A stylized graphic of a mountain range or aurora borealis in shades of green, blue, and purple, set against a dark blue background with a starry pattern.

AURORA XP

OPERATORS MANUAL

Video Veterinary Endoscopes

XP-VS3300

XP-VS1500

XP-VS1200

Important

These Video Endoscopes Have Been Designed For Endoscopic Diagnosis And Treatment Within The Animals' Digestive Tract. Do Not Use The Instrument For Any Purpose Other Than Its Intended Application. Please Read This Entire Manual Carefully Before Handling The Instrument. The Manual Contains Pertinent Information On The Proper Care And Handling Of Your New Endoscope. Although Endoscopes By Nature Are Delicate Instruments, Proper Handling And Cleaning, As Described In This Manual, Will Greatly Reduce The Need For Costly Repair And Extend The Life Of Your New Instrument. This Manual Describes The Recommended Procedure For Preparing And Inspecting The Equipment Prior To Use. It ***Does Not*** Elaborate On How The Actual Procedure Is To Be Performed. Nor Does It Attempt To Help A Beginner Become Familiar With Endoscopic Technique And The Medical Aspects Of Gastrosocopy. This Instrument Should Be Used Only By Animal Healthcare Providers Who Have Received Accredited Training In The Use Of A Small Animal Gastrosocope.

The Safety And Performance Of An Endoscopic System Depends Not Only Upon The Video Endoscope, But Also On Any Ancillary Equipment Used With It. To Ensure Compatibility, It Is Recommended That You Use Only Accessories Manufactured By Rutledge Medical. Since The Products Are Constantly Developed And Improved, There May Be Some Differences Between The Features Described In The Manual And Features Of The Delivered Endoscopes Or Their Hardware. If You Have Any Questions Concerning The Material Contained In This Manual Or Concerning The Operation Or Safety Of The Equipment, Please Contact Your Rutledge Medical Representative.

Upon Installation Of The Equipment

Please Check Each Item In The Kit Against The List Of Standard Components Found In Section 3. Contact Our Service Center Or Your Representative If There Are Any Missing Or Defective Parts. Refer To The Sections In The Main Specifications And Nomenclature To Become Acquainted With The Name And Function Of Each Part Of The Instrument. Review The Instrument Preparation, Inspection And Cleaning/Disinfecting Procedures Carefully. The Endoscope Should Be Disinfected Prior To Its Initial Patient Use. The Endoscope And Accompanied Accessories Should Be Removed From The Carrying Case And Stored As Described In Section 6-2 Storage. ***The Carrying Case Is Not Intended To Be Used For Storage Of The Instrument.*** Retain The Carrying Case **Only** For Shipping Or Transporting The Instrument.

 **Warning!**

For Veterinary Use Only – Not FDA Approved
Scopes Are Not Intended For Use On Humans

 **Warning!**

A Leak Test Is Required After Every Use Of The Endoscope. If A Leak Is Detected, Do Not Immerse The Endoscope In Fluid. Wipe Down The Insertion Tube And Control Body With Rubbing Alcohol, Place In “Dirty” Bag, Seal And Contact Your Rutledge Medical Representative Or Service Center.

 **Caution**

The Endoscope Is A Precision Instrument. Its Design Incorporates Many Features To Ensure Patient Safety. Specifically, The Deflection System, Which Is Constructed To Provide Smooth Response And Maximal Deflection Of The Distal Tip When Normal Force Is Applied To The Deflection Control Knobs. Excessive Pressure Applied To The Deflection Control Knobs Will Result In Damage To The Endoscope And May Cause Patient Injury. Before Introducing The Instrument Into The Patient, Check That The Deflection Control Locks Are In The “Free” (“F”) Position And That The Distal Tip Moves Without Any Measurable Resistance. If Abnormal Resistance Is Encountered When Introducing The Instrument Or When Operating The Deflection Mechanism, Do Not Use The Instrument. Contact Your Rutledge Medical Representative Or Service Center.

Conventions In Instructions

Symbol	Explanation
 Warning	Caution Items About Body Injury
 Caution	Caution Items About Equipment Damage

Conventions On Veterinary Video Processor

Symbol	Explanation
	The CE Mark On This Video Processor Indicates It Has Been Tested To And Conforms With The Provisions Noted Within The 93/42/EEC MDD.
	Bf Type
	Consult Instructions For Use
	Date Of Manufacture
	Manufacturer
	Authorized Representative In The European Community
	Serial Number

