



Spartanics[™]

Model-83CE
Automatic Registration Punch Press
Operator Manual

CE

Spartanics

Model 83

Operator Manual

CE Edition

The information furnished herein is believed to be accurate and reliable. However, no responsibility is assumed by Spartanics for damages incurred directly or indirectly from errors, omissions or discrepancies between the product and this manual.

In order to show equipment detail, this manual may show equipment with guards or covers removed. In normal use, equipment must never be operated with guards or covers removed or modified, and safety mechanisms must never be defeated!

Spartanics Ltd. reserves the right to change specifications at any time without notice.

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1. Introduction

1.1. Spartanics

1.1.1. Address:

Spartanics, Ltd.
3605 Edison Place
Rolling Meadows, IL 60008
U.S.A.

1.1.2. Sales

Tel: 847-394-5700
Fax: 847-394-0409
sales@spartanics.com

1.1.3. Service

Tel: 847-394-5700
Fax: 847-394-9349
service@spartanics.com

1.1.4. World Wide Web

<http://www.spartanics.com>

1.2. Safety

1.2.1. General

This press conforms to established safety regulations. However, hazards are involved in the operation of this device if:

- The operation and safety guide lines in this manual are not followed.
- The device is not operated for its intended use

1.2.2. Responsibilities

The manufacturer is responsible for delivering the Device in a flawless state in terms of operation and safety regulations.

The company operating the device is responsible for;

- Ensuring that the device is used in accordance with its intended purpose;

- Training the personnel
- Providing any required protective gear
- Controlling that only authorized personnel work on the device;
- Meeting the required maintenance requirements;

The operating personnel is responsible for;

- Operating the device only when it is in a flawless state with all safety guards properly installed;
- Immediately notifying the supervisor in charge of anything affecting safety;
- Ensuring that no unauthorized persons are near the device during operation;
- The use and care of appropriate safety and protective equipment;
- Cleaning the device and the work area around the device.

1.2.3. Operator Requirements

All persons involved in the operation of this device shall;

- Be of legal age to operate this type of machinery;
- Be adequately trained and instructed in the operation of this device;
- Have read and understood all operation and safety instructions in this manual;
- Have read and understood all local and regional safety instructions governing the use of this type of machinery.

Trainees shall only work on this device when supervised by an experienced operator.

1.2.4. Malfunction Procedures

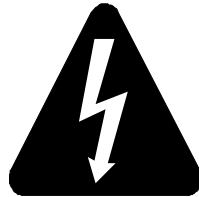
In the event of any malfunction, turn power off and contact qualified service personnel.

1.2.5. Safety Rules

- The operation of this device is subject to the local, state, federal, and international regulations regarding safety at work and accident prevention.
- Read this manual before operating this device.
- For any operation or maintenance procedures that may be required, but are not covered in this manual, contact Spartanics Technical Service Department before proceeding.

- Before device is put into operation, always check the safety equipment and protective covers.
- Unauthorized modifications and changes to the device are not authorized.
- Accessories, replacement, or spare parts produced from other manufacturers may only be used when approved by Spartanics
- Before carrying out any maintenance, repair, or modification work, lockout mains supply voltage to prevent power from inadvertently being switching on.
- Never operate this device unless it is properly grounded according to local regulations.
- Never operate this device with any of its safety guards removed or improperly installed.
- Never operate this device in an explosive atmosphere.
- Never operate this device in a wet or moist environment.

1.2.6. Warnings



Warning

Mains voltage is used to operate this device

Possible hazards

Death or injuries due to electrical shock

Safety measures

Covers containing electrical components, controls and distribution circuits may only be opened by authorized personnel.



Warning

Automatic or manual clamping action

Possible hazards

Pinch or compression injury under material hold down clamp or under tool punch area.

Safety measures

- Do not operate press with safety guards removed.
- Do not place inappropriate material into die area.
- Do not operate press with any other personnel near machine.

Warning

Foreign object may be ejected from clamp or die area.

