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| Traveler Title | End Group 2 Assembly Traveler | | | |
| Traveler Abstract | Outlines the inspection and fabrication steps for the End Group 2 for the EIC 197Mhz Crab Cavity | | | |
| Traveler ID | EIC197-FAB-EG2-ASSY | | | |
| Traveler Revision | R1 | | | |
| Traveler Author | Eduard Drachuk | | | |
| Traveler Date | 22-Oct-24 | | | |
| NCR Informative Emails | AREILLY,GEORGED,O'BRIEN,KDAVIS | | | |
| NCR Dispositioners | DRACHUK,BUTTLES,HUQUE | | | |
| D3 Emails | AREILLY,GEORGED,BUTTLES, O'BRIEN,KDAVIS,DRACHUK,HUQUE | | | |
| Approval Names | E. DRACHUK | A. O'BRIEN | J. BUTTLES | N. HUQUE |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | Group Leader | Project Manager |

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| References | List and Hyperlink all documents related to this traveler. This includes, but is not limited to: safety (THAs, SOPs, etc), drawings, procedures, and facility related documents. | | | |
| [JL0129594](https://misportal.jlab.org/jlabDocs/items/188941) | [JL0135965](https://misportal.jlab.org/jlabDocs/items/177338) | [JL0134212](https://misportal.jlab.org/jlabDocs/items/177341) | [JL0136179](https://misportal.jlab.org/jlabDocs/items/182975) | [JL0143978](https://misportal.jlab.org/jlabDocs/items/185141) |
| [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) | [JL0143260](https://misportal.jlab.org/jlabDocs/items/177339) | [JL0136180](https://misportal.jlab.org/jlabDocs/items/184495) | [JL0136181](https://misportal.jlab.org/jlabDocs/items/177342) | [JL0147503](https://misportal.jlab.org/jlabDocs/items/182101) |
| [JL0170550](https://misportal.jlab.org/jlabDocs/items/204156) | [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) | [JL0146916](https://misportal.jlab.org/jlabDocs/items/186528) | [JL0134243](https://misportal.jlab.org/jlabDocs/items/177340) | [JL0136183](https://misportal.jlab.org/jlabDocs/items/177344) |
| [11141-S-0033](https://misportal.jlab.org/jlabDocs/items/70285/) | [JL0145103](https://misportal.jlab.org/jlabDocs/items/185143) |  |  |  |

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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| Step No. | Instructions | Data Input |
| PART IDENTIFICATION | | |
| 0 | Enter Serial Number of Finished Part   |  |  |  | | --- | --- | --- | | **PAGE** | **WORK CENTER AREAS** | **ACTIONS** | | 2 | MACHSHOP | Part Forming | | 3 | INSP | CMM | | 4 | CHEM | BCP | | 5 | EBW | EBW | | 6 | INSP | CMM | | 7 | CHEM | BCP | | 8 | EBW | EBW | | 9 | INSP | CMM | | 10 | CHEM | BCP | | 11 | EBW | EBW | | 12 | CHEM | BCP | | 13 | CMA | Leak Check | | 14 | CMA | Assemble | | 15 | INSP | CMM | | [[EG2SN]] <<SN>>  [[New part SN dropdown]] <<NOTE>> |

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| FORMING | | |
| 1 | Form [JL0129594](https://misportal.jlab.org/jlabDocs/items/188941) End Dish. | [[FormingTech]] <<SRF>>  [[FormingTime]] <<TIMESTAMP>>  [[FormingComment]] <<COMMENT>> |

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| DIMENSIONAL INSPECTION | | |
| 2 | Verify dimensions in red for [JL0129594](https://misportal.jlab.org/jlabDocs/items/188941) End Dish | [[DISHSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[InspectionTech1]] <<SRF>>  [[InspectionTime1]] <<TIMESTAMP>>  [[InspectionComment1]] <<COMMENT>>  [[InspectionUpload1]] <<FILEUPLOAD>> |

