

# SETUP MANUAL LOW TAPE/NO TAPE







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## USER NOTES



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# TABLE OF CONTENTS

Technical Assistance	4
Replacement Parts	4
Field Service Assistance	5
Warranty Information	6
General Information	7
Description of Low Tape/No Tape	7
Definitions	7
Important Safeguards	8
Safety Label Placement	9
Safety Label Descriptions	10
Machine Nameplate	11
Reading Interpack Serial Numbers	11
Important Safeguards	12
Explanation of Signal Word Consequences	12
Operator Skill Level Descriptions	13
Specifications	14
System Dimensions	14
System Components	16
Power Requirements	17
Operating Conditions	17
Set-up Procedure	18
Receiving and Handling	18
Set up	18
Control/Stack Light Box	19
Relay Box	20
Hub Box	21
Tape Heads	22
Gateway (iTrack Subscription Only)	22
Cable Troubleshooting	23
Cabling	24
Connecting Utilities	30
Electrical Utilities	30
Operator Controls	31
Operating Instructions	33
Bypass Mode	33
System Scanning	33
Stack Light Indicator Status	34
Error Alerts	35
Low Tape	35
No Tape/Tape Application Error	35
No Cut	35
After an Error is Detected	35
Troubleshooting	36
The Low Tape/No Tape System is Behaving Abnormally	36
Disconnecting Tape Heads and Communication Errors	36
The Machine is Turned on and Nothing Happens	37
Poor Tape Wipedown	
Rear Tape Leg is Tabbing	30
Tape Does Not Cut	<u> </u>
Maintenance	40 ⊿1
Lubrication.	
Cleaning:	41

# **TECHNICAL ASSISTANCE**

This is the IPG **Low Tape/No Tape System** you ordered. It has been set up and tested in our factory with IPG manufactured pressure sensitive tape heads. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this item.

If contact with the authorized distributor is not possible, **IPG Machinery Support** is available. Should the need to contact **IPG Machinery Support** arise, **please have the equipment model and serial number available prior to contact.** This information can be found on the nameplate of the tape head as well as on the machine, both sets of information may be necessary to assist. A section at the bottom of this page is available to writ this information down. **IPG Machinery Support** is available during normal business hours (M-F 8am-7pm) Eastern Time.

Phone: 813-345-3070

Email: machsupp@itape.com

#### **Replacement Parts**

A breakdown of parts, including part numbers, can be found in the appendix of this manual. If you know the part number that you require please contact your authorized distributor or IPG Customer Service 877-447-4832 Option 3

Please use this area to enter the detailed information on your Case Sealer and Tape Heads. This should be filled out at the time of install. This information can be found on the nameplate of the machine, typically on the side the electrical box is on. On pressure sensitive tape the nameplate is located on the same side the tape is loaded from. On the WAT Tape Heads serial information can be found near the air intake of the head.

Machine	Tape Head Top (if applicable)
Model	Model
Serial	Serial
	Tape Head Bottom (if applicable)
	Model
	Serial
Distributor	Date of Purchase
Name	
	Date of Install
Phone/Email	

# FIELD SERVICE ASSISTANCE

Your Interpack Case Sealer and Tape Heads are designed to provide years of trouble free operation. This is not without proper preventative maintenance, a recommended schedule can be located in the maintenance section of this manual, performed by the end user of the equipment. If any problems arise with this machine during the normal course of operation, your properly trained and qualified internal service personnel should be able to repair any issues after consulting the troubleshooting section of this manual in conjunction with phone and/or email support from IPG Machinery Support.

Field Service Support is available from your IPG Authorized Distributor at additional cost if the problem cannot be remedied after consulting the troubleshooting section of this manual.

IPG offers comprehensive programs that help keep your equipment up and running.

Proactive maintenance efforts help to prevent equipment failures and costly emergency repairs. Keeping your machine in optimal working condition also enhances employee safety, reduces facility downtime and efficiently allocates internal resources.

Please contact your IPG Representative to discuss the best options for your IPG equipment.

# WARRANTY INFORMATION

EQUIPMENT WARRANTY AND LIMITED REMEDY: The following warranty is made in lieu of all other warranties, express or implied, including, but not limited to, the implied warranty of merchantability, the implied warranty of fitness for a particular purpose, and any implied warranty arising out of a course of dealing, a custom or usage of trade:

Intertape sells its Interpack Tape Heads, Case Tapers and Case Erectors with the following warranties:

- 1. The IPG Pressure Sensitive Tape Heads' knife blades, springs and wipe down rollers will be free from all defects for a period of ninety (90) days.
- 2. All other IPG Pressure Sensitive Tape Head parts will be free from all defects for one (1) year after delivery.
- 3. Water Activated Tape Heads' blades will be free from defects for ninety (90) days after delivery.
- 4. Drive Belts will be free from defects for ninety (90) days after delivery
- 5. The Gear Motors will be free from defects for one (1) year after delivery.
- 6. All other components for Case Tapers and Case Erectors will be free from defects for one (1) year after delivery.

