



A RIPLEY® BRAND

# VIS300C

## Standalone Fiber Inspection Kit User Guide



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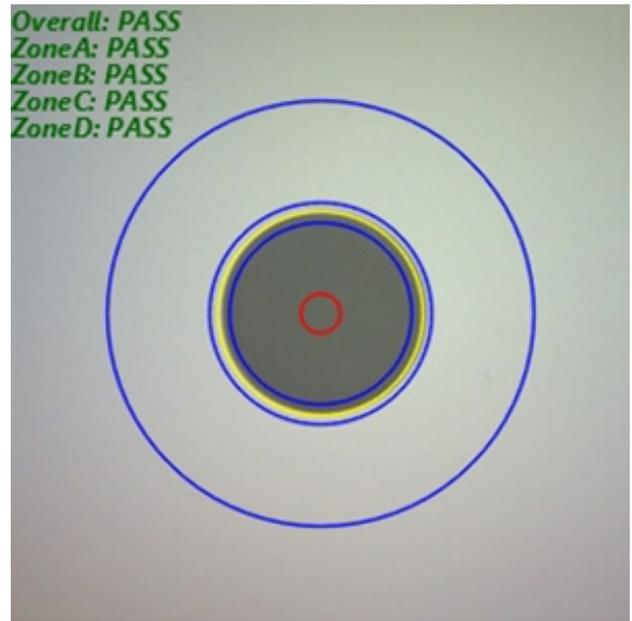
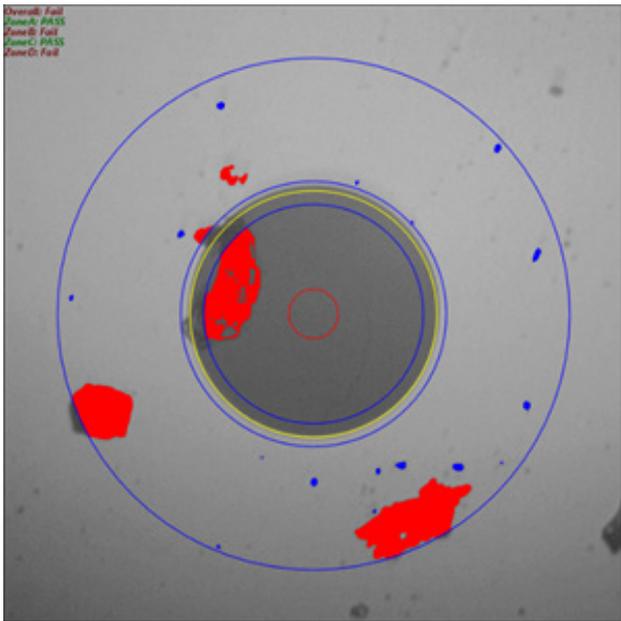
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# Introduction

The VIS400C is an all-in-one fiber test solution for field and desktop applications. This guide will serve as a manual to outline the major features of the VIS300C and provide guidance in the use of those features to generate accurate, and complete reports.



Analyzed Images from the VIS400 using the VIS300C



Read and understand all of the instructions and safety information in this manual before operating this tool.

# Important Safety Information



Read and understand all of the instructions and safety information in this manual before operating this tool.



## Laser Hazard

Avoid eye exposure to open fiber connectors and interfaces when working with fiber systems. They may be connected to a live laser source.

Do not look into the output port of a laser source.

Point fiber endfaces toward non-reflective surfaces to prevent reflection of laser.



## Electric Shock Hazard

Pay attention to proper battery polarity. Do not mix battery types or manufacturers.

Do not open the unit with the exception of the battery compartment door.

Use this unit only for its intended purpose as outlined in this document.



## Damage to Item Hazard

Do not leave item in direct sunlight or near heat sources, submerge in water, or subject unit to strong impact.

Cover the fiber interface with the flip-cap when not in use.



**Do not throw this product away.**

Contact your local recycling station to dispose of properly.

# Hardware Overview

## Variants

The VIS300C has three different variants with different part numbers. These each target a different market and you should consider which unit meets your requirements.

### Variant One VIS300C

The VIS300C Base model is an inspection-only device. This model is ideal for users who need a field-viewing device for fiber connectors or who need to inspect, grade, and save many fiber connector images very quickly.

### Variant Two VIS300C-PM-02-V

The VIS300C-PM-02-V is an all-in-one test and inspection system. An on-board optical power meter (OPM) and visual fault locator (VFL) bring extra functionality to the device. The InGaAs detector in the power meter on this model makes it ideal for most users who need to test dB loss on single mode and multi-mode fiber at test sites, such as on cell towers and in central office settings. The red laser in the VFL provides fault detection and continuity testing on fiber runs up to 5 km.

### Variant Three VIS300C-PM-04-V

The VIS300C-PM-04-V is an all-in-one test and inspection system. An on-board OPM and VFL bring extra functionality to the device. The filtered InGaAs detector in the power meter on this model makes it ideal for users who need to test the output of high-powered transmit equipment at remote sites, such as at the ONT or OLT for FTTH applications. The red laser in the VFL provides fault detection and continuity testing on fiber runs up to 5km.

