

## NAVIGATOR

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**EFF:20110829**  
**Rev Date:20110829**  
**SVCEAVATAR320**

**Avatar 320 Spare Parts List**  
**Thermo Fisher Scientific Company Confidential**

**DESICCANT**

470-086600 Spare Desiccant Cartridge  
470-086700 Desiccant Tube Holder Assembly

**DETECTORS**

470-093300 320 DTGS Detector  
470-093300F 320 TGS Detector Assembly  
840-068700 Avatar MCT-A 2.5 Detector Option  
840-068700F Avatar MCT-A Detector

**ELECTRONICS**

470-093700 320 Electronics Module  
470-093700F 320 Electronics Module  
222-180300 I/O Card PCI Parallel Port

**LASERS**

008-710003 Avatar FTIR Spectrometer He-Ne Laser

**MECHANICAL**

470-093400 320 Sample Door

**OPTICS**

160-715700 Elliptical Mirror 1.18X7.375 90dg D  
160-715801 Avatar 45 Degree Parabolic Mirror for Source  
160-715901 Avatar 5.38 EFL 90 Degree Parabolic Sample Mirror

**SOURCES**

713-020500 Avatar Sealed Source

EFF:2011/08/29  
Date:20110829  
SVCEAVATAR360

**Avatar 360 Spare Parts List**  
**Thermo Fisher Scientific Company Confidential**

**ACCESSORIES**

056-729608      E.S.P. Sample Compartment Baseplate

056-730007      560 Universal Sample Compartment Base Plate

840-058200      Sample Shuttle with Dual Sample Holder  
~ For Nicolet iS10, X700, 380, Nexus, Avatar  
~ Two slide-mount holder positions

840-058200F      560 Sample Shuttle

840-062600      Nicolet Series Baseplate - ESP  
~ 8 x 10 Sample compartment baseplate  
~ Includes accessory recognition chip  
~ 2 x 3 slide mount holder not included

**CABLES-EXTERNAL**

085-770701      External Detector Box Input Cable

085-797800      Communication Cable from Computer to Spectrometer

**COVERS**

470-081500      360 Sample Door

**DESICCANT**

470-086600      Spare Desiccant Cartridge

470-086700      Desiccant Tube Holder Assembly

**DETECTORS**

840-068700      Avatar MCT-A 2.5 Detector Option

840-068700F      Avatar MCT-A Detector

840-082800      Avatar 360MCT-A Detector and DTGS detector  
If ordering aftermarket, YOU MUST ORDER THE  
APPROPRIATE LANGUAGE KIT (includes replacement  
instrument cover with liquid nitrogen fill port)

840-092100      TEC DLaTGS Det-KBr Window-Nic380/Avatar

840-160100 DLaTGS Detector with KBr window (12,500-350 cm-1)

### **ELECTRONICS**

470-082500 360 Electronics Module

470-082500F Avatar Electronics Module

222-180300 I/O Card PCI Parallel Port

### **HARDWARE**

138-754100 Plb/QC Tee 1/4 1/4 1/4

### **LASER**

008-710003 Avatar FTIR Spectrometer He-Ne Laser

### **MECHANICAL**

053-732101 Smart Accessory Seal

470-089700 Sidewall Purge Adapters for Non-Smart Accessories  
~ 1 Pair  
~ Used with standard baseplate mounted accessories to  
complete the purge seal in the sample compartment

470-121500 Purge Manifold (1 to 3 split)

470-209500 550 Dewar Gasket

470-210700 Smart Accessory Anti-Rock Mechanism

840-064900 Nicolet Avatar 320/360 Validation Wheel Mount  
~ Accommodates internal sample wheel for automated validation  
~ Must select wheel choice below

