

Target Module Connection and Disconnection Procedure		
Document-141576	Release No: 4	Release Date.: 2022-05-18

## 7 Module Disconnection Checklist

TM3 with SiC #46

SEQ	ITEM	NOTE	CHECK
Safety	Acknowledge and Activate Work Permit	Call ISAC operators (x7500) Call Main Control Room to notify of water shutoff or if supplied airhood is necessary (x.7333)	✓
Safety	Hold Pre-Job Briefing	<ul style="list-style-type: none"> <li>• Discuss hazards, safety protocols and work steps listed in this document and checklists.</li> <li>• All workers on the work permit shall be present. If there are concerns about the job, discuss with supervisors and re-plan if necessary.</li> <li>• If you become contaminated during the job, contact the Main Control Room at x7500 for assistance.</li> </ul>	✓
Safety	<ul style="list-style-type: none"> <li>• Electronic Dosimeter</li> <li>• Tank Suit</li> <li>• Respirator</li> <li>• Overshoes (double)</li> <li>• Gloves (double)</li> <li>• Safety Glasses / Full Face Respirator</li> </ul>	Remove and replace second pair of overshoes when exiting the pit to reduce risk of spreading contamination.	✓
Prep	Check tools: <ul style="list-style-type: none"> <li>• Hex Keys (3/16" &amp; 3/8")</li> <li>• Side Cutter</li> <li>• Wipes</li> <li>• 10" Cable Ties</li> <li>• RAM</li> </ul>		✓
Safety	<b>P beam off for at least 30 min before entering target pit</b> Check the general field of ITW/ ITE	RAM or pole monitor ( $\leq 500 \mu\text{Sv/h}$ )	✓
1	Switch off: <ul style="list-style-type: none"> <li>• Heaters, Coil</li> <li>• Bias, Einzel Lens, Anode</li> <li>• EE</li> <li>• Turbo Pumps and high vacuum gages</li> </ul>	Check or confirm with ISAC operators	✓
2	Two HV Cover Keys	Retrieve from electrical room	✓
3	High Active Cooling Water	Close valves for water supply and return	✓

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4	HV Cover and HV Fence on Module Top	Limit switches and signal cable plugs	✓
5	Compressed Air	Release QC Release air cylinder back pressure	✓
6	Shutter	Pull up bellows. Strap tie air cylinder	✓
7	<b>Gas Line</b>	<b>FEBIAD Target only</b> <b>Close two manual valves (station and module)</b>	N/A
8	Two 6-pin connectors (T,H)		✓
9	Extraction Electrode (I)		✓
10	Einzel Lens (Y)		✓
11	a) Water Lines: <ol style="list-style-type: none"> <li>1. Target Oven</li> <li>2. Tube Heater</li> <li>3. MSP</li> <li>4. EE</li> <li>5. HS</li> <li>6. Window</li> <li>7. Coil 1</li> </ol> b) HS line Purging c) Bypass fitting installation	b) Nitrogen purge at 90 PSI for 6 minutes to purge the Heat Shield (HS) line in station  c) Install bypass fittings to all above waterlines.	✓
12	Open valves for water supply and return.		✓
13	<b>High Current Cables:</b> <ol style="list-style-type: none"> <li>a) (A)Target Oven +</li> <li>b) (B)Target Oven -</li> <li>c) (C)Tube heater -</li> <li>d) (D)Tube heater +</li> <li>e) (H)60kV Bias</li> <li>f) (PQ)Coil +</li> <li>g) (RU)Coil -</li> </ol>	<b>f) FEBIAD or p2n target only</b> <b>g) FEBIAD or p2n target only</b>	✓
14	<b>Vacuum System</b> <ol style="list-style-type: none"> <li>a) TP1 Controller cable</li> <li>b) TP2 Controller cable</li> <li>c) TP1 BV1</li> <li>d) TP2 BV2</li> <li>e) IG1</li> <li>f) TP1 TP2 Fans</li> </ol>	<ol style="list-style-type: none"> <li>a) Connector on TP1</li> <li>b) Connector on TP2</li> <li>c) KF 25 between BV1, foil cover BV1, 24 VDC plug</li> <li>d) KF 25 between BV2, foil cover BV2, 24 VDC plug</li> <li>e) Beside the shutter, use PNG1 cable</li> <li>f) Switch off all fans (2 of 110 V plugs for ITW, extension bar for ITE)</li> </ol>	✓

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SEQ	ITEM	NOTE	CHECK
15	Steerers ITE: <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Bottom (Right)</li> </ul> ITW: <ul style="list-style-type: none"> <li>• X</li> <li>• Y</li> <li>• Common</li> </ul>	a) ITE - TM2 <ul style="list-style-type: none"> <li>• Left - Y ✓</li> <li>• Top - X ✓</li> <li>• Bottom (right) - Common ✓</li> </ul> b) ITW - TM4 <ul style="list-style-type: none"> <li>• X - Top</li> <li>• Y - Left</li> <li>• Common - Bottom (right)</li> </ul>	✓
16	Final Check	Module is clear for move	✓
17	Return Work Permit and E-log Entry		✓

NOTES:

08-01  
~~2024-07-30~~  
DATE:   
TARGET: SIC # 46  
TARGET MOUDLE: TM1 TM2 TM3 TM4  
STATION: ITW ITE  
SIGNATURE 1: *Wankle*  
SIGNATURE 2:

*[Signature]*