

REVISION HISTORY		
REV	ECN/CN #	DATE
P0	--	--
A	CN098643ECN	10-JAN-2020
B	CN103810ECN	09-MAR-2021
C	CN104226ECN	06-APR-2021

**TEXT FOR:
ARGOS™ BIOMETER
SUPPLEMENTAL SERVICE MANUAL**

NOTES:

1. Inspect per Generic QIP Manual. ◊1◊

SHEET 1 of 71

BY Troy Hinzman	DATE 28-OCT-2019	Alcon Irvine, California 92618	TITLE TEXT,SVC, SUP,MANUAL,ARGOS
CHECKED Gerard Scortino	DATE 30-OCT-2019		DRAWING NUMBER 906-1930-001
APPROVED Steve Gutierrez	DATE 31-OCT-2019		REV C

ARGOS™ BIOMETER

Supplemental Service Manual



Manufacturer:

Alcon Laboratories, Inc.
6201 South Freeway
Fort Worth, Texas 76134-2099 USA
Made in USA with Global Materials

Telephone: 949/753-1393
800/832-7827

906-1930-001 Rev. C

© 2020, 2021 Alcon Inc.

Alcon

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

Argos™ Biometer Supplemental Service Manual
906-1930-001

MANUAL REVISION RECORD

DATE	REVISION	ECN NUMBER AND DESCRIPTION
10 Jan 2020	A	CN098643 - Initial release of manual to support product release.
09 Mar 2021	B	CN103810ECN - Update to add new procedures needed to service the system, switched position of sections 3 and 4.
07 Apr 2021	C	CN104226ECN - The purpose of this change is to update procedures related to printer installation, data backup and restore, handling of demo system data, and troubleshooting.

** Trademarks are property of their respective owners.

TABLE OF CONTENTS		
CONTENTS	PAGE #	CONTENTS
SECTION ONE - GENERAL INFORMATION		
Notice of Confidentiality	1.1	
Safety Precautions	1.1	
Reference Documents	1.1	
Receiving Inspection.....	1.1	
Product Description.....	1.1	
SECTION TWO - INSTALLATION		
Installation Instructions.....	2.1	
Biometer Table	2.1	
Unpacking.....	2.1	
Installing the Biometer Table.....	2.2	
Installing the Monitor and Stand.....	2.4	
Installing the Computer.....	2.6	
Installing the Biometer.....	2.6	
Software Set Up.....	2.8	
Change the Computer Name.....	2.8	
Register the Device.....	2.9	
Vision Planner Set Up.....	2.10	
Setting Up for Export to DMShare	2.12	
DHS VEHRDE Configuration	2.13	
Register the Argos™ System to DHS Using the VEHRDE Tool	2.13	
DHS Configuration - Set Devices Tab.....	2.13	
Installing a Local Printer.....	2.14	
EMR (Electronic Managed Records) Printer Filename Syntax Change.....	2.15	
Perform the Service Test Procedure (STP).....	2.15	
SECTION THREE - MAINTENANCE		
General Information	3.1	
Hardware Procedures.....	3.2	
Biometer Replacement (for Argos™ 1.5 systems).	3.2	
Packaging an Argos™ Biometer for Shipment.....	3.3	
PC Replacement.....	3.5	
Digitizer Board Replacement.....	3.5	
Chin Rest Replacement.....	3.6	
Forehead Cushion Replacement.....	3.7	
Installing the Aegis Fortress External Drive.....	3.7	
Software Procedures.....	3.8	
Configure a New Calibration Tool.....	3.8	
Importing Calibration Files.....	3.8	
Checking the Argos™ Software Version.....	3.11	
Checking the Device Manager.....	3.11	
Vision Planner Open Client Installation.....	3.12	
Open Client – Argos™ PC Configuration.....	3.12	
Open Client – Configuring the Customer (Client) Computer.	3.13	
Open Client Troubleshooting – Changing Firewall Settings.	3.15	
Open Client Troubleshooting – Network Location Configuration.....	3.16	
Remote Control Access	3.17	
Disabling Remote Control Access.....	3.17	
Archiving Image Data.....	3.19	
Backup and Restore of Argos™ Data.....	3.21	
Adding a Windows** Password to the Argos™ PC.....	3.22	
Lens Update.....	3.24	
DHS VEHRDE Configuration for Installed Argos™ Systems.	3.24	
Transferring a Surgeon Profile from a Verion™ System to an Argos™ System.....	3.24	
Demo Systems.....	3.26	
Initial Configuration and Packaging of a Demo System.	3.26	
Demo System Set Up.	3.29	
Epson WF-100 Printer Setup.....	3.31	

ARGOS™ BIOMETER

Sensitive Data Cleaning on Argos™ Biometer Demo Systems	3.32
Data Cleaning - Device Preparation and DataBackUpper	3.32
Data Cleaning Procedure	3.33
Data Cleaning for Demo System Service or Software/Lens Updates	3.34

SECTION FOUR - TROUBLESHOOTING

General Information	4.1
Required Tools	4.1
Error Codes and Messages	4.2
Category List	4.2
Error Code Details	4.2
Troubleshooting Guide	4.3
Image List	4.4
Error Messages	4.6
Corrective Actions	4.9

SECTION FIVE - ADDITIONAL INFORMATION

Introduction	5.1
------------------------	-----

SECTION ONE - GENERAL INFORMATION

Notice of Confidentiality

The information contained within this document is confidential and proprietary to Alcon Laboratories. This information shall not be reproduced or further disclosed, in whole or in part, to anyone other than Alcon employees without prior written consent from Alcon Laboratories.

The scope of this manual includes information for all systems currently in the field. The procedures contained in this manual are proprietary and may or may not require the use of Argos™ operating system and application software, but will require completion of the service test procedure after they are performed.

This manual is divided into five sections as follows:

- Section One provides general information about the system and using this manual to service it.
- Section Two contains the installation procedure.
- Section Three contains maintenance procedures for servicing the system.
- Section Four contains troubleshooting information.
- Section Five is reserved for information such as optional accessories.

Safety Precautions

Pay close attention to warnings and cautions in this manual. Warnings are written to protect individuals from bodily injury. Cautions are written to protect the instrument from damage.

Universal precautions shall be observed by all people who come in contact with the instrument and/or accessories to help prevent their exposure to blood-borne pathogens and/or other potentially infectious materials. In any circumstance, wherein the exact status of blood or body fluids/tissues encountered is unknown, it shall be uniformly considered potentially infectious and handled accordingly. This is in accordance with OSHA guidelines.

Although this manual provides the necessary information for maintaining optimum performance of the system, it does not contain all of the operating procedures or functional descriptions contained in the operator's manual. In addition, the warnings and cautions in the operator's manual also apply for this service manual. The operator's manual supplements information provided in this manual and should be available on-site with the system.

Reference Documents

- 8065000022 Operator's Manual

Receiving Inspection

The system was inspected mechanically and electrically prior to shipment. If the shipping container appears damaged, ask that the carrier's agent be present when the system is unpacked. The system should be inspected for external damage (i.e. scratches, dents, or broken parts). If damage is discovered or if the system fails any of the functional tests, notify the carrier and an Alcon representative. Retain the shipping container and packing material for the carrier's inspection. As necessary, file a claim with the carrier or, if insured separately, with the insurance company.

Product Description

The Argos™ biometer is a non-invasive, non-contact biometer based on swept-source optical coherence tomography (SS-OCT). The device is intended to acquire ocular measurements as well as perform calculations to determine the appropriate intraocular lens (IOL) power and type for implantation during intraocular lens placement. The biometer measures the following 9 parameters: axial length, corneal thickness, anterior chamber depth, lens thickness, K-values (radii of flattest and steepest meridians), astigmatism, white-to-white (corneal diameter), and pupil size.

The reference image functionality is intended for use as a preoperative and postoperative image capture tool. It is intended for use by ophthalmologists, physicians, and other eye-care professionals and may only be used under the supervision of a physician.

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

Table 1-1 Terms and Abbreviations

Term or Abbreviation	Description
BNC	Bayonet Neill-Concelman connector
ESD	Electro-static discharge
IOL	Intraocular lens
SS-OCT	Swept-source optical coherence tomography
STP	Service test procedure
USB	Universal serial bus

Table 1-2 Symbol Definitions

Symbol	Description
	Type BF equipment, providing both the attributes of basic insulation and "floated" isolation.
	Follow instructions for use
	Warning: The console might fall over when it is pushed and the wheels are immobilized (blocked)
	Warning: Dangerous voltage
	General warning
	Use appropriate take-back system Pb notation, if present, indicates lead content greater than 0.004%.
	Serial number
	Medical device
	Magnetic resonance unsafe
	Date of manufacture
	Manufacturer

ARGOS™ BIOMETER

Table 1-3 Biometer Specifications

Physical	
Dimensions (WxDxH)	310 x 485 x 510 mm (12.2" x 19.1" x 20.1")
Weight (excluding AC adapter and cable)	21 kg (46.3 lb)
Electrical	
Power supply for the device	24 VDC
Power supply for AC adapter (Primary side)	100–240 VAC 50/60 Hz Compliant with IEC 60601-1
Environmental Conditions	
<u>Operating</u>	
Atmospheric pressure	800 hPa to 1060 hPa
Temperature	+15°C to +35°C (59 °F to 95 °F)
Relative Humidity	30% to 70%
<u>Transport</u>	
Atmospheric pressure	500 hPa to 1060 hPa
Temperature	-40°C to +70°C (-40 °F to 158 °F)
Relative Humidity	10% to 95%
<u>Storage</u>	
Atmospheric pressure	700 hPa to 1060 hPa
Temperature	-10°C to +55°C (14 °F to 131 °F)
Relative Humidity	10% to 95%

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

THIS PAGE INTENTIONALLY BLANK

SECTION TWO - INSTALLATION

Installation Instructions

The Argos™ biometer requires a table that will accommodate the biometer, computer, and display. An optional table is offered by Alcon to fulfill this need and installation of that table is described in these instructions. If a table is provided by the facility, skip the table installation and go to **Installing the Biometer**. Basic installation involves the following steps:

- Unpack and setup optional biometer table.
- Unpack and setup biometer and accessories.
- Set up software configuration.

NOTE: See Section Three for demo system installation and set up.

Biometer Table

The following items are contained in the box:

- Biometer table
- Monitor support post and hardware
- 8 power supply cords (use appropriate cord for country of install)
- Hardware to attach computer to table
- User manual

1. Unpacking

The biometer table is shipped in a wooden crate as shown in **Figure 2-1**.



Figure 2-1 Table Shipping Crate

SECTION TWO - INSTALLATION

- 1.1 Remove crate cover by removing Torx** screws securing it to the crate. Lift crate cover from crate and set aside.



Figure 2-2 Crate with Cover Removed

- 1.2 Remove screws securing side to crate.
- 1.3 Remove side and set aside. The other sides to the crate are secured by nails; remove as necessary to gain access to cart.
- 1.4 Remove user manual and set aside.

CAUTION

To avoid damaging the table, do not use a knife or scissors to cut foil wrapping.

- 1.5 Carefully remove foil wrapping from table.
- 1.6 Remove accessories box and set aside.
- 1.7 Remove screws securing base of table to bottom of crate.
Remove wooden plate and set aside.

WARNING!

To avoid injury, use two people to lift table from crate.

- 1.8 Using two people, lift and remove table from crate.
- 1.9 Remove protective packaging from table.

ARGOS™ BIOMETER

- 1.10 Remove accessories from box.
- 1.11 Unpack the biometer shipping box.

The Movu Argos™ biometer is packaged using outer and inner boxes. The biometer console and accessories are contained in the inner box. Use care when moving the biometer and make sure the head is held in place by the retaining strap.

2. Installing the Biometer Table

- 2.1 Place the table on a firm and level surface.
- 2.2 From the underside of the table, remove the six 4 mm hex screws securing the table top to the support frame.



Figure 2-3 Removing the Table Top

- 2.3 Remove the table top and set aside.

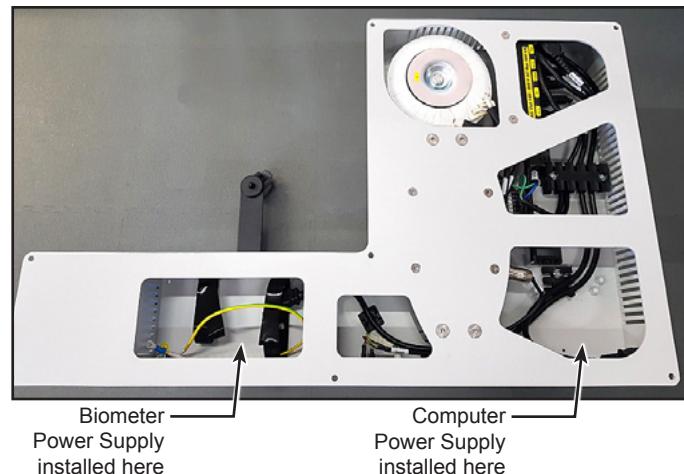


Figure 2-4 Table with Top Removed

CAUTION

- The biometer table has an internal multiple socket outlet for connecting different electrical medical devices. Do not exceed the maximum power output of the socket outlet of 500 VA.
- Only connect cables with C14 plug to the power strip.

Figure 2-5 shows the cables and power supplies to install in the table.

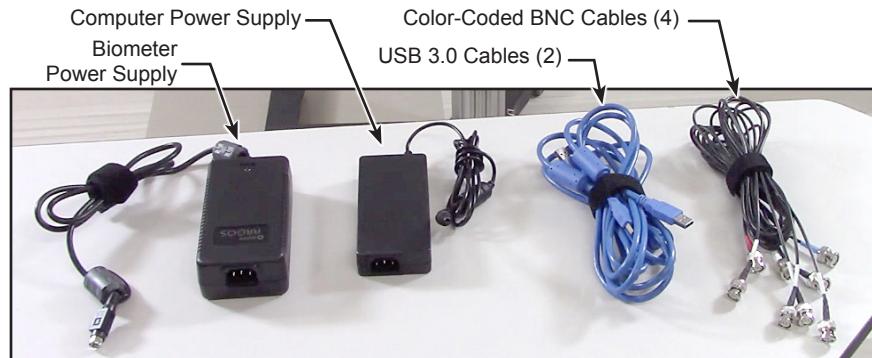


Figure 2-5 Cables and Adapters to Install in the Table

ARGOS™ BIOMETER

- 2.4 Connect the biometer power supply to the pre-installed AC power cord, and then secure the power supply to the table with the Velcro** straps as shown in **Figure 2-6**.

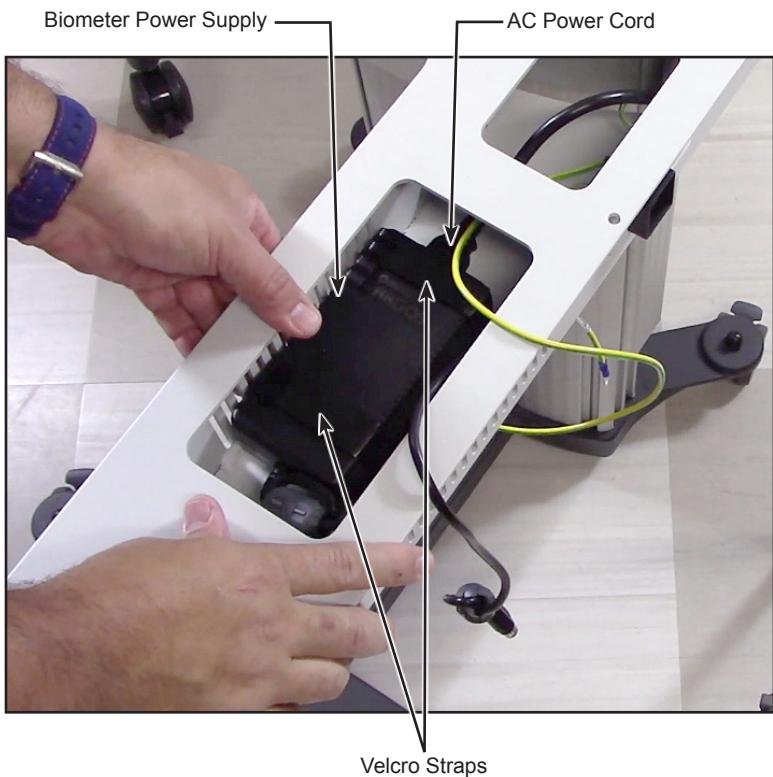


Figure 2-6 Biometer Power Supply Installation

- 2.5 Connect the computer power supply to the pre-installed AC power cord, and then secure the power supply to the table with the Velcro** straps in the location shown in **Figure 2-7**.
- 2.6 Bundle the USB 3.0 cables and the BNC cables together lengthwise so they can be routed through the table. The color-coded end of the BNC cables are connected to the biometer.

- 2.7 Route the cables through the table as shown in **Figure 2-7**. The cables are long, so it is recommended to coil the cable with one loop to take up the extra length (as shown by the red dashed line). Leave approximately 4 inches hanging through the bottom of the table to connect to the computer.

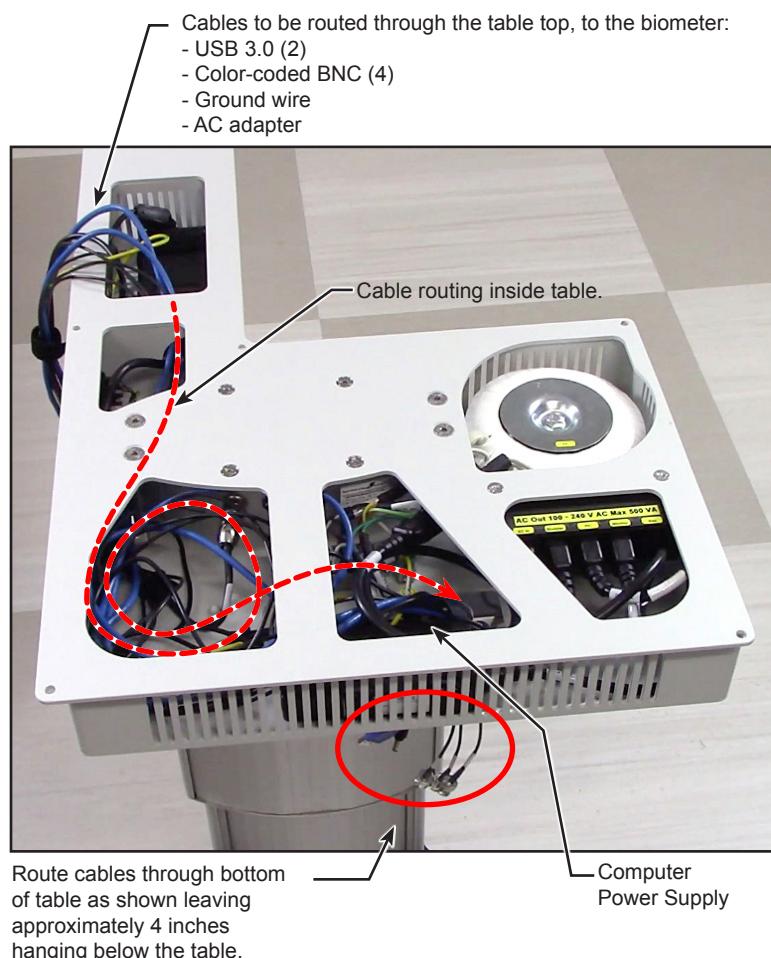


Figure 2-7 Cable Routing Inside Table

ARGOS™ BIOMETER

- 2.8 Place the table top on the base.
- 2.9 Route the cables through the table top as shown in **Figure 2-8**.