<b>VIS300C Variant Summary</b>				
<b>Part Number</b>	<b>Functions</b>	<b>Common Uses</b>	<b>Adapters/Accessories included</b>	<b>Hardware Notes</b>
VIS300C	<ul style="list-style-type: none"> <li>Base Model</li> <li>Automatic Analysis</li> <li>Report Generation</li> </ul>	<ul style="list-style-type: none"> <li>Inspection only jobs</li> </ul>	<ul style="list-style-type: none"> <li>1.25 mm Inspection Tip</li> <li>2.5 mm Inspection Tip</li> <li>LC Bulkhead Inspection Tip</li> <li>SC Bulkhead Inspection Tip</li> </ul>	<ul style="list-style-type: none"> <li>Comes with a VIS400 that is compatible with the Desktop InSpec software aswell.</li> <li>5" touch screen monitor housed in a protective case.</li> </ul>
VIS300C-PM-02-V	<ul style="list-style-type: none"> <li>Automatic Analysis</li> <li>Low Power OPM</li> <li>Visual Fault Locator</li> <li>Report Generation</li> </ul>	<ul style="list-style-type: none"> <li>Fiber to the antenna</li> <li>Central office</li> </ul>	<ul style="list-style-type: none"> <li>1.25 mm Inspection Tip</li> <li>2.5 mm Inspection Tip</li> <li>LC Bulkhead Inspection Tip</li> <li>SC Bulkhead Inspection Tip</li> <li>2.5 mm OPM Adapter</li> <li>2.5 mm VFL port</li> </ul>	<ul style="list-style-type: none"> <li>Comes with a VIS400 that is compatible with the Desktop InSpec software aswell.</li> <li>5" touch screen monitor housed in a protective case.</li> <li>-2 indicates a InGaAs detector in the opm which gives a measurement range of +6 to -60 dbm.</li> <li>The VFL is a 635nm visible red laser.</li> </ul>
VIS300C-PM-04-V	<ul style="list-style-type: none"> <li>Automatic Analysis</li> <li>Higher Power OPM</li> <li>Visual Fault Locator</li> <li>Report Generation</li> </ul>	<ul style="list-style-type: none"> <li>Fiber to the home</li> <li>Cable TV</li> <li>Fiber to the premises</li> </ul>	<ul style="list-style-type: none"> <li>1.25 mm Inspection Tip</li> <li>2.5 mm Inspection Tip</li> <li>LC Bulkhead Inspection Tip</li> <li>SC Bulkhead Inspection Tip</li> <li>2.5 mm OPM Adapter</li> <li>2.5 mm VFL port</li> </ul>	<ul style="list-style-type: none"> <li>Comes with a VIS400 that is compatible with the Desktop InSpec software aswell.</li> <li>5" touch screen monitor housed in a protective case.</li> <li>-04 indicates a filtered InGaAs detector in OPM Measurement range of Filtered InGaAs detector is +23 to -40 dbm</li> <li>The VFL is a 635nm visible red laser.</li> </ul>



- 1). The VFL Port (Available on the VIS300C-PM-02-V and VIS300C-PM-04-V) provides the physical interface for connecting fiber jumpers to the VIS300C for the purposes of fault detection and continuity testing. the 2.5mm universal interface allows for direct connection of fibers to the 635nm 1 mW red laser.
  - 2).The Power meter port available on the -02 and -04 models provides a physical interface for connecting patch cord jumpers to the VIS300C for the purpose of measuring the absolute or relative optical power present. The OPM has user replaceable adapters for many different fiber types including universal 2.5mm and 1.25mm adapters.
  - 3).The Micro USB Port provides an interface for transferring data from the VIS300C to a compatible Windows PC.
  - 4).The full color touch sensitive LCD on the VIS300C provides the user interface for most of the units functions.
  - 5).The USB port on the side is used to plug in an inspection probe like the VIS400, an power meter like a UPM100, or a Flash drive to offload reports/projects.
  - 6).The VIS300C comes with a 12.6 volt Lithium-Ion wall charger. to charge the VIS300C between uses, plug the wall charger into an outlet and plug the charging adapter into the battery charger port on the side of the VIS300C. The indicator light on the wall charger will be red when charging and green when fully charged. charge time is approximately three hours.
- Only the approved charger from ODM may be used to charge the VIS300C. use of any third party wall charger will void the warranty on the VIS300C. use of non approved chargers may cause personal or property damage. Contact ODM to obtain approved replacement chargers.

7).The battery Indicator LED will change colors to inform the user when the battery reaches certain

Battery LED States	
Green	100% to 31% Battery Remaining
Orange	30% to 11% Battery Remaining
Red	10% to 0% Battery Remaining

8).

Powering the Unit on:

With the VIS300C unit powered OFF, pressing the power button once will turn the unit ON. The VIS300C will emit a beep and turn on the Battery Indicator LED to indicate that it is powering on.

Putting the Unit to sleep:

With the VIS300C fully powered on, press the Power button briefly to put the unit to sleep. while sleeping the battery indicator LED will remain lit and the screen will turn off. the unit cannot be powered off while in sleep mode.

Wakeing the unit:

With the VIS300C asleep , press the power butto n briefly to return the unit to its full functionality.

Hard Shutdown: Pressing and holding the Power button for 6-10 seconds in any staate will initiate a hard shutdown. the unit will beep twice to indicate that it is turning off then the LED,LCD,and any scope/power meter, and the unit will be turned off fully.

