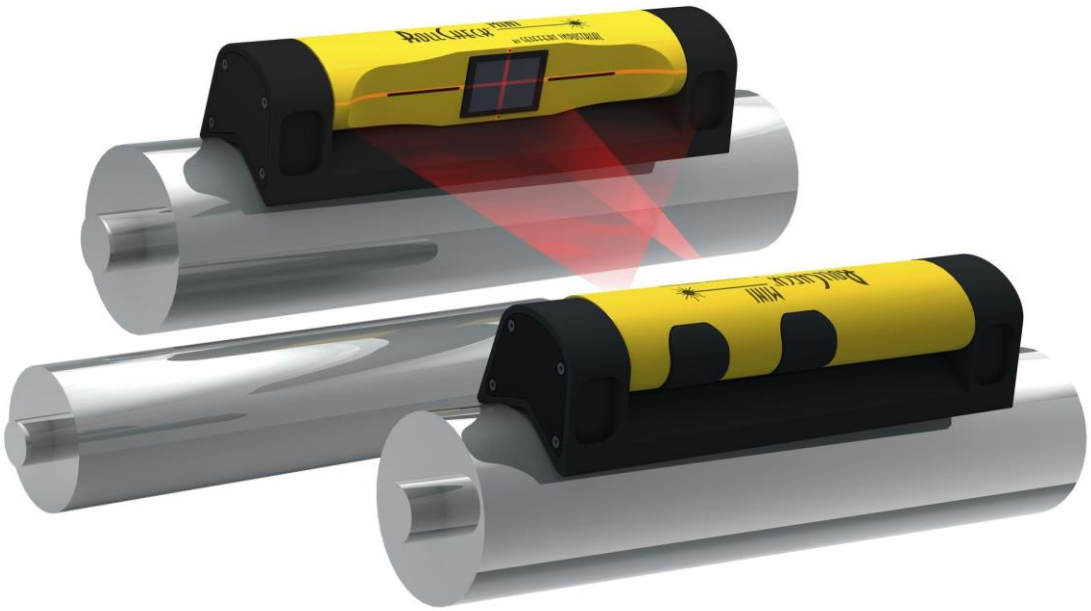
ROLLCHECK®

BY SEIFFERT INDUSTRIAL

Laser Roll Alignment System

OPERATING INSTRUCTIONS



PROUDLY MADE IN THE USA

SEIFFERT INDUSTRIAL, INC.

Industrial Laser Alignment Systems

ROLLCHECK MINI®

Laser Roll Alignment System

System Part Number SX-4150

Congratulations on your purchase of ROLLCHECK MINI, the finest visual roll alignment system available. Please take a moment to familiarize yourself with these setup and operating instructions prior to using this tool. Also, please be sure to fill in and return your warranty registration card so we can keep you informed about any new developments that may be related to this system.

QTY	PART No.	Description
1 each	SX-4150T	RollCheck Mini Transmitter Unit
1 each	SX-4150R	RollCheck Mini Reflector Unit
1 each	SX-4100M	Operators Manual on CD
1 each	100086	Carrying Case with cut foam insert
4 each	JBMINI	10” bungee straps (for roll diameters up to 4”)

Please make certain that all components are present and in good condition.

INTRODUCTION

The ROLLCHECK MINI is a visual laser roll alignment system designed to facilitate the alignment of parallel rolls in both the vertical axis (pitch angle) and the horizontal axis (parallel). It is a low cost, yet very accurate and simple-to-use, alternative to very expensive optical systems or laser based systems that were designed primarily for shaft alignment applications.

LASER SAFETY

The ROLLCHECK MINI laser roll alignment system uses two Class II lasers emitting red laser light of 635nm wavelength. Class II lasers comply with the requirements outlined in the FDA specification 21 CFR Ch. 1, Parts 1040.10 and 1040.11, as well as, ANSI standards. They are non-hazardous to your eyes when used properly. Never stare into the beam.
DO NOT look into the laser beam at any time; this includes during set-up and adjustment of operation.

