CAUTION: Be sure lamp's glass surface is clean and free from fingerprints after assembly. If necessary, the glass may be cleaned with a soft cloth or cotton ball moistened in alcohol.

Fiberoptic Light Guide Replacement:

1) Loosen the locking screw with a screwdriver.

NOTE: This screw is **NOT** designed to be completely removed. This prevents the screw from falling out while the laryngoscope is in use. **DO NOT** attempt to remove this screw from the laryngoscope blade.

2) Pull out the green base of the fiberoptic bundle and slide out the light guide (Figure 5).

NOTE: The fiberoptic bundle is tightly fitted and may be difficult to remove.

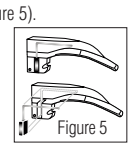
Figure 5

3) Insert new fiberoptic bundle by reversing the above steps.

4) Tighten the locking screw, ensuring that the fiberoptic bundle is securely attached to the laryngoscope blade.

Test Procedures

Laryngoscope blades and handles should always be tested after cleaning/disinfecting/sterilization, and prior to use. To test, connect the laryngoscope blade to handle and push blade to ON position. If the unit fails to light or flickers, check the lamp for a secure connection, check batteries, and check electrical contacts. Be sure to have adequate supplies of replacement bulbs and batteries.

Caps on battery handles should be secure before use. If they are not, it could cause the blade to move out of position. Laryngoscopes should be visually inspected for wear or aging prior to use and after long storage periods. It is strongly recommended that back-up laryngoscopes are kept on hand for emergency situations.

Any serious incident that has occurred in relation to laryngoscope medical devices should be reported to ADC and the competent authority of the Member State in which the user and/or patient is established.

For our European Customers

On request, send to ADC by e-mail (info@adctoday.com), we can send to you this manual on paper form within 7 calendar days at no additional cost to the user.

Our website, https://www.adctoday.com, where you downloaded these instruction for use fulfill requirements of personal data protection, according to Directive 95/46/EC and GDPR on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

REPLACEMENT PARTS CHART

DESCRIPTIONS	STANDARD MODELS	
Laryngoscope Item	Standard Blade	Standard Replacement Lamp
Mac 0	4070	4500
Mac 1	4071	4500
Mac 2	4072	4500
Mac 3	4073	4501
Mac 4	4074	4501
Miller 00	4080-0	4500
Miller 0	4080	4500
Miller 1	4081	4500
Miller 2	4082	4501
Miller 3	4083	4501
Miller 4	4084	4501
Wisconsin 0	4090	4500
Wisconsin 1	4091	4500
Wisconsin 1.5	40915	4500
Wisconsin 2	4092	4501
Wisconsin 3	4093	4501
Wisconsin 4	4094	4501
"C" Cell Handle	4065	NA
"AA" Cell Handle	4066	NA
Stubby Handle	4067	NA

DESCRIPTIONS	FIBEROPTIC MODELS		
Laryngoscope Item	Fiberoptic Blade	Fiberoptic Replacement Lamp	Fiberoptic Light Guide
Mac 0	4070F	NA	4070FLP-00
Mac 1	4071F	NA	4071FLP-00
Mac 2	4072F	NA	4072FLP-00
Mac 3	4073F	NA	4073FLP-00
Mac 4	4074F	NA	4074FLP-00
Miller 00	NA	NA	NA
Miller 0	4080F	NA	4080FLP-00
Miller 1	4081F	NA	4081FLP-00
Miller 2	4082F	NA	4082FLP-00
Miller 3	4083F	NA	4083FLP-00
Miller 4	4084F	NA	4084FLP-00
Wisconsin 0	NA	NA	NA
Wisconsin 1	NA	NA	NA
Wisconsin 1.5	NA	NA	NA
Wisconsin 2	NA	NA	NA
Wisconsin 3	NA	NA	NA
Wisconsin 4	NA	NA	NA
"C" Cell Handle	4065F	4532-1 (old) / 5111N-4 (new)	NA
"AA" Cell Handle	4066F	4532-1 (old) / 5111N-4 (new)	NA
Stubby Handle	4067F	4532-1 (old) / 5111N-4 (new)	NA

ADC® Satin™ Laryngoscope Blades and Handles: Standard and Fiberoptic

LIMITED WARRANTY

American Diagnostic Corporation (ADC®) warrants its products against defects in materials and workmanship under normal use and service as follows:

1. Warranty service extends to the original retail purchaser only and commences with the date of delivery.
2. Your laryngoscope is warranted for one year from date of purchase (all parts).