If any part is proven defective within its warranty period, then the exclusive remedy and Intertape's and the seller's sole obligation shall be, at Intertape's option, to repair or replace the part, provided the defective part is returned immediately to Intertape's factory or an authorized service station designated by Intertape.

A part will be presumed to have become defective after its warranty period unless the part is received or Intertape is notified of the problem no later than five (5) calendar days after the warranty period.

If Intertape is unable to repair or replace the part within a reasonable time, then Intertape, at its option, will replace the equipment or refund the purchase price. Intertape shall have no obligation to install the repaired or replacement part.

Intertape shall have no obligation to provide or pay for the labor required to install the repaired or replacement part.

Intertape shall have no obligation to repair or replace (1) those parts failing due to: operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts

- 1. Failure or damage is due to misapplication, lack of proper maintenance, abuse, improper installation or abnormal conditions such as temperature, moisture, dirt or corrosive matter, etc.
- 2. Failure due to inadequate cleaning, improper operating environment, improper utilities or operator error.
- 3. Failure due to operations above the rated capacities, or in any other improper manner, either intentional or otherwise.
- 4. Failure is due to equipment, which has been altered by anyone other than an authorized representative of Intertape Polymer Group.
- 5. Failure is due to an attempt by the purchaser to correct alleged defective equipment. In this event the purchaser is responsible for all expenses incurred.

LIMITATION OF LIABILITY: Intertape and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by written agreement signed by authorized officers of Intertape and seller.

# **GENERAL INFORMATION**

### Description of Low Tape/No Tape

This system is designed to provide years of trouble free operation. If any problems arise with this system during the normal course of operation, your properly trained and qualified internal service personnel should be able to repair any issues after consulting the Troubleshooting section of this manual.

The IPG Low Tape/No Tape is designed to integrate with all IPG manufactured pressure sensitive case sealers as well as a variety of competitive machinery. It is capable of detecting tape errors and halting the machine to prevent any inadequately taped cases from advancing down the line.





#### **Definitions**

Common terms that will be used throughout this manual.

**Tape Head** – This will refer to the IPG branded tape heads for the remainder of this manual, these may be HSD 2000 ET 2Plus or ET Xtreme<sup>™</sup>

Case Sealer - Refers to IPG manufactured Case Sealers

Machine System - Refers to the fully assembled Case Sealer with the Tape Head(s) installed

User/Operator - The individual who has been trained on the daily use of the Machine System

**Maintenance Champion** – The individual(s) who work for the end user of the Machine System who are responsible for conducting general and preventative maintenance

## Important Safeguards

There are a number of safety labels used on the Low tape/No Tape System. These labels are placed at different locations on the machine to warn operators and service personnel of possible dangers. Please read the labels on the machine and the following safety precautions before using the machine.

Read this manual for other important safety operating and service information.

Only trained personnel are to operate machine.

Only fully qualified technicians are to service this machine.

Wear safety glasses.

Shut off power to machine before adjusting machine or loading & threading Tape Heads.

Disconnect electrical power and compressed air (where applicable) before servicing.

Follow Lock Out / Tag Out Procedures BEFORE servicing any machinery.

All factory installed covers and guards must be in place before operating.

Stay clear of moving parts which can shear and cut.

Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

## SAFETY LABEL PLACEMENT



Figure 2: Safety Label Placement

# SAFETY LABEL DESCRIPTIONS



## MACHINE NAMEPLATE



Figure 6: Tape Head Nameplate

### **Reading Interpack Serial Numbers**



Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

## IMPORTANT SAFEGUARDS

#### **Explanation of Signal Word Consequences**



#### WARNING: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED COULD RESULT IN DEATH OR SERIOUS INJURY OR PROPERTY DAMAGE



2.