MAINTENANCE AND CARE OF YOUR ROLLCHECK MINI SYSTEM

Your ROLLCHECK MINI is machined out of aluminum with a very durable baked-on powder coat paint finish to withstand harsh industrial environments. Nevertheless, as with any high quality instrument, proper care should be exercised to avoid abusing your system. In particular, inspect and care for the mounting surfaces of the SX-4150T and the SX-4150R components to preserve the integrity of the mechanical interface between these components and your rolls. The system may be cleaned with a damp cloth and mild detergent.

The optics of the Transmitter and Reflector units have a hard optical coating to protect the optics. Use good judgment cleaning these precision optics. Use only a high quality, soft, lint free cloth or a swab to gently clean these optics along with an optical lens cleaning solution when necessary. Avoid scratching or marring these optics.

CALIBRATION

The ROLLCHECK MINI is factory calibrated and therefore should not require any adjustments. It is recommended however, that the unit be returned to the factory or an authorized service center each year for calibration.

BATTERY OPERATION

The ROLLCHECK equipped with a rechargeable lithium ion battery with a run time from 12 to 15 hours continuous. A red LED will indicate the status of the unit as it is charging. When the charger is plugged into the transmitter, the red LED is illuminated until fully charged, the red LED will turn off when the battery finished charging. Charging time about 2 hours.

REPAIR/SERVICE INSTRUCTIONS

1. Put a note or letter into the package identifying yourself as the owner of the equipment. Explain the problem, be sure to include a return address and telephone number. If the unit is in the warranty period, provide verification of the date of purchase.

2. Estimates of charges for non-warranty or other work will be supplied, if requested, before work begins. If estimates are not requested, repair work will begin as soon as possible.

3. Pack the equipment very securely for shipment in the original carrying case.

4. Return the equipment prepaid and insured to your SEIFFERT INDUSTRIAL Service Center. For quick turn around, "2nd Day Air" or "Next Day" air freight is recommended.

   Note: There will be no charge for repair of instruments that may cause problems due to defective materials and/or workmanship under warranty, except for "one-way" transportation charges.

SEND REPAIRS TO:

SEIFFERT INDUSTRIAL, INC.

Attn: Service Department
1323 Columbia Drive, Suite 305
Richardson, TX 75081 USA
972-671-9465
972-671-9468 Fax
service@seiffertindustrial.com
www.seiffertindustrial.com

Setup and Operating Instructions

Note: Make sure that the roll surface is free of dirt and nicks, as this may affect your readings.

1. Mount the SX-4150T Laser Transmitter unit on the stationary or reference roll. Do this as follows:

    a) Hook straps of adequate length on the left and right mounts of the back of the SX-4150T Transmitter Unit, and place the Transmitter Unit on the stationary roll so it faces the Roll To Be Moved (RTBM), **and hold on to it!** (See Figures 1 and 2)

Figure 1

Figure 2

    b) Now bring the straps around the roll and hook them into the left and right mounts on the front side of the Transmitter Unit (See Figures 3 and 4).

Figure 3

Figure 4

Try to wiggle the Transmitter Unit to make sure it is sitting tight and square on the roll. Use a feeler gauge (0.001") to make sure that all points of the bracket are making full contact with the roll surface.

Tip: If you have a very delicate roll surface, place a plastic sheet of shim stock with a minimum thickness of 0.003" and the size of 6"x12" between the roll surface and the RollCheck Mini. This will protect the surface of the roll and will not affect your alignment.

2. Mount the SX-4150R Reflector unit on the Roll To Be Moved (RTBM). Do this as follows:

   c) Hook straps of adequate length on the left and right mounts of the back of the SX-41050R Reflector Unit, and place the Reflector Unit on the Roll To Be Moved (RTBM), **and hold on to it!** (See Figures 5 and 6)

Figure 5

Figure 6

   d) Now bring the straps around the roll and hook them into the left and right mounts on the front side of the Reflector Unit (See Figures 7 and 8).