## VIS400 Overview

### Introduction



The VIS400 is a manual focus, automatic analysis, wired probe designed to be used with the Windows, linux, and the VIS300C

#### Connector Adapter

The VIS400 comes with a universal 2.5 adapter by default, however additional adapters are available and are user replaceable.

#### Analyze Button

On the side of the VIS400 is a hardware button that will attempt to analyze the image currently displayed in the software.

#### Focus Ring

Spinning this ring clockwise focuses toward the fiber while counter clockwise moves towards the users hand.

#### USB Cable

The USB cable is used to connect to the VIS300C or a windows PC



To connect the VIS400 to the VIS300C simply navigate to the home page and plug the USB cable into the side of the unit. Once plugged in the VIS300C will detect the probe and begin showing a live view of the scope.

# Built in Power Meter Overview

## Introduction

The VIS300C includes a built in Power meter that allows for loss testing of 850,1300,1310,1490,1550 ,1611,and 1625 nm wavelengths as well as 270Hz, 300 Hz, 1kHz, and 2kHz tone detection. Since this is built in to the unit going to the OPM page will by default use this power meter. If another power meter is connected the external power meter will be used instead.

## UPM100 Overview

### Introduction



The UPM100 allows for loss testing of 850,1300,1310,1490,1550,1611, and 1625 nm wavelengths as well as 270Hz ,330Hz, 1kHz, and 2kHz tone detection. The UPM100 is compatible with the VIS300C, as well as Windows, Android, and Linux.

### Connection



To connect the UPM100 simply plug it into a USB Port and the OPM Page will become available if it was not before. The UPM100 should not be used if there is a built in power meter.

## RP560 Overview

### Introduction



The RP560 allows for either streaming readings testing or saving then offloading of readings. It supports 850, 1300 ,1310,1490,1550,1611, and 1625nm wavelengths as well as 270Hz, 330Hz, 1kHz,and 2kHz tone detection. The RP560 is only available wired on the VIS300C however can be used on other platforms with bluetooth.

### Connection Wired



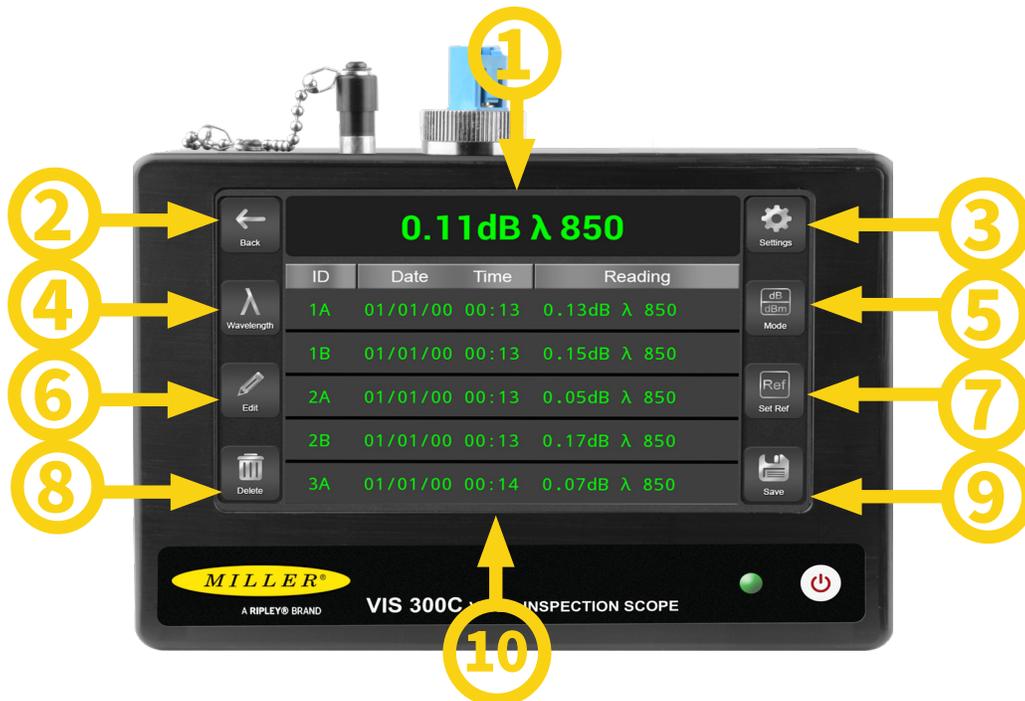
To connect the RP560 simply plug it into a USB Port and navigate to the now available OPM Page.

## Offloading

To offload from the RP560 first connect the device as described above and verify you can view a live reading from the device. Next press the menu button on the RP560 then press Projects=>Sync BT or Projects=>SyncUSB depending on if you are connected over USB or Bluetooth.

# Generic Optical Power Meter (OPM) Testing

First if you are not using the built in power meter use the device specific instructions above to connect your power meter. Next navigate to the OPM Page.