What Is Covered: Replacement of parts, and labor.

What Is Not Covered: Transportation charges to and from ADC. Damages caused by abuse, misuse, accident, or negligence. Incidental, special, or consequential damages. Some states do not allow the exclusion or limitation of incidental, special, or consequential damages, so this limitation may not apply to you.

To Obtain Warranty Service: Send item(s) postage paid to ADC, Attn: Repair Dept., 55 Commerce Dr., Hauppauge, NY 11788. Please include your name and address, phone no., proof of purchase, and a brief note explaining the problem.

Implied Warranty: Any implied warranty shall be limited in duration to the terms of this warranty and in no case beyond the original selling price (except where prohibited by law). This warranty gives you specific legal rights and you may have other rights which vary from state to state.

For Australian Consumers: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonable foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be acceptable quality and the failure does not amount to a major failure.

To register your product, visit us at
www.adctoday.com/support/warranty-registration

FOR QUESTIONS, COMMENTS, OR SUGGESTIONS CALL TOLL FREE: 1-800-ADC-2670

This manual is available in a variety of languages, follow the links for language options.
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IB p/n 9358-00 rev 19 (07/26/2023)

Printed in the U.S.A.

Thank you for choosing an ADC® Satin™ Laryngoscope.

Device Description and Intended Use

A laryngoscope is a two-part, hand-held device consisting of a handle that contains batteries and a detachable blade. Laryngoscopes are designed to provide illumination within the larynx during the process of performing intubations. This instruction book covers standard and fiberoptic laryngoscope models. Fiberoptic laryngoscopes are indicated by an "F" following the item number.

Contraindications

The following are only relative contraindication to tracheal intubation:

1. Severe airway trauma or obstruction that does not permit safe passage of an endotracheal tube. Emergency cricothyrotomy is indicated in such cases.
2. Cervical spine injury, which requires complete immobilization of the cervical spine, makes endotracheal intubation difficult.

Symbol Definitions

The following symbols are associated with your ADC laryngoscope blades and handles:

Symbol	Definition
	Attention. Read operating manual for cautions and instructions for use.
CE	Meets general safety and performance requirements of Regulation (EU) 2017/745 of the European Union
EC REP	Authorized European Representative's Information
MD	Medical device
	Not made with natural rubber latex
	Type BF applied part
	Keep away from sunlight
REF	Product code

Symbol	Definition
	Phthalate free
	Manufacturer's Information
LOT	Lot/Batch code
	Do not dispose of this product as unsorted municipal waste
	Follow instructions for use
	Date of manufacture
	Keep in a cool, dry place
UDI	Unique Device Identifier
	Consult instructions for use
	Non-sterile
	Do not use if the package is damaged

General Warnings ⚠

A warning statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately, could lead to patient injury, illness, or death.

WARNING: Federal law restricts this device to sale by or on the order of a physician or licensed healthcare practitioner.

WARNING: Only trained personnel should use a laryngoscope for intubation.

WARNING: ADC recommends that spare lamps, batteries, and replacement parts always be available for emergency use.

WARNING: The sterilization guidelines included in this instruction booklet are intended as procedures compatible with specific materials. Sterilization must be performed to approved hospital protocol. ADC cannot guarantee that any of the recommended methods will guarantee sterility. This must be validated by the hospital and/or sterilization equipment manufacturer.

WARNING: Fiberoptic handles may be used with ALL fiberoptic blades (reusable) that conform to the ISO 7376 standards. Standard handles may be used with any standard blades that conform to the ISO 7376 standards. Standard and fiberoptic blades and handles are NOT interchangeable.

Operation of all Laryngoscope Models

To activate, attach selected blade onto handle by hooking blade onto handle rod as shown in Figure 1. Pull blade upward to open position to automatically activate light.

To turn off, push blade downward into off position and disconnect from handle. (See Figure 1).

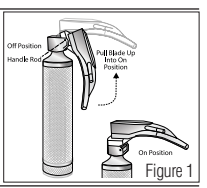

Figure 1

Compatibility/Standards

Standard ADC Satin Laryngoscopes conform to current ISO 7376 standards. They are compatible with virtually all major brands of standard illumination hook-on blades and handles.