Possible hazards

Face, hand, or other injuries due to ejected objects

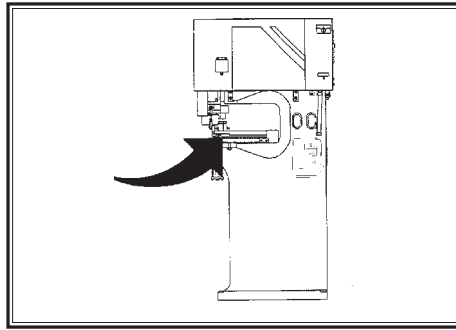
Safety measures

Wear safety glasses, gloves or other protective equipment.



1.2.7. Danger Zones

Material clamp and die area



1.3. Safety Devices

1.3.1. Protective Equipment

- Close fitting work clothing
- Safety glasses
- Gloves

1.4. Technical Data

1.4.1. Models

Model 83CE

1.4.2. Sensors

- 83-2000 (for Diazo silver film material)
- 38-200 (for printer circuit board type material)
- 37-200 (for nameplate, film, & flex type material)

1.4.3. Tooling

Tooling custom ordered depending on material and hole size required

1.4.4. Press Size

1.8 Metric Tons

1.4.5. Press Throat depth

500 mm

1.4.6. Accuracy

Accuracy is determined by the quality of the targets

Maximum accuracy for:

- Film type material

 ± 0.00635 mm

- Etched, drilled, transparent, or translucent material

 ± 0.0127 mm**1.4.7. Speed**

10 to 30 strokes per minute

1.4.8. Material Size

- Width 508 mm
- Length..... No limit

1.4.9. Weight

- U.S. Shipping weight 420 kg.
- Intl. Shipping weight..... 545 kg.
- Equipment weight..... 566 kg.

1.4.10. Dimensions

Shipping dimensions

H: 1702 mm

W: 854 mm

D: 1218 mm

Equipment dimensions

H: 1525 mm

W: 635 mm

D: 815 mm

Table height 890 mm

1.4.11. Mains Electrical Power

(Set at factory per customer requirements)

Voltage 200 - 600 VAC +/- 10%

Mains frequency..... 50 or 60 HZ

Phase..... 1 or 3

Power consumption..... 600 VA

1.4.12. Air Supply

Pressure

- psi 75 - 125
- MmHG 3880 - 6500

Volume

- @75ps 0.4 CFM
- @3880 mmHg 11.3 Liters / min.

1.4.13. Ambient Conditions

Operating temperature +5°C bis ⇔ +40°C

Storage temperature -20°C bis ⇔ +52°C

Relative humidity 30% ⇔ 95%
(Non condensing)

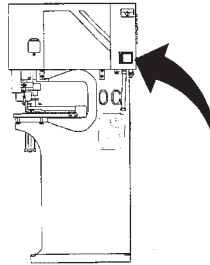
Altitude 2000 m Max.

1.4.14. Peak Noise Level

Max. 76 dB

1.5. System Identification

1.5.1. Location of Nameplate



Nameplate (Sample)



1.6. Manual

1.6.1. Symbols



Warning

Designation of a possible hazardous situation.
If this situation is not prevented, the consequences may be;

- Unhealthy effects
- Serious injuries

Caution

Designation of a hazardous situation.
If this situation is not prevented, the consequences may be;

- Slight or minor injuries
- Damage to the equipment.



Important



Designation of special working instructions

Dangerous voltages



Designates parts of the unit with a possible dangerous voltage

1.7. Document Identification

1.7.1. Designation

Model 83
Automatic Registration Punch Press
Operator Manual
P/N 83-9000CE
Revision 0

1.7.2. Execution

This manual is compiled following the provisions of the EC directive for operating instructions.

1.7.3. Copyright

The information contained in this manual was derived in part from proprietary and patent data of Spartanics. The express purpose of this publication is to assist users in the installation of said equipment. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form without the prior written permission of Spartanics.