- 1). A live reading from the OPM will be displayed here.
- 2). The "Back" button will return you to the home page
- 3). Pressing the gear in the top left will bring you to the settings page where you can set Min/Max values and change the selected color code.
- 4). Pressing the "Wavelength" button will allow you to select which wavelength the OPM is streaming.
- 5). Pressing the "Mode" button will cycle through available modes.
- 6). Pressing the "Edit" button will allow you to rename a selected reading.
- 7). To set a reference first connect your OPM and a companion light source as shown below. Ensure the unit is in dBm and you are reading the correct output power for the laser/LED you are using Ripley Lasers are calibrated at -5 (or -8 with tone on) and LEDs are calibrated at -22 (or -25 with tone on). Next press the "Set Reference" button in the software and verify that the power meter now reads within .05 of 0 and is in dB mode. This is only supported on some power meters.



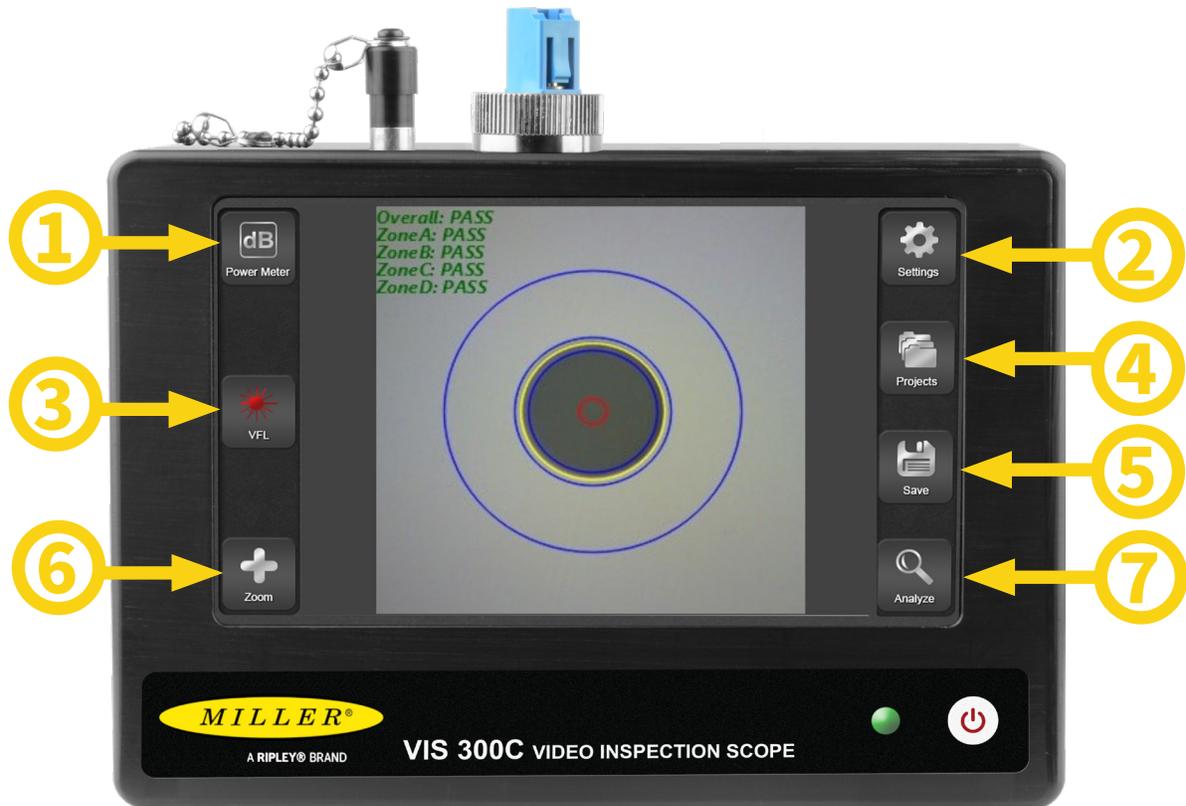
- 8). Pressing the "Delete" key will delete the selected reading from the list of saved readings.
- 9). Pressing the "Save" key will add a copy of the current reading to the list of saved readings.
- 10). In the middle of the screen all saved readings will be listed as well as the time they were taken. selecting these will allow you to rename and delete them.

## Offloading from a Power Meter

To offload from a supported power meter simply connect the OPM as shown in the device specific instructions above, then offload using the same instructions above while on the OPM Page. This will immediately add all saved readings on the device to your saved readings on the VIS300C. This will not affect the saved readings on the OPM.