Fiberoptic ADC Satin Laryngoscopes conform to current ISO 7376 standards. They are compatible with virtually all major brands of fiberoptic illumination hook-on blades and handles. For easy visual identification, ALL fiberoptic models are clearly delineated by a green indicator on both handle and blade.

Cleaning, Disinfecting, and Sterilization Procedures

ADC Satin Laryngoscope blades are crafted from rugged stainless steel. Handles are machined from chrome-plated brass or anodized aluminum. To ensure maximum life and optimum performance, the following instructions should be strictly adhered to.

See the sections on the reverse panel for specific cleaning, disinfection, and sterilization procedures for your laryngoscope type.

Cleaning Procedure for Standard and Fiberoptic Blades:

Almost immediately after use, laryngoscope blades should be cleaned to prevent blood, saliva, and other residues from drying. On standard blades, the lamp socket and wires are an integral part of the blade for cleaning and replacement.

WARNING: Ultrasonic cleaning is not recommended.

Disinfection/Sterilization Warnings for Standard and Fiberoptic Blades:

CAUTION: ADC laryngoscope blades do not come sterilized. The Sterrad® process is NOT to be used with fiberoptic blades.

WARNING: Flash autoclaving and hot air sterilization are not recommended, as these processes will damage the instrument. The repeated high temperature and changes in temperature caused by autoclaving will shorten the life of all laryngoscope products.

WARNING: Do not immerse blades in bleach, betadine, or peroxide solutions. Doing so will severely damage the instrument. Also, avoid metal-to-metal contact on blades.

Disinfection/Sterilization Warnings for Standard and Fiberoptic Handles:

CAUTION: Do not allow excess fluid to seep into electrical contact. Be sure that the top and bottom of the battery handle are secure before use. Poor maintenance of this device or failure to follow the warnings in this instruction booklet could result in device failure and/or patient injury.

NOTE: Remove capsule, bulb, and batteries before disinfecting/sterilizing.

Basic Cleaning Procedure for Standard and Fiberoptic Blades:

Prepare a Klenzyme®, Manu-klenz™, or equivalent cleaning solution as per manufacturer's instructions and soak for ten minutes. Rinse devices with lukewarm running tap water for one minute to remove any residual detergent after cleaning. Dry with a clean, lint-free cloth.

Basic Cleaning Procedures for Standard and Fiberoptic Handles:

Prepare a Klenzyme, Manu-klenz, or equivalent cleaning solution as per manufacturer's instructions. Remove both end caps, capsule, and batteries from device, and rinse with lukewarm tap water until all visible contamination has been removed. Soak handle and end caps in the prepared solution for a minimum of ten minutes, ensuring that all components are fully submerged. After the soak, the components should be scrubbed with a soft-bristled brush paying particular attention to hard-to-reach areas. Rinse with cool running tap water to remove all residual detergent. Dry with a clean, lint-free cloth.

NOTE: Always allow handles to completely dry before disinfection or use. Capsule can be wiped with a cloth dampened with 70% isopropyl alcohol. Do not allow solution to enter into the cartridge. The capsule **CANNOT be SOAKED OR AUTOCLAVED**.

High-Level Disinfection for Standard and Fiberoptic Blades:

To achieve high-level disinfection, a 2.4% glutaraldehyde solution (Cidex® or equivalent) must be prepared at 77°F (25°C) to the manufacturer's instructions. The blades should be fully immersed in the disinfectant for a minimum of 45 minutes. No air bubbles should be visible on the immersed blades during this soak time. The blades should then be removed from the disinfectant and immersed in purified water to rinse off all disinfectant. Immersion should be for a minimum of one minute and the process should be repeated two additional times using fresh purified water each time. Once rinsing is complete, the blades should be thoroughly dried using a sterile, lint-free cloth. Note: Always allow blades to completely dry before use.

