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Find the *AFL / Noyes OFS 300* at our website: ***Click HERE***

AFL Telecommunications

test & inspection

OFS 300

optical fiber scope

user's guide

fiber optic test equipment

NOYES

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OFS 300

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OFS1-00-1000 Rev. N 10.08.03

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Limited Warranty

One Year Limited Warranty

All Noyes Fiber Systems products are warranted against defective material and workmanship for a period of one year from the date of shipment to the original customer. Any product found to be defective within the warranty period will be repaired or replaced by Noyes Fiber Systems. In no case will Noyes Fiber Systems liabilities exceed the original purchase price of the product.

Exclusions

The warranty on your equipment shall not apply to defects resulting from the following:

- Unauthorized repair or modification
- Misuse, negligence, or accident

Returning Equipment

To return equipment, please contact Noyes Fiber Systems to obtain additional information and a Return Materials Authorization number (RMA#). To allow us to serve you more efficiently, please include a brief description specifying the reason(s) for the return of the equipment.

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Noyes Fiber Systems
16 Eastgate Park Road
Belmont, NH 03220
Phone: 800-321-5298
603-528-7780
Fax: 603-528-2025

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Important Safety Information



WARNING! To avoid serious eye injury, never look directly into optical outputs of fiber optic network equipment, test equipment, patch cords, or test jumpers. Always assume that optical outputs are on.



CAUTION! This instrument contains no user serviceable parts. Except for changing a battery, this instrument must be returned to Noyes Fiber Systems for repair.

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Section 1: General Information

Thank you for purchasing the Noyes Fiber Systems OFS 300 optical fiber inspection scope. The purpose of this manual is to provide information relative to the application, operation, and basic maintenance of the OFS 300. Please check our web site at **www.AFLtele.com (click on Products > Test & Inspection)** for updates to this manual and additional application information. For technical or sales support, please contact Noyes Customer Service.

Contacting Noyes Customer Service

You may call Noyes Customer Service between 8 a.m. and 5 p.m., United States Eastern Time, as follows:

Phone: 800-321-5298

603-528-7780

Fax: 603-528-2025

Web: www.AFLtele.com (click on Products > Test & Inspection)

Unpacking and Inspection

This instrument has been carefully packed in accordance with standard shipping procedures.

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Examine the equipment for damage that may have occurred during shipment. If you find any damage, or if any of the following items are not included, please contact Noyes Fiber Systems.

The OFS 300 package includes:

- OFS 300 Scope
- Internal batteries
- 2.5 mm universal adapter cap
- Blue holster
- User's guide

Feature Overview

The OFS 300 is a versatile instrument for the inspection of optical fiber connectors. By employing a universal adapter mount, the OFS 300 offers the ability to inspect virtually any connector style for scratches, dirt, or other problems normally associated with poor transmission performance.

Two models of the OFS 300 are available. The OFS 300-200C offers precision 200x magnification to easily inspect both multimode and single-mode fiber optic connectors.

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The OFS 300-400C with 400x magnification is available for more critical inspection during termination, especially with single-mode fibers.

The OFS 300 offers 60 hours of continuous battery life. A low battery indicator will flash when approximately 8 hours of optimum brightness remains reducing the risk of eye strain.

Various adapter caps are available to convert the mount to the desired connector style. The OFS 300-200C uses the same common threaded connector adapter caps as the Noyes Optical Power Meters and Loss Test Sets. The OFS 300-400C utilizes special precentered snap-in adapter caps, which ensure proper fiber location in the viewing area.

Recommended Accessories

The OFS 300 is supplied with the universal adapter cap that accepts 2.5 mm ferrule connectors, such as ST, FC, and SC. However, for greatest inspection flexibility additional adapter cap styles are recommended. Refer to Appendix for a complete list of available adapter caps.

A supply of optical cleaning pads and isopropyl alcohol is recommended for cleaning the lenses. Also, a can of filtered compressed air is useful for blowing contaminates out of connectors and adapter caps.

