

Z1 VRX70 TURBO CLOCKING FIXTURE INSTALLATION MANUAL



*Right side shown

PROLOGUE:

Study these instructions completely before proceeding to assembly. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

WARNING!

Extreme caution should be taken when performing maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding installation or the various components included with the Z1 Motorsports VRX70 Turbo Clocking, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

BEFORE YOU BEGIN:

The 3D Printed Fixture provided to you is to check the clocking of the turbine housing and CHRA on the Z1 VRX70 Turbos. The fixture will need to be checked with the turbos off the vehicle.

On the VRX70 turbos the Compressor Cover has a dowel locking it in place with the CHRA. Due to this dowel, the Compressor Cover cannot be clocked independent of the CHRA. Only the turbine housing can be clocked.

The new CHRAs have specific numbers to use on each fixture:

LH (Driver Side) CHRA: 21004-A-BB

RH (Passenger Side) CHRA: 21004-B-BB

PROCEDURE:

1. Locate the Left and Right fixture, there is an **R** and **L** on them to differentiate them.
2. Remove the red cap in the Coolant Feed Port. Position the fixture's "nub" into the Coolant Feed Port and line up the (2) two bolt holes with the Exhaust Inlet Flange on the Turbo, as shown below. If available, you can also use bolts and nuts to secure the fixture to the Exhaust Inlet Flange. *Figure 1.*

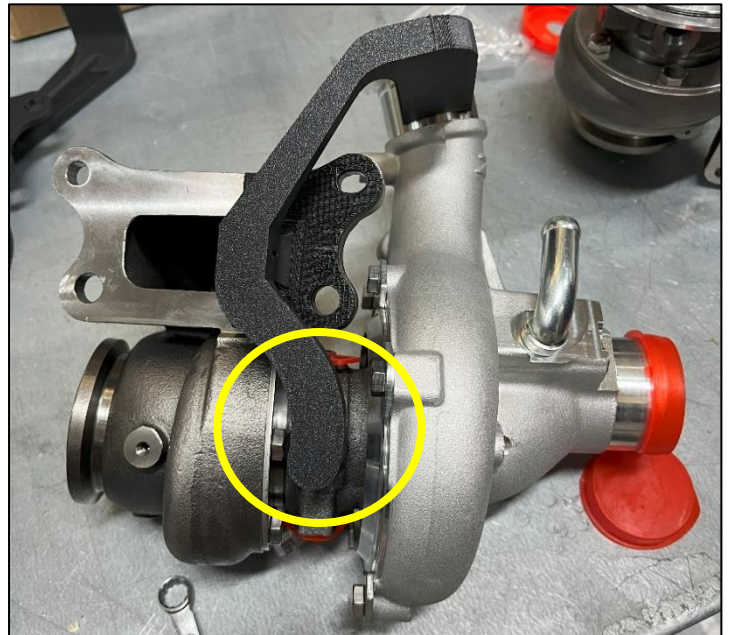
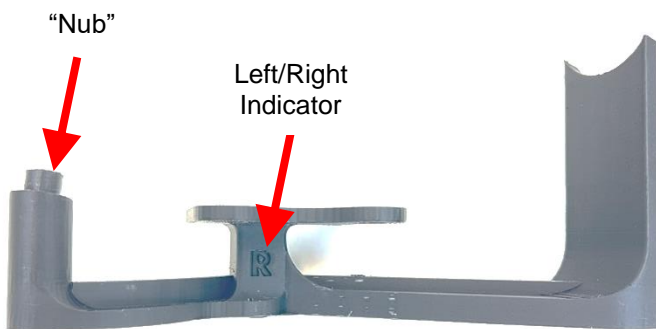


Figure 1

3. With the (2) two bolt holes on the Exhaust Inlet Flange lined up, hold the fixture and Exhaust Inlet Flange together and check the nub to make sure it is sitting nicely in the Coolant Feed Port. *Figure 2.*



Figure 2

4. Check the upper part of the Fixture where it meets up with the Compressor Outlet. A small gap at the compressor outlet is acceptable. We noticed ~1/8" gap on turbos that were clocked correctly. *Figure 3.*