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1.8. **Conformity**

2 Installation

2.1 Initial Inspection

2.1.1 Shipping Damage

Check for visible damage to crate or equipment. Contact Shipping company to register claim.

2.1.2 Concealed Damage

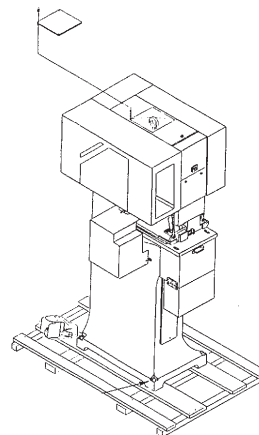
For any damage that was not apparent upon initial receipt, contact Spartanics or authorized representative before installing or operating the equipment.

2.2 Setup

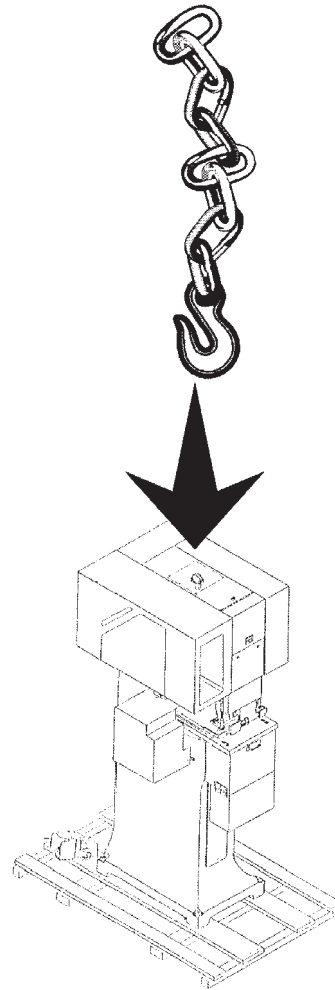
Installation of this equipment may only be conducted by qualified personnel of the manufacturer, personnel trained and authorized by the manufacturer, or by qualified and licensed personnel authorized by the customer

2.2.1 Unpacking

- Set Press in upright position
- Remove crate
- Remove Electronics box.
- Remove Lift Eyebolt Access panel



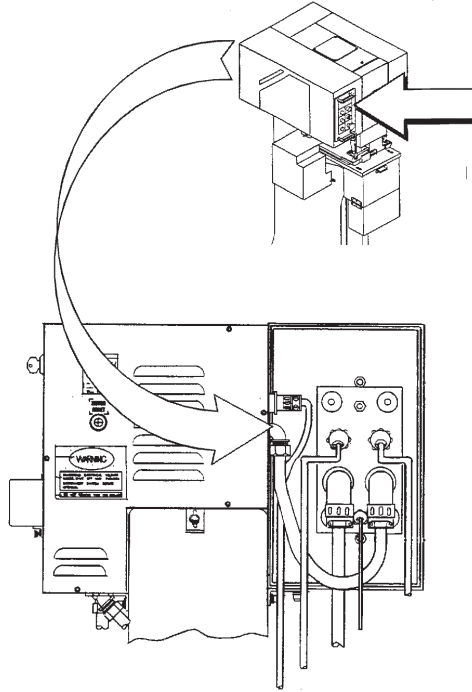
- Connect Eyebolt with chain hook to lifting device rated at least 2 Tons (1800 kg.)



- Remove Shipping bolts
- Move Press to permanent position
- Secure Press to floor