Figure 2-8 Installing the Table Top

3. Installing the Monitor and Stand

- 3.1 Remove cover from back of display (see **Figure 2-9**).
- 3.2 Remove four screws circled in red in **Figure 2-9**.
- 3.3 Attach the stand to the back of the monitor using the new screws provided in the box.

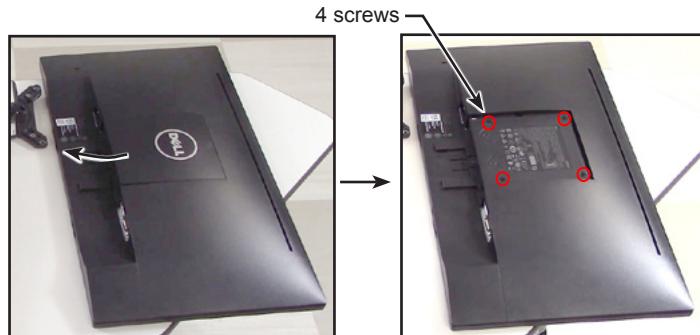


Figure 2-9 Removing the Monitor Cover



Figure 2-10 Stand Attached to Monitor

ARGOS™ BIOMETER

- 3.4 Route the mouse, keyboard, and monitor data cables down through the monitor opening.
- 3.5 Route the monitor power cable up through the monitor opening as shown in **Figure 2-11**.



Figure 2-11 Monitor Cable Routing

- 3.6 Move table top into position, adjusting the cables as necessary, and secure to the base using the screws removed in step **2.2**.

- 3.7 Position the cables as shown in **Figure 2-12** and secure the monitor stand to the table using four 5 mm hex screws.
- 3.8 Connect monitor power and video cable (display port) to monitor, and then push cables into slot in stand. Use the clip to hold cables to display arm.



Figure 2-12 Securing the Monitor Stand to the Table

ARGOS™ BIOMETER

4. Installing the Computer

- 4.1 Position computer on a packing box next to the table and lower table until it is close to the computer. The computer must be close enough to connect the cables from the table.

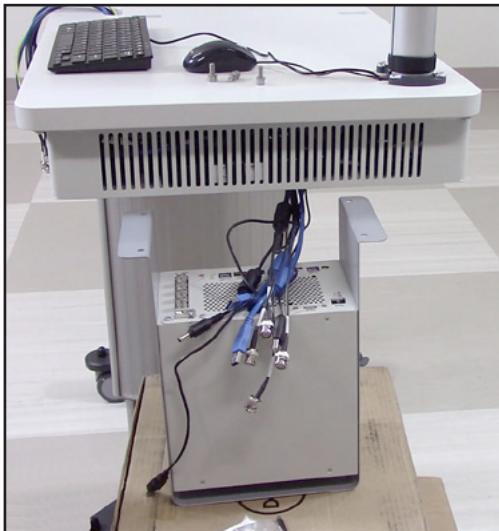


Figure 2-13 Computer Placement for Installation

- 4.2 Connect the cables to the computer as shown in [Figure 2-14](#).

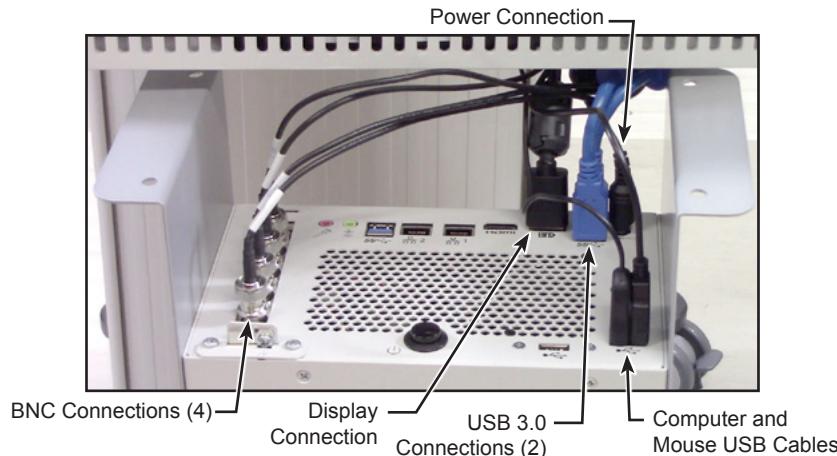


Figure 2-14 Computer Connections

For reference, a complete computer-to-biometer connection diagram is provided in [Figure 2-15](#).

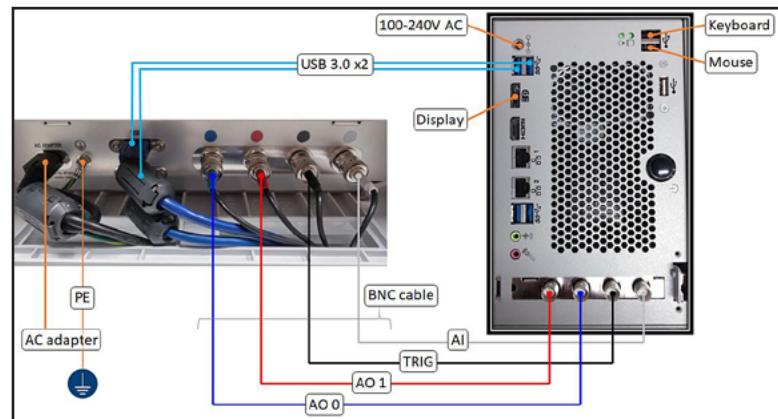


Figure 2-15 Computer to Biometer Connection Diagram

- 4.3 Using a 5 mm hex wrench, secure the computer to the table with four hex screws.

5. Installing the Biometer

CAUTION

When moving the biometer, make sure the restraining strap is in place to minimize head movement.

- 5.1 Place the biometer on the table in the slots provided for the biometer feet.

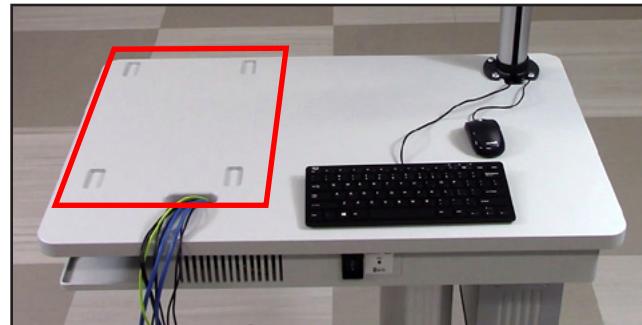


Figure 2-16 Slots in Table for Biometer Feet

ARGOS™ BIOMETER

- 5.2 Remove the restraining strap and packaging from the biometer head.
- 5.3 Remove the biometer front panel by using a 2.5 mm wrench to remove the screws securing the front panel to the chassis.
- 5.4 Remove ground wire from biometer. The ground wire from the table will be used.
- 5.5 Lock table wheels.
- 5.6 Lift the front of the biometer just enough to feed the cables through the biometer opening as shown in **Figure 2-17**.



Figure 2-17 Biometer Cable Routing

- 5.7 Connect the cables to the biometer as shown in **Figure 2-18**.

NOTE: For systems with a green ground wire on the biometer power supply, route the ground wire up to the biometer head and connect to the biometer ground connection. The biometer head will have two ground wires attached - the chassis and biometer power supply ground wires.

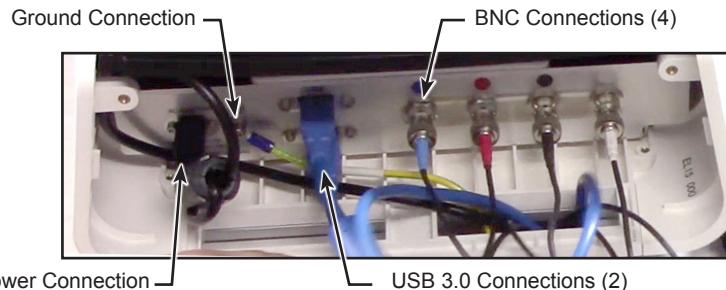


Figure 2-18 Biometer Connections

- 5.8 Arrange cables as necessary so that the front panel can be installed.
- 5.9 Replace the front panel.

The physical set up of the table and biometer is now complete as shown in **Figure 2-19**.



Figure 2-19 Complete Set Up of the Biometer and Table

- 5.10 Connect the table to facility power.
- 5.11 Connect the system to a network using an Ethernet** cable.
- 5.12 Press the computer On button to start the system.



6. Change the Computer Name

- 6.1 Login to Service or AdminIT.
- 6.2 Click **Exit to Windows**** in the Configuration Settings panel.
- 6.3 Open Windows** File Explorer.
- 6.4 Right-click on **This PC** in the sidebar and select **Properties** in the drop-down menu.
- 6.5 In the System Properties panel, click on **Change** as shown in **Figure 2-20**.



Figure 2-20 System Properties Panel

- 6.6 In the Computer Name/Domain Changes panel, change the **Computer name:** field to the serial number of the system. **Figure 2-21** shows an example of the computer name entry.
NOTE: Windows 10 requires a letter in the computer name.**



Figure 2-21 Example of a Computer Name Entry

- 6.7 Click **OK**.
- 6.8 Click **OK** in the restart computer window.
- 6.9 Close the System Properties panel.
- 6.10 Click **Restart Later**.
- 6.11 Click on the date and time display in the lower right corner of the screen.
- 6.12 Click on **Adjust date and time**.
- 6.13 Turn on **Set time automatically** and **Set time zone automatically**.
- 6.14 Close the time and date settings window.
- 6.15 On the basic information screen (see **Figure 2-22**), verify that the computer name will change when the system is restarted.
- 6.16 Restart the computer.

ARGOS™ BIOMETER

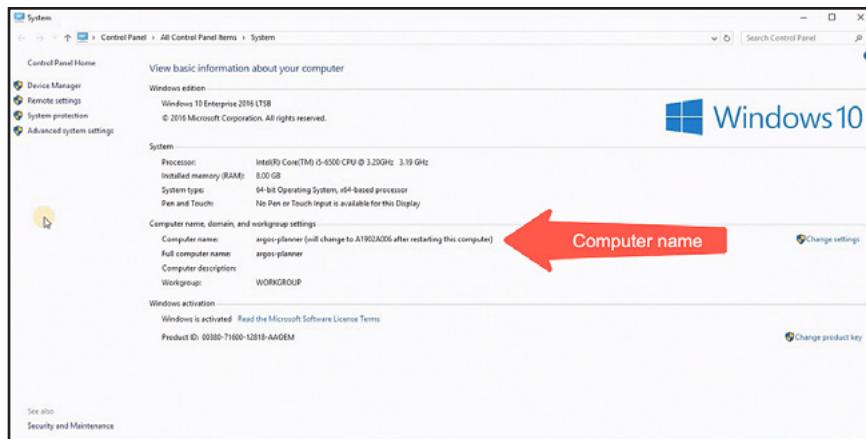


Figure 2-22 Basic Information About Your Computer Screen

7. Register the Device

Note: Internet access is required to complete registration.

- 7.1 Login to Service or AdminIT.
- 7.2 Click **Exit to Windows** in the Configuration Settings panel.
- 7.3 Open Windows** File Explorer and go to:
(C:) > Movu > VerionPlanner > VerionPlannerServer
- 7.4 Open stopProcs.bat (stops all Verion™ processes running in the background).
- 7.5 Go to the Windows** desktop and open "VEHRDE Registration." The registration utility login screen is displayed as shown in **Figure 2-23**.

NOTE: VEHRDE is a required software application tool that synchronizes the IOL database with AnalyzOR server. Do not register an “ORA Practice” name on an Argos™ unless they have a VLynk system installed. Use “veriongenericpractice” for Argos™ systems without VLynk. ORA Systems are Verifeye, Verifeye+, Verifeye+2.0 and VLynk. Installation instructions were not specific enough to indicate that VLynk is the only system currently setup to use the customers “ORA Practice” name in

AnalyzOR. Customers who have both a VLynk and ORA (Verifeye, Verifeye+, or Verifeye+2.0), should not use the Argos™ with ORA systems other than VLynk. ORA systems other than VLynk might still synchronize and download patients, but the way to know if it came from Argos™ is that there may be duplicates and there will be patient data missing. So, be aware that for customers with VLynk and other ORA units, if patient is not complete or there are duplicates, it could be meant for VLynk Surgery only.

Argos™ AnalyzOR Registration Type	Verifeye /V+, Verifeye + 2.0(SW 3.4.2.1 and below)	VLynk
ORA Practice		X
veriongenericpractice	X	X
Veriongenericpractice	X	X

- 7.6 Select **ORAPrime** from the Domain drop-down menu.

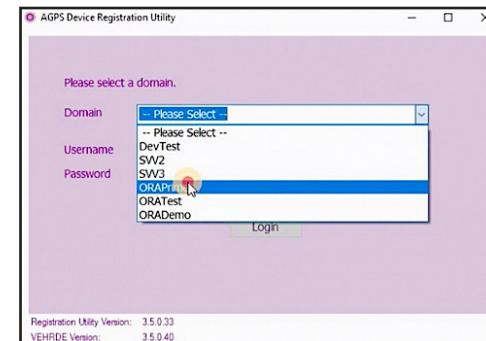


Figure 2-23 The Registration Utility Login Screen

- 7.7 Enter your ORA AnalyzOR username and password credentials.
- 7.8 Click **Login**.
- 7.9 In the next screen, enter the device serial number.

ARGOS™ BIOMETER

- 7.10 Select a practice according to the following criteria:
- For Verion™ only customers, select **VerionGenericPractice**. This selection requires manual entry of the practice name.
 - For Verion™ and ORA customers, select **VerionGenericPractice**. This selection requires manual entry of the practice name.
 - For VLYNK users, select ORA [practice name].

Note: If VerionGenericPractice is not in the practice list, call your Technical Support Team so they can add it to your user account.

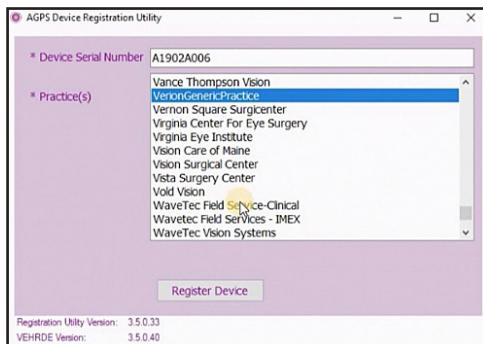


Figure 2-24 Registration Serial Number and Practice Screen

- 7.11 Click **Register Device**.

The device begins synchronization and displays the screen shown in **Figure 2-25** when complete.

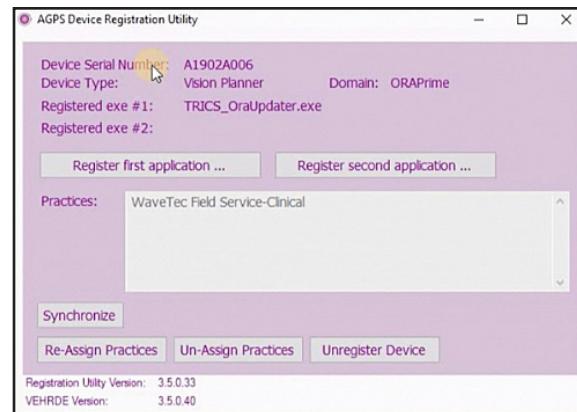


Figure 2-25 Registration Synchronization Screen

- Verify the data displayed is correct.
- Click **Synchronize**.
- When synchronization is complete, close the window.

8. Vision Planner Set Up

- Login to Service or AdminIT.
- For veriongenericpractic, type the clinic name into the Practice field.

NOTE: ORA practice names are already titled, but the facility must be selected and saved.
- Click **Refresh** in the Configuration Settings panel (see **Figure 2-26**).

Note: This local server refresh may need to be performed as-needed if the system is not continuously connected to the internet.

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

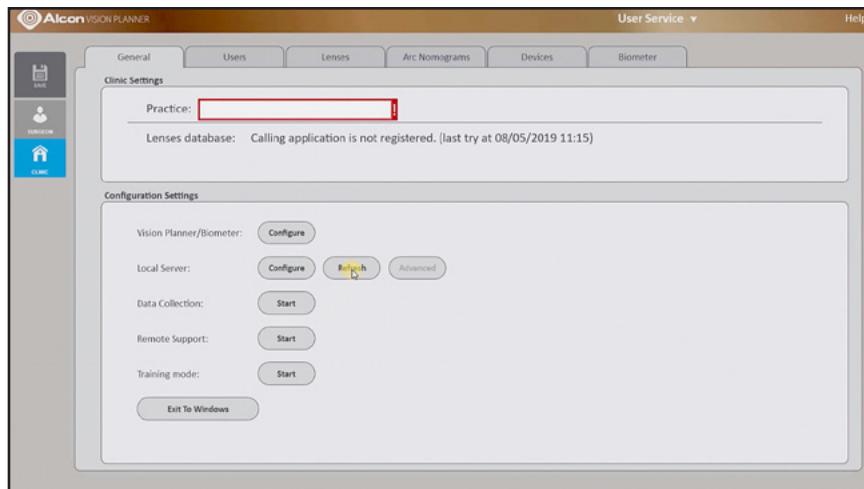


Figure 2-26 Service Screen - Server Refresh

- 8.4 Click the Biometer tab.
- 8.5 Click the **Start Calibration** button.

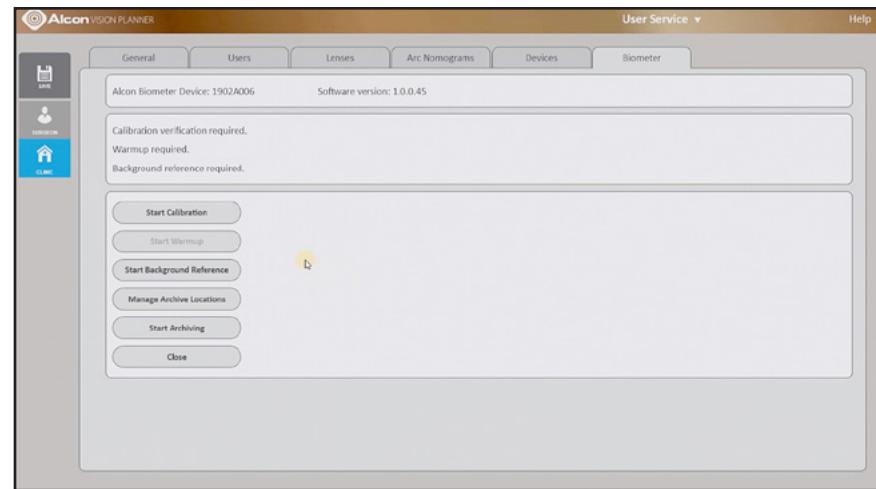


Figure 2-27 Biometer Tab - Start Calibration Button

- 8.6 Follow the directions and prompts displayed on the screen until the daily calibration check is complete.

