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**SMD Operations Procedures Manual**

**8.1.1.17 OPERATION OF CORRECTOR COIL TUBE  
INSULATING MACHINE**

Text Pages 1 through 5  
Attachments 1, 2

**Hand Processed Changes**

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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### 8.1.1.17 Operation of Corrector Coil Tube Insulating Machine

#### 1.0 Purpose and Scope

- 1.1 This procedure provides instruction in the operation of the Corrector Coil Tube Insulating Machine located at Assembly Station 5 in Building 905.
- 1.2 This procedure establishes the minimum qualification for any person who will operate the Tube Insulating Machine.

#### 2.0 Responsibilities

- 2.1 Authorized operators of the Tube Insulating Machine shall perform the tasks described here. A list of authorized operators is maintained by the Cognizant Technical Supervisor in Building 902/905.
- 2.2 The operator shall complete the following documentation:
  - 2.2.1 Log Book. Entries shall include: 1. machine settings; 2. notes of any irregularities regarding operation of the Tube Insulating Machine.

#### 3.0 Prerequisites

- 3.1 Training
  - 3.1.1 Operator shall be hands-on trained by the Cognizant Technical Supervisor before operating the Tube Insulating Machine.
  - 3.1.2 Operator shall be trained as an "affected employee" as defined by SEAPPM 1.5.1, II.B, "Lockout/Tagout Requirements."
- 3.2 Initial State of Tube Insulating Machine
  - 3.2.1 Operator controls shall be set to their "initial" settings (see 5.3) before activating power to the Tube Insulating Machine.

#### 4.0 Precautions

- 4.1 Do not wear loose clothing or hanging jewelry. Keep long hair tied up.

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## 5.0 Procedure

### 5.1 Overview

The Corrector Coil Tube Insulating Machine at Assembly Station 5 provides a means of insulating the Corrector Coil Tubes.

### 5.2 Operator Controls

#### 5.2.1 Control Panel

##### 5.2.1.1 DC Motor Control (Attachment 1)

- A. FWD/REV Switch: Selects motor direction. This switch has three positions. Only the FWD position is activated. The switch has an unmarked neutral position. This switch is to remain in the FWD position, and a guard has been added to prevent switch selection.
- B. RUN/STOP/JOG: Activates motor controller. The JOB position is a momentary position which has the same function as RUN, except the switch will shift to the STOP position when released. This switch is to remain in the RUN section, and a guard has been added to prevent switch selection.
- C. MOTOR SPEED Potentiometer: Adjusts motor speed, which in turn changes the rotational speed of the tube and the linear speed of the spool carriage.

##### 5.2.1.2 MAGTROL Brake Control (Attachment 1)

- A. ON/OFF Switch: Activates brake control.
- B. TORQUE ADJUST Potentiometer: Adjusts tension on insulating film spool.

#### 5.2.2 Power Control Box (Attachment 2)

- A. CONTROL PANEL POWER Keyswitch: Activates power to the components of the Tube Insulating Machine.

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- B. SYSTEM On Red Indicator Light: Illuminates when system is RESET and switch foot is enabled.
- C. RESET Red Push Button: Resets the system and "enables" (makes active) the footswitch after power to the system is activated.
- D. Footswitch: Depressed to turn on the motor. Must be "enabled" by the RESET push button.

5.2.3 Linear Transversing Tool Lever: Sets the ratio of linear speed of the spool carriage assembly to the rotation of the tube.

### 5.3 Initial Control Settings

5.3.1 MOTOR SPEED potentiometer set to zero.

5.3.2 BRAKE TENSION set as per MAP.

5.3.3 MAGTROL ON/OFF switch set to OFF.

5.3.4 Linear Transversing Tool Lever set to zero.

### 5.4 To Activate Power to the Tube Insulating Machine

5.4.1 Verify that the controls are set to their "initial" settings (see 5.3).

5.4.2 Place the MAIN POWER SHUT-OFF disconnect switch, located to the right of the Tube Insulating Machine, in the ON position.

5.4.3 Turn the CONTROL PANEL POWER keyswitch to the ON position (clockwise).

### 5.5 To Mount Spools and Set Spool Tension

5.5.1 Remove the collars from the end of the spindle shaft.

5.5.2 Press-fit the insulating film spool onto the spindle shaft. Replace the collars.

5.5.3 Thread the insulating film through the lead positioning device.

5.5.4 To set tension on the insulating film:

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5.5.4.1 Set the MAGTROL ON/OFF switch to ON.