2.2.2 Electronics Installation

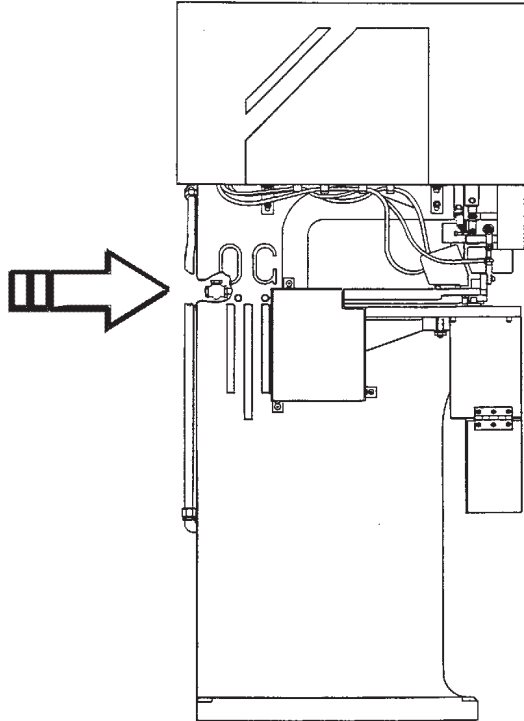
- Unpack Electronics
- Slide Electronics into Press



- Secure Electronics with bolts on rear
- Connect Cables

2.2.3 Air Supply

Connect Air Supply (1/4 inch NPT connector)

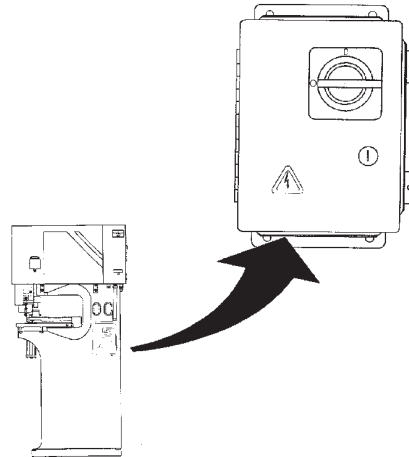
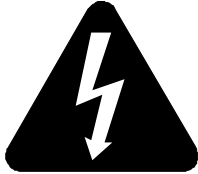


Warning!

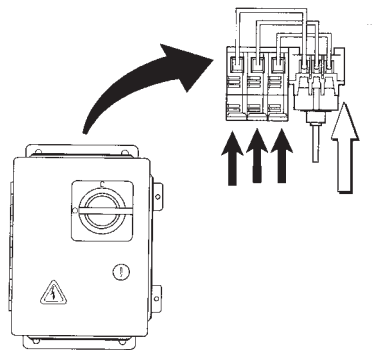
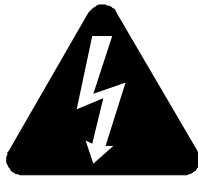
Do not exceed air pressure limits as specified under Technical Data, Air Supply.

2.2.4 Power Supply

- Set power switch to Off.
- Unlock Power box.
- Release door clamps



- Connect power leads (black arrows) to L1, L2, L3



- Connect Ground Lead
(white arrow) to PE.
- Close door
- Secure clamps
- Lock door with key

Important!

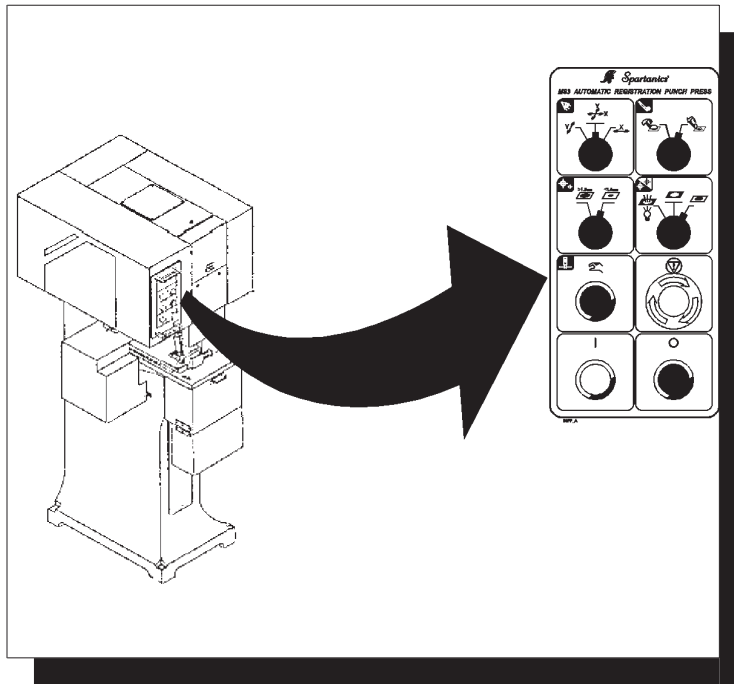
When press is wired correctly, flywheel should rotate in the direction indicated by the direction arrow on the flywheel.



