THE CONSTELLATION CASSETTE

The cassette is the interface between the *Constellation®* console and the surgical handpiece. It is used to regulate *BSS®* irrigating fluid to the handpiece, aspirate debris from the handpiece, monitor irrigation and aspiration pressure, and deposit the debris in a sealed drainage bag for disposal.

The premium combined cassette shown in Figure 2-84 is a consumable assembly capable of providing all the functions needed to perform anterior, posterior, and combined surgeries. It provides fluid aspiration and pressurized fluid (or filtered air) infusion to the eye at a constant IOP independent of aspiration flow rates during posterior segment surgery. The infusion fluid source to the cassette can be changed during a procedure without interruption or re-priming the tubing connecting the cassette and the infusion cannula.

Specialized cassettes for posterior and anterior procedures are available and have only those ports necessary to perform the associated procedure. See Consumbable Pak Configurations for detailed information on the type of cassette contained in each pak.

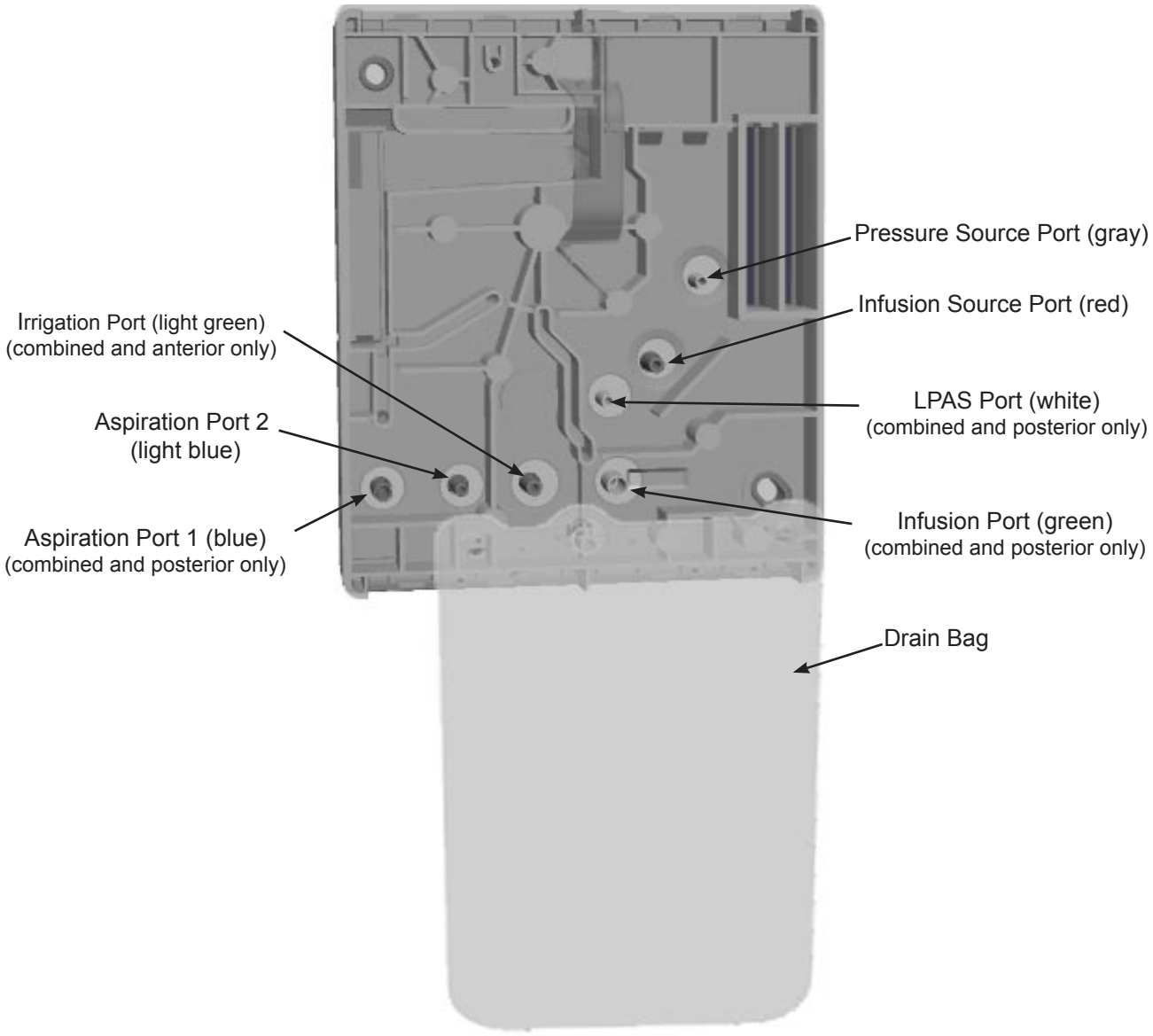


Figure 2-84 The *Constellation®* Combined Cassette

CONSUMABLE PAK CONFIGURATIONS

Constellation® Consumables Procedure Paks are available in multiple configurations to meet the user's needs for each procedure. There are three main types of Consumables Paks: Posterior segment, Anterior segment and Combined Procedure (both Posterior and Anterior), and each type of pak can be customized further to specify items such as gauge specific instruments.

The paks are available in various gauge/size offerings to suit the needs of the surgeon. For Posterior Segment Procedures (gauge), 20 Ga, 23 Ga, and 25 Ga packs are available, and for Anterior Segment Procedures (size), 0.9 mm and 1.1 mm packs are available. Since Combined Procedure Paks are intended to cover both Anterior and Posterior Segment surgery, the packs are configured with both Posterior (gauge specific) accessories and Anterior (size specific) accessories. The Building Block Structure of the *Constellation®* Consumables Procedure Paks are as follows:

COMBINED PROCEDURE PAK	**Cassette Building Block:**		
	- Combined Procedure Cassette - Premium Administration Tubing Set - Premium Infusion FA/X Tubing Set with Auto Infusion Valve - Irrigation Aspiration Tubing Set		
	Vit Building Block (20, 23, or 25 GA):		
	- 5000 cpm UltraVit™ Probe with RFID - 2500 cpm UltraVit™ Probe		
	Light Guide Building Block (20, 23, or 25 GA):		
	- 20 Ga STD Illuminator - 20 Ga Wide angle Illuminator	- 23 Ga STD Illuminator	- 25 Ga STD Illuminator
	Posterior Accessories Building Block (20, 23, or 25 GA):		
	- 20 Ga high flow infusion cannula - 20 Ga Posterior Small Parts Kit - 20 Ga MVR Blade	- 23 Ga high flow infusion cannula - 23 Ga Posterior Small Parts Kit with Entry System	- 25 Ga high flow infusion cannula - 25 Ga Posterior Small Parts Kit with Entry System
	Anterior Accessories Building Block (0.9 mm or 1.1 mm)		
	Anterior Small Parts Kit	0.9 mm Infusion Sleeve Small Parts kit	1.1 mm Infusion Sleeve Small Parts kit
	Ultrasound Phaco Tips (includes 30R, 45R, 45K, and 45K)	0.9 mm Tip 0.9 mm ABS Tip 0.9 mm Tapered ABS Tip 0.9 mm ABS Flared Tip	1.1 mm ABS Flared Tip

POSTERIOR PROCEDURE PAK	**Cassette Building Block:**		
	- Posterior Cassette - Premium Administration Tubing Set - Premium Infusion FA/X Tubing Set with Auto Infusion Valve - Auxiliary Aspiration/ Extrusion Tubing Set		
	Vit Building Block (20, 23, or 25 GA):		
	- 5000 cpm UltraVit™ Probe with ENGAUGE™ RFID - 2500 cpm UltraVit™ Probe		
	Light Guide Building Block (20, 23, or 25 GA):		
	- 20 Ga STD Illuminator - 20 Ga Wide angle Illuminator	- 23 Ga STD Illuminator	- 25 Ga STD Illuminator
	Posterior Accessories Building Block (20, 23, or 25 GA):		
	- 20 Ga high flow infusion cannula - 20 Ga Posterior Small Parts Kit - 20 Ga MVR Blade	- 23 Ga high flow infusion cannula - 23 Ga Posterior Small Parts Kit with Entry System	- 25 Ga high flow infusion cannula - 25 Ga Posterior Small Parts Kit with Entry System

ANTERIOR PROCEDURE PAK	**Cassette Building Block:**		
	- Anterior Cassette - Premium Administration Tubing Set - Irrigation Aspiration Tubing Set		
	Anterior Accessories Building Block (0.9 mm or 1.1 mm)		
	Anterior Small Parts Kit	0.9 mm Infusion Sleeve Small Parts kit	1.1 mm Infusion Sleeve Small Parts kit
	Ultrasound Phaco Tips (includes 30R, 45R, 45K, and 45K)	0.9 mm Tip 0.9 mm ABS Tip 0.9 mm Tapered ABS Tip 0.9 mm ABS Flared Tip	1.1 mm ABS Flared Tip

SECTION THREE
OPERATING INSTRUCTIONS

INTRODUCTION

This section details the recommended setup and operation for the *Constellation®* Vision System. These procedures may be modified to conform to hospital requirements and practices as you become experienced in using the system. The operational checks however, that are performed at various points in the setup procedure to verify instrument operation, must be performed exactly as indicated.