Figure 7

Figure 8

3. Turn on the Transmitter Unit and observe where the Transmitter's vertical laser line strikes the Reflector Unit. If necessary, rotate the Transmitter Unit to make the vertical laser line hit the vertical groove on the Reflector Unit that is located above and below the mirror in the center.

4. If you find that the vertical line does not coincide with this vertical groove of the Reflector unit, it will be necessary to slide the Reflector Unit sideways until it does coincide. Slide the Reflector Unit sideways on its roll as needed to make the transmitter vertical laser line hit the vertical groove on the Reflector Unit, re-secure the straps if necessary, making sure the Reflector Unit is tight to the roll.

5. Now observe where the Transmitter's horizontal laser line strikes the Reflector Unit. If necessary, rotate the Transmitter Unit to make the horizontal laser line hits near the center of the front of the Reflector Unit.

6. Now rotate the Reflector Unit so as to position the horizontal groove directly on the Transmitter's horizontal laser line.

7. Any vertical misalignment of the rolls will now be seen in that the Transmitter's horizontal laser line does not coincide perfectly with the black horizontal groove in the center of the Reflector Unit. The laser line will be observed to be slightly high at one end and slightly low at the other. (See Figure 9)

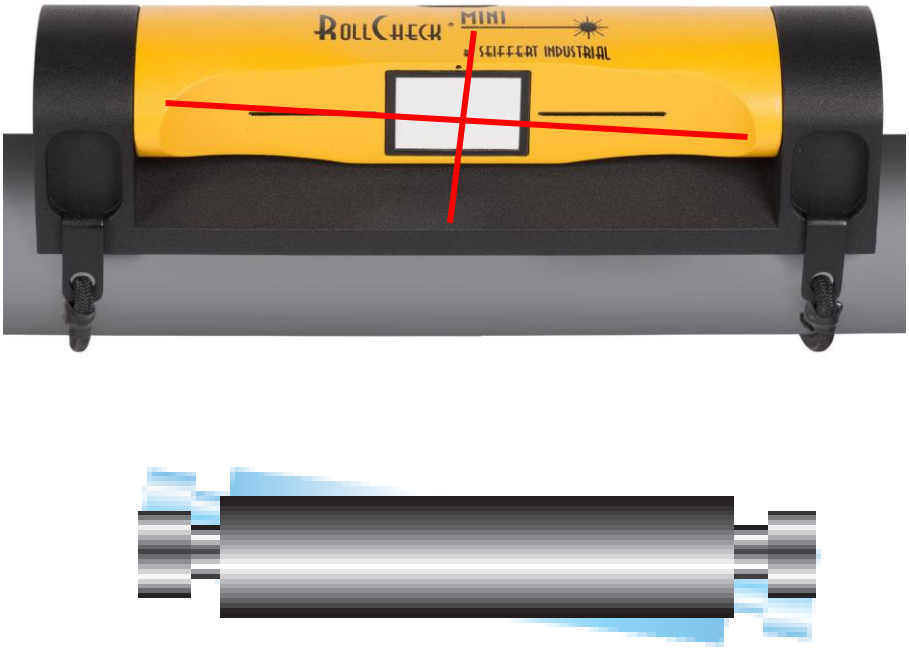


Figure 9

Note: Roll to be moved (RTBM) is **not** on the same plane as the stationary roll.