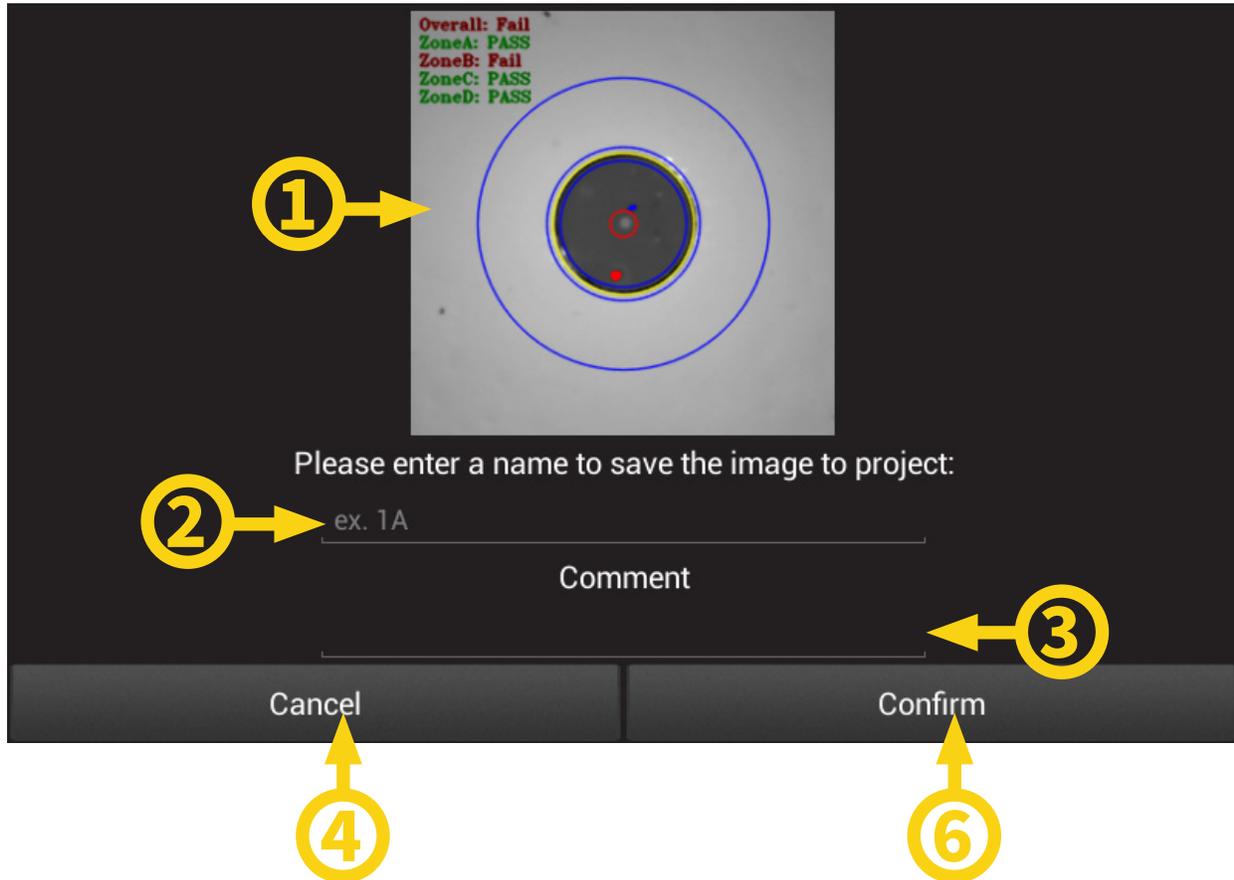
# Generic Scope Single Fiber Testing

First connect to your scope as per the device specific instructions above, and navigate to the Home page.



- 1). Pressing the "OPM" button will navigate you to the OPM Page.
- 2). Pressing the "Settings" button will open the Settings Popup which allows you to connect to wifi, change IEC Specs, check for updates etc.
- 3). Pressing the "VFL" button will cycle through the VFL's power mode ( On, 2Hz, and Off).
- 4). Pressing the "Projects" button will bring you to the project management page where you can create, select, and closeout projects.
- 5). Pressing the "Save" button will bring up the Save popup on the next page which allows you to name, comment and save either a live endface or an analyzed endface.
- 6). Pressing the "Zoom" button will attempt to find the core and zoom the image to only the relevant IEC Zones. This is disabled during MPO Testing as MPO analysis supports multiple cores at once.
- 7). Pressing the "Analyze" button will analyze the current image from the scope using the selected IEC Spec chosen in the settings page.

# Single Fiber Save Page



- 1).Here the image being saved will be displayed.
- 2).Here you can enter what you want the image to be named. there is a 64 character limit to names and not all symbols are usable. In general you should only use a-z, 0-1, spaces, and basic symbols).
- 3).This is an optional comment entry. This is limited to 255 characters and has the same naming restriction as the name entry above.
- 4).Cancel will cancel the save and return to the home page without affecting your saved data.
- 5).Pressing Confirm will finish saving the file and add it to your list of saved fibers. once it saves the fiber it will automatically return you to the Home page where you can continue your testing.

