

# Kirby Morgan Air Control System 5 Operations and Maintenance Manual

KMDSI Part #100-075

Patented, patents pending, foreign patents apply



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*NOTE: This manual is the most current for the Kirby Morgan Air Control System 5. It is page dated September 2012. Future changes will be shown on page III and the changed pages will carry the date of change. Previous manuals may not reflect these updates.*

## **⚠ WARNING**

**Diving with compressed breathing gas is a hazardous activity. Even if you do everything right there is always the danger that you may be killed or injured. No piece of diving equipment can prevent the possibility that you may be killed or injured any time you enter the water.**

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## Warranty Information

Kirby Morgan Dive Systems, Inc. warrants every new mask, helmet, or KMAC Air Control System to be free from defects in workmanship for a period of three hundred sixty five (365) days from date of purchase. This warranty covers all metal, fiberglass, and plastic parts. This warranty does NOT cover rubber parts, communications components, or head cushions. In addition, due to the electrolytic nature of underwater cutting and welding, chrome plating cannot be warranted when the diver engages in these activities.

Should any part become defective, contact the nearest authorized KMDSI dealer. If there is no dealer in your area, contact KMDSI directly at (805) 928-7772. You must have a return authorization from KMDSI prior to the return of any item, Upon approval from KMDSI, return the defective part, freight prepaid, to the KMDSI plant. The part will be repaired or replaced at no charge as deemed necessary by KMDSI.

**This warranty becomes null and void if:**

- 1) The product is not registered with KMDSI within ten (10) days of purchase.**
- 2) The product has not been properly serviced and/or maintained according to the appropriate KMDSI manual. In addition, the user is responsible to ensure that all product updates as recommended by KMDSI have been performed.**
- 3) Unauthorized modifications have been made to the product.**
- 4) The product has been abused or subjected to conditions which are unusual or exceed the product's intended service.**

**NOTE:** Be sure to complete the enclosed warranty card and return it to KMDSI immediately. No warranty claims will be honored without a satisfactorily completed warranty card on file at KMDSI.

**Record Of Changes**

It is the responsibility of the owner of this product to register their ownership with Kirby Morgan Dive Systems, Inc., by sending the warranty card provided. This card is to establish registration for any necessary warranty work and provides a means of communication that allows KMDSI to contact the user regarding this product. **THE USER MUST NOTIFY KMDSI OF ANY CHANGE OF ADDRESS BY THE USER OR SALE OF THE PRODUCT.**

All changes or revisions to this manual must be recorded in this document to ensure that the manual is up to date. Quantities marked in parenthesis.

Change Number	Date	Description of Change
1	06/11/2009	Updated table of contents layout.
2	02/17/2010	Corrected the PSI to BAR conversion in the Table of Equivalents
3	08/26/2010	Changed 5.3 Exploded Views & Parts Lists P/N 405-039 to 415-030 and description updates.
4	06/13/2012	Updated copyright format

**⚠ WARNING**

**Diving with compressed breathing gas is a hazardous activity. Even if you do everything right there is always the potential for serious injury or death. No one piece of diving equipment can prevent the possibility that you may be injured or killed any time you enter the water. The information in this manual is intended for users of KMACS and persons that maintain or service KMACS.**

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## Definition of Signal Words Used in this Manual

For your protection, pay particular attention to items identified by signal words in this manual. These terms are identified as, CAUTION, WARNING and DANGER. It is especially important for you to read and understand these sections.

### **⚠ DANGER**

**This word indicates an imminently hazardous situation, which if not avoided, could result in death or serious injury.**

### **⚠ WARNING**

**This word indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.**

### **⚠ CAUTION**

**This word indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.**

### **NOTICE**

**This word is used to address practices not related to personal injury.**

If English is not your native language and you have any difficulty understanding the language of any warnings as they appear in the manual, please have them translated.

### **⚠ WARNING**

**Este é um aviso importante. Queira mandá-lo traduzir.**

### **⚠ WARNING**

**Este es un aviso importante. Sirvase mandario traducir.**

### **⚠ WARNING**

**Quest è un avviso importante. Tradurlo.**

### **⚠ WARNING**

**Ceci est important. Veuillez traduire.**

### **⚠ WARNING**

**Diese Mitteilung ist wichtig. Bitte übersetzen lassen.**

If you have any questions concerning this manual or the operation of your KMACS 5, contact KMDSI (805) 928-7772 or by Email at [kmdsi@kirbymorgan.com](mailto:kmdsi@kirbymorgan.com) or Dive Lab Inc. (850) 235-2715 or at [divelab@divelab.com](mailto:divelab@divelab.com)

**IMPORTANT:** A word about this manual. We have tried to make this manual as comprehensive and factual as possible. We reserve the right, however, to make changes at any time, without notice, in prices, colors, materials, equipment, specifications, models and availability. Since some information may have been updated since the time of printing, please contact your local KMDSI dealer if you have any questions. Periodically KMDSI Operations and Maintenance Manuals are reviewed. Any updates/changes will be posted on the KMDSI website and may be downloaded for insertion/correction.