Table Of Contents

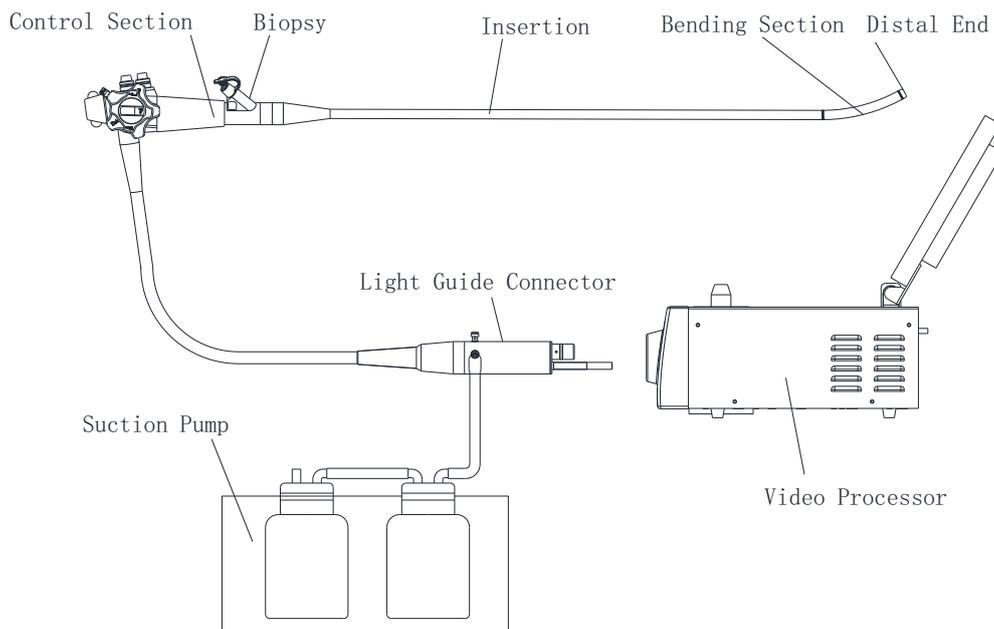
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1. Features And Main Specification

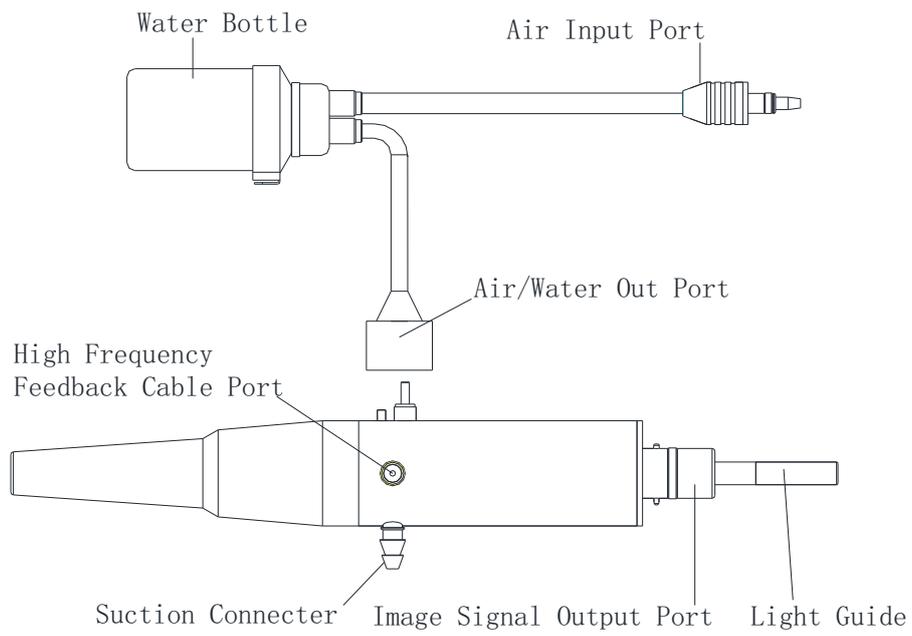
The Instrument Is A Veterinary Video Endoscope Featuring High-Definition Optics With A Wide-Angle Lens System.

Model No.	XP-VS3300	XP-VS1500	XP-VS1200
Working Length	3300mm	1500mm	1200mm
Insertion Tube Diameter	Φ 12.8mm	Φ 8.3mm	Φ 6.3 Mm
Tip Deflection	U/D 180° /180°	U/D 210° /90°	U/D 210° /90°
	L/R 160° /160°	L/R 100° /100°	L/R 100° /100°
Instrument Channel Inner Diameter	Φ 3.7mm	Φ 2.8 Mm	Φ 2.0 Mm
Angle Of View	120°		
Depth Of View	3-100mm		
Pixel Of Image	1000000		