The procedures are divided into two columns and presume a surgical team of three people: Surgeon and Scrub Nurse in the sterile field, and a Circulating Nurse in the non-sterile field. In the left column a directive is given; in the right column the responsible team member is identified.

Any problems pertaining to setup and check-out procedures should first be directed to the Troubleshooting section of this manual. If questions still exist, contact the Alcon Technical Services Department or your local Alcon representative.

POWER UP SEQUENCE

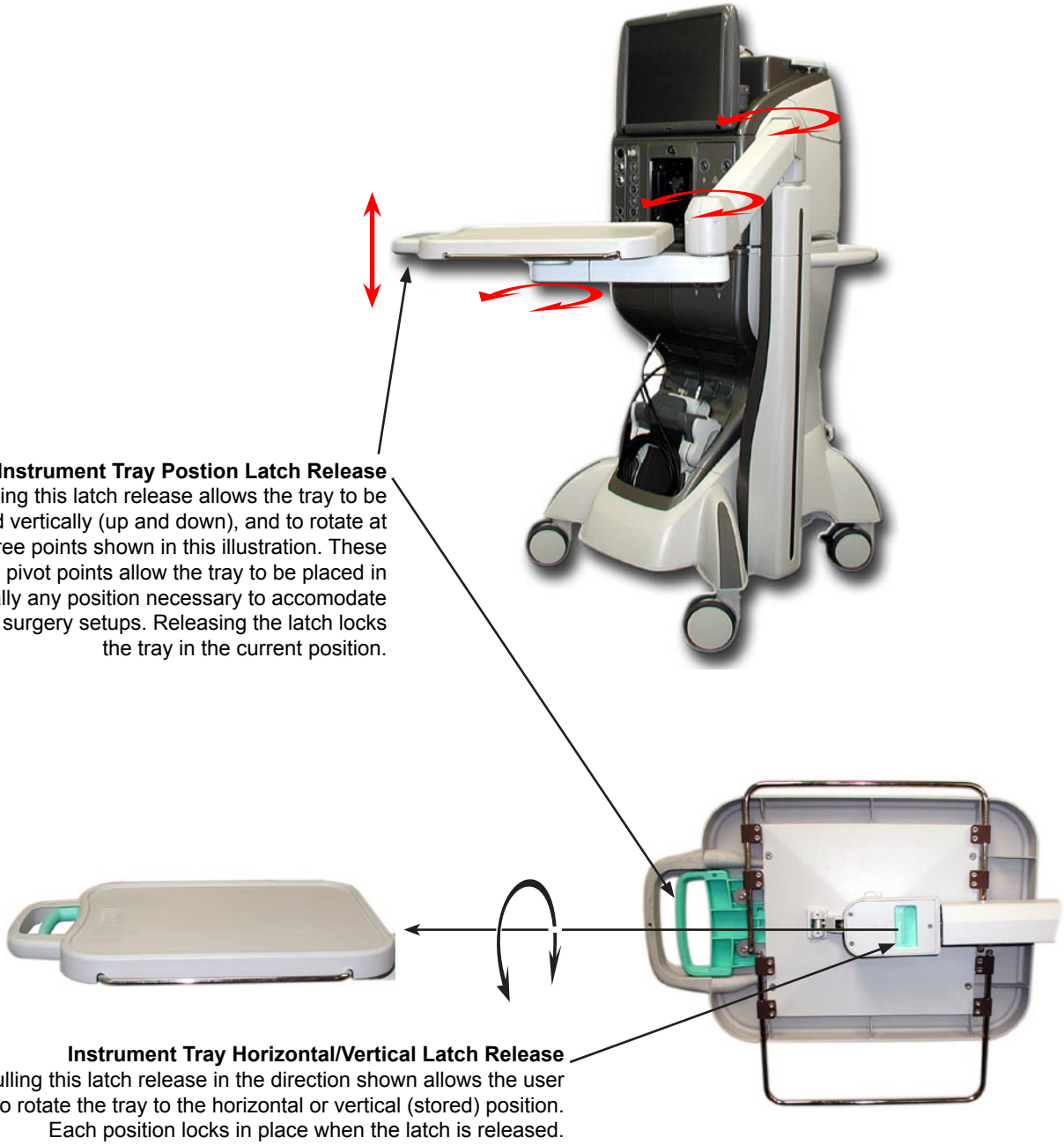
When the power switch is turned on, and the standby switch is pressed, the *Constellation®* Vision System logo screen appears while the system performs its self-test diagnostics. The system is capable of detecting and reporting a wide range of fault and error conditions. Many of these are checked during the power up procedure. If a fault is detected during power up, the user is informed and the instrument becomes non-operational until the failure/problem is corrected. Upon successful completion of the self-tests, the system enters the setup screen.

POSTIONING THE INSTRUMENT TRAY

The tray is capable of accommodating a variety of positions in the operating room environment: right, left, front and rear of the surgeon as well as the front of the bed. The tray height and position are adjustable by pulling the Instrument Tray Latch Release shown in Figure 3-1.

WARNING!

The maximum allowable load on the instrument tray is 20 lb (9 kg). If the load exceeds this limit, the tray arm will automatically lower itself in order to avoid tipping the system over. Additionally, if the instrument tray is positioned over a patient, a mayo stand should be placed beneath it to avoid a potential collapse of the tray arm onto the patient.



Instrument Tray Postion Latch Release
Pulling this latch release allows the tray to be moved vertically (up and down), and to rotate at the three points shown in this illustration. These three pivot points allow the tray to be placed in virtually any position necessary to accomodate most surgery setups. Releasing the latch locks the tray in the current position.

Instrument Tray Horizontal/Vertical Latch Release
Pulling this latch release in the direction shown allows the user to rotate the tray to the horizontal or vertical (stored) position. Each position locks in place when the latch is released.

Figure 3-1 Positioning the Instrument Tray

Placing the Instrument Tray in the Stored Position

> ***WARNING!***
>
> **Place the instrument tray in the stored position (see Figure 3-2) prior to transportation to avoid a situation that could cause the system to tip.**

1 Pull the Horizontal/Vertical Latch Release (see Figure 3-1) and rotate the instrument tray to the vertical position shown in Figure 3-2.

2 Pull the Position Latch Release and move the tray and arm assembly into the stored position shown in Figure 3-2.

Instrument Tray in the vertical position

Instrument Tray/Arm in the stored position

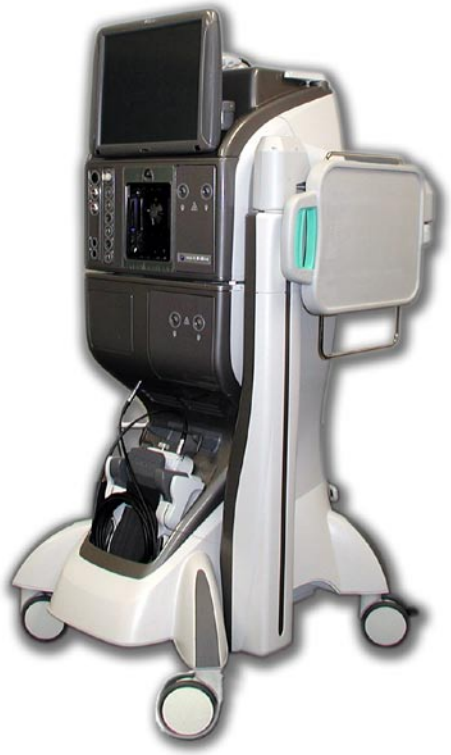


Figure 3-2 Storing the Instrument Tray

INITIAL SYSTEM SETUP	
1. Matching the red dot on the footswitch cable connector to the red dot on the footswitch, plug cable into footswitch. Plug the other end of the footswitch cable into the rear panel on the console (match red dots for proper orientation).	Circulating Nurse
2. Attach air hose to connector on rear panel.	Circulating Nurse
3. Plug main power cord into a suitable wall outlet or receptacle. Turn Power switch ON located at the bottom of the rear panel next to the power cord (this switch remains ON in the I position). Turn system power ON using the Standby switch located at the middle of the rear panel.	Circulating Nurse
CAUTION **Do not use portable socket outlets with this system.**	
3. The Setup screen appears if this is the first use of the instrument after power up. Press the Doctor button and select an available doctor, or add a doctor by following the steps presented on the display. Scan the pak or select the appropriate handpiece, tip, accessories, and procedure types.	Circulating Nurse
4. Sterilize the instruments according to hospital procedure.	Circulating Nurse
CAUTION **U/S and fragmentation handpieces must be at room temperature before use. Allow handpiece to air cool after steam autoclave (at least 15 minutes). Never immerse in liquid to cool.**	Circulating Nurse

Constellation® Procedure Pak

The ***Constellation®*** Procedure Paks are available in three (3) procedural pak configurations: ***Constellation®*** Vitrectomy Pak, ***Constellation®*** Phaco Pak, and ***Constellation®*** Combined Procedure Pak. Each pak contains the sterile single-use supplies necessary to perform one Posterior segment, Anterior segment, or Combined Procedure respectively. The Combined Procedure covers both Anterior and Posterior segment procedures.