5.5.4.2 Attach a push-pull gage to the end of the insulating film.

5.5.4.3 Pull on the gage while adjusting the TORQUE ADJUST potentiometer until the tension is as specified in the Magnet Assembly Procedure (MAP).

5.6 To Rotate the Coil and Move the Spool Carriage

5.6.1 Set the Linear Transversing Tool Lever to the setting prescribed in the MAP.

5.6.2 Depress the red RESET push button. Observe that the red ON light illuminates.

5.6.3 Depress the footswitch while adjusting the MOTOR SPEED potentiometer upwards from zero until the coil is rotating at a "comfortable" speed.

5.6.4 To momentarily stop or pause machine motion, release the footswitch.

5.7 To Shut Down the Tube Insulating Machine

5.7.1 Release the footswitch.

5.7.2 Turn the control panel power keyswitch to the OFF position (counterclockwise).

5.7.3 Set the operator controls to their "initial" settings (see 5.3).

5.7.4 Place the MAIN POWER SHUT-OFF disconnect switch in the OFF position.

**6.0 Documentation**

6.1 Log Book

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## **7.0 References**

7.1 SEAPPM 1.5.1, II.B, "Lockout/Tagout Requirements."

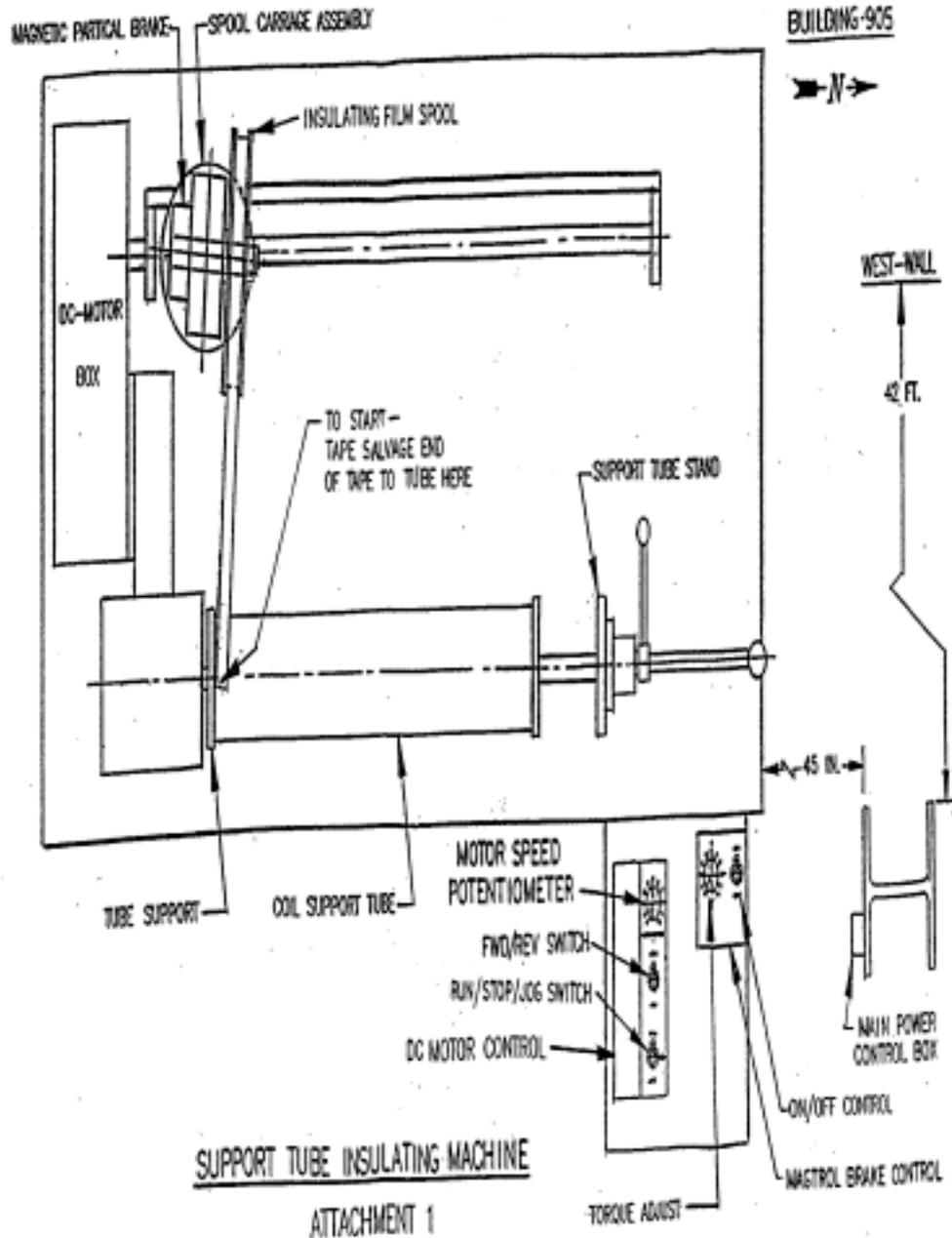
## **8.0 Attachments**

1. Support Tube Insulating Machine
2. Power Control Box Diagram

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### Attachment 1

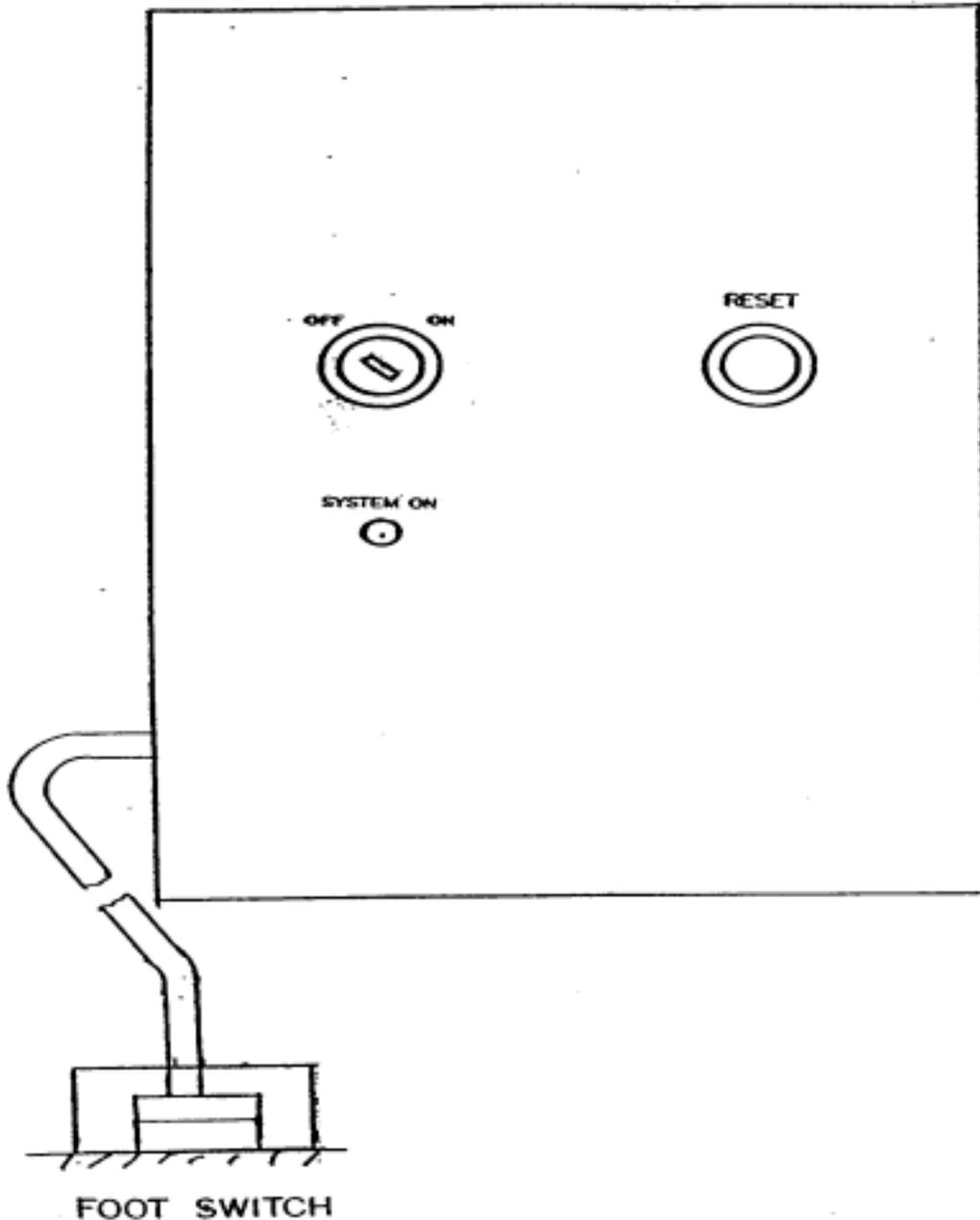
### Support Tube Insulating Machine



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Attachment 2

Power Control Box Diagram



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