High-Level Disinfection for Standard and Fiberoptic Handles:

To achieve high-level disinfection, a 2.4% glutaraldehyde solution (Cidex or equivalent) must be prepared at 77°F (25°C) to the manufacturer's instructions. The end caps of the handles, capsule, and batteries must be removed. Both the end caps and handles should be fully immersed in the disinfectant for a minimum of 45 minutes. No air bubbles should be visible on the immersed components during this soak time. The components should then be removed from the disinfectant and immersed in purified water to rinse off all disinfectant. Immersion should be for a minimum of one minute and the process should be repeated two additional times using fresh purified water each time. Once rinsing is complete, the components should be thoroughly dried using a sterile, lint-free cloth.

NOTE: Always allow components to completely dry before reassembling the handles, inserting batteries, or using the devices. Capsule can be wiped with a cloth dampened with 70% isopropyl alcohol. Do not allow solution to enter into the cartridge. The capsule **CANNOT be SOAKED OR AUTOCLAVED**.

Steris Sterilization Processes for Fiberoptic Laryngoscopes:

This product has been validated with the V-PRO 1 Standard Cycle; V-PRO 1 Plus Lumen and Non Lumen Cycles; V-PRO maX Lumen, Non Lumen, and Flexible Cycles; V-PRO 60 Lumen and Non Lumen Cycles using the V-PRO 60 Low Temperature Sterilization System with VAPPROX® HC Sterilant and V-PRO maX Low Temperature Sterilization System.

Steam Sterilization for Standard and Fiberoptic Blades and Handles:

Sterilizer Type:	Prevacuum	Sterilizer Type:	Gravity
Preconditioning Pulses:	3	Minimum Temperature:	249.8°F (121°C)
Minimum Temperature:	269.6°F (132°C)	Full Cycle Time:	30 minutes
Full Cycle Time:	4 minutes	Minimum Dry Time:	15 minutes
Minimum Dry Time:	20 minutes		

Repair/Maintenance

Battery Replacement:

1) Unscrew bottom cap of handle and remove batteries.
2) Replace with appropriate size battery, taking care to insert positive ends first. Screw bottom cap on and tighten. (Figure 2).

NOTE: Alkaline batteries should be used with your handle for maximum performance and are recommended for replacement. Ordinary carbon zinc batteries may also be used.

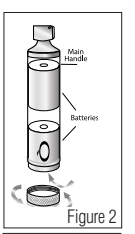

Figure 2

Battery Replacement: ***(4067F Stubby Handle)***

1) Unscrew bottom cap of handle and remove battery insert.
2) Replace with appropriate size batteries. Insert one battery positive end first and the other negative end first into battery insert, paying attention to the polarity markings. Slide battery insert back into handle following the direction of the "Insert This Way Only" arrows. Screw bottom cap on and tighten. (Figure 3)

NOTE: Alkaline batteries should be used with your handle for maximum performance and are recommended for replacement. Ordinary carbon zinc batteries may also be used.

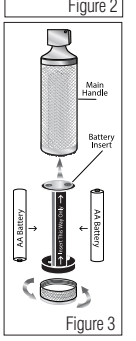

Figure 3

Lamp Replacement: ***(Standard Models)***

For correct illumination, alignment, and assurance of watertight seal during immersion/autoclave, we recommend using only ADC #4500-1 and #4501-1 replacement lamps for standard blades.

1) To remove lamp on standard blades, grip lamp collar and rotate lamp counter clockwise until free.
2) Replace the lamp with a new ADC lamp.
3) Verify that lamp is sufficiently tightened before use.

CAUTION: Be sure lamp's glass surface is clean and free from fingerprints after assembly. If necessary, the glass may be cleaned with a soft cloth or cotton ball moistened in alcohol.

Lamp Replacement: ***(Fiberoptic Models)***

For correct illumination and alignment we recommend using only ADC replacement lamp model #5111N-4 (Figure 4).

1. Unscrew head from the barrel by rotating it counter-clockwise.
2. Remove the Capsule from the head.
3. Open the Bulb cap by rotating it counter-clockwise.
4. Replace the old one, by rotating it counter-clockwise direction, with a new lamp by rotating the new bulb in a clockwise direction.
5. Screw the Head clockwise to the barrel.

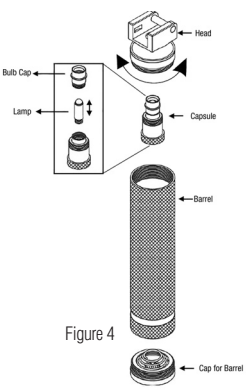

Figure 4