVOT ARM	1
04	L-170	PIN, STARWHEEL PIVOT ARM ASSY.	1
05	L-129-S-1	WHEEL, STAR	1
06	200109	SWITCH, MICRO	1
07	L-164	SPACER, MICRO SWITCH	1
08	L-109-S-2	ARM, STARWHEEL PIVOT	1
09	L-105-LA	ASSY. L.H. WEB GUIDE CLAMP	1
10	L-105-RA	ASSY. R.H. WEB GUIDE CLAMP	1
11	L-107-D-1	BRACKET, CHANNEL	1
11(B)	L-107-D-3-R	BRACKET, CHANNEL (RIGHT)	1
11(C)	L-107-D-3-L	BRACKET, CHANNEL (LEFT)	1
12	200016	AMPHENOL, 4 PIN (MALE)	1
13	853003	WASHER, 1/4" .050 THK 5/8 ODFW	2
14	L-205	STAND-OFF, STARWHEEL ADJUST	2
15	850007T	THUMBSCREW, 1/4-28 X 2-1/4"	2
16	L-107-D-2	PLATE, (4-1/2" WEB) GUIDE SUP.	1
16(B)	L-107-D-2-A	PLATE, (6-1/2" WEB) GUIDE SUP.	1
17	L60-0016	BRACKET, LABEL SENSE MOUNTING	1
17(B)	L60-0016-W	BRACKET, W.L. SENSE MOUNTING	1
18	856109	PIN, 3/32 X 1 ROLL	1
19	420173	SPRING, 3/16 X 1-1/4 EXTENS SS	1

(A) = Left Hand Machine


(B) = Wide Label

(C) = Left Hand Wide Label



REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						ASSEMBLY, STARWHEEL LABEL SENSE					
PRODUCT						L60 LABEL APPLICATOR					
SCALE	-	DRAWN BY	I.S.V.	REV. LEV.	D	REV. BY	-	CAD NO	L60-I-60D		
DATE	9-25-2000										


 3501 8TH AVENUE SOUTH
 ST. PETERSBURG, FLORIDA 33711
 TEL. (727) 327-2123

PART NUMBER
L60-I-60D

Bill of Material

ASSEMBLY, VALVE

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	100158	BASE, 3 STATION	1
01(D)	100159	BASE, 4 STATION	1
02(A)	100162	PLUG, PORT	3
02(B)	100162	PLUG, PORT	4
03(B)	100164	FTNG, 3/8 PORT	1
04(A)	100164A	FTNG, 1/4 PORT	3
04(B)	100164A	FTNG, 1/4 PORT	1
05	100220	FTNG, 1/4M - 1/4 TUBE	2
06	100166	WIRE, LEAD W/COVER 1.5m	2
07	100155A	VALVE, 12VDC SOLENOID	2
07(C)	100155	VALVE, 24VDC SOLENOID	2
08	100161	SPACER, SUPPLY	1
09	100163	PLATE, BLANK COVER	1
10	100214	FTNG, 3/8 M TO 1/8 F REDUCER	1
11	100233	FTNG, 1/4" NPT BRASS PLUG	2
12	100345	FTNG, SWVL EL 1/8 X 1/4"	1
13	100175	MANIFOLD, EXHAUSE	1

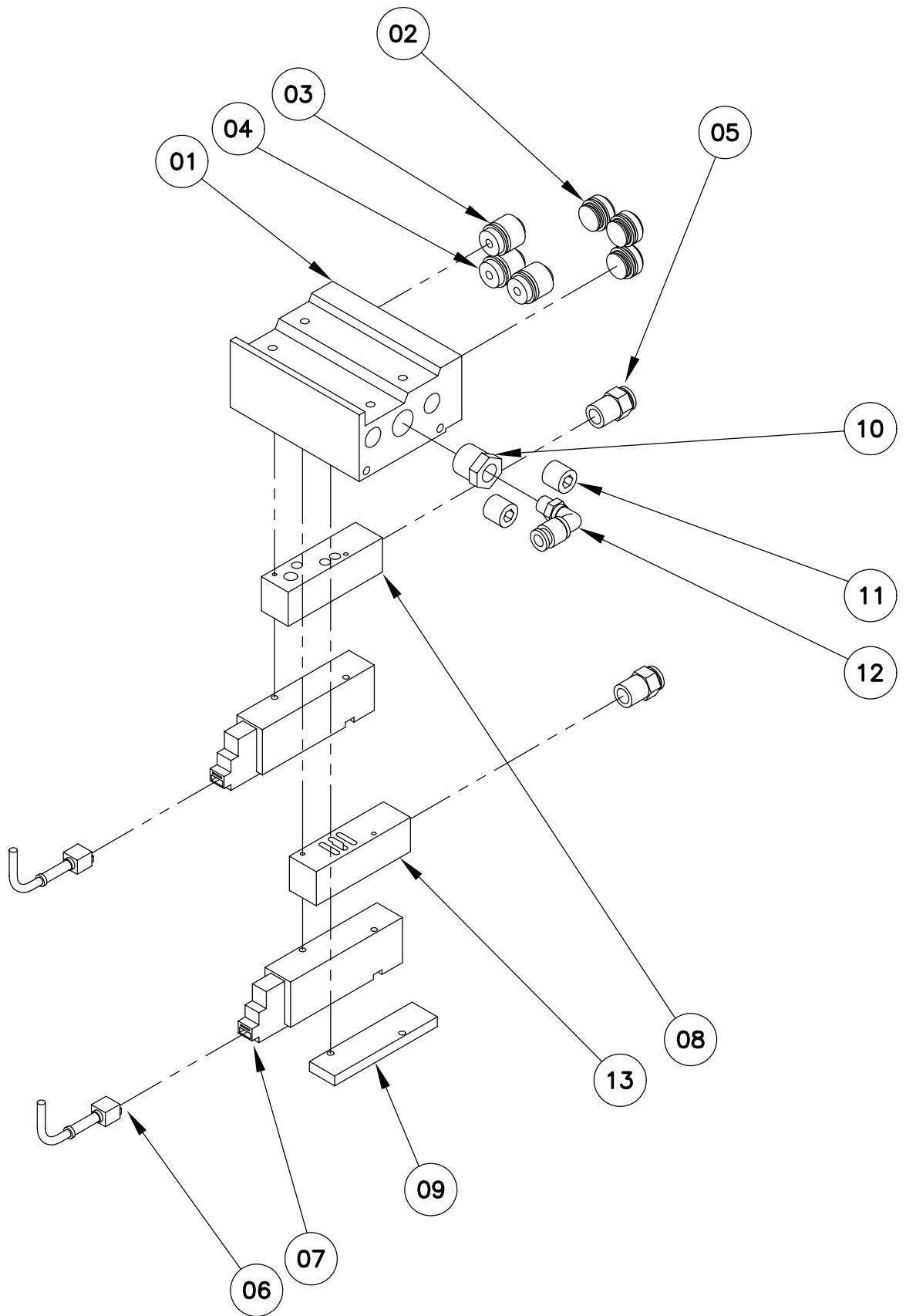
(A) Tamp Machine


(B) Blow Machine

(C) PLC Models

(D) If Needed

Note: Quantities can Varies



DESCRIPTION					ASSEMBLY, VALVE				
PRODUCT					L60 LABEL APPLICATOR				
DATE	DRAWN BY	REV. LEV.	REV. BY	CAD FILE:					
9-25-2000	G. T. H.	D	-	L60-I-70D					
					3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123				