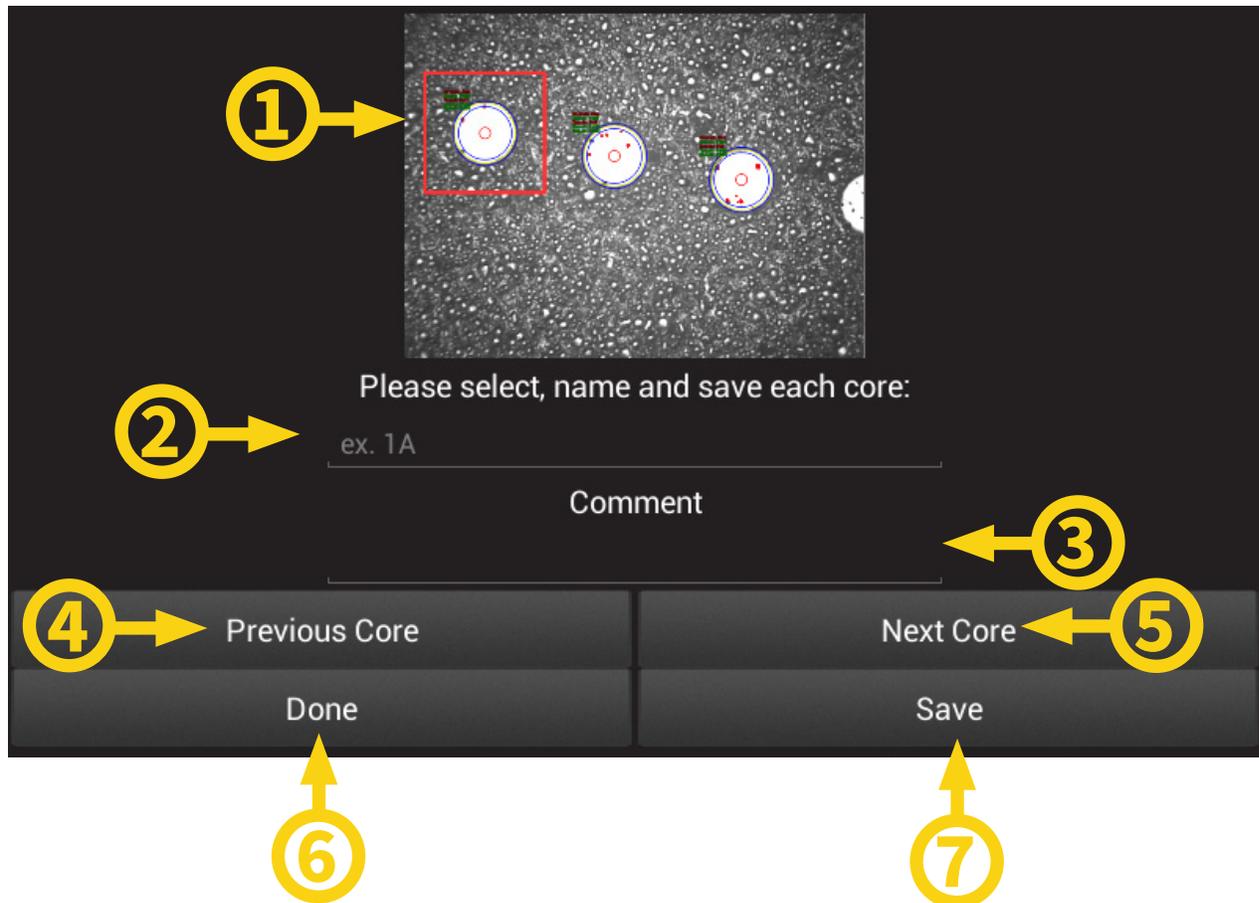
# Generic Scope MPO Testing

First connect to your scope as per the device specific instructions above, and navigate to the Home page. Make sure you have an MPO IEC Spec selected, this can be changed by pressing the gear in the top left then clicking Inspection Settings.



- 1). Pressing the "OPM" button will navigate you to the OPM Page.
- 2). Pressing the "Settings" button will open the Settings Popup which allows you to connect to wifi, change IEC Specs, check for updates etc.
- 3). Pressing the "VFL" button will cycle through the VFL's power mode ( On, 2Hz, and Off).
- 4). Pressing the "Projects" button will bring you to the project management page where you can create, select, and closeout projects.
- 5). Pressing the "Save" button will bring up the Save popup on the next page which allows you to name, comment and save either a live endface or an analyzed endface.
- 6). Pressing the "Zoom" button will attempt to find the core and zoom the image to only the relevant IEC Zones. This is disabled during MPO Testing as MPO analysis supports multiple cores at once.
- 7). Pressing the "Analyze" button will analyze the current image from the scope using the selected IEC Spec chosen in the settings page.