9. Setting Up for Export to DMShare

NOTE: This procedure is for devices that are networked and IT admin has created a network folder named Verion_Data\DMShare for exchange of patient data with the surgery room. The folder creation and path must be given to the field service engineer (FSE).

Windows** Mapping

- 9.1 Login to Service or AdminIT.
- 9.2 Exit to Windows**.
- 9.3 Open Windows** File Explorer.
- 9.4 Select **Network**.
- 9.5 Right-click and select **Map Network Drive**.
- 9.6 Select the drive letter **V:**.
- 9.7 Type in the network folder path or browse to the location.
- 9.8 Select **OK** and then **Finish** to complete drive letter mapping.

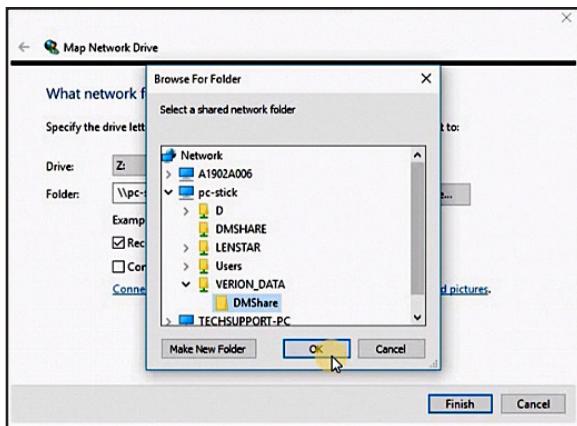


Figure 2-28 Mapping to DMShare

DMShare Mapping

DMShare mapping in the application for surgeons is performed after surgeon profiles have been created. The DMShare path is surgeon specific.

- 9.9 Select the surgeon name.
 - 9.10 Select **Preferences**.
 - 9.11 Select the Application tab > Import Export Settings > Local/Network Path.
 - 9.12 Browse to the newly created network folder **V:**.
- NOTE:** If disconnect problems occur using a mapped drive letter (**V:**), try typing the UNC path for DMShare directly into the Local/Network Path. For example:
- Network Location: \\clinic-server\Verion_data\DMShare
- 9.13 Select Save and Back.

NOTE: If unable to use a network location for DMShare, use a USB drive to export. Select **USB** at the option and leave the export path blank.

ARGOS™ BIOMETER

DHS VEHRDE Configuration

10. Register the Argos™ System to DHS Using the VEHRDE Tool

NOTES:

- Internet access is required to complete registration.
- If the system was previously registered, it must be unregistered per "[DHS VEHRDE Configuration for Installed Argos™ Systems on page 3.24](#)".

- 10.1 Preparation: Download the VEHRDEdomains.xml template file from the Technical Services intranet page at [Digital Health Suite > Resources](#).
- 10.2 Exit to Windows.
- 10.3 Open Windows** File Explorer and go to:
(C:) > Movu > VerionPlanner > VerionPlannerServer
- 10.4 Open stopProcs.bat (stops all Verion™ processes running in the background).
- 10.5 Browse to the folder:
C:\Movu\VerionPlanner\VerionPlannerServer\ORAUpdater
- 10.6 Replace the file VEHRDEdomains.xml with the xml file downloaded from the Technical Services website. For further instructions call your local Technical Support representative.
- 10.7 Go to the Windows** desktop and open "VEHRDE Registration." The registration utility login screen is displayed as shown in [Figure 2-23](#).
- 10.8 Select **DHSProd** from the Domain drop-down menu.
- 10.9 Enter your DHSProd ORA username and password.
- 10.10 Click **Login**.
- 10.11 In the next screen, enter the device serial number (A+serial number) (see [Figure 2-24](#)).
- 10.12 Select the "practice name" (see [Figure 2-24](#)).
- 10.13 Click **Register Device** button.
- 10.14 The device begins synchronization and displays the screen shown in [Figure 2-25](#) when complete.

- 10.15 Verify the Practice name displayed is correct.
- 10.16 Click **Synchronize**.
- 10.17 When synchronization is complete, close the window by clicking X in the upper right.
- 10.18 Double-click the Vision Planner application from Windows** Desktop.
- 10.19 Login to the application as a Service user. After a few moments the system will display the practice name.
- 10.20 On the General Tab Clinic Settings, select the Facility name and then click **Save**.
- 10.21 Verify ORA is connected and the timestamp is current. Press Local Server "Refresh" to re-synchronize the ORA Database timestamp at any time.

11. DHS Configuration - Set Devices Tab

- 11.1 Login as service user.
 - 11.2 Select the **Devices Tab**.
- NOTE: When this screen is blank, the Done button says New.**
- 11.3 Select **New**.

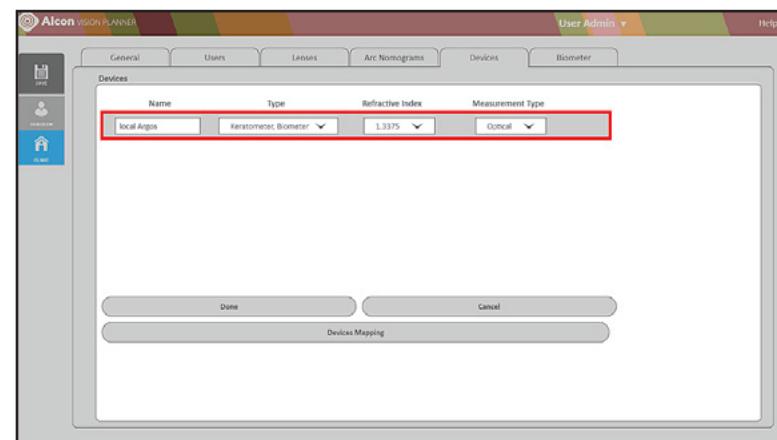


Figure 2-29 Vision Planner – Devices Tab

ARGOS™ BIOMETER

- 11.4 In the **Name** field, enter **Local Argos**.
- 11.5 In the Type field, select **Keratometer, Biometer**.
- 11.6 Select **1.3375** for Refractive Index.

NOTE: Refractive index is a global setting that is used throughout the clinic to ensure interoperability between devices and value consistency when changing units.
- 11.7 Select **Optical** for Measurement Type.
- 11.8 Select **Done**.
- 11.9 Select Device Mapping.
- 11.10 Match the Verion™ device to **Argos Biometer Ks ()** as shown in **Figure 2-30**.

This results in matched device:

Local Argos (1.3375/Optical) Argos Biometer Ks

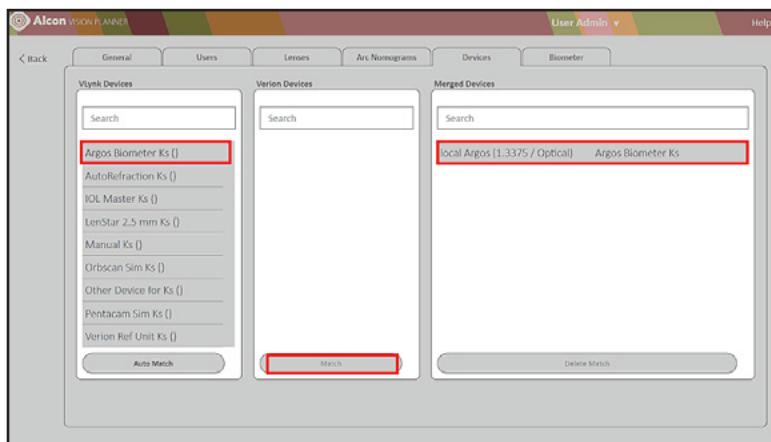


Figure 2-30 Vision Planner – Device Mapping

- 11.11 Select **Back**.
- 11.12 Select **Save**.
- 11.13 The Argos™ system is configured for DHS.

12. Installing a Local Printer

- 12.1 Log into the system as Service.
- 12.2 Exit to Windows.
- 12.3 Select the settings gear icon from the Start menu.
- 12.4 Select **Devices**.
- 12.5 Select **Printers & Scanners**.
- 12.6 Select **Add a printer**.
- 12.7 Select the appropriate printer if it is listed.
- 12.7.1 If the preferred printer is not listed, select **The printer that I want isn't listed**.
- 12.7.2 From this menu, enter the printer name or the TCP/IP address. For printer models that are not listed in the Win 10 driver list, try the base model of the printer. For example, the HP8200 driver may work for the HP8201 printer.
- 12.8 After the printer is added to the Argos™ system, select the printer and then click the **Manage** button.
- 12.9 In the **Manage** menu, select **Set as Default**.
- 12.10 Restart the Argos™ system.

ARGOS™ BIOMETER

13. EMR (Electronic Managed Records) Printer Filename Syntax Change

This procedure changes the PDF filename syntax to include the patient ID.

- 13.1 Click the Vision Planner **Config** button.
- 13.2 Navigate to **Features**.
- 13.3 Set the option **Use23StylePdfName** to **true** (see *Figure 2-31*).

When the option is set to true, the filename uses the following format:

[Last Name]_[First Name]_[PatientID]_DOB[YearMonthDay]_
AstigPlan_[timestamp:YYYYMMDDHHmmss].pdf

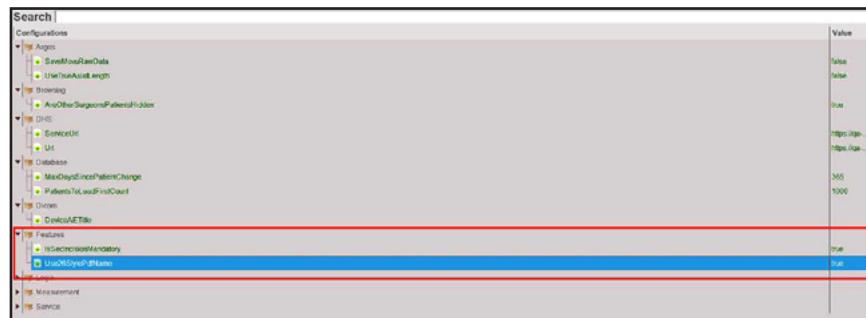


Figure 2-31 Vision Planner > Config > Features

14. Perform the Service Test Procedure (STP).

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

THIS PAGE INTENTIONALLY BLANK

SECTION THREE - MAINTENANCE**General Information**

This section of the manual contains information to assist the field engineer in maintenance of the system. Refer to the contents listing in the right column to locate the maintenance procedures contained in this section.

CAUTION

The system contains electrostatic discharge (ESD) sensitive devices.
Always wear a wrist strap when working with this device.

CONTENTS - The following information is covered in this section:**Hardware Procedures**

1. Biometer Replacement (for Argos™ 1.5 systems).....3.2
2. Packaging an Argos™ Biometer for Shipment3.3
3. PC Replacement.....3.5
4. Digitizer Board Replacement3.5
5. Chin Rest Replacement3.6
6. Forehead Cushion Replacement3.7
7. Installing the Aegis Fortress External Drive3.7

Software Procedures

8. Configure a New Calibration Tool.....3.8
9. Importing Calibration Files.....3.8
10. Checking the Argos™ Software Version.....3.11
11. Checking the Device Manager3.11
12. Open Client – Argos™ PC Configuration.....3.12
13. Open Client – Configuring the Customer (Client) Computer3.13
14. Open Client Troubleshooting – Changing Firewall Settings.....3.15

15. Open Client Troubleshooting – Network Location Configuration3.16
16. Disabling Remote Control Access.....3.17
17. Archiving Image Data.....3.19
18. Backup and Restore of Argos™ Data3.21
19. Adding a Windows** Password to the Argos™ PC.....3.22
20. Lens Update.....3.24
21. DHS VEHRDE Configuration for Installed Argos™ Systems3.24
22. Transferring a Surgeon Profile from a Verion™ System to an Argos™ System.....3.24

Demo Systems

23. Initial Configuration and Packaging of a Demo System.....3.26
24. Demo System Set Up3.29
25. Epson WF-100 Printer Setup3.31
26. Data Cleaning - Device Preparation and DataBackUpper3.32
27. Data Cleaning Procedure.....3.33

Hardware Procedures

NOTES:

- **Left and right orientation is referred to from the console perspective.**
- **Replacement is performed in reverse order of removal unless noted otherwise.**

CAUTION

Observe safe handling practices when handling electrostatic sensitive devices (ESD).

1. Biometer Replacement (for Argos™ 1.5 systems)

This Procedure is applicable to the following products:

- Biometer, Argos™ 1.5 (base unit); PN 300029164
- Biometer, Argos™ 1.5 (refurbished base unit); PN 300029164R
- Biometer, Argos™ with Table; catalog number 8065000006

- 1.1 Turn off the installed Argos™ PC and disconnect power.
- 1.2 Remove two screws securing front panel to Argos™ biometer with a 2.5 mm hex wrench. Remove the front panel.
- 1.3 Disconnect and unplug all cabling.
 - Replace the ground screw and washers after removing the ground wire.
 - Pull back on the AC Adapter housing to release the plug.
- 1.4 Lock table casters.
- 1.5 Carefully tilt the Argos™ biometer back and pull all cables out from the bottom hole.
- 1.6 Safely lift and move the old Argos™ biometer from the Ergo table and place on another table.
- 1.7 Open the replacement Argos™ biometer box and remove the accessories.

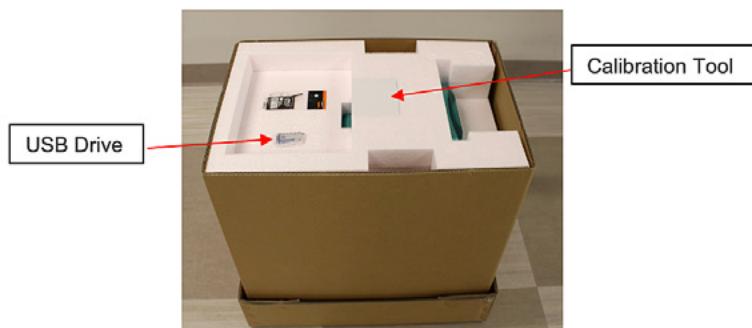


Figure 3-1 Argos™ Biometer in Box

- 1.8 Remove the biometer (with belt attached) from the box and place on the Ergo table in the recessed slots for the biometer feet.
- 1.9 Remove the front panel with the yellow sticker) with 2.5 mm hex wrench. **Note: The exchanged (old) Argos™ biometer requires this front panel with the yellow sticker mounted for shipping purposes back to Movu.**
- 1.10 Carefully tilt the biometer back and pull all cables through the bottom hole
- 1.11 Connect cables to the specified connection points shown in **Figure 3-2**.

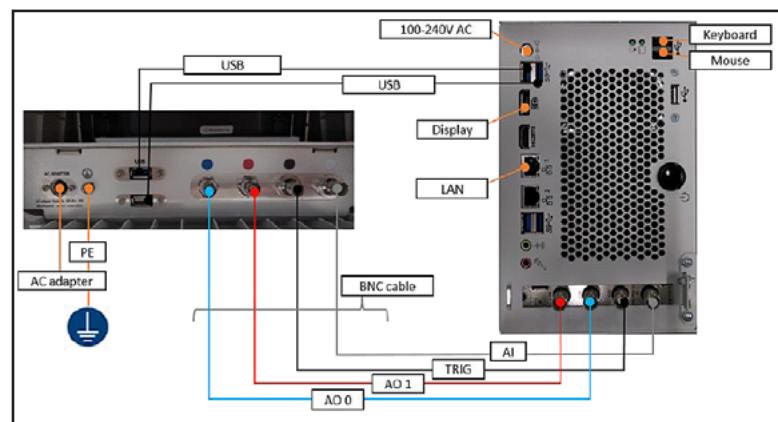


Figure 3-2 Connection Diagram

- 1.12 Mount the old front panel with the serial number label to the new biometer.
- 1.13 Import the configuration files from the USB drive per step **9**.
- 1.14 Package the old biometer for shipment per step **2**.

2. Packaging an Argos™ Biometer for Shipment

- 2.1 Mount the front panel with the yellow label to the Argos™ biometer being returned.
- 2.2 Move the biometer main body and the chin rest to the lower positions.
- 2.3 Cover the chin rest and body with green plastic bags.
- 2.4 Place the foam insert between the chin rest and the body. The wider surface side of the insert must be on the chin rest side.



Figure 3-3 Foam Insert Position

- 2.5 Wrap the main body and chin rest together with cushioning material.
- 2.6 Wrap the Velcro** strap around the main body and chin rest (over the cushioning material as shown in **Figure 3-4**).



Figure 3-4 Main Body of Biometer and Chin Rest Secured Together

- 2.7 Lay shipping straps on floor and place the bottom carton packing part on the floor over the straps (see *Figure 3-5*).
- 2.8 Position the green plastic sheet on the bottom carton.
- 2.9 Place the Argos™ biometer on top of the green plastic sheet so that it is properly positioned in the foam inserts.



Figure 3-5 Biometer Positioned in Bottom Carton

- 2.10 Place foam inserts on each side of the biometer with the green plastic sheet between the biometer and the insert.
- 2.11 Slide middle carton piece over biometer and into the bottom carton.
- 2.12 Slide the upper foam insert in place over the biometer.
- 2.13 Place the original calibration tool in the center cut-out of the upper insert.
- 2.14 Slide the carton lid in place.
- 2.15 Tighten shipping straps.

3. PC Replacement

NOTE: If the PC is not functional, contact technical support to recover patient data.

- 3.1 Create a backup of Argos™ data per step **18.1**.
- 3.2 Turn PC off.
- 3.3 Disconnect all cables from PC.

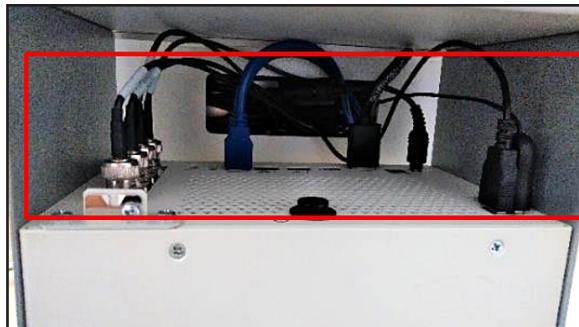


Figure 3-6 PC Cables

- 3.4 Remove 4 screws securing bracket/PC assembly to table.
- 3.5 Remove 8 screws securing bracket to PC.
- 3.6 Remove PC from bracket.
- 3.7 Install new PC.
- 3.8 Turn on PC.
- 3.9 Restore Argos™ data per step **18.2**.
- 3.9.1 If the backup and restore procedure is not successful, import the configuration files from a USB drive per step **9**.

4. Digitizer Board Replacement

- 4.1 Remove PC per steps **3.2** through **3.6**.
- 4.2 Remove 4 screws on both sides of the PC as shown in **Figure 3-7** (only one side shown).



Figure 3-7 Removing PC Cover

- 4.3 Remove 4 screws from the bottom of the PC.
- 4.4 Remove the PC cover.
- 4.5 Remove metal bracket securing Digitizer board in PC (2 screws).

