

Operation Manual



MatchPoint PLANXTM

Servo-Driven Jigging System

Operation Manual

MatchPoint PLANX™

Servo-Driven Jigging System



U.S. and other patents pending.

Manual applies to U.S. and International equipment.

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Legal Notice

Patents

Made and sold under one or more of the following patents:

U.S. 37,797	U.S. 5,468,118
U.S. 5,553,375	U.S. 6,079,325
U.S. 6,145,684	U.S. 6,330,963
U.S. 6,405,916	U.S. 6,651,306
U.S. 6,807,903	Other Patents Pending

Return Goods Policy

Return goods cannot be accepted without prior authorization and are subject to a restocking charge. The Seller certifies the articles specified herein were produced in compliance with all provisions of the Fair Labor Standards Act of 1938, as amended, including Section 12.—Rev. 6/98

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Safety (English)



Refiérase a la página 22 para español.

For safety information in Spanish, refer to page 22.

Safety Indicators: Signal Words

The following signal words and colors are used throughout this document to indicate safety hazards. Pay careful attention when you see them. The level of severity differs for each signal word and color.

Signal words are accompanied by graphics showing what personnel should or should not do. The graphics are called safety symbols and are defined on page 13, but more specific text is provided every time a graphic is used throughout the manual. Everyone near the machine must be trained on how to read these safety indicators.

Failure to comply with the instructions accompanying each signal word may result in property damage, personal injury, or even death. Personnel must follow all safety procedures and practices to ensure the safest possible operation of this equipment. However, at no time is this document a substitute for common sense. Personnel must ensure that the work environment is safe and free of distractions.

DANGER

Indicates an imminently hazardous situation which, if not avoided, is likely to result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury.

CAUTION

When CAUTION is used **with** the safety alert symbol (yellow triangle), it indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

When CAUTION is used **without** the safety alert symbol, it indicates a potentially hazardous situation which may result in equipment damage.

NOTICE

Calls attention to information that is significant to understanding the operation at hand.

ENVIRONMENTAL

Applies to conditions that may affect the environment but do not have an immediate, direct effect on personnel or equipment.

General Equipment Safety Rules



Because it is impossible to anticipate every circumstance that might involve a hazard, the safety information provided in this equipment manual and on the machine is not all-inclusive. If this machine is operated or serviced using a procedure not specifically recommended by the manufacturer, the procedure shall be approved by a professional engineer to ensure it will not render the equipment unsafe. Use extreme caution and common sense at all times!

Know Your Equipment

- Read this manual completely before using or maintaining the equipment. Do not operate this machine unless you have a thorough knowledge of the controls, safety devices, emergency stops, and operating procedures outlined in this manual.
- Read and follow all safety notes. Failure to comply with these instructions may result in economic loss, property damage, and/or personal injury including death.
- Refer to the lockout/tagout guidelines on the following pages to safely perform maintenance and troubleshooting of this equipment.
- Observe and obey all safety labels. Replace worn labels immediately.
- Use this equipment solely for the purpose described in this manual.
- Only qualified personnel should attempt to operate or perform maintenance on this equipment. “Qualified personnel” is defined as:

...a person or persons who, by possession of a recognized degree or certificate of professional training, or who, by extensive knowledge, training, or experience, has successfully demonstrated the ability to solve problems relating to the subject matter and work—ANSI B30.2-1983

...one who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training on the hazards involved—NEC 2002 Handbook

Personal Safety

- Always wear safety glasses and hearing protection in an industrial environment.
- Utilize a filtering face piece (dust mask) when working near sawdust.
- Wear proper clothing and appropriate personal protective equipment (e.g., safety glasses and hearing protection.) Do not wear loose clothing or jewelry. Confine long hair by tying it back.
- Use caution when lifting heavy parts or material.

Installing the Equipment

- Follow installation instructions completely.
- This equipment is not for use in a residential area.



Lockout/Tagout

- Before performing maintenance on the pneumatic or hydraulic systems, bleed the lines to eliminate pressure.
- Lockout/tagout all energized systems before performing maintenance on them. Refer to the *Lockout/Tagout Guidelines* section on page 5.

Keeping a Safe Environment

- Keep children away. All visitors should be kept a safe distance from the work area. Hazards may not be apparent to individuals unfamiliar with the machine.
- Keep work areas well lit.
- Keep the work area clean and free of any trip or slip hazards.
- Do not use the equipment in damp or wet locations, or expose it to rain or snow.
- Minimize dust clouds and protect your equipment by cleaning dust in this manner:
 - Vacuum dust prior to blowing with air
 - Shut down electrical power and sources of ignition
 - If using compressed air, it should be a low compression (no more than 15 psi)
 - Powered cleaning equipment such as vacuums must be consistent with local governmental codes for use in dusty conditions.

Operating and Maintaining the Equipment

- Ensure that all people, tools, and foreign objects are clear of the restricted zones before operating this equipment. The restricted zones are shown on page 11.
- Perform safety tests to ensure all E-stops are working properly before operating the equipment at the initial startup, after performing any maintenance, and in accordance with the maintenance schedule.
- In case of machine malfunction, stop the machine immediately using an E-stop and report the malfunction to a supervisor.
- Never leave the machine running unattended. Turn the power off! Do not leave the machine until all parts have come to a complete stop and all electrical power has been shut off.
- Check for worn or damaged parts regularly. Repair or replace them immediately.
- Keep the hydraulic, pneumatic, and electrical systems in good working order at all times. Repair leaks and loose connections immediately. Never exceed the recommended pressure or electrical power.



- Check that all safety devices are in working order before each shift starts. All protective guards and safety devices must be in place before and during use of the machine. Never disconnect or bypass any safety device or electrical interlock.
- Only qualified maintenance personnel shall remove or install safety devices.
- Periodically inspect the quality of the finished product.

Electrical Safety

- Do not use any liquids in the interior of electrical cabinets.
- When using solvents on and around the machine, remove power to the machine to eliminate the chance of sparking, resulting in explosion or fire. Wear a respirator approved for use with solvents. Wear protective clothing, gloves, and safety glasses.

Lockout/Tagout

Lockout/Tagout Guidelines

All lockout/tagout guidelines must be met according to OSHA 29 CFR 1910.147. A specific procedure should be included in your company's energy control program. This manual is not intended to replace your company's de-energizing or lockout/tagout procedure required by OSHA, but merely to provide general guidance.

The term "lockout," as used in this manual, means placing a lockout device on any and all energy sources to ensure that the energy isolating device and the equipment being controlled cannot be re-energized or operated until the lockout device is removed. The photos on the next page show where the electrical disconnects are located for this machine.



- Energy sources include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- In the case of electrical energy sources, the main power and control power to the machinery must be turned off and physically locked in the "off" position.
- A lockout device is usually a keyed padlock.
- If more than one person is working in a restricted zone, use a group lockout device that will allow each person to use a lock that can be removed only by the person performing the maintenance.

"Tagout" means that a prominent warning is securely fastened to an energy-isolating device to indicate that the equipment shall not be operated.

Whenever you see this symbol, lockout/tagout!



Electrical Lockout/Tagout Procedures





When Working on a Machine Outside the Machine’s Main Electrical Enclosure



If working on the electrical transmission line to the machine, follow the procedure on page 8.

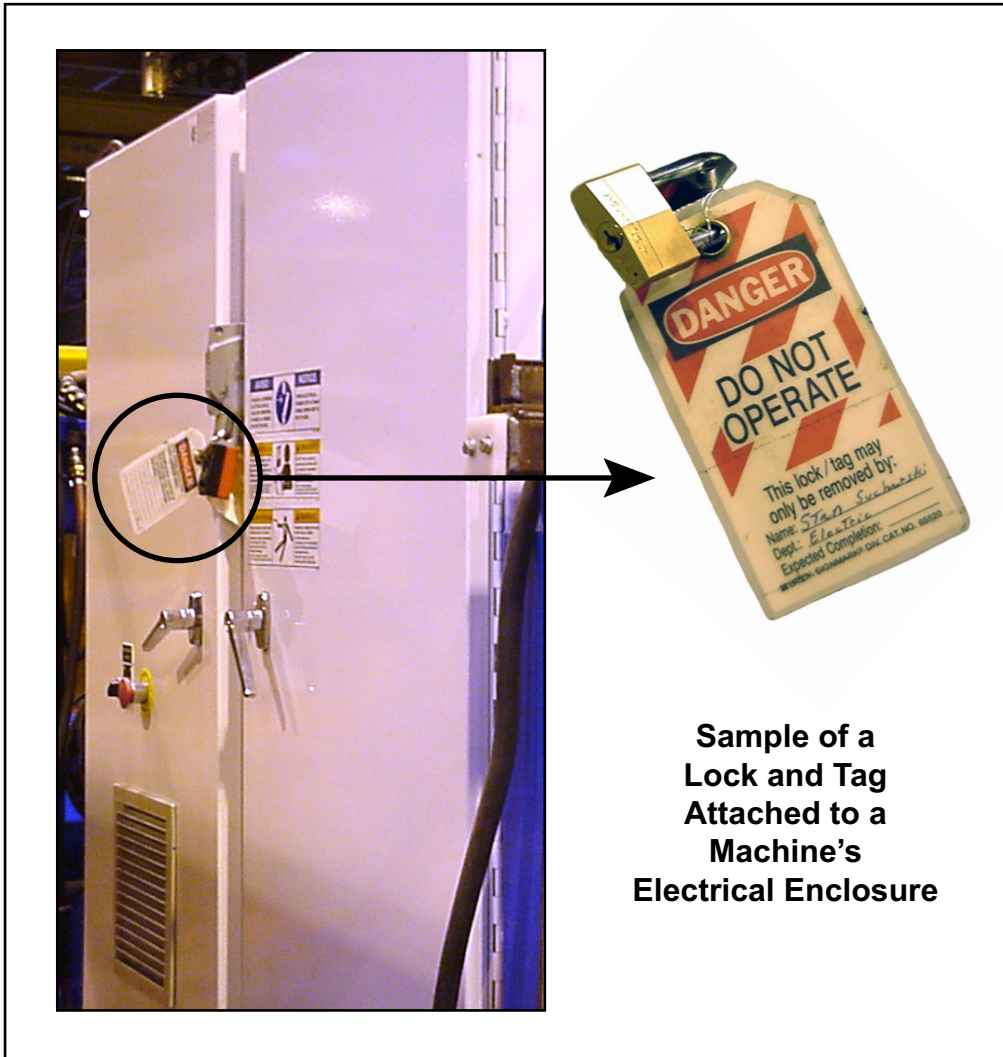
Before performing maintenance on any machine with electrical power, lockout/tagout the machine properly. When working on a machine outside of the machine’s main electrical enclosure, not including work on the electrical transmission line to the machine, follow your company’s approved lockout/tagout procedures which should include, but are not limited to the steps here.