WARNINGS!

1. **If any item in the pak is received in a defective condition, Alcon is to be notified immediately. Do not use any of the contents if the sterile package is damaged in any way. In these cases, please contact:**

   By Phone:
   In USA- (800) 445-2389
   Ask for Consumer Affairs
   International (713) 668-9100
   Or contact local Alcon Representative

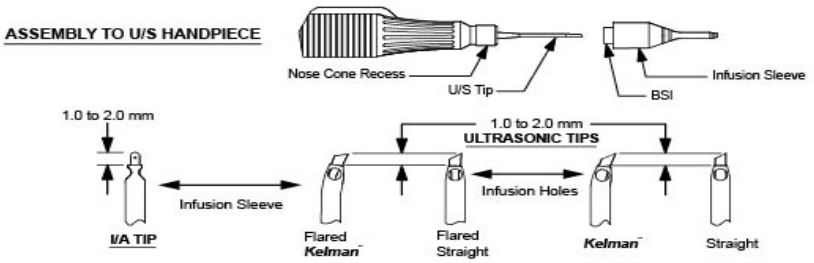
   By Mail:
   Alcon, Inc.
   Attention: Consumer Affairs Department
   9965 Buffalo Speedway
   Houston, TX 77054-1309, USA

   Each pak is identified by a lot number which provides traceability and should be given to Customer Service Department when discussing the pak.
2. **Improper usage or assembly could result in a potentially hazardous condition for the patient. Mismatch of consumable components and use of settings not specially adjusted for a particular combination of consumable components may create a patient hazard.**
3. **Visually confirm that adequate infusion flow is occurring prior to attachment of the infusion cannula to the eye.**
4. **Do not operate Vitrectomy probes in air. This could result in performance degradation and/or potential hazard.**
5. **Replace Vitrectomy Probe if any of the following conditions are observed:**
   a. **Excessive air bubbles are in the aspiration line.**
   b. **Air bubbles are exiting the cutter port.**
   c. **The cutter does not fully close or does not move when the probe is actuated.**
   d. **The cutting port is not open when the probe is idle.**
   e. **If a reduction of cutting capability or vacuum is observed during the surgical procedure, stop immediately and replace the probe.**
6. **Minimize the light intensity and duration of exposure to the retina to reduce the risk of retinal photic injury.**
7. **Use of incisions that are smaller than recommended during lens removal can lead to mechanical and/or thermal damage to the eye tissue.**

The following instructions are applicable to all three procedure paks unless otherwise specified. For the Combined Procedure Pak setup, follow both Posterior and Anterior Segment Priming and Setup procedures. For additional assistance in the setup of the console, press the *Setup* button on the touch screen monitor.

Procedure Pak and Cassette Setup Procedure	
1. Scan the bar code on the Procedure Pak and accessories to be used with the Bar Code Scanner on the back of the *Constellation®* console. Verify on the set up screen that the appropriate active accessories are indicated and selected on the screen.	Circulator or Non-sterile Scrub Nurse
2. Peel the lid from the pak and aseptically transfer the components to the sterile field.	Circulator
3. Drape the monitor with the cover provided. Drape the *Constellation®* tray arm with the Tray arm drape if applicable.	Scrub Nurse
4. Install the cassette by inserting the bottom of the cassette into the fluidics module. Push the cassette via the handle into the module. Ensure the drain bag hangs freely.	Scrub Nurse
5. Uncoil the Administration tubing sets (Tubing with Red and Grey Stripe) and connect to their respective ports on the cassette. The ports are color coded and keyed for ease of identification. Insert the connectors into the cassette port and turn clockwise until fully engaged. For further details refer to the on-screen help.	Scrub Nurse
6. Shake the Drip Chamber on the Administration line and ensure it rattles. Pass the Administration line to the circulator directly or set the Administration line on the bottle hook for retrieval by the circulator.	Scrub Nurse
7. Remove the protective cover from the drip chamber and aseptically spike the irrigation bottle with the drip chamber spike. Squeeze drip chamber to fill approximately 2/3 to 3/4 full.	Circulator
8. For *Constellation®* Vitrectomy Pak and *Constellation®* Combined Procedure Pak, proceed to the Posterior Segment Setup Procedure section. For Constellation® Phaco Pak, proceed directly to the Anterior Segment Setup Procedure Section.	Scrub Nurse

Posterior Segment Setup Procedure	
1. Connect the Infusion tubing set (Green) to the corresponding cassette port. If the Auto Fluidic Valve tube set is used, connect both connectors (Green and White). The connectors and cassette ports are color coded and keyed for ease of identification. Insert the connectors into the cassette port and turn clockwise until fully engaged.	Scrub Nurse
2. Open the side compartment of the Infusion Cannula tray to gain access to the luer fitting. While keeping the cannula in the tray, connect the tubing to the Auto Fluidic Valve (*Green*). Set the tray on a flat surface in preparation for Priming and Calibration.	Scrub Nurse
3. Connect the Vitrectomy Probe aspiration line to the Suction Part 1 (*Dark Blue*). Connect the drive lines to the console pneumatic port.	Scrub Nurse
4. For Posterior Pak only, connect the Auxiliary Aspiration Line to the cassette Port (Light Blue-Suction Port 2). Connect the Extrusion accessory (handpiece or cannula) to the Auxiliary Aspiration line (*Light Blue*). If a Fragmentation handpiece is used, connect the handpiece to the Auxiliary Aspiration line in place of the Extrusion Handpiece and refer to the ***Constellation®*** Fragmentation Directions for Use for setup instructions.	Scrub Nurse
5. Set the Vitrectomy Probe and Extrusion Accessory in a sterile cup or drape to capture the fluid from priming. The volume of fluid expelled from the accessories is minimal. **Note: If aspiration prime function is selected, fill the sterile cup with sterile water. Ensure that the aspiration ports are submerged in the fluid.**	Scrub Nurse
6. Carefully uncoil the fiber optic illuminator probe/filter and present the metal connector to the Circulator Nurse.	Scrub Nurse
7. Accept the metal connector from the Scrub Nurse and plug it into the desired illuminator port. Verify that the connector is seated into the port.	Circulator
8. For Combined Procedure cases, continue to the Anterior Segment Priming and Setup Procedure.	Scrub Nurse/ Circulator
9. Press the *Start Prime* button on the touch screen monitor and initiate priming. Allow the Priming and Calibration sequence to complete. The process may take 1-2 minutes and care should be taken not to bump the tubing and handpieces during priming or tuning.	Scrub Nurse
10. After Setup is complete, the console will proceed to *Surgery* mode automatically.	Scrub Nurse

Anterior Segment Setup Procedure	
1. Connect the Irrigation/Aspiration tubing set (Light Green/Light Blue) to the corresponding port on the cassette. The connectors and cassette ports are color coded and keyed for ease of identification. Insert the connectors into the cassette port and turn clockwise until fully engaged.	Scrub Nurse
2. Thread U/S Tip onto U/S handpiece. Tighten firmly using the Tip Holder Wrench. Remove Tip Holder/Wrench and retain for future tip removal. **Match the proper Ultrasonic Tip size with the corresponding Infusion Sleeve** per note 6 in the Warning Section. Thread Infusion Sleeve with BSI onto the handpiece, over the U/S Tip. Sleeve end should clear bevel on U/S Tip by 1-2 mm. Avoid twisting of the Sleeve. Note: Infusion Sleeves fit over both the U/S and the I/A tips. Orient port holes as shown:  	Scrub Nurse
3. Connect *white* male irrigation line luer and *blue* female aspiration line luer to U/S handpiece. Slide Test Chamber over Infusion Sleeve. Set the handpiece on the sterile tray or the console tray arm if available.	Scrub Nurse
4. Press the *Start Prime* button on the touch screen monitor to initiate priming and tuning of the handpiece. This process may take 1-2 minutes. and care should be taken not to bump the tubing and handpieces during priming or tuning	Scrub Nurse or Circulator
5. After Setup is complete, the console will proceed to *Surgery* mode automatically.	Scrub Nurse
6. Prior to start of the procedure, depress footswitch to position 1 to stream fluid from the irrigation port and activate reflux function to stream irrigation fluid from the aspiration port. Observe the stream of irrigating fluid from the irrigation and aspirations ports. If the stream of irrigation fluid is weak or absent, good fluidics response will be jeopardized.	Scrub Nurse
7. Thread I/A tip onto I/A handpiece if required. Tighten firmly, using the I/A Tip Wrench. Remove I/A Tip Wrench and retain for future tip removal. Thread Infusion Sleeve onto the handpiece, over the I/A Tip. Sleeve end should clear end of I/A Tip by 1-2 mm. Avoid twisting of the Sleeve. Orient port holes as shown in Step 1 and ensure that I/A tip aspiration hole is not obstructed. Prior to use, disconnect the *white* male irrigation line luer and *blue* female aspiration line luer from the U/S Handpiece. Connect *white* male irrigation line luer and *blue* female aspiration line luer to I/A handpiece.	Scrub Nurse

