

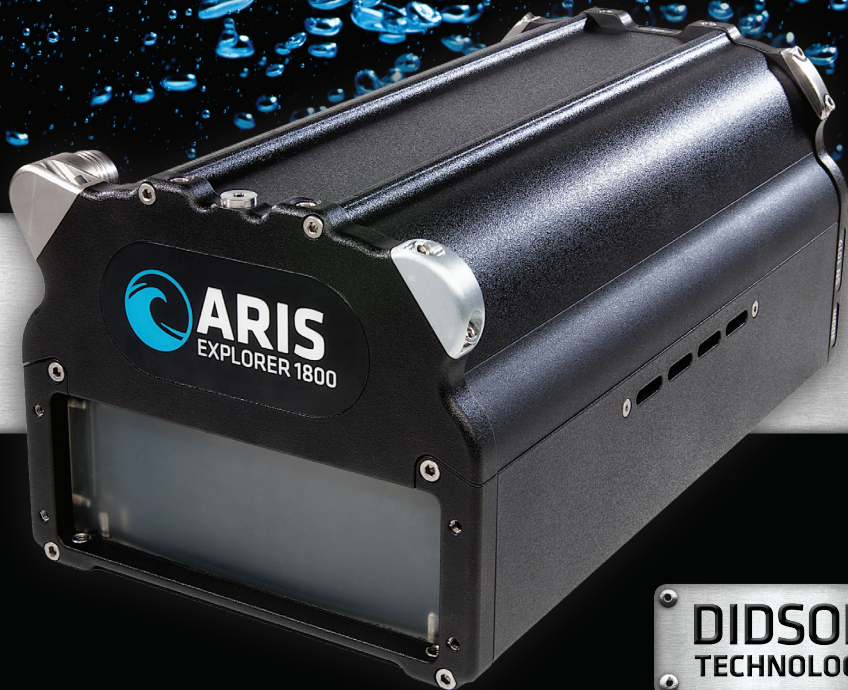


SOUND METRICS

# ARIS EXPLORER 1800

**GETTING  
STARTED**

[soundmetrics.com](http://soundmetrics.com)



**DIDSON  
TECHNOLOGY**

# ARIS EXPLORER 1800 GETTING STARTED

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## 1 INTRODUCTION

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### THE NEXT GENERATION IN CLARITY

The ARIS Explorer 1800 delivers image clarity that is unmatched by any other sonar in its class. At 1.8 MHz, this imaging sonar provides the detail that is required for thorough inspection. At the lower frequency, 1.1 MHz, the ARIS's clarity makes it an ideal tool for detecting targets up to 35 meters.

These near-video-quality images are presented through powerful, multifunctional software. The ARIS 1800 is perfect for fisheries/marine biology because of its ability to deliver necessary detail in real-time. This level of resolution is deal for inspecting underwater structures, hulls and berth sweeps, and for military and law enforcement when accuracy is a must.

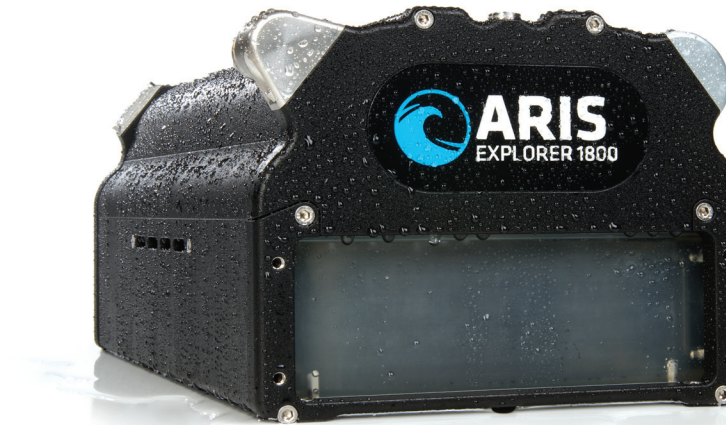
### ARIS EXPLORER 1800

IDENTIFICATION FREQUENCY: 1.8 MHz

DETECTION FREQUENCY: 1.1 MHz

DEPTH RATING: 300m

- Compact and lightweight
- Reliable and Durable
- Export capability to common video file format
- Ethernet communication interface
- Windows recording and playback software
- Real-time system data record, display and control
- Built-in compass and depth gauge
- Pan and tilt controller available as an option



## 2 WHAT'S IN THE BOX?



- 1 GETTING STARTED HANDBOOK  
#014387
- 2 ARIS SONAR  
#012269
- 3 ARIS CABLE  
# (Dependent on Length)
- 4 WATERPROOF BOX  
#013410
- 5 COMMAND MODULE  
#013470
- 6 POWER SUPPLY  
#014384
- 7 ETHERNET CABLE  
#014512
- 8 USB DRIVE & SOFTWARE  
#014385