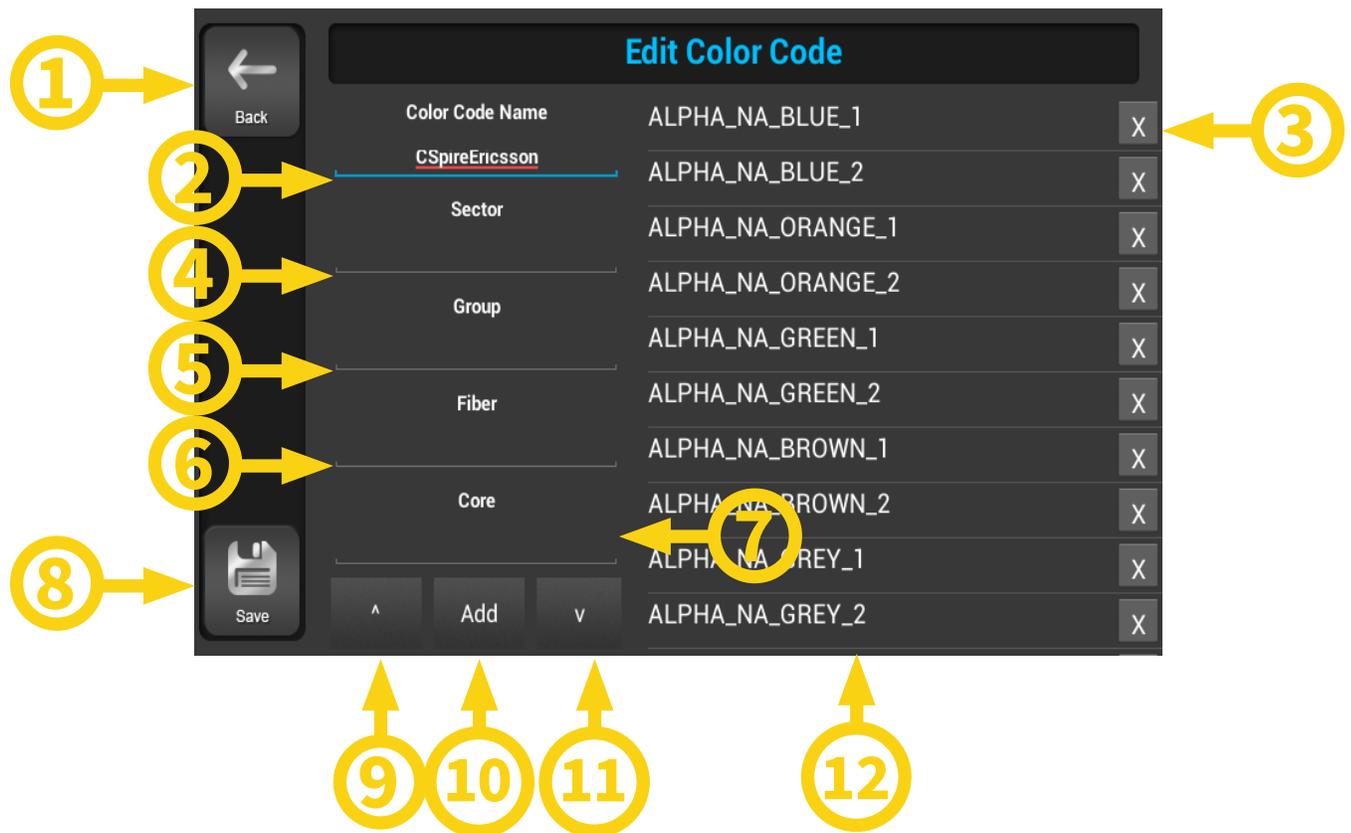
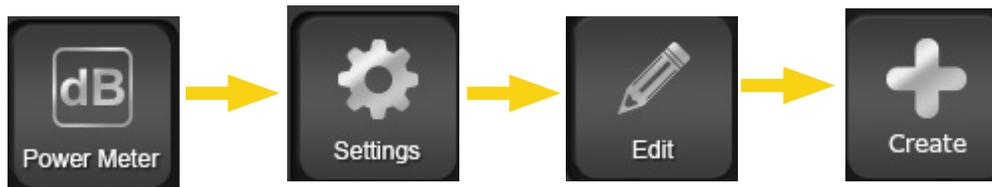
## Multi Fiber Save Page



- 1). Here you can see all cores available and which one is currently being saved.
- 2). Here you can enter what you want the image to be named. there is a 64 character limit to names and not all symbols are usable. In general you should only use a-z, 0-1, spaces, and basic symbols).
- 3). This is an optional comment entry. This is limited to 255 characters and has the same naming restriction as the name entry above.
- 4). Previous core will select the previous core on the left.
- 5). Next Core will select the next core on the right.
- 6). Done will finish saving and return to the home page. Before returning make sure you save all cores.
- 7). Save will save the selected core's image with the name and comment entered. after a save it will automatically move to the next core.

## Color Code Creation

First go to the OPM Page, Then the OPM Settings Page, and press the Edit button in the bottom right. Next either select an existing color code you want to edit or the create button in the bottom left.



