

## YBAC1 Calibration Kit Instructions

071-1144-01



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### Taking Care of the Calibration Kit

Proper care is critical to maintain the quality of the standards.

Keeping the standards clean is the first part of good care.

Keeping the standards in good mechanical condition is the second and perhaps the most important part.

The technique used to attach the standards to the measurement instrument is a large part of the care of these standards. When each standard is connected, it must be held from turning, while the outer nut is turned to tighten the standard. This pushes the center pins straight together and prevents damage. If the entire standard is turned, the center pins are twisted against each other as they go together. This can damage the center pins in both the measuring instrument and in the calibration standard. If the pins are damaged, the accuracy of the calibration performed can be as bad as if a non-precision adapter is used.

The third thing to consider is that any connector that is part of a system under test may itself have been damaged. The worst damage is a center pin that is not in the center, or that is sticking out too far from the connector. Be sure to check for this kind of connector damage before connecting to the test instrument, or permanent damage to the test instrument can occur.

### Attaching and Removing Precision Connectors

There is a correct way to attach and remove precision connectors. Precision connectors are exceptionally sensitive to mishandling.

**CAUTION.** *Attaching or removing a precision connector incorrectly will damage the connector. You must attach and remove precision connectors using the proper procedure to avoid damaging the connector.*

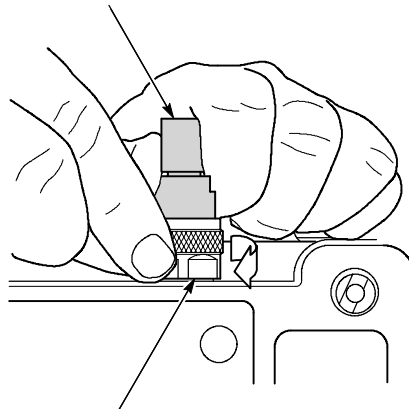
Precision connectors that have been damaged by improper handling will not provide dependable measurements.

#### Attaching precision connectors

To properly attach a precision connector to the YBA250:

1. Gently push the connector straight onto the Test Port. **DO NOT** turn the body of the connector while pushing it onto the Test Port.
2. To secure the connector, hold the body of the connector still while turning the nut until it is finger-tight. Turn **ONLY** the nut to secure the connector. See Figure 1.

Hold body portion of the connector secure from turning.



Tighten connector by turning only the bottom, knurled portion of the connector.

**Figure 1: How to attach a precision connector**

### Removing precision connectors

To properly remove a precision connector from the YBA250:

1. Hold the body of the connector still while turning the nut to loosen it. Turn **ONLY** the nut to remove the connector.
2. Gently pull the connector straight away from the RF input. **DO NOT** turn the body of the connector while pulling it off the Test Port.

### General Characteristics

**Table 1: Precision Open characteristics**

Connector	Type N
Frequency Range	0.1 to 18.0 GHz
Phase Accuracy	± 2.0 degrees
Reflection Coefficient	0.99 (minimum)

**Table 2: Precision Short characteristics**

Connector	Type N
Frequency Range	DC to 18.0 GHz

**Table 3: Precision Load characteristics**

Connector	Type N
Impedance	50 Ω (nominal)
Frequency Range	DC to 18.0 GHz
VSWR	1.02 from DC to 2.5 GHz

### Physical Characteristics

YBAC1 weight - 0.5 kg / 1.0 lbs.

Calibration - 1 year cycle

Warranty - 1 year

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