#### **CAUTION: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT** AVOIDED COULD RESULT IN MINOR OR MODERATE INJURY OR PROPERTY DAMAGE



### WARNING

- 1. To reduce the risk associated with mechanical, pneumatic, and electrical hazards:
  - · Read, understand, and follow all safety and operating instructions before operating or servicing the Case Sealer and/or Tape Head
  - Allow only properly trained and gualified personnel to operate and service this equipment
  - To reduce the risk associated with pinches, entanglement, and hazardous voltage:
    - Turn electrical supply off and disconnect before performing any adjustments, maintenance, or servicing the Case Sealer or Tape Head
- 3. To reduce the risk associated with pinches and entanglement hazards:
  - Do not leave the Case Sealer running while unattended
  - Turn the Case Sealer off when not in use
  - Never attempt to work on any part of the Case Sealer, Tape Head, load tape, or remove jammed boxes from the Case Sealer while the machine is running
- To reduce the risk associated with hazardous voltage 4.
  - Position electrical cord away from foot traffic and vehicle traffic
  - Do not operate the Case Sealer with a damaged power cord
- 5. To reduce the risk associated with sharp blades hazards:
  - Keep hand and fingers away from the tape cutoff blades, the blades are very sharp
- To reduce the risk associated with fire and explosion hazards: 6.
  - Do not operate this equipment in potentially flammable and/or explosive environments
- To reduce the risk associated with muscle strain: 7.
  - Use the appropriate rigging and material handling equipment when lifting or repositioning this equipment.
  - Use proper body mechanics when removing or installing Tape Heads that are moderately heavy or may be considered awkward to lift
- To reduce the risk associated with mechanical, pneumatic, and electrical hazards: 8.
  - Allow only properly trained and gualified personnel to operate and service this equipment



- 1. To reduce the risk associated with pinch hazards:
  - Keep hands clear of the upper head support assembly as boxes are transported through the Case Sealer
  - Keep hands, hair, loose clothing, and jewelry away from box compression rollers, moving belts, and Tape Heads
  - Always feed boxes into the Case Sealer by pushing only from the end of the box



#### CAUTION: TO AVOID INJURY THE MACHINE OPERATOR SHOULD REMAIN ATTENTIVE AND SHOULD NEVER REST THEIR HANDS, ARMS, HEAD, OR ANY OTHER BODY PART ON THE MACHINE.

### **Operator Skill Level Descriptions**

These descriptions and levels are uniform across all IPG Case Sealers

#### Skill "A" Machine Operator

This operator is trained to use the Case Sealer with the machine controls, to feed cases into the machine, make adjustments for different case sizes (USA series machines), to change tape, to start, stop, and restart production, and to clear jams and perform basic troubleshooting. They are also able to reset the Low Tape/No Tape system.

*Important:* The end user area supervisor must ensure that the operator has been properly trained on all machine functions before operating the machine.

#### Skill "B" Mechanical Maintenance Technician

Also referred to as the Maintenance Champion, this technician, is trained to use the Case Sealer as the Operator is able and in addition is able to work with the safety protection disconnected to check and adjust mechanical components, to perform maintenance operations and repair the Case Sealer. A skill "B" operator is not allowed to work on live electrical components. They are also able to access the data generated by the Low Tape/No Tape system.

#### Skill "C" Electrical Maintenance Technician

This technician is trained to use the Case Sealer as the Operator is able and in addition is able to work with the safety protection disconnected, to check and adjust mechanical components, to perform maintenance operations and repair the Case Sealer. A skill "C" operator is allowed to work on live electrical panels, terminal blocks, and control equipment.

#### Skill "D" Manufacturer Technician

Skilled technician sent by the manufacturer or its agent (distributors) to perform complex repairs of modifications, when agreed with the customer.

#### Operators skill level required to perform the following tasks on the Machine System

OPERATION	MACHINE CONDITION	OPERATOR SKILL LEVEL	NUMBER OF OPERATORS
Tape Roll Replacement	Stopped by pressing the Emergency Stop Button	A	1
Blade Replacement	Electrical Power Disconnected	В	1
Ordinary Maintenance and Preventative Maintenance	Electrical Power Disconnected	В	1
Extraordinary Mechanical Maintenance	Running with Safety Protections Disabled	С	1
Extraordinary Electrical and/or Pneumatic Maintenance	Running with Safety Protections Disabled	D	1
Drive Belt Replacement	Electrical Power Disconnected	В	1
Machine Installation & Set-Up	Running with Safety Protections Disabled	B & C	2

Proper Electrical Disconnect is achieved when the machine is unplugged from the electrical socket. Additional measures may be required by your plant. Consult with plant management for any additional required Lock Out/tag Out Procedures.

### **System Dimensions**

Low Tape/No Tape Box and Stack Light 3 lbs (1.4kg)



Figure 7: Machine Dimensions





### **ETII Plus**



#### **Figure 8: Tape Head Dimensions**

### System Components



\* The number of data cables will vary pending on the ordered configuration.

