ADVANCED PRODUCT GUIDE

Read the whole link. Find the event that matters.

Prepare the MAX-730D, define the tested span and turn an OTDR trace into a reviewable fiber record.

Start with the link, not the pulse width.

Document the endpoints, fiber type, expected length, splitter topology and required acceptance tests. Then configure the installed MAX-730D optical and software options for that job. This workflow uses the OTDR application; iOLM is a separate licensed workflow.

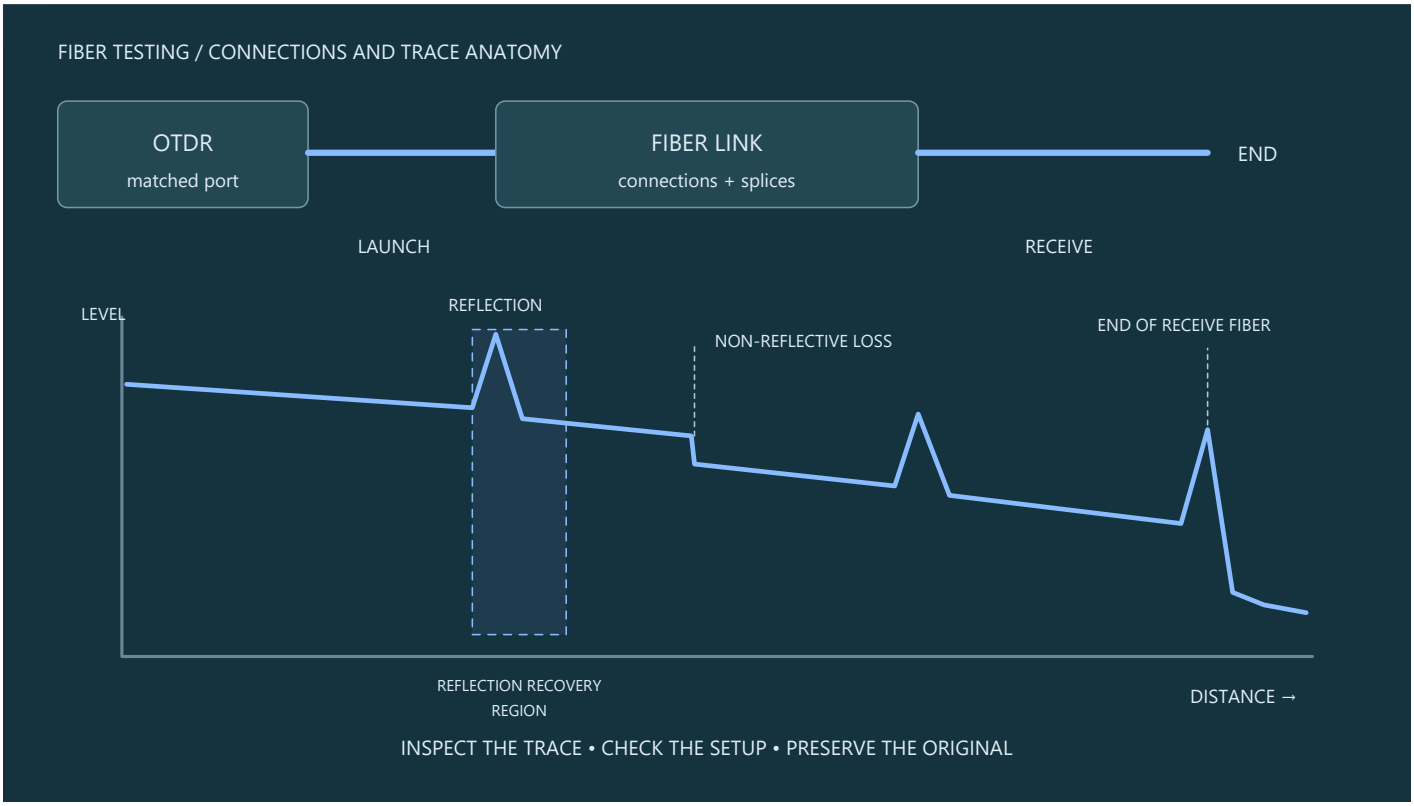
PREPARE THE WORK

A safe, complete setup.

Never look into an optical port or fiber end, including through an optical microscope. Verify the fiber is dark before inspection and connection for this workflow.

Disconnect or isolate active equipment under the network owner's procedure. Do not connect a live fiber to an ordinary OTDR port; live testing requires the correct SM Live configuration, compatible wavelength/filter and manufacturer procedure.

Match APC/UPC polish and connector adapters; stop for a damaged end face rather than repeatedly mating it. Keep optical sources off while cleaning.



FIELD PROCEDURE

Prepare and begin.