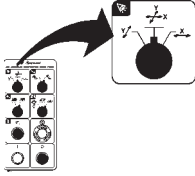
In case of error, reverse any two wires connected to L1, L2, or L3 above.

3. Controls

3.1. Controls, Front Panel



3.1.1. Sensor Selection

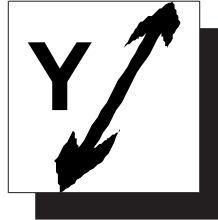


Selects which sensors control the correction.



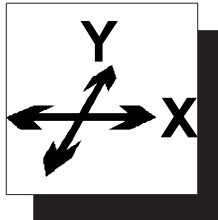
Selects the Y axis sensor

- Provides correction only in the In / Out direction.



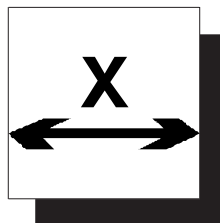
Selects both sensors.

- Provides correction in both In / out and Left / Right directions

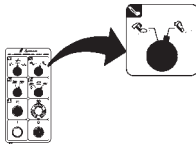


Selects the X axis sensor.

- Provides correction only in the Left / Right direction.



3.1.2. Converter selector



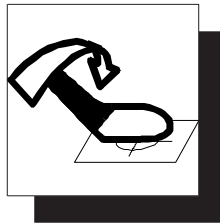
Selects the converter on or off.



- The converter defuses light from highly reflective material.

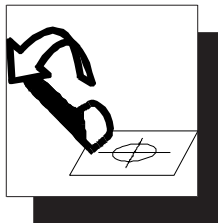
Selects converter On.

- The converter flips down and covers target during sensing operation.

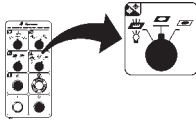


Selects converter Off.

- The converter stay up and does not cover target during sensing operation.



3.1.3. Scan Selector



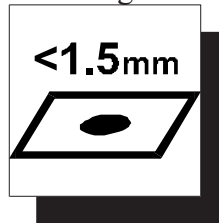
Selects area around target to be scanned.

- Normal targets are usually less than 1.5 mm.



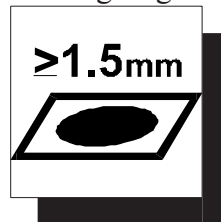
Selects Normal scan area

- For targets less than 1.5 mm.



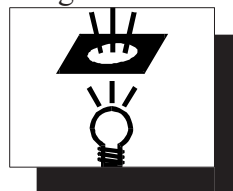
Selects Wide scan area.

- For targets greater than or equal to 1.5 mm.



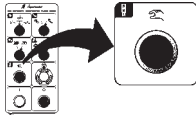
Selects bottom light.

- For clear and translucent material
- A light below the material back lights the target.



▲

3.1.4. Manual Button

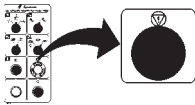


Over rides the automatic punching feature.



- Depress manual button and depress foot switch to trip press.

3.1.5. Emergency Stop



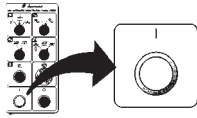
Locking emergency stop switch. When pressed;



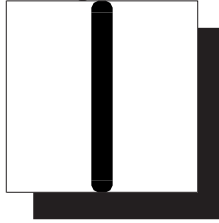
- Immediately stops press operation
- Releases clamps
- Prevents manual or automatic operation
- Turn to right to reset.