#### Figure 1: Machine Components

### Power Requirements

Electrical Supply: **110v, AC** 

This option is designed to be used in conjunction with IPG manufactured pressure sensitive case sealers. This equipment can also be adapted to be used with a variety of other manufacturer's equipment.

The Relay Box contains a 24v DC power supply for the Low Tape No Tape system, pass through to power the host machine, and the shutdown relay to turn off the host machine in the event of a detected error.



# CAUTION: ONLY TRAINED IPG AUTHORIZED PERSONNEL ARE TO PERFORM ANY MAINTENANCE ON THIS EQUIPMENT.

### **Operating Conditions**

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C) with clean dry cartons.



CAUTION: EQUIPMENT SHOULD NOT BE WASHED DOWN OR SUBJECTED TO CONDITIONS CAUSING CONDENSATION ON COMPONENTS.

### **Receiving and Handling**

The Low Tape/No Tape equipment can be shipped in a variety of ways depending on how it was ordered.

If the equipment was **ordered with IPG machinery**: The Low Tape/No Tape system will be installed on the IPG machine with tape heads and tested for functionality.

If the equipment was **ordered separately from IPG machinery:** The Low Tape/No Tape system will ship with all necessary wiring. Tape heads will need to be ordered separately for their use with the Low Tape/No Tape system.

# PRIOR TO SIGNING FOR THE MACHINE INSPECT IT FOR ANY DAMAGE THAT MAY HAVE OCCURRED DURING SHIPPING

If preinstalled on IPG Equipment

- 1. Follow the receiving and handling instructions for the ordered machine.
- 2. The Low Tape/No Tape system will be mounted via magnets to the machine in locations that best serve for shipping.
- 3. Relocate the Control Box and Stacklight, Hub, and Relay Box to your ideal locations.
- 4. All cables should be preinstalled and connected to the tape head(s) and control box.
- 5. Once installed, test the Low Tape No Tape system for full functionality to verify nothing has been damaged in shipping.

If shipped separate from IPG equipment:

- 1. Inspect the shipping carton for damage. Do not accept delivery for any damaged goods.
- 2. Open the carton and inspect the material for any damage from shipping.
- 3. Verify all material for installation is included.

### <u>Set up</u>

The Low Tape/No Tape system is mounted to case sealers using powerful magnets. This removes the need for physical modification to the host case sealer and allows for a standard Low Tape/No Tape system to be installed across a variety of manufactured systems.

When tape heads are ordered for the Low Tape/No Tape system they will ship with the correct sensor package preinstalled.

The Low Tape No Tape system is to be installed by an IPG Authorized Representative who will be provided with documentation on proper installation.

Follow the <u>"Connecting Tape Heads</u>" section for the correct removal and reinstallation of tape head(s) into the system.

This system is designed for easy installation on almost any case sealer currently available on the market, regardless of whether it was manufactured by IPG or a competitor. The main components—the Relay Box, Control Box, and Hub Box—are magnetic, allowing them to be positioned in the most practical locations for the specific case sealer setup and user needs.

The most complex aspect of installing the Low Tape/No Tape system is cable management. All data cables should be routed and secured to the case sealer in a way that minimizes wear and tear, avoids pinch points, and reduces other potential hazards. Secure all cables with cable ties, ensuring they are arranged neatly and appear as if they were factory-installed.

There is no single correct way to install the system; however, the following pages outline best practices that should be followed. Take the time to thoroughly study the case sealer on which the Low Tape/No Tape system will be installed. Consider how the sealer operates—whether it moves automatically or is manually operated by an operator—as this can affect how and where you should route the cables.

### **Control/Stack Light Box**

The control box is equipped with an indicator stack light to display red, yellow, and green lights as well as an audible alarm buzzer, the box also contains the Low Tape/No Tape system's only button.

- 1. Inspect the control box for damages that may have occurred in shipping.
- 2. Locate a place on the case sealer that is easily accessible to the operator where they can press the function button and view the stack light. Usually this would be on a machine's columns.
- 3. Connect the box to the machine using the magnets on the back.



While the Control Box is mounted magnetically it is recommended to be placed in an area both visible to the operator and passing personnel, and within reach of the operator.

#### <u>Relay Box</u>

The Relay Box contains the 24v power supply that provides power to the Control Box and all sensors. It also contains a standard NEMA 5-20R power socket that will provide 110v 20 amp power to the machine the system will be installed on. The Relay Box also contains an IEC power socket that is rated for 20 amp service.

- 1. Inspect the Relay Box for damages that may have occurred in shipping.
- 2. Locate a place on the case sealer where the Relay Box can be securely attached to the machine via magnets on the back of the Relay Box. Typically a secure location for the Relay Box will be on the inside of the frame of the machine, however, any reasonable location on the machine will be sufficient.



