Parker Balston® Compressed Air Microbial Test Unit (CAMTU)

Installation, Operation, and Maintenance Manual

These instructions must be thoroughly read and understood before installing and operating this product. If you have any questions or concerns, please call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time or email at balstontechsupport@parker.com (North America only).

For other locations, please contact your local representative or email at TSGIndustrial.Enquiries@parker.com.

General Description

Regulations in food, medical and other industries require periodic testing of the compressed air supply to ensure it is not harboring microorganisms. Parker Balston CAMTU is designed to quickly and efficiently indicate the presence of microorganisms present in the air system. The CAMTU is a mobile device that can be used throughout the plant at multiple sample points. The Parker Balston CAMTU has been validated by Dr. McLandsborough, PhD, Director of the Food Science Department at the University of Massachusetts-Amherst.

Preparing for Operation

Preparing the CAMTU for First Use

1. Open sample tap long enough to purge compressed air until visibly free of moisture and particulates.
2. Assemble the tubing to the shutoff valve, regulator and CAMTU as shown in Figure 1 and connect to a compressed airline (150 psig or less).
3. Open the shutoff valve to start air flow.
4. Pull up on the regulator knob and adjust the pressure to 40 psi. Push the knob down to lock in the pressure setting.
5. Turn off shut off valve.
6. There is no need to repeat this procedure as long as the knob remains locked.

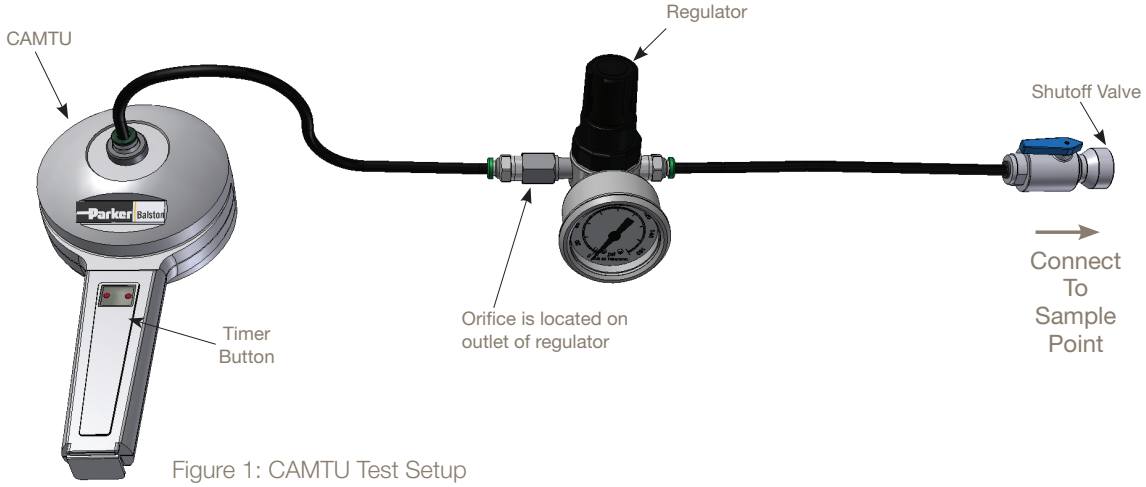

Figure 1: CAMTU Test Setup

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Cleaning Procedure

Prior to beginning a test, it is important that the inside of the CAMTU be cleaned to destroy any microorganisms present that could result in a false positive test result.

1. Don a pair of disposable rubber gloves.
2. Using the spray bottle provided, add 1 teaspoon of bleach and fill the bottle with water. A fresh solution must be prepared before each series of tests. A 70% ethanol solution can also be used.
3. Open the CAMTU cover (see Figure 2), loosen the deflector plate thumb screws and remove the deflector plate.
4. Liberally spray the interior of the CAMTU and wipe dry with a lint-free cloth making sure to also spray and wipe the deflector plate.
5. Reinstall the deflector plate.

Note: Alternatively, the CAMTU Housing (not the Regulator) can be autoclaved at 250°F (120°C) for up to 45 minutes. The Timer must be removed during Auto Clave procedure (see Figure 4).

Performing a Control Negative Test

Before every test, a control-negative test should be performed. This will indicate if the regulator or CAMTU is harboring any microorganisms.