### **MISCELLANEOUS**

222-248300 Thermo SID Light Grey Touch-up Paint

222-248400 Thermo SID Dark Grey Touch-up Paint

222-248500 Thermo SID Blue Touch-up Paint

699-068200 Kit/PM Avatar

## **OPTICS**

- 160-715700 Elliptical Mirror 1.18X7.375 90dg D
- 160-715801 Avatar 45 Degree Parabolic Mirror for Source
- 160-715901 Avatar 5.38 EFL 90 Degree Parabolic Sample Mirror
- 470-080700 360 KBr Window Internal Beam
- 840-064800 Automated External Beam Mirror  
~ For Nicolet 380, Avatar 330, 370  
~ Required for use with Continuum or Centaurus  
infrared microscope  
~ Includes external beam KBr window

## **POWER SUPPLIES**

- 113-728500 Power Supply 110 Watt +5v+/-12v

## **PURGE**

- 123-734200 Muffler
- 138-753700 Purge - Male Quick Connect
- 470-089800 Nicolet 380 Purge Kit  
~ Includes regulator, filter, flow gauge, plumbing assembly  
~ Included in Nicolet 380 Csl Spectrometer (912A0550)
- 470-151400 Standard Purged System including Purge Regulator
- 470-152800 Purge Manifold

## **QUALIFICATION**

- 470-170400 Nicolet Avatar NPL 1.5 / 3.0 mil Polystyrene Std Wheel  
~ Applies to ValPro Legacy FT-IR System Qualification or Val-Q  
~ Use with Nicolet Avatar running ValPro or Val-Q  
~ Use with Nicolet 380 running Val-Q, ValPro requires 470-262500  
~ NPL calibrated 1.5 mil polystyrene standard  
~ Traceable 3.0 mil polystyrene sample

## **SOURCES**

- 713-015400 IR Source
- 713-015500 Avatar 360N White Light Source

## TOOLS

840-133400

### Remote Signals Accessory

- ~ allows users to access laser signals of the spectrometer
- ~ must have this accessory to improve TRS trigger accuracy and ensure short rise time for all Nicolet 8700 PCI and older spectrometers
- ~ needed for slave mode step-scan TRS

Note: In slave mode TRS, an external trigger signal is used to trigger the fast TRS digitizer

085-799700

### Avatar Breakout Box

EFF:2011/08/29  
Date:20110829  
SVCEAVATAR370

Avatar 370 Spare Parts List  
Thermo Fisher Scientific Company Confidential

**ACCESSORIES**

- 056-729608 E.S.P. Sample Compartment Baseplate
- 056-730007 560 Universal Sample Compartment Base Plate
- 840-058200 Sample Shuttle with Dual Sample Holder  
~ For Nicolet iS10, X700, 380, Nexus, Avatar  
~ Two slide-mount holder positions
- 840-058200F 560 Sample Shuttle
- 840-062600 Nicolet Series Baseplate - ESP  
~ 8 x 10 Sample compartment baseplate  
~ Includes accessory recognition chip  
~ 2 x 3 slide mount holder not included

**CABLES-EXTERNAL**

- 085-770701 External Detector Box Input Cable
- 085-797800 Communication Cable from Computer to Spectrometer
- 085-834201 Cable Avatar 370 Bench Harness

**COVERS**

- 470-081500 360 Sample Door
- 840-097600 Avatar 370 TGS Cover

**DETECTORS**

- 840-068700 Avatar MCT-A 2.5 Detector Option
- 840-068700F Avatar MCT-A Detector
- 840-082800 Avatar 360MCT-A Detector and DTGS detector  
If ordering aftermarket, YOU MUST ORDER THE  
APPROPRIATE LANGUAGE KIT (includes replacement  
instrument cover with liquid nitrogen fill port)
- 840-092100 TEC DLaTGS Det-KBr Window-Nic380/Avatar
- 840-160100 DLaTGS Detector with KBr window (12,500-350 cm-1)

## **ELECTRONICS**

470-194000 Avatar 330 Electronics Module  
470-194000F Avatar 330 Electronics Module  
470-189400 Avatar 370 Electronics Module  
470-189400F Avatar 370 Electronics Module  
512-222200 PCBA 550 MCTA Detector Preamp  
222-180300 I/O Card PCI Parallel Port