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Section 2: Functional Description

OFS 300 Optical Fiber Scope

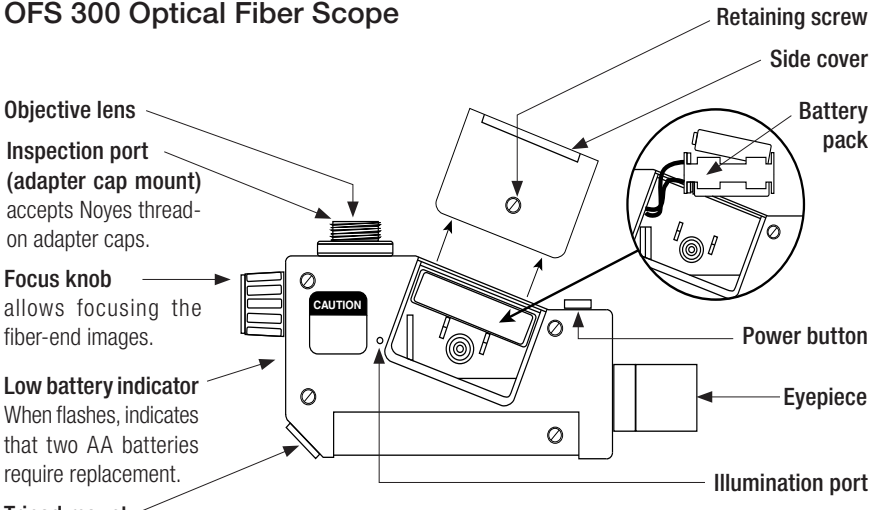
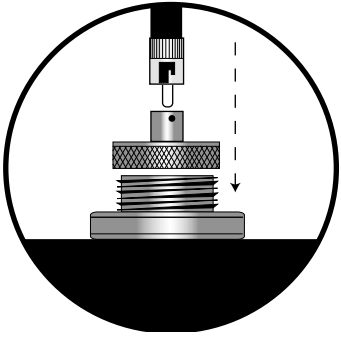


Figure 1: OFS 300

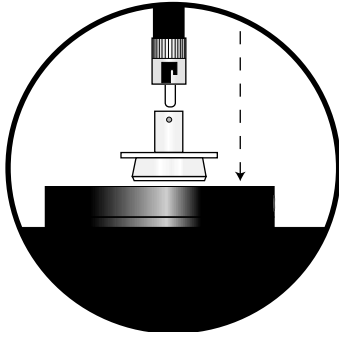
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Adapter Cap Mounts

The OFS 300-200C uses the same common threaded connector adapter caps as used with all Noyes Fiber Systems Optical Power Meters and Loss Test Sets. The OFS 300-400C utilizes special precentered snap-in adapter caps, which ensure proper fiber location in the viewing area. The figure below illustrates the difference between the two adapter cap mounts.



OFS 300-200C



OFS 300-400C

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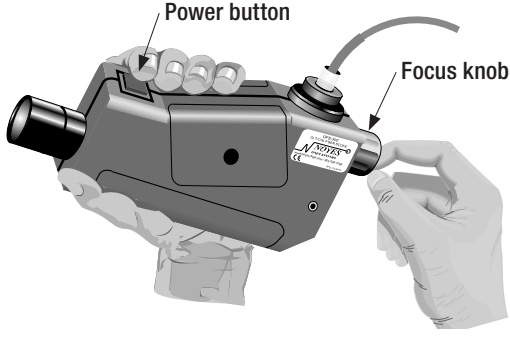
Section 3: Operating Instructions

Setup

1 Select the appropriate adapter cap and affix to the adapter cap mount.

2 ⚠ Use an Optical Power Meter to verify the fiber optic connector to be inspected is not “live”.

Note: The OFS 300 includes a KG3, 40 dB IR Safety Filter.



