HAMAR LASER®
ALIGN WITH THE BEST

X-SERIES™
LASER SHAFT ALIGNMENT

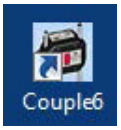
Couple6
3-AXIS QUICK START GUIDE

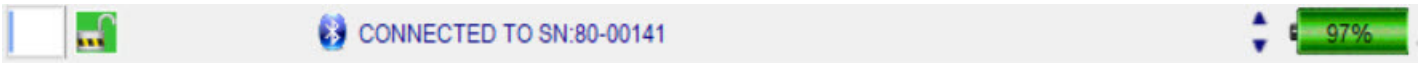
Basic Steps for Starting and Using Couple6 Alignment Software for the X-660 and X-770 Laser Shaft Alignment Systems

Please see the Couple6 manual for complete details.

Opening Couple6

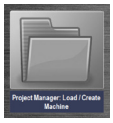
Turn on the T-1280 Target and double-click the **Couple6** icon on the desktop to open the program. Couple6 will automatically connect to the target and display the serial number on the task bar.

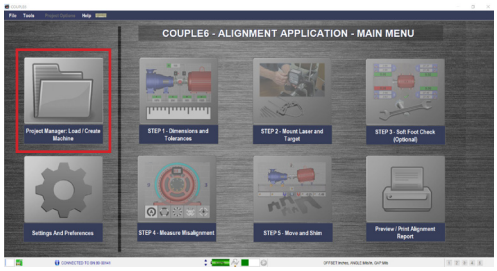




Starting an Alignment Project

Click the **Project Manager: Load/ Create Manager** button on the Home Screen. Tap **Create New Machine and Start Project** button. Enter the project filename and machine information and hit **OK** to return to the **Main Menu**.

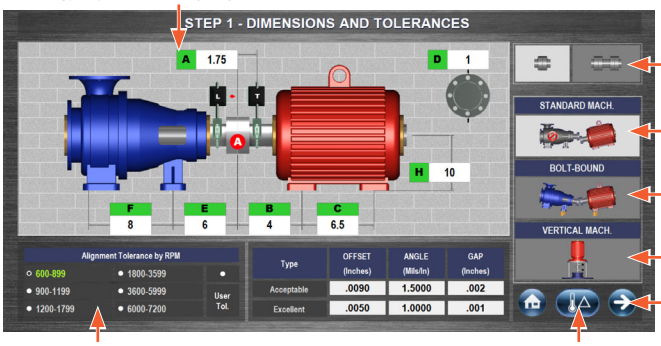




Step 1: Dimensions and Tolerances

First, mount the brackets on both shafts. Then from the **Main Menu**, tap **Step 1: Dimensions and Tolerances.**

A. Select Coupling type.
B. Select Alignment type.
C. Enter motor dimensions as shown in the graphic to an accuracy of .13 to .25" (3-6mm).
D. Select motor RPM to set the tolerance.
E. Optional: Go to Thermal Growth screen to enter TG offsets.



C. Enter All Dimensions
A. Select Coupling Type Flexible Spacer (Jack Shaft)
B. Select Alignment Type Standard
Bolt-Bound
Vertical
NEXT Button
D. Select RPM to set Alignment Tolerances
E. Enter Thermal Growth Offset (Optional Step)

Step 2: Mounting the Target and Laser

Slide the laser over the bracket posts until the laser fans (lines) are centered vertically and horizontally in the window and aligned to the white centerline. Tighten the thumb screws as tight as you can with your fingers.

Adjust target height to center laser lines.

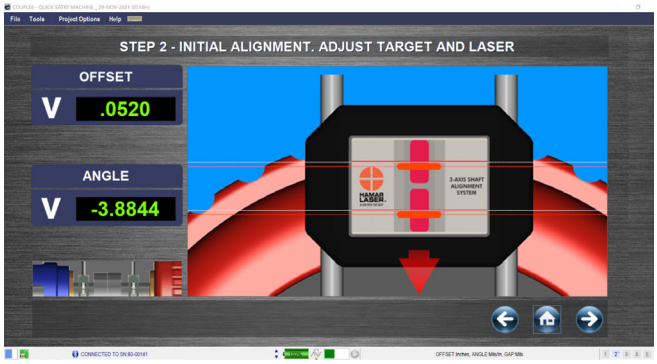
Laser lines are too far to the left.

Laser lines are too far to the right.

Laser lines are centered in the window.

Step 2: Laser Setup - Initial Alignment, Adjust Target and Laser

To maximize the measuring range of the target, the V-center value needs to be ± .040" (1 mm) of zero. Red arrow means the laser is out of center, and you should move the target in that direction. Green or Yellow arrow means you are in the center zone. *Note: due to large measuring range of target, you can still use the system even if the arrow is red.* Click **Next** to go to **Step 3.**

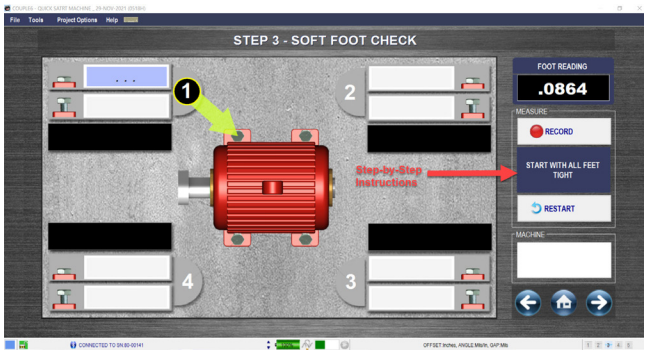


V-Center number indicates the location of the laser fan on the target and how close it is to the center of the target.

