

5 STEPS TO TROUBLESHOOT FIBER OPTICS NETWORK

RC: 789384



We make Technology fun

JUST 5 THINGS TO DO

- ▶ **Assess the situation**
- ▶ **Search for the problem**
- ▶ **Test the system**
- ▶ **Correct the problem**
- ▶ **Document the result**

STEP 1 : ASSESS THE SITUATION

At this stage we determine the:

- ▶ The priority of the condition
- ▶ The available resource for rectification
- ▶ The priority of the restoration (the critical level L1, L2 L3)
- ▶ Available equipment for restoration
- ▶ Available manpower (maintenance team)
- ▶ Method and procedure of restoration

STEP 2: SEARCH FOR THE PROBLEM

- ▶ The Method and procedure of restoration adopted will determine whether to start at the beginning of a link, and work towards the other end (which only happen where there is only one link, or a relatively short link) **OR**
- ▶ To start in the middle of the link, and determine in which direction the problem exists

Certain test equipment expertise will be required at this stage.

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STEP 3 :TEST THE SYSTEM

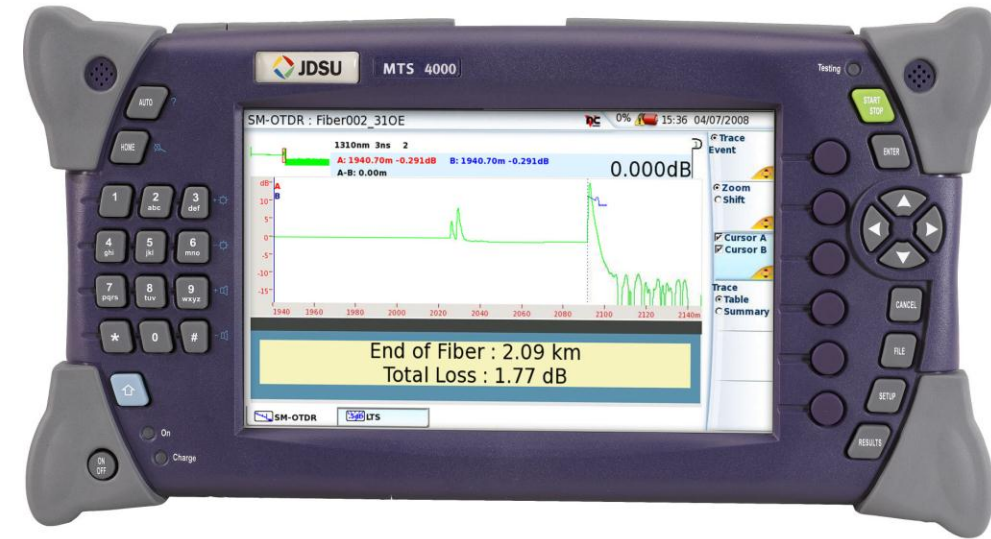
TESTING EQUIPMENT



VISUAL FAULT LOCATOR



OLTS



OTDR



VISUAL FAULT LOCATOR

The visual fault locator injects light into the core of the fiber. The light can be seen at the other end if the circuit is good.

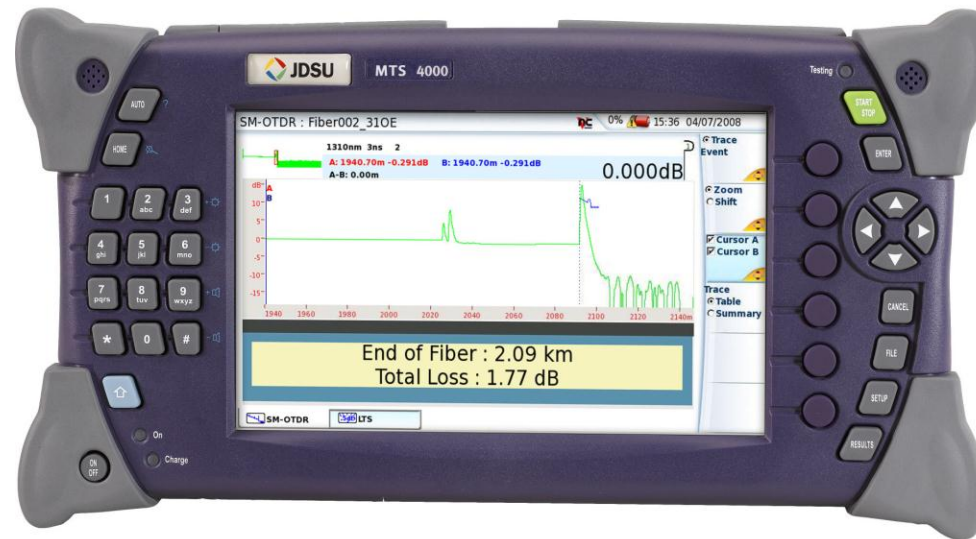
POWER METER AND A LIGHT SOURCE



OLTS

OLTS provide the loss value of the fiber to which they are connected. However, they are limited to use over short distances.

OTDR



OTDR reports fiber losses over a long run. It can also give the exact location of a break, or fault.

STEP 4: CORRECT THE PROBLEM

The essence and goal of locating and isolating the problem is to **FIX IT** which can be

- ▶ cleaning the connector
- ▶ replacing a jumper
- ▶ Re-splicing
- ▶ Re-testing to ensure the restoration of the system to its original working condition.

STEP 5: DOCUMENT THE RESULT

While correcting the problem, record the troubleshooting process

The AS-Built drawing and some other project documents will be affected. More importantly the record should provide the following information:

- The date
- The reason for troubleshooting
- The method of troubleshooting
- Testing data (if any)
- The location of the problem
- The problem solution
- The testing data after the problem is corrected

THANK YOU

from

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