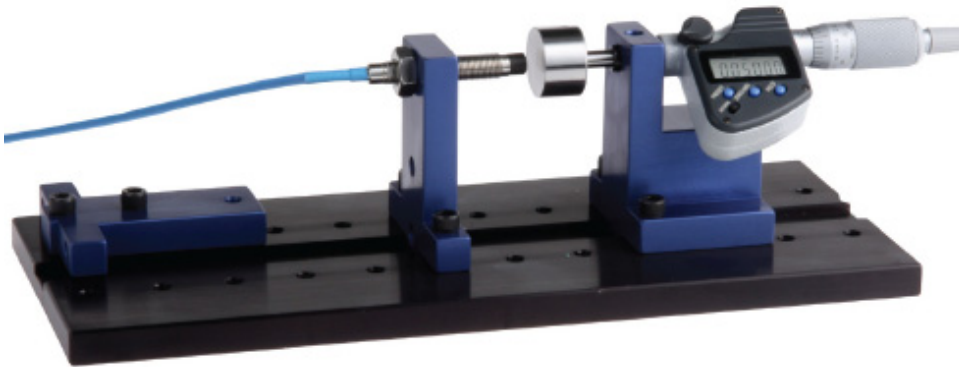




PROTECTION & RELIABILITY  
OPTIMIZATION INSTRUMENTS

A CTC COMPANY

**Product Manual**  
**MNX10045 REV A**  
*DT901 Series*  
*Linear Field Calibration Unit*



# Contents

- Section I**
- Overview**
- Introduction..... 2
- Description..... 2
- Model Selection..... 2
  
- Section II**
- Installation**
- Mounting..... 3
  
- Section III**
- Operation**
- Operating Procedure..... 5
  
- Section IV**
- Maintenance**
- General..... 5
- Warranty..... 5

# Section I Overview

## Introduction

This document contains information on the operation, installation and maintenance of the *DT901 Series Linear In-Field Calibration Unit*. This manual is an overview of the system and references the specific component manuals. User manuals are provided with the system for all configurable internal components.

## Description

In order to maintain accurate data when collecting data from system critical machinery, it may become desirable for an analyst to have the ability to test or calibrate a proximity probe sensor in the field. In order to facilitate this, CTC's PRO division has designed a linear field calibration unit.

This unit can be utilized to verify the system output in the ambient conditions (temperature/humidity) where the probes will actually be installed, to the calibration certificate that is sent with the probe sensor or to a historical probe that is being replaced. While proximity probes are tested at more than one temperature, actual testing (when possible) can provide the analyst with a more accurate baseline figure for dynamic measurements.

## Model Selection

### Ordering Information

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**DT901-08-S1** Proximity probe field calibration unit with 8 MM 3/8-24 probe mount.  
(Standard Configuration)

### Additional Accessories

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#### Ordering Information



Mounting Brackets

DT902-

Bracket	Threading
05 = 5 mm Tip	S1 = 1/4-28 M1 = M8x1
08 = 8 mm Tip	S1 = 3/8-24 M1 = M10x1

#### Ordering Information



Target Materials

DT903-

Target Material
01 = 4140
02 = 420 Stainless
03 = Aluminum
04 = Brass

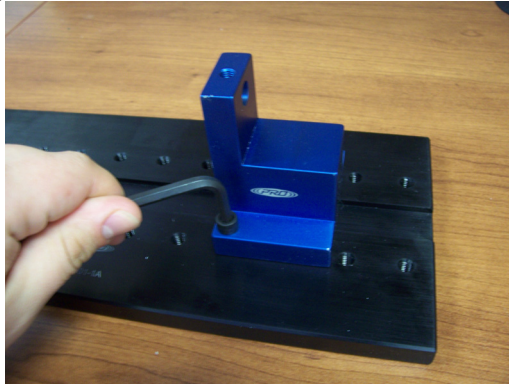
## Section II Installation

### *Mounting Instructions*

1. Place the battery in the digital micrometer



2. Screw the micrometer bracket at right end of the base plate using the socket head cap screws that came with the assembly.



