



## Power Systems

2900 Selma Highway  
Montgomery, AL 36108  
(334) 386-5400 (334) 386-5450 FAX  
www.kellyaerospace.com

# Service Information Letter

The technical content of this letter is FAA Approved

Letter No. A-121

Issue Date: Feb. 23, 2007

## PROCEDURE FOR RETURNING VALVES & CONTROLS TEST SET FOR CALIBRATION OR REPAIR

### INTRODUCTION:

Over the past several years, Kelly Aerospace Power Systems (KAPS) has produced, serviced and maintained turbocharger valves and controls that were formerly offered only through Honeywell, Garrett/AirResearch (AID). During this period, pressure relief valves, wastegates, and controllers were tested and calibrated using the "Controls Test Set" offered by Honeywell, Garrett/AirResearch (AID) and General Aviation Test Equipment, Inc. (G.A.T.E.). Several other manufacturers produced similar test sets but should not be used as they are obsolete and not supported. KAPS Turbocharger Valves & Controls Service & Overhaul Manual (P/N 400999-0000) establishes a requirement for yearly (12 month) calibrations and states a method for obtaining service. With the announcement in Kelly Aerospace Power Systems Service Letter 022 of a new controls test set (P/N 481070-0002), new procedures have been established to repair and to calibrate these new units in an expedited manner.

This Service Information Letter is intended to provide instruction to owners or operators of the KAPS Controls Test Set P/N 481070-0002 (or previous test sets as described above), regarding how to obtain service, repair, and calibration.

### COMPLIANCE:

Annually at the discretion of the owner/operator or the facility utilizing a KAPS P/N 481070-0002. "Controls Test Set" or a controls test set produced by Honeywell, Garrett/AirResearch (AID) and General Aviation Test Equipment, Inc. (G.A.T.E.)

### EFFECTIVITY:

All turbocharger Controls Test Set(s) as produced by KAPS, Honeywell, Garrett/AirResearch (AID) and G.A.T.E. Inc. that are intended to be used for test or calibration of KAPS, Honeywell, Garrett/AirResearch (AID) turbocharger pressure relief valves, wastegates, and controllers.

### PROCEDURE:

#### If repair is desired:

1. Determine if the test set is one for turbocharger valves and controllers similar to Figure 1. The test set must be part number 481070-0001 or 481070-0002. It must be manufactured or supplied by Kelly Aerospace Power Systems, Honeywell, Garrett/AirResearch (AID) or G.A.T.E. Inc.
2. Determine the specific problem and record it in detail to supply to KAPS when returning the test set. *Note: Basic service parts such as lines, fittings, and gaskets for repair may be found in Chapter 5 of the KAPS Turbocharger Valves & Controls Service & Overhaul Manual P/N 400999-0000 or in A.I.D. TP15-0104-1 calibration and test box operating instructions.*
3. Prepare the test set for shipping by placing it in a suitable container making sure that it is well insulated against damage. **Do not use "popcorn" or other loose packing material!** Do not return the accessories such as lines, fittings, and adapters. If accessories are desired, see Materials Required (optional) on page 2 and select if replacement part is desired.
4. Return the test set per the instructions found on page 2.

*For questions concerning this instruction please contact KAPS, Service Dept. at (888) 461-6077. Contact your local KAPS distributor to purchase available service parts.*

## PROCEDURE: (Cont'd)

### If calibration is desired:

1. Determine if the test set is due to calibration. Due to the various manufacturers and age of the test sets, the location or method of recording calibration may vary. Locate the calibration tag on the KAPS test set near the data and serial number tag or if no tag is found, consult shop records. *Note: Any test set, whether manufactured by KAPS or not, which has been returned to KAPS for repair or calibration will have a KAPS data and serial number tag installed on it's initial visit.* If the date of calibration is at or beyond twelve (12) months or no record is found, calibration is required.
2. If any problems are noted other than the calibration requirement, record it in detail and supply to KAPS when returning the test set.
3. Prepare the test set for shipping by placing it in a suitable container making sure that it is well insulated against damage. **Do not use "popcorn" or other loose packing material!** Do not return the accessories such as lines, fittings, and adapters. If accessories are desired, see Materials Required (optional) and select if replacement part is desired (see below).
4. Return the test set per the instructions below.

