4.

ML090260100 email dated 1/22/2009;

VariSource Maintenance Schedule (contains Tech-Tip)

VariSource Source exchange procedure

Withhold from public disclosure under 10 CFR 2.390

CHAPTER 7 SERVICING

CAUTION: ***If it is not possible to unload the Active Source Wire due to a fault with the Afterloader, lock the treatment room door, inform the site Physicist and site RSO.***

Contact PSE, your RSO and your Manager before taking any further action.

WARNING: ***All service and maintenance must be performed with an Inactive wire installed.***

For the purposes of this document, the following terms are used:

'ACTIVE WIRE' – [redacted] ***including the radioactive IR-192 source.***

'DUMMY WIRE' – ***the length of Nitinol wire supplied and intended for use in the Dummy drive of the Afterloader.***

'INACTIVE WIRE' – ***a Dummy wire installed in the Active drive of the Afterloader, for test and maintenance purposes only.***

CAUTION: ***Ensure that adequate anti-static handling precautions are taken prior to contact with PCB's and other static sensitive devices.***

7.1 SOURCE WIRE EXCHANGE PROCEDURE

7.1.1 Introduction

If the site must be left with the Active Source un-contained (such as failing to park the Active wire), immediately do the following:

- Inform the staff of the Afterloader status.
- Label the door with 'DO NOT ENTER' and lock the door.
- Contact the radiation safety personnel.

If the machine does not perform to specification, or any other problem is encountered that cannot be repaired on site:

- Record the current system access password.

[redacted]

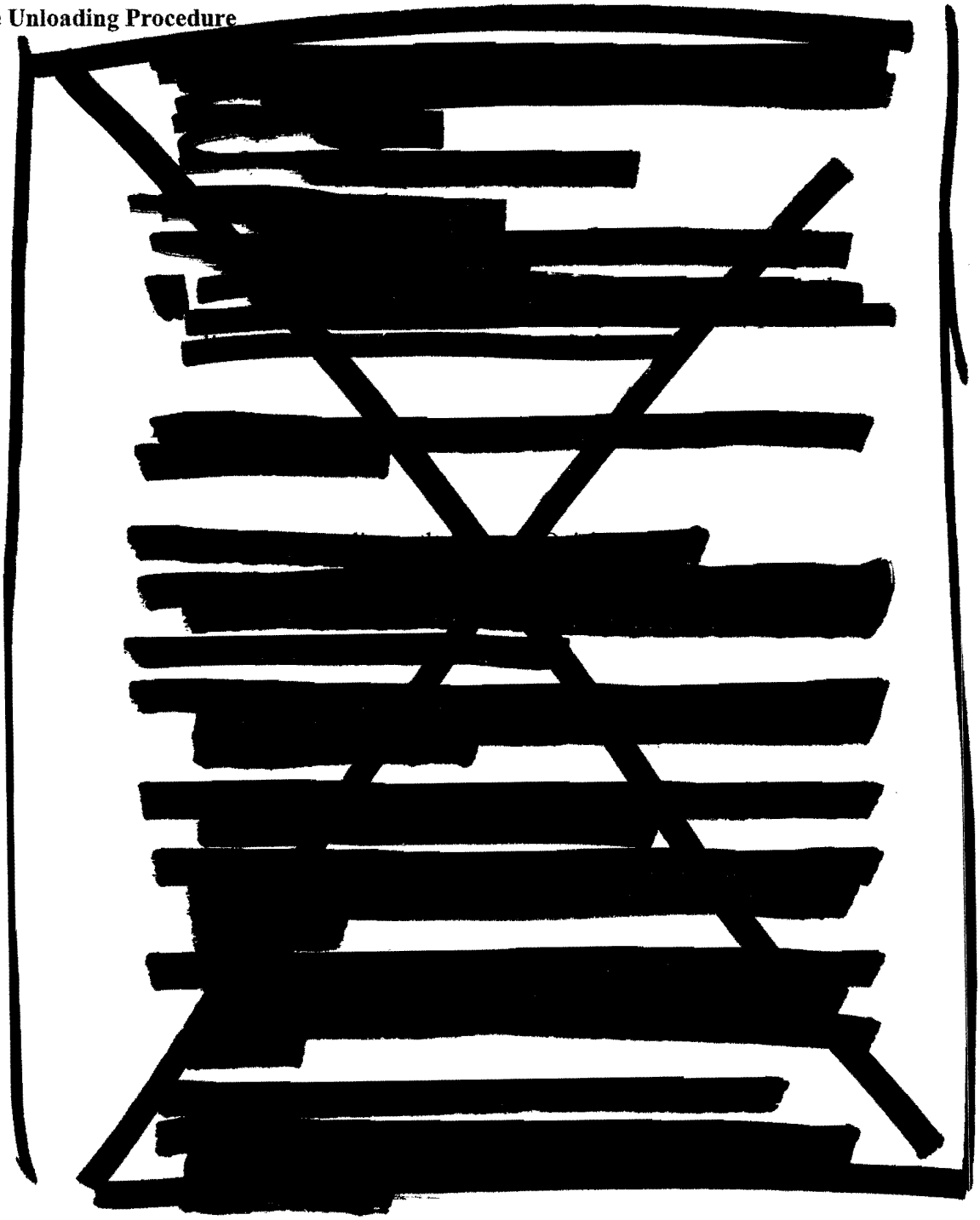
customer from using the machine.