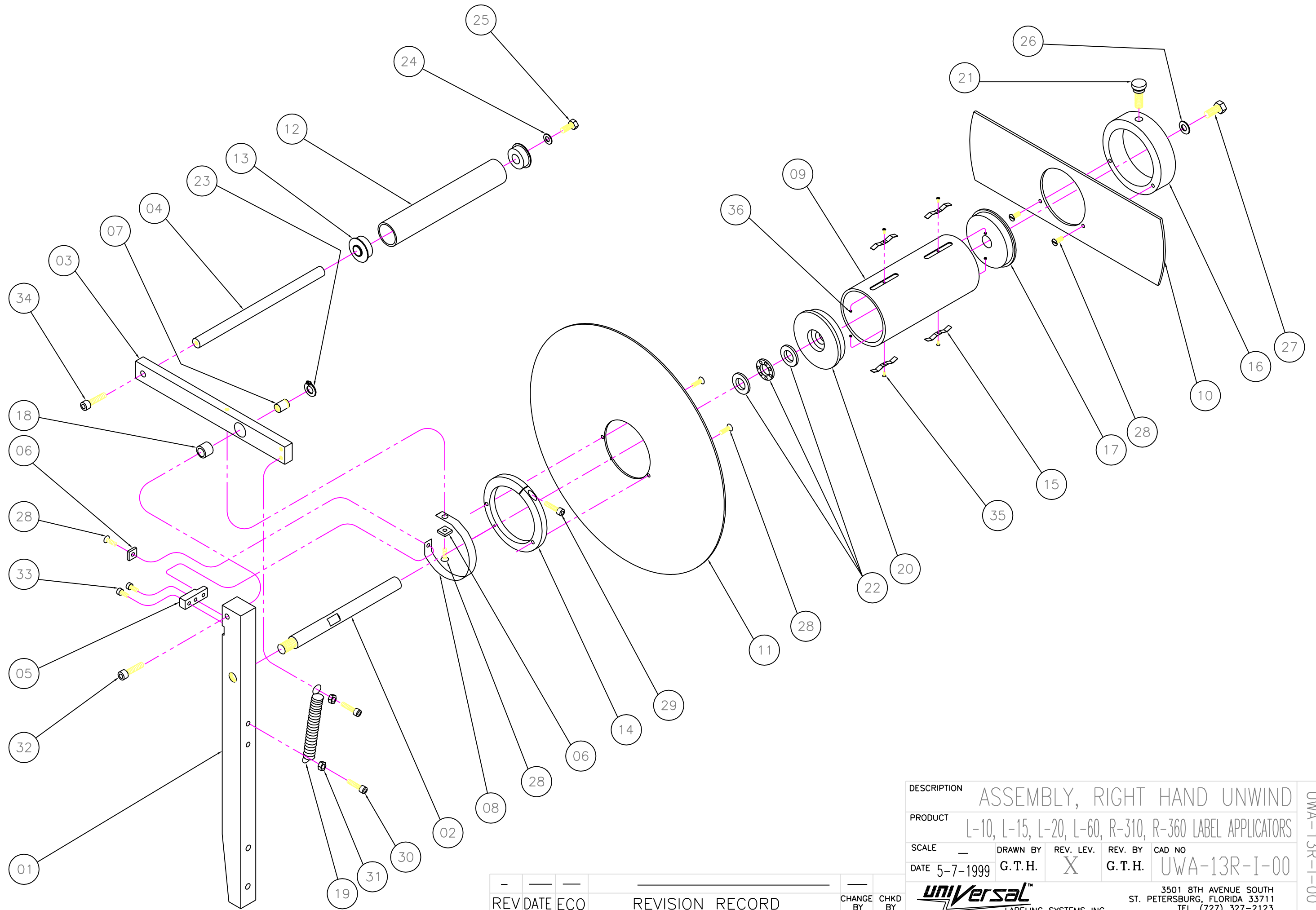
PRINT NUMBER
L60-I-70D

Bill of Material

ASSEMBLY, R. H. 13" UNWIND

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	UND-001	BAR, LABEL REEL MOUNTING	1
02	UND-002	SHAFT, UNWIND	1
03	UND-003	ARM, UNWIND BRAKE	1
04	UND-004	SHAFT, BRAKE ARM	1
05	UND-006	BLOCK, BELT FASTENER	1
06	UND-007	CLAMP, BELT	2
07	UND-008	STUD, BRAKE ARM	1
08	UND-009-1	STRAP, BRAKE	1
09	UND-011C	HUB, MAIN UNWIND	1
10	UND-013	DISC, REMOVABLE LABEL	1
11	UND-015	DISC, UNWIND BACKING	1
12	UND-038	ROLLER, BRAKE IDLER	1
13	UND-037	BEARING, BRAKE ARM ROLLER	2
14	UND-019	CLAMP, INNER BACKING DISC	1
15	200409	CLIP, CORE (FOR HUB)	4
16	UND-042	CLAMP, OUTER BACKING DISC	1
17	UND-027	BEARING, END CAP ROLLER	1
18	430306	BUSHING, 750 X 500 X 625"	1
19	420210	SPRING, 1/2 X 3.125" EXTENSION	1
20	UND-046	BEARING, END CAP ROLLER	1
21	820000	THUMBSCREW, 1" BLACK NYLON	1
22	400059	BEARING, 5/8" THRUST W/WASHERS	1
23	856005	RING, 1/2" EXT. RETAINING	1
24	853003	WASHER, 1/4" .050 THK 5/8 ODFW	1
25	851002	SCREW, 1/4-20 X 1/2" HHMS	1
26	853001	WASHER, 5/16" FW SS	1
27	851003	SCREW, 5/16-18 X 1/2" HHMS SS	1
28	852001	SCREW, 10-32 X 1/2" FHMS PHIL	6
29	850001	SCREW, 1/4-20 X 1" L SHCS	1
30	850002	SCREW, 10-32 X 1" L SHCS	2
31	854001	NUT, 10-32 HEX	2
32	850003	SCREW, 5/16-18 X 1-1/4" L SHCS	1
33	850006	SCREW, 6-32 X 5/8" L SHCS	2
34	850004	SCREW, 5/16-18 X 1" L SHCS	1
35	852501	SCREW, 4-40 X 1/4" L PHMS PHIL	4
36	854007	NUT, 4-40 HEX SS	4

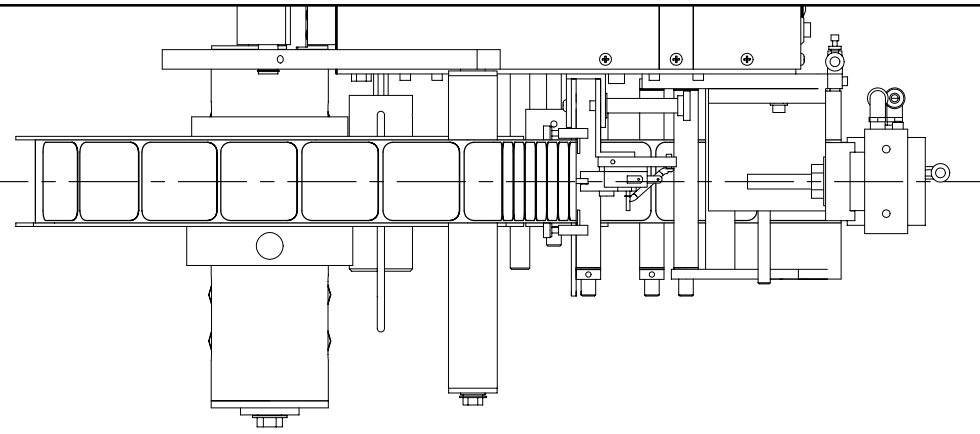


REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

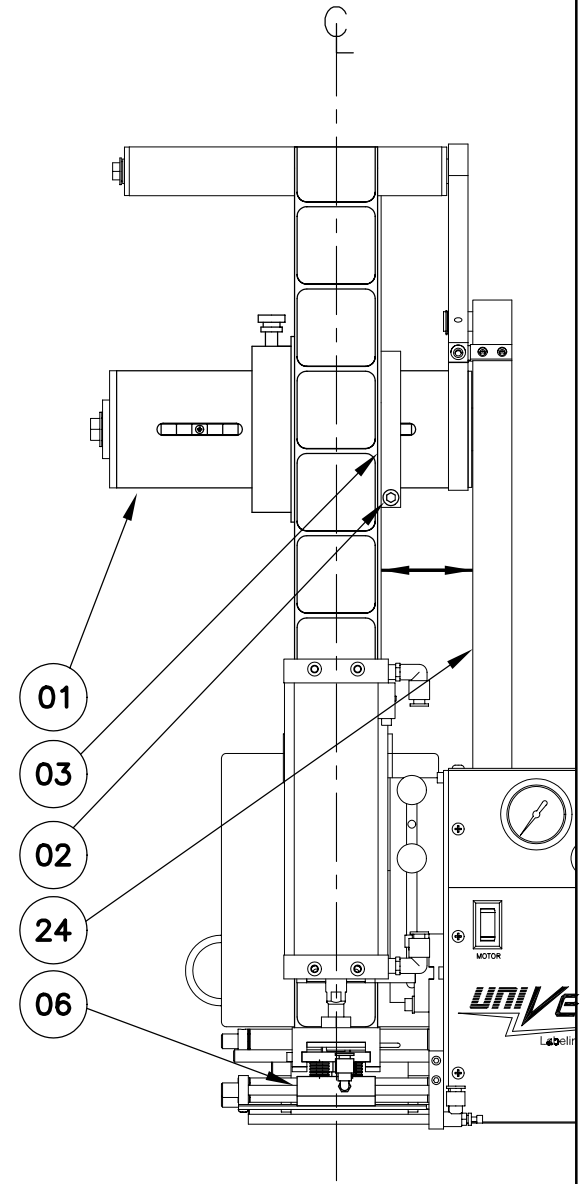
DESCRIPTION						ASSEMBLY, RIGHT HAND UNWIND					
PRODUCT						L-10, L-15, L-20, L-60, R-310, R-360 LABEL APPLICATORS					
SCALE	-	DRAWN BY	REV. LEV.	REV. BY	CAD NO						
DATE	5-7-1999	G.T.H.	X	G.T.H.	UWA-13R-I-00						
						3501 8TH AVENUE SOUTH					
						ST. PETERSBURG, FLORIDA 33711					
						TEL. (727) 327-2123					