## 2 WHAT'S IN THE BOX?

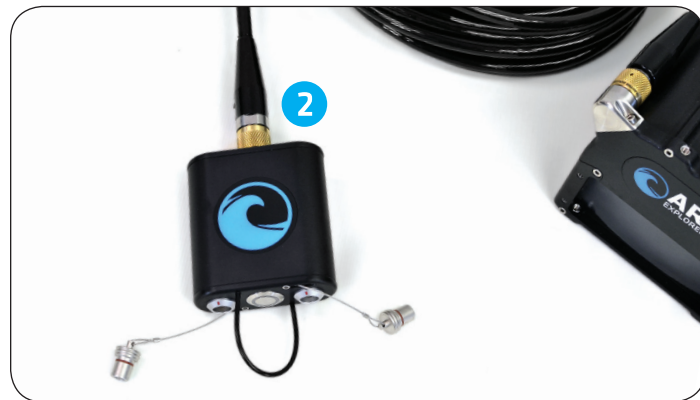


### 3 HOOKING UP THE SONAR



#### STEP 1

Attach the female end of the ARIS Cable to the ARIS Sonar, making sure to line up the key in the cable with the keyway on the connector. Push in while tightening the ARIS Cable as tight as possible by hand, ensuring that it is fully engaged.



#### STEP 2

Attach the male end of the ARIS Cable to the Command Module, making sure to line up the key in the Command Module connector with the keyway on the cable connector. Push in while tightening the nut on the Command Module as tight as possible by hand, ensuring that it is fully engaged.

### 3 HOOKING UP THE SONAR



#### STEP 3

Pull the waterproof plug out of the Command Module. Line up the red dot on the Ethernet Cable connector with the red dot on the receptacle on the Command Module and push in until connector is locked into place.

To release connector pull sleeve on the Ethernet Cable back until it slips out of the receptacle.