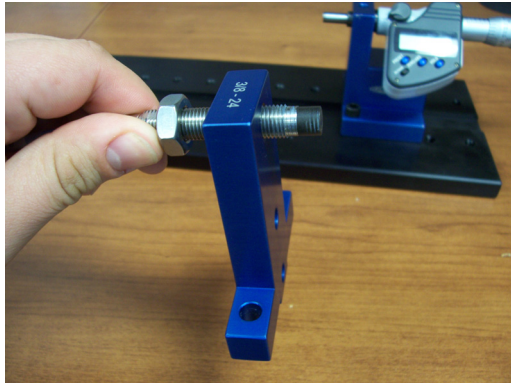
3. Slide the digital micrometer into the bracket. Position the LCD readout screen as desired and secure with the set screw on the top of the bracket.



4. Take the target and place it onto the micrometer shaft and tighten the set screw.



5. Thread the bracket onto the probe and tighten the jam nut against the bracket.



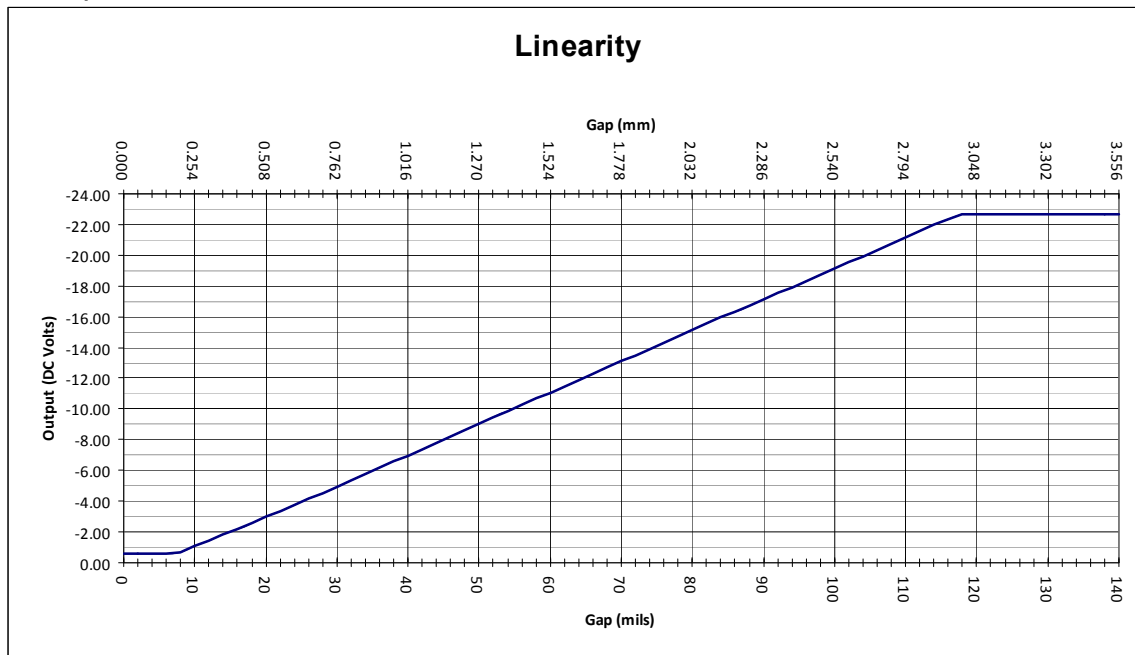
6. Mount the probe bracket in the keyway and attach to the base plate using the included socket head cap screws.



## Section III Operation

1. Once the probe has been mounted, slowly spin the target up against the probe tip until the ratchet clicks – press the “ZERO/ABS” button.
2. Back the target off and repeat this two or three more times just to verify that the target is directly up against the target and there isn't any deflection in the tip.
3. Move the target 10mils (0.01000in or 0.254mm) away from the probe tip and record the voltage.
4. Repeat previous step until entire linear range has been recorded.

Example:



## Section IV Maintenance

- Wipe off dust, cutting chips and moisture from the instrument after use
- To clean the instrument, use a soft cloth soaked in a diluted neutral detergent. Do not use any organic solvent (Thinner, etc). It may deform or damage the instrument
- Dirt on the spindle may cause malfunction. When a spindle gets dirty, wipe it with a cloth dipped in alcohol to thoroughly remove the dirt.

- If the micrometer is not in use for more than 3 months, remove the battery from the micrometer for safe keeping. The battery could leak and cause damage to the micrometer.

### ***General***

The battery is the only customer replaceable parts. The product has been designed for trouble-free service under normal operating conditions.

### ***Warranty***

PRO will repair or replace any of our products under warranty so long as the product was not subjected to misuse, neglect, natural disasters, improper installation or modification which caused the defect.

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