1. Engage an E-stop on the machine.
2. Turn the disconnect switch handle to the “off” position. See Figure SAFETY-1.

	 WARNING
	<p>ELECTROCUTION HAZARD.</p> <p>When the disconnect switch is off, there is still live power within the disconnect switch’s enclosure. Always turn off power at the building’s power source to the equipment before opening this electrical enclosure!</p>

3. Attach a lock and tag that meet OSHA requirements for lockout/tagout.
4. Restrain or de-energize all pneumatic components, hydraulic components, and other parts that could have live or stored power.

Figure SAFETY-1: Sample of a Lockout/Tagout Mechanism on an Electrical Enclosure





When Working on a Machine Inside the Machine's Main Electrical Enclosure or in the Electrical Transmission Line to the Machine

Before opening the main electrical enclosure, or attempting to repair or replace an electrical transmission line to the machine, lockout/tagout the machine properly. Follow your company's approved lockout/tagout procedures which should include, but are not limited to the steps here.

1. Engage an E-stop on the machine.
2. Shut the power to the machine off at the machine's power source which is usually an electrical service entry panel on the facility wall. One example of a locked-out power source panel is shown in Figure SAFETY-2.
3. Attach a lock and tag that meets OSHA requirements for lockout/tagout.
4. Open the door to the enclosure in which you need access, and using a multimeter, verify that the power is off.

Figure SAFETY-2: Sample of a Lockout/Tagout Mechanism on a Power Source Panel



Pneumatic System Lockout/Tagout Procedure

When Lockout/Tagout is Not Required

If working on components other than the pneumatic system, but that requires you to be near the vicinity of movable pneumatic components, you must, at a minimum, physically restrain the pneumatic components from moving. If this is not possible, lockout/tagout the entire pneumatic system.



When Lockout/Tagout is Required

Before attempting repair or maintenance on a pneumatic line or component, lockout/tagout the machine properly. Follow your company's approved lockout/tagout procedures.

Troubleshooting With an Energized Machine

Only a qualified electrician, using the personal protective equipment and following the procedures recommended in NFPA 70E should ever attempt service or repair of or near an energized area or component of the machine.



Whenever maintenance is performed while the equipment is electrically energized, there is a potential electric arc flash hazard. Refer to NFPA 70E for the personal protective equipment required when working with electrically energized components. Pneumatic and hydraulic components may move unexpectedly if not de-energized. Physically restrain any components capable of movement when working on or near those components.

Safety Test

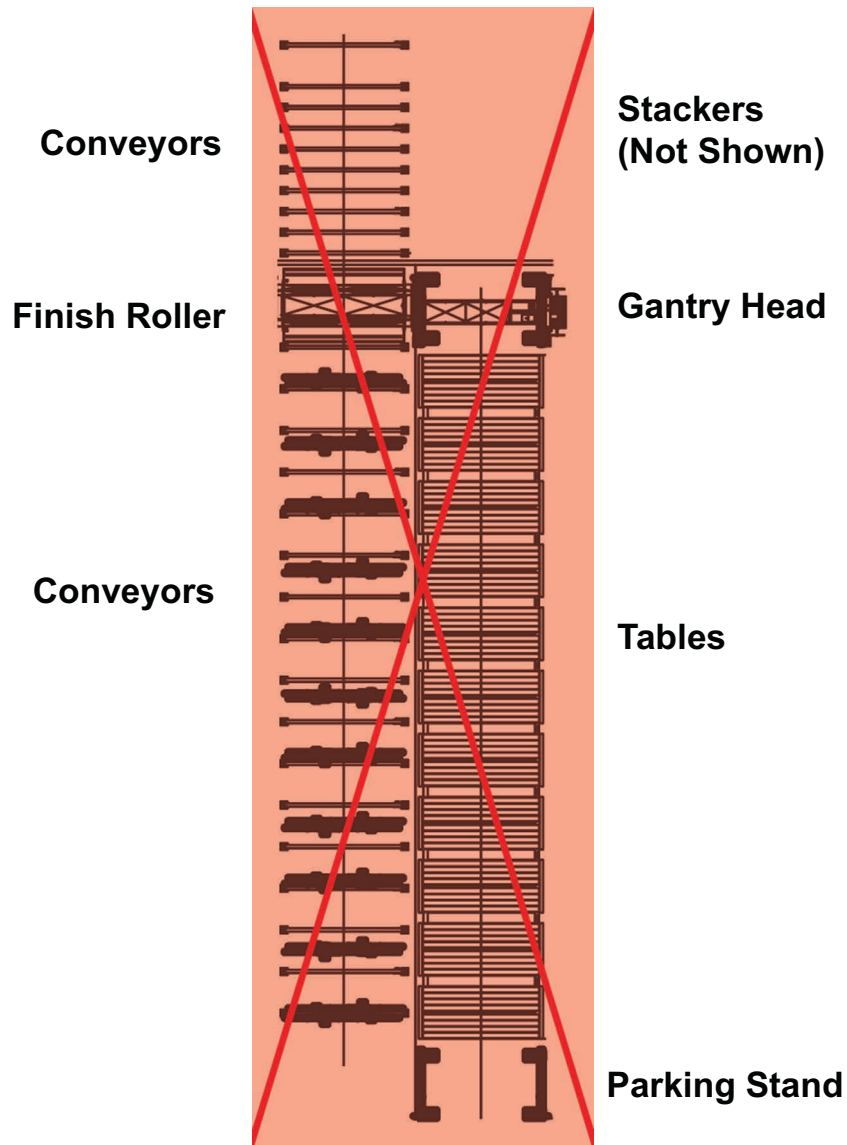
This test procedure **MUST** be performed by qualified personnel at startup and after ANY maintenance, adjustment, or modification. Testing ensures that the safety system and machine control system work together to properly stop the machine.

1. Start the system.
2. Test that the E-stop circuit prevents movement:
 - a) While jiggling a truss automatically, push the red E-stop button on the operator control station. All PLANX should stop immediately.
 - b) Attempt to manually run the pucks on the first PLANX assembly by pressing the FWD/REV button located on the control box for that PLANX assembly.
 - c) The pucks should not move! Repair the electrical system if the puck moves while the E-stop is actuated.
 - d) Repeat for all other PLANX assemblies.
 - e) Reset the E-stop circuit after testing by pulling straight out on the red Estop button, then pressing the RESET button.
3. Lockout/tagout.
4. Check that all guards and safety devices are in place and secure.
5. Inspect the timing belts (2 per PLANX) for excessive wear.
6. Inspect the Acme screws and nuts for excessive wear. Rotate the Acme screw to check the back side of crew.
7. Remove any foreign objects that may have fallen into the PLANX slot.
8. Ensure that the Acme screws are lubricated. See the Maintenance Checklist.
9. Remove the lockout/tagout devices.

Restricted Zone

	 DANGER
	<p>Stay out of the restricted zone when equipment is in use. Serious injury or death may result if personnel are in the restricted zone.</p> <p>Always look for personnel in the restricted zone before operating equipment.</p>

Know the Restricted Zone





Marking the Restricted Zone







The restricted zone must be marked so everyone near the equipment can clearly see the area where danger may exist.








MiTek offers Restricted Zone Tape that is easy to apply and has text in English and Spanish. Some equipment comes with restricted zone tape. If your machine did not come with restricted zone tape, you may order it from MiTek Machinery Division Customer Service.









Instructions for where and how to apply restricted zone tape can be found in the gantry manual that came with your system or by obtaining Service Bulletin 181 from the MiTek Machinery Web site.









Safety Symbol Definitions








The safety symbols shown in this section can be found throughout the manual to indicate hazards that are related to this equipment. All personnel expected to operate or maintain this equipment should become familiar with these safety symbols and what they mean.