8. Now raise or lower one end of the Roll To Be Moved (RTBM) to make the horizontal laser line match with the black horizontal line on the Reflector Unit. When this is done, you have corrected the vertical angle or pitch that existed between the rolls. (See Figure 10)

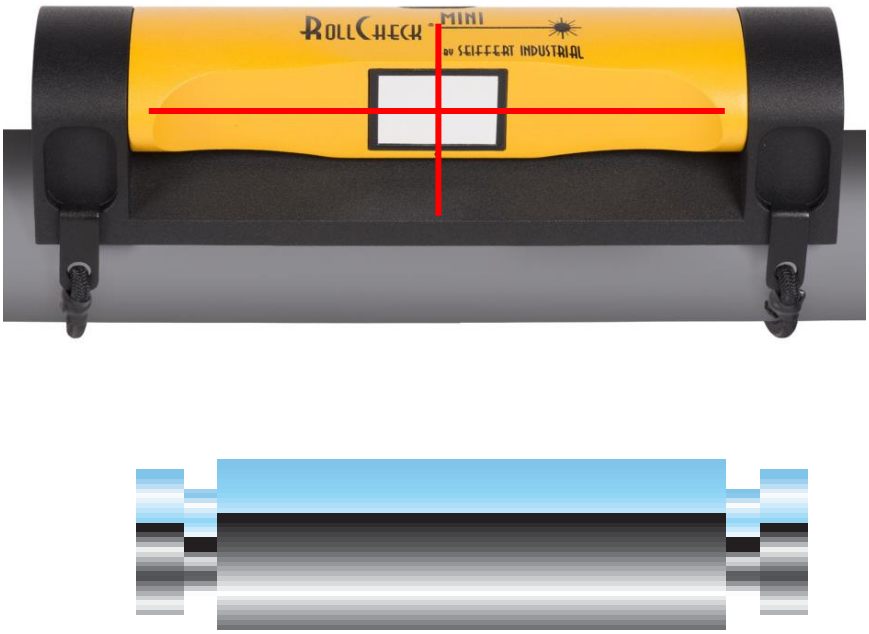


Figure 10

Note: Roll to be moved (RTBM) is now on the same plane as the stationary roll.

9. Now observe that the reflected vertical laser line is striking the Transmitter Unit. If necessary, rotate the Reflector Unit so as to cause the reflected vertical laser line to strike the Transmitter Unit through the center.

10. Observe if the reflected vertical line is aligned with the vertical black line of the Transmitter Unit. If it is not, you have horizontal angular misalignment (lack of parallel) between the rolls which must be corrected. (See Figure 11)

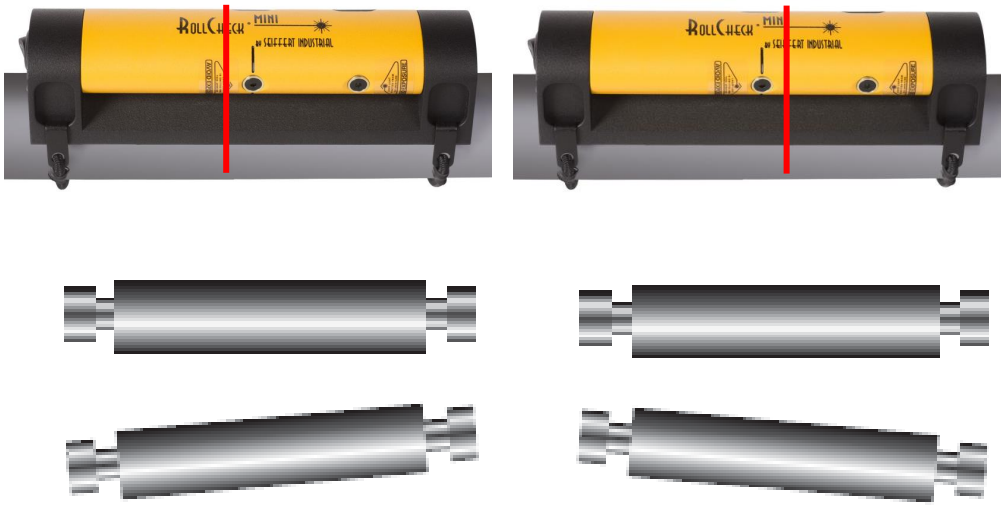


Figure 11

Note: Reflected laser line shows the roll is not parallel-left.