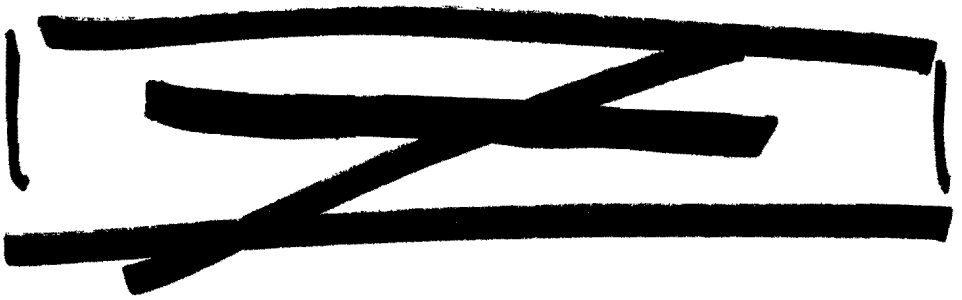
Never allow the survey meter to be active while the source is out of the machine.

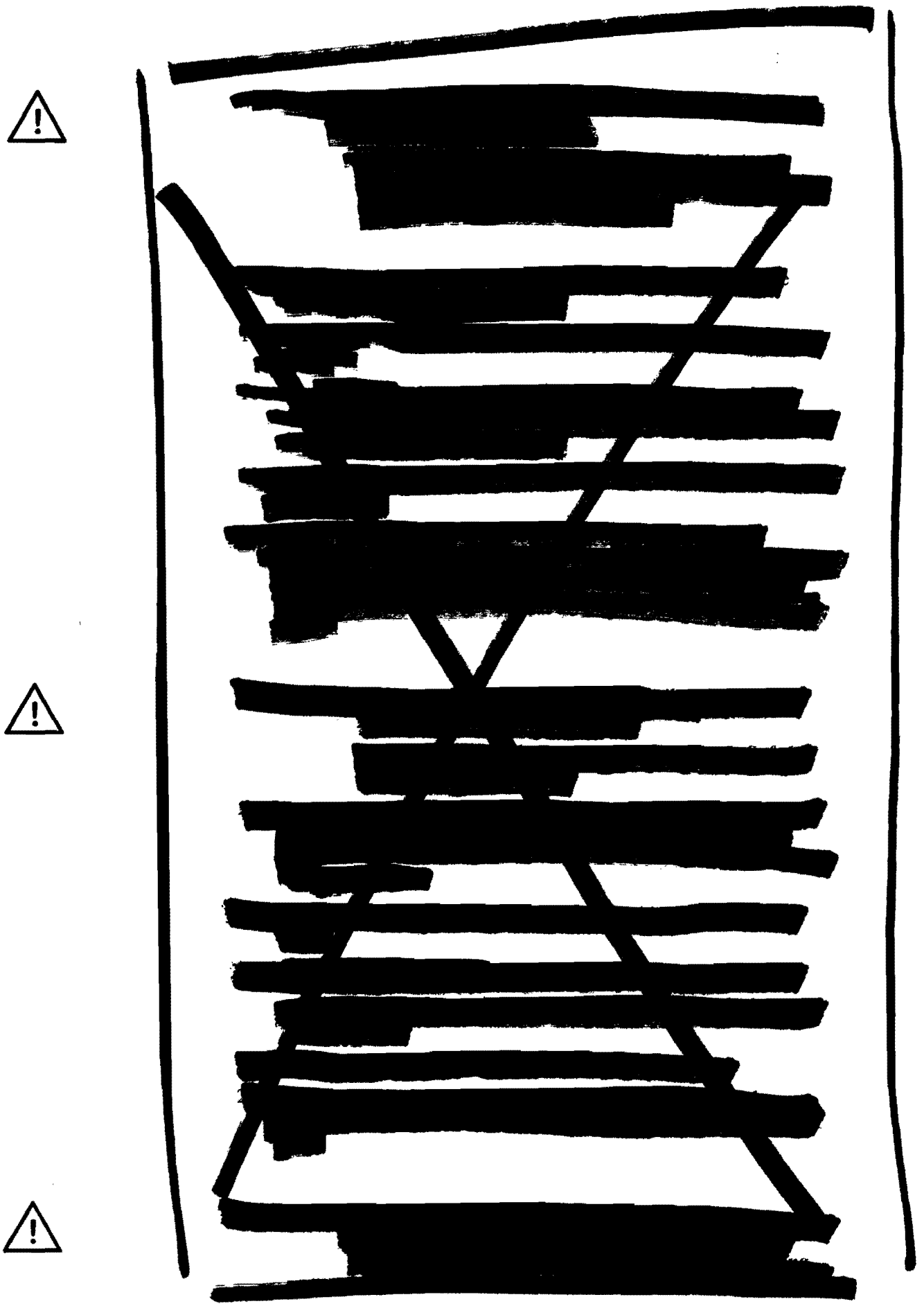
WARNING: ***Before carrying out any maintenance procedures, check