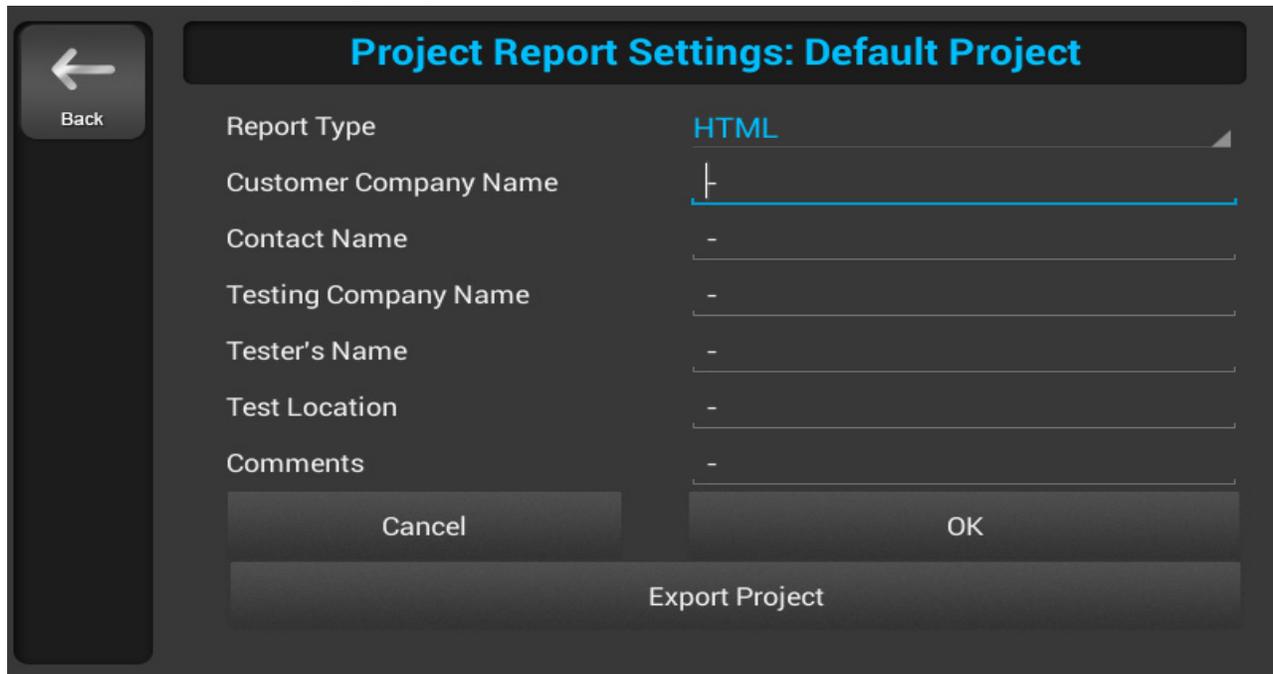
- 1). Pressing back will return to the previous page without saving changes.
- 2). Here you are required to enter a name for the color code. All color codes must have a unique name.
- 3). Pressing any of the "X" buttons will delete that color code segment.
- 4). The Sector entry is one of the 4 user customizable entries for each color code.
- 5). The Group entry is one of the 4 user customizable entries for each color code.
- 6). The Fiber entry is one of the 4 user customizable entries for each color code.
- 7). The Core entry is one of the 4 user customizable entries for each color code.
- 8). Save will save all changes made and return to the settings page once finished.
- 9). This button will move the selected segment up an index unless it is already the top most segment.
- 10). This button will add a segment with the entered information to the bottom of the color code.
- 11). When pressed this button will move the selected segment down an index unless it is already at the bottom.
- 12). Here all of your segments will be displayed allowing you to select, delete, and move segments around.

## Updating The Software

First from the home page press "Settings" then Wifi Settings, and verify Wifi is both on and connected. Next return to the home page press "Settings" then "About". From here you need to plug in the Barrell jack charger and press "Check for updates" from there you just need to click accept and wait for the download to finish.

## Report Settings

First from the Home page press "Projects" then select your project, then select the gear in the top right to enter the report settings page.



The screenshot displays the "Project Report Settings: Default Project" interface. It features a dark background with a "Back" button in the top left corner. The settings are listed as follows:

Setting	Value
Report Type	HTML
Customer Company Name	[Input field]
Contact Name	-
Testing Company Name	-
Tester's Name	-
Test Location	-
Comments	-

At the bottom of the screen, there are three buttons: "Cancel", "OK", and "Export Project".

On this page you can enter basic report information such as the customer/company name and location.

Report Type allows you to change what format your reports are outputted as. Currently the supported formats are PDF, HTML, Excel, XML, and CSV

Pressing save will commit your changes while cancel will exit without saving the changes.

Export Project will allow you to share your current project and import it on a windows PC.

## Project Management

First Press "Projects" from the home page.

From here pressing the Create button in the bottom left will allow you to enter a name for a new project. or you can select an existing project to use from the list on the right.

# Exporting Projects

## Exporting

Navigating from the Home Page to report settings by pressing "Projects" then selecting a project, then pressing the Project Settings Page. Once you are here simply press "Export Project" to create a zip file with your project that is available to be emailed off.

## Generating Reports

After saving all of your inspections, setting your report settings as described above, and verifying all names/comments. Simply go to the project page and press the "Share" button. This will generate inspection and OPM reports. After they are generated it will prompt you to share over gmail/Email/Google Drive

## Offloading Reports Over Micro USB

First plug your VIS300C into a Windows PC and open file explorer. Next press "This PC" on the left side of your screen, then select VIS-300C=>Internal Storage=>Download=>InSpec=>CloseoutReports. Here depending on your version you will either see folders for each of your project containing your reports or all of your reports will be in that directory with the projectname in the name.

## Offloading Reports With a Flash Drive

First navigate to your project page. From here simply plug in a flash drive and a popup will appear asking for USB permission. This must be granted to offload to a USB drive. Once permission is given it will ask if you would like to offload reports or the project. Clicking reports will regenerate the reports and copy them to the root directory of the flash drive while pressing Project will zip the project and put it on the flash drive.

# Certifications and Contact Information

## Calibration Certificates

The RP460 comes calibrated and should be recalibrated every 2 years. Included with the RP460 is a calibration certificate, and free recalibration within 2 years of the date of purchase. To start the calibration process simply call or email technical support!

## Warranty

The RP460 comes with a 2 year warranty for any manufacturer defects or damage due to reasonable use. To start the RMA process simply email or call technical support!

## Contact Support

Contact us with any questions pertaining to this or any other Ripley product.

 **Call Us:**  
(603) 524-8350

 **Email Us:**  
[tech.support@odm.ripley-tools.com](mailto:tech.support@odm.ripley-tools.com)

 **Visit Us Online:** [www.ripley-tools.com](http://www.ripley-tools.com)