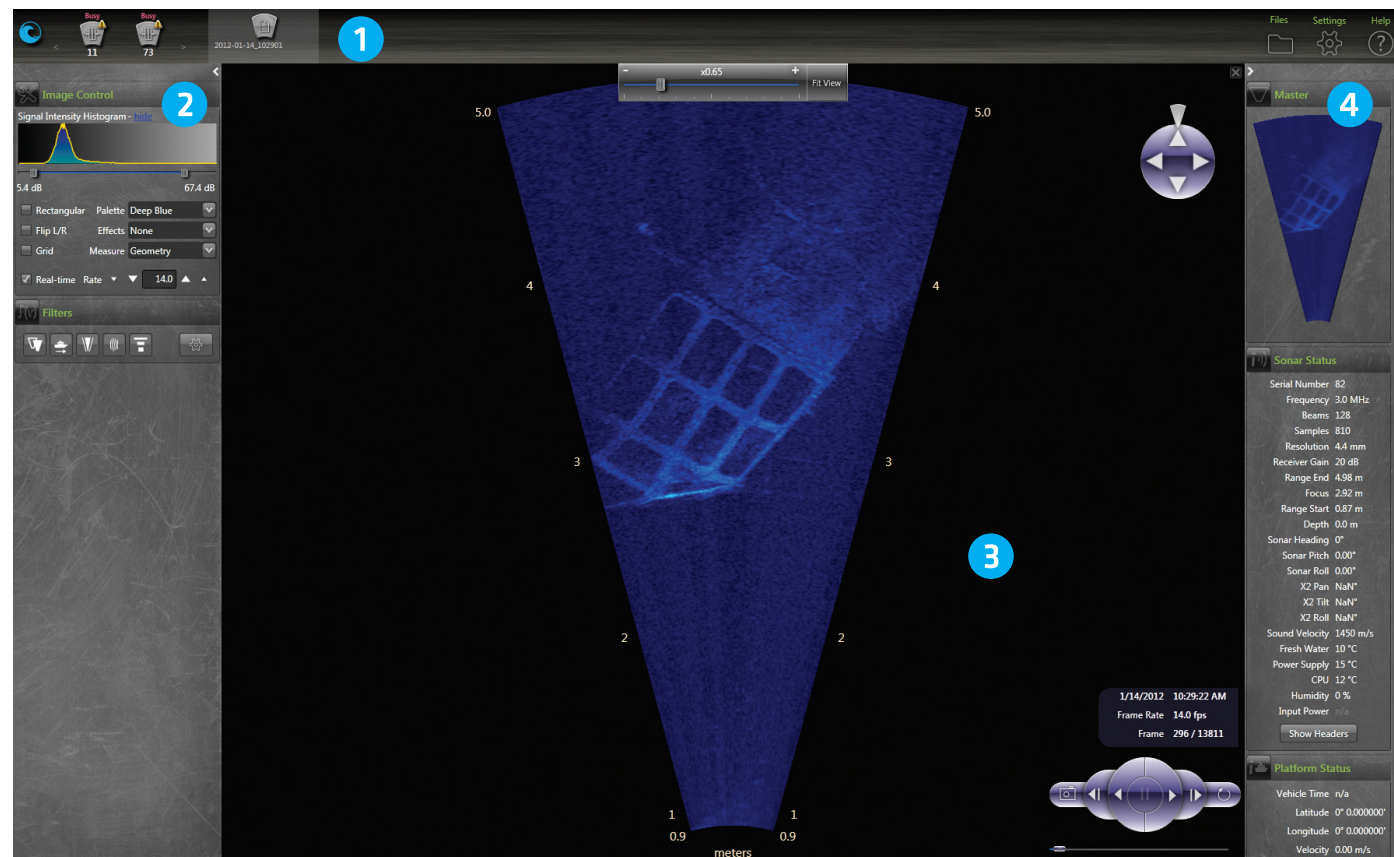


#### STEP 4

Follow instructions in Step 3 to attach the Power Supply to the Command Module.

The middle silver button is the On/Off switch.

## 4 ARIScope SOFTWARE



## 4 ARIScope SOFTWARE

### 1 TOP BAR

- SMC Logo
- Sonar Icon
- Icon Scroll Buttons
- Open File Icon
- Files Icon
- Settings Icon
- Help Icon

### 2 CONTROL PANEL

- Panel Expand/Collapse Button
- Sonar Control Button
- X2 Settings Button
- Image Control Button
- Filters Button

### 3 IMAGE DISPLAY

- Range Control
- Zoom Control
- Orientation Control
- Acoustic Image
- X2 Control

### 4 STATUS PANEL

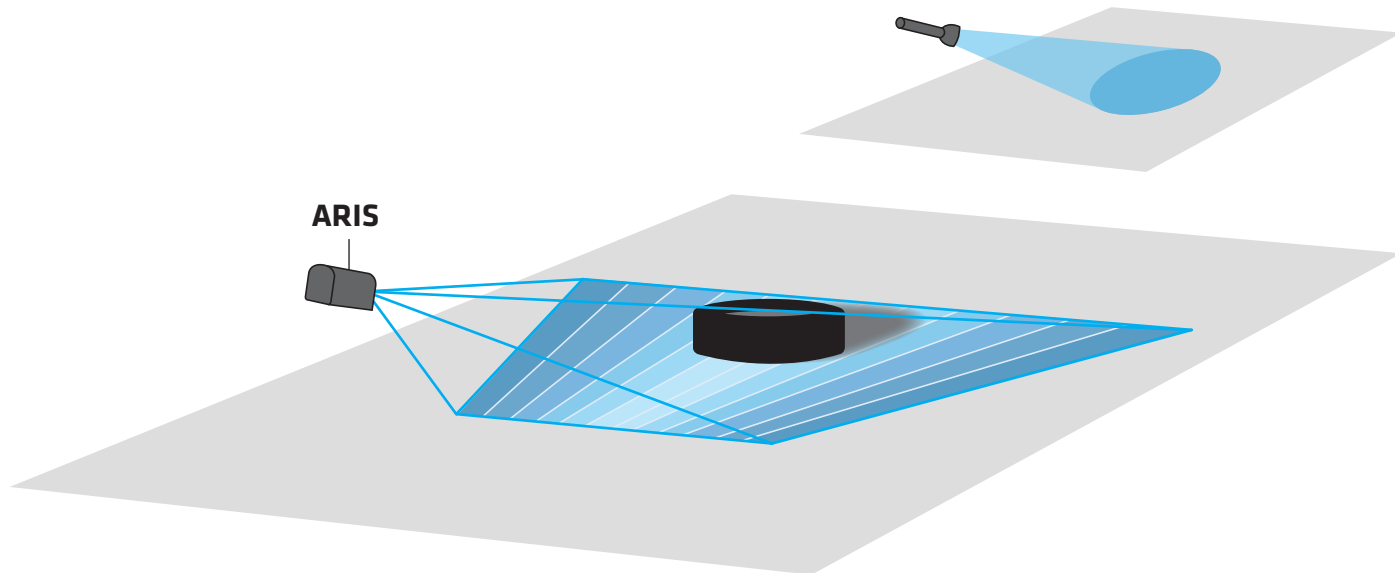
- Panel Expand/Collapse Button
- Master
- Sonar Status
- Platform Status

## 5 CAPTURING QUALITY IMAGES

The following illustrations demonstrate how to image a flat object lying on a flat bottom.