Radiation Survey Meter for correct operation by;***

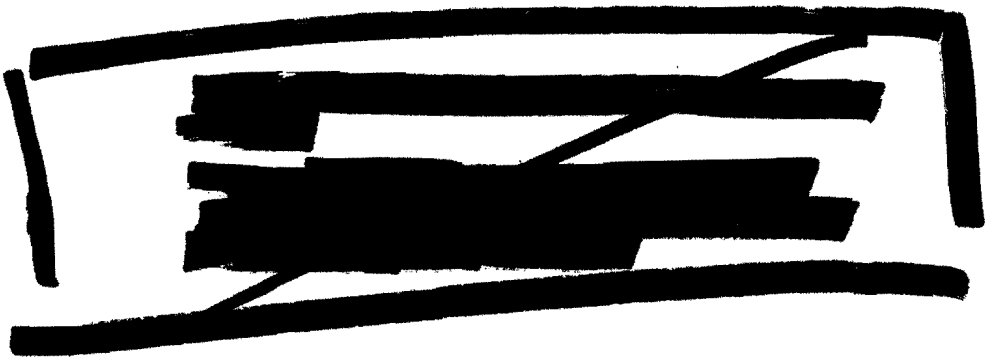
- ***Performing Battery Self Test***
- ***Carrying out Response Check - survey Afterloader and ensure Meter gives a reading.***