Note: Reflected laser line shows the roll is not parallel-right.

11. Move one end of the RTBM sideways as needed to cause the reflected vertical laser line to coincide exactly with the vertical groove in the center of the Transmitter Unit. Once they do, you have achieved parallel alignment of your rolls and your job is nearly finished. (See Figure 12.)

Note: The reflected horizontal laser line has no significance.

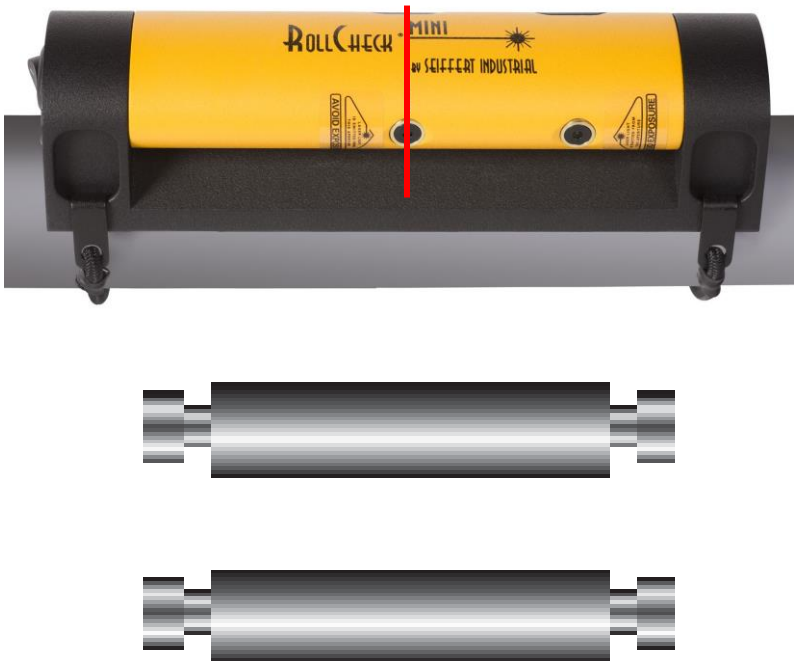


Figure 12

Note: Reflected laser line shows that the rolls are parallel to one another

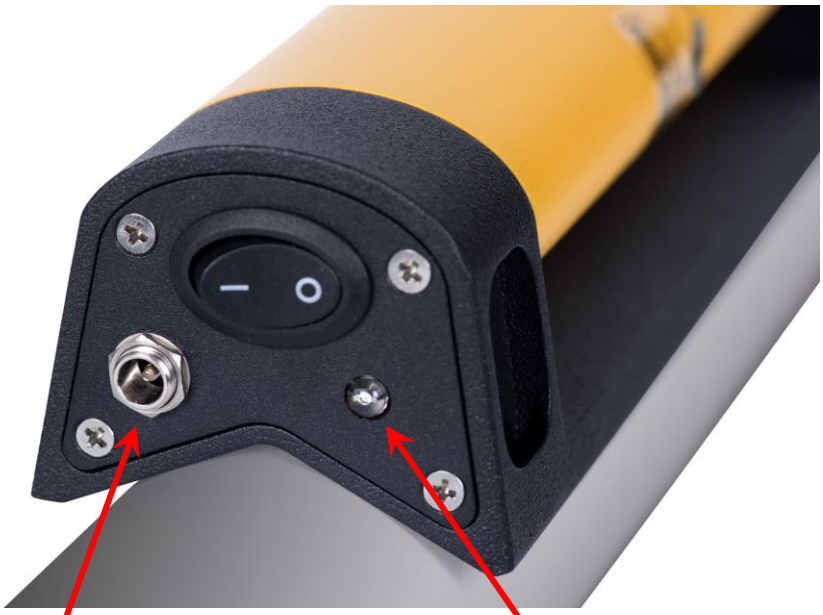
12. Now remove the Transmitter and Reflector Units from both rolls.