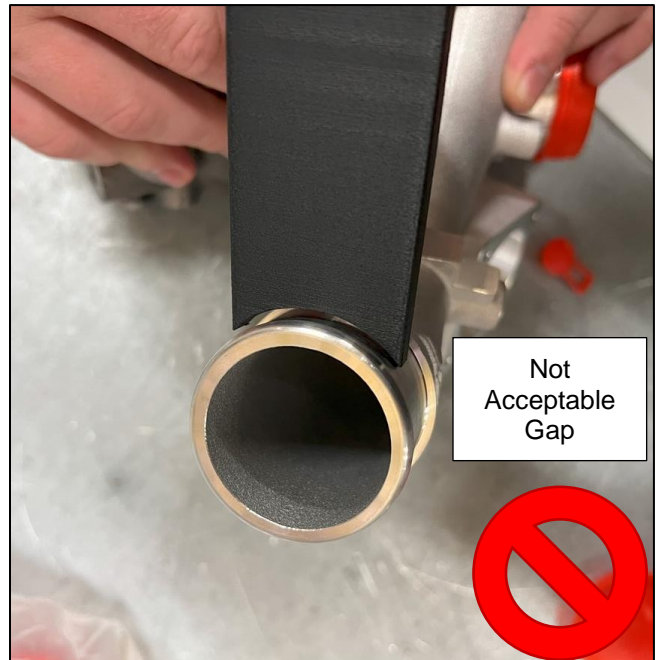
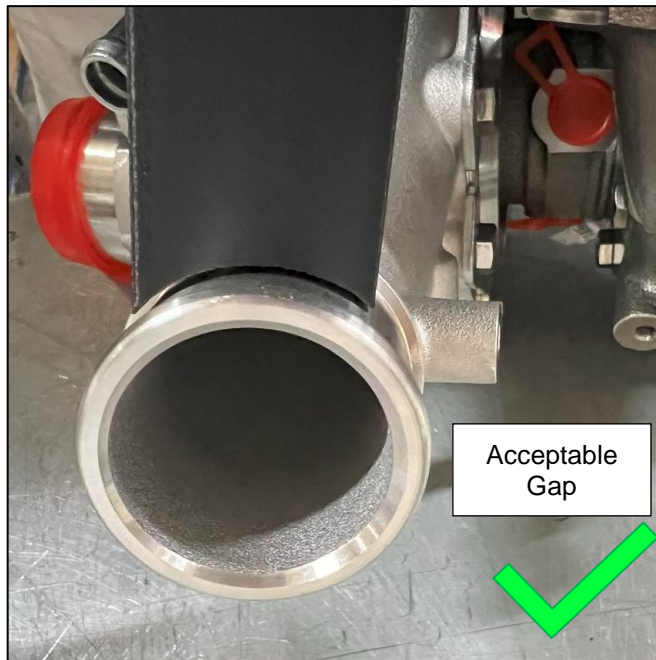


Figure 3

5. If you notice a considerable gap or that the “nub” doesn’t sit flush in the Coolant Feed Port with the (2) two holes lined up on the Exhaust Inlet Flange, you need to slightly clock the Turbine Housing. To do so, loosen all the bolts securing the Turbine Housing to the CHRA. The most difficult bolt to access is the one just under the exhaust inlet flange and can be loosened with a closed end wrench as shown below. *Figure 4.*

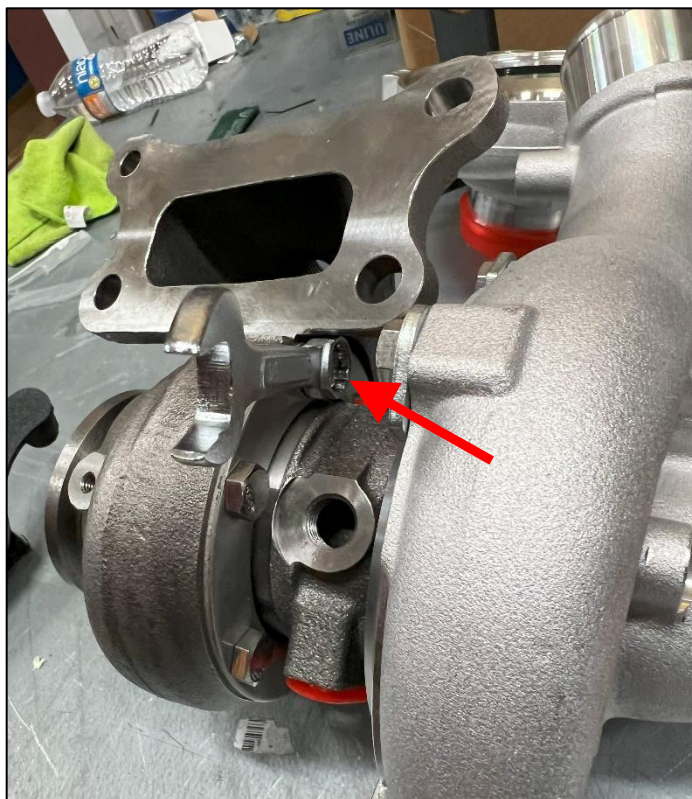


Figure 4

6. Once all the bolts are loosened, slightly rotate or clock the Turbine Housing. Then tighten all the bolts back up and recheck with the fixture.
7. If the fixture does not fit correctly, repeat *Steps 3-6*.
8. Once the fixture fits correctly on the Exhaust Inlet Flange, Coolant Feed Port, and the Compressor Outlet, the Turbos are ready to be installed onto the vehicle.