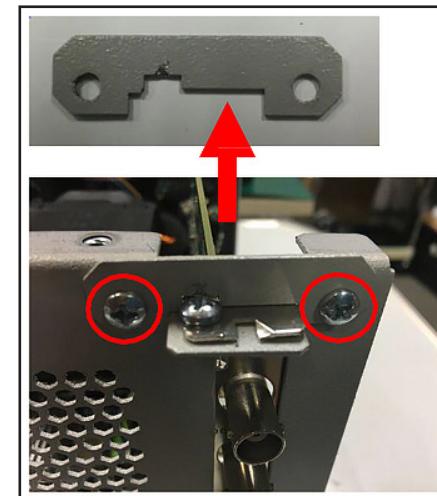


Figure 3-8 Metal Bracket Securing Digitizer Board in PC

- 4.6 Remove screw securing Digitizer board to PC.



Figure 3-9 Screw Securing Digitizer Board to PC

- 4.7 Remove the Digitizer board from the PC.
4.8 Install the new Digitizer board.

5. Chin Rest Replacement

- 5.1 Turn the dial to raise the chin rest.
- 5.2 Lift the chin rest assembly up and away from the console as shown in **Figure 3-10**.
- 5.3 Align new chin rest with screw holes.
- 5.4 Ensure the chin rest does not tilt in the console.
- 5.5 Turn the dial to attach chin rest to console.

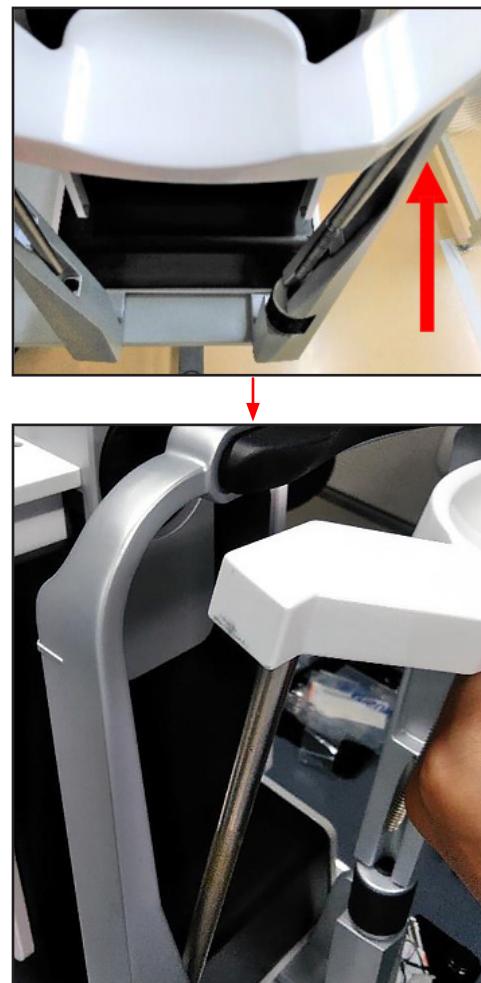


Figure 3-10 Chin Rest Removal

6. Forehead Cushion Replacement

- 6.1 Remove the rubber screw caps shown in *Figure 3-11*.

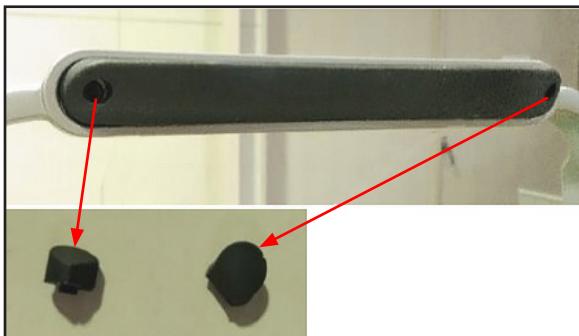


Figure 3-11 Rubber Screw Caps

- 6.2 Remove the 2 screws securing the forehead cushion to the console.
6.3 Remove the forehead cushion from the console.



Figure 3-12 Forehead Cushion Removal

- 6.4 Clean the area with a cloth moistened with alcohol.
6.5 Install the new forehead cushion.

7. Installing the Aegis Fortress External Drive

The user guide for the Aegis Fortress External drive is located at the [Alcon Technical Services SharePoint website](#).

- For installation and first time use, see page 7.
- For locking and unlocking the drive, see page 9.
- For performing a complete reset, see page 19.
- For initializing and formatting the drive after a complete reset, see page 20.

Software Procedures

8. Configure a New Calibration Tool

- 8.1 Log in to the application as Service or AdminIT.
- 8.2 Exit to Windows.
- 8.3 On the Windows** desktop, right-click on the Argos™ icon and select **Open file location**.
- 8.4 Replace the config file with the new config file associated with the new calibration tool.



Figure 3-13 Replacing the Config File for a New Calibration Tool

- 8.5 Restart the PC.

9. Importing Calibration Files

Note: See *Table 3-1* for troubleshooting errors related to this procedure.

- 9.1 Request import calibration tools from Technical Support.
- 9.2 Turn on the Argos™ PC.
- 9.3 Login to **Other Users**.
 - Username: Service
 - Password: Service
- 9.4 Press “Exit to Windows” in Clinic settings.
- 9.5 Plug in the USB flash drive that was shipped with the replacement Argos™ biometer into the Argos™ PC.
- 9.6 Navigate to the USB drive and open the import wizard software.

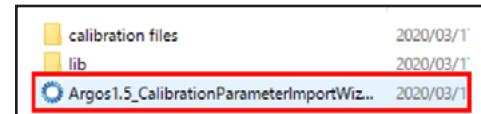


Figure 3-14 Import Wizard

- 9.7 In the **Import Wizard calibration parameter Import Wizard** window, click the **Next** button.
- 9.8 Enter the serial number on the side of the new biometer into the **New Serial Number** field and click the **Next** button.

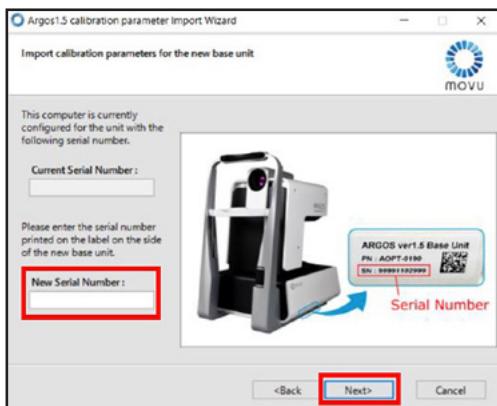


Figure 3-15 Serial Number Field

- 9.9 Click the **OK** button to import new calibration parameters. The import window will open and display the import progress.
- 9.10 After the system indicates the files were successfully imported, click the **Finish** button.
- 9.11 Restart the Argos™ PC.
- 9.12 Perform the daily calibration.

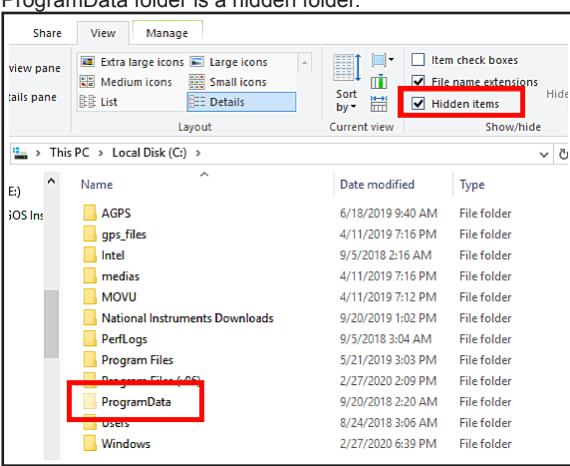
- 9.13 If daily calibration was successful, confirm both the daily calibration tool and biometer label, which is placed on the side white frame.



Figure 3-16 Daily Calibration Tool and Biometer Label Match

- 9.14 Perform the Service Test Procedure for Argos™ 1.5 Biometer System with Ergo Tech Table 917-1930-001 and complete E-Datasheet 917-1930-002.

Table 3-1 Troubleshooting Errors Encountered While Importing Calibration Files

Item Number	Message or Error	Corrective Action
1	The Argos1.5 application is using files that need to be imported. Please close the Argos1.5 application.	Close the Argos™ 1.5 application and restart step 9 .
2	Unsupported database version We found a database with a version not supported by this import tool. The calibration parameters have not been modified. This usually means that either the import tool or the Argos1.5 software is out of date. If the Argos1.5 is out of date, please update it to the latest version first. Then try the latest import tool.	Contact Tech Service to get the correct version of import tool.
3	The entered serial number does not match the configuration parameters to be imported. Please verify that the typed serial number is correct and the files for the correct base unit is located in the same directory as this import tool.	Re-enter the correct serial number.
4	Failed to import calibration parameters We encountered an error while importing the calibration parameters. The calibration parameters on this computer have been rolled back to the original. Please copy the latest log file (ImportCalibrationLog_XXXXXXXXX_XXXXXX.log) from C:\Program Files\Movu\Argos\Logs and notify the support.	Copy the latest log file and send to Technical Service.
5	Failed to import calibration parameters The original calibration parameter files are stored in C:\ProgramData\Movu\Argos\ImportCalibrationBackup_XX-XX-XXXX_XX-XX-XX Please copy these files and manually place them in C:\Program Files\Movu\Argos Please copy the latest log file (ImportCalibrationLog_20200324_100218.log) from C:\Program Files\Movu\Argos\Logs and notify support.	Unexpected error encountered while importing. A backup folder with a time-stamp has been created in the following place. C:\ProgramData\Movu\Argos\ImportCalibrationBackup_XX-XX-XXXX_XX-XX-XX Restore the original calibration parameters (*1, *2, *3) manually from the backup folder to: C:\Program Files\Movu\Argos *1 - config folder *2 - Argosmdb file (Movu\Argos\data) *3 - resources folder
6	ProgramData folder is a hidden folder. 	<ul style="list-style-type: none"> Clear the hidden folder. Copy the latest log file and send to Technical Service. C:\Program Files\Movu\Argos\Logs (ImportCalibrationLog_XXXXXXXXX_XXXXXX.log)

10. Checking the Argos™ Software Version

- 10.1 Log in to the application as Service or AdminIT.
- 10.2 Exit to Windows.
- 10.3 On the Windows desktop, right-click on the Argos™ icon and select **Open file location**.
- 10.4 Right click on Argos™ icon and select **Properties**.

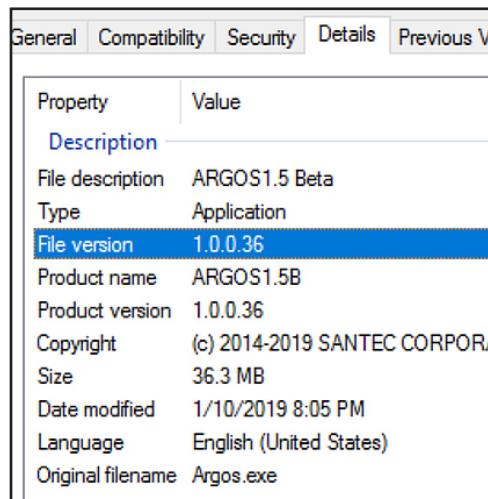


Figure 3-17 Argos™ Software Version

- 10.5 Verify the latest software version.

11. Checking the Device Manager

- 11.1 Login to **Other Users**.
 - Username: “service”
 - Password: “service”
- 11.2 In Clinic settings, click **Exit to Windows**.
- 11.3 Open the Control Panel.
- 11.4 Select **Device Manager**.

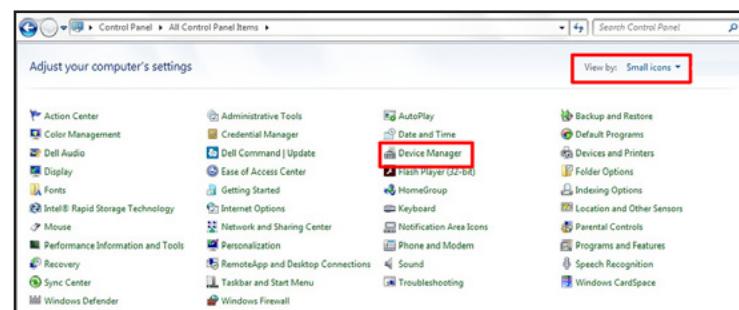


Figure 3-18 Device Manager in the Windows** Control Panel

- 11.5 Check the connection status of the 4 devices shown in **Figure 3-19**.

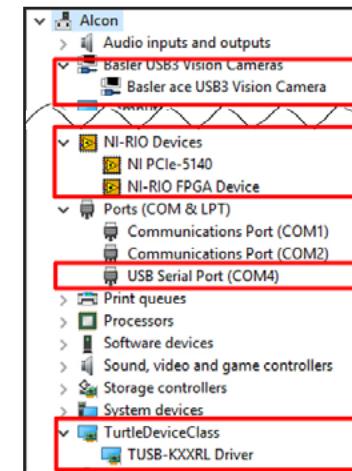


Figure 3-19 Device Status

Vision Planner Open Client Installation

Steps **12** and **13** convert a standard Argos™ PC workstation into a database server so that remote client stations can access the database. When a standalone version of the Vision Planner application is installed in a standard PC, it can access to the Argos™ database server through the network. Troubleshooting issues for Open Client installation is covered in steps **14** and **15**.

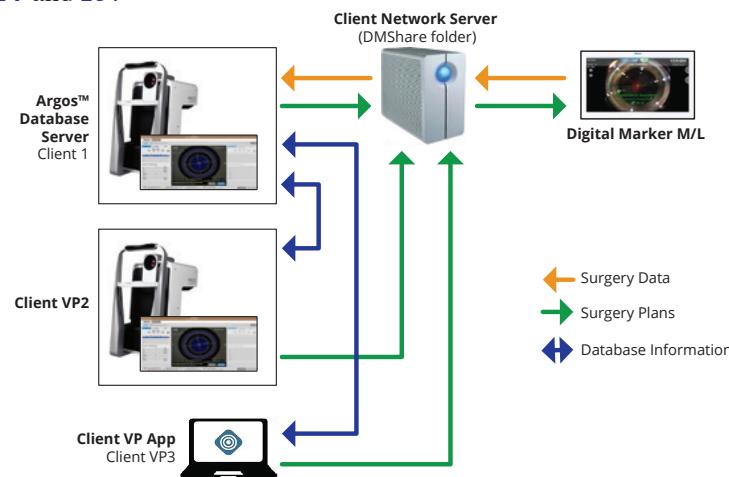


Figure 3-20 Networking Example

12. Open Client – Argos™ PC Configuration

Vision Planner Prerequisites

- Requires a valid computer name (see **6. Change the Computer Name - page 2.8**).
- Requires a Windows** password. Create password "Argos2021!" per step **19. Adding a Windows** Password to the Argos™ PC - page 3.22**.
- Request static IP address, Gateway address, and DNS server address for Argos™ server from Admin IT person.
- Share VerionData folder with “everyone” with read/write permission. The folder is located at:
C:\movu\verionplanner\veriondata
- Confirm with IT admin that port numbers 55121 and 55123 are open (no firewalls blocking).

Configure Server IP Address

- 12.1 On the Argos™ database server, log in as Service or AdminIT.
- 12.2 Exit to Windows.
- 12.3 Press OK in the **Please wait message** box and wait until the Windows** Desktop appears.
- 12.4 Open START > Control Panel > Network and Sharing Center, and then click on the link **Change Adapter Settings**.
- 12.5 Double-click network adapter that is connected.
- 12.6 Click on Properties.
- 12.7 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.
- 12.8 Select radio button: **Use the following IP address**.
- 12.9 Enter the fixed IP address, subnet mask, and default gateway provided by Admin IT.
- 12.10 Enter the given DNS server address in the corresponding field.
- 12.11 Close all windows by accepting the changes.
- 12.12 Reboot the Argos™ PC in order to update the IP address.

Configure Argos™ Server Database File Paths

- 12.13 Log in to the application as AdminIT with the password **admin**.
- 12.14 On the General tab, click the **Local Server Configure** button.
- 12.15 In the Database File Paths section, change the local paths to network paths (consisting of the computer name or fixed IP address and the shared folder name VerionData).

Example: Change “C:\MOVU\VerionPlanner\VerionData\Verion_Measurements” to “\\<enter computer name>\VerionData\Verion_Measurements.”
- 12.16 In the Surgeries, Measurements, and Exports File Paths sections, change the local paths to network paths (consisting of the computer name or fixed IP address and the shared folder name VerionData).

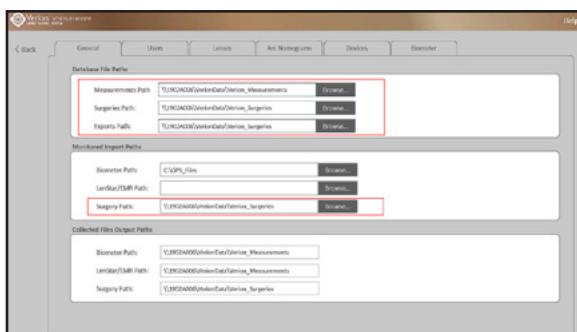


Figure 3-21 General Tab: Database Filepaths

- 12.17 Click the <Back button.
- 12.18 Click the **SAVE** icon in the top-left corner.
- 12.19 Log out from AdminIT.
- 12.20 Press OK in the restart pop-up message and wait until the patient data is re-indexed with the new paths.

NOTE: At this point the system is "indexing." The system is busy when a circling mouse cursor is noted. When it stops circling the indexing is done.

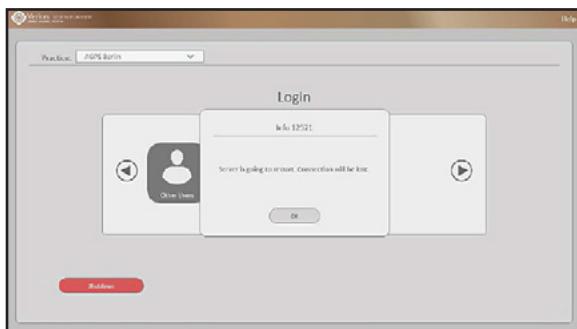


Figure 3-22 Server is Restarting Message

13. Open Client – Configuring the Customer (Client) Computer

The Vision Planner must be networked and configured by an FSE as a server prior to the Open Client Vision Planner configuration. The Open Client application can be given to a local IT admin for installation on customer workstation at the clinic

System Requirements	PC Prerequisites
<ul style="list-style-type: none"> • Screen resolution 1366x768 pixels • x86 processor – Intel Core i5 @ 2 GHz or AMD APU with 4 cores @ 2 GHz or higher • 4 GB of RAM • 1 GB storage space. • Ethernet interface to connect to the clinic network • Windows** 7 with Service Pack 1 or Windows** 8 (32 / 64-bit) 	<ul style="list-style-type: none"> • Microsoft .NET Framework 4.5.2 (or a newer version) installed. • Microsoft Visual C++ 2012 Redistributable (x86 or x64) installed • Administrator rights for installing and using the VERION™ software

Note: Starting with Windows** 8, an adequate version of .NET Framework is included in the OS, so only Microsoft Visual C++ Redistributable is necessary.