Caution!! Be extremely careful to hold on to the Transmitter and Reflector Unit while removing the straps so they do not suddenly fall off of the roll!!!

13. Now remount the Transmitter and Reflector Units as described in Steps 1 through 6, and observe that the Transmitter horizontal laser line still coincides with the horizontal black line on the Reflector Unit, and that the reflected vertical laser line still coincides with the vertical black line on the Transmitter Unit. They should, and this is your confidence check that the units were properly mounted the first time around, and that you have done a good job of aligning your movable roll to your stationary reference roll.

Note: Remove all components and make certain that no loose parts are left behind anywhere in the work area.

CHARGING INSTRUCTIONS



Note::The charging port

Note: The charging LED

The ROLLCHECK equipped with a rechargeable lithium ion battery with a run time from 12 to 15 hours continuous. A red LED will indicate the status of the unit as it is charging. When the charger is plugged into the transmitter, the red LED is illuminated until fully charged, the red LED will turn off when the battery finished charging. Charging time about 5 hours.

Contact Information

Should you have any questions or wish to contact us for any reason, please feel free to do so through our website, by mail, e-mail, telephone or fax.

Address: SEIFFERT INDUSTRIAL INC.
1323 Columbia Dr. Suite 305
Richardson, TX 75081
Telephone: 972-671-9465
Fax: 972-671-9468
Email: info@seiffertindustrial.com
Website: www.seiffertindustrial.com

See our entire family of products at www.seiffertindustrial.com

ROLLCHECK MINI Quick Reference

Simply match the red laser lines with the black reference lines on the RollCheck Mini. You will see the results in seconds.

1. Mount the SX-4150T Laser Transmitter unit on the stationary, or reference roll, either magnetically or with the provided straps and switch the Transmitter Unit on.

2. Mount the SX-4150R Reflector Unit on the Roll To Be Moved (RTBM) in the same manner as the Transmitter Unit. Rough in the vertical laser line with the black vertical reference line on the Reflector Unit by sliding the Reflector Unit sideways on the roll. This is only to get the Reflector Unit centered with the mirror.

Note: Make sure that the Transmitter and the Reflector Units are sitting tight and square on the roll.

Examples of roll misalignment

Front View **Top View**

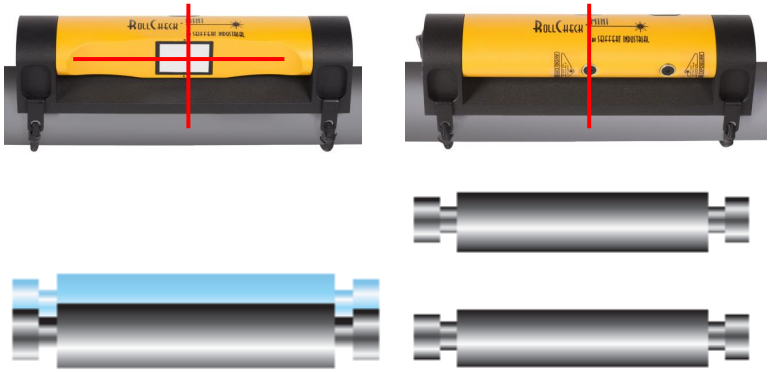
Roll to be moved (RTBM) is not on the same horizontal plane as the stationary roll.

Reflected laser line shows the roll is not parallel-left.

Reflected laser line shows the roll is not parallel-right.

Examples of rolls that are in alignment

Front View



Roll to be moved (RTBM) is on the same plane as the stationary roll.

Reflected line shows that the rolls are parallel to one another.

Note: Please refer to the RollCheck Mini Operating Manual for detailed instructions.

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