	<p>This is the Electrical Hazard Symbol. It indicates that there are dangerous high voltages present inside the enclosure of this product and/or that a power source is present. To reduce the risk of fire or electric shock, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. Refer servicing to qualified service personnel only.</p> <p>This product should be operated only from the type of source indicated on the manufacturer's identification label. Installation should be in compliance with applicable sections of the national electric code. Consult your local building code before installing.</p>
	<p>This is the user caution symbol. It indicates a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. To reduce the risk of damage or injury, refer to accompanying documents, follow all steps or procedures as instructed.</p>
	<p>Operation of this equipment may result in flying debris and excessive noise. To reduce the risk of injury, wear only approved PPE.</p>
 	<p>Crush hazard! Keep hands clear.</p>
	<p>Keep hands away from moving parts.</p>

	<p>Do not use sling equipment rated for less than ___ lbs/___ kgs when lifting this equipment.</p>
	<p>Crush hazard from above</p>
	<p>Trip hazard! Pay attention when walking in this area.</p>
  	<p>Keep hands and body clear.</p>
 	<p>WARNING! ___ MAN LIFT REQUIRED TO SAFELY MOVE THIS EQUIPMENT. REFER TO INSTALLATION MANUAL.</p>

      	<p>The operation of this equipment requires the use of PPE. Do not operate without wearing required protective clothing.</p> 
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 	<p>Refer to manual- After installation, read the user's guide carefully before operating. Follow all operating and other instructions carefully.</p>
	<p>Circuits are live -lockout/tagout the upstream disconnecting means prior to opening for service.</p>
	<p>Lockout in a de-energized state</p>
  	<p>Lift Point - In order to reduce the likelihood of damage to the equipment, use only the lift points indicated in the manual.</p>
	<p>Use of lift equipment is mandatory.</p>

	<p>Consult material safety data sheet.</p>
	<p>Read all safety warnings and instructions before proceeding.</p>
	<p>Unplug equipment before servicing.</p>
	<p>Hazardous moving parts are located behind this access panel. Do not operate this equipment without all guards and covers in place.</p>
 	<p>Do not place containers with liquids such as coffee, water, sodas, etc. on this unit.</p> <p>Do not operate this equipment in a wet environment.</p> <p>Do not expose to water</p>
	<p>Use of fork lift equipment when moving this equipment will result in serious equipment damage. Refer to installation procedures.</p>

	Do not use non-approved lubricants in this machine.
	Do not operate without guards and covers in place
	Do not weld
	Do not discard into municipal waste stream
	oil drop

Declarations of Conformity for CE Compliance



EU DECLARATION OF CONFORMITY WITH COUNCIL DIRECTIVE 2006/42/EC CE DECLARATION DE CONFORMITE AVEC DIRECTIVE 2006/42/EC	
Date of Issue:	30 OCT 2009
Directive:	Machinery Safety Directive, 2006/42/EC
Conforming Machinery:	Servo Planx™ S/N: As Stamped on Nameplate
Manufacturer:	MiTek Industries, Inc. 301 Fountain Lakes Industrial Drive St. Charles, MO 63301 USA
Authorized Representative	Syd Griffiths Managing Director Europe MiTek Industries Limited MiTek House Grazebrook Industrial Park Peartree Lane Dudley, West Midlands DY2 0XW England Ph: (44) 1384 451400
Harmonised Standards Referenced or Applied:	BS EN 12100-1:2003, BS EN 12100-2:2003, BS EN 13857:2008, BS EN ISO 13850:2008, BS EN 60204-1:2006, BS EN ISO 14121-1:2007, BS EN 349:1993+A1:2008, BS EN 953:1997 +A1:2009, BS EN 1037:1995+A1:2008, BS EN 60529:1992. BS EN 614-1:2006+A1:2009
Specifications with which Conformity is Declared:	Essential Health and Safety Requirements of Annex 1 of the Machinery Directive
We hereby certify that the machinery described above conforms with the essential health and safety requirements of Council Directive 2006/42/EC on the approximation of the laws of the Member States relating to the safety of machinery.	
Signed:	
Signatory:	Printed Name Manish Kanjee Title Engineering Manager Company Name MiTek Industries, Inc.
Technical File Reference Number	SF10753A1.MII



Notes Concerning Harmonized Standards Referenced or applied:

BS EN ISO 12100-1:2003	Safety of machinery. Basic concepts, general principles for design.
BS EN ISO 12100-2:2003	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles - /A1
BS EN 60204-1:2006	Safety of machinery. Electrical equipment of machines. General requirements.
BS EN ISO 13857:2008	Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs.
BS EN 349:1993+A1:2008	Safety of machinery. Minimum gaps to avoid crushing of parts of the human body.
BS EN 953:1997 +A1:2009	Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards.
BS EN 1037:1995+A1:2008	Safety of machinery. Prevention of unexpected start-up
EN ISO 13850:2007	Safety of machinery — Emergency stop — Principles for design.
BS EN 60529:1992	Specification for degrees of protection provided by Enclosures (IP Code).
BS EN ISO 14121-1:2007	Safety of Machinery – Risk Assessment – Part 1: Principles
BS EN 614-1:2006+A1:2009	Safety of machinery — Ergonomic design principles —. Part 1: Terminology and general principles

Declaration of Noise Emissions



Declaration of Noise Emission

The MiTek[®] Industries, Inc. Model Servo Planx[™] noise emission levels per ISO EN 11202 are as follows:

Electronics Console Work place noise level (Work Cycle)	79.0 dB (A)
Servo Planx [™] Work place noise level (Work Cycle)	82.6 dB (A)
Ambient Correction Factor K3A calculated according to ISO EN 11204 Appendix A.	4 dB (A)

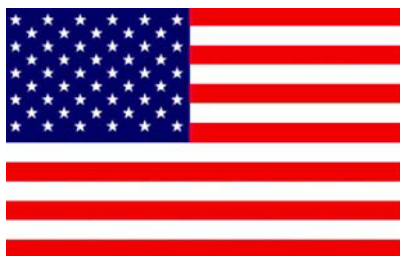
Measurements were made at a height of 1.5 m and 1 m from the machine.

The difference between the extraneous noise level and the sound intensity level at each measuring point is > 6 dB (A)

The figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels this cannot be used reliably to determine whether or not further precautions are required.

Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc. such as the number of machines and other adjacent processes. Also, the permissible level of exposure can vary from country to country.

This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.



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Seguridad (Español)

**Sea cuidadoso.
Protéjase.**



Indicadores de seguridad: Palabras de aviso

Las siguientes palabras y colores de aviso se utilizan a lo largo de este documento para indicar riesgos de seguridad. Preste suma atención cuando los vea. El nivel de gravedad es diferente por cada palabra o color de aviso.

Las palabras de aviso van acompañadas por gráficos que muestran al personal lo que deben y no deben hacer. Los gráficos se llaman símbolos de seguridad y se definen en la página 13, pero se proporciona un texto más específico cada vez que se utiliza un gráfico por todo el manual. Todas las personas que estén cerca de una máquina tienen que ser capacitadas en cómo leer estos indicadores de seguridad.

No cumplir las instrucciones que acompañan cada palabra de aviso puede producir daños a la propiedad, lesiones personales e incluso la muerte. El personal debe seguir todos los procedimientos y prácticas de seguridad establecidos para asegurar el uso más seguro posible de este equipo. No obstante, en ningún caso este documento reemplaza el sentido común. El personal debe asegurarse de que el entorno de trabajo sea seguro y esté libre de distracciones.

PELIGRO

Indica una situación potencialmente peligrosa que, si no se evita, podría producir la muerte o lesiones graves.

ADVERTENCIA

Indica una situación potencialmente peligrosa que, si no se evita, podría producir la muerte o lesiones graves.

PRECAUCIÓN

Indica una situación potencialmente peligrosa que, si no se evita, puede producir lesiones menores o moderadas.

AVISO

Llama la atención a información importante para entender la operación que se desea realizar.

AMBIENTAL

Se aplica a condiciones que pueden afectar el entorno pero que no tienen un efecto inmediato o directo sobre el personal o el equipo.

Reglas de seguridad para el equipo de general



Debido a la imposibilidad de anticipar todas las circunstancias que podrían constituir un riesgo, la información de seguridad suministrada en este manual del equipo y sobre la máquina no es exhaustiva. Si se utiliza o realiza el mantenimiento de esta máquina utilizando un procedimiento no recomendado específicamente por el fabricante, el procedimiento deberá ser aprobado por un ingeniero profesional para asegurarse de que no afecte la seguridad del equipo. ¡Manéjese siempre con suma precaución y sentido común!

Conozca su equipo

- Lea este manual en su totalidad antes de utilizar o mantener el equipo. No utilice esta máquina a menos que esté perfectamente familiarizado con los controles, los dispositivos de seguridad, los frenos de emergencia y los procedimientos operativos que se describen en este manual.
- Lea y siga todas las notas de seguridad. El no cumplimiento de estas instrucciones podría producir pérdidas económicas, daños a la propiedad y lesiones personales, incluida la muerte.
- Refiérase a las pautas de bloqueo/etiquetado proporcionadas en las siguientes páginas para realizar el mantenimiento y solucionar problemas de este equipo en forma segura.
- Observe y cumpla con todas las etiquetas de seguridad. Cambie las etiquetas gastadas inmediatamente.
- Utilice este equipo únicamente para el propósito que se describe en este manual.
- Sólo personal calificado debe intentar utilizar o realizar el mantenimiento de este equipo. Por "personal calificado" se entiende:

...una persona o personas que, por el hecho de poseer un título o certificado de capacitación profesional reconocido o que, por sus amplios conocimientos o experiencia, han demostrado con éxito estar capacitados para resolver problemas relacionados con el tema y el trabajo en cuestión—ANSI B30.2-1983

...una persona que posee habilidades y conocimientos relacionados con la construcción y uso de equipos e instalaciones eléctricas y que ha recibido capacitación en seguridad sobre los riesgos posibles—NEC 2002 Handbook

Seguridad personal

- Use siempre lentes de seguridad y protección auditiva en un entorno industrial.
- Utilice una máscara protectora cuando trabaje cerca de aserrín.
- Utilice ropa adecuada y equipo de protección personal apropiado (por ejemplo, lentes de seguridad y protección auditiva.) No use ropa suelta ni joyas. Si tiene el cabello largo, áteselo para atrás.
- Proceda con precaución cuando levante piezas o materiales pesados.

Instalación del equipo

- Siga las instrucciones de instalación al pie de la letra.
- No utilizar este equipo en zonas residenciales.



Procedimientos de Bloqueo/Etiquetado

- Antes de realizar el mantenimiento de los sistemas neumáticos o hidráulicos, purgue las líneas para eliminar la presión.
- Bloquee y etiquete todos los sistemas energizados antes de realizar tareas de mantenimiento en ellos. Refiérase a la sección *Pautas de bloqueo/etiquetado* en la página 27.