7.1.2 Wire Unloading Procedure

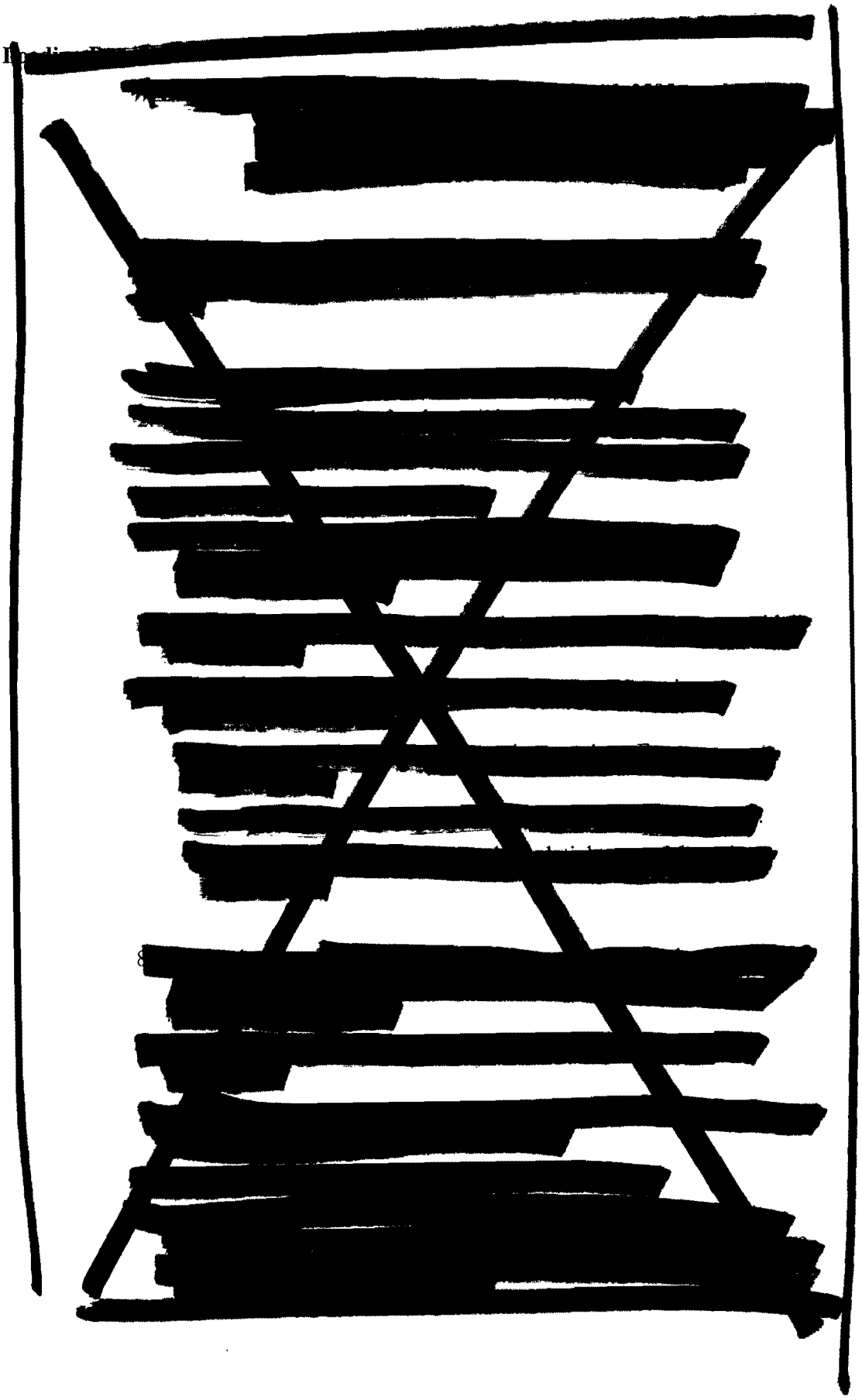




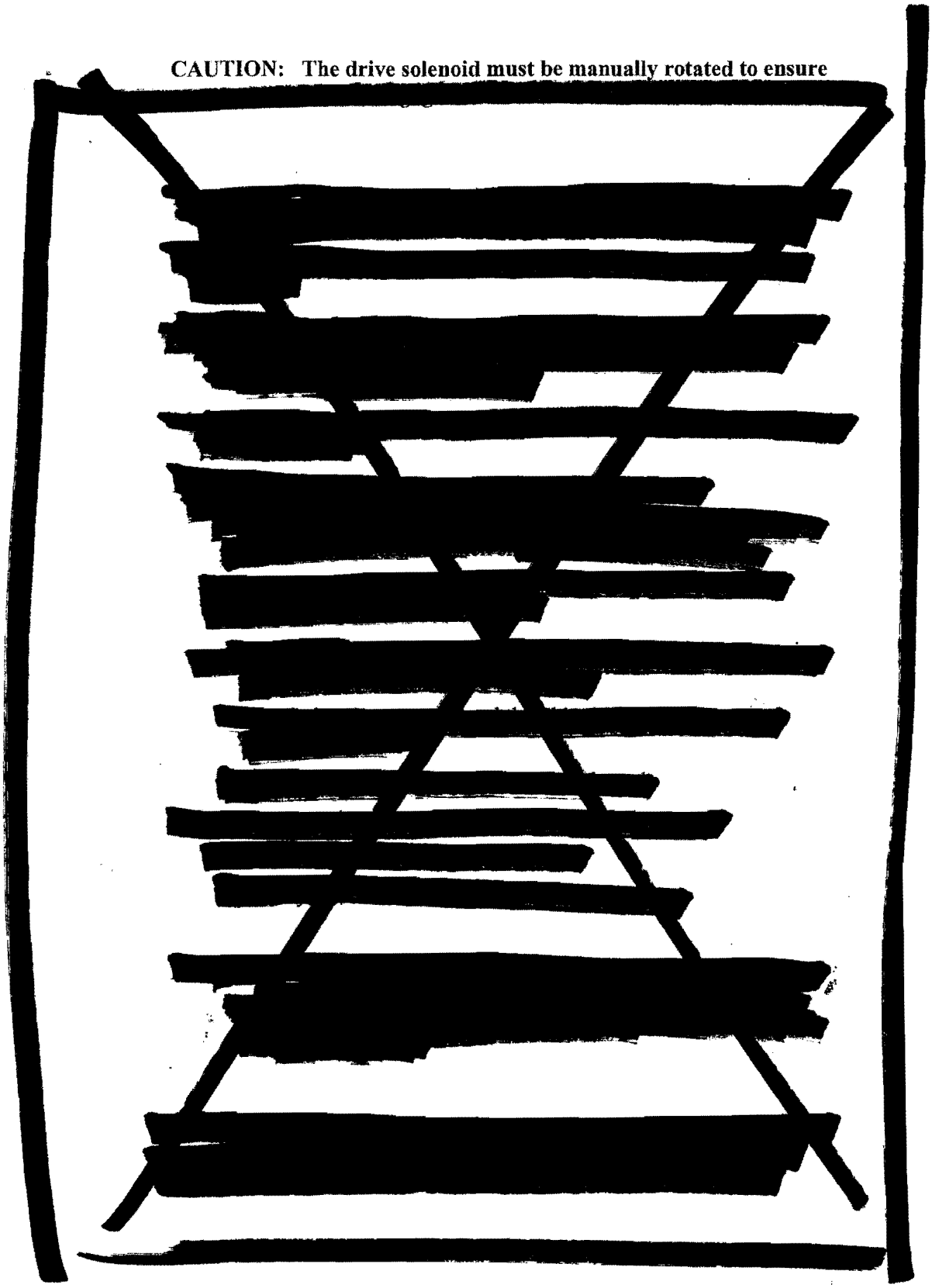




7.1.3 Wire [illegible]



CAUTION: The drive solenoid must be manually rotated to ensure



VARIAN
medical systems

VMS TECH TIP

Tech Tip Information

		Approved Release Date:	
Title/Subject:	Removing Dirt Build Up	TT Number:	TT-VS-01247
PC/EFF:	Product Code: H60, Product Name: VariSource H600430 to H600505 or as required		
Tools As Required:	[redacted]		
Reference Documents:	AL25512000 – VariSource Service Manual		

Document Information

REV	CREATION DATE	INT	DESCRIPTION OF CHANGE	File Name
A	Jan. 07, 2009	DS	Initial Release	TT-VS-01247a
B	Jan 14, 2009	DS	Extend Effectivity from 435 – 462 to 430 - 505	TT-VS-01247b