01 Record the job

Create a consistent link ID with near end, far end and direction. Record the installed optical option and required wavelengths, then check storage and the destination for the original trace files.

02 Inspect, clean, inspect

With the link confirmed dark and test sources off, inspect the test port, launch/receive ends and link ends using a suitable video inspection probe. Clean contamination with the appropriate fiber tool and reinspect before mating.

03 Connect the span

Connect the matched launch fiber between the OTDR and the near end, and the receive fiber at the far end when required. Avoid tight bends in the test leads. Confirm the actual connection type and selected OTDR port.

04 Set fiber and analysis information

In Test Configuration, review Link Definition and the fiber characteristics for each wavelength. Use the cable manufacturer's IOR/group index and appropriate backscatter information. Set distance units and agreed pass/fail criteria; do not copy values from a manual screenshot.

FIELD PROCEDURE

Inspect, save and finish.

05 Set launch and receive boundaries

In the OTDR acquisition settings, use Launch and Receive Fiber and select the length-based or event-based method. Enter the actual accessory information and confirm the boundaries on the resulting trace.

06 Acquire a useful trace

Select the required wavelengths and a range covering the full setup. Start with the appropriate automatic settings or the approved job configuration. Adjust pulse width and acquisition duration only to resolve a specific issue: reach, noise or closely spaced events.

07 Review and repeat where needed

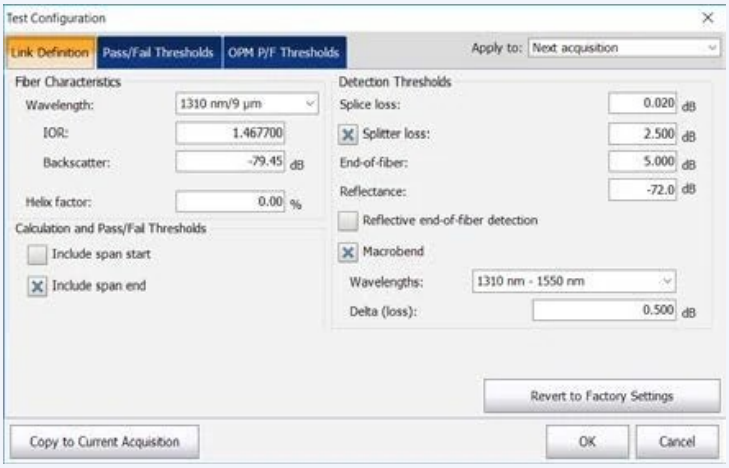
Inspect the first connector, far end and every unexpected event. Compare wavelengths and perform the required reverse-direction test. A splitter or noisy tail must not be mistaken for the end of the intended span.

08 Save, export and verify

Save the native traces with the link ID and acquisition information. Generate the requested report, copy the complete results to the project destination and reopen a sample. Preserve original files and record any retest or analysis change.

MANUFACTURER REFERENCE

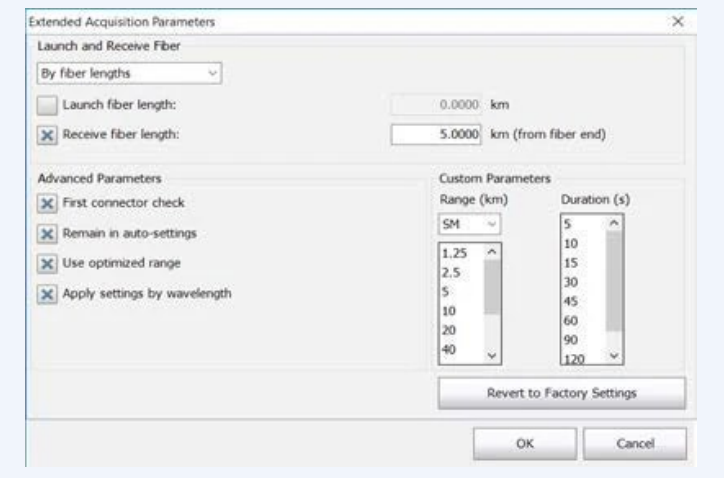
The controls, in context.



Configure the fiber before the test

Link Definition brings fiber characteristics and detection settings together. Use the actual fiber data and project criteria; the numeric values are manufacturer examples.

EXFO OTDR User Guide v20.0.0.1, PDF p.48 / printed p.37.



Define launch and receive fibers

Choose the appropriate boundary method and enter the actual accessories in use. The illustrated receive-fiber value is an example, not a recommended lead length.

EXFO OTDR User Guide v20.0.0.1, PDF p.102 / printed p.91.

MANUFACTURER REFERENCE

The controls, in context.

Connect the trace to its events

Select an event and inspect its position on the trace. Displayed failures, distances and losses belong to the manufacturer's sample dataset.