PART NUMBER
UWA-13R-I-00

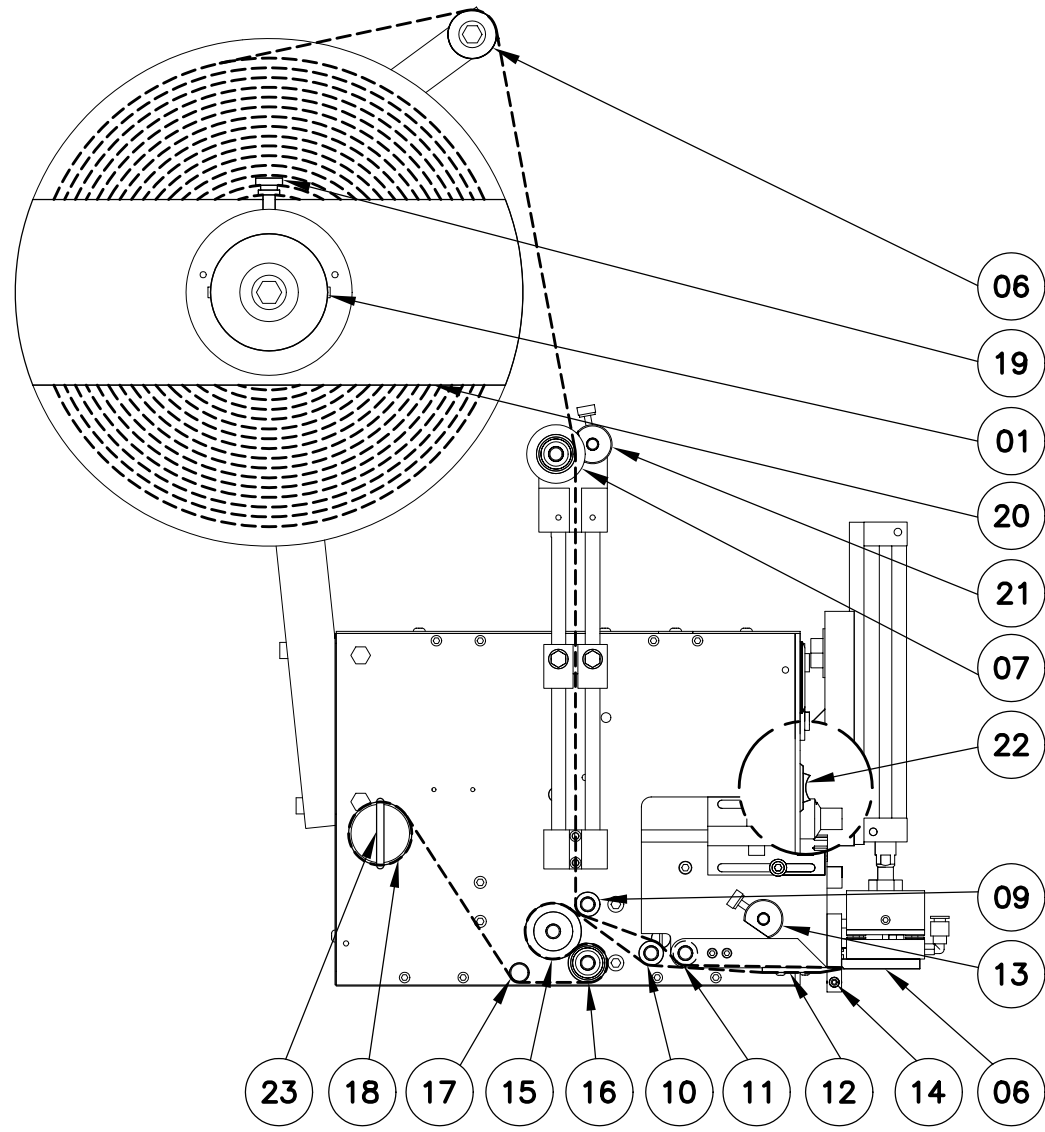
TOP VIEW



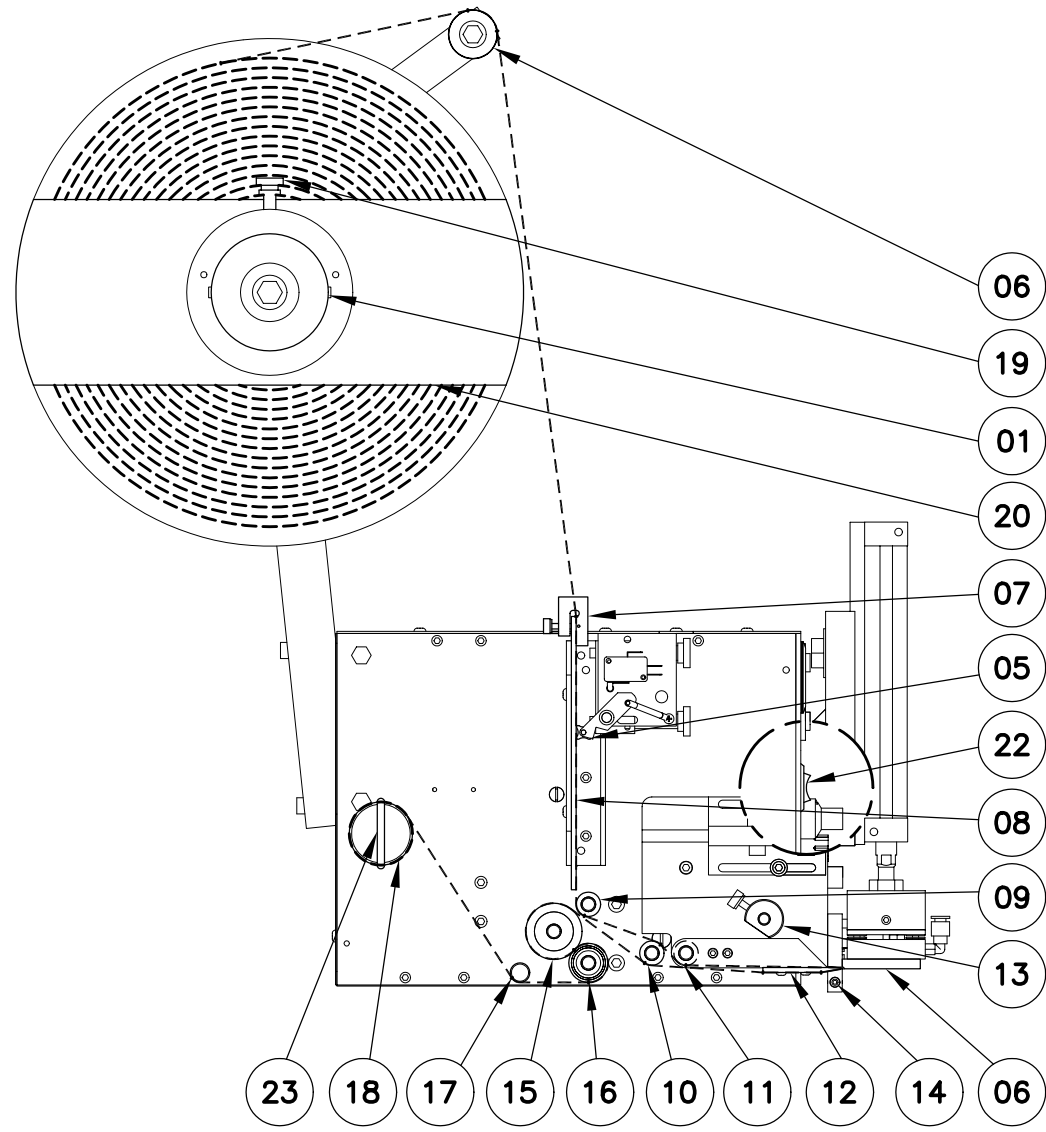
FRONT VIEW



SIDE VIEW PHOTO SENSOR



SIDE VIEW STAR WHEEL



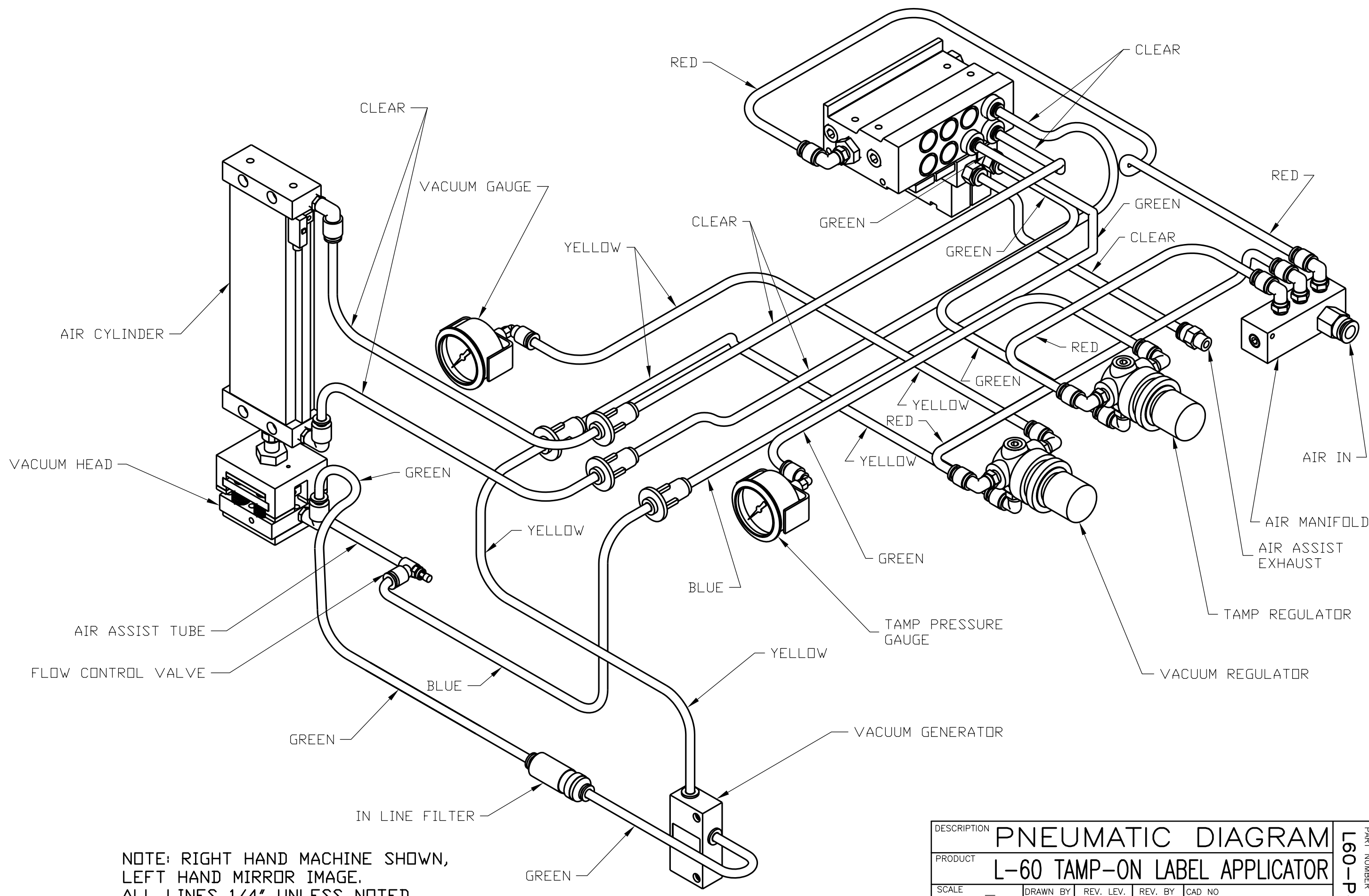
DESCRIPTION	WEBBING DIAGRAM			
PRODUCT	L-60 LABEL APPLICATOR			
SCALE	1:5	DRAWN BY	REV. LEV.	REV. BY
DATE	12-8-2000	G.T.H.	D	X
				CAD NO
				L60-W-00D

D	12-7-00	—	NEW VALVES REWIND MOVED	G.T.H.	
REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY

uniVersal[™]
LABELING SYSTEMS INC.