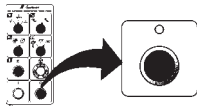
3.1.6. On button



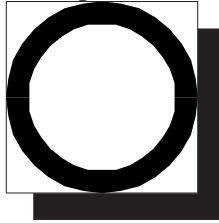
Turns press On.



3.1.7. Off button



Turns press Off.



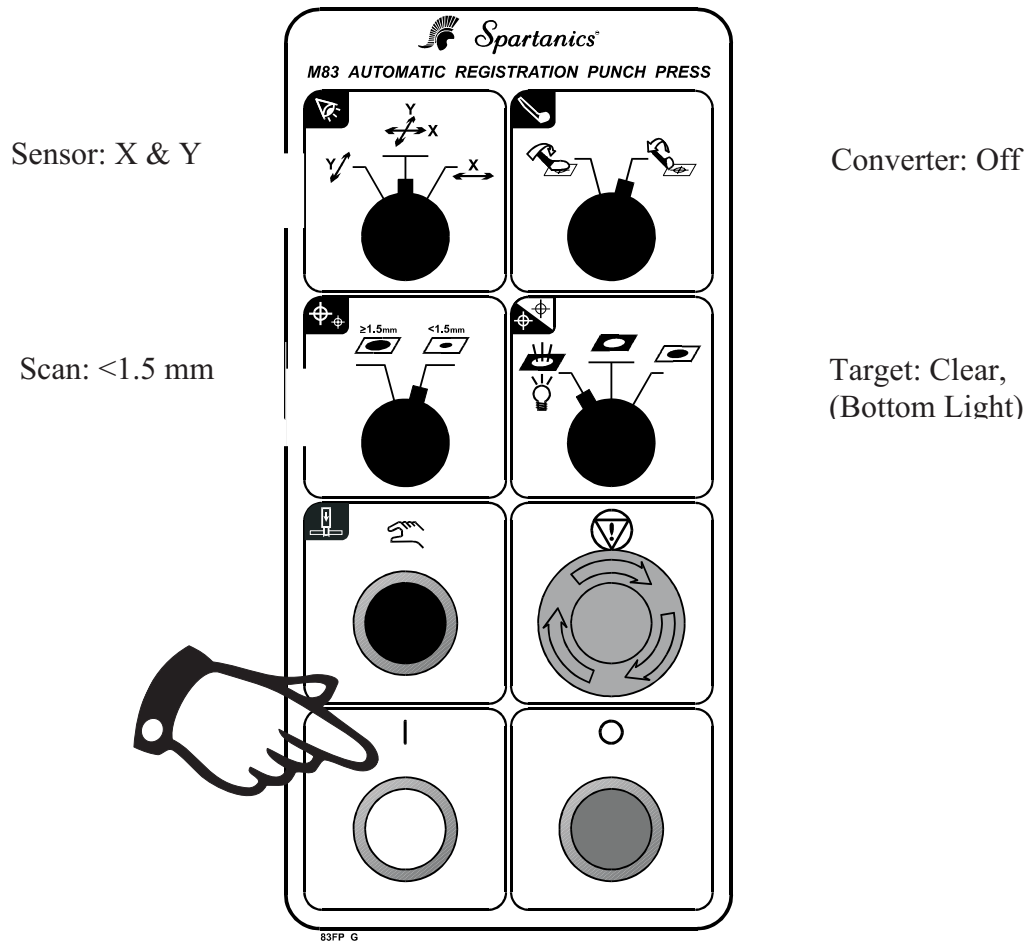
4. Operation

4.1. Normal Operation

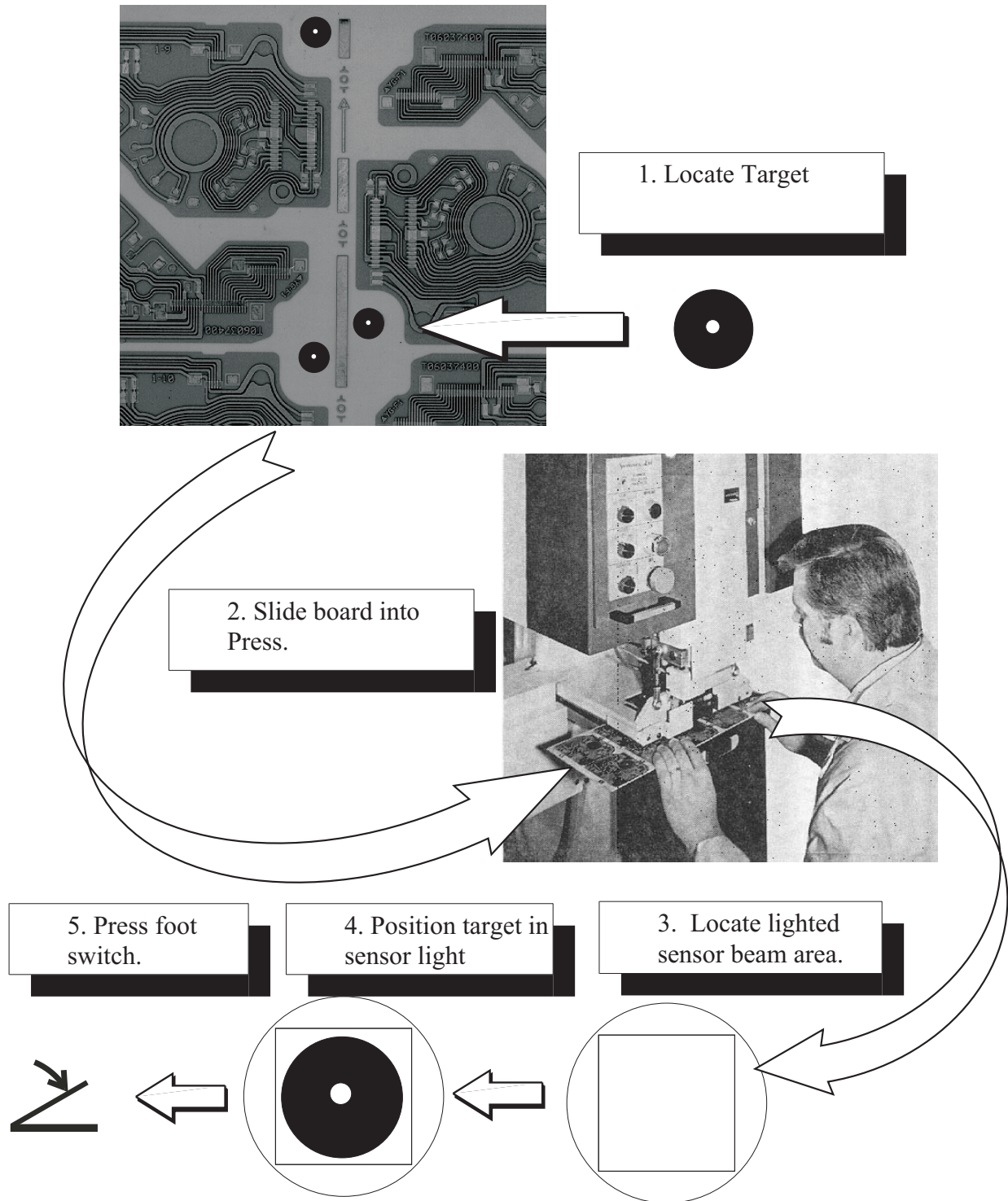
4.1.1. Standard setup.

(For Printed Circuit Board material)

- Press Power On.