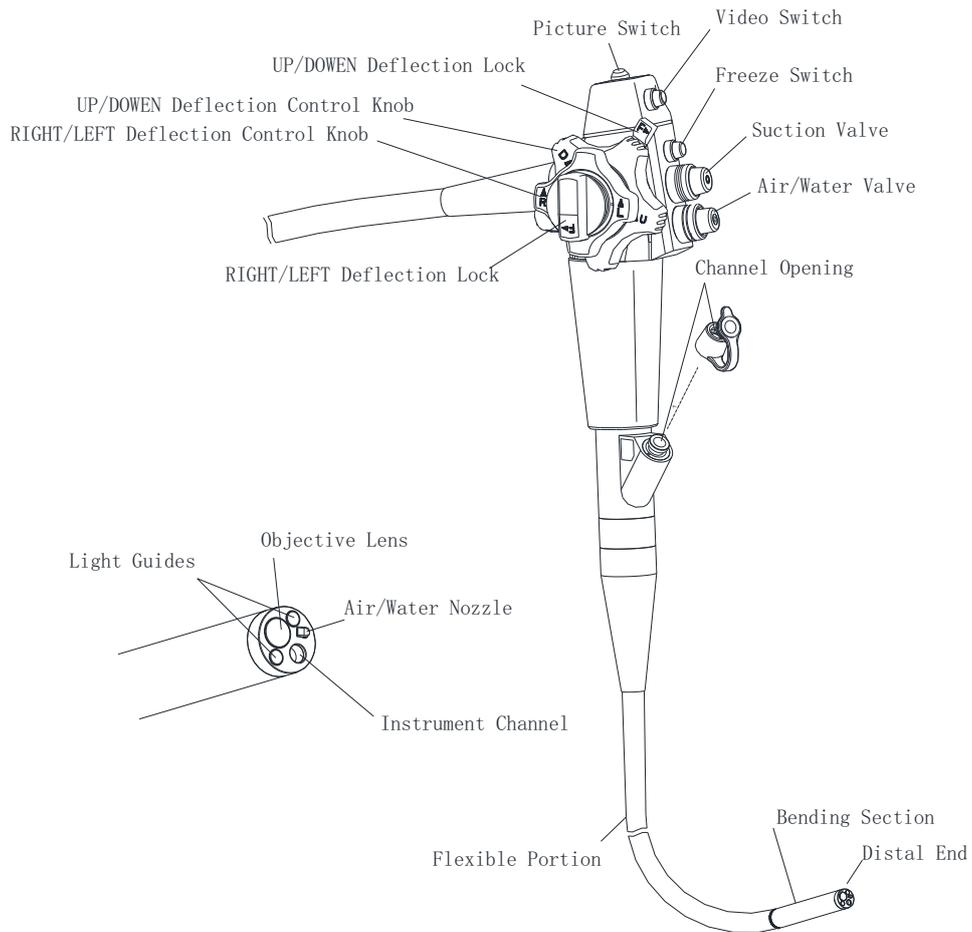
2. Nomenclature



Endoscope To Light Source Processor Connection



Water Bottle Connection



Endoscope Mechanical Parts

3. Standard Endoscope Kit

1) Video Endoscope.....	1
2) Biopsy Forceps.....	1
3) Foreign Body Forceps.....	1
4) Channel Cleaning Brush.....	1
5) Venting Cap.....	1
6) Leakage Tester.....	1

4. Preparation And Inspection Before Use

Plug The Power Cord (3-Pin Cord) Into A Properly Grounded Hospital Grade Receptacle, **DO NOT POWER ON.**

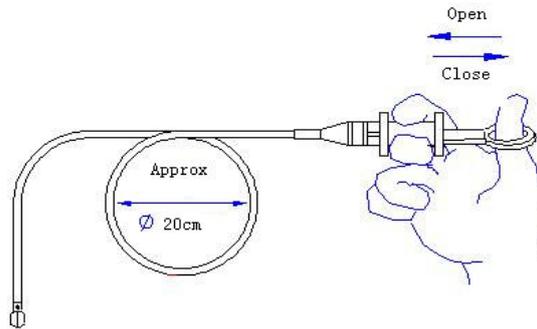
A. Preparation Of Endoscope

- i. First, Plug The Light Guide Connector Into The Video Processor. Fill Water Bottle Approximately 2/3 With Water. Tighten Cap Securely And Attach To The Slot On The Side Of The Video Processor. Connect The Water Bottle To Port On Side Of Video Processor And Connect Other Hose To Endoscope Umbilical Plug. Connect The Suction Tube To The Endoscope, Also At The Umbilical Plug. Switch On The Video Endoscope Processor – Switch In Back First Followed By Front Power Button. Wait For An Image On The Monitor And Ignite The LED Light Source. Inspect Video Image For Clarity And Adjust The Brightness Along With The AWB (Auto White Balance) To Make The Quality Of The Image Is Optimized For Your Procedure. Make Adjustments As Necessary. Unplugging The Light Source Processor Will Reset All Settings And Information Stored In The Processor. Image and Video Files Are Not Deleted Without Manual Intervention.

B. Preparation And Inspection Of Biopsy Forceps

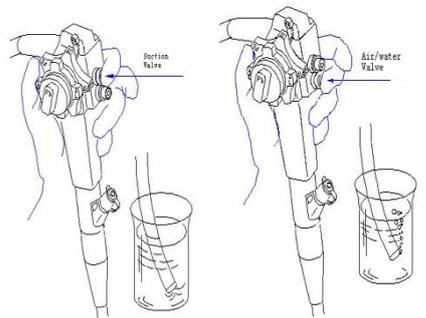
- i. Select Proper Biopsy Forceps For Procedure Being Performed. Biopsy Forceps Should Be Inspected ***Before Each Use!*** Form A Loop In The Biopsy Forceps Approximately 20cm In Diameter. Make Sure That The Forceps' Cups Open And Close Smoothly When The Handle Is Operated Using Light Force. If There Is ***Any*** Irregularity In The Operation Or External Appearance Of

The Forceps, Use Should Be Discontinued And They Should Be Replaced To Avoid Damage To The Endoscope.