C	August 2009	DS	Changed wording to 'may' from 'can and will' added 'as required' statement to PC/EFF Added some dummy side funnels to be cleaned also	TT-VS-01247c

Part Number Information

Part Number	Description
N/A	

These notes are to provide guidance specifically with cleaning the wedge block on the input to the retract assembly and other areas where dirt can build up. Analysis of the material obtained from field [redacted]

If you find a large amount of dirt or have problems during this process please contact PSE [redacted]mmediately. Do NOT load a new source wire in these circumstances.

1. **Areas to Clean**

   The following are areas within the system where dirt is known to collect.

   - Turret
   - Home Switch
   - Wipe Block
   - Funnels on the entry and exit of the V-drive (Active and Dummy)
   - **Active Wedge block – note, recent experiences have shown this is a component where excessive build up of may cause the source wire to experience restricted movement. This in turn may result in the need to use the emergency handcrank to return the source to the parked and shielded position.**

AUTHOR	DATE	CHECKED BY ENGINEERING	DATE	PSE MANAGER	DATE	SHEET
[redacted]						1 OF 3
						REVISION

2. Cleaning

2.1. Turret

Ensure the turret area particularly the brass ring and the flag of the Quick Connects are clear. Use an alcohol wipe

2.2. Home Switch

Dismantle the switch and clean out any of the dirt which has built up on any of the surfaces