Cómo mantener un entorno seguro

- Mantenga alejados a los niños. Todos los visitantes deben mantenerse a una distancia segura del área de trabajo. Los riesgos pueden no ser evidentes a las personas no familiarizadas con la máquina.
- Mantenga las áreas de trabajo bien iluminadas.
- Mantenga el área de trabajo limpia y libre de cualquier riesgo de tropiezo o resbalamiento.
- No utilice el equipo en lugares húmedos o mojados y no lo exponga a la lluvia o a la nieve.
- Minimice las nubes de polvo y proteja su equipo quitando el polvo de la siguiente manera:
 - Aspire el polvo antes de soplarlo con aire
 - Apague la alimentación eléctrica y todas las fuentes de ignición
 - Si usa aire comprimido, debe ser a compresión baja (no más de 15 psi)
 - El equipo eléctrico de limpieza como las aspiradoras debe cumplir con los códigos del gobierno local para uso en condiciones polvorientas.

Uso y mantenimiento del equipo

- Asegúrese de que no haya personas, herramientas y objetos extraños en las zonas restringidas antes de utilizar este equipo. Las zonas restringidas se indican en la página 33.
- Realice pruebas de seguridad para verificar que todos los frenos de emergencia funcionen adecuadamente antes de utilizar el equipo por primera vez, después de realizar cualquier tarea de mantenimiento y según la frecuencia de mantenimiento establecida.
- En caso de que la máquina no funcione correctamente, deténgala inmediatamente utilizando un freno de emergencia e informe el problema a un supervisor.

- No deje nunca la máquina encendida si no está junto a ella. ¡Apáguela! No la abandone hasta que todas las piezas se detengan completamente y hasta que se haya apagado la alimentación eléctrica.
- Verifique periódicamente que no haya piezas gastadas o dañadas. Repárelas o cámbielas inmediatamente.
- Mantenga los sistemas hidráulicos, neumáticos y eléctricos en buen funcionamiento en todo momento. Repare las fugas y las conexiones sueltas inmediatamente. No exceda nunca la presión ni potencia eléctrica recomendadas.
- Verifique que todos los dispositivos de seguridad estén en buen funcionamiento antes de comenzar de cada turno. Todos los dispositivos protectores y de seguridad deben estar en su lugar antes y durante el uso de la máquina. No desconecte ni evite nunca ningún dispositivo de seguridad ni interbloqueo eléctrico.
- Solo el personal de mantenimiento calificado puede quitar o instalar los dispositivos de seguridad.
- Inspeccione periódicamente la calidad del producto terminado.

Seguridad eléctrica

- No utilice líquidos en el interior de los gabinetes eléctricos.
- Cuando utilice disolventes sobre o alrededor de la máquina, desconecte la alimentación para eliminar las probabilidades de chispas, que pueden producir una explosión o incendio. Use un respirador aprobado para el uso con disolventes. Use ropa protectora, guantes y lentes de seguridad.

Bloqueo/Etiquetado

Pautas de bloqueo/etiquetado

Deben cumplir con todas las pautas de bloqueo/etiquetado conforme a la norma OSHA 29 CFR 1910.147. El programa de control de energía de la compañía debe incluir un procedimiento específico. El objetivo de este manual no es reemplazar el procedimiento de desenergización o bloqueo/etiquetado requerido por la OSHA, sino proporcionar pautas orientativas generales.

El término "bloqueo", según se utiliza en este manual, se refiere a la colocación de un dispositivo de bloqueo en las fuentes de energía para asegurar que el dispositivo aislador de energía y el equipo controlado por éste no puedan reenergizarse o utilizarse hasta que se retire dicho dispositivo.

Las fotos de la página siguiente muestran los lugares en los que se encuentran los interruptores de desconexión eléctrica de esta máquina.



- Las fuentes de energía incluyen energía eléctrica, mecánica, hidráulica, neumática, química, térmica y otras.
- En el caso de fuentes de energía eléctrica, la alimentación principal y la alimentación de control a la maquinaria deben apagarse y bloquearse físicamente en la posición "off" (apagado).
- Por lo general, como dispositivo de bloqueo se utiliza un candado con llave.
- Si hay más de una persona trabajando en una zona restringida, utilice un dispositivo de bloqueo grupal que permita a cada persona utilizar un candado que sólo pueda ser retirado por la persona que realiza el mantenimiento.

"Etiquetado" significa que debe colocarse una advertencia fácil de ver en un dispositivo aislador de energía que indique que el equipo no debe utilizarse.



Siempre que vea este símbolo, ¡Bloquee/Etiqueta!

Procedimientos de bloqueo/etiquetado eléctricos

Cuando trabaja en una máquina fuera del gabinete eléctrico principal de la máquina



Si trabaja en la línea de transmisión eléctrica a la máquina, siga el procedimiento de la página 30.

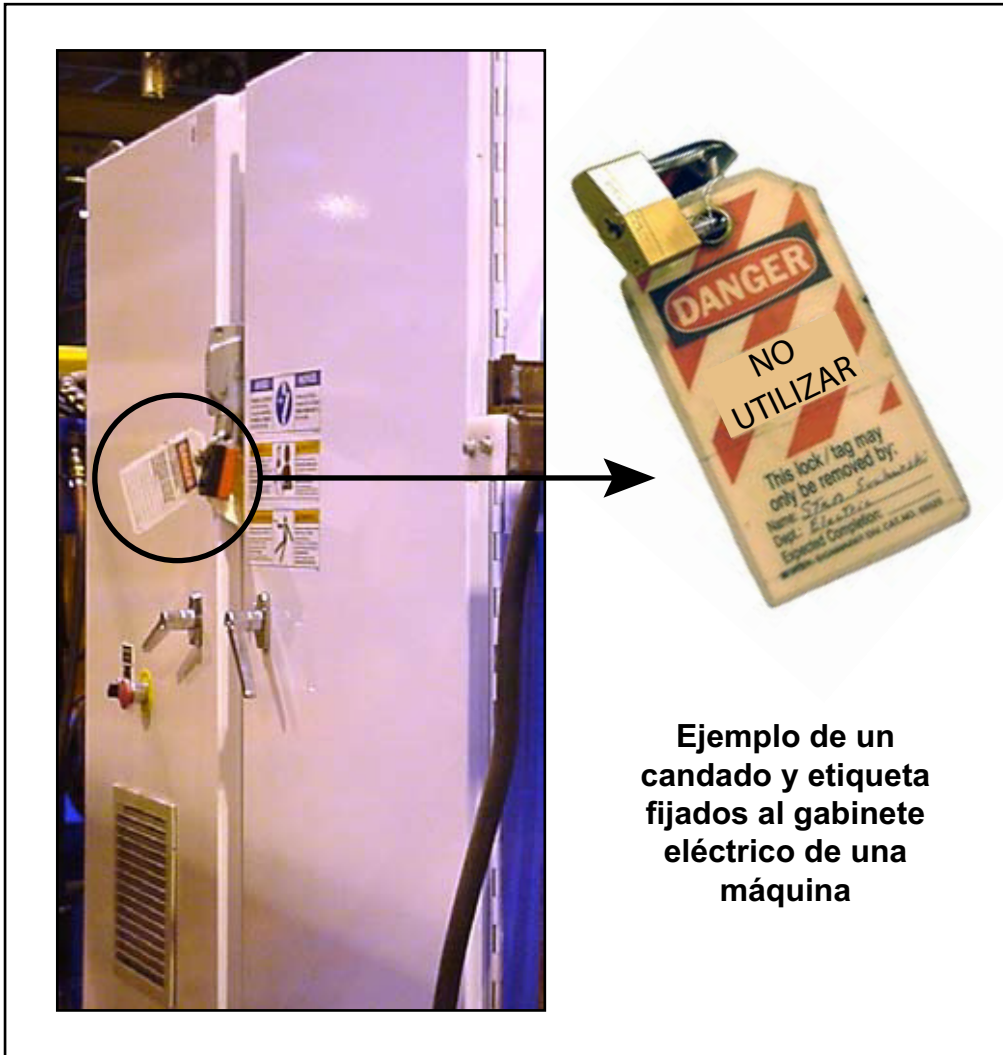
Antes de realizar el mantenimiento de cualquier máquina con alimentación eléctrica, bloquee y etiquete la máquina de forma adecuada. Cuando trabaje en una máquina fuera del gabinete eléctrico principal de la máquina, salvo en el caso de trabajos en la línea de transmisión eléctrica a la máquina, siga los procedimientos de bloqueo/etiquetado aprobados por la compañía, los cuales deberían incluir, entre otros, los pasos aquí indicados.

1. Coloque un freno de emergencia sobre la máquina.
2. Coloque el mango del interruptor con fusibles en la posición "apagado/apagada"..

 ADVERTENCIA	
	RIESGO DE ELECTROCUCIÓN.
	Cuando el interruptor con fusibles está apagado, sigue habiendo energía dentro del gabinete del interruptor. ¡Apague siempre la alimentación en la fuente de alimentación del edificio antes de abrir este gabinete eléctrico!

3. Coloque un candado y una etiqueta que cumplan con los requisitos de bloqueo/etiquetado de la OSHA.
4. Trabe o desenergice todos los componente neumáticos, componentes hidráulicos y otras piezas que tengan alimentación directa o almacenada.

Figura SEGURIDAD-1: Ejemplo de un mecanismo de Bloqueo/Etiquetado en un gabinete eléctrico





Cuando trabaje en una máquina dentro del gabinete eléctrico principal de la máquina o en la línea de transmisión eléctrica a la máquina

Antes de abrir el gabinete eléctrico principal o intentar reparar o reemplazar una línea de transmisión eléctrica a la máquina, bloquee y etiquete la máquina en forma adecuada. Siga los procedimientos de bloqueo/etiquetado aprobados por la compañía, los cuales deberían incluir, entre otros, los pasos aquí indicados.