### RETURN INSTRUCTIONS:

Contact Kelly Aerospace Power Systems at (334) 386-5450 (FAX) and request a return authorization number. Copy and fill out completely the form found on page 4 of this publication or print a new copy from our website: <http://www.kellyaerospace.com>. To be accepted, the return authorization number, contact information, return shipping address and method, billing address, repair or calibration request, and fault (if repair) **must** be clearly stated on the form. FAX the completed form to KAPS Customer Service. A copy of the this form **must** be placed in the shipping container with the test set. SHIP THE TEST SET TO THE ADDRESS INDICATED ON THE FORM ONLY. Because this is an expedited service, any test set sent to an address other than that indicated on the form may cause an extended delay in return. A minimum charge for calibration or repair applies. Any further charge for repair or repair during calibration will be communicated prior to work being done. Payment must be received prior to test set return.

### MATERIAL REQUIRED:

Quality shipping container and packing materials.

#### Optional:

Order these materials as desired\*.

400958-6	Connector (2 required)
403069-25	O-Ring
403069-30	O-Ring
478175	Clamps (2 required)
478176	Pointer
478177	Protractor
478181	Molded Gasket
478182	Poppet adjusting tool
478188	Test Adapter
478197-1	18" Adapter Hose (2 required)
478197-2	21" Adapter Hose
478200-1	Adapter plate
TS-Kit	All of the above

\* If ordered with a repair or calibration, price will be included in the quote sent for approval.

**PARTS AVAILABILITY:**

Test set parts may be ordered and purchased directly from KAPS. Lead times may vary depending upon the parts ordered.

**WARRANTY STATEMENT:**

The sole warranty applicable to this service publication is related to the terms and conditions of a valid original Limited Warranty Policy for a new or repaired turbocharger valve and controllers test set as delivered by Kelly Aerospace Power Systems after it has been serviced.

This publication does not imply or state any responsibility for the workmanship of any person or entity performing work or maintenance on the turbocharger valve and controllers using a KAPS repaired or calibrated test set. Unless specified by Kelly Aerospace Power Systems in writing, using the turbocharger valve and controllers test set with any non-Kelly part or component installed is prohibited and will void any outstanding or remaining warranty.



RA - \_\_\_\_\_  
Return Authorization No.

**KELLY  
AEROSPACE**  
**Power Systems**

2900 Selma Highway  
Montgomery, AL 36108  
(334) 386-5400 (334) 386-5450 FAX  
www.kellyaerospace.com

Test Set  
Serial Number \_\_\_\_\_

Contact information: \_\_\_\_\_ Date: \_\_\_\_\_  
Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Billing method:  Credit Card  PO No. \_\_\_\_\_  Other (specify) \_\_\_\_\_

Shipping Address: (if different)  
Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Special Instructions:

Method of shipping:  UPS (1 day, 2 day, ground)  Fed Ex (1 day, 2 day, standard)  Other (specify) \_\_\_\_\_ (1 day, 2 day, standard)

Repair  Calibrate

Symptom for repair: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Accessories desired	None <input type="checkbox"/>	Qty <input type="checkbox"/>
400958-6	Connector	_____
403069-25	O-Ring	_____
403069-30	O-Ring	_____
478175	Clamps	_____
478176	Pointer	_____
478177	Protractor	_____
478181	Molded Gasket	_____
478182	Poppet adjusting tool	_____
478188	Test Adapter	_____
478197-1	18" Adapter Hose	_____
478197-2	21" Adapter Hose	_____
478200-1	Adapter plate	_____
TS-Kit	All of the above	_____

Ship To:  
Kelly Aerospace Power Systems  
Test Set Repair & Calibration  
10500 Airpark Way, M9-M10  
Whiteman Airport  
Pacoima, CA 91331

Test Set S/N \_\_\_\_\_