



HANAU™ TOUCH-O-MATIC® BUNSEN BURNER



**Read all instructions before using the Touch-O-Matic®.
Save these instructions for future reference.**

The Touch-O-Matic® bunsen burner is a gas burner. The burner can operate on five types of gas: butane, propane, natural gas, mixed gas or manufactured gas, depending on the nozzle installed in the Touch-O-Matic® bunsen burner. The Touch-O-Matic® can be used for a wide variety of lab applications. The pilot light makes it convenient for intermittent use.

Important Safety Information

WARNING



DO NOT USE AROUND FLAMMABLE MATERIALS. Misuse of the burner can cause an explosion or fire and result in burns and property damage.

DO NOT USE FUEL OTHER THAN THE ONE SPECIFIED ON THE LABEL AND NOZZLE. Use with an improper fuel may cause dangerous operation. See the "Gas Conversion" section for operation with other gases.

DO NOT USE THE BURNER WITH ACETYLENE.

CONNECT THE BURNER TO THE GAS SUPPLY WITH A HOSE APPROVED FOR THE GAS USED AND A SHUTOFF FOR THE GAS. Verify the ON-OFF Platform is in the intermittent (OFF) position before turning on the gas supply to the burner.

USE A GAS PRESSURE REGULATOR WHEN USING THE BURNER FOR PROPANE OR BUTANE. Pressure regulators, not supplied with the burner, must be connected between the gas supply and the burner. Without the regulator, the flame size cannot be controlled.

DO NOT LEAVE THE BURNER ON WHILE IT IS UNATTENDED. This includes the Pilot Light. If the Pilot Light or flame goes out, gas will accumulate and may create an explosion hazard.

KEEP ALERT FOR THE SMELL OF GAS WHEN THE BURNER IS USED. Do not operate the burner if parts are missing or the unit has been damaged. If Touch-O-Matic® is dropped, check it carefully for cracks or other damage. Be alert for any improper operation. Return the unit to Whip Mix for examination and repair if any problem is encountered.

DO NOT USE THE NEEDLE VALVE AS AN ON/OFF VALVE. Turn the burner off by shutting off the gas supply valve. The Needle Valve does not control gas to the Pilot Light.

DO NOT TAMPER WITH SCREWS (4) LOCATED INSIDE VALVE HOUSING.

IF PROPANE IS USED, DO NOT STORE PROPANE TANKS INDOORS.

Installation

Securely attach an approved gas hose (not supplied) from the gas cock of your fuel source to the Gas Hose Intake Connector (11). Slip the Pilot Light Shield (1) on to protect the Pilot Light (2) flame from accidentally being blown out by air movement.

Pilot Light Adjustment

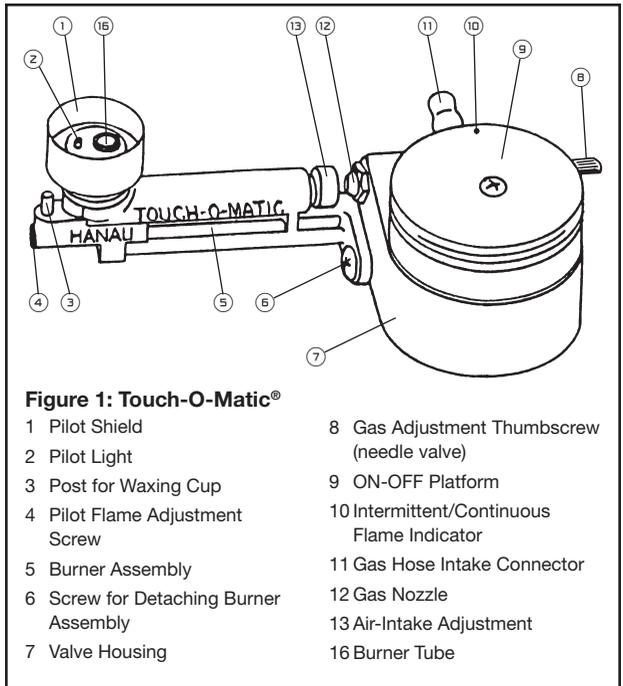
Turn on the gas supply and light the Pilot Light (2) with a match or lighter. NOTE: When lighting the Pilot Light, it may be necessary to allow gas to flow for a few seconds before ignition occurs. Using a small slotted screwdriver, turn the Pilot Flame Adjustment Screw (4)

to increase or decrease the height of the Pilot Light flame. Adjust the height of the flame to be low, yet functional and not likely to be blown out. Unless the Pilot flame is used for the optional Waxing Cup (17) and Loop Heat Conductor (16) (see Figure 3), a 1/4" (6 mm) flame is typically used.