- 13.1 Copy the file VerionOpenPlannerClient.zip to an empty, formatted USB drive.
 - 13.2 Connect the USB drive containing the application installer to the destination computer.
 - 13.3 Unzip the file on the USB drive.
 - 13.4 Double-click on the VerionOpenPlannerClient.msi file to start the installer.
- If you receive "unhandled exception error," the PC is not compatible with OpenClient. Verify the prerequisites are properly set.
- The Vision Planner application is now installed and must be configured.

Verify Connectivity to Argos™ Server

Before opening the OpenClient application, ensure connectivity to the Argos™ server.

- 13.5 From the workstation, use File Explorer to navigate to Network.
- 13.6 Expand the folder and find the Argos™ computer name, the veriondata folder, and the verion_measurements folder.
- 13.7 Verify that the verion_measurements folder has read/write privileges.
 - 13.7.1 Double-click on the verion_measurements folder.
 - 13.7.2 At the prompt, enter *Alcon* for the username and "Argos2021!" for password, and select the checkbox for **Remember my login**.

NOTE: To verify read/write access, create a txt file and save to the verion_measurements folder. If saving the file to the folder is not allowed, access has not been granted. Call Technical Support.

Open Client Configuration on Customer PC (workstation or laptop)

- 13.8 On the client PC, double-click the Vision Planner icon on the desktop.
- 13.9 Enter the AdminIT password (admin) and click Login.

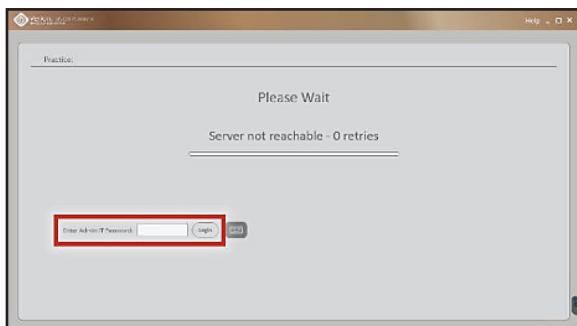


Figure 3-23 Vision Planner Login Screen

- 13.10 Press **Run Config Center**.

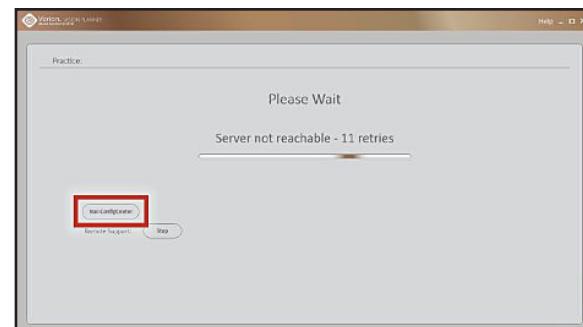


Figure 3-24 Run Config Center Button

- 13.11 Expand the Service branch and select the **ProductionServerIpAddr** key.

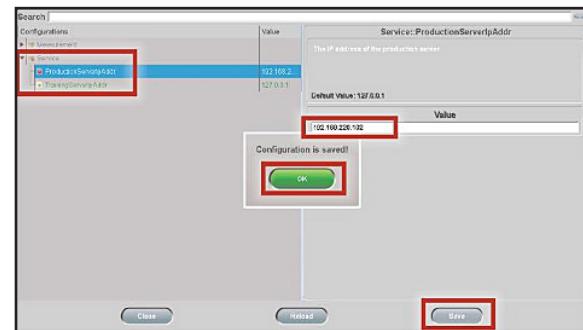


Figure 3-25 Setting the Server Vision Planner IP Address (example)

- 13.12 Change the IP address to the static/fixed IP address of the Argos™ database server.
 Static IP address allocation is mandatory. The IP address shown in **Figure 3-25** is an example only.
- 13.13 Click **Save**.
- 13.14 Click **OK** on the **Configuration is saved** message box.
- 13.15 Click **Close** to exit the Configurations screen.
- 13.16 Click **OK** in the **Restart** message dialog.

The application will close, restart, and attempt to connect to the server.

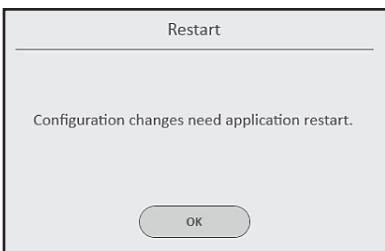


Figure 3-26 Restart Message Dialog

The Open Client Vision Planner application is configured and ready to use.

NOTES:

- **To access the Vision Planner database outside the clinic network, a VPN is required to connect with the server Vision Planner in the clinic network. Contact the clinic Admin IT for VPN configuration on a PC or laptop.**
- **Surgical plans made before the server conversion cannot be planned remotely. New plans created after server conversion can be planned remotely.**

14. Open Client Troubleshooting – Changing Firewall Settings

14.1 Open Control Panel > Windows Firewall.

If the network connection on the server Vision Planner is defined as a public network, change it to private network (home or work) connection.

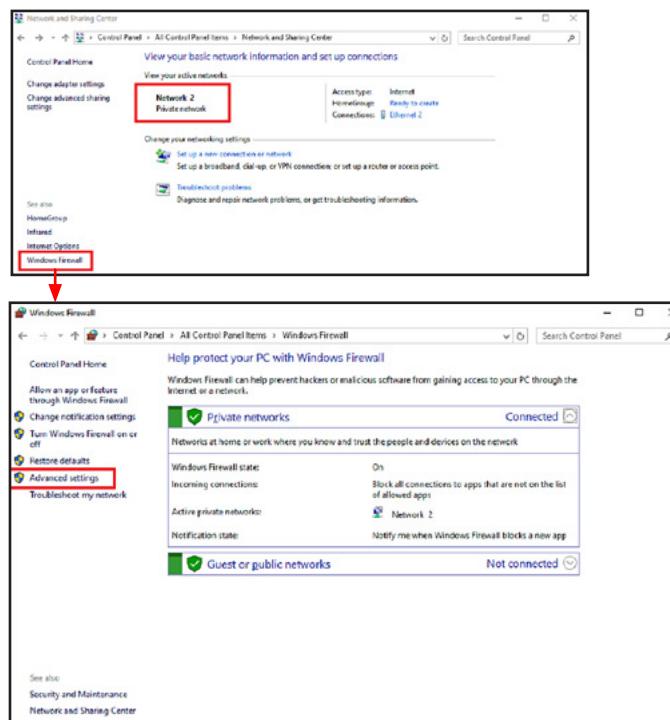


Figure 3-27 Windows Control Panel > Windows** Firewall**

14.2 Click Advanced Settings.

- 14.3 Click on **Inbound Rules** in the top, left corner.
 - 14.4 Ensure that the **TRICS Ultraviolet3** processes are allowed.

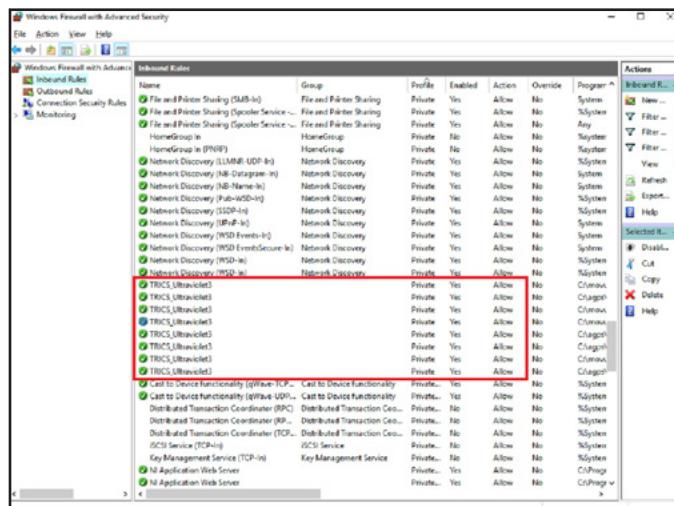


Figure 3-28 Advanced Settings > Inbound Rules Screen

- 14.5 Click **TRICS_Ultraviolet3** and select **Allow the connection** on the General tab.

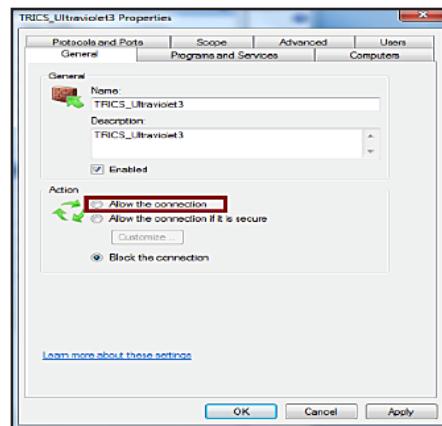


Figure 3-29 TRICS Ultraviolet3 Properties > General Tab

- 14.6 Click **Apply > OK**.

15. Open Client Troubleshooting – Network Location Configuration

Complete the following steps if the Network Location changes to Public Network after restart.

- 15.1 Press the Windows** key + R to open the Run command box.
 - 15.2 Type **gpedit.msc** and press **Enter**.
 - 15.3 Expand Window Settings and then Security Settings.
 - 15.4 Click **Network List Manager Policies** in the right pane.
 - 15.5 Double-click on the name of the current network connection;
e.g., **Network 2** in the right panel.

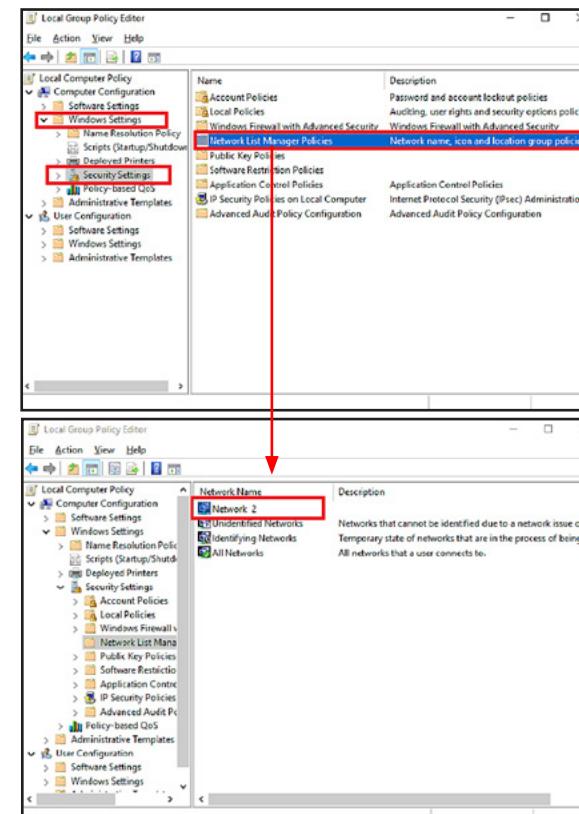


Figure 3-30 Unidentified Networks

- 15.6 Click the **Network Location** tab at the top.
- 15.7 Under the **Location type**, choose **Private**.

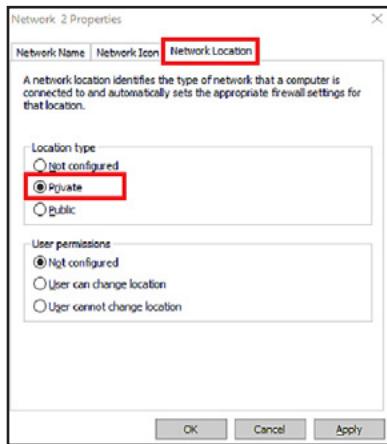


Figure 3-31 Network Location Type

- 15.8 Click **Apply** and then **OK**.

Remote Control Access

This feature allows a Vision Planner device to be remotely controlled via Online ScreenAssist (OSA). With the latest release of the ARGOS1.5 Installer Package 1.0.1.1, installer automatically installs the OSA software if the device is connected to the network at install.

Remote access requires the computer to be connected to the internet.

16. Disabling Remote Control Access

CAUTION

After the installation and configuration process of Online ScreenAssist on the new supported computer, the remote control access is enabled to the new supported computer and the access will remain enabled until it is disabled from Vision Planner via the following process. Since remote support access must be disabled by default, this process must be performed after installing the latest software package.

- 16.1 On the new supported computer, start Vision Planner and login as the service user.

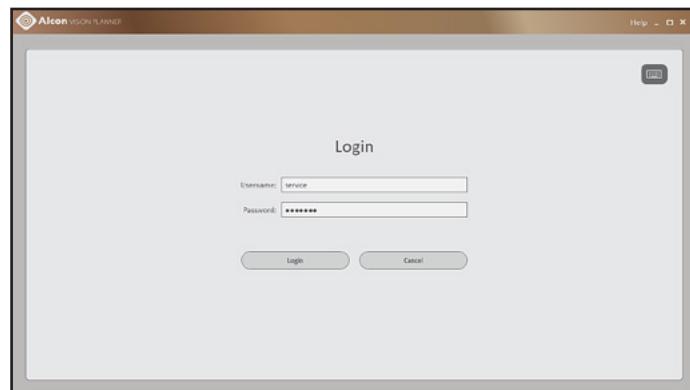


Figure 3-32 Vision Planner Service Login

NOTE: The Remote Support button is set to Stop. This means that remote control access is enabled.

- 16.2 To disable remote control access and end any current remote control sessions, click the **Remote support: Stop** button.

This action will cause the Remote Support button to change to Start which indicates that remote control access to this computer is disabled and will only be enabled when the Start button is clicked.

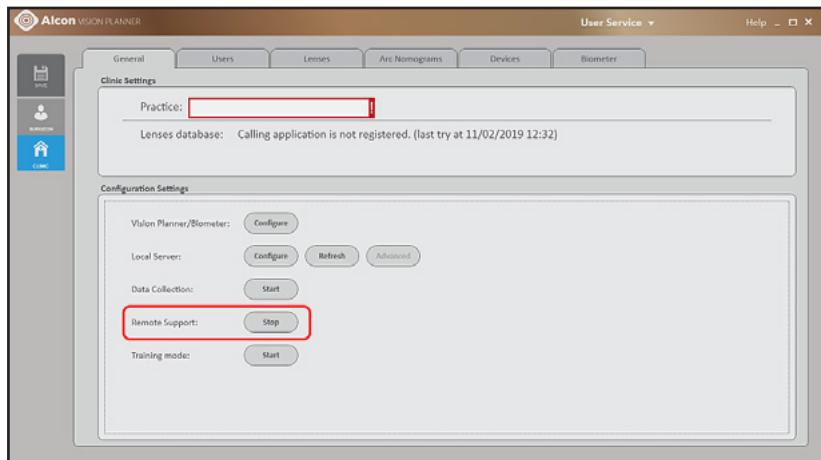


Figure 3-33 Remote Support: Stop Button

NOTE: If the remote control access to the new supported computer is disabled during a remote control session, that session will be closed, but will not be immediately apparent on the remote supporting computer as it is not immediately notified that the session has ended. Only after some time after the session is closed will a message be displayed on the remote supporting computer as shown in *Figure 3-34*.

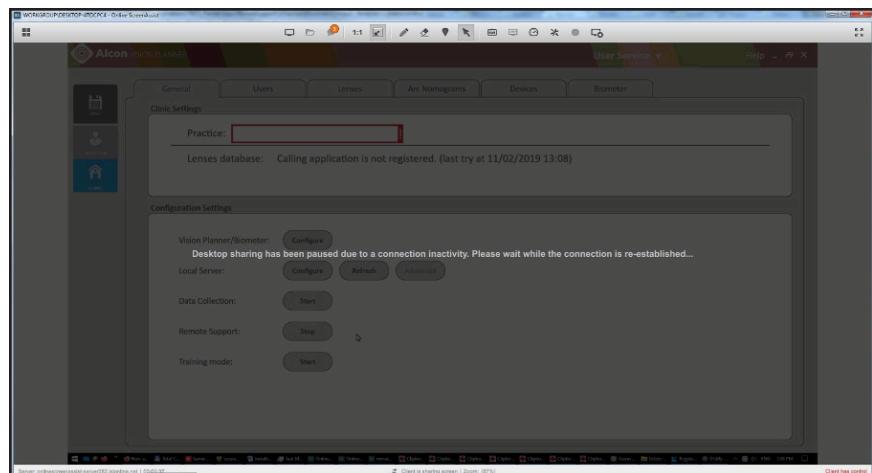


Figure 3-34 Message on Supporting Computer When Remote Access is Disabled

17. Archiving Image Data

When the OCT image data (.raw files) captured during examinations fill up the disk space, they can be archived to an external storage to free up main disk drive space.

After saving 230 GB of image data, the system will prompt the user to perform archiving. This process only archives .raw image data; therefore, .gps files containing patient results are not removed from the database. Surgical plans can still be created, exported, etc.

The Argos™ Vision Planner application contains a dedicated tool to manage image archiving.

17.1 Creating a New Archive Location

Before archiving image data, an archive location must be created that has sufficient free space (minimum: 500 MB, recommended: 500 GB). It is recommended to use a dedicated external hard disk drive for this purpose or setting up a network folder on a server.

- 17.1.1 Connect an external hard disk drive to the Argos™ computer or prepare a network folder. The Argos™ computer must have write and read permission to this folder.
- 17.1.2 Log in as Admin or Service.
- 17.1.3 Select the Biometer tab.
- 17.1.4 Click **Manage Archive Locations**.

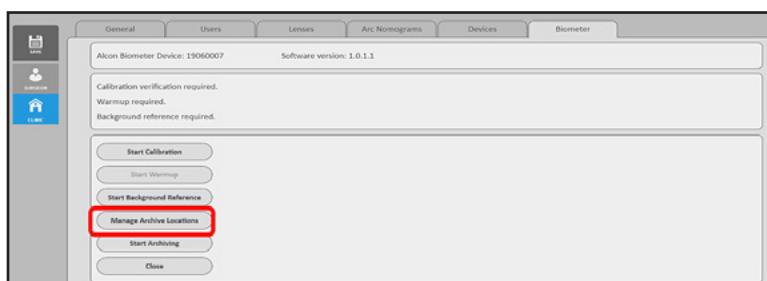


Figure 3-35 Service Biometer Tab

- 17.1.5 Click the **New** button. The Create Archive window appears.

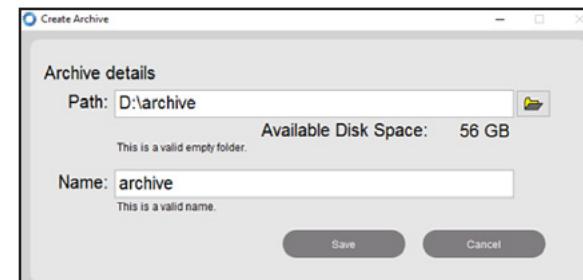


Figure 3-36 Create Archive Window

- 17.1.6 Click the folder icon and specify an empty folder. The archived image data will be transferred to this folder. This folder cannot be a root directory of a local drive.
- 17.1.7 Enter a specific name for this archive location. The name will distinguish each archive location if you create more than one.
- 17.1.8 Click Save. A message about successful creation of a new archive location will be displayed.
- 17.1.9 Click OK to close the message.
- 17.1.10 Click Close to close the Archive Setting window.