1. Open sample tap long enough to purge compressed air until visibly free of moisture and particulates.
2. Assemble the tubing to the shutoff valve, Disposable Filter Unit, regulator and CAMTU as shown in Figure 3.
3. Connect to the sample tap.
4. Using a marker write “control negative” and the test location on the cover of the agar plate.
5. Place the agar plate inside the CAMTU and remove the cover. Immediately close the CAMTU and snap the latch closed on the end of the handle.
6. Open the shutoff valve and press the button on the handle to start the timer. The light will blink for 20 seconds. When the light stops blinking, the test is complete.
7. Close the shutoff valve.
8. Open the CAMTU and immediately place the cover back on the agar plate to minimize exposure to the ambient air. Remove the agar plate and save for incubation.

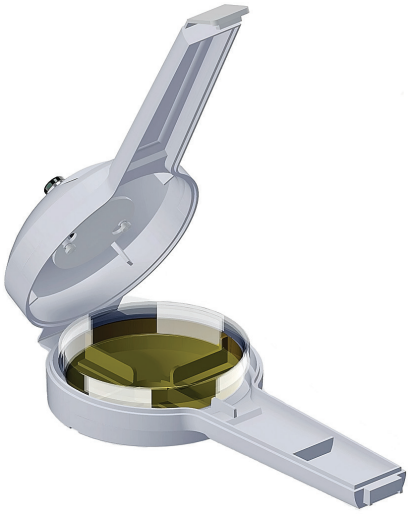

Figure 2: CAMTU in Open Position

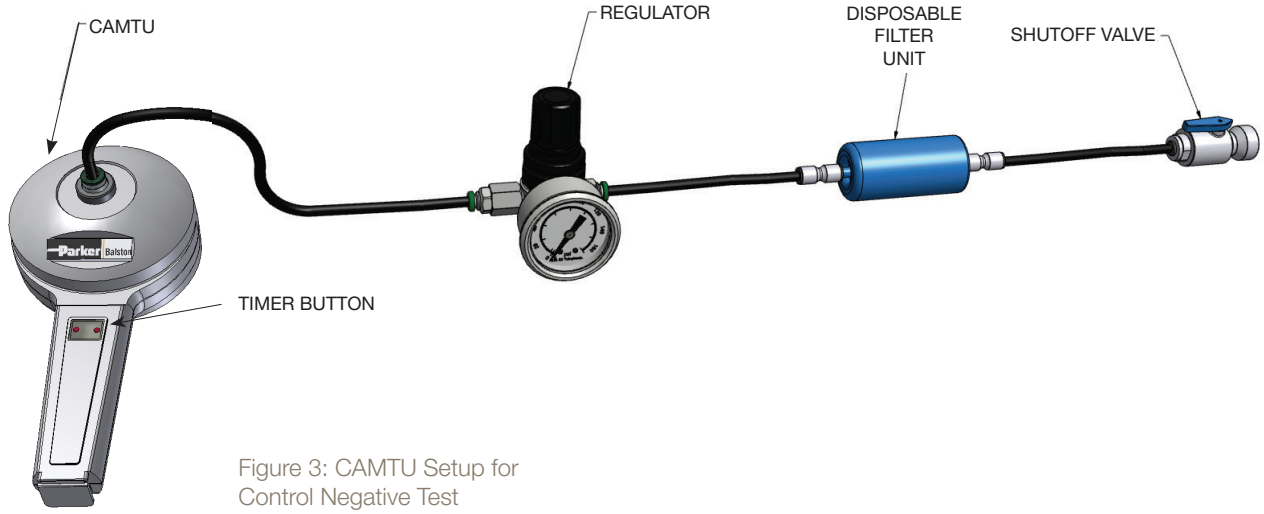

Figure 3: CAMTU Setup for Control Negative Test

Operation

(Performing a test at a sample point)

1. Open sample tap long enough to purge compressed air until visibly free of moisture and particulates.
2. Assemble the tubing to the shutoff valve, regulator and CAMTU as shown in Figure 1 and connect to the compressed air system.
3. Using a marker write the test location on the cover of the agar plate.
4. Place the agar plate inside the CAMTU and remove the cover. Immediately close the CAMTU and snap the latch closed on the end of the handle.
5. Open the shutoff valve and press the button on the handle to start the timer. The light will blink for 20 seconds. When the light stops blinking, the test is complete.
6. Close the shutoff valve.
7. Open the CAMTU and immediately place the cover back on the agar plate to minimize exposure to the ambient air. Remove the agar plate and save for incubation.