While the Relay Box can be mounted anywhere on the machine it is recommended to be placed in a protected area on the host case sealer. This will prevent any accidental unplugging or impact damage from personnel or machine traffic around the area of the case sealer. This is the only part of the Low Tape/No Tape system that utilizes 110v power.



### <u>Hub Box</u>

The Hub Box contains six (6) industrial RJ45 connectors to distribute power and data to all devices that need to be connected to the Low Tape/No Tape system.

- 1. Inspect the Hub Box for damages that may have occurred in shipping.
- 2. Locate a place on the case sealer where the Hub Box can be securely attached to the machine via magnets on the back of the Hub Box. Typically a secure location for the Hub Box will be on the inside of the frame of the machine.



While the Hub Box can be placed anywhere it is recommended to be placed in a protected area on the host case sealer. This will prevent any accidental unplugging or impact damage from personnel or machine traffic around the area of the case sealer and will prevent accidental disconnections of system components.

### <u>Tape Heads</u>

Depending on the PO one or two tape heads that have been outfitted with a sensor package and power socket will be shipped. The system is capable of using an ETX or ETII+ tape head. These tape heads should be installed in accordance to the machine instructions and/or adapter kits necessary for the case sealer.



### Gateway (iTrack Subscription Only)

If the customer has signed on for the iTrack Dashboard a communication gateway will be included in the shipment. This will communicate with all of the Low Tape/No Tape and any other iTrack compatible systems in the facility and communicate out to the dashboard via a cellular connection.

- 1. Inspect the Gateway for damages that may have occurred in shipping.
- 2. If not already done connect the antenna by screwing it into the external antenna socket.
- 3. If the power cord is not already installed, unscrew the back panel.
- 4. Thread the power cord through the waterproofing gasket.
- 5. Insert the power cord into the channel of the waterproofing gasket and plug the connector into the power socket.
- 6. A cellular sim card should be pre-installed. Verify there is one in the designated socket.
- 7. Replace the back cover and secure it with the screws.
- 8. Within the customer's facility find a location with strong cellular service, typically near an external window or in administrative office spaces.
- 9. Plug in the Gateway to a wall socket and wait for it to boot.
- 10. When fully booted you will see a series of lights in blue, Power, Status, LoRa, Wi-Fi, LTE.
- 11. iTrack compatible systems will automatically connect when powered and within range. Systems should connect when within roughly 400 ft of the Gateway. The signal will penetrate steel and concrete.

### Cable Troubleshooting

In the event the industrialized RJ45 connector has trouble mating with the sockets there might be a misalignment in the connector. To correct this mis alignment follow the below.

The connectors are made of six components: the RJ45 cable, bushing, two boot halves, chuck, and metal housing.



In the event the connector does not mate correctly follow the below steps:

- 1. Unscrew the bushing from the back of the connector. Use caution as the two boot halves may fall out and are necessary for the cable.
- 2. Place the two boot halves in a safe location.
- 3. Pull the metal housing off of the front of the RJ45 cable.
- 4. Insert the metal housing into the socket of the LT/NT element you need it to be installed into.
- 5. Slide the RJ45 through the metal housing and seat it all the way into the socket until it cannot be pushed any farther.
- 6. Place the two boot halves back around the cable so they are snug against the chuck. The chamfered side of the inner diameter of the boot should rest against the angular portion of the chuck.
- 7. Screw the bushing back into place on the metal housing. Be sure not to cross thread. Tighten completely.

### **Cabling**

The Low Tape/No Tape system comes with two (2) industrial RJ45 cables and up to two (2) RJ45 to Tape Head connector cables depending on how many tape heads were ordered with the system. The cables are long enough to be used on many different makes and models of case sealer.

1. Take one of the Industrial RJ45 cables and connect it to the port on the Relay Box.



- 2. Run this cable to the Hub Box make sure it will not interfere with normal operation of the case sealer or be in a location where it can be easily damaged.
- 3. Connect the other end into any of the open ports on the Hub Box.



### Cabling Continued

4. Take the other Industrial RJ45 cable and connect one end of it to the port on the Control Box.



- 5. Run this cable to the Hub Box make sure it will not interfere with normal operation of the case sealer or be in a location where it can be easily damaged.
- 6. Connect the other end into any of the open ports on the Hub Box.



## Cabling Continued

7. If the case sealer has a top tape head take one of the RJ45 to Tape Head cables and connect the RJ45 end to any open port on the Hub Box.