3501 8TH AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33711
TEL. (727) 327-2123

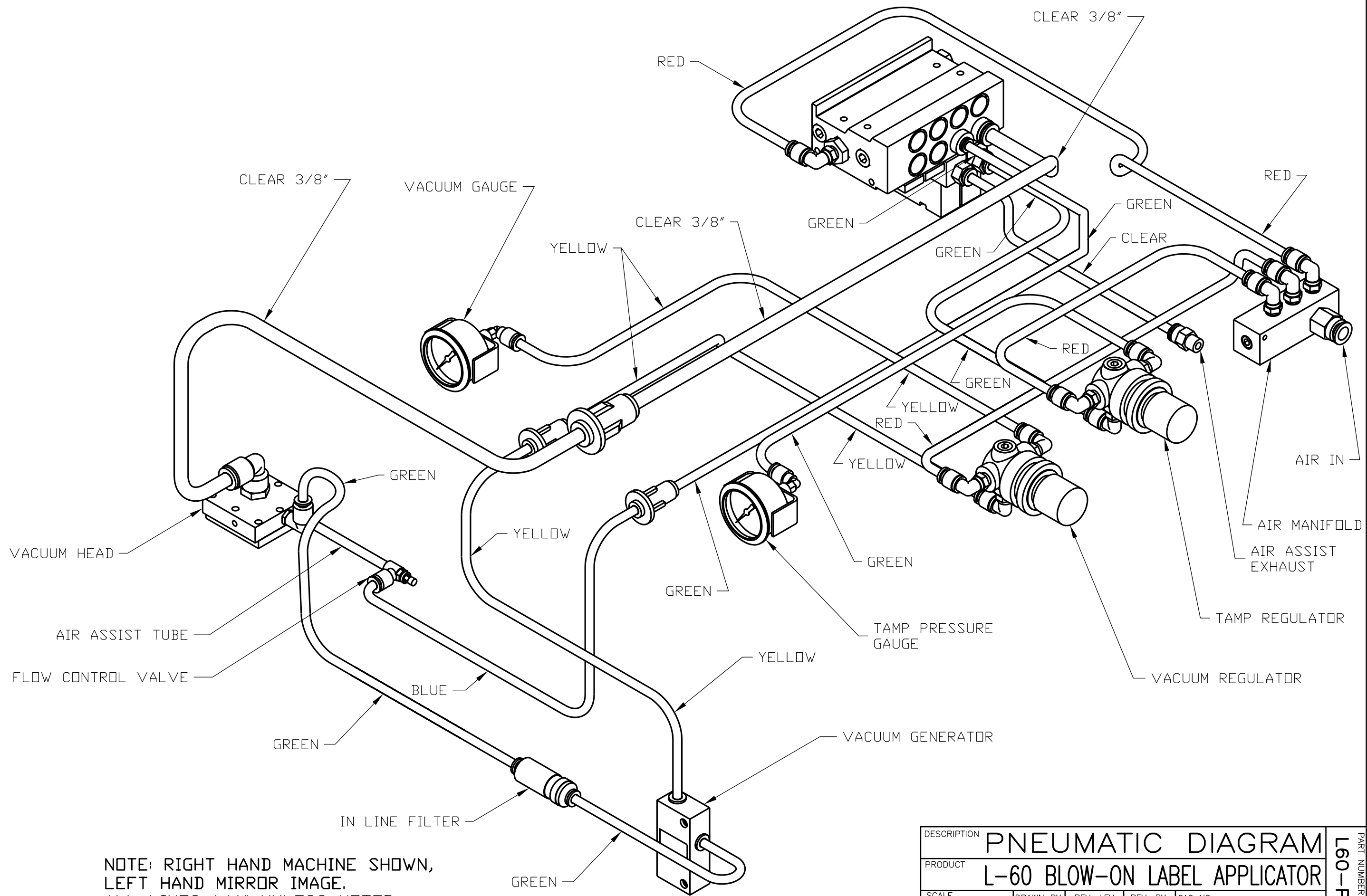
PART NUMBER
L60-W-00D



NOTE: RIGHT HAND MACHINE SHOWN,
LEFT HAND MIRROR IMAGE.
ALL LINES 1/4" UNLESS NOTED.

REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						PNEUMATIC DIAGRAM					
PRODUCT						L-60 TAMP-ON LABEL APPLICATOR					
SCALE	-	DRAWN BY	G. T. H.	REV. LEV.	X	REV. BY	X	CAD NO	L60-P-00D		
DATE	1-15-2001										
						3501 8TH AVENUE SOUTH			ST. PETERSBURG, FLORIDA 33711		
						TEL. (727) 327-2123			PART NUMBER L60-P-00D		



NOTE: RIGHT HAND MACHINE SHOWN,
LEFT HAND MIRROR IMAGE.
ALL LINES 1/4" UNLESS NOTED.

REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
-	-	-			

DESCRIPTION						PNEUMATIC DIAGRAM					
PRODUCT						L-60 BLOW-ON LABEL APPLICATOR					
SCALE	-	DRAWN BY	G. T. H.	REV. LEV.	X	REV. BY	X	CAD NO	L60-P-01D		
DATE	1-15-2001										

UniVersal
LABELING SYSTEMS INC.

3501 8TH AVENUE SOUTH
ST. PETERSBURG, FLORIDA 33711
TEL. (727) 327-2123

PART NUMBER
L60-P-01D

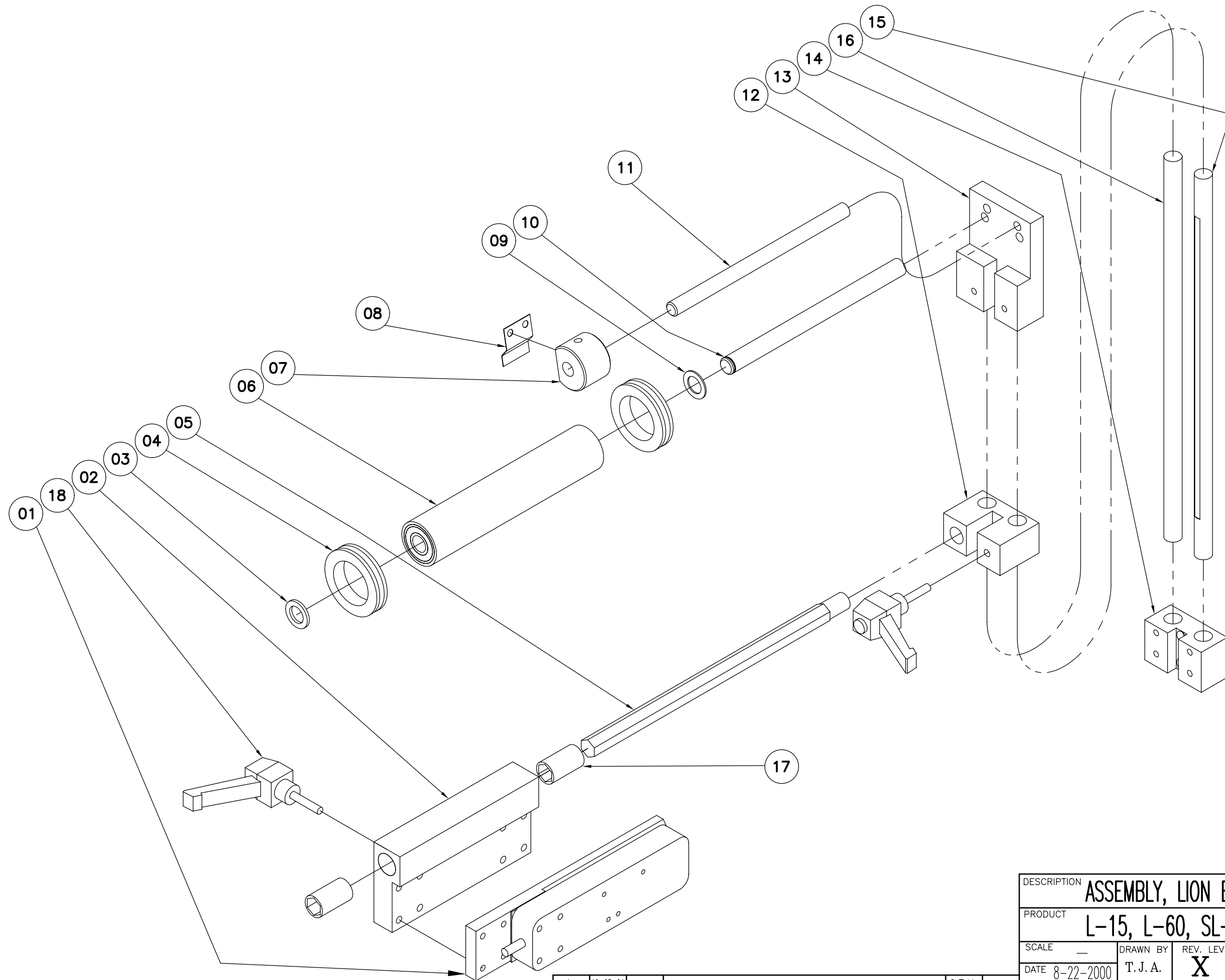
Bill of Material

ASSEMBLY, LION EYE OPTICAL LABEL SENSOR


L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	210077	SENSOR, CLEAR LABEL	1
02	OLS-029	BRACKET, LION MOUNTING	1
03	L-172-03	WASHER, UHMW 062 X 380 X 625	1
04	700015	GUIDE, 1" SPLIT NYLON WEB	2
05	OLS-005-1	SHAFT, SENSOR BRACKET	1
05(A)	OLS-005-5	SHAFT, SENSOR BRACKET	1
06	OLS-023	ROLLER, LOWER IDLER	1
06(A)	OLS-023A	ROLLER, LOWER IDLER	1
07	L60-0035	BLOCK, WEB DRAG	1
08	OLS-024	PLATE, WEB DRAG PRESSURE	1
09	L-172-02	WASHER, UHMW 031 X 375 X 625	1
10	OLS-021	SHAFT, PINCH ROLLER	1
10(A)	OLS-021A	SHAFT, PINCH ROLLER	1
11	L60-0011	SHAFT, WEB DRAG	1
11(A)	OLS-006	STUD, WEB DRAG STAND-OFF	1
12	OLS-007-1	BRACKET, SLIDE	1
13	OLS-009A	BRACKET, WEB SUPPORT	1
14	OLS-008	BRACKET, MOUNTING	1
15	OLS-003	SHAFT, MAIN SUPPORT W/ FLAT	1
16	OLS-004	SHAFT, MAIN SUPPORT	1
17	OLS-015	BUSHING, 500 X 375 HEX. X 1.12	2
18	500081	HANDLE, 10-32 MALE RATCHET	2

(A) = Wide Label



REV	DATE	ECO	REVISION RECORD	CHG BY	CHKD BY
A	10-25-01	—	ADDED 500081, OLS-007-1 WAS OLS-007	G.T.H.	