C. Preparations And Inspection Of Suction Pump

- i. Plug The Power Cord Into A Properly Grounded Hospital Grade Receptacle (Wall Mains Outlet)
- ii. Inspect The Suction Pump Following Its Instruction Manual And Connect The Suction Tube To The Suction Pump Followed By The Suction Connector On The Light Guide Section Of The Endoscope.



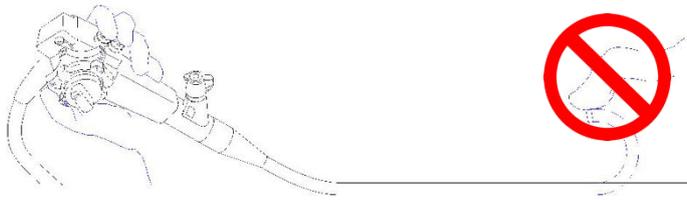
- iii. Turn On Suction Pump And Test Suction Power By Immersing The Scope's Distal Tip In 16 Oz of Water Or Alcohol, And Depressing The Suction Valve On The Scope Control Head.

D. Inspection Of The Endoscope System

- i. Before Each Use, The Instrument Should Be Inspected According To The Following Procedures.
 - 1) Inspect The Surface Of The Insertion Tube Visually For Any Dents, Buckles Or Other Irregularities. Run Your Fingertips Over The Whole Length Of The Insertion Tube Checking For Any Protruding Objects, Internal Looseness, Or Other Irregularities.

- 2) Operate The Deflection Control Knobs Slowly, Fully Retroflex In Each Direction. Make Sure The Bending Section Bends Smoothly And Correctly. Simultaneously, Inspect The Outer Surface Of The Bending Section For Small Holes, Breaks, Or Other Irregularities.

Should The Slightest Irregularity Or Abnormality Be Discovered, Discontinue Use Of The Endoscope And Contact Your Representative.



⚠ Warning

Do Not Bend Or Twist The Bending Section By Hand. Do Not Squeeze The Bending Section Forcefully.

- I. Observe An Object Approximately 10mm Away From The Distal Tip To Ensure Proper And Clear Visualization.
- J. Pass The Biopsy Forceps Through The Channel To Confirm Smooth Passage. **IF FORCEPS DO NOT PASS SMOOTHLY, DO NOT FORCE THEM THROUGH THE ENDSCOPE!**

⚠ Caution

Damage Will Occur To Both Biopsy Forceps And Instrument Channel If Excess Force Is Applied.

- K. Inspection Of Air/Water Feeding Mechanism
 - i. Activate The Air Pump On The Video Processor, You Should Hear A Small Stream Of Air Out Of The Blue Button On The Control Head Of The Scope. Use The Air/Water Valve To Emit Air Or Water From The Distal Tip. Observe Video Image For Water Prism On Screen To Confirm Proper Water Operation.

- L. The Final Preparation Before First Use
 - i. Disinfect Or Sterilize The Endoscope And Accessories As Described In Appendix I.
 - ii. Apply Silicone Wax (Lens Cleaner) To A Piece Of Clean Gauze And Lightly Wipe The Objective Lens And The Light Guide Lens. Remove Excess.

 Caution
When Cleaning The Objective Lens, Always Wipe In A Direction Away From The Air/Water Nozzle.

 Warning
<u>Do Not Use Olive Oil, Petroleum Based Lubricants Or Vaseline Based Lubricants. Lidocaine Viscous Should Not Be Applied Directly To The Endoscope. Otherwise, Damage Will Occur To The Material Of The Endoscope.</u>

5. Basic Procedural Operation Of The Endoscope

- A. Operation Of Air/Water
 - i. Switch On The Air Pump Inside The Video Processor. Cover The Air/Water Valve Hole With Fingertip And Confirm That Air Is Emitted From The Air/Water Nozzle. Depress The Air/Water Valve Completely, While Covering The Hole And Confirm That Water Is Fed Through The Air/Water Nozzle.
- B. Operation Of Suction Function
 - i. Connect The Suction Tube To The Suction Connector In The Light Guide Connector Section. Switch On The Suction Pump. Depress The Suction Valve And Secretion Will Be Aspirated.
- C. The Operation Of The Biopsy Forceps During Procedure
 - i. Instruct The Assistant/Technician To Hold The Forceps Cup In Closed Position. Insert The Biopsy Forceps Into The Instrument Channel And Slowly Advance, When The Forceps Come Into View, Instruct Assistant/Technician to "OPEN," Then Advance

The Endoscope And Open Forceps To Contact The Mucosa, Instruct Assistant/Technician to “CLOSE,” Pull Sharply On Forceps Guide Wire to Take Bite, Keep Cups Closed And Retract Into The Scope. Withdraw The Forceps At A Moderate Pace.

D. Using With An Electrosurgical Generator

- i. The Provider Must Refer To The Generator Manual First, Follow Manual Instructions For Connection Of The Generator To The Instrument. Followed By The Sketch Map In Section 2, Follow Specific Directions For Connection Based On Map.