8. When in Surgery screen, select ***I/A*** mode. Depress footswitch to position 1 to stream irrigation fluid from the irrigation port and activate reflux function to stream irrigation fluid from the I/A tip's aspiration port. Observe the stream of irrigating fluid from the irrigation and aspirations ports. If the stream of irrigation fluid is weak or absent, good fluidics response will be jeopardized.	Scrub Nurse

CAUTION

Use of this product may require surgical settings adjustments. Ensure that appropriate *Constellation*® system settings are used with the *Constellation*® Procedure Paks. Prior to initial use, contact your Alcon Sales Representative for in-service information. (Within the U.S. call 800-TO-ALCON or 817-293-0450. Outside of the U.S., contact you local Alcon Sales Representative.)

Auto Gas Filler Setup Procedure

WARNING!

The *Constellation®* Auto Gas Filler kit is intended for one procedure only. Reuse, improper usage or assembly could result in a potential hazardous condition for the patient (Accreditation Manual for Hospitals, 1982). Alcon assumes no responsibility for complications that may arise as a result of the reuse or improper usage of any part of the kit.

1. Scan the bar code on the Auto Gas Filler Kit with the Bar Code Scanner on the back of the Constellation® console.	Circulator or Non-sterile Scrub Nurse
2. Peel the lid from the kit and aseptically transfer the components to the sterile field. From the Options menu, under the Extras tab, select Auto Gas Fill, or select the Auto Gas Filler button in surgery mode. The AGF port on the console illuminates for ease of identification.	Circulator
3. Connect the purple pneumatic connector assembly to the filter on the AGF Syringe assembly.	Scrub Nurse
4. Connect the clear tubing found on the pneumatic connector assembly to the female luer port on white rear adapter on the AGF Syringe assembly. The AGF is now ready for connection to the AGF port on the console. Note: Verify that the luer connections are securely attached.	Scrub Nurse
5. The AGF is equipped with ENGUAGE™ RFID and upon connection to the console the ring around the AGF port illuminates green to confirm a proper connection. The port on the console is color coded for ease of identification. **NOTE: The flange on the connector acts as a sterile barrier so this task can be performed by the sterile scrub nurse.**	Scrub Nurse
6. On the AGF control screen, select the type of gas to be used for the procedure (C3F8 or SF6). Press the start button to initiate the filling process. The console will perform the purge and fill cycles automatically based on the user defined setting. Note: Ensure that the plunger is fully retracted at the back of the syringe. A partially retracted syringe would indicate an incomplete fill/purge cycle process. If this happens, repeat the Gas filling step a second time and if the problem persists, replace with another kit and contact Customer Service.	Scrub Nurse
7. Remove the AGF Syringe by first disconnecting the clear tubing from the rear adaptor on the AGF Syringe Assembly. And then remove the AGF Syringe Assembly from the console by disconnecting the filter from the purple pneumatic connector. The purple pneumatic connector shall not be removed from the console until the end of the procedure for disposal.	Scrub Nurse
8. The AGF syringe assembly is filled with the selected gas. Two (2) preprinted labels are supplied with the kit to identify the type of gas contained in the syringe (C3F8 or SF6). The label can be applied directly to the syringe for identification.	Scrub Nurse
9. An extra clean filter (Blue) is provided with the kit, to be used as needed. The filter that comes pre-connected with the kit is clear (non-colored). The user can remove the clear filter and replace it with the sterile blue filter.	Scrub Nurse or Surgeon

Fragmentation Setup Procedure	
1. Scan the bar code on the Constellation® Fragmentation Kit with the Bar Code Scanner in the back of the Constellation® console.	Circulator or Non-sterile Scrub Nurse
2. Open the pouch and aseptically transfer the sealed plastic tray to the sterile field. The plastic tray that contains the components is considered sterile.	Circulator
3. Peel the Tyvek lid from the plastic tray and remove the contents from the tray. Note: Do not discard the plastic tray as it can be used to capture the excess fluid during priming and tuning.	Scrub Nurse
4. Connect the Female/Female luer to the Auxiliary Aspiration line (Light Blue). There is also an additional Female/Female luer in the small parts kit that come in the cassette Procedure Pak.	Scrub Nurse
5. Connect the Auxiliary Aspiration line to the luer port on the proximal end of the Fragmentation Handpiece.	Scrub Nurse
6. Connect the Fragmentation Handpiece electrical connector to the Ultrasound Handpiece port on the console.	Scrub Nurse
7. Attach the Fragmentation tip to the handpiece with the wrench that the tip was packaged in. NOTE: Do not discard the wrench as it is also used for the removal and disposal of the tip.	Scrub Nurse
8. Thread the tip on clockwise, and when tightened remove the wrench from the handpiece. Caution: Be cautious when handling without the tip cover as the tip is sharp.	Scrub Nurse
9. With the tip wrench removed, attach the Tuning Tip Cover over the Fragmentation tip and on to the front end of the handpiece. Insure that the tip is not in contact with the cover and that the tabs are engaged by means of a positive snap for secure attachment. The Handpiece and tip is ready for Priming and Tuning	Scrub Nurse
Push Prime Set Up Procedure	
1. Set the Handpiece on the Plastic tray supplied or an absorbent drape where excess fluid from priming can be captured. If the plastic tray is used, insure that it is sitting on a stable surface. NOTE: Push Prime is only available during initial set up together with the Cassette Pak. Once the console enters Surgery Mode, the Handpiece will need to be Suck Primed (see below for instructions)	Scrub Nurse
2. Initiate Prime in the Set Up Screen and the Handpiece will be primed and tuned as part of the Console Priming/Set Up sequence.	Scrub Nurse
3. Wait for the confirmation that priming and tuning was successful prior to use.	Scrub Nurse
Aspiration Prime Set Up Procedure	
1. Prepare a cup or well with sterile fluid (Water/BSS) large enough such that the entire Priming/Tuning Tip cover is submerged below the fluid level.	Scrub Nurse
2. Submerge the front end of the Fragmentation Handpiece slowly in the fluid container. NOTE: Verify that the entire front end including the Tuning Tip Cover is submerged in the fluid and the tip cover is filled with fluid. Verify that the tip is not in contact with the cover or any other surfaces.	Scrub Nurse
3. Initiate Prime in the Set Up Screen and the handpiece will be primed and tuned as part of the console priming set up sequence.	Scrub Nurse
4. Wait for the confirmation that priming and tuning was successful prior to use.	Scrub Nurse