DESCRIPTION ASSEMBLY, LION EYE OPTICAL LABEL SENSOR					
PRODUCT L-15, L-60, SL-1000 LABEL APPLICATORS					
SCALE	DRAWN BY	REV. LEV.	REV. BY	CAD NO	
—	T. J. A.	X	X	OLS-I-04	
DATE	8-22-2000				
					
<small>3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123</small>					

PART NUMBER
OLS-I-04

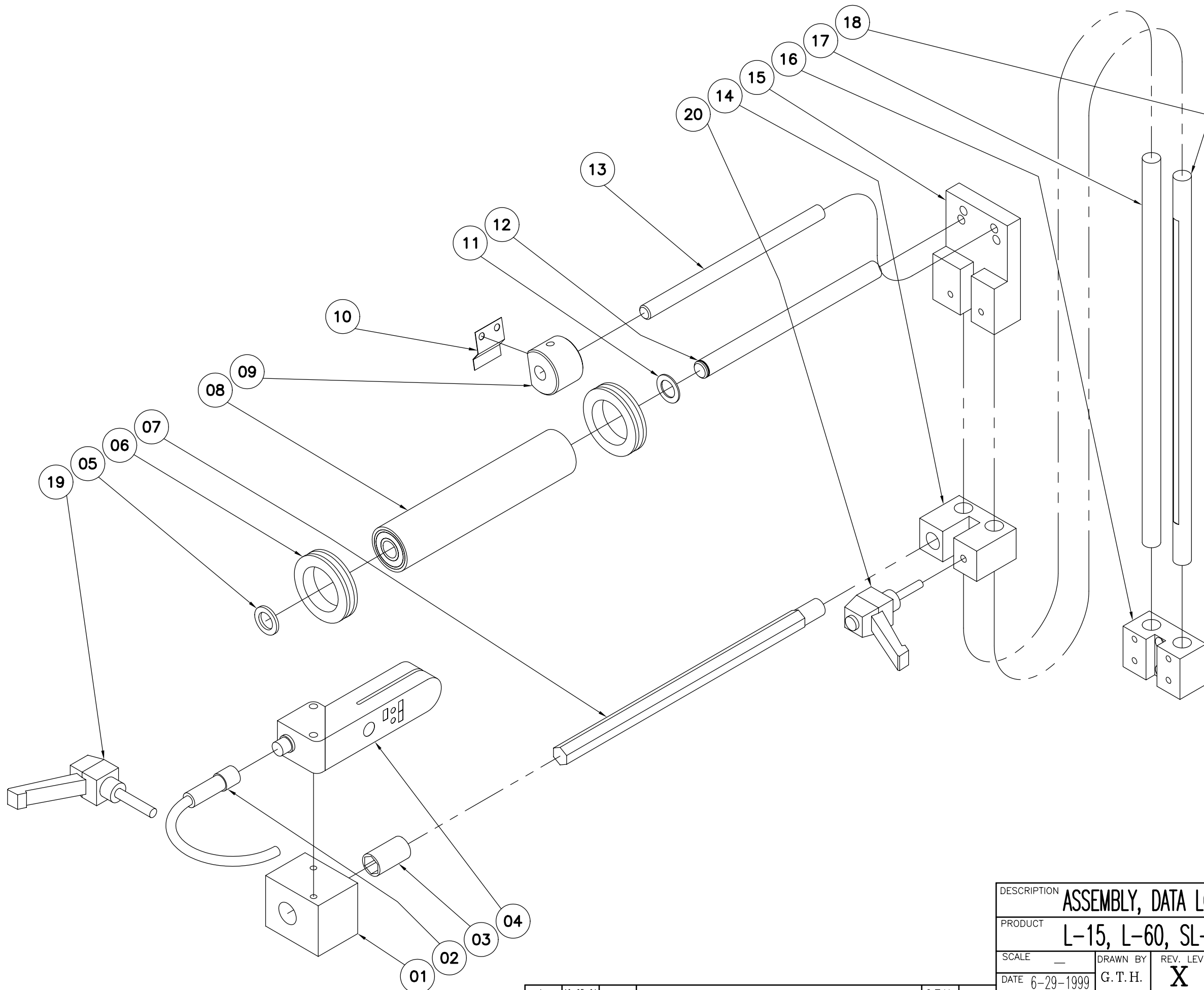
Bill of Material

ASSEMBLY, DATA LOGIC OPTICAL LABEL SENSOR

L60

ITEM NUM:	PART NUMBER:	PART DESCRIPTION:	QTY:
01	OLS-029A	BLOCK, MOUNTING	1
02	200376	CABLE, 4-PIN >>>	1
03	OLS-015	BUSHING, 500 X 375 HEX. X 1.12	1
04	200374	SENSOR, DATALOGIC SLOT	1
05	L-172-03	WASHER, UHMW 062 X 380 X 625	1
06	700015	GUIDE, 1" SPLIT NYLON WEB	2
07	OLS-005-1	SHAFT, SENSOR BRACKET	1
07(A)	OLS-005-5	SHAFT, SENSOR BRACKET	1
08	OLS-023	ROLLER, LOWER IDLER	1
08(A)	OLS-023A	ROLLER, LOWER IDLER	1
09	L60-0035	BLOCK, WEB DRAG	1
10	OLS-024	PLATE, WEB DRAG PRESSURE	1
11	L-172-02	WASHER, UHMW 031 X 375 X 625	1
12	OLS-021	SHAFT, PINCH ROLLER	1
12(A)	OLS-021A	SHAFT, PINCH ROLLER	1
13	L60-0011	SHAFT, WEB DRAG	1
13(A)	OLS-006	STUD, WEB DRAG STAND-OFF	1
14	OLS-007-1	BRACKET, SLIDE	1
15	OLS-009A	BRACKET, WEB SUPPORT	1
16	OLS-008	BRACKET, MOUNTING	1
17	OLS-004	SHAFT, MAIN SUPPORT	1
18	OLS-003	SHAFT, MAIN SUPPORT W/ FLAT	1
19	500080	HANDLE, 1/4 MALE RATCHET	1
20	500081	HANDLE, 10-32 MALE RATCHET	1

(A) = Wide Label



REV	DATE	ECO	REVISION RECORD	CHG BY	CHKD BY
A	10-25-01	—	ADDED 500080 AND 500081, OLS-007-1 WAS OLS-007	G.T.H.	

DESCRIPTION					ASSEMBLY, DATA LOGIC OPTICAL LABEL SENSOR				
PRODUCT					L-15, L-60, SL-1000 LABEL APPLICATORS				
SCALE	—	DRAWN BY	REV. LEV.	REV. BY	CAD NO				
DATE	6-29-1999	G.T.H.	X	X	OLS-I-05				
					3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123				

PART NUMBER
OLS-I-05

L60 TAMP OR BLOW-ON APPLICATOR RECOMMENDED SPARE PARTS

PART #	PART DESCRIPTION	
200160	TRANSFORMER, 12 VAC	
100155	VALVE, 24VDC SOLENOID	
100155A	VALVE, 12VDC SOLENOID	
100105	VALVE, 12 VDC 4-WAY AIR	
100110	VALVE, 12 VDC 3-WAY MAC AIR	
100300	REGULATOR, AIR	
100125	VACUUM EJECTOR WITH ¼" PORTS	
600300	PEELER PLATE TAPE (50' ROLL)	
200117	CAPACITOR, 15VF 370VAC	
200198	POWER MODULE	
200109	MICRO SWITCH	
240261	PLC, 141/0 RELAY (AROMAT)	
200009	RELAY, DPDT 12 VDC 10A	
L-105-LA	ASSY. LH WEB GUIDE CLAMP	
L-105-RA	ASSY. RH WEB GUIDE CLAMP	
L-128-C	CLIP, (4 ½ WEB) RETENTION	
L-137-D	ROLL, DRIVE	
L-143	ROLLER, 3" LOWER IDLER (ALUM)	
L-143-D	ASSY, LOWER IDLER ROLLER	
L-129-S	STARWHEEL LABEL SENSING	
209020	RELAY, 24VDC 10AMP DPDT	
100334	CYLINDER, 6" AIR	
210052-1B	ASSY. PROX SENSOR WITH CONNECTOR	
100541	SUPPLY, 120VAC TO 24VDC POWER	
100251	ELEMENT, FILTER (REPLACEMENT)	
100070	CYLINDER, SMC 6" STROKE	
100071C	ASSY. PROX SENSOR WITH CONNECTOR	
200010	RELAY, DPDT 12VDC 3A	
420173	SPRING, STARWHEEL	
300066	MOTOR, AC SYNC SUPERIOR	
400016	BEARING, 3/8" SEALED	
200042	FUSE, AGC 3A	
420210	SPRING, UNWIND	
200006	ON / OFF SWITCH	
60018H	BELT, TIMING 200XL037	