EXFO OTDR User Guide v20.0.0.1, PDF p.18 / printed p.7.

Carry this into the field.

Resolve close events deliberately

A large reflection can conceal nearby detail while the receiver recovers. A shorter pulse may separate close events but reduce reach; longer averaging reduces noise rather than eliminating a dead zone. Compare acquisitions when the first trace cannot answer the question.

Use both directions when the plan requires them

Backscatter differences can make a splice look better from one direction than the other. Preserve correctly paired directional traces and use the approved bidirectional analysis workflow; do not average unrelated fibers or wavelengths.

FIELD JUDGEMENT

Know what to check.

Keep acceptance tied to the contract

The OTDR locates and characterizes events. Complete the separately specified OLTS insertion-loss test as well; a green OTDR result alone does not replace the required loss-test evidence.

Save evidence before changing analysis

Keep the original acquisition. Record subsequent threshold or event changes so a reviewer can distinguish measured data from revised interpretation.

If the result is not right

The first connection dominates the trace

Stop testing, turn off the source and revisit inspection of both mating faces and the adapter. Check the launch fiber for damage or bending before increasing the pulse width.

The far end disappears into noise

Confirm the intended span and range. Review the loss and splitter topology, then compare a longer acquisition or suitable pulse setting. Do not declare missing downstream events acceptable because they were not detected.

The distance disagrees with the cable route

Check units, IOR, launch offset and endpoint identity. Optical fiber length can differ from jacket or route length; do not change IOR simply to force agreement.

HANDOFF & SOURCES

Leave a usable record.

- [ ] Native trace files for every required wavelength and direction
- [ ] Link ID, near/far endpoints and test direction
- [ ] Instrument/module identity, software version and calibration record
- [ ] Fiber type, distance units, IOR and acquisition settings
- [ ] Launch/receive definitions, event review and applicable test limits
- [ ] Report plus required OLTS insertion-loss results; open a sample of the delivered files

Scope and source editions

MAX-730D within the MAX-700D family; OTDR application. Wavelengths, live-fiber capability, connectors and software depend on the ordered configuration.

Manufacturer screenshots contain illustrative settings and sample results; captions identify these explicitly.

Editorial workflow guidance supplements the cited operating manuals; apply the installed instrument configuration and the project acceptance specification.

MAX-730D product and available configurations

EXFO OTDR User Guide, v20.0.0.1

OLTS & OTDR: A Complete Testing Strategy

Manufacturer figures are reproduced from the linked references. Landscape art is AI-created context; the workflow diagram explains relationships and is not a recorded inspection or test result. Independent handoff checks are Fiber Equipment Supply recommendations.

ADVANCED PRODUCT GUIDE

One platform. A traceable test workflow.

Configure the installed OTDR module, control the test boundaries and keep every result tied to the right fiber.

The module defines the measurement.

T-BERD/MTS-2000 identifies the platform, not a complete set of optical capabilities. Record the installed 4100-series module and application version before selecting a configuration. Wavelengths and acquisition choices vary with that module.

