

Digital Readout Manual



Table of Contents

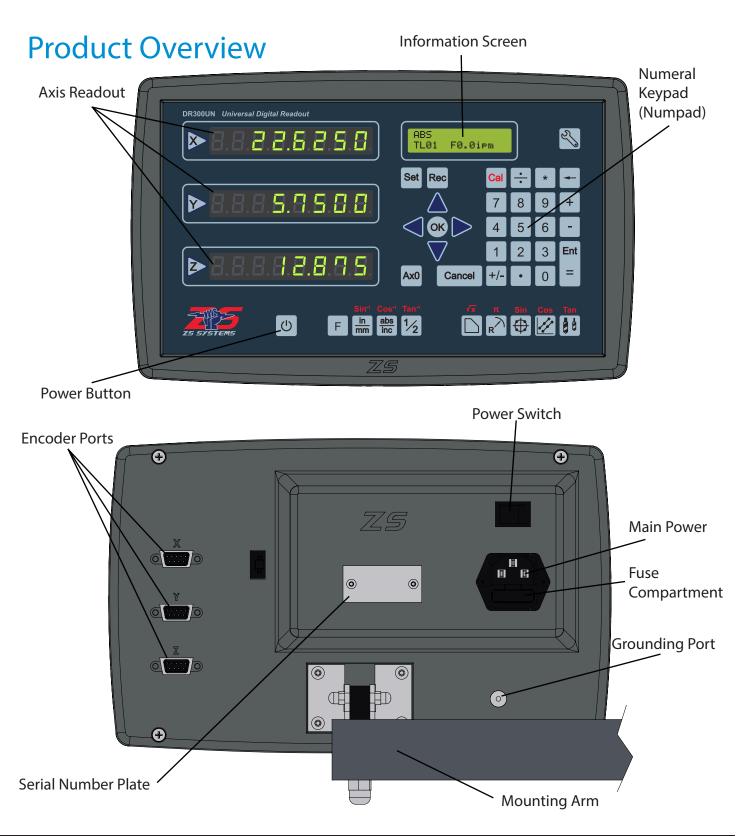
Warranty

Introduction
Product Overview
Installation
Mounting4
Grounding
Cables6
Standard Functions
Units
Absolute and Incremental Modes
Sub-datum Mode
Feedrate11
Sleep Mode11
Zero Reference Restore12
Calculator13
Mill Functions
Centerline14
Incline14
Smooth Radius16
Bolt Circle17
Bolt Array20
Tool Compensation21
Lathe Functions
Axis Summing23
Axis Vectoring23
Taper Measurement23
Tool Compensation22
Settings
Machine Type25
Encoder Settings26
Display Settings27
Power-OffMemory27
Specifications
Electrical28
Physical28
Environment28
Disposal28
Input and Resolution28
Troubleshooting
Common Problems29



Introduction

Thank you for purchasing ZS Instruments DR300UN DRO. This digital readout is capable of many advanced features that make machining operations fast and easy. This guide will cover the installation and setup of the unit as well as how to use all of the included features. Please read through this manual in its entirety before beginning installation or use of the unit to avoid damage to the DRO, encoders, or your machine. Save this manual for future reference.





Installation

Mounting

The DRO has different types of arms for mounting to a mill or a lathe. Check that you have the correct type of arm for your machine before attempting to install the DRO.



Due to the large number of machines and mounting configurations that are supported by the unit, hardware for securing the mounting arm to the machine is not included. Use two 1/4 inch or M6 screws of an appropriate length for your particular mounting arrangement.

Mill Mounting

Step 1: Determine the ideal mounting location for your particular machine. Using the mounting base as a guide, center punch, drill, and tap two holes of the same size and thread type as the screws you will be using. Attach the arm assembly to the machine as shown.



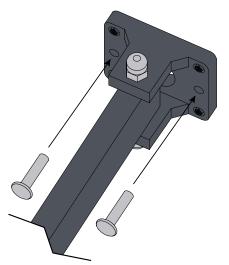
Make sure that the unit will clear all parts of the machine including cables and will be away from coolant nozzels, flying chips, or any other hazards



Be sure that the screws are tight or damage to the DRO may occur



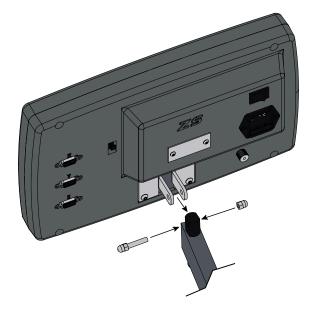
Use the four set screws to level the mounting arm



Step 2: Attach the DRO to the end of the mounting arm using the included hardware.



Be sure that the DRO is in the correct orientation





Lathe Mounting

Step 1: Determine the ideal mounting location for your particular machine. Using the mounting base as a guide, center punch, drill, and tap two holes of the same size and thread type as the screws you will be using. Attach the arm assembly to the machine as shown. Remove the screw from the top of the mounting arm base.



Make sure that the unit will clear all parts of the machine including cables and will be away from coolant nozzels, flying chips, or any other hazards



Be sure that the screws are tight or damage to the DRO may occur



Use the four set screws to level the mounting arm

Step 2. Attach the mounting arm to the base using the screw as shown.



Be sure that the swivel faces upward

Step 3: Attach the DRO to the end of the mounting arm using the included hardware.



Be sure that the DRO is in the correct orientation