⚠ Warning

- I. Leakage Current Maybe Increased When Using A High Frequency Electro Surgical Generator.**
- II. The Maximum Repeating Peak Voltage Of The Electronic Surgical Generator:**
 - Coagulation Mode: 500v**
 - Cutting Mode: 800v**
 - Blended Mode: 900v**
- III. Higher Repeating Peak Voltage Is Prohibited.**

E. Troubleshooting

- i. Any Consistent Problems Encountered At Any Time Before Or During The Procedure Should Be Followed By An Immediate Discontinuation Of The Procedure For Patient Safety. Wipe Insertion Tube And Control Body With Alcohol and Contact Your Rutledge Medical Representative or Service Center.

6. Endoscope Care

A. Storage

- 1. The Endoscope Should Be Dried Thoroughly Using Alcohol And A Lint Free Towel Prior To Storing. Take Special Care To Dry The Distal Tip, And All Lens Wiping Over The Backside Of The Air/Water Nozzle. Use A Dry Cotton Swab To Dry Carefully The Objective Lens And Light Guide On The Distal End. Apply Lens Cleaner (Silicone Wax) To A Piece Of Clean Gauze And Lightly

Wipe The Lens Surface. This Will Prevent Residue In Tap Water From Leaving A Film Over The Lens. Storage Area Must Be Clean, Dry, Well Ventilated And Maintained At A Normal Temperature. Avoid Direct Sunshine, High Temperature, High Humidity, And X-Ray Exposure.



Caution

Do Not Wipe Off The Lens Cleaner (Silicone Wax).

2. The Endoscope Should Be Stored Vertically In A Secure Cabinet Or On A Wall-Mounted Rack Hanger. Swinson Medical Storage Devices Have Been Tested And Approved For Use With Rutledge Medical Instruments.
3. **Do Not Use The Carrying Case For Storage.** The Carrying Case Is Designed For Shipping Purpose *Only*. Routine Storage Of The Endoscope In A Humid, Dark, Non-Ventilated Environment, Such As Carrying Case, will compromise biosecurity of the scope and it's case. Accessories Must Also Be Dried Thoroughly Before Storage. Do Not Coil Tightly.
4. **NEVER STORE OR CLEAN BIOPSY FORCEPS COILED UP WITH AN ENDOSCOPE.**
5. **NEVER STORE ENDOSCOPE WITH INSTRUMENTS IN THE CHANNEL.**

B. Cautions In Transport And Storage

- i. The Product Is Portable And Should Be Transported And Stored After Packing. Pay Attention To The Following Conditions In The Process. For Storage And Transport - Temperature/ Humidity/ Air Pressure Range:

1) $-10^{\circ}\text{C} \sim +55^{\circ}\text{C}/10\% \sim 93\%/500\text{hpa} \sim 1060\text{hpa}$

2) $+5^{\circ}\text{C} \sim 40^{\circ}\text{C}/30\% \sim 80\%/700\text{hpa} \sim 1060\text{hpa}$

C. Endoscope Repair

- i. Should The Endoscope Require Repair, It Should Be Shipped To The Rutledge Medical Service Center.

- ii. Minor Problems With The Operation Of The Endoscope May Be Correctable By The Operator Or Assistant. Refer To Appendix II Troubleshooting Guide. All Other Repairs Should Be Only Performed By The Manufacturer. Rutledge Medical Assumes No Liability For Any Patient/User Injury, Instrument Damage Or Malfunction Due To Repairs Made By Unauthorized Personnel.
Repairs Made By Unauthorized Providers Will Result In Revocation Of The Instrument Warranty.



Caution

For The Purpose Of Infection Control, And For The Safety Of All Those Who Will Handle The Equipment, Before Returning Any Instrument To Our Service Center, The Instrument Should Be Subjected To A Complete Disinfection Process. If The Instrument Fails The Leak Test Prior To Disinfection, Wipe Control Body And Insertion Tube With Alcohol, Place In “Dirty” Bag, Seal The Bag Notating The Scope’s Dirty Status And Ship To Our Service Center.

Appendix I Cleaning And Sterilization Procedure

1. Precautions

- a. All Instruments Must Be Cleaned FIRST Before Disinfection, Using An Approved Enzymatic Cleaner. Ruhof Corporation Enzymatic Cleaners Have Been Thoroughly Tested And Approved For Use With All Rutledge Medical Instruments.
- b. Endoscope And It's Accessories Are Only Compatible With The Approved High-Level Disinfectants and Select Liquid Chemical Germicide Sterilants. Using Other, Non-Approved, Chemicals Will Result In Damage And Revocation Of The Instrument's Warranty.
- c. Biosecurity Is Of The Utmost Importance To Rutledge Medical And We Are Consistently Evaluating And Testing New Disinfection Methods and Chemicals. Please Check With Your Representative For Updates.