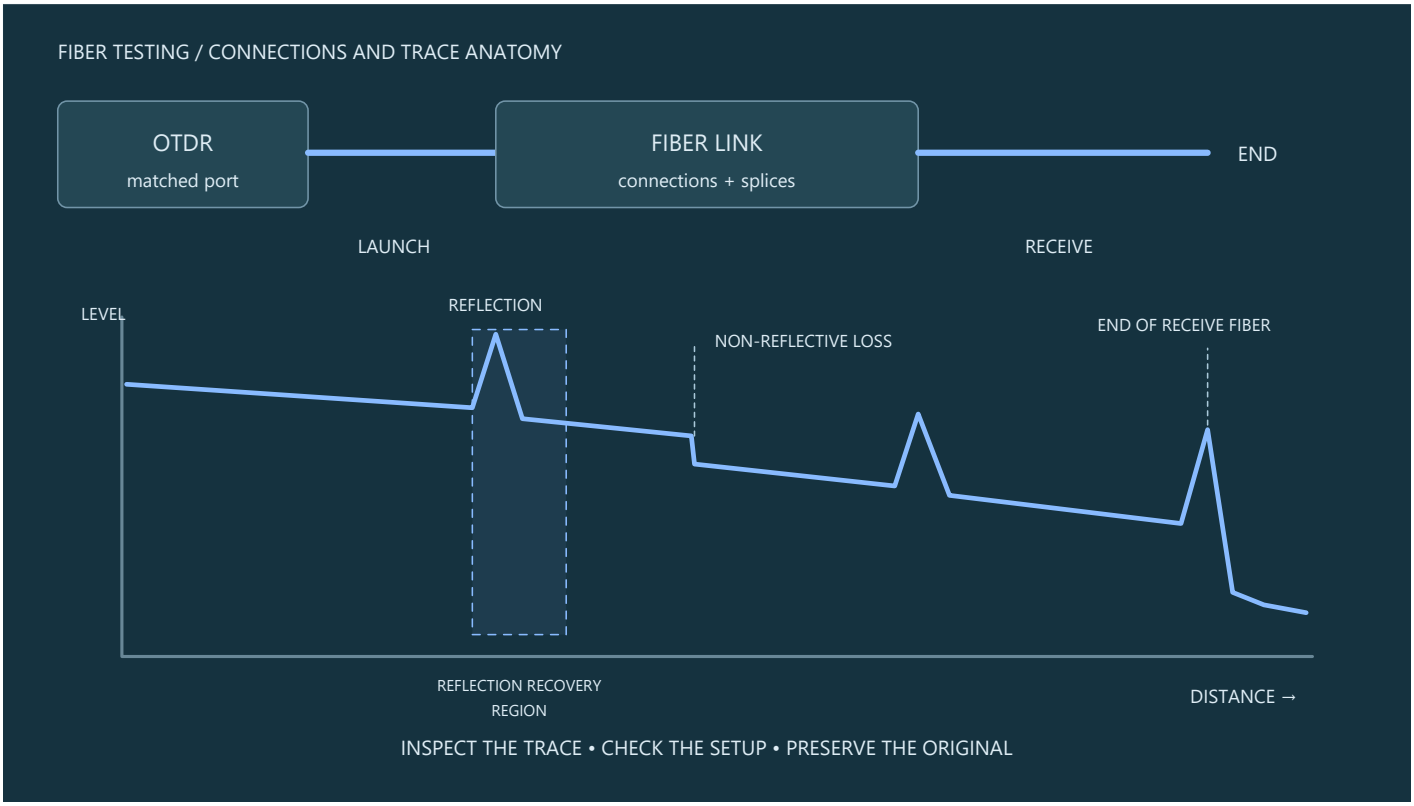
PREPARE THE WORK

A safe, complete setup.

For this dark-fiber workflow, verify the link is disconnected from active optical sources before inspection or connection; never view a fiber or port directly or through an optical microscope.

Use live-fiber testing only with a module/port and filtered wavelength explicitly approved for that service. Stop on live-fiber warnings rather than defeating them.

Inspect both mating connectors and verify matching PC/UPC or APC types. Turn off test light before cleaning or disconnecting for inspection.



FIELD PROCEDURE

Prepare and begin.

01 Identify platform, module and fiber

Record the platform, module, software, cable ID, endpoints and direction. Confirm the module supports every required wavelength and the planned point-to-point or PON test.

02 Prepare clean connections

Inspect the test port and every lead/link end. Clean only as needed, reinspect and connect matching polish types. Keep clean dust caps available and protect disconnected ends.

03 Load or establish the setup

Open Expert OTDR setup and load the verified job configuration if one is supplied. Review the distance units, acquisition choices, link identification, alarm limits and file destination before testing.

04 Define launch and receive fibers

In General settings, enable the applicable launch/receive cable definitions by event or length. Review Include Link Connection so the overall-loss calculation includes or excludes the end connections exactly as the test plan requires.

FIELD PROCEDURE

Inspect, save and finish.

05 Match acquisition to the question

In Acquisition, select the supported wavelengths and intended mode. SmartAcq+ combines multiple pulse acquisitions; the Rev.011 manual does not recommend it for bidirectional testing. Use the appropriate approved mode for that requirement.

06 Verify fiber parameters and run

Review IOR and relevant fiber parameters in the advanced setup; use the fiber specification, not a sample screenshot. Acquire the trace and check that it covers the intended far end and the required event detail.

07 Investigate the event list

Inspect unexpected losses, reflectance or missing events on the trace. Compare wavelengths, check the physical location and repeat the required direction after any repair. Do not relax alarms to create a passing report.

08 Save the complete evidence

Use the configured file path and naming rule, retaining native results as well as reports. Copy the results to the project record and verify that a representative file reopens with the correct ID, direction and settings.

Field notes

Resolve close events deliberately

A large reflection can conceal nearby detail while the receiver recovers. A shorter pulse may separate close events but reduce reach; longer averaging reduces noise rather than eliminating a dead zone. Compare acquisitions when the first trace cannot answer the question.