17.2 Archiving Image Data

An archive location must be configured before archiving image data. If this has not been done, go to step **17.1** to set up an archive location.

- 17.2.1 Log in as Admin or Service.
- 17.2.2 Select the Biometer tab.
- 17.2.3 Click the **Start Archiving** button. The dialog window shown in **Figure 3-37** is displayed.

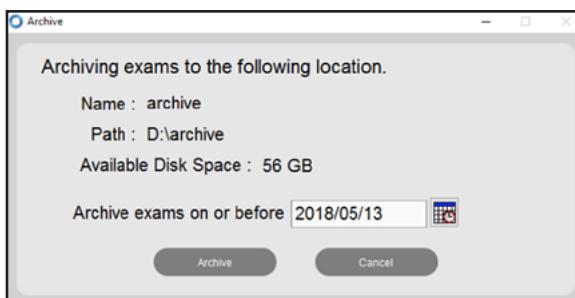


Figure 3-37 Archiving Dialog Window

- 17.2.4 Enter a date. Examinations taken on or before this date will be archived to the active archive location.
- 17.2.5 Click **Archive** button. A progress bar is displayed indicating the transferring of files. When all files are compressed and moved to the archive location, a confirmation message is displayed.

NOTES:

- Archiving may take a long time because it compresses and copies a large volume of images.
- The archive operation can be manually stopped by clicking the **Stop** button on the progress window. The archiving process may be resumed later.
- In case of an error, more detailed technical information is recorded in a log file.

17.3 Retrieving Archived Image Data

When the image data for an examination is archived, the OCT and camera images are not immediately available in the Analyze screen.

You can retrieve the images from the archive location and perform all operations that require raw image data, as long as the archive drive is connected.

- 17.3.1 From the Analyze screen, click **Show archived images** displayed in the OCT image area. A progress bar is displayed as the Argos™ retrieves image data from the archive location. When it finishes retrieval, OCT images are automatically loaded and displayed in the Analyze screen as shown in [Figure 3-39](#).



Figure 3-38 Show Archived Images

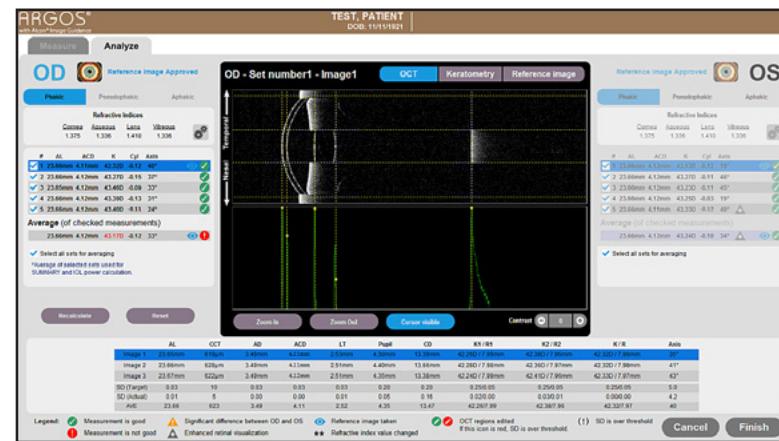


Figure 3-39 Archived Image Displayed in the Analyze Screen

17.4 Configuring Archive Locations

- 17.4.1 Log in as Admin or Service.
- 17.4.2 Select the Biometer tab.
- 17.4.3 Click **Manage Archive Locations**.

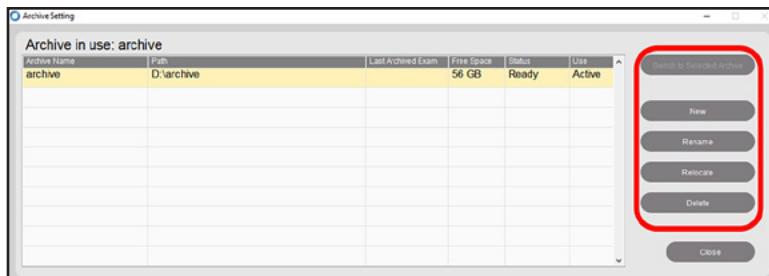


Figure 3-40 Managing Archive Locations

- 17.4.4 Click a button on the left of the screen to perform one of the following actions:
 - Create a new archive location
 - Switch active archive location
 - Rename an archive location
 - Relocate an archive location
 - Delete an archive location

Users can refer to the user manual for more details on these actions.

18. Backup and Restore of Argos™ Data

It may be useful to create a backup of the Argos™ data to transfer it to a new PC, or to have a copy of the data on another location.

18.1 Back Up of Argos™ Data

NOTE: This procedure saves a complete backup of both Argos™ and Verion™ data and doctor profiles.

CAUTION

- Do not use an external drive that contains patient data to back up the Argos™ data.
- Never connect an external drive with patient data to a different Argos™ system.

- 18.1.1 Log in as service.
- 18.1.2 Select **Exit to Windows**.
- 18.1.3 Connect an external drive to a free USB 3.0 port.
- 18.1.4 Open File Explorer.
- 18.1.5 Navigate to the following location:
C:\Program Files\Movu\Argos
- 18.1.6 Copy the **config** and **data** folders to the external drive.

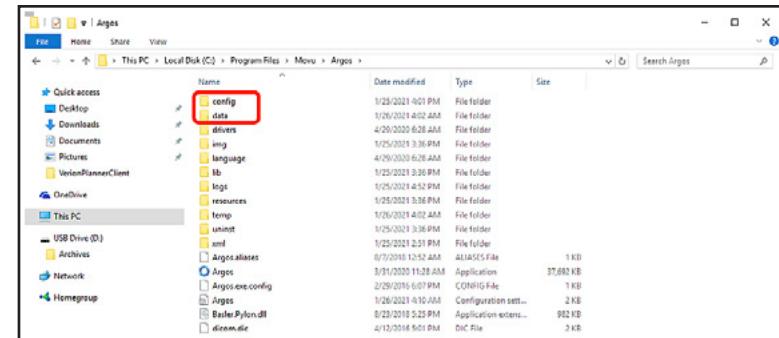


Figure 3-41 Copying the Config and Data Folders

18.1.7 Navigate to the following location:

C:\Movu\VerionPlanner.

18.1.8 Copy the **VerionData** folder to the external drive.

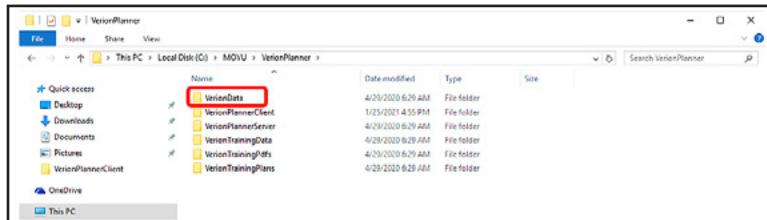


Figure 3-42 Copying the VerionData Folder

18.2 Restoring the Data Back Up

18.2.1 Log in as service.

18.2.2 Select **Exit to Windows**.

18.2.3 Plug in the external drive containing the backup data into a free USB 3.0 port on the new Argos™ PC.

18.2.4 Open File Explorer.

18.2.5 Open C:\Movu\VerionPlanner\VerionPlannerServer.

18.2.6 Run StopProcs.bat.

18.2.7 Navigate to the following location:

C:\Program Files\Movu\Argos.

18.2.8 Replace the existing **config** and **data** folders with the folders on the external drive.

18.2.9 Navigate to the following location:

C:\Movu\VerionPlanner

18.2.10 Replace the existing **VerionData** folder with the folder on the external drive.

18.2.11 Launch the Vision Planner software. Indexation will be running in the background, and a “server is busy” message may appear until indexation is complete. It is recommended to wait for the indexation to be finished before using the system.

18.2.12 Log in as service.

18.2.13 Select the Users tab.

18.2.14 Select Import Verion Surgeon.

18.2.15 Import existing surgeon names into the application.

19. Adding a Windows** Password to the Argos™ PC

NOTE: After creating the password, the Number Lock must be turned off. The keyboard for the Argos™ system has numbers over letters on the keys, so if number lock is left on, there is no way to type the password.

19.1 Exit to Windows.

19.2 In the search bar type **sign** and then choose sign in options.

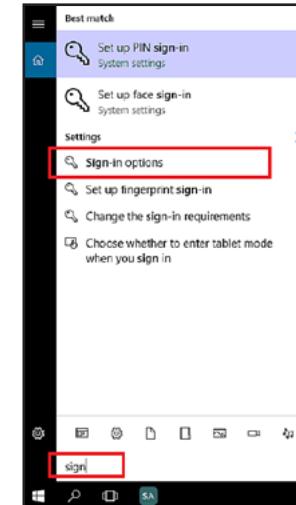


Figure 3-43 Windows Password – Sign In**

19.3 In the Password section, click **Add** to add a new password.

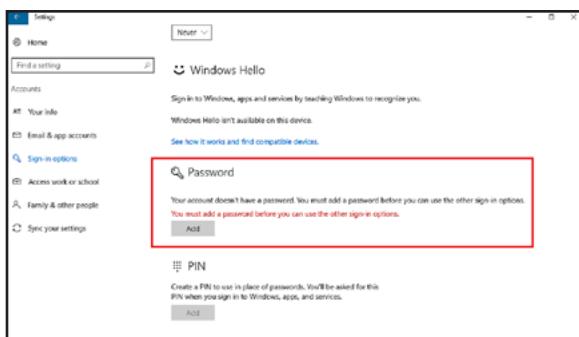


Figure 3-44 Windows Password – Add Password**

- 19.4 In the Create a password window, enter **Argos2021!** as the password and **argos** as the password hint.

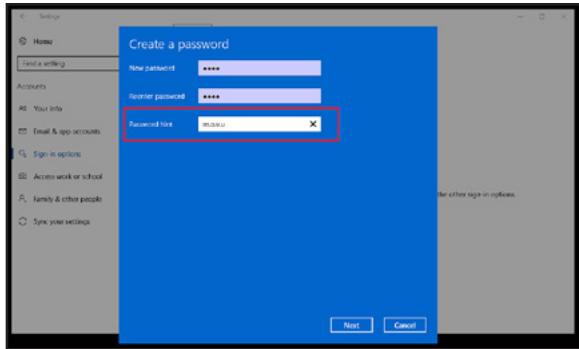


Figure 3-45 Windows Password – Enter Password Name**

- 19.5 Log off and then log back in as the Alcon user.
 19.6 Near the Windows** button, select user icon and sign out. The user must sign back in with password "**Argos2021!**".

NOTE: Watch for the NumLock turning on after password is created. Turn off by pressing the FN and NumLock keys. A green light will appear when NumLock is on.

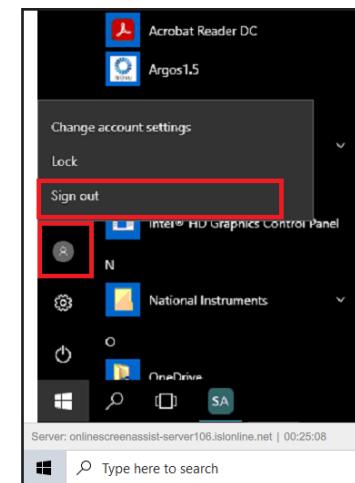


Figure 3-46 Windows Password – Signing Out**

19.7 Turning NumLock off in BIOS

- 19.7.1 Shutdown the computer.
 19.7.2 Turn the computer back on and start tapping the F2 key. If Windows** starts up, try shutting down again.

- 19.7.3 In the BIOS, use the arrow keys to go to the BOOT Tab.

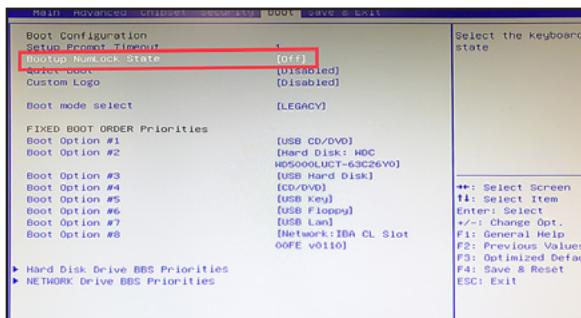


Figure 3-47 Windows* Password – Turn Off NumLock

- 19.7.4 Turn NumLock to **Off**.

- 19.7.5 Select F4 **Select**. The computer will restart.

20. Lens Update

- 20.1 In the General tab, press the Refresh button to trigger synchronization with the AnalzyOR.
- 20.2 Confirm the Lenses database connection timestamp. This is displayed in the most recent connection. If the timestamp is not updated, perform a VEHRDE synchronization per step [7. Register the Device - page 2.9](#).

21. DHS VEHRDE Configuration for Installed Argos™ Systems

Before configuring the system, it must be unregistered from any ORA practice names.

- 21.1 Go to the Windows** desktop and open **VEHRDE Registration**. The registration utility login screen is displayed as shown in [Figure 2-23](#).
- 21.2 Enter your ORA username and password credentials.
- 21.3 Click Unregister and then select **YES** at the prompt to unregister.
- 21.4 Exit the registration utility by clicking the X in the upper right corner.
- 21.5 Perform "[Register the Argos™ System to DHS Using the VEHRDE Tool](#)" on page 2.13.

22. Transferring a Surgeon Profile from a Verion™ System to an Argos™ System

Both Verion™ and Argos™ systems use Vision Planner application software. The application software is slightly different between the two systems, but they both use the .gps patient file format. For each patient, the system generates a .gps file that contains the patient information, the measurement information, the surgical plan, the surgery data, and the *surgeon profile*. This procedure steps through the process of transferring a surgeon profile from a Verion™ system to an Argos™ system.

NOTES:

- This file transfer option must be discussed with your clinical team and should be performed only if the CAS is requesting it.
- This procedure should be used only if the Argos™ system has not been connected to any Verion™ data (e.g. DMShare link).
- Do not transfer more than one test patient per surgeon in order to keep the Verion™ and Argos™ databases separated.

- 22.1 From the Verion™ Vision Planner, log in with the specific surgeon profile.
- 22.2 Create a test patient with a surgical plan.
- 22.3 Export this plan to a USB stick (mark the patient with “other pathology” to avoid automatic data inclusion into the A-constant optimization).
- 22.4 On the Argos™ system, log in as service or adminIT.
- 22.5 Exit to Windows.
- 22.6 Copy the exported .gps file from the USB stick to the folder C:\Movu\VisionPlanner\VerionData\Verion_Surgery.
- 22.7 Launch the Vision Planner application and log in as adminIT.
- 22.8 In the User tab, import the Verion™ surgeon that appears in the list. The surgeon profile will be imported with the test patient.

Demo Systems

23. Initial Configuration and Packaging of a Demo System

- 23.1 Unpack the PC, monitor, keyboard, mouse, and Digitizer board. This may be a new or used system in normal packaging.
 - 23.2 Install Digitizer board inside the PC per "**Digitizer Board Replacement**" on page 3.5. Note: New systems may have the Digitizer board installed.
 - 23.3 Connect the monitor, keyboard, and mouse to the PC.
 - 23.4 Connect the system to the Internet.
 - 23.5 Set the computer name to "A+serial number" per "**Change the Computer Name**" on page 2.8.
 - 23.6 Register the device in AnalyzOR (VEHRDE) (Verion™ generic practice) per "**Register the Device**" on page 2.9.
 - 23.7 Use the DataCleaner 1.0 software tool to remove sensitive patient information per "**Sensitive Data Cleaning on Argos™ Biometer Demo Systems**" on page 3.32.
 - 23.8 Install OSA software (silent installer) per "**Vision Planner Open Client Installation**" on page 3.12.
 - 23.9 Unpack the printer, connect to PC, and install the printer drivers per "**Epson WF-100 Printer Setup**" on page 3.31.
 - 23.10 Electro Box Set Up

Install Power Supplies into Electro box (Argos™ and PC). The power supply cable for the Argos™ biometer can be fully extended out of the electrical box. The PC power cable should only extend 21 inches, with the remainder to remain tied up in the electrical box.
- 23.10.1 Unpack the Electro box.



Figure 3-48 Unpacked Electro Box

- 23.10.2 Remove screws securing cover and remove cover.

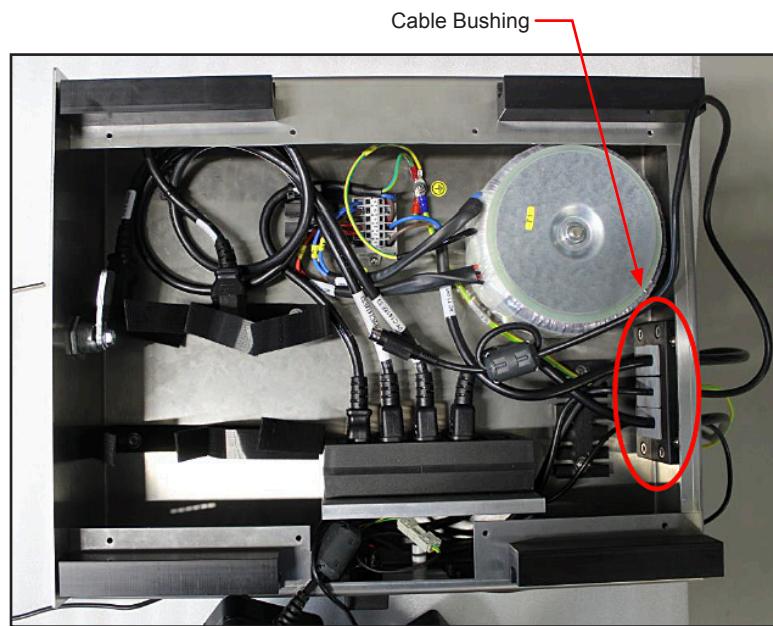


Figure 3-49 Electro Box with Cover Removed

- 23.10.3 Loosen and adjust the cable bushing as necessary to feed the power supply cables into the Electro box. **Figure 3-50** shows how the cable bushing is constructed.

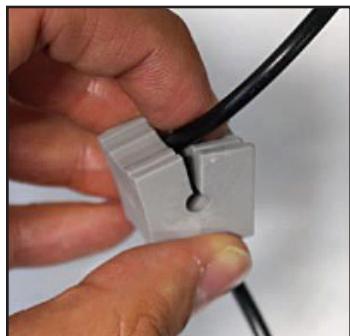
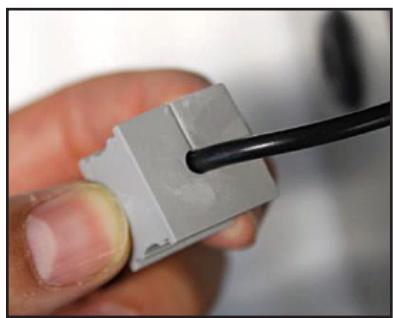
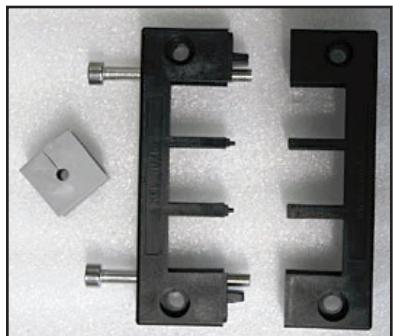


Figure 3-50 Cable Bushing Assembly

23.10.4 Secure cable bushing when complete.

23.10.5 Connect the power cable plugs into the corresponding power supplies.

Notes:

- The power supply cable for the Argos™ can be fully extended out of the electrical box.
- The PC power cable should only extend 21 inches out of the box with the remainder secured in the electrical box.

