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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

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| **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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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 micronsAccording 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>> |