Viscous Fluid Control Setup Procedure	
Syringe Adapter Connection	
WARNINGS! **• Do not use if a stream of air bubbles is observed passing through the fluid** **• Do not use VFC Kit with fluid viscosity greater than 5000 centistoke**	
1. Scan the bar code on the VFC Kit with the Bar Code Scanner in the back of the Constellation® console. Select VFC in the Accessories panel.	Circulator or Non-sterile Scrub Nurse
2. Peel the lid from the pak and aseptically transfer the components to the sterile field.	Circulator
3. Connect the ENGAUGE™ RFID connector on the VFC Syringe Adapter to the Viscous Fluid Control Port on the console. The VFC port on the console will be lit to indicate the appropriate port for connection. NOTE: The flange on the connector acts as a sterile barrier so this task can be performed by the sterile scrub nurse.	Scrub Nurse
Silicone Oil Injection	
1. When ready to perform the silicone oil injection procedure, select the VFC Injection function in Surgery Mode. Select the gauge of the cannula planned for the procedure.	Circulator or Scrub Nurse
2. Ensure that the tip cap is securely attached to the 10 cc syringe barrel.	Scrub Nurse
3. Following the directions for use supplied with the sterile Silicone Oil (i.e. Alcon Silikon 1000, REF 8065601185), aseptically transfer viscous fluid to the syringe barrel. Care should be taken to prevent air bubbles from entering syringe.	Scrub Nurse
4. Partially insert the syringe stopper supplied in the kit to prevent the silicone oil from spilling.	Scrub Nurse
5. Tilt the syringe barrel such that the luer tip is pointing upwards and remove the tip cap to allow air to escape and complete inserting the syringe stopper.	Scrub Nurse
6. Keeping the Cannula cover on, attach the desired VFC cannula to the syringe. There is both a 20 Ga and 23 Ga Cannula provided with the kit.	Scrub Nurse
7. Using the plastic push rod included with the kit, advance the stopper to purge all air from the syringe and cannula.	Scrub Nurse
8. Connect the silicone oil filled syringe barrel to the syringe adapter by pushing down until it bottoms out and rotate the barrel 90°. Ensure that the flanges on the syringe barrel are entirely engaged with the adapter.	Scrub Nurse
9. Remove the cannula cover while tilting the cannula tip up, carefully pressurize the syringe to expel any remaining air that is trapped in the syringe barrel. Wrap the cannula tip in sterile gauze, lint free cloth or sponge to capture any expelled fluid.	Scrub Nurse
10. On the VFC screen, adjust the appropriate injection pressure and the device is ready for use.	Scrub Nurse
Silicone Oil Extraction	
1. Follow the same procedure for Syringe Adapter Connection as described above.	Scrub Nurse
2. When ready to perform the silicone oil extraction procedure, select the VFC Extraction function in Surgery Mode. Select the gauge of the cannula planned for the procedure.	Circulator or Scrub Nurse
3. Remove the tip cap from the 10 cc syringe barrel and insert the syringe stopper supplied in the kit. Use the plastic push rod to push the stopper all the way to the bottom of the syringe barrel.	Scrub Nurse

4. Connect the syringe barrel to the syringe adapter by pushing down until it bottoms out and rotate the barrel 90°. Ensure that the flanges on the syringe barrel are entirely engaged with the adapter.	Scrub Nurse
5. Keeping the Cannula cover on, attach the desired VFC cannula to the syringe. There is both a 20 Ga and 23 Ga Cannula provided with the kit.	Scrub Nurse
6. On the VFC screen, set the appropriate vacuum level for the procedure and the device is ready for use. Remove the cannula cover prior to insertion to protect the cannula tip.	Scrub Nurse

Extrusion Setup Procedure	
The extrusion handpiece connects to the suction/aspiration line from the cassette.	
1. Present a sterilized extrusion handpiece to Scrub Nurse.	Circulating Nurse
2. *For Combined procedure cassettes:* Connect the handpiece to the aspiration line (light blue) of the irrigation/aspiration tubing set. The irrigation line (light green) is not used. Use the white male/male luer to adapt the extrusion handpiece to the blue connector of the aspiration line. *For Posterior procedure cassettes:* Connect the handpiece to the auxiliary aspiration tubing (light blue). Adaptor is not required.	Scrub Nurse
3. Place the handpiece in a sterile cup in preparation for priming. When aspiration prime is selected, fill the sterile cup with sterile water or BSS. Ensure the suction port is submerged in the fluid.	Circulating Nurse
4. Press **Start Prime** to complete the set up process.	Scrub Nurse

Fiber Optic Illuminator Setup Procedure	
1. Remove the fiber optic illuminator probe/fiber from the pak, carefully uncoil the fiber, and present the metal connector to Circulating Nurse.	Scrub Nurse
2. Accept the metal connector from Scrub Nurse and plug it into the desired illuminator connector. Verify it is fully seated in the adaptor.	Circulating Nurse
3. Slide the protective sheath from the tip of the illuminator probe. Press the appropriate global **Illuminator** key to turn the illuminator ON. Adjust the intensity as needed. Turn illuminator OFF when not in use.	Scrub Nurse
Optional fiber optic illuminator probes can be connected to the second illuminator connector, supplementing the standard probe. Optional probes include the following: bare-end, straight pick, pre-bent pick, wide angle, shielded bullet, illuminated laser, and end irrigating. Some of these probes deliver substantially less light output than the standard probe, necessitating higher brightness levels.	

Diathermy Setup Procedure	
1. Scan the bar code on the Diathermy Kit with the Bar Code Scanner in the back of the Constellation® console. Verify on the set up screen that Diathermy is indicated on the screen and diathermy ports are illuminated.	Circulator or Non-sterile Scrub Nurse
2. Present Diathermy Kit to Scrub Nurse.	Circulating Nurse
3. Remove diathermy handpiece from packaging and present connectors to Circulating Nurse.	Scrub Nurse
4. Accept connectors from Scrub Nurse and connect to the illuminated Diathermy receptacles	Circulating Nurse
5. Adjust the Diathermy power level as required.	Circulating Nurse

Pneumatic Handpiece Setup Procedure

The Constellation® Pneumatic Scissors and Forceps Handpieces are designed to be used with the Alcon Constellation® System and any reusable or disposable Grieshaber Microinstrument Tips with Quick Lock Connector. It is provided sterile and is intended for single use. The handpiece can be operated in Multicut (Scissors) or in Proportional mode. The mode of operation must be selected according to the type of tip and the surgical application.

WARNINGS!

- **For physician's use only.**
- **Do not use the handpiece if the sterile package is damaged.**
- **Do not use after the expiration date.**
- **The handpiece is a sterile single use device and shall not be reused. Alcon Grieshaber assumes no responsibility for complications that may arise as a result of the reuse or improper use of the instrument.**
- **The handpiece shall be stored in a dark, dry and cool place. Do not expose to organic solvents, ionizing radiation or ultra violet light.**
- **If any handpiece is received in defective condition, Alcon Grieshaber has to be notified. Do not use damaged or defective handpieces.**
- **The instrument tip must be properly attached to the handpiece. Check that the dot on the tip aligns with the mark on the counter-piece and that the tip fits tightly.**
- **After attaching the instrument tip to the handpiece, but prior to each use, the tip must be thoroughly inspected for tight fit, correct function, wear and damage.**

1. In the setup screen, select the instrument to be used, either Forceps, Multicut Scissor, or Proportional Scissor and make settings adjustments as desired. The connector on the Constellation® illuminates blue/purple indicating where to connect the handpiece.	Scrub Nurse
2. Remove pneumatic handpiece from the sterile package and present connector to Circulating Nurse.	Scrub Nurse
3. Accept the connector from Scrub Nurse and plug it into the illuminated port on the console, depending on the type of instrument tip to be used. Lock the connector by turning clockwise and ensure the connector is firmly locked. The port illuminates green indicating the handpiece has been attached to the correct port. If the port illuminates amber, the handpiece has been connected to the wrong connector.	Circulating Nurse
3. Detach the instrument tip from the protection cap (reusable tips) or remove the instrument tip from the blister pack of the sterile package (disposable tips).	Scrub Nurse
4. Attach the instrument tip to the handpiece: Align the pin in the tip with the groove in the connector part of the handpiece. Slide the tip longitudinally onto the handpiece. Twist the tip clockwise until the dot of the tip aligns with the marking on the handpiece. While doing this, two clicks will be noticeable.	Scrub Nurse
5. Place scissors in the closed position by pressing the assigned footswitch button. This action will keep the instrument in closed position while passing through the cannula or the sclerotomy.	

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SECTION FOUR
CARE AND MAINTENANCE

INTRODUCTION

This section of the manual is designed to inform the operator of basic care and maintenance of the instrument. If a problem occurs on the instrument, call the Alcon Technical Services Department and give details of the breakdown circumstances and effects. From these elements, a specialized technician will evaluate the problem and determine the maintenance requirements.

For optimum performance, it is the user's responsibility to schedule preventive maintenance service on the system and its accessories at least one time each year. Alcon's Field Service Engineers are trained and equipped to provide the highest quality of workmanship.

CAUTION

There are no operator replaceable parts other than the fuse. Contact Alcon Technical Services for all servicing issues.

WARNING!

The *Constellation*® Vision System battery can only be serviced by a factory-trained Alcon service personnel. Access by untrained personnel can lead to injury.

CARE AND CLEANING

The following tips are recommended for proper care of the *Constellation*® Vision System:

- Follow cleaning and maintenance schedules outlined in this section of the manual.
- Periodically check chassis appearance.
- Pay attention to correct operation of controls, connectors, and indicators.
- Damaged hardware must be replaced to ensure safe operation. Call Alcon Technical Services for assistance.

WARNING!

A qualified technician must perform a visual inspection of the following components every twelve months:

- **Warning Labels (see section one of this manual)**
- **Power Cord**
- **Fuses**

In case of a deficiency, do not use the system; call Alcon Technical Services.

A qualified technician must check ground continuity for leakage current every twelve months to ensure they are within the applicable standards (for example: EN60601-1/IEC601-1). Values must be recorded, and if they are above the applicable standards, do not use the system; call Alcon Technical Services.