Instruments		Endoscopes	Water Container Air/Water Valve - Suction Valve
Cleaning & Disinfecting			
Cleaning	Ultrasonic	Not Applicable	Not Applicable
	HLD/LCG	Applicable	Applicable
Disinfectant	HLD/LCG	Applicable	Applicable

2. Cleaning And Sterilization Procedure

I. Supplies Needed

- a. Enzymatic Cleaner
- b. High Level Disinfectant or Liquid Chemical Germicide – Generally 2 Gallons Is Sufficient For One Instrument
- c. Accessories (Cleaning Brush, Rubber Gloves, Gauze Etc.)

II. Cleaning and Sterilization

- a. **A LEAK TEST MUST BE PERFORMED BEFORE CLEANING OR DISINFECTION.**
- b. The Initial Portion Of The Cleaning Procedure Should Be Performed Manually, Using A Mild, Ph Balanced Enzymatic Cleaner. It Is Considered A Best Practice To Also Utilize An

Endoscope Sponge During The Enzymatic Cleaning Process. This Process Is NOT Disinfection, This Merely Removes The Organic Proteins From The Endoscope Surfaces.

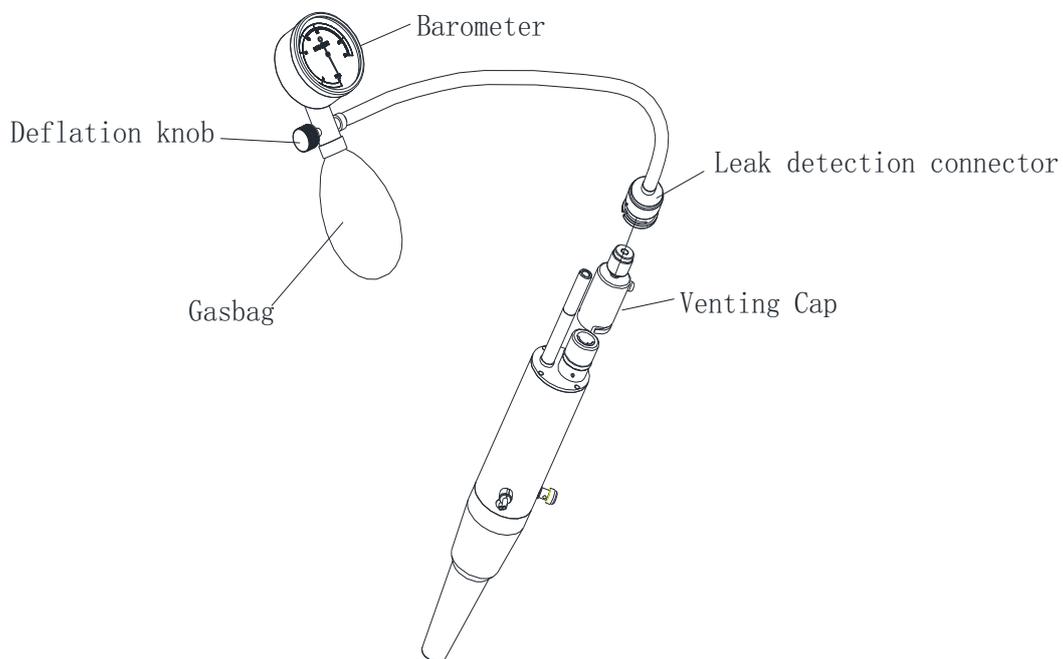
- c. The Following Liquid Chemical Germicides Have Been Thoroughly Tested And Found To Have No Adverse Effects On Durability Of The Endoscope:
- Rapicide
 - Sporox (Hydrogen Peroxide Based LCG/HLD)
 - Glutaraldehyde (2%)
 - ETO Gas - Disinfection Must Under The Following Conditions:
 1. Pressure: Under 1.5hpa
 2. Temperature: Under 40°C

⚠ Warning

- i. The Way Of Disinfection As Below Will Bring Serious Malfunction To The Endoscope Which Should Be Prohibited.**
- ii. When Pressure Is Over 1.5hpa And Temperature Is Over 40°C, Using Eog To Disinfect The Instrument.**
- iii. Clean And Disinfect With Ultrasonic**
- iv. Disinfect With Boiled Water**
- v. Desiccate Sterilization To Disinfect**
- vi. Disinfect With Steam**
- vii. Disinfect With Cresol Liquid**
- viii. Using Chloritize-Benzene Liquid Which Has Not Been Diluted To Disinfect The Instrument.**

- III. Immediately Following Each Procedure, The Following Protocol Should Be Followed:
- a. Wipe Insertion Tube With Alcohol Soaked Gauze And Remove The Surface Soiling.
 - b. Immerse Distal Tip In Clear Water – Suction At Least ½ Liter Of Fluid Through Scope
 - c. Turn Off The Video Processor.

- d. Place Cap On The Light Guide Connector, Attach The Leak Tester To Cap. Pump The Hand Bulb Until The Indicator Needle Is Within The Test Zone (22kp), Observe The Gauge Indicator Needle. If Needle Remains Still, Retroflex The Scope Both Directions and Observe Gauge Again. Finally, Repeat This Process With The Bending Section Submerged Under Clean Water. If No Pressure Loss Is Detected, Release Pressure Beneath Gauge, Remove Leak Tester From Cap (The Cap Should Still Be Attached On The Light Guide Connector.), From That Point, The Entire Endoscope Can Be Immersed Into Fluid.