Step 3: Soft Foot Check

Soft Foot is a condition where the four feet of the motor are not parallel to the machine base. What usually happens when a motor has soft foot is that the motor appears to be aligned in Step 5, but when the data is re-taken, the motor is still misaligned. This continues until the soft foot is detected and corrected.

The Soft Foot Check is strongly recommended, but is optional. To skip it, tap **Next**. Follow the step-by-step screen instructions to check for soft foot and calculate recommended shims to fix it. Before proceeding to Step 4, ensure that all bolts are tightened.



Step 4: Take Data (Auto Clock™)

To use Auto Clock™, rotate laser/target to a clock position until a blue arrow appears. Tap **Record**. Repeat for at least two more points over 90 degrees (180 degrees is preferable). Recording 5-8 points is optimal.

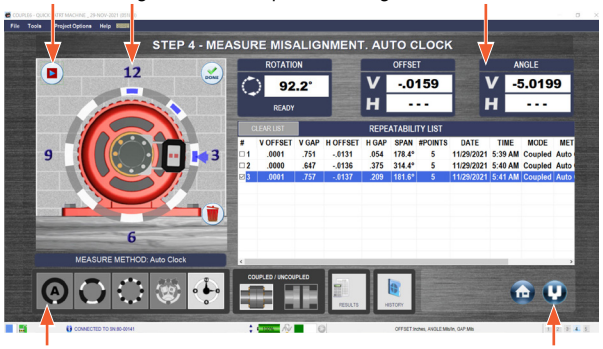
Not Ready *Ready*

Click **Done** to calculate results. If the data looks good, press **Accept**. Tap the **Results** button to view the results against tolerance from Step 1. If out of tolerance rotate laser/target to 12:00 or 6:00 then press **Shim** button to correct. *Please see the Couple6 Manual for detailed descriptions and directions for taking data in each mode.*

Record Button

Auto Clock Mode showing target icon and data points.

Data Displays showing the raw value being used to record the data.



Measurement Methods Available (L–R): Auto Sweep™ Mode, Arc Mode, Point Mode, and Auto Clock™ Mode

Shim Button

Accept Screen

Results Screen

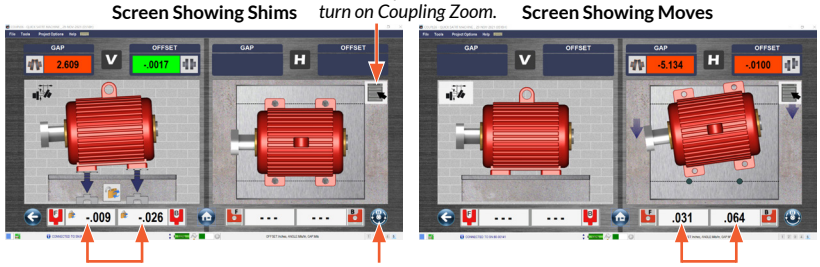
Step 5: Move and Shim

Add shims as instructed on the screen. To perform moves, rotate the shafts to 3:00 or 9:00 and Step 5 will automatically show the H-Axis Live Display. Move the motor in the direction of the arrows. When the alignment value displays turn yellow, the results are acceptable; when green, the results are excellent. Click **Remeasure** to go back to Step 4 and retake data to verify the alignment is in tolerance. *Please see the Couple6 manual for further details and options for this step.*

Step 5: V-Axis Move Screen Showing Shims

Click to flip screen or turn on Coupling Zoom.

Step 5: H-Axis Move Screen Showing Moves



Recommended Shim Values

Remeasure Button

Recommended Move Values

Step 6: Printing a Report

Click the **HOME** icon to go to the Home Screen.

To print a report in Couple6, click the **Alignment Report and Data Export** to access the **Report Configuration** popup window.

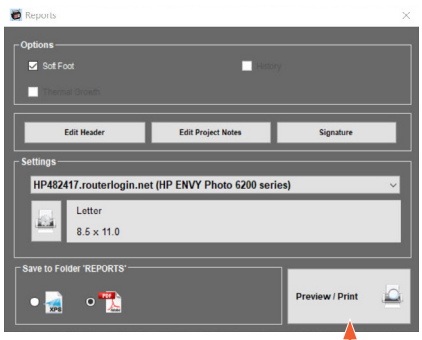
Report Options: Select which parts of the report to include: *Soft Foot*, *Thermal Growth*, and/or *History*. These sections of the report will not print unless the box is checked. Tap **Edit Header**, **Edit Project Note** or **Sign Report** to modify the report.

Printer Settings

Click to select the printer, page size and other printer settings.

Save Hard Copy to REPORTS Folder

The report is automatically saved as either an **.xps** file (MS XPS Document Printer format to open report in Explorer to view and print) or in **.pdf** format for use with Adobe Acrobat. The file is saved in the *Report Folder* in *My Documents/Couple6* and can be emailed or transferred electronically to users who do not have Couple6 to view the report.



Click Preview/ Print to preview and to print the report.

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Hamar Laser Instruments, Inc.
5 Ye Olde Road Danbury, CT 06810
Phone: 800.826.6185 Fax: 203.730.4611
Int'l: +1.203.730.4600
E-mail: sales@hamarlaser.com shaftalignment.hamarlaser.com