When using the Waxing Cup (17), it may be necessary to set the Pilot Light (2) flame higher to keep the wax in the wax cup soft or in a liquid state. See the Waxing Cup and Loop Heat Conductor section for more information.

To Adjust The Air-Gas Mixture

Light the Pilot Light (2) as directed above, then depress the ON-OFF Platform (9) and turn the platform clockwise, or counterclockwise, slightly so it remains in the down (ON) position. This permits the burner to operate with a continuous flame. Adjust the volume of the gas and the height of the flame by opening or closing the Gas Adjustment Thumbscrew (8). Turn the Air-Intake Adjustment (13) until a bright blue flame with a blue inner cone is obtained. Readjust the fuel and air, if desired.



Operation

Turn on the gas and light the Pilot Light (2) and adjust the air-gas mixture as directed above. Operate with an intermittent or continuous flame as directed below.

Intermittent Flame

Locate the small dot, Intermittent/Continuous Flame Indicator (10), on the ON-OFF Platform (9). When this is aligned with the Gas Hose Intake Connector (11), the burner is ready for intermittent operation. Depressing the platform releases gas to the main burner where it is ignited by the Pilot Light (2) flame. Removing pressure from the platform shuts off the supply of gas to the main burner.

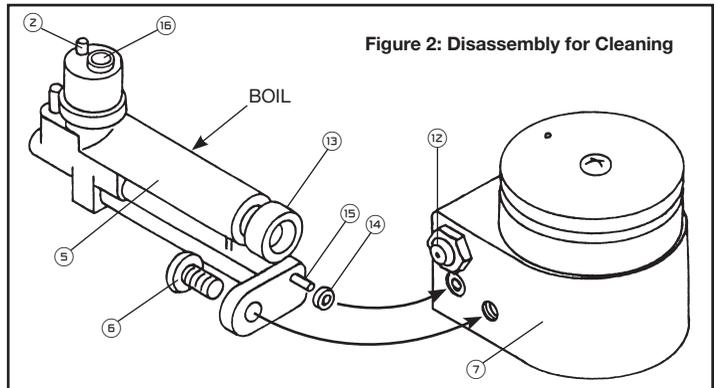
Continuous Flame

Depress the ON-OFF Platform (9) and turn it slightly clockwise, or counter-clockwise, until it locks and remains in the down position. The flame will burn continuously until the platform is returned to its original OFF (up or intermittent) position with the Intermittent/Continuous Flame Indicator (10) oriented toward the Gas Hose Intake Connector (11). Turn the ON-OFF Platform back to the intermittent (OFF) position before turning off the gas.

To remove wax drippings, remove the Screw for Detaching the Burner Assembly (6) from the Valve Housing (7). Detach the Burner Assembly (5) from the Valve Housing, and place the Burner Assembly in boiling water. DO NOT place the Valve Housing in water. The "O" Ring (14) does not have to be removed, but be careful not to lose it. Use care to not bend the Pilot Inlet Tube.

Care and Cleaning

To remove wax drippings, remove the Screw for Detaching the Burner Assembly (6) from the Valve Housing (7). Detach the Burner Assembly (5) from the Valve Housing, and place the Burner Assembly in boiling water. DO NOT place the Valve Housing in water. The "O" Ring (14) does not have to be removed, but be careful not to lose it. Use care to not



bend the Pilot Inlet Tube ⑮. Before reattaching the Burner Assembly, blow out all water from the Pilot Inlet Tube, Air-Intake Adjustment ⑬, Burner Tube ⑯ and the Pilot Light ②. Make sure that the “O” Ring for the Pilot Inlet Tube is replaced if it was removed.

CAUTION: DO NOT submerge the Valve Housing ⑦ in water. Water will prevent gas from freely passing through the housing into the Burner Assembly ⑤ and the flame may be erratic or extinguished and release gas into the room. Keep the orifice of the Gas Nozzle ⑫ open and free of wax. If necessary, remove the Gas Nozzle with 9/16” wrench, then clean it with hot water.