⚠ Caution

If The Indicator Needle Moves, A Leakage Is Indicated, Remove The Endoscope From The Water, And Contact Your Representative.

⚠ Caution

Please Insert The Cleaning Brush In The Direction Indicated In The Picture. Do Not Attempt To Pass Cleaning Brush In Reverse Direction Until The Brush Head Extends From The Distal End Of The Endoscope. Use Only The Cleaning Brush To Clean The Channel.

- e. Remove Valves And Buttons Then Immerse With The Entire Endoscope In The Enzymatic-Water Solution In A Sink. Be Sure To Cover All Surfaces Of The Scope. Wipe All External Surfaces With An Endoscope Sponge. Follow That With a Series of “Brushes And Flushes,” Passing The Cleaning Brush Through The Scope First From Top To Bottom, Then Bottom To Top. Flush Channels In-Between Brushing With 60cc Of Enzymatic Cleaner. Rinse And Flush With Clean Water.
- f. Immerse The Endoscope In Disinfectant Solution. Flush Disinfectant Solution Through All Channels. Allow The Endoscope To Remain In Disinfectant Solution For Recommended Period Of Time. Time Is Given On The Label Of Your Chosen LCG/HLD Based On Several Variables.
- g. Following Disinfection, Remove The Instrument From Disinfectant Solution And Place In Clean Water. Flush All Channels With Clean Water Until Thoroughly Rinsed. Then Remove Weighted End Of Intake Tube From Water And Repeat Flushing Process, Forcing Air Through Channels To Expel Water. Flush All Channels With Isopropyl Alcohol.
- h. Wipe The Endoscope And All The Buttons Dry. Connect Button Valves And Biopsy Port Cover. NOTE: Once Per Month Soak Your Button Valves In Surgical Instrument Lube After Disinfection.
- i. Empty The Water Bottle Connected To The Processor After The Final Procedure Of The Day, And Disinfect It With Isopropyl Alcohol.

IV. Cleaning/Disinfecting/Sterilizing The Biopsy Forceps

- i. The Accessories Should Be Thoroughly Cleaned And Rinsed Before Disinfection/Sterilizing. The Use Of Ultrasonic Cleaner Is Desirable To Aid In The Removal Of Particulate Matter. If Possible, The Accessories Should Be Sterilized With An Autoclave Unit, Where Possible. Otherwise, Immerse The Accessories Into Enzymatic Cleaner, Scrub With Sponge, And Immerse In The Disinfection Solution Separate From The

Endoscopes to Avoid Damage To The Insertion Tube And Bending Rubber Section. Rinse And Dry The Accessories Thoroughly. To Avoid Sticking, Once Per Month Soak The Forceps In A Surgical Instrument Lube After Disinfection. Rinse With Clean Water And Dry With Lint Free Cloth/Huck Towel.

Appendix II Troubleshooting Guide

Refer To The Table Below For Common Solutions To Uncommon But Common Issues. If The Problems Still Can't Be Solved With The Troubleshooting Below, Discontinue Use And Contact Your Rutledge Medical Representative To Setup Repair.

	Symptom	Possible Cause	Solution
Image Quality	Image Is Not Clear.	Dirty Objective Lens	Feed Water To Remove Mucous, Etc.
		There Is Bead Or Color List On Image.	Stop Using And Return To Us For Repair
Air/Water	Absent Or Insufficient Air/Water Feeding	Light Guide Connector Is Loose.	Tighten The Light Guide Connector.
		Water Bottle Cap Is Loose.	Tighten The Water Bottle Cap.
		Air/Water Nozzle Blocked	Soak Tip Of Endoscope In Warm Soapy Water. Or Apply High-Pressure Air To Eliminate Fragment From The Air Pipe In Light Guide Connector Section.
	No Air/Water Feeding	Air Pump Not Turned On.	Turn Air Pump On.
Suction	Absent Or Insufficient Suction	Suction Valve Blocked.	Remove Valve. Clean The Port With Cotton Swab. Lubricate With Petroleum-Based Lubricants.
		Suction Channel Blocked.	Remove Suction Pipe. Depress The Suction Valve And Apply More Pressure To Eliminate Fragment From The Pipe.
		Semi-Disposable Biopsy Valve Is Damaged	Replace With A New Semi-Disposable Biopsy Valve.
	Sticky Suction Valve	Suction Valve Is Dirty.	Remove And Wash The Valve. Clean The Port By Cotton Swab With Alcohol And Lubricate With Petroleum Based Lubricants . Then Reattach It.
	Fluid Or Air Leak From The Biopsy Valve.	Valve Deterioration Or Missing	Replace With A New Valve.
Angulation		Tip Deflection Is Less Than Specifications.	