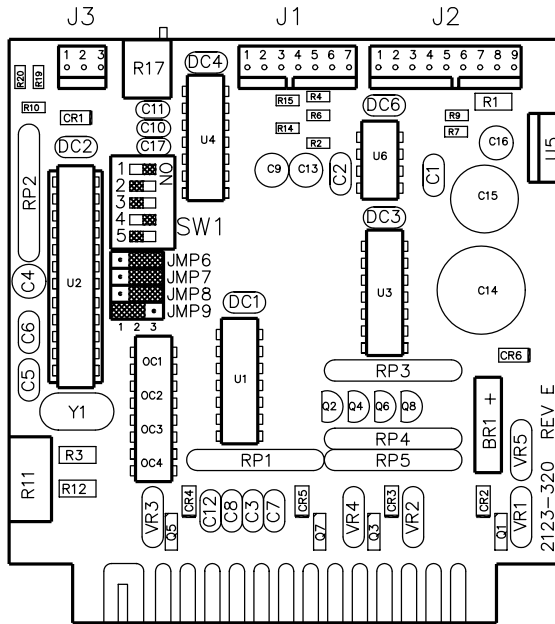
POWER MODULE SETUP SHEET

PLEASE READ CAREFULLY BEFORE INSTALLING

NUMBER
MONTH | YEAR

PRINTED CIRCUIT BOARD # 000000

Note! (R17) is Coder Dwell Time
turn clockwise for longer dwell time.



BOARD SHOWN IS SET FOR L-15 APPLIERS

The Universal Power Module is designed to operate the L15, L20, L30, R310, MP25, L60, and SL1000 series of label machines. The L15, L20, L30, R310 and MP25 are set up the same!
The L60 & SL-1000 are different,
See DEFAULT SETTINGS Below.

Coder output is adjusted by (R17) top left board and operates in all modes. The dwell time is adjustable from 0 to 0.5 seconds. The next start signal or product signal will be ignored until the coder pulse is turned off.

(NOTE) IF YOU HAVE L-60 WITH FRONT & REAR BOARD, BOARD MUST BE SET UP AS L-15.

DEFAULT SETTINGS

L-15	L-60	SL-1000
SW1	SW1	SW1
PIN NUMBERS	PIN NUMBERS	PIN NUMBERS

NOTE: THIS POSITION IS ON

If the OLD Power module is available, make sure the jumpers and dip switches are set like the OLD [failed] Power Module or according to this setup sheet.

Note! This Power Module is used for a variety of label applicators.

SWITCH #1 DELAY SELECT

SWITCH OFF - NO DELAY
SWITCH ON - START and STOP DELAYS SET BY:
DELAY CONTROLS (FRONT PANEL)
START DELAY - 0 TO 1 SEC.
STOP DELAY - 0 TO 0.1 SEC.

SWITCH #2 MACHINE MODEL SELECT

SWITCH OFF - L15 OPERATION
SWITCH ON - L60 OPERATION (SEE NOTE)
(NOTE) IF YOU HAVE L-60 WITH FRONT & REAR BOARD, BOARD MUST BE SET UP AS L-15.

SWITCH #3 CLUTCH/BRAKE DELAY SELECT

[L15] SWITCH #3. w/SWITCH #2 OFF

SWITCH OFF - 25 ms.
SWITCH ON - 0 ms.

[L60] SWITCH #3. w/SWITCH #2 ON

SWITCH OFF - BLOW ON
SWITCH ON - TAMP ON

SWITCH #4 START (PRODUCT) SWITCH

SELECTOR SWITCH WILL CHANGE SIGNAL ACTIVE FROM LEADING TO TRAILING EDGE, DEPENDING ON HOW THE SENSOR IS WIRED.

SWITCH #5 STOP (LABEL SENSE) SWITCH

SELECTOR SWITCH WILL CHANGE SIGNAL ACTIVE FROM LEADING TO TRAILING EDGE, DEPENDING ON HOW THE SENSOR IS WIRED.

JUMPERS, HARDWARE ACTION SELECT

JMP #6 & #7 START (PRODUCT) SWITCH TYPE SELECT

POSITION 1 & 2 - SPDT OR COMPLIMENT TYPE
POSITION 2 & 3 - SINGLE POLE INPUT (NPN or PNP)

JMP #8 SINGLE POLE START SWITCH POLARITY

POSITION 1 & 2 - SWITCHES TO POSITIVE 5 TO 24 VOLTS D.C. (PNP)
POSITION 2 & 3 - SWITCHES TO GROUND (NPN)

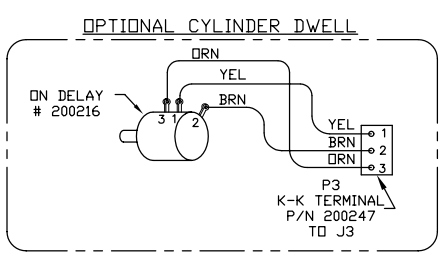
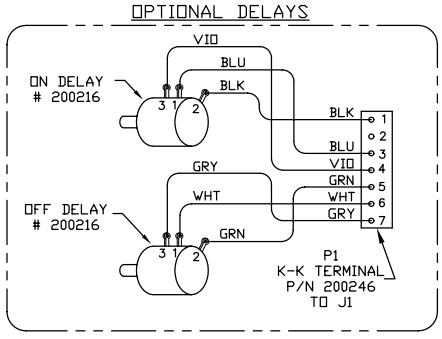
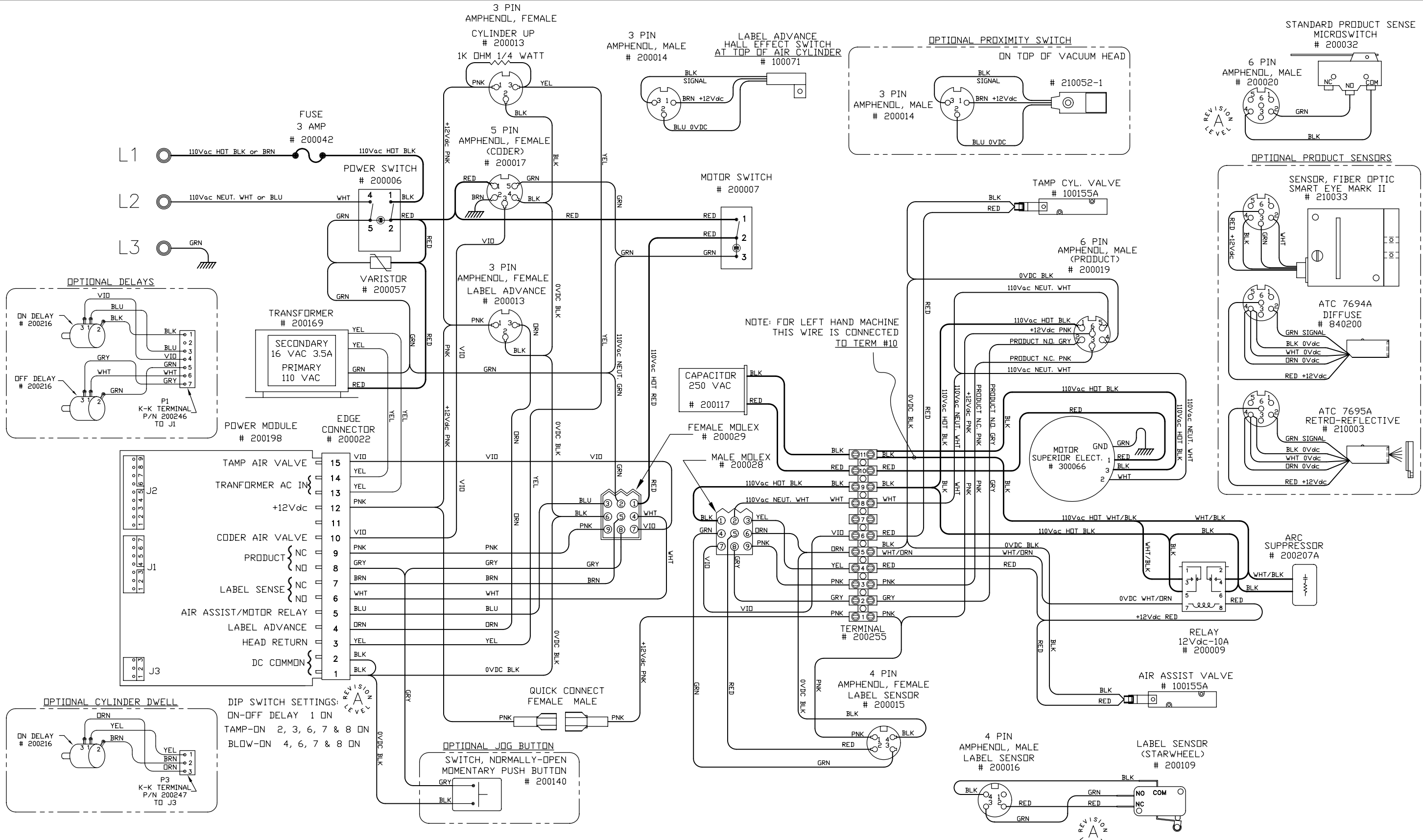
JMP #9 STOP SIGNAL SELECT