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| CHEMISTRY | | |
| 3a | BCP [JL0129594](https://misportal.jlab.org/jlabDocs/items/188941) End Dish to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[DISHSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech1]] <<SRFCVP>>  [[ChemistryTime1]] <<TIMESTAMP>>  [[ChemistryComment1]] <<COMMENT>>  [[ChemistryUpload1]] <<FILEUPLOAD>> |
| 3b | BCP [JL0143260](https://misportal.jlab.org/jlabDocs/items/177339) Boss (x2) to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[BSINSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech2]] <<SRFCVP>>  [[ChemistryTime2]] <<TIMESTAMP>>  [[ChemistryComment2]] <<COMMENT>>  [[ChemistryUpload2]] <<FILEUPLOAD>> |
| 3c | BCP [JL0135965](https://misportal.jlab.org/jlabDocs/items/177338) Boss (x2) to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[BSOUTSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech3]] <<SRFCVP>>  [[ChemistryTime3]] <<TIMESTAMP>>  [[ChemistryComment3]] <<COMMENT>>  [[ChemistryUpload3]] <<FILEUPLOAD>> |
| 3d | BCP [JL0134212](https://misportal.jlab.org/jlabDocs/items/177341) End Plate 2 to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[PLATE2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech5]] <<SRFCVP>>  [[ChemistryTime5]] <<TIMESTAMP>>  [[ChemistryComment5]] <<COMMENT>>  [[ChemistryUpload5]] <<FILEUPLOAD>> |
| 3e | BCP [JL0136180](https://misportal.jlab.org/jlabDocs/items/184495) HHOW Waveguide Assembly to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[HWGFASN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech6]] <<SRFCVP>>  [[ChemistryTime6]] <<TIMESTAMP>>  [[ChemistryComment6]] <<COMMENT>>  [[ChemistryUpload6]] <<FILEUPLOAD>> |
| 3f | BCP [JL0136179](https://misportal.jlab.org/jlabDocs/items/182975) FPC Waveguide Assembly to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[FPCWASN1]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech7]] <<SRFCVP>>  [[ChemistryTime7]] <<TIMESTAMP>>  [[ChemistryComment7]] <<COMMENT>>  [[ChemistryUpload7]] <<FILEUPLOAD>> |
| 3g | BCP [JL0136181](https://misportal.jlab.org/jlabDocs/items/177342) FPC Beampipe Assembly to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[FPCBPASN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech8]] <<SRFCVP>>  [[ChemistryTime8]] <<TIMESTAMP>>  [[ChemistryComment8]] <<COMMENT>>  [[ChemistryUpload8]] <<FILEUPLOAD>> |
| 3h | BCP [JL0143978](https://misportal.jlab.org/jlabDocs/items/185141) Nut (x4) to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[ChemistryTech9]] <<SRFCVP>>  [[ChemistryTime9]] <<TIMESTAMP>>  [[ChemistryComment9]] <<COMMENT>>  [[ChemistryUpload9]] <<FILEUPLOAD>> |

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| EBW | | |
| 4a | Using fixture [JL0147503](https://misportal.jlab.org/jlabDocs/items/182101), EBW [JL0143260](https://misportal.jlab.org/jlabDocs/items/177339) Boss (x2) and [JL0135965](https://misportal.jlab.org/jlabDocs/items/177338) Boss (x2) to [JL0129594](https://misportal.jlab.org/jlabDocs/items/188941) End Dish to create part [JL0136183](https://misportal.jlab.org/jlabDocs/items/177344) | [[DISHSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[BSOUTSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[BSINSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[DISHNBSSN]] <<SN>>  [[New part SN dropdown]] <<NOTE>>  [[EBWTech1]] <<SRF>>  [[EBWTime1]] <<TIMESTAMP>>  [[EBWComment1]] <<COMMENT>>  [[EBWFile1]] <<FILEUPLOAD>> |
| 4b | EBW [JL0136180](https://misportal.jlab.org/jlabDocs/items/184495) HHOM Waveguide Assembly and [JL0136179](https://misportal.jlab.org/jlabDocs/items/182975) FPC Waveguide Assembly to [JL0134212](https://misportal.jlab.org/jlabDocs/items/177341) End Plate 2 | [[PLATE2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[FPCWASN1]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[HWGFASN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[FULPLT2SN]] <<SN>>  [[New part SN dropdown]] <<NOTE>>  [[EBWTech2]] <<SRF>>  [[EBWTime2]] <<TIMESTAMP>>  [[EBWComment2]] <<COMMENT>>  [[EBWFile2]] <<FILEUPLOAD>> |

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| DIMENSIONAL INSPECTION | | |
| 5a | Verify dimensions in red for [JL0136183](https://misportal.jlab.org/jlabDocs/items/177344) | [[DISHNBSSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[InspectionTech2]] <<SRF>>  [[InspectionTime2]] <<TIMESTAMP>>  [[InspectionComment2]] <<COMMENT>>  [[InspectionUpload2]] <<FILEUPLOAD>> |
| 5b | Verify dimensions in red for [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) End Plate 2 With HHOM Waveguide And FPC Waveguide | [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[InspectionTech3]] <<SRF>>  [[InspectionTime3]] <<TIMESTAMP>>  [[InspectionComment3]] <<COMMENT>>  [[InspectionUpload3]] <<FILEUPLOAD>> |