**IMPORTANT SAFETY INFORMATION:** This Kirby Morgan Air Control System 5 is intended for use by trained divers who have successfully completed a recognized training course in surface supplied diving

**⚠ WARNING**

**Follow all the instructions in this manual carefully and heed all safety precautions. Improper use of this diving equipment could result in serious injury or death.**

**⚠ WARNING**

**Kirby Morgan Dive Systems, Inc. (KMDSI) warns all divers who use Kirby Morgan diving equipment to be sure to use only KMDSI original parts from a KMDSI authorized dealer. Although other parts, O-rings and fittings may appear to fit your Kirby Morgan equipment, they may not be manufactured to the same standards maintained by KMDSI. The use of any parts other than KMDSI original parts may lead to equipment failure and accidents.**

**⚠ WARNING**

**Diving in waters that are chemically, biologically, or radiologically contaminated is extremely hazardous. Although Kirby Morgan surface supplied diving systems may be adapted for use in some contaminated environments, special training, equipment, and procedures are necessary. Do not dive in a contaminated environment unless you have been thoroughly trained and equipped for this type of diving.**

Read this manual before using or maintaining the KMACS 5, even if you have experience with other surface supplied diving systems. **If you have purchased the KMACS 5 new from a dealer, be sure to send in the warranty registration card so we may keep you informed of any safety notices that affect this product.** If you resell or loan this equipment to another diver, be sure this manual accompanies the equipment and that the person reads and understands the manual. In addition to the manual a log book should be used to log all repairs, maintenance and use.

**⚠ WARNING**

**This KMACS 5 was completely checked and should be ready to dive as it was shipped from the factory. However, it is always the diver's responsibility to check all the components of the KMACS 5 prior to diving.**

**⚠ WARNING**

**Diving is a life threatening occupation. Even if you do everything right you can still be killed or injured. None of the Kirby Morgan equipment can prevent accidents, injuries or death due to improper training, poor-health, improper supervision, improper job requirements, improper maintenance or acts of God.**

This manual is supplied to the original purchaser of this equipment. If you have any questions about the use of the equipment or you need another copy of this manual, contact KMDSI or your nearest KMDSI dealer. It may also be downloaded free from the KMDSI website at [www.KirbyMorgan.com](http://www.KirbyMorgan.com).

If you have any questions regarding the use, maintenance, or operation of this equipment, contact KMDSI at (805) 928-7772, fax: (805) 928-0342, or e-mail: [kmksi@kirbymorgan.com](mailto:kmksi@kirbymorgan.com).

**⚠ WARNING**

**Never use the equipment without first completing all pre-dive maintenance and set up procedures. Failure to complete all pre-dive checks could result in equipment failure due to problems with the incorrect set-up of the equipment. This could lead to serious personal injury or death.**

**⚠ WARNING**

**Always read the Material Safety Data Sheet (MSDS) for any chemical - adhesive, cleaning agent, or lubricant - used on your KMACS 5. Some of these chemicals may cause serious bodily injury or death if used improperly or without the proper personal protective equipment.**

Whenever KMDSI equipment is used in European Countries, which have adopted the CE certification programs, it must only be used with CE. certified components. Diving operations should only be conducted within the limits of the operational specifications, and in accordance with the rules and regulations established by the governing authority in the specific country or geographical location where the diving operations are being conducted. If you have any questions concerning this manual or the operation of your equipment, contact KMDSI (805) 928-7772 or at [KMDSI@KirbyMorgan.com](mailto:KMDSI@KirbyMorgan.com) or Dive Lab Inc. (850) 235-2715 or at [divelab@aol.com](mailto:divelab@aol.com)

**⚠ WARNING**

**Some of the procedures shown in this manual are for illustration purposes only. When using chemicals or materials that require the use of hand or eye protection, always wear the appropriate personnel protective equipment. Failure to use personnel protective gear may result in serious personal injury.**

This manual is supplied to the original purchaser of this equipment. If you have any questions about the use of the equipment or you need another copy of this manual, contact KMDSI or your nearest KMDSI dealer. It may also be downloaded free from the KMDSI website at [www.KirbyMorgan.com](http://www.KirbyMorgan.com).

If you have any questions regarding the use, maintenance, or operation of this equipment, contact KMDSI at (805) 928-7772, fax: (805) 928-0342, or e-mail: [kmdsi@kirbymorgan.com](mailto:kmdsi@kirbymorgan.com).

Components requiring lubrication, should only be lubricated with oxygen compatible lubricants such as Christo Lube<sup>®</sup>, Flourolube<sup>®</sup>, or Krytox<sup>®</sup>. Lubricants must be used sparingly and should not be mixed with other lubricants.

**⚠ WARNING**



**Kirby Morgan “High Pressure Components” (greater than 250 p.s.i.g., 17.24 bar) must not be used with pure oxygen, Nitrox, or any breathing gas mixtures with oxygen content greater than 23% by volume. Using oxygen mixtures in excess of 23% by volume may lead to a fire or explosion, which could result in serious injury or death.**

**⚠ WARNING**



**The KMACS-5 has not been designed or cleaned for oxygen or enriched oxygen use. The KMACS-5 is intended for air use only. Use of oxygen or enriched oxygen may lead to a fire or explosion, which could result in serious injury or death.**



*Kirby Morgan Air Control System 5  
without communications.*



*Kirby Morgan Air Control System 5 with communications.*