### ACOUSTIC VOLUME

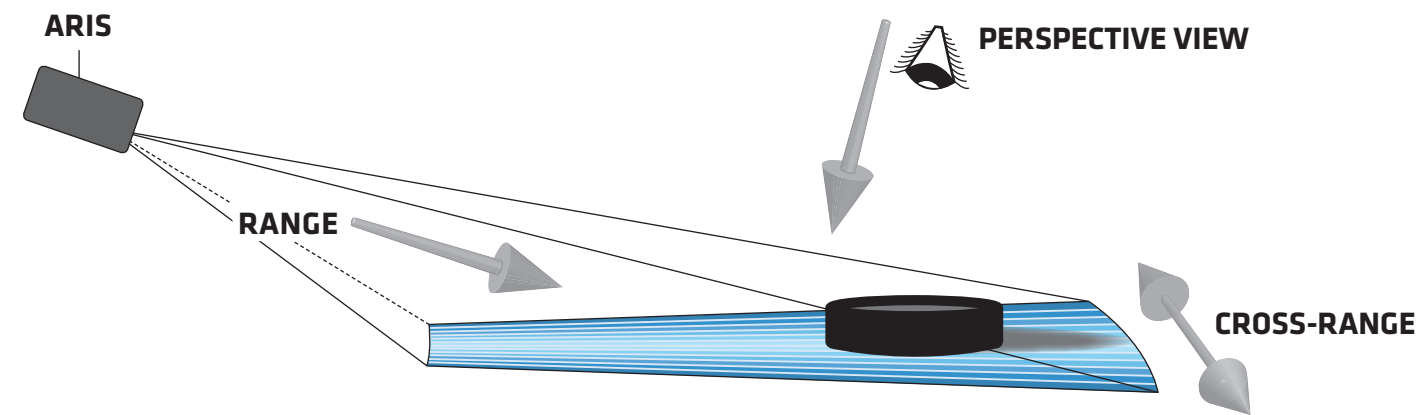
The ARIS multi-beam sonar projects a wedge shaped volume of acoustic energy much like a flashlight projects a cone shaped volume of light.



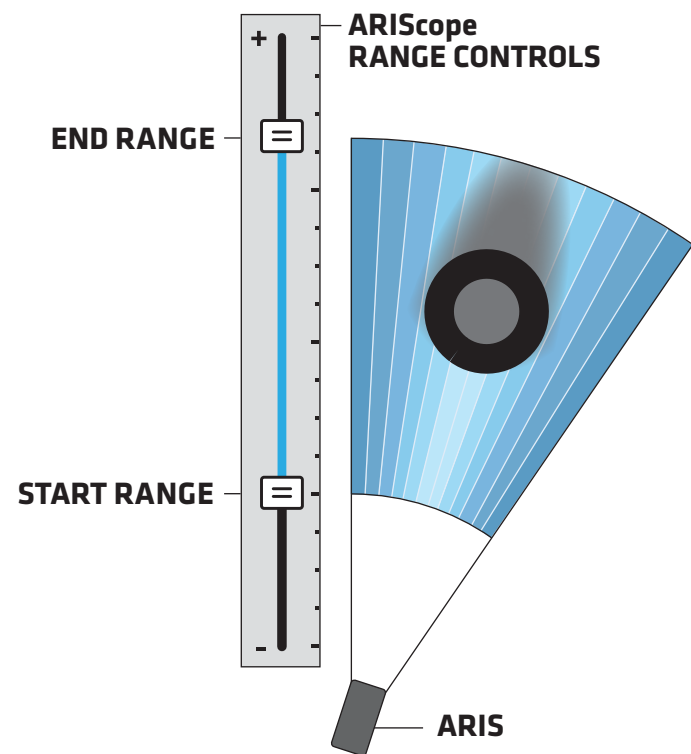
## 5 CAPTURING QUALITY IMAGES

### RANGE, CROSS-RANGE & IMAGE PERSPECTIVE

Three terms concerning distance and direction relative to the acoustic wedge are Range, Cross-Range, and Image Perspective. Each of these are at 90 degrees to the other two, much like the 3 edges that come together at the corner of a box. Range refers to distance away from the ARIS along the length of the wedge. Cross-Range speaks to distance directly across the width of the wedge. Image Perspective speaks to direction coming from above viewing directly down on the wedge.