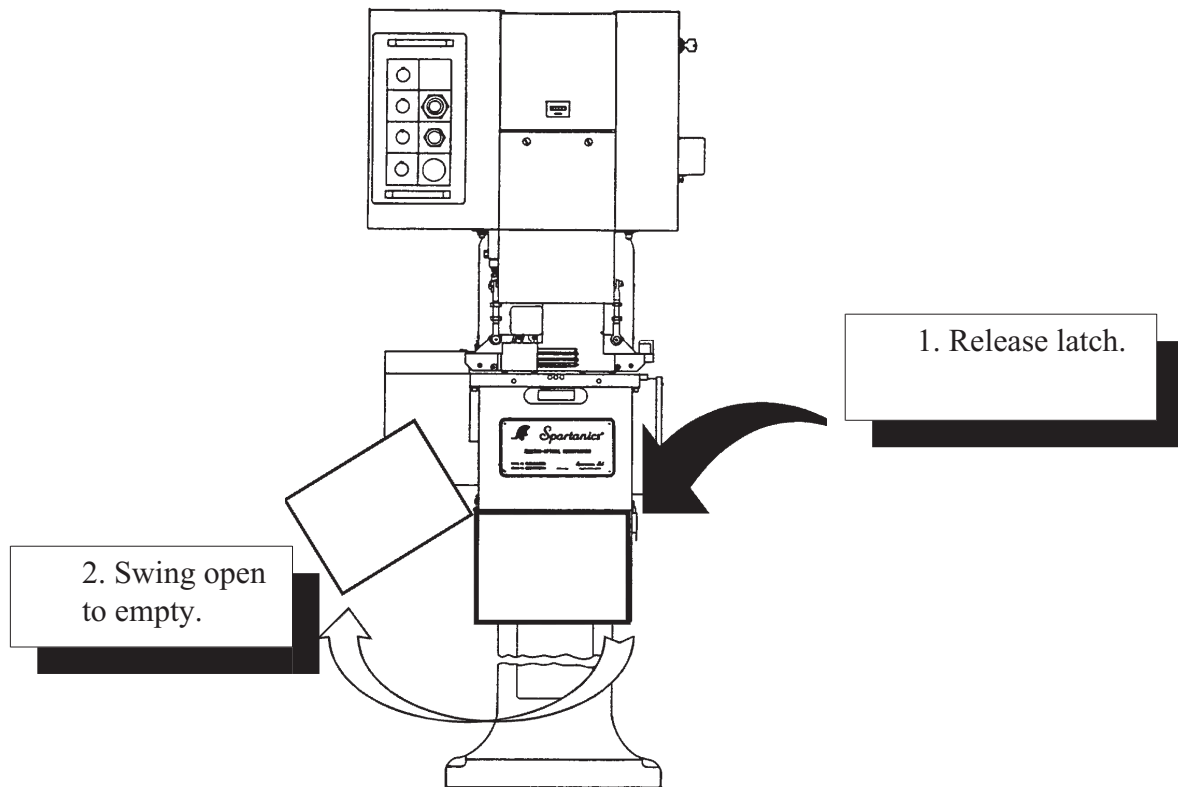


4.1.2. Punching Procedure



5. User Maintenance

5.1. Slug Bin - Emptying



6. Parts Listing

6.1. USA Parts Kit

6.1.1. KIT0015

38-134	Tool, Die	2
38-176	Spring, stripper retainer	10
83-0010	Tool, Crank	1
83-4410	Filter	2
TOO0020	Tool, MS-2, Scribe	1
WRE0015	Wrench, 27-343, 7/16 x 3/8	1
WRE0025	Wrench, 5411A18 3/4 x 7/8	1

6.2. Non-USA Parts Kit

6.2.1. KIT0015

Includes parts listed above

6.2.2. KIT0020

83-3126	Spring, Brake	1
KIT0025	M-83 Overseas screw kit	1
SPR0025	Spring, E0500-063-2000SS	1
SPR0035	Spring, E0420-055-3000S	1
WRE0020	Wrench, Unbrako #6 #38365	1
WRE0030	Wrench Set, 76604065	1

6.3. Operator replaceable parts

There are no operator replaceable parts.

Refer all servicing to qualified service personnel