1. Coloque un freno de emergencia sobre la máquina.
2. Apague la alimentación a la máquina en la fuente de alimentación, que, por lo general, es un panel de entrada de suministro eléctrico que se encuentra en una pared de las instalaciones. En la Figura SEGURIDAD 2 se muestra un ejemplo de panel de fuente de alimentación bloqueado.
3. Coloque un candado y una etiqueta que cumplan con los requisitos de bloqueo/etiquetado de la OSHA.
4. Abra la puerta del gabinete al que necesita acceder y usando un multímetro verifique que la alimentación esté apagada.

Figura SEGURIDAD-2: Ejemplo de un mecanismo de Bloqueo/Etiquetado en un panel de fuente de alimentación



Solución de problemas con una máquina energizada

Sólo un electricista calificado que utilice el equipo de protección personal y siga los procedimientos recomendados en la norma NFPA 70E debe intentar realizar tareas de reparación o mantenimiento en un área o componente energizados de la máquina o en su proximidad.



Cada vez que se realizan tareas de mantenimiento mientras el equipo está eléctricamente energizado, existe un riesgo potencial de formación de un arco eléctrico. Consulte en la norma NFPA 70E el equipo de protección personal requerido para trabajar con componentes eléctricamente energizados. Los componentes neumáticos e hidráulicos pueden moverse de manera imprevista si no se desenergizan. Trabe físicamente cualquier componente que pueda moverse cuando deba trabajar en ellos o en su proximidad.

Prueba de seguridad

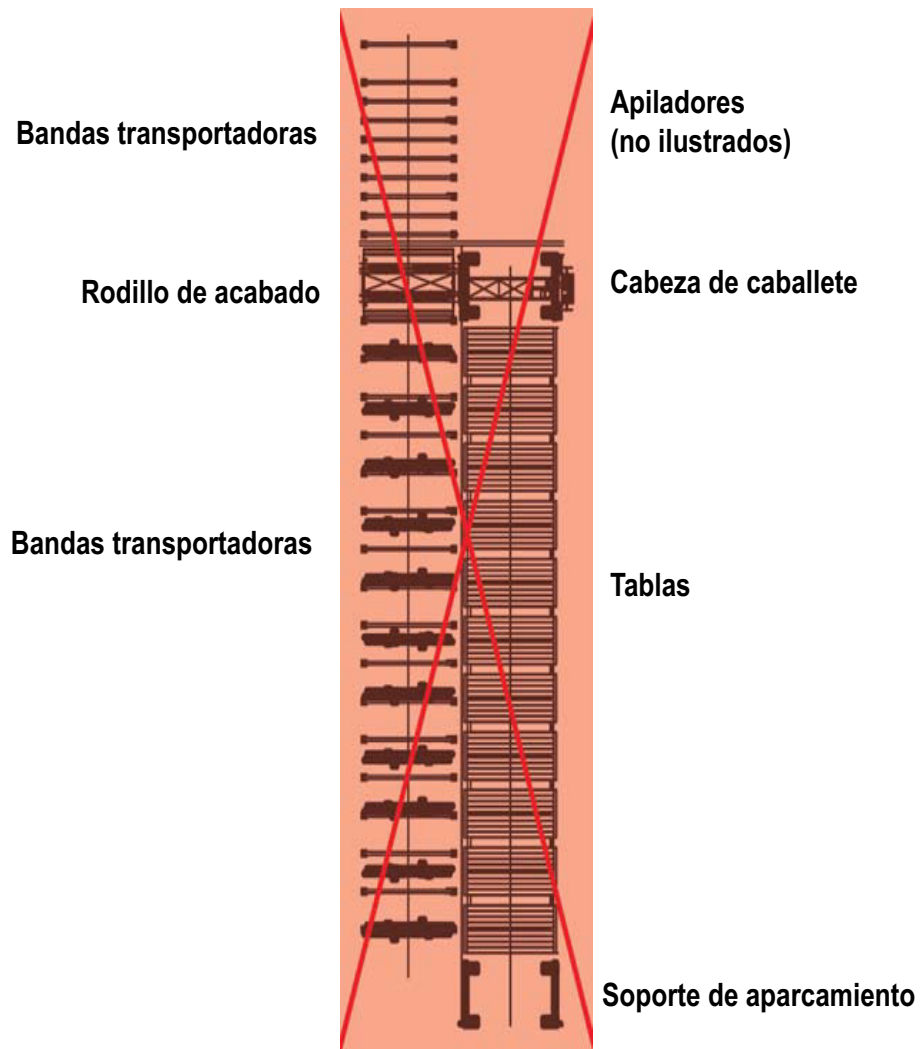
Este procedimiento de prueba DEBE ser realizado por personal calificado durante la puesta en marcha y después de CUALQUIER tarea de mantenimiento, ajuste o modificación. La prueba permite comprobar si el sistema de seguridad y el sistema de control de la máquina funcionan juntos y detienen la máquina de manera adecuada.

1. Ponga en marcha el sistema.
2. Pruebe que el circuito del freno de emergencia o E-stop evite el movimiento:
 - a) Al mover automáticamente un armazón, presione el botón rojo del freno de emergencia en la estación de control del operador. Todos los PLANX deberán detenerse de inmediato.
 - b) Intente poner a funcionar manualmente los discos del primer montaje PLANX presionando el botón FWD/REV localizado en la caja de control del montaje PLANX.
 - c) ¡Los discos no deben moverse! Repare el sistema eléctrico si el disco se mueve estando activado el freno de emergencia.
 - d) Repita el procedimiento para todos los demás montajes PLANX.
 - e) Restablezca el circuito del freno de emergencia después de la prueba jalando hacia afuera el botón rojo E-stop y luego presionando el botón de RESET.
3. Procedimiento de bloqueo y etiquetado.
4. Compruebe que todos los protectores y dispositivos de seguridad estén en su lugar y asegurados.
5. Inspeccione que las bandas de encendido (2 por PLANX) no estén desgastadas.
6. Inspeccione los tornillos y las tuercas Acme para asegurarse de que no estén desgastados. Rote los tornillos Acme para revisar la parte posterior.
7. Elimine cualquier objeto extraño que haya podido caer en la ranura del PLANX.
8. Asegúrese de que los tornillos Acme estén lubricados. Consulte la Lista de comprobación de mantenimiento.
9. Quite los dispositivos de bloqueo/etiquetado.

Zona restringida

	 PELIGRO
	<p>Manténgase afuera de la zona restringida cuando el equipo esté en uso. Pueden producirse lesiones graves o incluso la muerte si el personal está en la zona restringida.</p> <p>Asegúrese que no haya personal en la zona restringida antes de operar el equipo.</p>

Conocer la zona restringida



Marcar la zona restringida

Deberá marcarse la zona restringida de manera que todas las personas cerca del equipo puedan ver claramente el área donde pueda existir peligro.

MiTek ofrece la cinta de zona restringida o “Restricted Zone Tape”, fácil de aplicar y con texto en inglés y en español. Algunos equipos traen la cinta de zona restringida. Si su máquina no trajo la cinta de zona restringida, puede pedirla a MiTek Machinery Division Customer Service (Servicio al cliente de la división de maquinaria de MiTek).

Puede encontrar las instrucciones sobre dónde y cómo aplicar la cinta de zona restringida en el manual de su mesa o pórtico incluido con su sistema o pedir el Service Bulletin Kit 181 en la página web de MiTek Machinery.



Información adicional

Definiciones de los símbolos de seguridad (<i>Safety Symbol Definitions</i>)	página 13
Declaraciones de Cumplimiento (<i>Declarations of Conformity for CE Compliance</i>)	página 19
Declaración de emisión de ruidos (<i>Declaration of Noise Emissions</i>)	página 21

Purpose of Chapter

This chapter explains how to navigate through the equipment manual and how to contact MiTek.

Introduction to the Manual

 WARNING	
	<p>Read this manual completely before using this equipment!</p> <p>Do not operate this machine until you have a thorough understanding of all controls, safety devices, emergency stops, and operating procedures outlined in this manual.</p> <p>All hazard instructions must be read and observed. Failure to do so may result in economic loss, property damage, and/or personal injury.</p> <p>This manual must always be available to personnel operating and maintaining this equipment.</p>

Purpose and Scope of This Manual

In order for this manual to be useful, it must be kept in a location where operators and maintenance personnel have easy access to it.

This manual addresses the most recent versions of the equipment as of the creation or revision date on the title page. For earlier revisions, contact MiTek Customer Service. The part number is listed on the title page, but the revision you require depends on the date your equipment was manufactured.

This manual can be a valuable training tool.

- The *General Information* chapter contains information on truss terminology and provides basic information about the equipment.
- The *Operation* chapter teaches operators how to efficiently operate the machine.
- The *Maintenance* chapter is written specifically for maintenance personnel.
- The appendices provide valuable technical information.



Understanding This Manual

This manual addresses the *MatchPoint PLANX* precision jigging system.

Separate manuals exist for the Finish Roller, tables, and for any gantry heads used along with the *MatchPoint PLANX*.

Review the table of contents to understand the structure of the chapters and appendices. The manual is part number 001098.

Screen Shots




A screen shot is a printed view of what is visible on the computer screen.

Most screen shots are from *MatchPoint* software version 1.2.11. Screens from other versions may differ slightly.

Navigation

The graphics in Table 1-1 are used throughout the manual to quickly communicate a specific type of information.

Table 1-1: Navigational Tools Used Throughout the Manual

Graphic	What It Communicates
	<p>Important safety note!</p> <p>When this graphic appears, you must lockout/tagout the equipment using approved methods described in OSHA 29 CFR 1910.147 before continuing with the procedure.</p>
	<p>Indicates tools required before beginning a procedure.</p>
	<p>A note that gives additional information to the steps or existing text.</p>
	<p>Refers reader to another section, table, graphic, or drawing to further explain something.</p>

Formatting Cues

To follow the procedures in this manual, you must first understand the formatting cues used. Table 1-2 describes how to read the cues provided in this text.

