

# Hand Tester

## Operations and Service Manual

### for Brake Hose Manufacturing

Keep for future use.



**BrakeQuip**  
INNOVATIVE SOLUTIONS FOR AUTOMOTIVE TUBES AND HOSES

**BQE0S-04**

**ABOUT THIS MANUAL**

Knowledge of and compliance with the operational and service principles outlined in this manual are essential for the efficient operation of this equipment. Maximum benefits will be gained from the initial set up and training if all prospective operators have read and are familiar with this manual.

Please specify all details such as Model number, DOT number, Serial Number of the equipment in any correspondence referring to your system. If any problems relative to the operation or service of this equipment should arise, contact your BrakeQuip representative or BrakeQuip direct.

**LIMITED WARRANTY**

BrakeQuip, LLC (hereinafter "BQ") will repair and replace any defective new parts during a period of twelve (12) months from the date of shipment. This repair and replacement warranty will not apply if the instructions in this manual are not followed. Parts sold for the repair or replacement of existing equipment will only be repaired or replaced for a period of ninety (90) days from the date of installation. Expendable items and all accessory tools are sold "as".

If, upon inspection by BQ, any warranted product shall prove defective in materials or workmanship during the warranty period, that product shall be repaired or replaced at BQ's option if the buyer, at its sole expense, returns the products to BQ's factory or such other place as BQ designates. Such repair or replacement shall be BQ's sole obligation and the buyer's exclusive remedy under this warranty. This warranty supersedes all prior oral or written agreements, statements, promises, advertising or representations.

**THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, AND BQ EXPRESSLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

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**SCOPE OF DELIVERY AND RESPONSIBILITIES**

The BrakeQuip brake hose manufacturing system has been designed so that operator adjustments are generally not required. The crimp integrity and testing has been achieved by using BrakeQuip fittings and brake hose.

**IF NON-APPROVED FITTINGS AND BRAKE HOSE ARE UTILIZED IN THE MANUFACTURING OF BRAKE HOSES, BRAKEQUIP CANNOT GUARANTEE THE SAFETY OF THE CRIMP AND COMPLIANCE TO STANDARDS. IF FITTINGS OR HOSE OTHER THAN GENUINE BRAKEQUIP PRODUCTS ARE USED, YOUR LIABILITY COVERAGE IS VOIDED.**

Ensure the hose stock is stored away from direct sunlight and accidental damage; otherwise, the quality of the hose can be significantly reduced.

BrakeQuip has tried to make the fittings as universal as possible to reduce your inventory costs. Some fittings may look slightly different from the original but will do exactly the same job. For example, most male fittings have three sealing surfaces, and external thread type fittings have one standard thread. A new half nut is supplied if the thread is different from the original. Another example: a 3/4" Hex fitting is the same as a 5/8" Hex with a shoulder clip.

Rubber brake hose is for **BRAKE FLUID ONLY**. If you have a mineral oil application, you will need to use the stainless steel braided line option.

**PERSONNEL REQUIREMENTS**

Never let personnel operate the hose crimping machine who may be under the influence of reaction limiting substances or who may otherwise be unable to operate the machine for health reasons.

Personnel to be trained, educated, instructed or in an apprenticeship should work only under continuous supervision of an experienced person on the hose crimping machine and tester.

All personnel need to:

- wear safety glasses
- keep loose clothing, hair, fingers and all body parts away from moving parts
- read and understand the operating manual
- be instructed in the mode of operation of the machine
- know, how the individual work processes need to be conducted
- operate the machine while in a positive state of health

**Training of Personnel**

A training worksheet has been provided as a checklist of training tasks to be completed by the in-house instructor and trainees. For quality assurance purposes, it is required that the trainee initial every task that he/she has been instructed in. **See Doc No. BQI-01**

**SAFETY**

Read instruction and identify all component parts before using this tester. Do not exceed 3500 PSI test pressure. Always wear safety glasses.

