# Trouble Shooting
# Performance Test Results

### When – Wiremap issues gives a FAIL result

### Faults & Possible Causes

### Wire Map: open

- Wires connected to wrong pins at connector or punch down blocks
- Faulty connections
- Damaged connector
- Damaged cable
- Wrong outlet configuration selected in setup
- Wrong application for cable

### Wire Map: split pair or reversed pair

Wires connected to wrong pins at connector or punch down block.

### Wire Map: crossed wires

- Wires connected to the wrong pins at connector or punch down block
- Mix of 568A and 568B wiring standards (1-2 and 3-6 crossed)
- Crossover cables used where not needed (1-2 and 3-6 crossed)

### Wire Map: short

- Damaged connector
- Damaged cable
- Conductive material stuck between pins at connector
- Improper connector termination
- Wrong application for cable

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### When - NEXT, PSNEXT, ACR-F, PSACR-F gives FAIL, FAIL*, or PASS* result

### Possible Causes

- Excessive untwisting of pairs at connector
- Poor quality patch cords
- Poor quality connectors
- Poor quality cable
- Poorly matched plug and jack (Cat 6/Class E applications)
- Incorrect link interface adapter
- Cable compression (tight cable ties, pinches, kinks, etc.)
- Inappropriate use of couplers
- Excessive noise source near cabling under test. Use the impulse noise test to check for noise.
- Wrong test standard selected

## When - Return loss gives FAIL, FAIAIL*, or PASS* result

### Possible Causes

- Cable impedance ... not 100Ω
- Patch cord handling causing changes in impedance
- Excessive amount of cable jammed into outlet box
- Tight service loops in telecommunications ccloset
- Excessive untwisting of pairs at connector
- Damage to connectors
- Cable impedance not uniform (possible damage)
- Mismatches in cable construction (such as using cable from another manufacturers)
- Water in cable jacket
- Cable compression (tight cable ties, pinches, kinks, etc.)
- Wrong test standard selected
- Defective link interface adapter

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## When Attenuation (insertion loss) gives FAIL, FAIL*, or PASS* result

### Possible Causes

- Cabling is too long
- Poor quality patch cord
- Bad connection
- Wrong cable type in installation
- Wrong test standard selected

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## When - Characteristic impedance exceeds the limit or an anomaly is detected

### Possible Causes

- Bad connection
- Cable compression (tight cable ties, pinchees, kinks, etc.)
- Mismatch of cable types
- Water in cable jacket
- Excessive loading at coaxial cable tap
- Incorrect terminator value (coaxial cable)

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## When - Resistance gives FAIL, FAIL*, or PASS* result detected

### Possible Causes

- Cabling is too long
- Bad connection due to oxidized or loose contacts
- Wire gauge is too thin
- Wrong patch cord type used

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## When - Length gives FAIL result

### Possible Causes

- Cable is too long (may need to remove coileled service loops)
- NVP is set incorrectly