	Tip Deflection Is Abnormal.	There Is Interspace In Angulation	Send Back The Instrument To Us For Repair. (If Resistance Is Encountered When Rotating Angulation Control Knobs, Do Not Apply Excessive Force, Otherwise Early Deterioration And Damage Will Occur.
		Resistance Is Abnormal.	
		Angulation Can Not Be Locked	
		The Outside Of Bending Section Is Damaged	Stop Using. Send Back Instrument For Repair.
Accessory	Forceps Do Not Operate Smoothly	Forceps Shaft Is Bent Or Kinked.	Discard And Replace With New Forceps
		Forceps Cups Dirty.	Soak In Hot Soapy Water Or Hydrogen Peroxide And Brush To Remove Debris. The Routine Use Of An Ultrasonic Cleaner To Aid In Cleaning The Small Sup Hinges Is Recommended If Problem Does Not Persist (Do Not Clean The Lens By Ultrasonic Cleaner) Lubricator Forceps With Surgical Instrument Lube After Disinfection.
	Forceps Do Not Pass Through Channel Smoothly	Forceps Shaft Is Bent Or Kinked.	Discard And Replace With New Forceps.

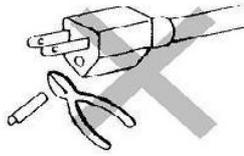
Appendix III Warranty And Sales Services

Certificate

A Warranty Card Is Included With This Equipment.

Repair Services After Sale

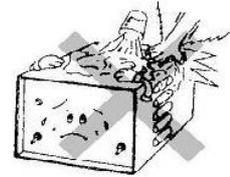
- 1) Read The Instruction Manual For Troubleshooting Tips Before Contacting Our Team For Repair Evaluation
- 2) If Troubleshooting Doesn't Resolve The Issue, Contact Your Representative or The Technical Support Toll-Free Number
- 3) The Manufacturer Warranty Is For One Year, Coverage Begins Upon Installation. Warranty Covers Defects Not Damage.
- 4) The Following Damage Is Not Covered By The Warranty:
 - i. Damage Caused By Natural Disaster Such As Fire, Flood, Tornado, Hurricane, Etc.
 - ii. Damage Resulting From Improper Use Of The Instrument Or Wrong Operation.
 - iii. Products Repaired During Warranty Period By A Third-Party. All Third-Party Repairs During Warranty Period Will Automatically Void Warranty.
- 5) Submitting Instruments or Hardware For Repair
 - i. Place Item Which Is To Be Repaired Into The Original Package. Please Remember To Download, Print And Complete The RMA Form On Our Website. Contact Your Representative For Access.
 - ii. Disinfect All Instruments And Hardware Based On The Instructions Given In The Device's Guide. In Circumstances Where Dirty Scopes Must Be Sent For Repair, Follow The Instructions In Part 5, Subsection E.



In case of current shock, all the light source and suction pump should be connected to the ground completely and securely.



Direct sunlight, dust, high humidity and high temperature will damage instruments.



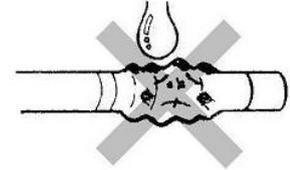
To prevent operator shock and damage to the equipment, keep spillable liquids away from electrical equipment.



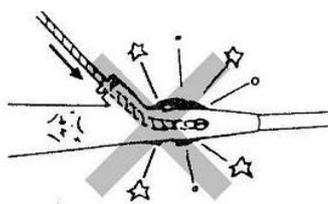
Do not bend insertion tube in a tight radius, as this will damage delicate fiber bundles.



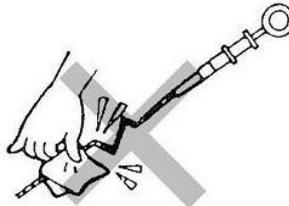
Do not store in the carrying case.



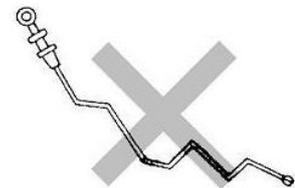
Petroleum based lubricants will cause stretching and deterioration of bending section rubber.



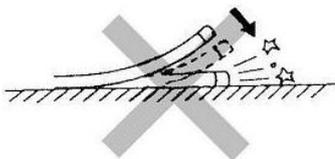
If forceps do not pass smoothly, do not force! Damage will occur to both biopsy forceps and instrument channel.



Do not apply excessive force.



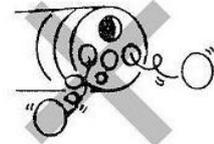
Any accessory which is kinked or bent along its shaft will not operate smoothly, will be difficult to pass through the video endoscope, and must be replaced.



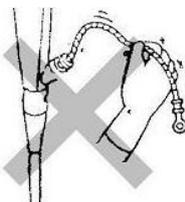
Do not let distal end strike a hard surface as this may crack the objective lens.



Do not use a needle or other sharp object to remove debris from air/water nozzle. The nozzle may be deformed or pried loose.



Do not autoclave or boil the video endoscope, nor clean the video endoscope with ultrasonic cleaner.



To prevent bending or kinking forceps shaft, hold forceps close to biopsy valve and advance using repeated, short strokes.



Excessive air feed may cause discomfort to the patient, or cause damage to the stomach.



rutledge

For The Love Of Animals.



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