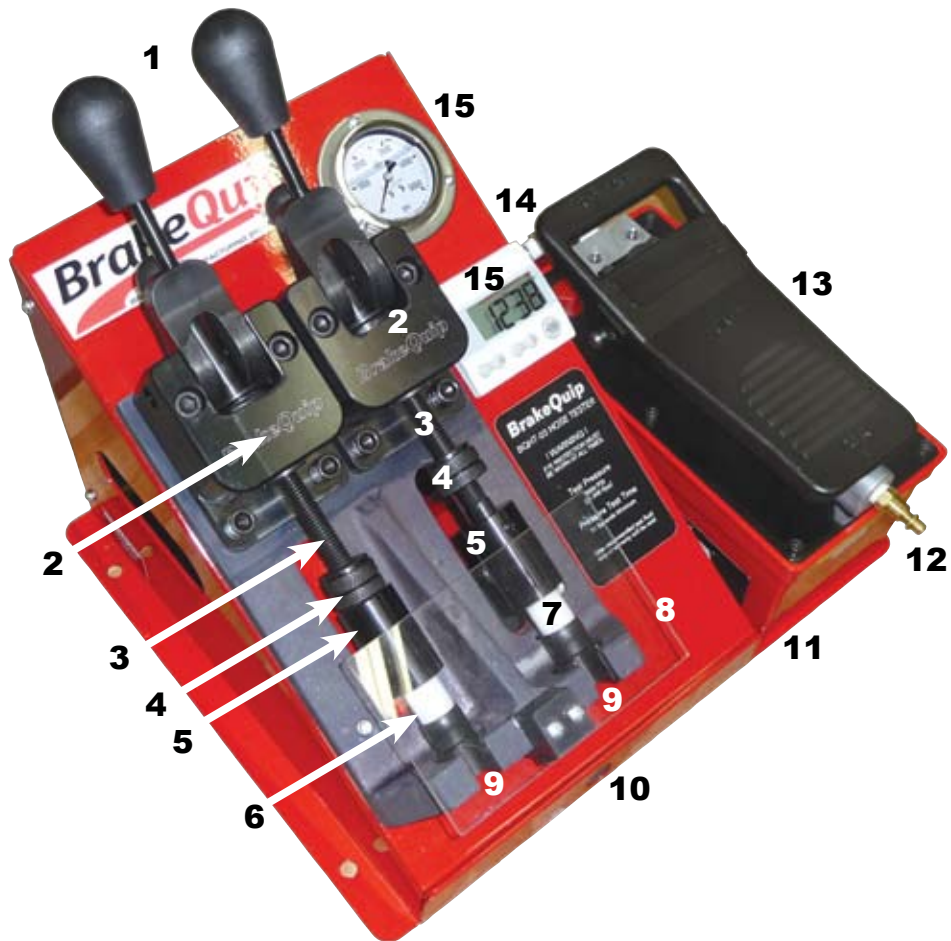
If safety test shield needs to be removed to test a hose, safety goggles must be worn.

**MAINTENANCE**

Maintain this machine per the maintenance section of this manual.

Use only manufacturer's recommended attachments and replacement parts.

HOSE TESTER - COMPONENTS IDENTIFICATION



Pos	Name
1	Cam Lock Handles
2	Clamping Mechanism
3	Adjustment Rods
4	Knurled Nut
5	Test Cone Holders
6	“Dead” Test Cone
7	“Live” Test Cone
8	Safety Shield
9	Jig Slots
10	Tool Tray
11	Test Fluid Reservoir
12	Male “Air” Connector
13	Control Pedal
14	“Black” Hex Filler Cap
15	Digital Timer
16	Pressure Gauge



14. Replace Red Cap with Black.



**HOSE TESTER - OPERATION**

**Safety Precautions**

Read instructions and identify all component parts before using this tester. Do not exceed 3500 PSI test pressure. Always wear safety glasses.

If safety test shield needs to be removed to test a hose, safety goggles must be worn.