UPON COMPLETION OF THE PROCEDURE

STEP ONE: Clean handpieces, probes, cables, forceps, etc., as instructed in DFU's supplied with each accessory.

STEP TWO: Remove irrigation bottle from hanger and set aside. Remove spike from irrigation bottle and discard tubing.

STEP THREE: Eject cassette and discard.

STEP FOUR: Flip the irrigation bottle holder to its storage position.

STEP FIVE: Press Standby power switch located at top of rear panel to remove operating power from the system.

STEP SIX: Turn the Main power switch OFF. It is located in the middle of the rear panel above the power cord.

STEP SEVEN: Remove air hose. Turn off C3F8 and SF6 valves.

STEP SEVEN: Disconnect the power cable from the wall receptacle and wind the cable around the cord wrap.

STEP EIGHT: Place the footswitch and cable in storage compartment in front of base.

STEP NINE: If required, the front panel, the console, the footswitch, and the remote control may be wiped with non-corrosive germicidal solution, alcohol, or mild soap and water.

CAUTIONS

- **Do not clean console or accessories using solvents or abrasives.**
- **Avoid spilling *BSS*® solution, or moisture of any kind, around the electrical handpiece connectors.**

STERILIZATION INSTRUCTIONS

Please consult the accompanying Directions For Use (DFU) for cleaning and sterilization instructions for Alcon approved reusable accessories. The DFU will provide the recommended time and temperature guidelines for steam autoclave cycles performed by Alcon, Inc. **The sterility assurance level achieved with these parameters must be validated by each surgical facility**. Please refer to Association for the Advancement of Medical Instrumentation (AAMI) Standards or your facility's standard procedures for the most current specifications.

Additionally, per the Sterilizer Equipment Manual, the sterilizer reservoir is to be filled with distilled or deionized water.

NOTE: The reusable items will withstand steam autoclave cycles at 134° C (273°F). **Due to the variations found in steam autoclaves and the variable bioburden on devices in clinical use, it is not possible for Alcon to provide specific parameters to ensure an adequate sterility assurance level. Validation of the individual autoclave, and verification of the sterility assurance level achieved with a given steam sterilization cycle, must be performed by each surgical facility. Please refer to below AAMI Standards or your facility's standard procedures for the most current specifications.**

Please refer to appropriate accessory DFU for proper cleaning instructions.

AAMI TIR No. 12-1994, Designing, Testing, and Labeling Reusable Medical Devices for Reprocessing in Health Care Facilities: A Guide for Device Manufacturers.

ANSI/AAMI Standards and Recommended Practices Volume 1.1: Sterilization

- Designation ST37-1996 (Good Hospital Practice: Flash sterilization – steam sterilization of patient care items for immediate use)
- Designation ST46-1993 (Good Hospital Practice: Steam sterilization and sterility assurance)

Reusable Handpiece and Accessories Cleaning and Sterilization Instruction

The following cleaning instructions provide a method for effectively cleaning the reusable U/S and handpieces and accessories. Due to the potential for Toxic Anterior Segment Syndrome (TASS), Alcon does not recommend the use of enzymatic cleaners and detergents. If however, local jurisdictions mandate their use relative to ophthalmic instruments, the materials of construction are compatible, up to a pH of 11.3, when the enzymatic chemicals and detergents are completely rinsed/neutralized immediately after cleaning/processing.

1 Thoroughly clean the handpiece before initial use and IMMEDIATELY after each subsequent use. Do not allow the handpiece to dry after use until thoroughly cleaned. Both a manual cleaning process and a cleaning process using an automated washer are presented.

2 Manual Cleaning Procedure
Perform the following steps to manually clean the handpieces and accessories. If an automated washer will be used for clean, go to step 3.

2.1 Remove any attached tubing sets and any disposable items such as tips and sleeves from the handpiece. Discard according to surgical facility guidelines.

NOTE: For reusable I/A tips, do not remove until after the flushing in steps 5 and 6.

2.2 For handpieces with electrical connectors, disconnect the connector from the console and install the protective cap prior to cleaning.

2.3 Wipe any residue from the handpiece with a soft, non-abrasive cloth and rinse the handpiece with distilled or sterile water to remove any remaining debris. If necessary, wash the exterior of the handpiece using a soft bristled brush.

2.4 Submerge the handpiece and tips in a container of sterile or distilled water. For handpieces with electrical components, only submerge the nose cone (front part) of the handpiece.

2.5 Using a syringe, draw or push a minimum of 120 ml of sterile, dionized/distilled water through all aspiration and irrigation path ways (where applicable).

2.6 Using a syringe, flush all ports with 60 ml of air.

2.7 Dry the exterior surfaces of the handpiece body, tips and accessories with soft, non-abrasive cloth.

2.8 Place the cleaned handpiece and cable in the sterilization tray to prevent damage to connector and handpiece during storage and autoclaving.

3 Automated Washer Cleaning Procedure

In the event use of an automated process is required, perform all of the following steps to process the handpiece.

NOTES:
a) Due to the potential for the accumulation of particulate and bioburden residues in the washer water reservoirs, it is the surgical facility's responsibility to properly maintain the equipment and their associated filters to ensure the introduction of contaminant-free solutions into the handpieces.
b) This automated washing procedure provides a method per ISO 176641 for effectively processing up to three (3) handpieces at a time.
c) The temperatures and cycle parameters below will not cause damage to the product.
d) Do not wash the handpieces with non-ophthalmic instruments.

3.1 Manually clean the handpiece immediately after each surgical procedure per the manual cleaning procedure above before using an automated washer.

3.2 Prepare the washer with multi-purpose injector per the washer operator's manual. The circulation rate of the automated washer should be at least 106 gallons (401 liters) of water per minute. The use of a typical automated washer and wire basket is depicted below. **Note: Use de-ionized water only.**
Required materials:
• Detergent with pH range of 8.5 up to 9.5
• Organic acid neutralizer with pH range of 2.6 to 3.0.
• Adaptors and silicone tubing, e.g. Customized Auto Wash Kit: Alcon REF 8065750456.

3.3 Set detergent and neutralizer dispensers as recommended by detergent and washer manufacturer.

3.4 Program washer to have the following automated cycle:

- Main wash at 55° C for 10 minutes (dispense detergent as recommended by detergent and washer manufacturer)
- Neutralize for a minimum of 1.5 minutes (dispense neutralizer as recommended by detergent and washer manufacturer)
- Rinse for 5 minutes at 22 - 27° C then drain
- Repeat rinse for 5 minutes at 22 - 27° C then drain
- Final Rinse at 70° C for 1.5 minutes then drain
- Dry at 100° C for 5 minutes

NOTE: Additional rinsing steps will not alter the effectiveness of the validated cycle.

3.5 Using the Auto Wash Kit, secure the handpiece to the wire mesh basket using the small gauge wire and connect the handpiece with the “Y” adapter assembly as shown.

Figure 4-1. Auto Wash: Handpiece with "Y" Adapter Connected

3.6 Place wire basket with handpiece in multi-purpose injector rack and connect the “Y” adapter assembly to the 4 mm diameter injector nozzle as shown.

Figure 4-2. Auto Wash: "Y" Adapter Connected to Injector Nozzel

3.7 Plug off any unused injector nozzles with silicone tubing.

Figure 4-3. Auto Wash: Unused Injectors Shown Plugged Off
Pictured: Miele* Labwasher, Model G7735 with injector Model #0-177

3.8 Start the wash program. When the wash program is completed, replace the processed handpiece and cable in the sterilization tray to prevent damage to connector and handpiece during storage and autoclaving.

4 Sterilize the handpiece using a steam sterilization cycle.

The sterilization temperatures and settings provided in Table 1 below have been validated by Alcon Laboratories, Inc. as being capable of sterilizing the reusable U/S and Frag handpieces and non-electrical accessories for re-use. It remains the responsibility of the processor to ensure that the processing as actually performed using equipment, materials and personnel in the facility achieve the desired result. This requires verification and routine monitoring of the process. Likewise any deviation by the processor from the instructions provided should be properly evaluated for effectiveness and potential adverse consequences. Please refer to nationally recognized standards, such as AAMI Standards[2,3,4] or to your facility's standard procedures.

NOTE: Due to the potential for the accumulation of particulate and bioburden residues in the sterilizer water reservoirs, it is the surgical facility's responsibility to properly maintain the equipment and their associated filters to ensure the introduction of contaminant-free steam into the handpieces.