Table 1-2: How to Read the Formatting Cues

If Text Looks Like...	It Indicates...	Example in Text
All caps	Key on keyboard or button on screen	Press ENTER
Initial cap and italic	Menu or field or virtual button that you must find or select	Click on the <i>File</i> menu
Initial cap only, no italics	Menu or field or virtual button when simply referring to it	While in the Main Menu
Plus sign (+)	Hold buttons at the same time	CTRL+ALT+DELETE
Greater Than sign (>)	Next selection	<i>File>Open</i>

Additional Resources

Supplemental Documentation

In addition to the equipment manual, refer to the manufacturer's documentation for individual components. The supplemental documentation is provided at the time of installation, or it may be found inside an electrical enclosure. Refer to these documents when you need more detailed information on these components than the MiTek manual provides.

Web Site

Visit the MiTek Web site at www.omnisaw.com or the MiTek web site at www.mii.com for up-to-date information on all MiTek and MiTek equipment. On the MiTek Web site, view the latest revision of this manual and all Service Bulletins, or order parts on-line through our *eStore*.

Contacting Us

For technical assistance or to order parts, contact MiTek's Customer Service Department using one of the methods listed in Figure 1-1.

Figure 1-1: Contacting MiTek

<p>MiTek Machinery Division Customer Service Department 301 Fountain Lakes Industrial Drive St. Charles, MO 63301</p> <p>Parts Orders (with part number) E-mail: mitekparts@mii.com</p> <p>Technical Assistance Phone: 800-523-3380 Fax: 636-328-9218 machinerysupport@mii.com</p> <p>Web Site www.mitek-us.com</p>	 The MiTek logo, consisting of the letters 'Mii' in a bold, black, sans-serif font with three horizontal blue lines through the 'i's, and the word 'MiTek' in a blue, sans-serif font below it.
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Purpose of Chapter

This chapter provides an overview of the equipment and the means to identify it.

Introduction to the Equipment

Purpose of the Equipment

This manual provides the information necessary to operate and maintain the *MatchPoint Planx* jiggling system, which includes the *MatchPoint Planx* automated jiggling *Planx* and operator console.

Description of the Equipment

The *MatchPoint Planx* jiggling system is a highly accurate automated jiggling system. It allows rapid jiggling of many different truss configurations, increasing productivity by reducing setup time.

Automated jiggling is not intended to provide clamping force to close gaps between truss members due to lumber irregularities, incorrectly cut truss members, and incorrectly placed members in the jiggling.

Safety Compliance of the Equipment

Equipment shipped to a U.S. destination is compliant with NFPA 79, NEC 2009, and the applicable OSHA regulations. Equipment shipped internationally is compliant with CE regulations starting on page SAFETY-19 and CSA regulations. This manual covers both the U.S. and the international versions.

Main Components and Optional Equipment

Figure 2-1: Main Components

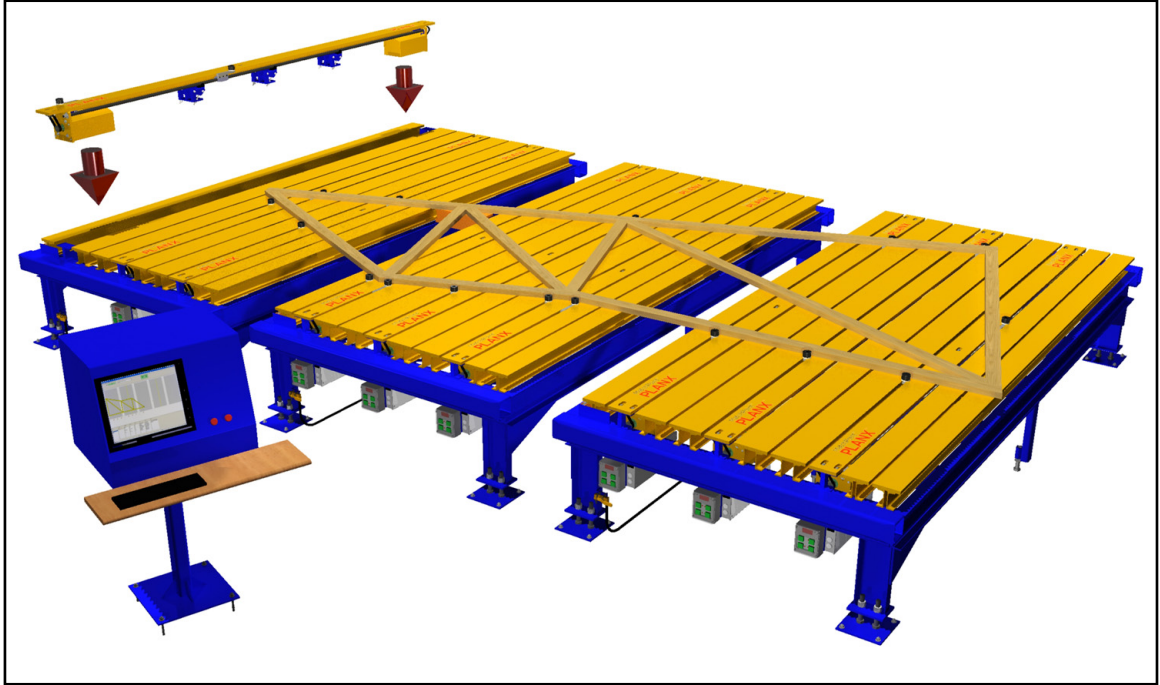
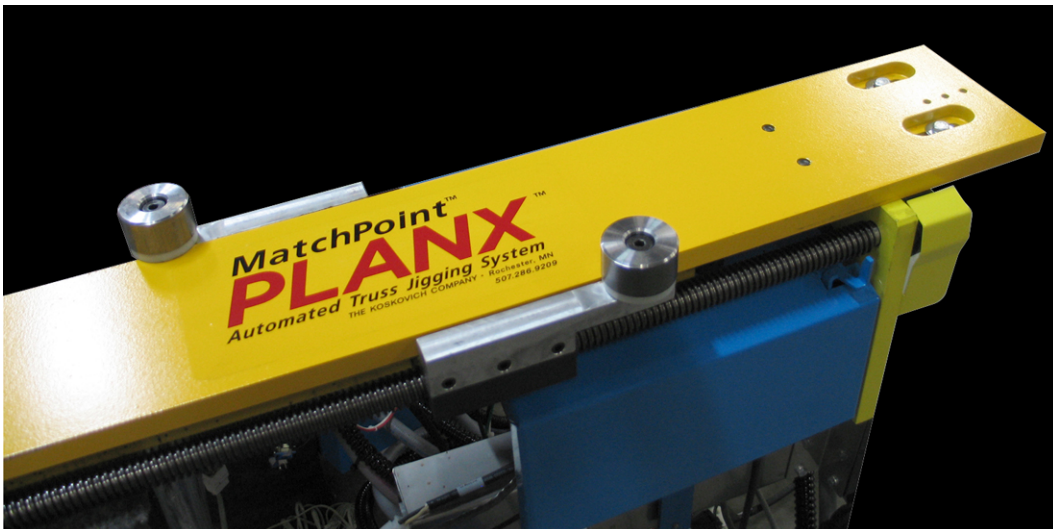


Figure 2-2: Planx Assembly





Main Components

Table 2-1 lists the main components that comprise this system.

Table 2-1: Main Components

Component	Description	Part #
MatchPoint-ready STT table	Supports the truss material while it is being pressed by the gantry head; features slotted tops for jigging (not discussed in this manual).	Contact MiTek Machinery Division Sales for more information on tables
MatchPoint Planx	Assembly that moves pucks up and down the length of the table.	42185-501-240V 42151-501-240V 42190-501-240V 42189-501-240V 42161-501-240V 42170-501-240V 42180-501-240V
Operator console	Contains the PC used to operate the system.	Master: 42250-501 1st Remote (KVM only): 42250-601 Additional Remote (KVM only): 42250-602
Power distribution box	Supplies power and communication to the Planx assembly	194519
Spare parts kit	Includes spare parts for quick replacement of included parts	194514

Component Options

Table 2-2 lists optional components.

Table 2-2: Optional Components

Component	Description	Part #
Aisle covers	Can be used to create a continuous-top system. Aisle covers can contain automated jigging Planx.	6" (STT 050): 69224-501 6" (STT 100): 69150-501 10" (STT 102): 69155-501
Pressure switch assembly	Counts the number of trusses that have been ejected from the tables.	42168-901
Virtek™ Laser Projection System	Projects an exact laser template of the truss onto the table surface for easy and accurate setups (not discussed in this manual).	Contact Machinery Division Sales Department



Operating Options

In addition to the optional operating mechanisms mentioned in Table 2-2, you may choose to install multiple gantry heads that use the same tables and conveyor system to give your plant more capacity.



Technical Specifications

General Specifications

Table 2-3: General Specifications of the MatchPoint Planx Precision Jigging System

Tables and Rails	Specs
Table Dimensions	14' x 82" standard (will vary for retrofit tables and other manufacturers' tables)
Acme Rod Diameter	1"
Standard System Aisle	15"
Maximum Truss Setup Time	Approximately 35 sec based on maximum travel of one (1) puck. Average setup time will be less and will depend on truss configuration.
Maximum Truss Height	12' 6" standard, 13' 6" possible depending on truss configuration and location of jigging
Pucks	Specs
Nominal Speed	Approximately 4.7" per sec
Size	2" diameter
Total Travel on Table	158-1/2"
Offset to Bottom-Chord Edge of Table	4-1/2" from bottom-chord edge of table to inside tangent line of puck
Offset to Top-Chord Edge of Table	4-1/2" from top-chord edge of table to inside tangent line of puck
Motor on Pucks - Electric	Specs
Horsepower	1/3 hp per motor
Voltage	180 VDC motor
Speed	1750 RPM
FLA	2.5 amps
Weight of System Components	Specs
See Table 2-3	

Environmental and Transportation Specs

Operating Temperature

This equipment will operate correctly in its intended ambient, between 41 degrees and 104 degrees Fahrenheit (between +5 degrees and +40 degrees Celsius).