23.10.6 Secure the power supplies to the Electro box housing with Velcro** tape.

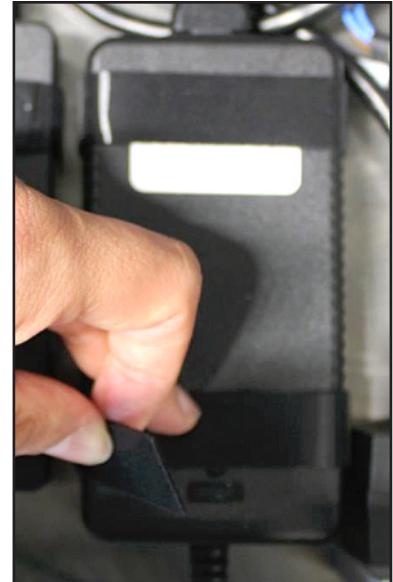


Figure 3-51 Power Supply Installation

23.10.7 Ensure the Electro box set up appears as shown in [Figure 3-52](#).

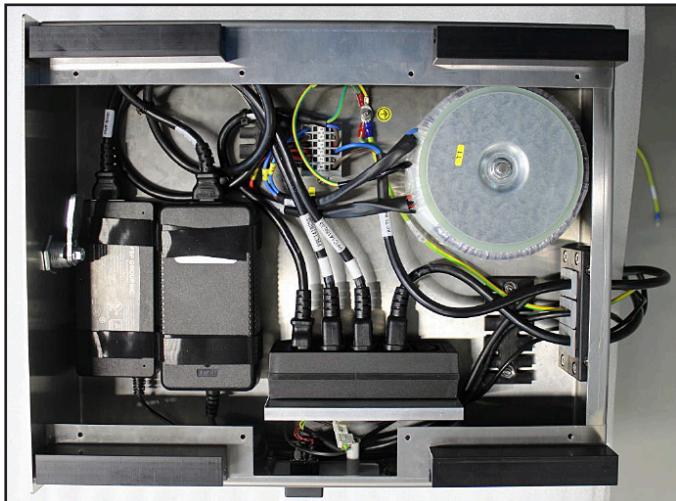
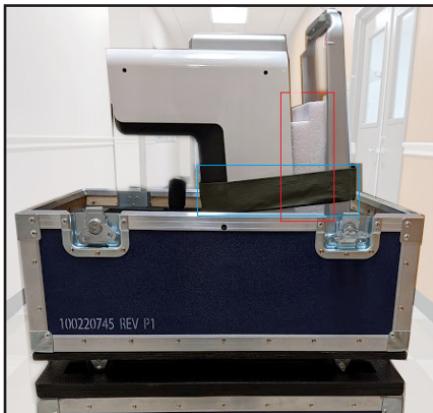


Figure 3-52 Electro Box with Power Supplies Installed

- 23.10.8 Replace the Electro box cover.
- 23.10.9 Repackage the Electro box.
- 23.11 Package the Argos, PC and accessories in the custom demo cases per procedure 916-1930-001 – Biometer Demo Case Assembly. The basic demo packing configuration is shown in **Figure 3-53**.

Notes for packing system in demo cases:

- Before re-packing the biometer into the demo cases, ensure all PC cables are attached to the PC and bundled as shown in **Figure 3-54**.
- Ensure the following items are packed in the demo cases:
 - » 2.5 mm hex key
 - » 5 mm hex key
 - » 1x calibration tool
 - » 1x demo eye
 - » biometer user manual
- Replace the biometer grounding wire screw (swap philips head screw for hex head screw) with one from the top of the Electro box to ensure the 2.5 mm hex key can be used for the grounding wire at future installations.
- When packing the biometer table into the wooden cases, leave it as assembled as possible. The attachment for the PC box and the key for the Electro box should also be placed into the table box.
- The breath shield is shipped separately.



Biometer Case



PC accessory case with the following components: keyboard, printer, PC (with 4 BNC cables, 2 USB cables, and PC power cable/block) and Argos™ 1.5 Biometer power cable/block.



Monitor accessory demo case with the following components: calibration tool, monitor, M3 hex driver, mouse, monitor stand flat bottom, monitor stand post, monitor display cable, and monitor power cable.

Figure 3-53 Demo System Packing Configuration



Figure 3-54 Bundled PC Cables

24. Demo System Set Up

24.1 Demo Table Set Up

24.1.1 Remove table components from packaging.

24.1.2 Set base on a flat working surface and lock casters.

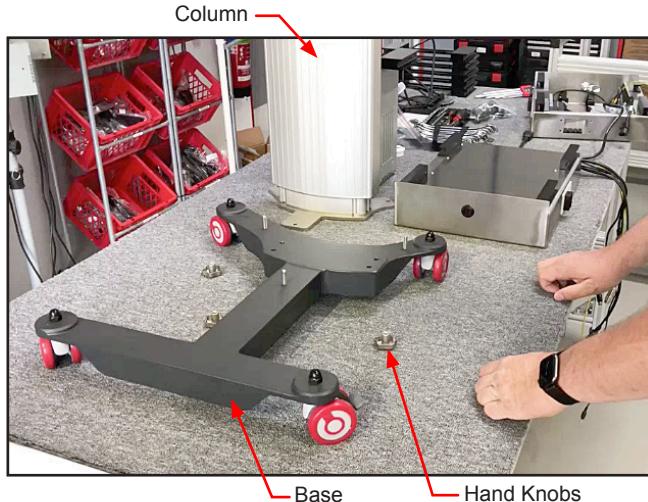


Figure 3-55 Demo Table Base and Column

24.1.3 Set table column onto 3 captive bolts in base.



Figure 3-56 Table Column Set on Base

- 24.1.4 Secure column to base with 3 hand knobs.
- 24.1.5 Install table top by sliding rails into place on column guides.

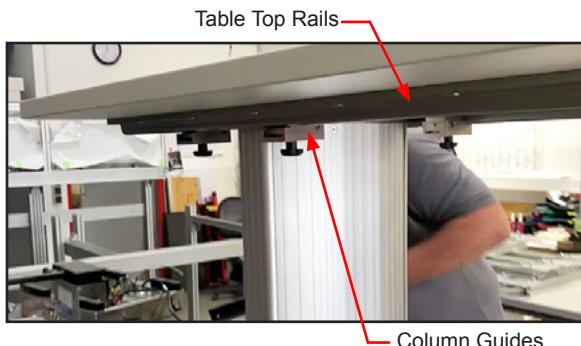


Figure 3-57 Table Top Mounted on Column

- 24.1.6 Secure table top by tightening hand knobs on column guides.
- 24.1.7 Slide Electro box onto rails located on the underside of table top leaving enough room to route cables through table top.
- 24.1.8 Feed yellow ground cable and monitor cable through table top (see **Figure 3-58**).
- 24.1.9 Slide Electro box fully into place.
- 24.1.10 Secure Electro box into place using the provided key wrench.



Figure 3-58 Electro Box Installed and Secured with Key Wrench

- 24.1.11 Connect power supply cable from Electro box to the power connector on table column.

- 24.1.12 Connect the control cable connector from Electro box to the socket on table column and screw it tight.



Figure 3-59 Electro Box - Table Connections

- 24.1.13 Feed monitor power cable from Electro box through table top (see **Figure 3-60**).
 - 24.1.14 Remove PC, biometer, monitor, etc., from demo cases as necessary to perform the following steps.
- 24.2 Install PC**
- 24.2.1 Attach mounting plate to PC.
 - 24.2.2 Slide PC onto table top rails as shown in **Figure 3-60**.
 - 24.2.3 Connect PC power cable to PC.
 - 24.2.4 Tighten hand knobs to secure PC to table top.



Figure 3-60 PC Installed

24.3 Install Biometer

- 24.3.1 Place biometer on the table in the slots provided for the biometer feet.
- 24.3.2 Remove the restraining strap and packaging from the biometer head.
- 24.3.3 Remove the biometer front panel by using a 2.5 mm wrench to remove the screws securing the front panel to the chassis.
- 24.3.4 Lift the front of the biometer just enough to feed the cables through the biometer opening as shown in **Figure 2-17**.
- 24.3.5 Connect the cables to the biometer as shown in **Figure 2-18**. For reference, a complete computer-to-biometer connection diagram is provided in **Figure 2-15**.
- 24.3.6 Arrange cables as necessary so that the front panel can be installed.
- 24.3.7 Replace the biometer rear panel.
- 24.3.8 Clean up cable routing using hook and loop straps supplied in demo cases to attach cables to column.

24.4 Install Monitor

- 24.4.1 Snap base on monitor. There is a lever to release the base for disassembly.
- 24.4.2 Connect power cable to monitor.
- 24.4.3 Connect video cable to monitor.
- 24.5 Connect keyboard to PC.
- 24.6 Connect mouse to PC.
- 24.7 Connect the table to facility power.
- 24.8 Connect the system to a network using an Ethernet** cable.
- 24.9 Press the computer on button to start the system.

25. Epson WF-100 Printer Setup

- 25.1 Turn on the PC.
- 25.2 After the Vision Planner software boots up, log into service mode.
- 25.3 Click **Exit to Windows**.
- 25.4 Plug in the Epson WF-100 Mobile Printer using the included USB cable
- 25.5 Turn the printer on.
- 25.6 On the printer, click **OK** to enter the Menu, and then cycle to Option 9: **WF-100 Basic Driver**.



Figure 3-61 Epson WF-100 Menu

- 25.7 Click **OK** to proceed.
 - 25.8 Click **OK** to start.
 - 25.9 Remove the USB cable from the printer and then plug back in.
 - 25.10 Initiate the **SETUP** application that pops up on the Windows** PC.
If no pop-up appears, go to **My Computer** and click into EPSON devices and drives to find the **SETUP** application.
 - 25.11 Follow the instructions on the screen to complete the setup.
 - 25.12 Upon successful installation of drivers, restart the computer.
- This concludes the setup. Select EPSON WF-100 Series as the printer when printing from a PDF viewer.

Sensitive Data Cleaning on Argos™ Biometer Demo Systems

Steps **26** (Device Preparation and DataBackUpper) and **28** (Data Cleaning) provide instructions for using the DataCleaner 1.0 software tool for removing sensitive patient information from Argos™ Biometer demo systems. The DataCleaner 1.0 software tool removes predefined data types from predefined locations without affecting the functionality of the Argos™ Biometer System.

Background Information

DataCleaner 1.0 relies on the service/commercial guarantee that are pre-configured in a standard way, and this standard configuration is immutable during the entire usage of the device. The guarantees in terms of removal of data are limited to adherence of the above guarantees.

In addition to the standard default configuration, only the following predefined locations will be used by every user:

- Save Path for PDF: C:\ArgosPdfPrint
- Local/Network Path: C:\ArgosGpsExport

Export to any other location, including USB and network, is outside the scope of DataCleaner 1.0.

DataCleaner 1.0 relies on the Microsoft Secure Delete 2.02 application for performing the actual individual files/folders removals. The guarantees in terms of possible recovery of data are hence limited to those offered by the above-mentioned tool.

26. Data Cleaning - Device Preparation and DataBackUpper

CAUTIONS

- **Do not execute the DataBackUpper.exe on a system that has been already been used as a demo. Doing so will result in a backup of the patient sensitive data.**
- **Do not install DataCleaner on returned Argos™ systems that have been converted into demo systems. Executing file “DataBackUpper.exe” on Argos™ systems with existing patient data may damage the operating system and lead to a database migration error. Only install the DataCleaner on Argos™ systems that are free of patient data.**

NOTE: For demo systems that require software updates, lens updates, or service such as optical head replacement, perform step **28 to remove patient data and create a new DataBackUpper.log file.**

The device preparation step (DataBackUpper.exe) should be run once for each device.

- 26.1 Start the Argos™ system.
- 26.2 Login as Service.
- 26.3 Execute the “Exit to Windows” command.
- 26.4 Create three folders in root directory of C:\ as follows:
 - C:\ArgosPdfPrint
 - C:\ArgosGpsExport
 - C:\DataCleaner
- 26.5 Copy only the file contents of data folder DataCleaner 1.0 into the Argos™ device path C:\DataCleaner.

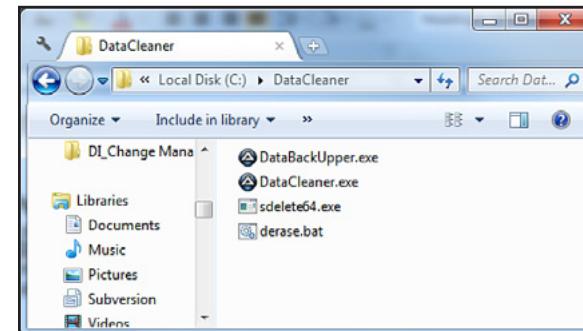


Figure 3-62 Files Copied to C:\DataCleaner

- 26.6 Execute the DataBackUpper.exe application.
- 26.7 When prompted, enter the password “mu13fse” in the input field of the DataBackUpper window and click OK.
A message box will be displayed when the backup process has finished successfully or with errors.

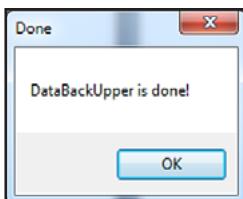


Figure 3-63 Message Indicating the Backup Process was Successful

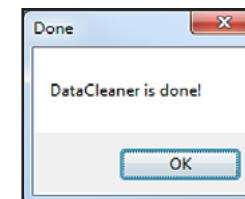


Figure 3-65 Message Indicating the Data Cleaning Process was Successful

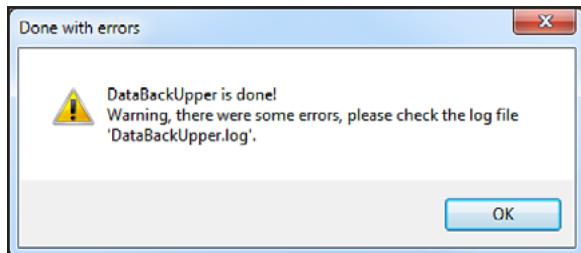


Figure 3-64 Message Indicating the Backup Process was Completed with Errors

- 26.8 If the data backup process finished with errors, check the C:\DataCleaner\DataBackUpper.log file for details.

27. Data Cleaning Procedure

The cleaning procedure will be executed once or multiple times, as device moves from customer to customer.

- 27.1 Login to the Argos™ Vision Planner with Service or AdminIT user credentials.
- 27.2 Execute the “Exit to Windows” command
- 27.3 Open Windows** Explorer and navigate to C:\DataCleaner.
- 27.4 Start the DataCleaner.exe application.
- 27.5 When prompted, enter the password “mu13sale” in the input field and click OK.

A message box will be displayed when the process has finished successfully or with errors.

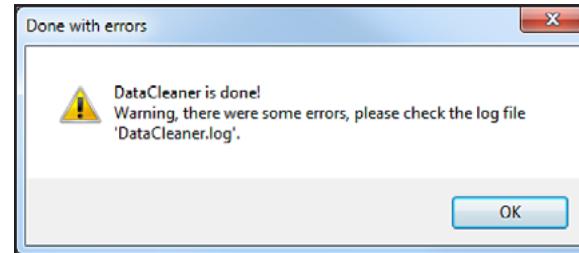


Figure 3-66 Message Indicating the Data Cleaning Process was Completed with Errors

- 27.6 If the data cleaning process has finished with errors, check the C:\DataCleaner\DataCleaner.log file for details.

Verification

An Alcon representative within presence of a customer representative will handle the verification procedure.

- 27.7 Restart the Argos™ system.
- 27.8 Verify that the Login to Argos™ Vision Planner has no customer Users.
- 27.9 Login as Admin.
- 27.10 Go to the Users tab and execute Import Verion™ Surgeon.
- 27.11 Verify that the application finds no surgeons.

Review and Signoff

- 27.12 Complete the form indicating that the data cleaning procedure was completed successfully.

28. Data Cleaning for Demo System Service or Software/Lens Updates

For systems that require software updates, lens updates, or service such as optical head replacement, perform the following steps to remove patient data and create a new DataBackUpper.log file:

- 28.1 Log in as service and exit to Windows.
- 28.2 Navigate to File Explorer > Find and execute
C:\DataCleaner.exe.
- 28.3 Perform service, lens update, or software update.
- 28.4 If necessary, log in as service and exit to Windows.
- 28.5 Navigate to File Explorer > Find and execute
C:\DataBackUpper.exe.

A DataBackUpper.log file is created with a date/timestamp.
Argos demo system changes will be restored the next time the DataCleaner is executed.

SECTION FOUR - TROUBLESHOOTING

General Information

This section of the manual contains information to assist the field engineer in troubleshooting and repair of the system. Refer to the contents listing in the right column for quick reference to the information in this section.

CAUTION

**The system contains electrostatic discharge (ESD) sensitive devices.
Always wear a wrist strap when working with this device.**

Service Test Procedure

The Service Test Procedure (STP) must be performed each time a field engineer services a system. The STP Data Sheet is a checklist used with the STP and is returned to the local service support center for filing.

Spare Parts

Contact Technical Services for a list of spare parts to stock in preparation for supporting the service needs of the system.

CONTENTS - The following information is covered in this section:

Table 4-1	Required Tools	page 4.1
Table 4-2	Category List	page 4.2
Table 4-3	Error Code Details.....	page 4.2
Table 4-4	Troubleshooting Guide.....	page 4.3
Table 4-5	Image List	page 4.4
Table 4-6	Error Messages	page 4.6
Table 4-7	Corrective Actions	page 4.9

Table 4-1 Required Tools

ITEM	TOOL	DESCRIPTION
1	Standard tool kit	Screwdriver set, Torx** screwdriver set, standard hex wrench set, t-handle hex wrench set, ratchet and socket set with extensions, metric box/open wrench set, pliers set.
2	Model Eye	PN 100220743

Error Codes and Messages

Error codes are categorized as shown in **Table 4-2**, while error code details are described in **Table 4-3**.

Table 4-2 Category List

Category	Description
Camera	Errors related to Argos™ camera device.
DAQ	Errors related to digitizer board (NI PCIe-5140) of PC.
ECL	Errors related to Argos™ ECL device.
Ring LED	Errors related to Argos™ Ring LED device.
TUSB	Errors related to switch device (TUSB-KxxRL)
Database	Errors related to Database file.
VP Connection	Errors related to connection with external application “Vision Planner”.
General	Errors not included in the above categories.