Table 4-1. Recommended Sterilization Temperatures and Time Settings

Sterilizer Type	Pulses	Sample Configuration	Temperature	Min. Exposure Time for U/S and Frag Handpiece (Minutes)	Min. Exposure Time for non-electrical accessories (Minutes)
Gravity Displacement	N/A	Wrapped	132°C (270°F)	18	15
Gravity Displacement	N/A	Unwrapped	132°C (270°F)	8	10
Pulsing Prevacuum	4	Unwrapped	132°C (270°F)	4	4
Pulsing Prevacuum	4	Wrapped	134°C (273°F)	5	5
Pulsing Prevacuum (four negative and four positive pulses)	4	Wrapped	134-137°C (273-279°F)	3	3

References:
1. ISO 17664: Sterilization of medical devices - Information to be provided by the manufacturer for the processing of resterilizable medical devices
2. AAMI TIR12:2004, Designing, testing, and labeling reusable medical devices for reprocessing in health care facilities: A guide for device manufacturers, 2ed.
3. AAMI TIR30:2003, A compendium of processes, materials, test methods, and acceptance criteria for cleaning reusable medical devices, 1ed.
4. ANSI/AAMI ST79:2006, Comprehensive guide to steam sterilization and sterility assurance in health care facilities.
* Registered trademark of Miele & Cie. KG

Disposal of Xenon Lamps

WARNING!

The bulb of the xenon lamp is under constant high pressure. There is a risk it may burst with explosive force if knocked or damaged. Protective measures:
- Keep the lamp in its protective sleeve at all times during installation
- If you are handling the lamp without its protective sleeve, always wear safety goggles, a face mask, gauntlets with wrist protectors and a breast protector.

In the USA contact the Alcon Technical Services Department for lamp disposal at 800/832-7827. Outside the USA contact your local Alcon affiliate.

SECTION FIVE
TROUBLESHOOTING

Table 5-1 is a general troubleshooting guide that addresses symptoms/observations and what the operator can do to try and solve the observed problem. Figure 5-5 and Table 5-2 are presented as aids to rapid location of failed or malfunctioning parts or components in the *Constellation®* Vision System; they are not meant to replace standard troubleshooting methods. In all cases, should the corrective actions not provide the desired result, call your Alcon Technical Services Department.

Equipment Malfunction

The system communicates equipment information and malfunctions through the display of Information Messages, Advisories, System Errors, and System Faults based on the level of severity.

The presentation of errors is priority based, with System Faults being the highest followed by System Errors, Advisory Messages, and Information Messages. Since it is possible for the system to generate multiple simultaneous error conditions, the errors are queued according to their priority. In the event of multiple error conditions within the same category, the most recent error is displayed.

System Fault Messages

System Faults are displayed full screen as shown in Figure 5-1. System Faults require complete system shutdown and the system performs the following actions when a fault is detected:

- Place Sub-Systems into a safe state.
- Display fault message screen.
- Activate an error tone.
- Ignore any input from all the keys and the footswitch.
- The user must cycle power to reset the system.

Figure 5-1 System Fault Display Screen

System Error Messages

System Error Messages are displayed in a dialog box as shown in Figure 5-2 System Errors require a partial system shutdown. When an error is detected, the following actions occur.

- Surgical modes related to the error are disabled.
- A System Error dialog box is displayed. If the error does not affect the current active modes, they will remain activated, but the System Error dialog will still be displayed. The dialog will be removed when the user presses a key to acknowledge the error.
- Activate an error tone.
- Keys of unavailable modes will be disabled\grayed. If an unavailable mode key is pressed, an invalid key tone is emitted and the System Error dialog will again be displayed.
- (TBD) Once a System Error occurs, its status remains until the system power is cycled. No attempt is made to recover; i.e. modules are not reset and then tested again. The unavailable modes will not be made available. The exception to this case is the LPA low-pressure error due to the case of the user triggering this error during routine setup of the machine. This error can be cleared by correcting the error condition or by operator acceptance of the condition.

Figure 5-2 System Error Dialog Box

Advisory Messages

Advisory Messages are displayed in a dialog box as shown in Figure 5-3. Advisory Messages indicate a minor failure in the system, typically a situation that can be corrected by the user. When an advisory is detected, the following actions occur:

- Surgical modes relating to the advisory are not available.
- An Advisory Message popup window is displayed. The dialog is removed if the condition is corrected or if the operator presses a popup window key to acknowledge the advisory.
- Activate an advisory tone.

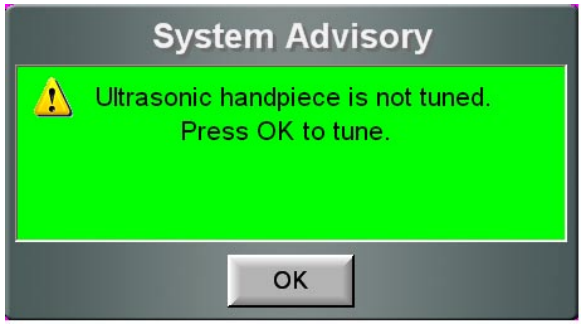

Figure 5-3 Advisory Dialog Box

Information Messages

Information Messages are displayed in a dialog box as shown in Figure 5-4. Information Messages indicate are displayed to confirm a critical operator request or to provide status. When a condition corresponding to a system message is displayed, the following actions occur:

- An Information Message dialog box is displayed. The dialog is removed when the action is completed, or when the operator presses a dialog box key to acknowledge the Information Message.

Figure 5-4 System Information Dialog Box

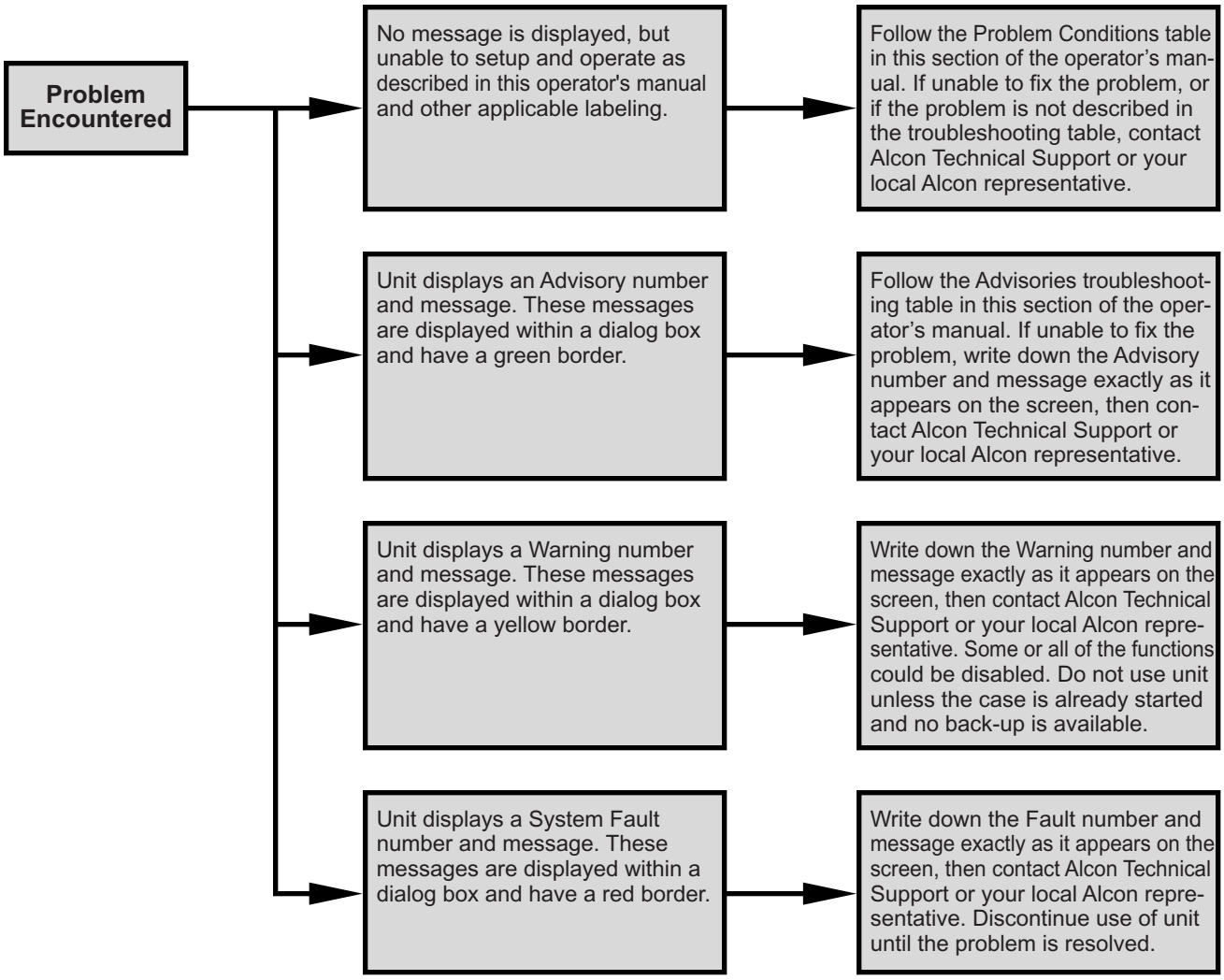

Figure 5-5 TROUBLESHOOTING GUIDE - When a problem is encountered, refer to this chart first.