Incubation

After exposure, agar plate should be incubated at 95 – 99°F (35 -37°C) for 48 hours or may be incubated at room temperature for up to 7 days.

After incubation it's not uncommon to find a single isolated colony forming unit (CFU) on the agar surface which may be the result of exposure of the agar to microorganisms in the ambient air during transport into or out of the CAMTU.

Due to the air flow pattern inside the CAMTU it is not recommended that CFUs get counted. Rather, the results should be viewed qualitatively. **If there are CFUs present on the agar plate it is an indication that microorganisms are present in the compressed air system.**

Parker Balston manufactures high efficiency sterile air filtration systems designed to remove bacteria and microorganisms. Contact us at 800-343-4048 for more information or visit www.balstonfilters.com.

Dispose of used plates by autoclaving using industry standards as specified by local and state regulations.

Cleaning/Sterilization

If after incubation, colony forming units (CFUs) appear on the agar surface after a CONTROL NEGATIVE test, this is an indication that one or more components in the system are harboring microorganisms, and a thorough cleaning of all components is required. The tubing is anti-microbial and should not harbor any microorganisms.

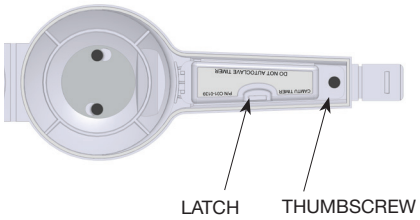

Figure 4: CAMTU Timer

To clean the regulator and shutoff valve, prepare a fresh bleach/water solution as described above and pour the solution into the regulator and shutoff valve through both the inlet and exit ports. Drain and allow to dry. The drying process can be accelerated by passing sterile compressed air through the components. This can be accomplished by using the filter (p/n C02-2418) connected as shown in Figure 3 so as not to recontaminate the tubing and regulator. It is recommended the filter is replaced every six months.

The CAMTU can be autoclaved at 250°F (120°C) for 20 minutes as an alternative to manual cleaning.

Timer Removal / Battery Replacement

The timer must be removed before autoclaving.

To remove the timer, unscrew the thumbscrew shown in Figure 4. To replace the battery, rotate the latch and open the cover. The timer uses a AAA battery.

Agar plates

(Storage and use)

Agar plates are shelf life sensitive and should be stored in a refrigerated environment upon arrival to maximize shelf life.

System Parts

CAMTU storage and carrying case - complete kit C01-0175.

Principal Specifications and Ordering Information

IMPORTANT: Agar plates not included. General purpose 90mm Tryptic Soy or PDA plates are compatible with the CAMTU housing for sampling

Replacement Parts	
Complete CAMTU Kit	C01-0175
CAMTU Sampling Housing	C01-0176
DFU Assembly	C02-2418
Tubing ¼" OD	A01-0484
Regulator/Metering Assembly	C01-0125
Sanitizing spray bottle	C01-0124
Shut off valve	C01-0126
Additional Specifications	
Complete CAMTU Kit Dimensions	15.63”w x 13.63”h x 6.38”d (40cm x 35cm x 16cm)
Shipping Weight	7 lbs. (3.2 kg)

Explanation of Warning Symbols:

Symbol	Description
⚠	Caution, refer to accompanying documents for explanation.

Remember To:

Complete and Mail or Fax in Your Warranty Registration Card.

Keep your product certification in a safe place.

WARRANTY (NORTH AMERICA ONLY)

(FOR INFORMATION CONTACT YOUR LOCAL REPRESENTATIVE)

Parker Hannifin guarantees to the original purchaser of this product, that if the product fails or is defective within 12 months from the date of purchase, when this product is operated and maintained according to the instructions provided with the product, then Parker guarantees, at Parker's option, to replace the product, repair the product, or refund the original price for the product. This warranty applies only to defects in material or workmanship and does not cover: ring and valve wear on compressors, routine maintenance recommended by the instructions provided with this product, or filter cartridges. Any modification of the product without written approval from Parker will result in voiding this warranty. Complete details of the warranty are available on request. This warranty applies to units purchased and operated in North America.

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