(STARWHEEL)
POSITION 1 & 2 - EXTERNAL SPDT SWITCH

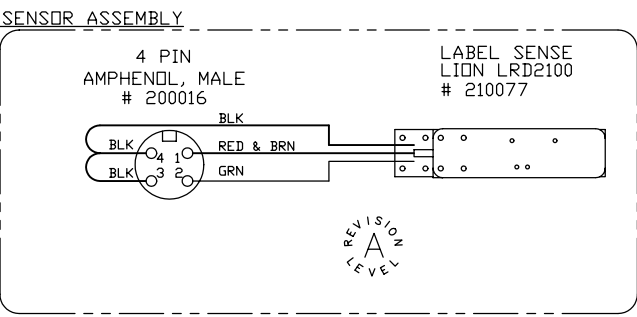
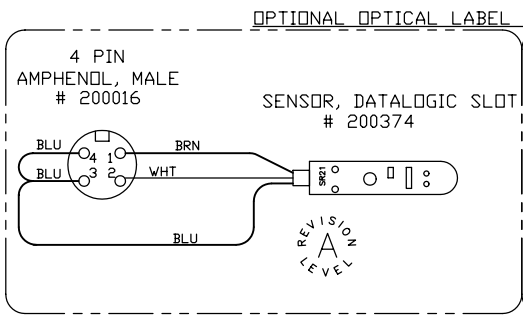
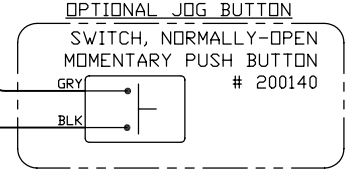
(PEELER PLATE PHOTO CELLS)
POSITION 2 & 3 - ON BOARD PHOTOELECTRIC CIRCUIT

DESCRIPTION	UNIVERSAL POWER MODULE PART# 200198			
PRODUCT	LABEL APPLICATORS			
DATE	DRAWN BY	REV. LEV.	REV. BY	CAD FILE:
11-26-1997	G.T.H.	E	G.T.H. 10-25-01	L15-D-02
		3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123		

PART NUMBER
L15-D-02



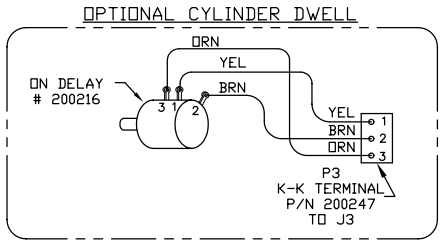
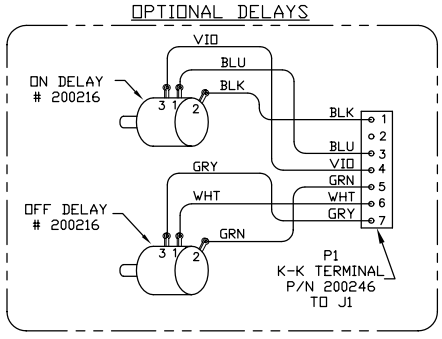
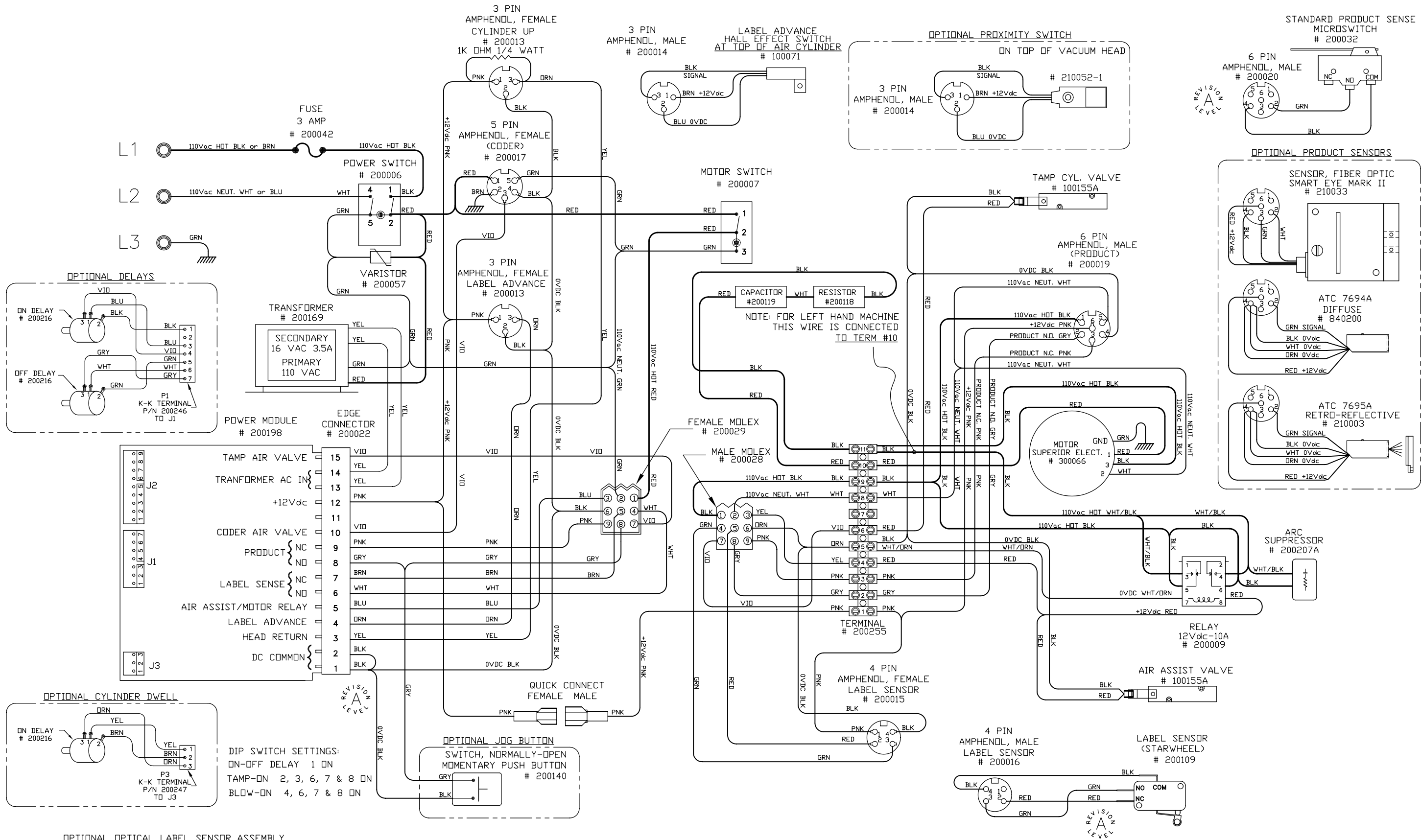
DIP SWITCH SETTINGS:
 ON-OFF DELAY 1 ON
 TAMP-ON 2, 3, 6, 7 & 8 ON
 BLOW-ON 4, 6, 7 & 8 ON



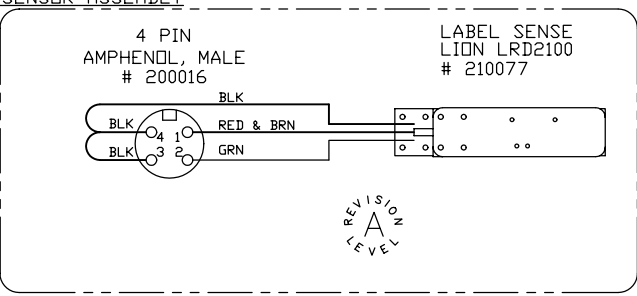
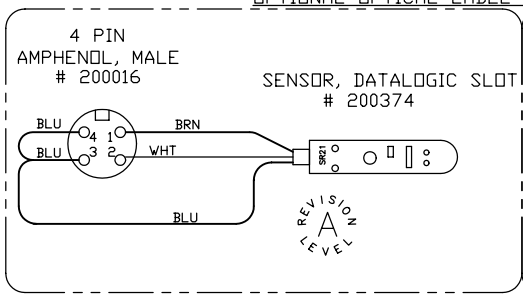
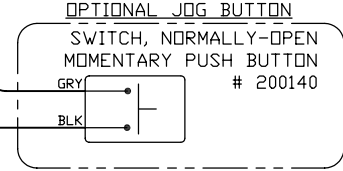
REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
A	10-24-01		PER F.J.-REMOVED JUMPER FROM POWER MODULE (PIN 2 TO 6)		
			ADDED JUMPER TO PRODUCT SENSORS (PIN 3 TO 4)	T.J.A.	
			ADDED DIPSWT 6, 7 (ON) & GRN WIRE ADDED TO LABEL SENSOR	J.G.S.	

DESCRIPTION					
ELECTRICAL DIAGRAM					
PRODUCT					
L-60 TAMP LABEL APPLICATOR					
SCALE	DRAWN BY	REV. LEV.	REV. BY	CAD NO	
DATE 11-3-2000	G. T. H.	D	-	L60-E-00D	
3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123					