- 8. Run this cable through the machine to the bridge of the machine. Make sure this cable will not interfere with normal operation of the case sealer and is in a way where it will not be damaged.
- 9. If a case sealer has a drag chain, cable wire-way, or other cable retaining system run this tape head cable with those other cables. If the tape head connector is too large to be threaded through any of these pre-installed cable retaining systems, use cable ties to secure it to the outside of these.
- 10. If there are no pre-installed cable retaining systems lower the bridge on the case sealer to the lowest it can possibly go.
- 11. Run the tape head cable up one of the columns, use a small strip of tape to temporarily secure the cable to the column where it can be taught.



### Cabling Continued

- 12. Connect the cable to the tape head.
- 13. Using a small piece of tape, temporarily secure the cable to the bridge near the tape head. Make sure there is some slack in the cable between the tape head and this secure point.



- 14. Verify the cable between the column and bridge will not interfere with the motion of the bridge. Adjust the temporary secure points until the cable does not cause any interference. A cable shroud may provide some rigidity to help keep the cable from moving components. Be sure there is enough slack cable to allow for full movement of the machine bridge.
- 15. When you are satisfied that the cable will not interfere with any operation of the case sealer use cable tie mounts and cable ties to secure the tape head cable in place permanently.
- 16. If a case sealer has a bottom tape head take one of the RJ45 to Tape Head cables and connect the RJ45 end to any open port on the Hub Box.



### Cabling Continued

17. Run this cable through the machine to the lower tape head cavity. If there are any other cables that go to this location follow those cables. If not run the cable so that it does not interfere with the normal operation of the case sealer.



- 18. At this point all the cables should be connected to all of the components.
- 19. Take your time to perform cable management to wrap up the excess cable. The amount needed, path, and location of the cables will vary from one case sealer to another. Cables should be secured to the inner area of the case sealer where it will not interfere with normal operation of the machine and where they will not pose any trip hazards for operators or other plant personnel.
- 20. Take the case sealer's power cable and plug it into the NEMA 5-20R power socket on the Relay Box.



### Cabling Continued

21. Secure the remainder of the case sealer's power cable to the machine.





22. Plug the provided iTrack power cable into the Relay Box.



- 23. Plug the other end of the iTrack power cable into a properly grounded outlet that is rated for the case sealer.
- 24. There is no power switch on the Low Tape/No Tape system it will be powered as soon as it is plugged in. Upon boot-up the system will scan for all attached components and beep when ready.
- 25. Turn the case sealer's power on if it has a disconnect switch.
- 26. Start the case sealer. The stack light should change from red to green.
- 27. Perform the system test procedure to verify communication between components and the system performs as expected.

# **CONNECTING UTILITIES**

### Electrical Utilities

Electrical Supply: **110v, AC** 

The IPG Low Tape/No Tape system ships with a NEMA 5-20P to IEC 60320 C19, 12AWG power cable rated for 20A service. A series of RJ45 cables are also included for data transmission and 24v DC supply for sensor power.

The Relay Box contains a NEMA 5-20R Outlet to supply power to the case sealer the system is being installed on.

CAUTION: DO NOT PLUG IN ANY DEVICE INTO THE RELAY BOX OTHER THAN THE HOST CASE SEALER. DO NOT PLUG THE LT/NT SYSTEM INTO ANY POWER STRIPS OR SURGE PROTECTORS. DO NOT PLUG ANY POWER STRIPS OR SURGE PROTECTORS INTO THE RELAY BOX.

#### CAUTION: DO NOT CONNECT ANY OF THE RJ45 CABLES TO A COMPUTER OR OTHER ELECTRONIC EQUIPMENT. ONLY CONNECT APPROVED EQUIPMENT. CONNECTING TO NON-APPROVED EQUIPMENT CAN RESULT IN DAMAGE TO EQUIPMENT OR RESULT IN PERSONAL INJURY.

If the Low Tape/No Tape system was shipped with an IPG manufactured case sealer it will be fully installed and integrated into the case sealer upon arrival.

If the Low Tape/No Tape system was ordered separately from an IPG manufactured case sealer it will ship with all wires and needed components. Tape heads will need to be ordered separately.

When plugged into an outlet the Low Tape/No Tape system will be powered on. An audible alert will sound when the system has fully booted. There is no power switch.

# **OPERATOR CONTROLS**

The Low Tape/No Tape system only has a single "function" button on the Control Box allowing the operator to scan the system for changes or enter bypass mode.



**Figure 9: Function Button** 

# CONNECTING TAPE HEADS

Any tape head that will be intended to connect to the Low Tape/No Tape system will need to be ordered separately and in a configuration with the appropriate sensors attached. The completed tape heads for the Low Tape/No Tape system with sensors installed will be referred to as LTNT Tape Heads.