**Before Operating the Hose Tester**

Live Test Cones with O-ring must be in cone holder with supply tube.

Always ensure O-ring (No. 010) is in the end of the “Live” Test Cone.



To activate timer - Remove rear battery cover and remove plastic insulation strip to engage battery.

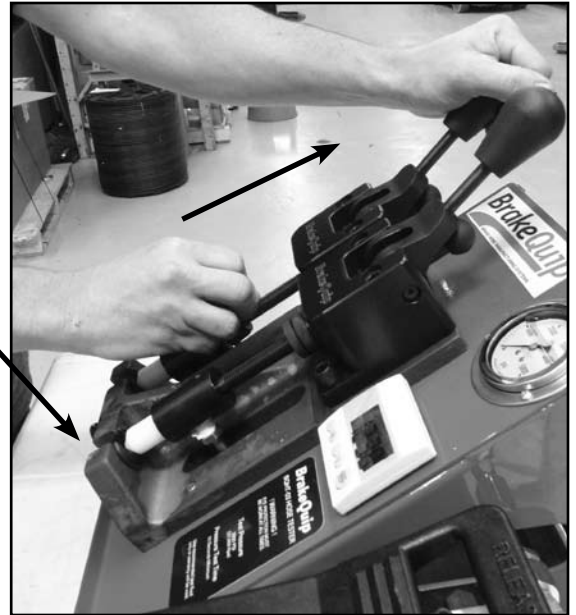
If the timer stops working, it is probably due to a dead battery. To replace, remove timer from the cabinet by pulling it from the Velcro retaining patch. Rotate battery cover slot in an counter clockwise direction and remove the button style battery. Replace battery with one of the same specifications., reverse these instructions to reinstall. (Energizer Battery No. 357).





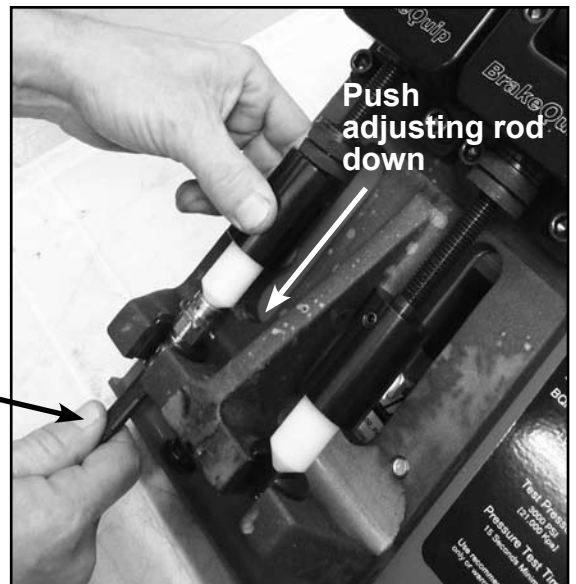
### Operating the Hose Tester

1. Ensure Locking Arms are in the fully released position (vertical). Slide adjustment rods up, allowing clearance for the fitting to mount in the test jig.



2. Push adjusting rod down and aligning test cone onto fitting.

3. Jiggle fitting slightly to centralize cone into fitting).



4. With Knurled Nut at a slight angle, slide it up the adjusting rod to the base of the clamping mechanism.



4.

5. Align Knurled Nut to be horizontal on Clamping Mechanism, allowing the internal threads of the Knurled Nut to “grab” the threads. Snug the Knurled Nut against the base of the Clamping Mechanism (finger tight).

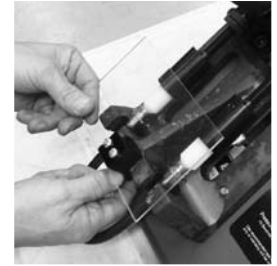


5.

6. Pull the locking arms forward (horizontal); this will apply adequate sealing pressure on the fitting face if done properly.



6.



7.