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| CHEMISTRY | | |
| 6a | Optional BCP [JL0136183](https://misportal.jlab.org/jlabDocs/items/177344) to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[DISHNBSSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech10]] <<SRFCVP>>  [[ChemistryTime10]] <<TIMESTAMP>>  [[ChemistryComment10]] <<COMMENT>>  [[ChemistryUpload10]] <<FILEUPLOAD>> |
| 6b | BCP [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) End Plate 2 With HHOM Waveguide And FPC Waveguide to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech11]] <<SRFCVP>>  [[ChemistryTime11]] <<TIMESTAMP>>  [[ChemistryComment11]] <<COMMENT>>  [[ChemistryUpload11]] <<FILEUPLOAD>> |

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| EBW | | |
| 7 | Using fixture [JL0170550](https://misportal.jlab.org/jlabDocs/items/204156), EBW [JL0136181](https://misportal.jlab.org/jlabDocs/items/177342) FPC Beampipe Assembly to [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) End Plate 2 With HHOM Waveguide and FPC Waveguide to create part [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) | [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[FPCBPASN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[EBWTech4]] <<SRF>>  [[EBWTime4]] <<TIMESTAMP>>  [[EBWComment4]] <<COMMENT>>  [[EBWFile4]] <<FILEUPLOAD>> |

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| DIMENSIONAL INSPECTION | | |
| 8 | Verify dimensions in red for [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) FPC End Plate Assembly | [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[InspectionTech5]] <<SRF>>  [[InspectionTime5]] <<TIMESTAMP>>  [[InspectionComment5]] <<COMMENT>>  [[InspectionUpload5]] <<FILEUPLOAD>> |

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| CHEMISTRY | | |
| 9 | BCP [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) FPC End Plate Assembly to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[ChemistryTech13]] <<SRFCVP>>  [[ChemistryTime13]] <<TIMESTAMP>>  [[ChemistryComment13]] <<COMMENT>>  [[ChemistryUpload13]] <<FILEUPLOAD>> |

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| EBW | | |
| 10 | Using fixture [JL0146916](https://misportal.jlab.org/jlabDocs/items/186528), EBW [JL0136182](https://misportal.jlab.org/jlabDocs/items/177345) to [JL0136183](https://misportal.jlab.org/jlabDocs/items/177344) to create part [JL0134243](https://misportal.jlab.org/jlabDocs/items/177340) | [[DISHNBSSN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[FULPLT2SN]] <<SN>>  [[Incoming part SN dropdown]] <<NOTE>>  [[EBWTech6]] <<SRF>>  [[EBWTime6]] <<TIMESTAMP>>  [[EBWComment6]] <<COMMENT>>  [[EBWFile6]] <<FILEUPLOAD>> |

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| CHEMISTRY | | |
| 11 | BCP [JL0134243](https://misportal.jlab.org/jlabDocs/items/177340) to a depth of 15 microns  According to [EIC197-PR-CHEM-CAV-ACID-R1](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-289509/EIC197-PR-CHEM-CAV-ACID-R1.pdf) Acid Etching Proceedure | [[ChemistryTech15]] <<SRFCVP>>  [[ChemistryTime15]] <<TIMESTAMP>>  [[ChemistryComment15]] <<COMMENT>>  [[ChemistryUpload15]] <<FILEUPLOAD>> |

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| LEAK CHECK | | |
| 12 | Leak check the assembly ([JL0134243](https://misportal.jlab.org/jlabDocs/items/177340)) in accordance with [11141-S-0033](https://misportal.jlab.org/jlabDocs/items/70285/)  Vendor Standard Helium Leak Check Procedure  Upload any relevant images/comments | [[LeakCheckTech]] <<SRF>>  [[LeakCheckTime]] <<TIMESTAMP>>  [[LeakCheckPass]] <<YESNO>>  [[LeakCheckComment]] <<COMMENT>>  [[LeakCheckUpload]] <<FILEUPLOAD>>  [[LeakCheckEmail]] {{DRACHUK}} <<EMAIL>>  [[LeakCheckEmail]] {{Pansophy: End Group 2 Passed The Leak Check}} <<EMAILSUBJ>> |

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| ASSEMBLY | | |
| 13 | Assemble [JL0145103](https://misportal.jlab.org/jlabDocs/items/185143) (x4) Rod with [JL0143978](https://misportal.jlab.org/jlabDocs/items/185141) (x4) Nut to [JL0134243](https://misportal.jlab.org/jlabDocs/items/177340) | [[AssemblyTech]] <<SRF>>  [[AssemblyTime]] <<TIMESTAMP>>  [[AssemblyComment]] <<COMMENT>>  [[AssemblyUpload]] <<FILEUPLOAD>> |

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| DIMENSIONAL INSPECTION | | |
| 14 | Verify dimensions in red for [JL0134243](https://misportal.jlab.org/jlabDocs/items/177340) | [[InspectionTech7]] <<SRF>>  [[InspectionTime7]] <<TIMESTAMP>>  [[InspectionComment7]] <<COMMENT>>  [[InspectionUpload7]] <<FILEUPLOAD>> |