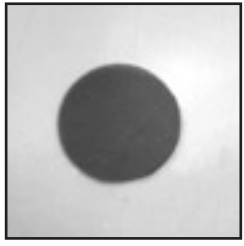
3 Connect the cable to be inspected by the OFS 300 to the adapter cap. **Optional:** If the opposite end of the cable is accessible, it may be placed into the Illumination Port (see Figure 1) to illuminate the fiber core for viewing.

4 Press the ON button with one hand while adjusting the Focus Knob with the other hand.

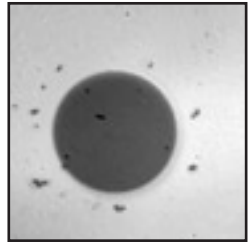
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Viewing Fiber Ends

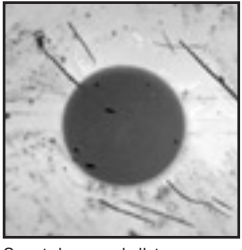
After focusing is complete, the magnified view will reveal the condition of the core and cladding. Below are the various examples of fiber ends ranging from excellent to very poor conditions.



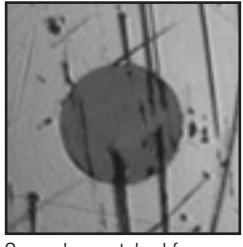
Excellent condition



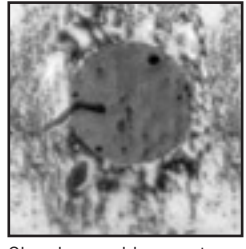
Uncleaned, lint or dust



Scratches and dirt



Severely scratched face



Cleaning residue, water or alcohol

Section 4: Maintenance

This chapter explains how to clean the lenses and replace the batteries in the OFS 300. Other than battery replacement, the repair of this unit in the field is NOT recommended. If repair of the OFS 300 is necessary, please contact Noyes Fiber Systems

Battery Replacement

To replace batteries (refer to Figure 1):

1 Remove the retaining screw.

2 Remove the side cover.

3 Pull out the battery pack and remove the discharged batteries.

4 Replace batteries with two new AA alkaline.

5 Replace the battery pack, side cover, and retaining screw.

Cleaning the Lenses

The Objective lens and Eyepiece lens (refer to Figure 1) must be kept free from dirt or other contamination. They should be periodically cleaned using optical cleaning pads and isopropyl alcohol or by using a can of filtered compressed air.

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Vigorous rubbing or the use of a semi-abrasive cloth may impair the efficiency of the instrument. Be sure to replace the dust cap when the OFS 300 is not being used.

Note: The eyepiece is not to be unscrewed and taken apart. The only maintenance to be done is to the outer lens.

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Section 5: Specifications

Optical Specifications	**OFS 300-200C**	**OFS 300-400C**
Nominal magnification	200X	400X
Adapter cap Mount	thread-on (Universal)	snap-in
Safety filter	Schott KG3 > 40 dB IR	
General Specifications		
Operating temperature	0 to +50°C	
Storage temperature	-20 to +50°C	
Power	2 AA alkaline batteries	
Weight in use	1.5 lbs. (.67 kg)	
Size (H x W x D)	5 x 2 x 8 in. (13 x 5 x 20 cm)	

Specifications are subject to change.

CE

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OFS 300 accessories

2460-10-0002	Spare bulb for OFS 300-200B (5 minimum)
2460-10-0001	Spare bulb for OFS 300-400 and OFS 300-200 (5 minimum)
2900-10-0003	OFS 300-400 zoom lens (200X - 400X zoom)
1400-01-0005	Soft Carry Case
OFS1-00-0100	Hard Carry Case
2900-10-0001	Tripod Stand (table top)
1400-01-0025	Holster
2900-10-0004	20X Eyepiece

OFS 300 adapter caps

For an up-to-date list of adapter caps contact Noyes Fiber Systems, or visit our web site at **www.AFLtete.com (click on Products > Test & Inspection > Accessories & Services)**

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