7. Make sure safety shield is in place and you are wearing safety glasses to avoid injury. You are ready to test your hose assembly.

8. Connect air hose to male connector on Test Fluid Pump.



8.



9.

9. Depress control pedal toward “AIR” stamp to pressurize hose assembly.

10. Release control pedal when pressure gauge reaches adequate pressure (3000 lbs. minimum) or if a problem arises.



10.



11. Press digital timer start button, check for abnormalities or leaks on hose assembly while digital timer counts down from “15” seconds.



11.

12. To remove the hose from the test jig, release pressure from hose by pressing control pedal toward “RELEASE” stamp.

13. After observing there is no pressure at the pressure gauge, push locking arms upward (vertical) to release pressure on fitting.



12.



13.

## MAINTENANCE

### Hose Tester Maintenance

1. Unscrew the knurled nuts and slide down the adjusting rods.
2. Slide the readjusting rods up giving adequate clearance to remove fittings from test jig.



1.



2.

### Test Fluid Replenishment

To replenish test fluid remove Black Hex filler cap on top of Test Fluid Reservoir.

Fill reservoir approximately 1/2" from the top

Note: Test fluid must be 100% anti-freeze! Do no dilute or used a pre-mix anti-freeze as this will void all warranty).

**WARNING: NO SOLUBLE OIL OR ANY MINERAL BASED FLUIDS**

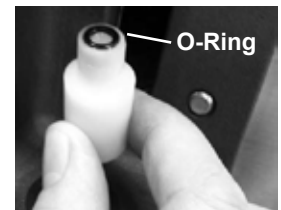
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If the timer stops working, it is probably due to a dead battery. To replace, remove timer from the cabinet by pulling it from the Velcro retaining patch. Rotate battery cover slot in a counter clockwise direction and remove the button style battery. Replace battery with one of the same specifications, reverse these instructions to reinstall. (Energizer Battery No. 357).



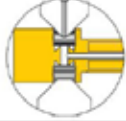

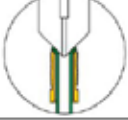
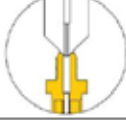
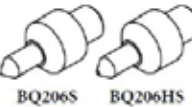
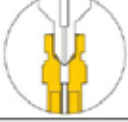
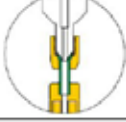
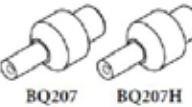
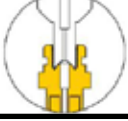



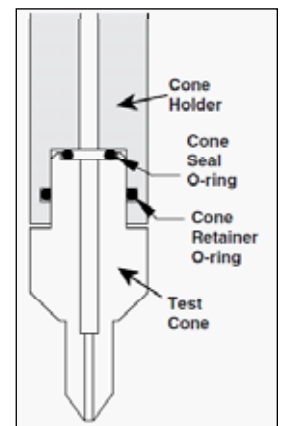
**Test Cones**

Test Cones need to be replaced from time to time. The Test Cones are retained in the Cone Holder by the “drag” of an O-ring. To remove cone, simply pull cone out from holder by hand. The O-ring may need to be lubricated from time to time to make this an easier task.



Always ensure O-ring (No. 010) is in the end of the “live” test cone.

PART #	APPLICATION	ILLUSTRATION
 BQ21	For testing small banjo fittings and female Tee fittings.	 
 BQ206 BQ206H	For testing male fittings (rigid and swivel) and any fitting where the sealing diameter is small.	 
 BQ206S BQ206HS	For testing female swivel fittings & female fittings with a DPS*.	 
 BQ207 BQ207H	For testing female swivel fittings & female fittings with an inverted seal.	 



### CONstriction TEST

Blow air through the hose to ensure there are no blockages. Place the Constriction Gauge (BQ2001W) into each fitting and check for clearance. The gauge should easily pass through the fitting port. For fittings that have no access port to conduct this test (Banjo fittings) Ensure that the fluid ports are clear before crimping.