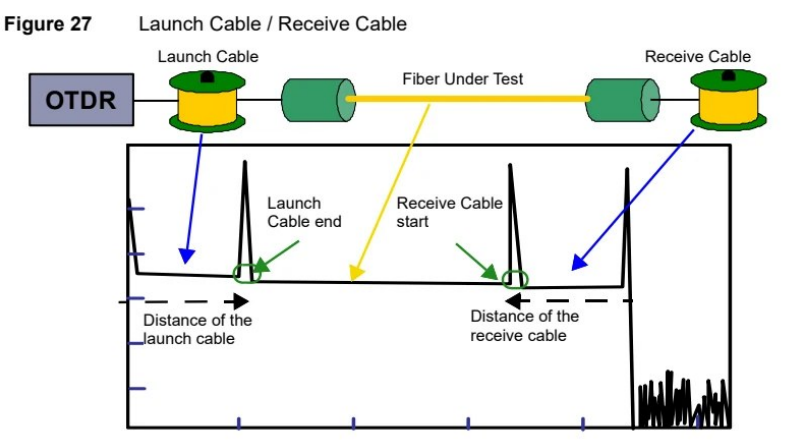
MANUFACTURER REFERENCE

The controls, in context.

Inspect before you connect

Follow the inspection decision loop at each mating pair. Reinspection confirms whether cleaning actually removed the contamination.

VIAVI OTDR 700MAN201 Rev.011, November 25, 2025, PDF p.19 / printed p.3, Fig.1.



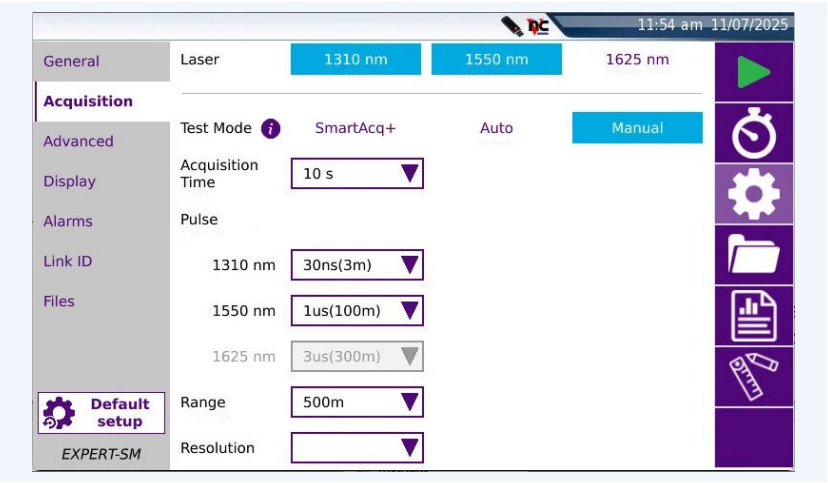
Separate the leads from the link

The manufacturer's diagram connects the physical test chain to trace boundaries. Identify the launch-cable end and receive-cable start in your own result.

VIAVI 700MAN201 Rev.011, PDF p.54 / printed p.38, Fig.27; original vector figure rendered from the PDF.

MANUFACTURER REFERENCE

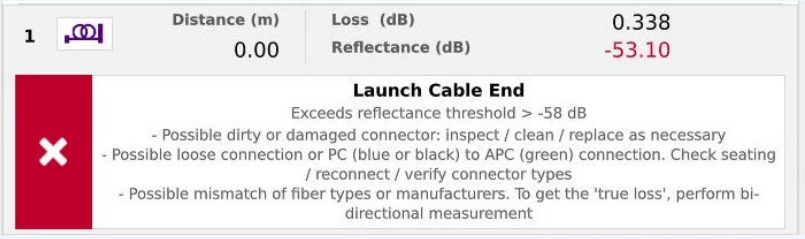
The controls, in context.



Select an acquisition deliberately

This example shows the wavelength and acquisition controls. Available choices depend on the module; displayed times, pulse widths and range are source examples.

VIAVI 700MAN201 Rev.011, PDF p.55 / printed p.39, Fig.28.



Use the event detail to guide investigation

Review the flagged connection and its physical causes. The loss, reflectance and failure threshold shown are manufacturer sample values.

VIAVI 700MAN201 Rev.011, PDF p.82 / printed p.66; launch-cable event detail.

FIELD JUDGEMENT

Know what to check.

Use both directions when the plan requires them

Backscatter differences can make a splice look better from one direction than the other. Preserve correctly paired directional traces and use the approved bidirectional analysis workflow; do not average unrelated fibers or wavelengths.

Keep acceptance tied to the contract

The OTDR locates and characterizes events. Complete the separately specified OLTS insertion-loss test as well; a green OTDR result alone does not replace the required loss-test evidence.

Save evidence before changing analysis

Keep the original acquisition. Record subsequent threshold or event changes so a reviewer can distinguish measured data from revised interpretation.

Check the end-connection accounting

A correct launch length does not by itself answer whether an end connector is included in overall loss. Review Include Link Connection alongside the boundary definitions and the acceptance plan.