Relative Humidity

This equipment will operate correctly within an environment at 50% RH, 104 degrees Fahrenheit (+40 degrees Celsius). Higher RH may be allowed at lower temperatures.


Measures shall be taken by the Purchaser to avoid the harmful effects of occasional condensation.

Altitude

This equipment will operate correctly up to 3280 feet (1000 meters) above mean sea level.

Transportation and Storage

This equipment will withstand, or has been protected against, transportation and storage temperatures between -13 degrees and 131 degrees Fahrenheit (between -25 degrees and +55 degrees Celsius) and for short periods up to 158 degrees Fahrenheit (+70 degrees Celsius). It has been packaged to prevent damage from the effects of normal humidity, vibration and shock.

	ENVIRONMENTAL
	<p>Do not discard machinery into municipal waste stream.</p>



Shipping Procedures

Planx Assemblies

Planx assemblies shipped by themselves (not pre-installed in a table) will be shipped on stands. No pressure should be applied to critical areas of the *Planx* assembly.

- The *Planx* assembly is bolted to a set of stands that are connected together. At minimum there should be a stand at each end and one in the middle. There may be 3-4 *Planx* assemblies per stand set.
- Each stand and *Planx* assembly is lifted onto the truck or container using an overhead crane or forklifts.
- Stands may be stacked a maximum of three (3) high.
- The stands are strapped to the truck or container.
- The stands should be returned to MiTek using a Returned Goods Authorization.

All equipment is covered with tarps or inside a container to prevent direct contact with moisture.

Planx Installed in Tables by Manufacturer

Planx assemblies that are shipped pre-installed in a table follow the table shipping procedure.

Tables are placed on a truck or in a container using overhead crane or forklifts



- Tables are stacked a maximum of three high.
- Wooden spacers are used between each level of tables to prevent slipping and scratching.
- Each table should be strapped down individually.



All equipment is covered with tarps or inside a container to prevent direct contact with moisture.



Purpose of Chapter



This chapter describes the operating mechanisms on this equipment and the procedure to operate it in most circumstances.

Safety Reminders for Operators

	 WARNING
	<p>ELECTROCUTION, CRUSH AND CUT HAZARDS!</p> <p>Read this section AND the safety section in the preliminary pages before operating or maintaining this equipment.</p> <p>Do not operate this machine until you have a thorough understanding of all controls, safety devices, stops, and operating procedures outlined in this manual.</p> <p>Read and observe all warnings. Failure to do so may result in economic loss, property damage, and/or personal injury.</p> <p>This manual must always be available to personnel operating and maintaining this equipment.</p>

	 WARNING
	<p>CRUSH AND CUT HAZARD.</p> <p>Before turning on the equipment, make sure that all personnel and equipment are out of the restricted zone (see page 11) and perform all required safety tests (see page 10).</p>

 WARNING	
	<p>Do not operate unless all guards and safety devices are in place.</p> <p>Only qualified maintenance personnel shall repair, remove, or replace guards and safety devices.</p>

 CAUTION	
	<p>The operation of this equipment requires the use of PPE.</p> <p>Do not operate without wearing required protective clothing.</p>

Stopping the Machine

The E-stop pushbutton for the *MatchPoint Planx* system is shown in Figure 3-1.

The E-stop for the entire system is located on the outside of the operator control console.

To reset the E-stop, pull straight up on the pushbutton. It will return to its extended position and the machine will operate again after the operator pushes the RESET button.

Starting the Machine

Refer to the *Operating Procedure* section on page 50.

Figure 3-1: Stop Pushbutton



Manual Controls

Manual Control Operation

The manual controls are located on the front of the bottom-chord side table enclosures on each *Planx*. See Figure 3-2. The manual controls are momentary. The rails will run only as long as you hold the button down.



Wait 60 sec. between moves when moving the pucks manually. If you do not wait between moves, the motors may overheat.

To move the pucks:

- Select the button with the up arrow to move the puck away from the operator (toward the top-chord end of the table).
- Select the button with the down arrow to move the puck back toward the operator (toward the bottom-chord end of the table).

Figure 3-2: Manual Controls



Service Enable Mode

Service Enable Mode allows the manual switches to function on both screw axes even if the PC is not sending an enable signal. When Service Enable Mode is active, the status of the *Planx* encoders and home sensors are shown on the LED display. The PC cannot run the motors of a *Planx* that is in Service Enable Mode.

To enter Service Enable Mode:

1. Press the middle button on the *Planx* display card.
2. Within one (1) second, press one of the two left buttons on the *Planx* display card. When the machine is in Service Enable Mode, the LED display will show “0SE.”
3. To exit Service Enable Mode, repeat steps 1 and 2.

Service Enable Mode will show encoder and limit information for the selected axis when it is at rest.

Table 3-1: Encoder Codes in Service Enable Mode

Display Position	Code	Meaning
Left	A	Encoder is outputting an “A” pulse
Left	0	Encoder is not outputting an “A” pulse
Center	B	Encoder is outputting a “B” pulse
Center	0	Encoder is not outputting a “B” pulse
Right	2	Encoder is outputting a “Z” pulse
Right	0	Encoder is not outputting a “Z” pulse
All	SSS	The home sensor is covered

Operating Procedure



Procedure Under Normal Conditions





Never use supplemental jigging in the Planx jigging slots. It will cause damage to the Planx assembly.

If supplemental jigging is required, Planx table tops are available with additional slots for supplemental jigging.

1. Verify that a stop button is not depressed.
2. Import the truss files. See *Importing Truss Files* on page 53 for more information.
3. Select the truss you wish to build using the *MatchPoint* software. See *Using Truss Files* on page 54 for more information.
4. Position the truss on the on-screen table. See *Using Jigging Commands* on page 54 for more information.



 CAUTION	
	Ensure that all personnel are clear before initializing puck movement!

5. Set the pucks.

 CAUTION	
	CUT HAZARD. Wear gloves to avoid injuries from connector plates.

6. Assemble the truss on the tables.



7. If using a gantry head, follow the operating procedure in the gantry head manual to press the plates into the truss.

	 WARNING
	<p>CRUSH/PINCH HAZARD.</p> <p>Before turning on the equipment, make sure that all personnel and equipment are clear.</p>

8. Remove the truss from the table and place it on the stand-alone conveyors.
 - a) If you wish to build another truss of the same design, repeat steps 6 to 7 as needed.
 - b) If you wish to build a new truss, repeat steps 3 to 7 as needed.

Releasing the Pucks



When you are finished building the truss, you may select RELEASE PUCKS, located under the Actions menu.

	 CAUTION
	<p>Ensure that all personnel are clear before initializing puck movement!</p>




Releasing the pucks will move the pucks 1 in. (25 mm) away from the outer perimeter of the truss too allow for easier truss ejection.

Restart Procedure

If the machine stopped because a safety device was activated, reset the system by resetting the stop button.

	 WARNING
	<p>CRUSH/PINCH HAZARD.</p> <p>Before turning on the equipment, make sure that all personnel and equipment are clear.</p>

Removing Connector Plates from PLANX

 WARNING	
 	<p>CUT AND CRUSH HAZARD!</p> <p>Lockout/tagout before reaching across table or climbing on tables.</p> <p>Wear gloves when handling connector plates.</p>

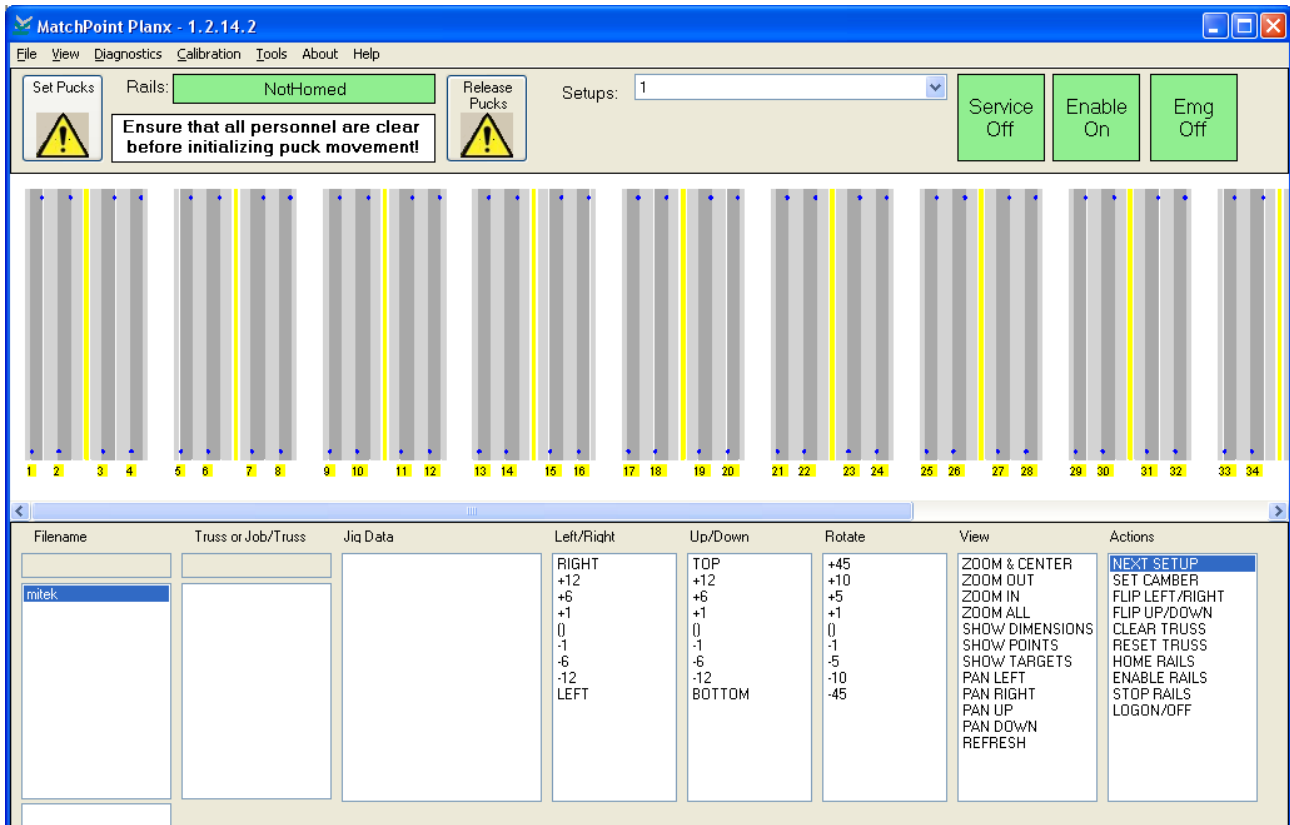
1. Locate the fallen connector plates. It may be necessary to climb onto the tables.
2. Using pliers or an extraction tool, reach for the connector plates from above the tables using one of the following methods:
 - a) Grasp and pull out the connector plates, or
 - b) Push the plates to the floor, and pick them up using tool or gloves.
3. Discard of plates