SECTION SIX
ACCESSORIES AND PARTS

In this section of the *Constellation®* Vision System Operator's Manual is a list of Alcon-approved accessories and replacement items. **Use of non-approved accessories cannot be permitted.**

Please contact the Alcon Sales Department for in-service information prior to initial use of handpieces, accessories, or paks.

For additional information, please contact the Alcon Sales Department.

Phone:
(800) 862-5266 or
(817) 293-0450
Ask for Customer Service

Write:
Alcon, Inc.
6201 South Freeway
Fort Worth, TX. 76134-2099

INTERNATIONAL: Please contact your local Alcon Sales Office.

Table 6-1. Constellation® Vision System Accessories

Description	Current Part/Catalog Number
Quick Lock Scissor Tip	712.01.00
Quick Lock Scissor Tip	712.21.00
Quick Lock Scissor Tip	712.22.00
Quick Lock Scissor Tip	712.24.00
Quick Lock Scissor Tip	712.25.00
Quick Lock Scissor Tip	712.26.00
Quick Lock Scissor Tip	712.51.00
Quick Lock Scissor Tip	712.52.00
Quick Lock Scissor Tip	712.53.00
Quick Lock Scissor Tip	712.71.00
Quick Lock Scissor Tip	712.77.00
Quick Lock Forceps Tip	712.03.00
Quick Lock Forceps Tip	712.09.00
Quick Lock Forceps Tip	712.10.00
Quick Lock Forceps Tip	712.12.00
Quick Lock Forceps Tip	712.13.00
Quick Lock Forceps Tip	712.16.00
Quick Lock Forceps Tip	712.20.00
Quick Lock Forceps Tip	712.41.00
Quick Lock Forceps Tip	712.42.00
Quick Lock Forceps Tip	712.43.00
Quick Lock Forceps Tip	712.44.00
Quick Lock Forceps Tip	712.45.00
Quick Lock Forceps Tip	712.46.00
Quick Lock Forceps Tip	712.48.00
Quick Lock Forceps Tip	712.80.00
Quick Lock Forceps Tip	712.81.00

Description	Current Part/Catalog Number
Quick Lock Forceps Tip	712.91.00
Quick Lock Forceps Tip	712.94.00
Quick Lock Forceps Tip	712.95.00
Quick Lock Forceps Tip	712.96.00
20 Ga UltraVit Probe, 5000 CPM w/RFID	8065750948
23 Ga UltraVit Probe, 5000 CPM w/RFID	8065750949
25 Ga UltraVit Probe, 5000 CPM w/RFID	8065750950
20 Ga UltraVit Probe, 2500 CPM w/RFID	8065751017
23 Ga UltraVit Probe, 2500 CPM w/RFID	8065751018
25 Ga UltraVit Probe, 2500 CPM w/RFID	8065751019
20 Ga AVIT UltraVit	8065751020
Constellation® Pneumatic Handle	NA
Constellation® Frag Handpiece	8065750888 212-1602-501
Handpiece, Infiniti™* Ultrasound	210-1125-501 8065750439
VFC Kit	8065750957
AGF	8065751014
20 ga Frag Kit	8065750956
Diathermy	8065807901
23 GA Wide angle with RFID	8065751184

Table 6-1. Constellation® Vision System Accessories

Description	Current Part/Catalog Number
25 GA Wide angle with RFID	8065751185
Light probe, Bare End	8065750998
Light probe, Ryan Pik	8065751000
Light probe, End Irrig	8065751001
Light probe, Mem Pik	8065751002
Light probe, Shielded Bullet w/Pik	8065751003
Laser, RFID, 20 GA, 102-C	8065750989
Laser, RFID, 20 GA, 102-S	8065750990
Laser, RFID, 23 GA, S	8065750991
Laser, RFID, 25 GA, S	8065750978
Laser, RFID, Chang 107-C	8065750979
Laser, RFID, Chang 107-S	8065750980
Laser, RFID, Chang 107ST	8065750981
Laser/III RFID 20 GA C	8065750985
Laser/III RFID 20 GA S	8065750986
30° Round, 0.9 mm ABS® Tip	8065741085
45° Round, 0.9 mm ABS® Tip	8065741086
30° Kelman®, 0.9 mm ABS® Tip	8065741087
45° Kelman®, 0.9 mm ABS® Tip	8065741088
30° Round, 1.1 mm ABS® Tip	8065741089
45° Round, 1.1 mm ABS® Tip	8065741090
30° Kelman®, 1.1 mm ABS® Tip	8065741091
45° Kelman®, 1.1 mm ABS® Tip	8065741092
30° Round, 0.9 mm Flared ABS® Tip	8065741093
45° Round, 0.9 mm Flared ABS® Tip	8065741094
30° Kelman®, 0.9 mm Flared ABS® Tip	8065741095
45° Kelman®, 0.9 mm Flared ABS® Tip	8065741096
30° Round, 1.1 mm Flared ABS® Tip	8065741097
45° Round, 1.1 mm Flared ABS® Tip	8065741098
30° Kelman®, 1.1 mm Flared ABS® Tip	8065741099
45° Kelman®, 1.1 mm Flared ABS® Tip	8065741100

Description	Current Part/Catalog Number
30° Round, 0.9 mm Tapered ABS® Tip	8065750278
45° Round, 0.9 mm Tapered ABS® Tip	8065750279
30° Kelman®, 0.9 mm Tapered ABS® Tip	8065750280
45° Kelman®, 0.9 mm Tapered ABS® Tip	8065750281
30° Round, 0.9 mm Tip	8065750282
45° Round, 0.9 mm Tip	8065750283
30° Kelman®, 0.9 mm Tip	8065750284
45° Kelman®, 0.9 mm Tip	8065750285
30° Round, 1.1 mm Tip	8065750286
45° Round, 1.1 mm Tip	8065750287
30° Kelman®, 1.1 mm Tip	8065750288
45° Kelman®, 1.1 mm Tip	8065750289
0.9 mm MicroSmooth® High Infusion Sleeve	8065740842
1.1 mm MicroSmooth® High Infusion Sleeve	8065740872
0.9 mm MicroSmooth®	8065750159
1.1 mm MicroSmooth®	8065750160
0.9 mm MicroSmooth® Ultra Infusion Sleeve	8065750517
1.1 mm MicroSmooth® Ultra Infusion Sleeve	
1.1 mm MicroSmooth® Micro Infusion Sleeve	
30° Round, 0.9 mm Tapered MicroPhaco Tip	
45° Round, 0.9 mm Tapered MicroPhaco Tip	
30° Kelman®, 0.9 mm Tapered MicroPhaco Tip	8065750439
45° Kelman®, 0.9 mm Tapered MicroPhaco Tip	
30° Round, 0.9 mm MicroPhaco Tip	
45° Round, 0.9 mm MicroPhaco Tip	
30° Kelman®, 0.9 mm MicroPhaco Tip	
45° Kelman®, 0.9 mm MicroPhaco Tip	
I/A Tip 0.5 mm	355-1009
I/A Tip 0.3 mm Small Bore	356-1007
I/A Tip 0.3 mm Small Bore Mod	356-1009
I/A Tip 0.3 mm Bent	356-1010

Table 6-1. Constellation® Vision System Accessories

Description	Current Part/Catalog Number
I/A Tip 0.3 mm Bent & Sand Blast	356-1020
Silicone I/A Tip, Straight	
Silicone I/A Tip, Bent	
Straight Tip, .3 mm	8065750439
45° Bent Tip, .3 mm	8065750439
90° Bent Tip, .3 mm	
Ultraflow™* IA Handpiece Comp	
Ultraflow™* IA Handpiece Only	
Ultraflow™* IA Tip STR	
Ultraflow™* IA Tip CRVD	
Ultraflow™* IA 45°	
Ultraflow™* IA 90°	
Ultraflow™* IA 1200	
Coaxial Anterior Vitrectomy Irrigation Sleeve - Reusable	
Coaxial Anterior Vitrectomy Irrigation Sleeve - Single Use	
Bipolar Cable, 12 ft. Silicone, IEC-601	
Bipolar Cable, 12 ft. Disp. Ster IEC-601	
Brush, 18 Gage, Straight	
Brush, 20 Gage, Straight	
Brush, 18 Gage, Curved	
Brush, 18 Gage, Widestroke	
Brush, 23 Gage, Tapered	
Vertical Scissors DSP 0.7mm	
Vertical Scissors DSP 0.9mm	
Vertical Scissors DSP 1.0mm	
Vertical Scissors DSP 1.5mm	
Proportional Handpiece Standalone	
Snap Action Handpiece Standalone	

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