If the result is not right

Reflectance alarm at the launch-cable end

Inspect and clean the mating faces; check seating, damage and connector-polish compatibility. The manufacturer’s example highlights these as possible causes, not a diagnosis of your fiber.

Expected wavelengths or modes are unavailable

Check the installed module and enabled application. The platform alone does not establish a wavelength set, PON capability or FiberComplete functionality.

Saved data cannot be matched to the fiber

Stop the sequence and reconcile cable IDs, endpoints, direction and naming fields. Reopen the last result before allowing the next automatic name to propagate an error.

HANDOFF & SOURCES

Leave a usable record.

- [ ] Native trace files for every required wavelength and direction
- [ ] Link ID, near/far endpoints and test direction
- [ ] Instrument/module identity, software version and calibration record
- [ ] Fiber type, distance units, IOR and acquisition settings
- [ ] Launch/receive definitions, event review and applicable test limits
- [ ] Report plus required OLTS insertion-loss results; open a sample of the delivered files

Scope and source editions

T-BERD/MTS-2000 with a compatible 4100-series OTDR module. Expert OTDR workflow based on 700MAN201 Rev.011; available functions depend on module and software.

Manufacturer screenshots contain illustrative settings and sample results; captions identify these explicitly.

Editorial workflow guidance supplements the cited operating manuals; apply the installed instrument configuration and the project acceptance specification.

T-BERD/MTS-2000 platform

OTDR application User Manual, 700MAN201 Rev.011

OLTS & OTDR: A Complete Testing Strategy

Manufacturer figures are reproduced from the linked references. Landscape art is AI-created context; the workflow diagram explains relationships and is not a recorded inspection or test result. Independent handoff checks are Fiber Equipment Supply recommendations.

ADVANCED PRODUCT GUIDE

See the event. Explain the result.

Use the HDR singlemode OTDR workflow to inspect the link, review EventMap and deliver evidence that survives a second look.

A specific kit, with specific capabilities.

OFP2-200-S combines a Versiv 2 mainframe with the HDR singlemode OTDR module for 1310/1550 nm. The manufacturer lists inspection and launch accessories in separate Si kits. Assemble the accessories your job requires before arriving at the fiber.