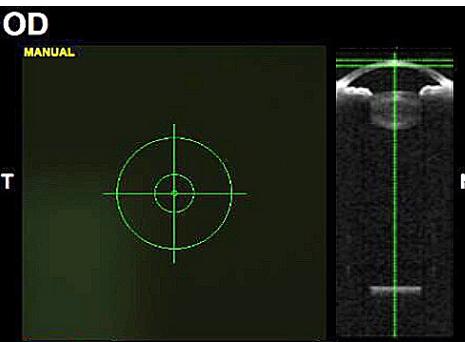
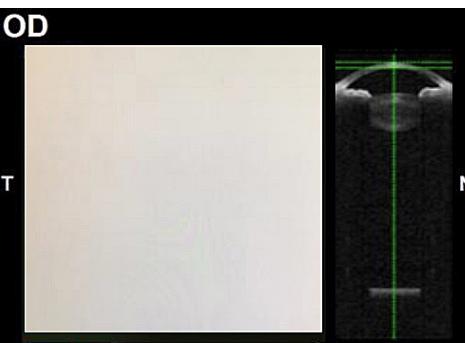
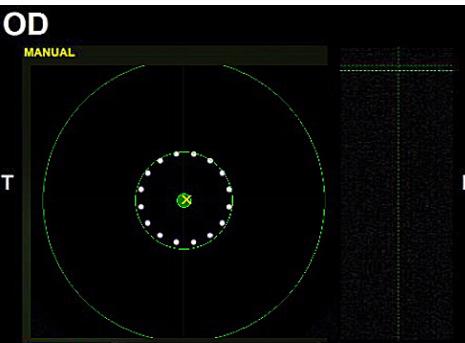
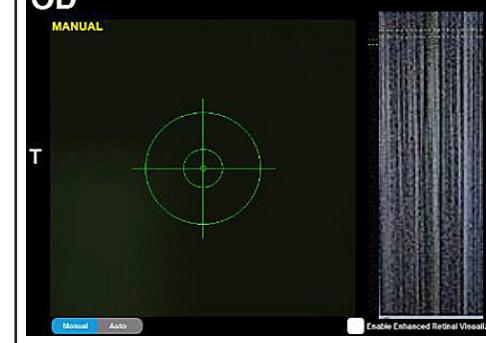
Table 4-3 Error Code Details

Category	Error Codes	Cause	Notes
Camera	-8000	Device not recognized	Reconnect or replace USB cable
DAQ	-8000	Device not recognized	<ul style="list-style-type: none"> • Restart PC • Reconnect or replace Digitizer board
ECL	-8000	Device not recognized	<ul style="list-style-type: none"> • Reconnect or replace USB cable • Reconnect or replace AC adapter and cable
TUSB	-8000	Device not recognized	<ul style="list-style-type: none"> • Reconnect or replace USB cable • Reconnect or replace AC adapter and cable
Database	-8200	The following file is damaged or missing: argosdb.mdb	Verify there is a database file
General	-8300	The following files are damaged or missing: • config.ini • calibration file.txt • argosdb.mdb	Verify there are 2 calibration files and a database file
DAQ	0	<ul style="list-style-type: none"> • The trigger signal cannot be detected from optical light source. • BNC cable defect. • Optical light source defect. • Caused by ECL or TUSB error. 	<ul style="list-style-type: none"> • Connection confirmation and replacement of BNC cable with TRIG label • Restart PC • Reconnect or replace Digitizer board
ECL	0	Caused by TUSB error or faulty ECL device and communication cable.	<ul style="list-style-type: none"> • Reconnect or replace USB cable • Reconnect or replace AC adapter and cable
Camera	1172	<ul style="list-style-type: none"> • Camera device failure • Defective USB cable for camera (USB3.0) • Defective software related to camera device 	Reconnect or replace USB cable
VP Connection	1172	<ul style="list-style-type: none"> • Communication setting error with Vision Planner • Defects on the Vision Planner side 	<ul style="list-style-type: none"> • Check “config.ini” file - <ul style="list-style-type: none"> - Is [VpConnection] present? - Does the communication path and client name match the settings on the Vision Planner side? • Restart PC • Confirm settings of Vision Planner
Ring LED	-1073807346	Caused by ECL or TUSB error or faulty Ring LED device and communication cable	<ul style="list-style-type: none"> • Reconnect or replace USB cable • Reconnect or replace AC adapter and cable

Table 4-4 Troubleshooting Guide

Item	Symptoms	Status	Image (see item number in <i>Table 4-5</i>)	Error Message (see item number in <i>Table 4-6</i>)	Corrective Action (see step number in <i>Table 4-7</i>)
1	No camera image	No image is shown	1	n/a	1-4, 6, 7, 15
		Camera screen is white	2	n/a	
		Camera screen stops	n/a	1	
2	No OCT image	No image is shown	3	n/a	1, 3, 6, 15
		Image frozen	n/a	1	1-4, 6, 15
3	OCT image noisy	Measurement possible	n/a	n/a	14
		Measurement not possible	5	n/a	1-4, 6, 14, 15
4	Device will not start	PC does not start	n/a	n/a	4, 20
		Error messages	n/a	1	1-4, 6, 7, 15
				2	8
				3	9
				4	5, 19
				5	5, 8, 9, 19
				6	8
				7	17
				8	17
				12	1-3, 14
				13	1-4, 14, 18
				14	1-4, 14, 18
5	Calibration fail	Calibration fail note	4	n/a	1-4, 11, 16
6	Screen stops	Screen slow	n/a	n/a	12, 13
		Screen frozen	n/a	n/a	1-4, 6, 7, 15
7	Measurement button does not work	LED is not lit blue	n/a	n/a	1, 2, 6, 7, 10, 15
		LED is lit blue	n/a	n/a	1, 2, 6, 10, 15
8	System boots up in Windows instead of Vision Planner	Windows OS is displayed	n/a	n/a	21

Table 4-5 Image List

Item	Image
1	<p>OD MANUAL</p> 
2	<p>OD</p> 
3	<p>OD MANUAL</p> 
4	
5	<p>OD MANUAL</p> 
6	

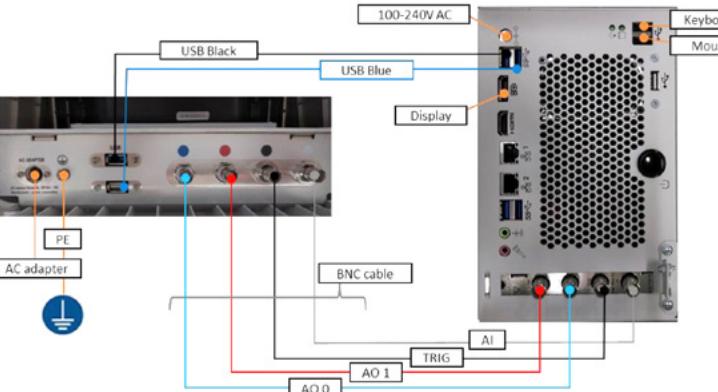
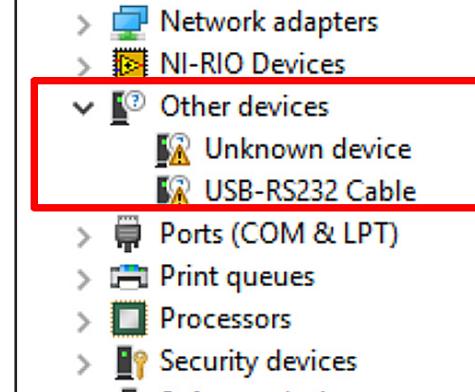
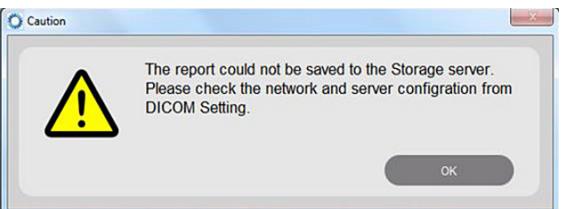
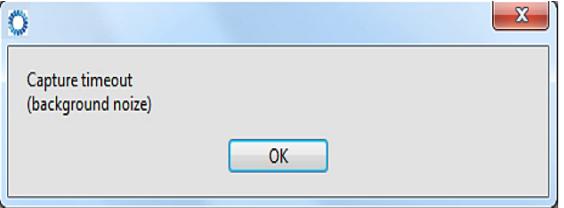
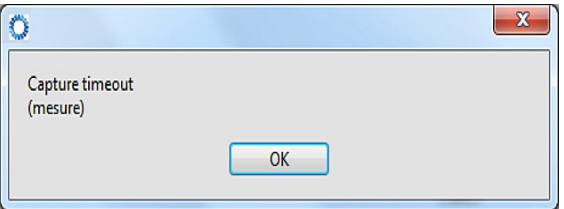
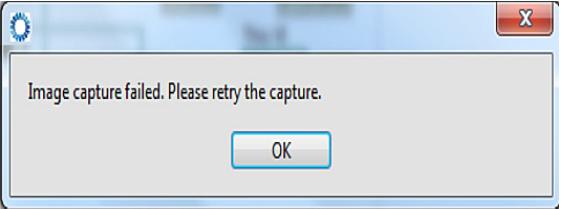
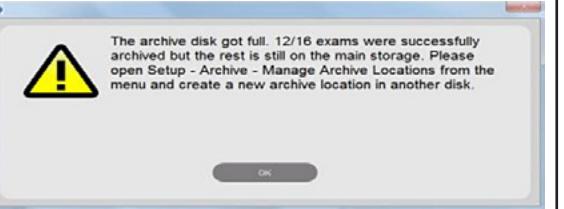
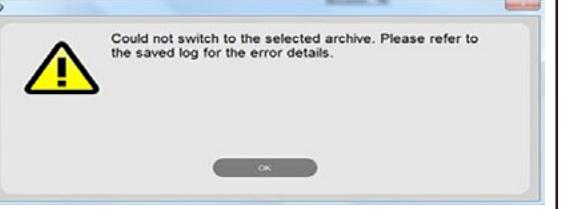
Item	Image	Image
7		
8	<pre>[DailyCalibration] Target/AxialLength = 21.872107 Target/LateralRez = 0.044008 Target/K1 = 7.959843 Target/K2 = 7.962242 Target/Angle = 52.010371 Target/PeakInt = 24.274270 Target/DR = 33.020351 Tolerance/AxialLength = 0.050000 Tolerance/LateralRez = 0.050000 Tolerance/K1 = 0.075000 Tolerance/K2 = 0.075000 Tolerance/Angle = 180.000000 Tolerance/PeakInt = 10.000000 Tolerance/DR = 10.000000</pre> <p>(Example)</p>	<p>Category</p> <pre>[Camera] ***** Error code -8000 : 1 count 20**/** 09:10:07.972 <Error detail> Error code -8000 : Device not found. (Camera)</pre>
9		
10		

Table 4-6 Error Messages

Item	Error Message	Possible Cause	Error Message	Possible Cause
1	 <p>Argos hardware is not functioning correctly. Please check all cables are properly connected to ARGOS and PC. Please contact the support if the problem persists.</p> <p>Exit Program</p>	<ul style="list-style-type: none"> Device error (digitizer board, camera, main unit) Cable disconnection (USB, BNC, AC adapter) 	 <p>This system is configured for a wrong serial number. Please contact the support. Would you like to exit program to avoid erroneous measurements?</p> <p>Yes No</p>	<ul style="list-style-type: none"> Serial number mismatch
2	 <p>Argos could not start due to the following error(s). Please contact the support. - Calibration parameter error.</p> <p>Exit Program</p>	<ul style="list-style-type: none"> Calibration parameter or database file does not exist or is damaged. 	 <p>The database file may be corrupted. Do you want to repair the database file?</p> <p>OK Cancel</p>	<ul style="list-style-type: none"> Database file is corrupted.
3	 <p>Argos could not start due to the following error(s). Please contact the support. - Database migration error.</p> <p>Exit Program</p>	<ul style="list-style-type: none"> Database files does not exist or is damaged. 	 <p>Database file is not found. Do you want to repair the database file?</p> <p>OK Cancel</p>	<ul style="list-style-type: none"> Database file is not found.
4	 <p>Argos could not start due to the following error(s). Please contact the support. - Vision Planner connection error.</p> <p>Exit Program</p>	<ul style="list-style-type: none"> Vision Planner has not been started or connection setting with Argos™ is incorrect. 	 <p>Query SCP is not configured correctly. Please check the DICOM settings and make sure that the Query SCP responds to an Echo.</p> <p>OK</p>	<ul style="list-style-type: none"> Failed to query SCP.
5	 <p>Argos could not start due to the following error(s). Please contact the support. - Database migration error. - Calibration parameter error. - Vision Planner connection error.</p> <p>Exit Program</p>	<ul style="list-style-type: none"> Error messages 2 to 4 are duplicated. 	 <p>Modality worklist SCP is not configured correctly. Please check the DICOM settings and make sure that the Modality worklist SCP responds to an Echo.</p> <p>OK</p>	<ul style="list-style-type: none"> Failed to request worklist to SCP.

Item	Error Message	Possible Cause	Item	Error Message	Possible Cause
11		<ul style="list-style-type: none"> Failed to save report on storage server 	16		<ul style="list-style-type: none"> Archive error
12		<ul style="list-style-type: none"> Failed to update background noise 	17		<ul style="list-style-type: none"> Archive error
13		<ul style="list-style-type: none"> Measurement failed (measurement including reference image) 	18		<ul style="list-style-type: none"> Archive error
14		<ul style="list-style-type: none"> Archive error 	19		<ul style="list-style-type: none"> Archive error
15		<ul style="list-style-type: none"> Archive error 	20		<ul style="list-style-type: none"> Archive error

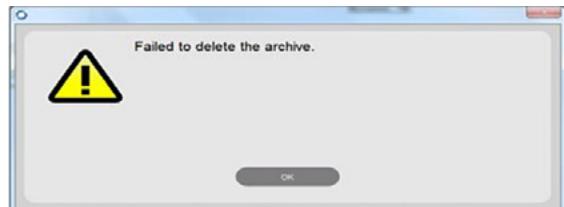
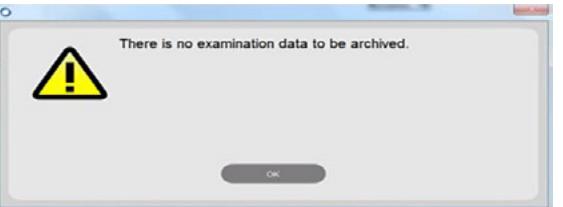
Item	Error Message	Possible Cause	Item	Error Message	Possible Cause
21		<ul style="list-style-type: none"> Archive error 	25		<ul style="list-style-type: none"> Archive error
22		<ul style="list-style-type: none"> Archive error 	26		<ul style="list-style-type: none"> Archive error
23		<ul style="list-style-type: none"> Archive error 	27		<ul style="list-style-type: none"> Archive error
24		<ul style="list-style-type: none"> Archive error 	28		<ul style="list-style-type: none"> Archive error

Table 4-7 Corrective Actions

Step	Actions
1.	Shut down the Argos™ software and PC.
2.	Reconnect the USB cable on the device side and the PC side (see item 7 in Table 4-5).
3.	Reconnect the BNC cables on the equipment side and the PC side (see item 7 in Table 4-5).
4.	Reconnect the AC adapter (see item 6 in Table 4-5). In addition, connect the power supply directly to the wall outlet.
5.	Restart PC.
6.	<p>Confirm device recognition with the Argos™ PC device manager (see maintenance procedure 11).</p> <p>6.1 Open the device manager on Argos™ PC: (Control Panel → Switch to Small icons → Device Manager)</p> <p>6.2 Confirm that the device is recognized. If not, replace the USB cable.</p>
7.	<p>Check the USB cable connection on the PC side. Confirm device recognition with the device manager of another PC.</p> <p>7.1 Open the separately prepared device manager for the PC (see maintenance procedure 11).</p> <p>7.2 Connect the Argos™ power supply.</p> <p>7.3 Connect USB of Argos™ main unit to PC.</p> <p>7.4 Check if the icon with the caution mark is added on the device manager (such as unknown device and USB - RS 232 Cable - see item 9).</p>
8.	<p>8.1 Verify that "config" exists in the application folder (D:\Program Files\Movu\Argos).</p> <p>8.2 Correct filename if incorrect. If file is missing, contact Technical Support.</p>
9.	<p>9.1 Verify that "argosdb.mdb" exists in the application folder (D:\Program Files\Movu\Argos).</p> <p>9.2 Correct filename if incorrect. If file is missing, contact Technical Support.</p>
10.	Press the keyboard F9 button and verify that a measurement is executed.

Step	Actions
11.	<p>Check the measurement parameter of Daily Calibration.</p> <p>11.1 Select "logs" in the application folder (D:\Program Files\Movu\Argos) and open "DailyCalibration.log."</p> <p>11.2 In the application folder, select "config" and open "config.ini." Be careful not to rewrite.</p> <p>11.3 Compare the parameter of 1 with the file from 2 by checking the values in the DailyCalibration and checking their tolerances as listed (see item 8 in Table 4-5).</p>
12.	<p>Check the software version (see maintenance procedure 10).</p> <p>12.1 Right-click the mouse on the executable file of the application folder (D:\Program Files\Movu\Argos)</p> <p>12.2 Select Properties and select the Details tab in the opened window.</p> <p>12.3 Make sure the software version is up to date.</p>
13.	<p>Check the capacity of the local disk (C:\) and archive the image data if necessary.</p>
14.	<p>14.1 Update background image. The system may be influenced by equipment emitting radio waves nearby.</p> <p>14.2 Make sure the system is sufficient distance from the equipment that emits radio waves.</p>
15.	<p>Check the error code remaining in the log file.</p> <p>15.1 Open the log of the corresponding date from the application folder (D:\Program Files\Movu\Argos\logs)</p> <p>15.2 Check the Error code (see Table 4-6).</p>
16.	<p>16.1 Verify the serial number of the daily calibration tool is the same as the serial number of the equipment.</p> <p>16.2 Verify there is no scratch or dirt. If there is dirt, remove it and check whether it will succeed 5 times in a row.</p>
17.	<p>17.1 "OK": Duplicate the database file and start up normally.</p> <p>17.2 "Cancel": Software will be shut down. In the application folder (D:\Program Files\Movu\Argos).</p> <p>17.3 Select "data" and confirm that the "argosdb.mdb" file exists. Correct filename if incorrect.</p>

Step	Actions
18.	18.1 Press OK to close the error message. 18.2 Restart the PC and measure again.
19.	19.1 Check the connection settings of Vision Planner and Argos. 19.2 Restart the Argos™ PC.
20.	20.1 Disconnect the USB cable. 20.2 Turn on the PC. 20.3 If the system does not start up, replace the PC.
21.	If the system boots up in Windows instead of the Vision Planner, perform the following steps: 21.1 Navigate to Control Panel > Programs and Features. 21.2 Uninstall the VerionPlannerClient. 21.3 Navigate to C:\Movu\VerionPlanner\VerionPlannerClient. 21.4 Delete the VerionPlannerClient folder. 21.5 Reinstall the application from the latest Argos software installer package. Select only the VerionPlannerClient to install. 21.6 After the install is complete, shut down the system and reboot.

SECTION FIVE - ADDITIONAL INFORMATION

Introduction

This section is reserved for additional service information that may be required for the system or related accessories.

REFERENCE COPY ONLY – DO NOT DISTRIBUTE
Refer to the Product Lifecycle Management system for the latest revision.

ARGOS™ BIOMETER

THIS PAGE INTENTIONALLY BLANK