The LTNT Tape Heads will have a magnetic disconnect cable that attaches on the top of the tape head near the mandrel arm.

#### For LTNT Tape Heads being installed in the top position of a machine:

- 1. Attach the appropriate adapters for mounting into the host machine (see tape head manual).
- 2. Load tape onto the tape head following the tape threading procedure (see tape head manual).
- 3. Follow the tape head installation procedure for the host machine (see machine manual).
- 4. Once the tape head is installed take the magnetic connector and place it over the receiving pad on the top of the tape head. Once close enough it will automatically attach.

#### For LTNT Tape Heads being installed in the bottom position of a machine:

- 1. Attach the appropriate adapters for mounting into the host machine (see tape head manual).
- 2. Take the magnetic connector and place it over the receiving pad on the top of the tape head. Once close enough it will automatically attach.
- 3. Follow the tape head installation procedure for the host machine (see machine manual).
- 4. Verify that during the tape head installation procedure the quick disconnect remained attached to the tape head.

When fully installed and powered on the sensors in the tape head will have illuminated status lights. Verify these lights are on at least one of the sensors. Some sensors may not be illuminated depending on positional proximity to their respective counterparts.

There are two (2) magnets in the connector for self alignment.



Figure 10: Tape Head Magnetic Connector

# **OPERATING INSTRUCTIONS**

Once the system has been properly installed the only thing an operator will need to do it press the function button once. This will register each tape head and its top or bottom configuration and allow the system to properly detect errors. In the event a machine has a tape head configuration change the function button should be pressed. There is no need to press the scan button when simply reloading tape.

In the event an error occurs the Low Tape No Tape system will stop the machine in an effort to prevent any improperly taped cartons from moving unnoticed to the next station.

#### Bypass Mode

In the event the Low Tape No Tape system is behaving abnormally or producing a series of false positives or not catching errors bypass mode may be initiated. To initiate bypass mode the scan button must be pressed and held for 5 seconds.

When in bypass mode the Low Tape/No Tape system will not turn off the machine.

If bypass mode is needed please contact IPG Machinery Support or your Authorized IPG Representative as your system may need service.

When in Bypass mode the stack light indicator will slowly blink all the lights simultaneously.

#### System Scanning

On initial set up a system scan will be necessary to establish the tape head configuration. Occasionally a connection error may occur, typically when a tape head is removed to replenish the tape. In this situation the Red and Yellow lights will blink quickly. In this event the operator should verify full connection of the tape head(s) to the system. Then a quick press of the Scan Button on the bottom of the Control Box will reset the connections.

In the event that a machine configuration change has been made a System Scan will be needed. A machine configuration change is when the tape head orientation has changed. An example of this is going from a top only sealing to top and bottom sealing. This will allow for the system to be modular and fit any needs.

# **OPERATING INSTRUCTIONS CONTINUED**

### Stack Light Indicator Status

When the stack light indicator is Solid Green the machine is powered on and in operation under nominal conditions.

When the stack light indicator is Slowly Blinking Green the machine is Idle, belts off, and waiting to be activated.

When the stack light indicator is Slowly Blinking Yellow the Low Tape/No Tape system is registering that one or both of the tape heads is registering low tape.

When the stack light indicator is Solid Red the machine is off and not running.

When the stack light indicator is Quickly Blinking Red the Low Tape/No Tape system is registering a tape error and has stopped the machine.

When the stack light indicator is Slowly Blinking with all lights, Red, Yellow, and Green, the Low Tape/No Tape system is in Bypass Mode. When in Bypass Mode the Low Tape/No Tape system will not detect errors and will not stop the machine.

When the stack light indicator is Quickly Blinking with Red and Yellow, the Low Tape/No Tape system is detecting an error in the system. To resolve this error ensure all components are connected and press the Scan Button to reset the system.

Once the Function Button has been pressed the Low Tape/No Tape System will check for all items connected to the system. Once the scan has been completed the stack light indicator will briefly indicate the set up the machine that the system has scanned.



Figure 11: Stack Light Status Indicators

## ERROR ALERTS

The IPG Low Tape/No Tape system can detect a variety of processing errors and stop the machine in the event of an error. When the machine is running the green light on the system will be illuminated. This system is designed to operate with a top and/or bottom tape head.

### Low Tape

A sensor on the mandrel arm of the tape head will detect the current level of tape remaining. When the sensor detects low tape it will illuminate the yellow light while allowing for continuous operation until the operator stops the machine or an error is detected.

### No Tape/Tape Application Error

When the system has detected that no tape, or an insufficient amount of tape has been applied to the carton the system will stop the machine and the red light will be illuminated. An audible alert will rapidly sound when the system has detected a taping error.