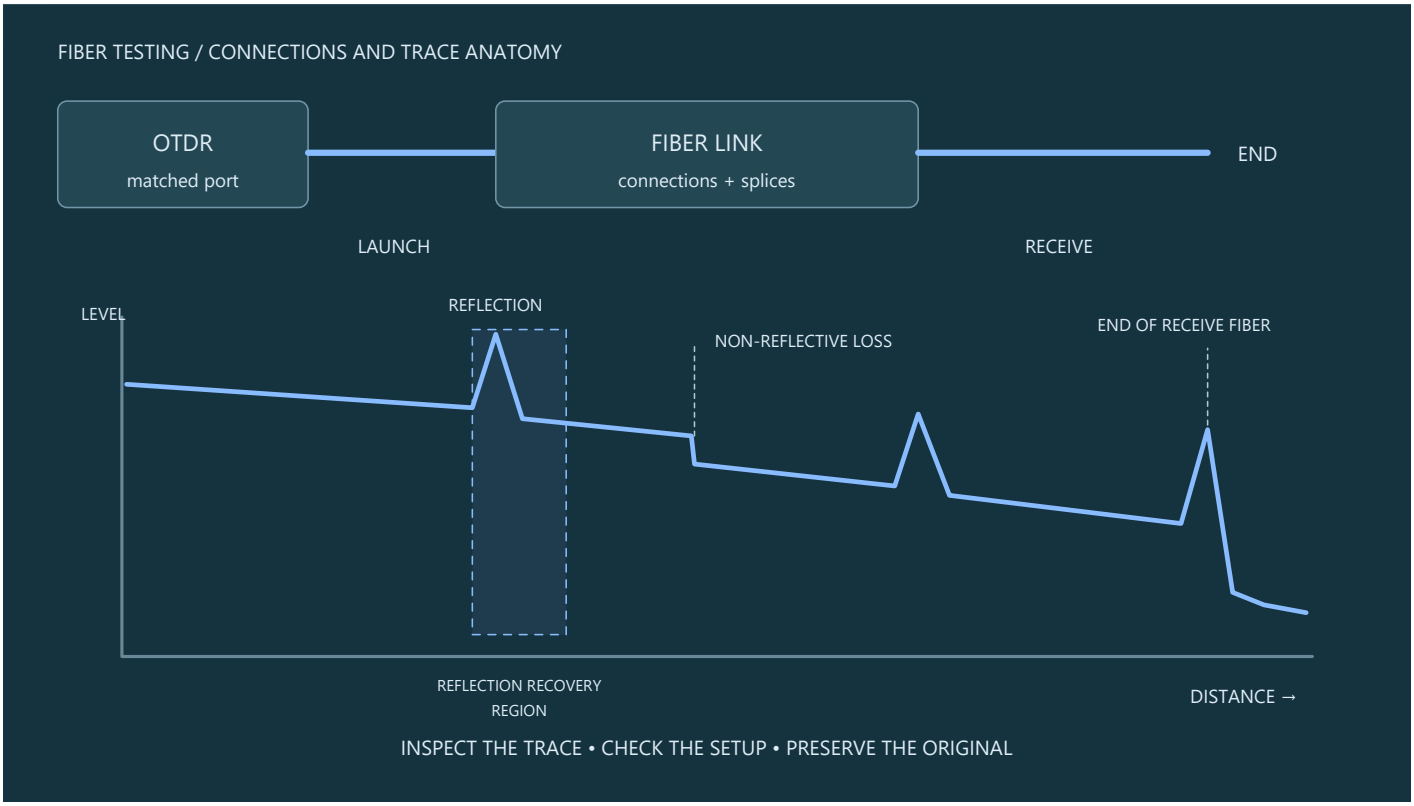
PREPARE THE WORK

A safe, complete setup.

OFP2-200-S provides 1310/1550 nm; do not use this kit to test live fibers. Isolate the link under the network owner's procedure and stop if the tester detects optical power.

Never look into a fiber end or optical port, directly or through an optical microscope. Use appropriate video inspection with the optical sources disabled and the fiber verified dark.

Do not connect PC or UPC plugs to the HDR OTDR port. Use an APC-compatible test lead and inspect for contamination or damage before mating.



FIELD PROCEDURE

Prepare and begin.

01 Prepare the project and test kit

Identify the actual HDR module, software version and cable endpoints. Add the required video inspection probe, cleaning tools and compatible singlemode launch/tail cords; do not assume these are included with the base 200-S kit.

02 Inspect and connect correctly

Confirm the fiber is dark. Inspect, clean when needed and reinspect the relevant port and lead/link end faces. Use APC at the HDR instrument port and compatible connections at the other ends.

03 Review the test setup

On the home screen, confirm the correct project and cable ID. In TEST SETUP choose the fiber type, required 1310/1550 wavelengths and applicable limit. Select Auto OTDR for a point-to-point link or the appropriate PON mode for passive splitters.

04 Set launch compensation when required

Use launch/tail cords to characterize end connections where the plan requires it. Tap SET COMP, select the method and follow the displayed connection sequence. Confirm the actual boundaries; a sample cord length is not a universal setting.

FIELD PROCEDURE

Inspect, save and finish.

05 Run and watch connection quality

Tap TEST or use the test key. Review the port-connection quality gauge. If it is poor, stop and investigate the connection instead of accepting a noisy trace or simply widening the pulse.

06 Read EventMap, TABLE and TRACE

Select the important event in EventMap, review its measurements and inspect the corresponding trace region. Check the far-end identity, splitter interpretation and any unexpected loss. A PASS label is meaningful only against the correct setup and limit.

07 Resolve ambiguity with a controlled retest

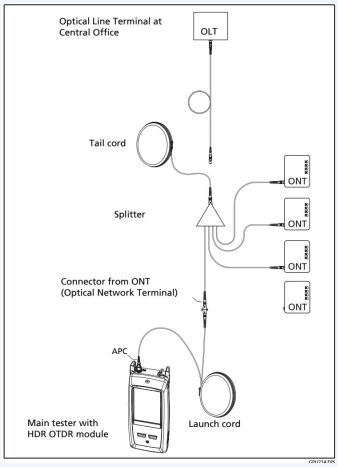
Use Manual OTDR only to answer a specific unresolved question about range, close events or noise. Change one relevant setting at a time and retain the earlier result. Complete correctly paired bidirectional tests when required.

08 Save and check the handoff

Confirm that the result has been saved under the intended ID. Transfer the complete project using the supported LinkWare/USB workflow for the installed version, create the report and reopen sample results. Include the separately required OLTS evidence.

MANUFACTURER REFERENCE

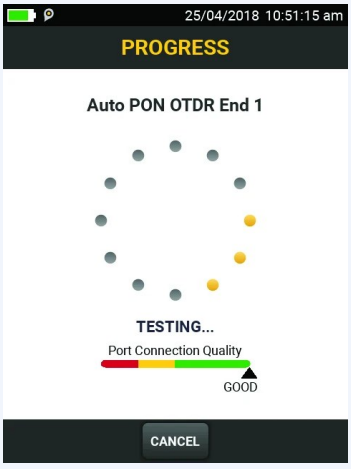
The controls, in context.