2.3. Wipe Block

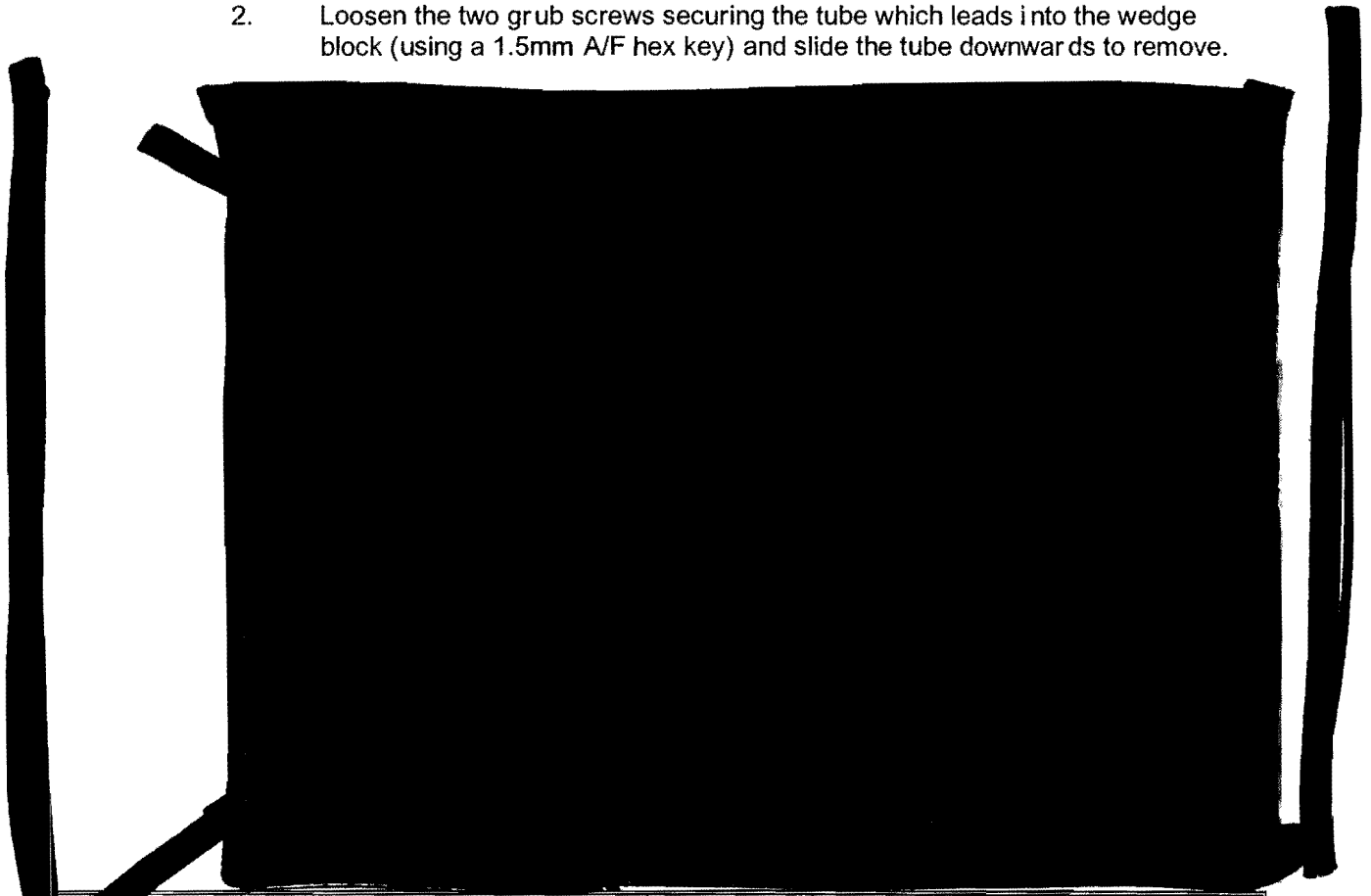
Simply open and clean

2.4. V-Drive Funnels (Active and Dummy)

Remove the V-drive and clean out the funnels on the entry and exit.

2.5. Active Wedge Block

1. Remove the V-drive
2. Loosen the two grub screws securing the tube which leads into the wedge block (using a 1.5mm A/F hex key) and slide the tube downwards to remove.



3. Note the required drill sizes at the end of this procedure, and where to get them (US only). DO NOT use any other drill sizes as this will cause damage to the components.
4. Remove the block in between the V-drive and wedge block to gain access to the underside of the hole. The one displayed in this picture shows the screw on the active side of the track plate. Some machines may have the screw through an identical block on the dummy side of the plate.
5. [redacted] Insert it into a pin chuck so that 27mm is visible from the end. This is so that the wheel and pinch rollers are not damaged by the drill going too far through the wedge block.
6. Gently use the drill to clean out any black material from beneath.
7. Swap to the larger [redacted]) and repeat.

[redacted] **may not fit.**

CAUTION: This process should NOT remove any metal, it is meant solely to remove any build up of debris.

2.6. Reassembly

When reassembling the tube into the wedge block, note that the distance extending underneath the mounting block (i[redacted]

All other components should be fitted in accordance with the service manual instructions.

3. Drill Details

As these drills may be difficult to source in the US we have found the following supplier:
http://www.wttool.com/product-exec/product_id/22555/nm/Number_Size_Jobber_Drills_WT_Import

[redacted]