

Task: Testing EMC Front End Electronics Components in Test Lab **Routine** **Non-routine**

Retention: Completed Routine JHAMs are retained by the employee and supervisor. Non-routine JHAMs are retained until the task is fully closed out. In the case of an accident, the form is to be retained for use by the review team.

Complete instructions and supporting information is available at <https://www-internal.slac.stanford.edu/esh/SLACsafety/jham/>. Enter information into boxes which will expand to accommodate whatever length of text is entered. Once this JHA is complete, all participants should sign in the Acknowledgment section. Add rows by placing cursor in the right box of the last row and entering a tab.

Sequence of Basic Job Steps	Potential Hazards	Controls & Recommended Actions
<ul style="list-style-type: none"> • Replacing low voltage power supplies 	<ul style="list-style-type: none"> • Trapping of fingers • Minor electrical hazards • Burning fingers on heat sinks 	<ul style="list-style-type: none"> • Keep fingers clear when replacing supplies • Turn off PS and neighbour, or whole crate • Keep fingers out of crate. Take care when handling recently removed PS
<ul style="list-style-type: none"> • Connection/disconnection of bias voltage cables on test stand 	<ul style="list-style-type: none"> • Minor electrical hazards (voltage < 50V, low current) 	<ul style="list-style-type: none"> • Switch off bias voltage before work • Keep fingers out of PS
<ul style="list-style-type: none"> • Testing/repair of front end electronics boards: <ul style="list-style-type: none"> ○ Working with low voltage electrical devices ○ Use of soldering equipment ○ Use of hand tools ○ Handling electronics component boards 	<ul style="list-style-type: none"> • Minor electrical hazards • Burn hazard from soldering iron and heated solder • Bruises and scrapes • Stabbing/cutting hazard from use of screwdrivers and other sharp tools 	<ul style="list-style-type: none"> • Switch off both low voltage and bias power to entire crate being worked on • Take care with sharp edges/connectors • Wear protective gloves when removing ADB's • Take Regular breaks during repetitive work
<ul style="list-style-type: none"> • Care & preservation of front end electronics components 	<ul style="list-style-type: none"> • Shearing cables when replacing boards • Overheating of boards during testing • Damage to boards and connectors due to use of excessive force 	<ul style="list-style-type: none"> • Ensure all cables are clear when replacing ADB's/IOB's/TRB's • Ensure cooling fans are in operation when electronics is switched on • Boards should connect easily. The need for force implies an obstacle. Check for bent pins.