Connect the HDR with launch and tail cords

The original illustration shows an out-of-service PON test with the OLT disconnected. Its APC instrument connection and separated test boundaries are the details to carry into the job.

Fluke Versiv Technical Reference Handbook Rev.14, February 2025, PDF p.469 / printed p.447, Fig.177; original vector figure rendered from the PDF.



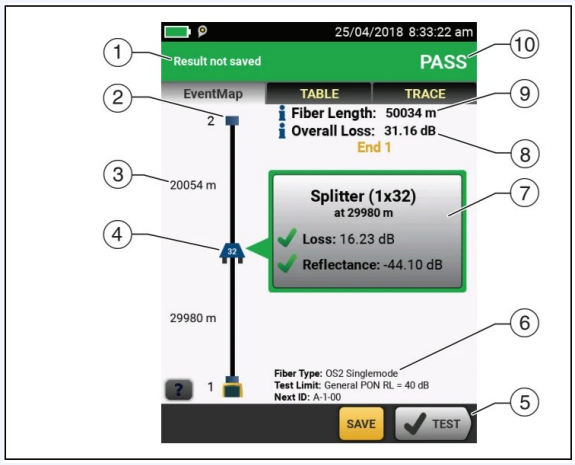
Watch the connection quality

Use the gauge as a check on the test connection before interpreting downstream events. This GOOD indication is the manufacturer's example, not a result from your link.

Fluke Versiv Technical Reference Handbook Rev.14, PDF p.465 / printed p.443, Fig.174.

MANUFACTURER REFERENCE

The controls, in context.



Read the event in context

Move between EventMap, TABLE and TRACE and confirm the result is saved. The illustrated PASS, splitter ratio, distances and losses belong to the manual's example.

Fluke Versiv Technical Reference Handbook Rev.14, PDF p.472 / printed p.450, Fig.179; original figure rendered from the PDF.

Carry this into the field.

Resolve close events deliberately

A large reflection can conceal nearby detail while the receiver recovers. A shorter pulse may separate close events but reduce reach; longer averaging reduces noise rather than eliminating a dead zone. Compare acquisitions when the first trace cannot answer the question.

Use both directions when the plan requires them

Backscatter differences can make a splice look better from one direction than the other. Preserve correctly paired directional traces and use the approved bidirectional analysis workflow; do not average unrelated fibers or wavelengths.

FIELD JUDGEMENT

Know what to check.

Keep acceptance tied to the contract

The OTDR locates and characterizes events. Complete the separately specified OLTS insertion-loss test as well; a green OTDR result alone does not replace the required loss-test evidence.

Save evidence before changing analysis

Keep the original acquisition. Record subsequent threshold or event changes so a reviewer can distinguish measured data from revised interpretation.

Do not confuse an OSP shortcut with an acceptance rule

The HDR handbook discusses long outside-plant tests that do not need launch/tail cords. Use the customer's specified method and include them when end connectors must be characterized; DataCenter OTDR requires launch compensation.

If the result is not right

Port quality is outside the good range

Turn off test light and inspect both end faces, the adapter and the test lead. A poor connection expands the dead zone and reduces usable signal; a longer test does not repair it.

A passive splitter appears as a large loss

Check the selected test type and actual topology. Ordinary Auto OTDR does not identify splitters the way a PON test does. Reconfigure deliberately rather than relabeling an unexplained event.

Length or acceptance changes unexpectedly

Verify fiber type/IOR, units, compensation boundaries and the selected limit. Some limits use measured length and connection counts; changing these can alter acceptance without changing the fiber.

HANDOFF & SOURCES

Leave a usable record.

- [ ] Native trace files for every required wavelength and direction
- [ ] Link ID, near/far endpoints and test direction
- [ ] Instrument/module identity, software version and calibration record
- [ ] Fiber type, distance units, IOR and acquisition settings
- [ ] Launch/receive definitions, event review and applicable test limits
- [ ] Report plus required OLTS insertion-loss results; open a sample of the delivered files

Scope and source editions

OFP2-200-S: HDR singlemode 1310/1550 nm kit. This dark-fiber guide does not apply 1490/1625 options or multimode capability to this model.

Manufacturer screenshots contain illustrative settings and sample results; captions identify these explicitly.

Editorial workflow guidance supplements the cited operating manuals; apply the installed instrument configuration and the project acceptance specification.

OptiFiber Pro OTDR family: OFP2-200-S kit

Versiv Technical Reference Handbook, Rev.14

OLTS & OTDR: A Complete Testing Strategy

Manufacturer figures are reproduced from the linked references. Landscape art is AI-created context; the workflow diagram explains relationships and is not a recorded inspection or test result. Independent handoff checks are Fiber Equipment Supply recommendations.