### No Cut

When the system has detected that there has been a failure of the cutting mechanism it will stop the machine and the red light will be illuminated. An audible alert will rapidly sound when the system has detected a taping error.

#### After an Error is Detected

The IPG Low Tape/No Tape system has detected an error it will stop the machine it is installed on. Once an operator is ready to continue normal production they need only to press the start button on the machine. The system will allow for the ejection of any carton still in the machine for the error to be corrected.

## TROUBLESHOOTING

The iTrack Low tape/No Tape system is fabricated with high quality components that provide trouble-free operation for a long period of time. However, should a problem occur, we recommend that you consult the following troubleshooting guides. If the problem you encounter is not discussed in this section, call IPG Machinery Support.

IPG Machinery Support is available Monday through Friday from 8am until 7pm Eastern Time 813-345-3070 or machsupp@itape.com.

The following is a short set of brief questions and answers for some mild troubleshooting in pressure sensitive case sealers. More in-depth troubleshooting can be found in the following pages.

#### Q: Why does my front tape leg fold down in the tape head?

In most circumstances the tape leg can fall over when strong air circulation has been turned on in the vicinity, normally this can happen when the heating or air conditioning is turned on. Other options can include the tape not being threaded through the tape shoe or the spring tab in the tape shoe is broken.

#### Q: Are the top and bottom tape heads interchangeable?

All IPG tape heads can be used in a top or bottom configuration. The only recommended change is to install the correct spring in the tape head. A lighter spring is recommended for the top head and a heavier spring is recommended for the bottom tape head. In the Low Tape/No Tape system top and bottom tape heads are interchangeable.

#### Q: Does the iTrack system come with a tape head?

The iTrack Low Tape/No Tape system does not ship standard with tape heads. It can be ordered in conjunction with tape heads or pre-installed onto IPG manufactured case sealers.

#### Q: What is the best way to clean the tape heads?

It is recommended to clean the tape path with a mild detergent and water solution. Do not use any harsh industrial cleaners as they can deteriorate parts quickly. Do not use excessive amounts of water and dry the tape head soon after washing.

#### Q: Can we reverse the side the tape is loaded on?

Standard IPG tape heads cannot be modified in this way, however, both ET 2Plus and ETX tape heads are available in mirror versions. These are available in both 2" and 3" tape heads.

#### The Low Tape/No Tape System is Behaving Abnormally

In the event the Low Tape/No Tape system is not capturing errors when it once was, or is falsely identifying errors:

- 1. Verify the Low Tape/No Tape system is connected to power and turned on.
- 2. Verify all connections to the tape head(s) are secure at the tape head itself, quick disconnect, and control box.
- 3. When connected and the Low Tape/No Tape control box is powered on verify the sensors are getting power by manually blocking them to see if the light turns on and off.
- 4. Press the Function Button on the bottom of the Control Box to conduct a soft reset.
- 5. If you are still having trouble place the Low Tape/No Tape system into Bypass mode and contact IPG Machine Support.

IPG Machinery Support is available Monday through Friday from 8am until 7pm Eastern Time 813-345-3070 or machsupp@itape.com.

### **Disconnecting Tape Heads and Communication Errors**

When a tape head gets disconnected from the Low Tape/No Tape system, either by an operator removing it manually or any other disconnect, the system will show a communication error by blinking red and yellow and an audible alarm will slowly beep.

Verify that all components are reconnected and press the function button. The system will then do a full scan and using the stack light display the current connections.

### TROUBLESHOOTING

### The Machine is Turned on and Nothing Happens



### Poor Tape Wipedown



### TROUBLESHOOTING

### Rear Tape Leg is Tabbing



#### Tape Does Not Cut



## MAINTENANCE

The IPG Low Tape/No Tape has been designed and manufactured with the finest components to provide long, trouble-free performance. General preventive maintenance will improve performance and prolong the life of the case sealer. Review the illustrations and chart below for information regarding machine maintenance.

If the Low Tape/No Tape system is behaving abnormally please contact IPG Machinery Support or your Authorized IPG Representative. Do not attempt to open the Low Tape/No Tape electrical box it contains sensitive electronics.



### Lubrication:

No lubrication is needed for the Low Tape/No Tape system. Please consult the user manual for any lubrication that may be needed to be done on the tape heads.

### <u>Cleaning:</u>

If there is any dust or dirt build up on the Low Tape/No Tape control box, stack light, or cables they may be wiped down with a mild soap and water solution. Do not over saturate any element of the system as it is not wash down rated. Cleaning can be conducted on an as needed basis.

## USER NOTES

