



## BREWING EQUIPMENT

# BREWING THERMOMETER OPERATION, ASSEMBLY & MAINTENANCE MANUAL

PART NUMBER	DESCRIPTION
ANV-Thermometer-Weldless	Brewing Thermometer - Weldless
ANV-Thermometer-NPT	Brewing Thermometer - ½" NPT

\*\*\*\* PLEASE READ THOROUGHLY PRIOR TO USE FOR IMPORTANT SAFETY INFORMATION \*\*\*\*

**Installation:** The Anvil Weldless Brewing Thermometer can be installed in kettles with a wall thickness up to ¼" thick and will require a ½" hole. Determine the desired location for the thermometer and mark the center point with a permanent marker and center punch. Drill a 3/16" pilot hole, then enlarge it to ½" using a step drill. Step drills are available through many hardware or home improvement stores. After the hole is drilled, ensure both sides of the hole are free from burrs. The step drill can be used on the back side of the hole to remove burrs and sharp edges.

Install the O-ring onto the ½"-20 UNF threaded portion of the thermometer and seat it fully in the groove. Place the Thermometer through the hole in the kettle from the outside and install the ½"-20 UNF jam nut finger tight. Using two wrenches, tighten the ½"-20 UNF nut snugly.

The Anvil NPT Brewing Thermometer utilizes ½" NPT (National Pipe Taper) male threads for adapting to brew kettles with an adapter fitting already welded into the kettle. Wrap the threads with 3-4 turns of a high quality PTFE thread sealing tape and thread onto the kettle. Take care not to move or damage the calibration screw on the back of the thermometer. DO NOT over-tighten the fitting. Only a snug fit is required to create an adequate seal.

**Calibration:** Impact and vibration during shipping can sometimes result in the thermometer losing calibration (will not read accurately). Calibrate the thermometer with another known accurate thermometer. Most digital thermometers are usually accurate to within +/-1oF. Glass laboratory thermometers are ideal if available. Place both thermometers in hot tap water, swirling constantly and allow sufficient time for both thermometers to read a steady temperature. If the Anvil Brewing Thermometer does not read the same temperature as the calibration thermometer, use a small wrench to turn the calibration screw until they read the same

**Caution:** Always use PTFE thread sealing tape when threading a stainless fitting onto another stainless fitting to prevent thread galling (cold welding), which is not covered under warranty. If you feel any grinding whatsoever while tightening, stop immediately as this is beginning to gall the threads! Threads, once galled, will not come apart!

**Caution:** Prior to installing the Brewing Thermometer, select a position on the kettle that is high enough to be out of the direct heat from the burner, but low enough to measure approximately in the middle of the liquid for a better temperature accuracy.

**Caution:** Do not install the Brewing Thermometer in a location on the kettle where it will be subjected to excessive heat. Always keep the flame low enough that excessive heat does not roll over the corners of the kettle. Excessive heat will damage the hermetically sealed case causing the inside of the Brewing Thermometer to fog. This failure is not covered under warranty. If you cannot comfortably hold your hand on the case of the thermometer during operation it is too hot (about 140°F max). A minimum distance of 6" from the bottom of the kettle is recommended but does not guarantee it will be below 140°F. If the surface is still too hot, installing a heat shield (not provided) under the thermometer is recommended. Lastly, avoid direct spray of water on the thermometer and do not immerse it in water for cooling or cleaning.

# ANVIL BREWING EQUIPMENT PRODUCT WARRANTY

## A. Limited Warranty

1. Anvil Brewing Equipment warrants to the original purchaser that this product will be free from manufacturing defects in material and workmanship for a period of one (1) year from the date of purchase by the customer. Proof of purchase is required. Anvil Brewing Equipment's obligation to repair or replace defective materials or workmanship is the sole obligation of Anvil Brewing Equipment under this limited warranty.
2. This product is for home use only. The limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including, but not limited to, those that arise as a result of:
  - a. *Improper maintenance or modification;*
  - b. *Damage due to incorrect voltage or improper wiring by customer;*
  - c. *Operation outside of the product's specifications;*
  - d. *Carelessness or neglect to operate the product in accordance with instructions provided with the product;*
  - e. *Damaging the tamper label on the product;*
  - f. *Damage by over-tightening the fasteners;*
  - g. *Failure to follow cleaning and / or maintenance procedures;* or
  - h. *Exceeding published operational temperatures.*
3. Anvil Brewing Equipment reserves the right to request delivery of the defective component for inspection before processing the warranty claim. If Anvil Brewing Equipment receives, during the applicable warranty period, notice of a defect in any component that is covered by the warranty, Anvil Brewing Equipment shall either repair or replace the defective component with a new or rebuilt component at Anvil Brewing Equipment's option.
4. Anvil Brewing Equipment must be notified within seven (7) days of the delivery date of any shipping damage. Customer is responsible for shipping damage outside of this time period. Approval for return must be provided by Anvil Brewing Equipment prior to any return. Customer is responsible for keeping all original packaging material for warranty returns. Anvil Brewing Equipment is not responsible for damage from improperly packaged warranty returns, and these repair costs will be the sole responsibility of the customer. Shipping costs for warrantee returns are covered only for the contiguous United States.
5. Anvil Brewing Equipment's limited warranty is valid in any country where the product is distributed.

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## B. Limitations of Warranty

1. Any implied warranty that is found to arise by way of state or federal law, including any implied warranty of merchantability or any implied warranty of fitness, is limited in duration to the terms of this limited warranty and is limited in scope of coverage to this warranty. Anvil Brewing Equipment disclaims any express or implied warranty, including any implied warranty of fitness for a particular purpose or merchantability, on items excluded from coverage as set forth in this limited warranty.
2. Anvil Brewing Equipment makes no warranty of any nature beyond that contained in this limited warranty. No one has authority to enlarge, amend, or modify this limited warranty, and Anvil Brewing Equipment does not authorize anyone to create any other obligation for it regarding this product.
3. Anvil Brewing Equipment is not responsible for any representation, promise, or warranty made by any independent dealer or other person beyond what is expressly stated in this limited warranty. Any selling or servicing dealer is not Anvil Brewing Equipment's agent, but an independent entity.

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## C. Limitations of Liability

1. The remedies provided in this warranty are the customer's sole and exclusive remedies.
2. Except for the obligations specifically set forth in this warranty, in no event shall Anvil Brewing Equipment be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether or not advised of the possibility of such damages.
3. This warranty does not cover, and in no event shall Anvil Brewing Equipment be liable for, travel, lodging, or any other expense incurred due to manufacturing defects in material and workmanship, or any other reason.
4. Any performance of repairs after the warranty coverage period has expired or performance of repairs regarding anything excluded from coverage after this limited warranty shall be considered good-will repairs and they will not alter the terms of this limited warranty, or extend any warranty coverage period.
5. Venue for any legal proceedings relating to or arising out of this warranty shall be in Tippecanoe County, Indiana, United States, which courts will have exclusive jurisdiction.

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## D. Local Law

1. This warranty gives the customer specific legal rights. The customer may also have other rights that vary from state to state in the United States or other countries.
2. To the extent that this warranty is inconsistent with local law, it shall be deemed modified, only to the extent necessary to be consistent with such local law.