If Gas Odor Is Detected

See Figure 2 on previous page. An unlit Pilot Light ② can allow gas to accumulate in the room when the unit is left with the gas supply turned on. If the Pilot Light fails to stay lit, adjust it to a larger flame, or eliminate the draft blowing it out.

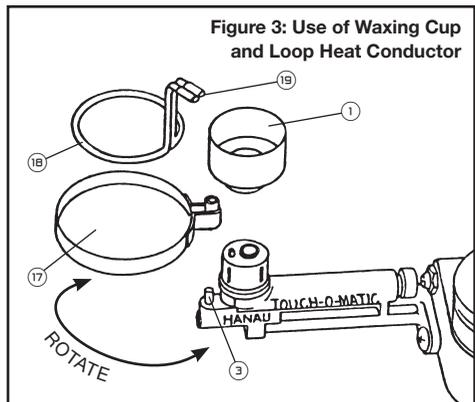
Leakage will result if the “O” Ring ⑭ is missing. Check to verify the “O” Ring is installed if the leak occurs following cleaning or disassembly for other reasons.

If gas leakage is noted at the Gas Adjustment Thumbscrew ⑥ or at the Gas Nozzle ⑫, gently tighten the parts with a wrench to snugly seal them against the body of the Valve Housing ⑦. Do not over tighten, this may cause damage to the housing itself.

If leakage continues after securely tightening the Gas Nozzle ⑫, or if the burner flame fails to shut off automatically when ON-OFF Platform ⑨ is released, return the Touch-O-Matic® bunsen burner to Whip Mix for repair.

Use of Waxing Cup and Loop Heat Conductor

The Waxing Cup ⑰ and the Loop Heat Conductor ⑱ are optional accessories. Remove the Pilot Shield ① and connect the small loop built into the outer circumference of the Waxing Cup over the Post for the Waxing Cup ③. The Loop Heat Conductor is placed into the Waxing Cup, circular side down, and the Loop Heat Conductor Stem ⑲ is positioned above the Pilot Light, or main burner, flame to transfer heat down into the wax cup for softening and keeping wax at a desired consistency. Replace the Pilot Shield after attaching the Waxing Cup.



Gas Conversion

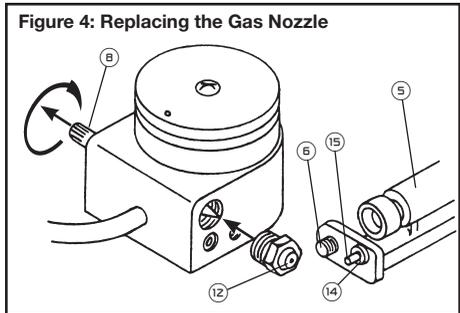
Should you desire to operate your Touch-O-Matic® bunsen burner on a gas source other than the one identified on the body of the Touch-O-Matic® burner and the Gas Nozzle ⑫, order and install a replacement nozzle. The Gas Nozzles available are: “BUT” for Butane Gas, Part No. 002835-000; “PRO” for Propane Gas, Part No. 002836-000; “NAT” for Natural Gas, Part No. 002837-000; “MIX” for Mixed Gas, Part No. 002838-000; and “MFG” for Manufactured Gas, Part No. 002839-000.

WARNING: USE THE TOUCH-O-MATIC® ONLY WITH THE FUEL TYPE STAMPED ONTO THE GAS NOZZLE AND SPECIFIED ON THE LABEL. DO NOT USE ACETYLENE. WITH PROPANE OR BUTANE, USE A PRESSURE REGULATOR.

Replacing the Gas Nozzle

Turn the gas supply off and disconnect the burner from the gas line. Turn the Gas Adjustment Thumbscrew ⑥ counterclockwise to its stop. This backs the needle valve away from the orifice of the Gas Nozzle ⑫ and helps assure that it will not be damaged while another gas nozzle is installed. Use care to not bump the exposed tip of the needle.

Remove the Screw for Detaching the Burner Assembly ⑤ and separate the Burner Assembly ⑤ and the Valve Housing ⑦. Use a 9/16” wrench to unscrew the Gas Nozzle ⑫ and replace the old Gas Nozzle with the new Gas Nozzle. Reattach the Burner Assembly to the Valve Housing.



WARNING: Make certain the “O” Ring ⑭ on the Pilot Inlet ⑮ is in place, otherwise the burner will leak gas.

Place a new label that identifies the type of gas to be used with the burner over the original label on the burner.



RESTORATIVE ORAL HEALTH

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