## **HARDWARE**

138-754100 Plb/QC Tee 1/4 1/4 1/4  
840-098800 Centaurus Interface for Avatar 370

## **LASER**

008-710003 Avatar FTIR Spectrometer He-Ne Laser

## **MECHANICAL**

053-732101 Smart Accessory Seal  
470-089700 Sidewall Purge Adapters for Non-Smart Accessories  
~ 1 Pair  
~ Used with standard baseplate mounted accessories to  
complete the purge seal in the sample compartment  
470-121500 Purge Manifold (1 to 3 split)  
470-209500 550 Dewar Gasket  
470-210700 Smart Accessory Anti-Rock Mechanism

## **MISCELLANEOUS**

222-248300 Thermo SID Light Grey Touch-up Paint  
222-248400 Thermo SID Dark Grey Touch-up Paint  
222-248500 Thermo SID Blue Touch-up Paint

699-098800 Nicolet 380 PM Kit

### **OPTICS**

160-715700 Elliptical Mirror 1.18X7.375 90dg D

160-715801 Avatar 45 Degree Parabolic Mirror for Source

160-715901 Avatar 5.38 EFL 90 Degree Parabolic Sample Mirror

840-064800 Automated External Beam Mirror  
~ For Nicolet 380, Avatar 330, 370  
~ Required for use with Continuum or Centaurus  
infrared microscope  
~ Includes external beam KBr window

840-096900 Sample Compartment Windows Option  
~ Includes two KBr windows for sample compartment  
~ Not compatible with Nicolet 380 Csl Spectrometer

### **POWER SUPPLIES**

113-728500 Power Supply 110 Watt +5v+/-12v

### **PURGE**

123-734200 Muffler

138-753700 Purge - Male Quick Connect

470-151400 Standard Purged System including Purge Regulator

470-152800 Purge Manifold

### **QUALIFICATION**

833-026500 OMNIC DS 8 Data Security Software  
OMNIC DS Data Security Tools include:  
~ Comprehensive 21 CFR Part 11 compliance tools for OMNIC  
software  
~ Embedded Windows XP Professional and Vista security  
~ Security Administration that works standalone or as a  
Server application  
~ Complete system access control  
~ System policies to ensure proper data handling  
~ Digital signatures to establish responsibility and assure  
data integrity  
~ Complete audit trails with:

Spectral history tracking (stays with the data)  
System use and file change logging (even when OMNIC is not running)

- ~ Includes exclusive Thermo Software IQ tool to verify OMNIC software installation
- ~ Includes OMNIC DS OQ procedure for OMNIC and OMNIC Picta
- ~ Provides Data Security for OMNIC, OMNIC Picta, OMNIC Spectra, TQ Analyst and ValPro for FT-IR and Raman

## **SOURCES**

713-015400

IR Source

713-015500

Avatar 360N White Light Source

840-096700

Nicolet 380 Sealed Source Option

- ~ Provides protection from reaction of combustible gases with source element
- ~ Reduces available energy throughput of system
- ~ Built in 1 cm<sup>-1</sup> resolution aperture
- ~ Not compatible with 0.5 cm<sup>-1</sup> resolution aperture
- ~ Not compatible with Nicolet 380 Csl Spectrometer
- ~ Not compatible with ValPro System Qualification

## **TOOLS**

840-133400

Remote Signals Accessory

- ~ allows users to access laser signals of the spectrometer
- ~ must have this accessory to improve TRS trigger accuracy and ensure short rise time for all Nicolet 8700 PCI and older spectrometers
- ~ needed for slave mode step-scan TRS

Note: In slave mode TRS, an external trigger signal is used to trigger the fast TRS digitizer

085-799700

Avatar Breakout Box

## **UPGRADES**

840-096600

Avatar 370 0.5 cm<sup>-1</sup> Spectral Res Option

- ~ Capability to collect 0.5cm<sup>-1</sup> res data
- ~ only available for Configuration L (KBr) 912A0548