PART NUMBER
L60-E-00D



DIP SWITCH SETTINGS:
 ON-OFF DELAY 1 ON
 TAMP-ON 2, 3, 6, 7 & 8 ON
 BLOW-ON 4, 6, 7 & 8 ON

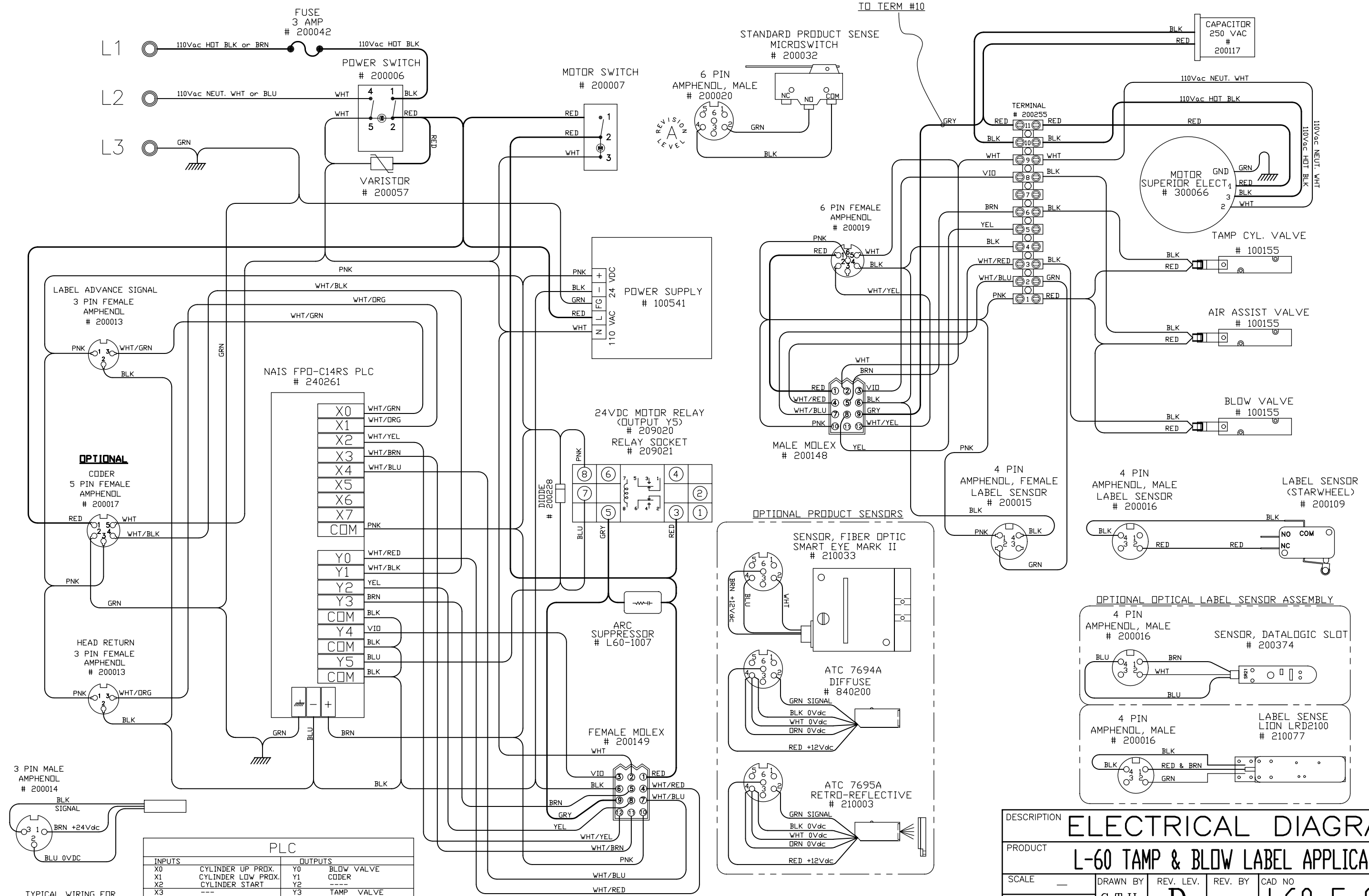


REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY
A	10-24-01		PER F.J.-REMOVED JUMPER FROM POWER MODULE (PIN 2 TO 6)		
			ADDED JUMPER TO PRODUCT SENSORS (PIN 3 TO 4)	T.J.A.	
			ADDED DIPSWT 6, 7 (ON) & GRN WIRE ADDED TO LABEL SENSOR	J.G.S.	

DESCRIPTION					
ELECTRICAL DIAGRAM					
PRODUCT					
L-60 TAMP LABEL APPLICATOR					
SCALE	DRAWN BY	REV. LEV.	REV. BY	CAD NO	
11-3-2000	G.T.H.	D	-	L60-E-00D1	
3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123					

PART NUMBER
L60-E-00D1

NOTE: FOR RIGHT HAND MACHINE
THIS WIRE IS CONNECTED
TO TERM #10



PLC	
INPUTS	OUTPUTS
X0 CYLINDER UP PROX.	Y0 BLOW VALVE
X1 CYLINDER LOW PROX.	Y1 CODER
X2 CYLINDER START	Y2 ----
X3 ----	Y3 TAMP VALVE
X4 LABEL SENSE	Y4 AIR ASSIST VALVE.
X5 ----	Y5 MOTOR RELAY
X6 SLIDE OUT PROX.	
X7 SLIDE HOME PROX.	

3 PIN MALE AMPHENOL # 200014
BLK SIGNAL
BRN +24Vdc
BLU 0VDC

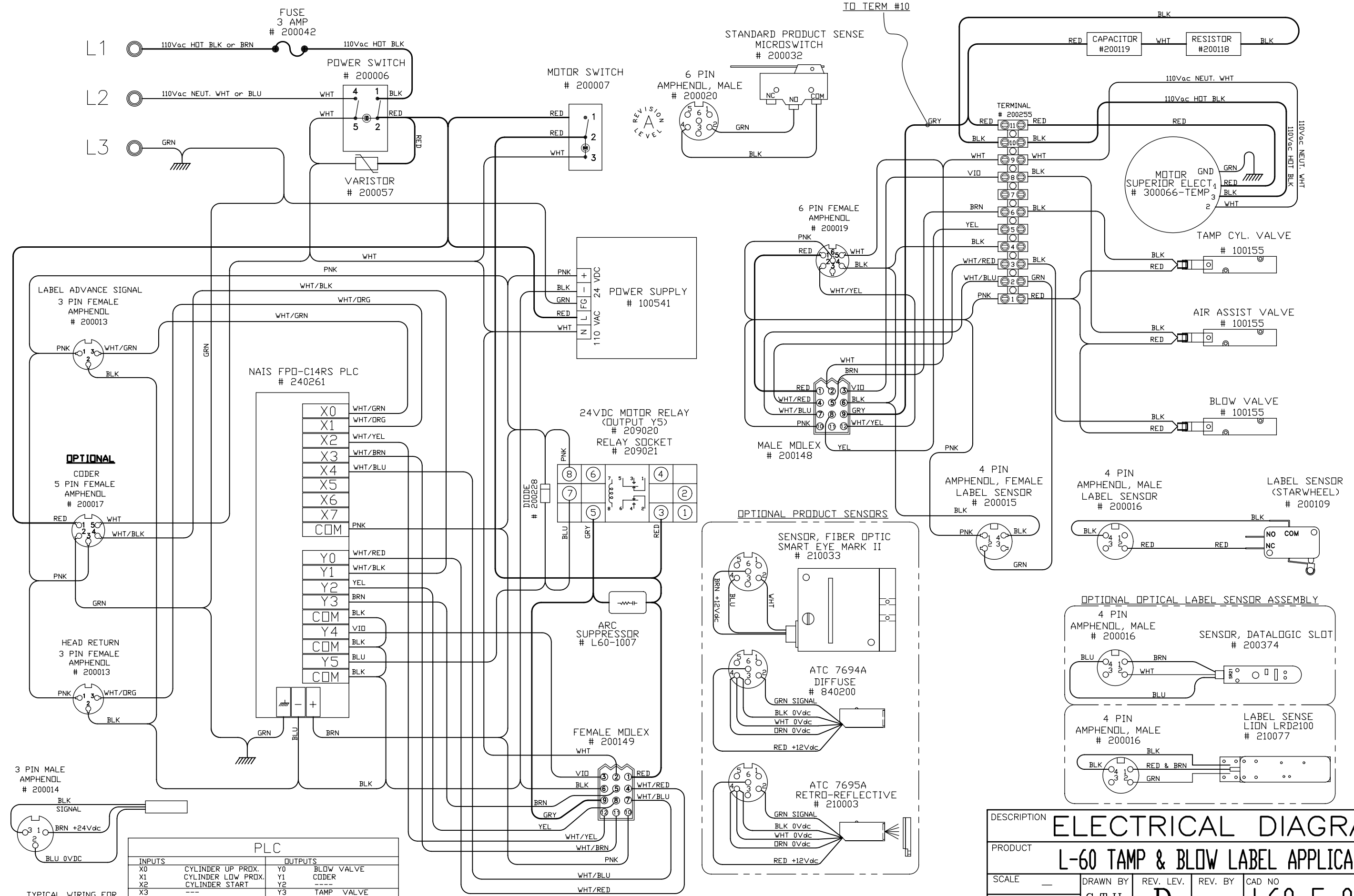
TYPICAL WIRING FOR HALL EFFECT/PROX SWITCHES # 200344

A	10-25-01	---	CHANGED WIRING OF PRODUCT SWITCH	G.T.H.	
REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY

DESCRIPTION					
ELECTRICAL DIAGRAM					
PRODUCT					
L-60 TAMP & BLOW LABEL APPLICATOR					
SCALE	---	DRAWN BY	REV. LEV.	REV. BY	CAD NO
DATE	1-15-2001	G.T.H.	D	---	L60-E-01D
		3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123			

PART NUMBER
L60-E-01D

NOTE: FOR RIGHT HAND MACHINE
THIS WIRE IS CONNECTED
TO TERM #10



PLC	
INPUTS	OUTPUTS
X0	Y0 BLOW VALVE
X1	Y1 CODER
X2	Y2 ----
X3	Y3 TAMP VALVE
X4	Y4 AIR ASSIST VALVE.
X5	Y5 MOTOR RELAY
X6	
X7	

3 PIN MALE AMPHENOL # 200014
BLK SIGNAL
BRN +24Vdc
BLU 0VDC

TYPICAL WIRING FOR HALL EFFECT/PROX SWITCHES # 200344

A	10-25-01	---	CHANGED WIRING OF PRODUCT SWITCH	G.T.H.	
REV	DATE	ECO	REVISION RECORD	CHANGE BY	CHKD BY

DESCRIPTION					
ELECTRICAL DIAGRAM					
PRODUCT					
L-60 TAMP & BLOW LABEL APPLICATOR					
SCALE	---	DRAWN BY	REV. LEV.	REV. BY	CAD NO
DATE	1-15-2001	G.T.H.	D	---	L60-E-01D1
		3501 8TH AVENUE SOUTH ST. PETERSBURG, FLORIDA 33711 TEL. (727) 327-2123			

PART NUMBER
L60-E-01D1