Setting Up for Operation

Importing Truss Files

Before jigging trusses, import truss files if they do not already exist in the default directory. The *MatchPoint* software accepts truss files with an extension of *.dat, *.jst, *.jet, and *.tps.

Figure 3-3: Importing Truss Files



1. Select *File>Import* from the screen shown in Figure 3-3. The Open dialogue box will appear.
2. In the Open dialogue box, select the location of your truss files from the *Look In* drop-down menu.
3. Select the truss files you wish to import by holding down the CTRL key and clicking the file names.
4. Click the OPEN button.

The truss files you have imported will appear in the Filename menu on the bottom left of the main *MatchPoint* software screen. Click on the file name to show the available trusses from that file in the Truss or Job/Truss menu.


Using Truss Files

1. Select the setup (the section of the table) you wish to use to jig the truss.
 - a) The setup currently selected is highlighted in green at the top of the Operations screen.
 - b) To select a different setup, click NEXT SETUP under the Actions menu until the correct setup is selected.
2. Select the truss file you wish to use under the Filename menu.
3. Select the truss you wish to jig under the Truss or Job/Truss menu. The truss will appear on the screen.

Using Jigging Commands

Jigging commands allow you to change the location and orientation of the truss setup.

1. Adjust the location of the truss on the computer screen as necessary, using the Left/Right, Up/Down, or Rotate menus.
2. Adjust the setup of the truss if necessary, using the Flip Up/Down or Flip Left/Right menus, located under the Actions menu.
3. When you are satisfied with the setup of the truss, click SET PUCKS, located at the top of the screen. The pucks will move to the correct locations to jig the truss.
4. Using the pucks as guides, place the boards for the truss in the correct locations.

NOTICE	
	<p>Never use supplemental jigging in the Planx jigging slots. It will cause damage to the Planx assembly.</p> <p>If supplemental jigging is required, Planx table tops are available with additional slots for supplemental jigging.</p>

Software Overview

Understanding the Operations Screen

Most of the everyday use of the *MatchPoint* software will involve the functions of the main Operations screen. See Figure 3-4.

Figure 3-4: Operations Screen

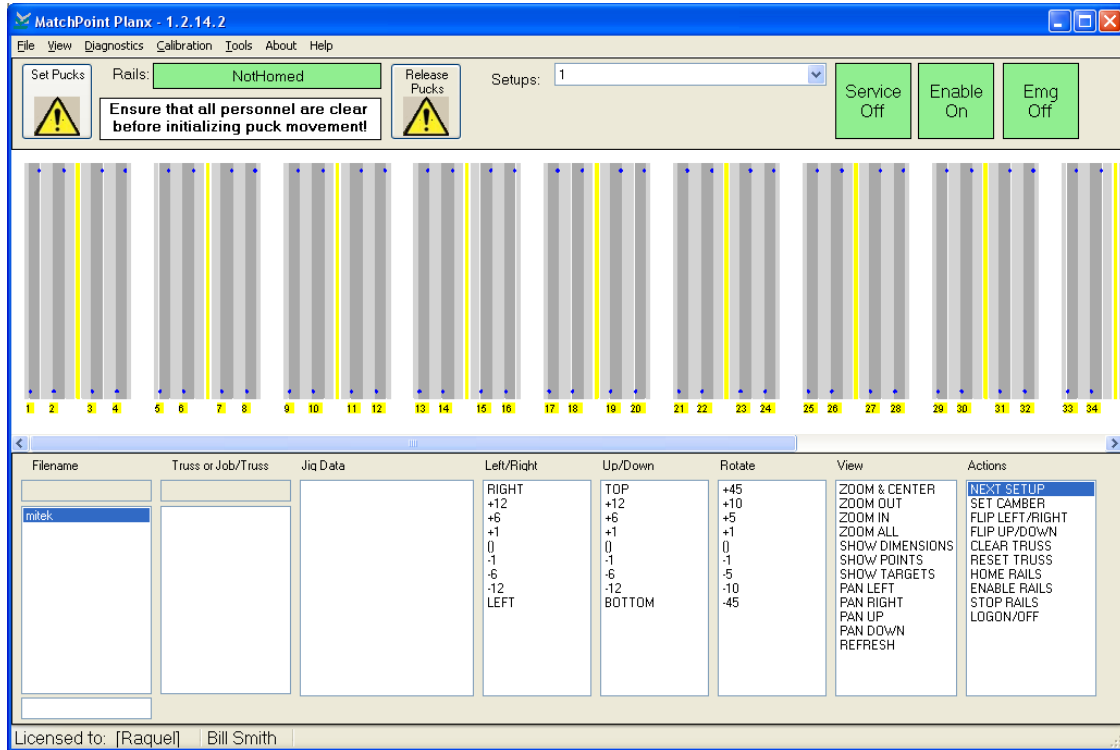


Table 3-2 lists the menus located at the bottom of the main Operations screen and their functions. The View menu and Actions menu are described in more detail in Table 3-3 and Table 3-4.

Table 3-2: Operations Screen Menus

Menu Title	Function
Filename	Shows the truss files you have imported into the <i>MatchPoint</i> software
Truss or Job/Truss	Shows the trusses associated with each job file
Jig Data	Shows data for the truss including quantity, truss span, slope, heels, overhangs, and butt cuts
Left/Right	Moves the truss left or right
Up/Down	Moves the truss up or down
Rotate	Rotates the truss by 1, 5, 10, or 45 degrees
View	See Table 3-3 for an explanation of the View menu options
Actions	See Table 3-4 for an explanation of the Actions menu options

View Menu

Table 3-3 lists the options located under the View menu at the bottom of the Operations screen.

Table 3-3: View Menu Options

Option	Function
Zoom & Center	Zooms in and centers the truss on the screen
Zoom Out	Zooms out
Zoom In	Zooms in
Zoom All	Restores the original view
Show Dimensions	Shows the dimension from the puck to the closest pitch break of the truss
Show Points	Shows the pitch breaks of the truss. Enables the pitch break of a truss to be set as a target, or moved to a target
Show Targets	The cross-hair target can be saved at a chosen point so that trusses can be repeatedly located to that point
Pan Left	Moves the screen view to the left
Pan Right	Moves the screen view to the right
Pan Up	Moves the screen view up
Pan Down	Moves the screen view down
Refresh	Refreshes the view of the screen



Actions Menu

Table 3-4 shows the options located under the Actions menu at the bottom of the Operations screen.

Table 3-4: Actions Menu Options

Option	Function
Next Setup	Moves from one setup to the next
Set Camber	A dialogue box allows you to change the camber of the selected truss
Flip Left/Right	Flips the selected truss horizontally
Flip Up/Down	Flips the selected truss vertically
Clear Truss	Clears the truss from the screen
Reset Truss	Resets the truss to its default location
Home Rails	Sends the pucks back to their home positions. The Rails icon in the upper left of the screen shows the status of the rails.
Enable Rails	Reactivates pucks that had previously been removed from the jigging setup
Stop Rails	Stops the pucks from moving
Logon/Off	Allows operators to log in and out if you have set operator usernames and passwords

Options

Certain options are accessible only if the operator is logged in as an Administrator. These options include all functions of the *Tools>Options* menu.

Table 3-5 shows the tabs located under the *Tools>Options* menu and their functions.

Table 3-5: Options Menu

Tab Title	Function	Changing Settings
General	Gives details about your <i>MatchPoint Planx</i> system like units of measure, puck size, system size, etc.	These settings will be preset before your machine ships. If this data is lost, contact TKC Customer Service.
Backup Locations	Displays location where <i>MatchPoint</i> software files are backed up	Click BROWSE and select a new location.
Display	Allows you to select English or Spanish as the program language	Select the circle next to the language you wish to use. The program must be restarted for this change to take effect.
Security	Can restrict use of the <i>MatchPoint Planx</i> system through passwords	Select the appropriate circle under <i>Require Logon</i> . Fill in passwords for administration and technicians.
Import	Displays the location of the truss files, file extensions of truss files, and format of files in use	Click BROWSE next to the appropriate location box, and select a new location. To change the type of file that will be used, select the appropriate circle.
Calibration	Displays constants for home position calibration and inch per count calibration	These settings will be preset before your machine ships. If this data is lost, use your calibration backup files to restore these settings. See <i>Restoring Software Defaults and Constants</i> on page 54.
Remote	Displays the configuration for connection to <i>TrussLine</i> ® or other integrated software	These settings will be preset before your machine ships. If this data is lost, use your backup files to restore these settings.

Calibrating the *MatchPoint Planx*

See the *Calibrating the PLANX* on page 47 for more information.

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