## 5 CAPTURING QUALITY IMAGES



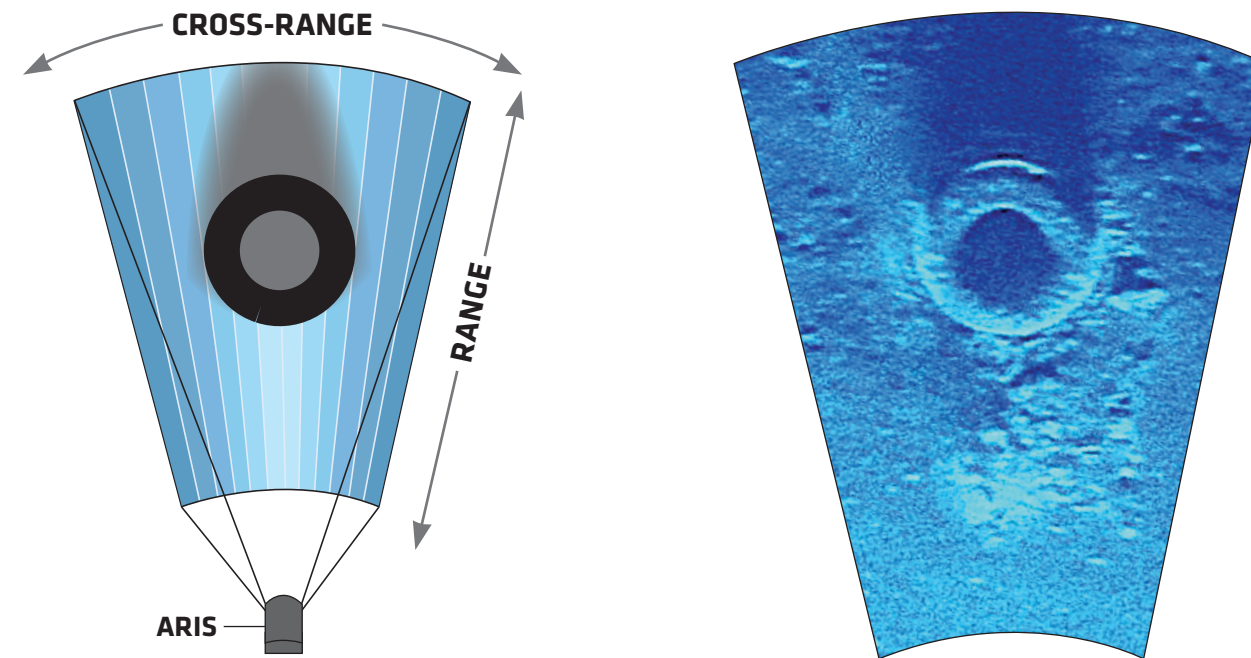
The width of the acoustic wedge is a fan of narrow slices. Each slice from a beam of ARIS produces a thin strip of the image aligned with range which is placed appropriately with neighbors in cross range to produce the entire image.

### RANGE SETTING

Orient the ARIS such that the acoustic wedge impacts the object so that the surface is shown in range and cross-range. Keep in mind that the aim of ARIS is 90 degrees from the image perspective. Along with aiming the unit, drag the sliders in ARIScope to set the start and end ranges of the image window.

## 5 CAPTURING QUALITY IMAGES

The ARIS image is from the perspective view showing Range and Cross-Range information.



## 6 COMPUTER REQUIREMENTS

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### MINIMUM PC REQUIREMENTS<sup>1</sup>

- Windows 7 32-bit SP1
- DirectX 10 compatible graphics
- 1.8 GHz Dual-Core CPU
- 2 GB RAM
- 256 MB Video RAM
- 20 GB Free disk space (for recording)

### RECOMMENDED PC CONFIGURATION<sup>2</sup>

- Windows 7 64-bit Professional SP1
- DirectX 11 compatible graphics
- 2.2 GHz quad-core CPU
- 4 GB RAM
- 512 MB Video RAM
- 200 GB free disk space (for recording)

### RECOMMENDED PC UPGRADES<sup>3</sup>

- SSD C:\ Drive (Solid State Disk)
- 8 GB RAM
- 1 GB Video RAM

<sup>1</sup> For good performance using ARIScope software, and limited functionality for future image processing

<sup>2</sup> For great performance using ARIScope software, and good performance on future image processing

<sup>3</sup> For great performance using all present and planned ARIS software

## 7 WARRANTY INFORMATION

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### WHAT TO DO IN CASE OF A PROBLEM WITH THE ARIS EXPLORER

Sound Metrics Corp. (SMC) warrants the ARIS Explorer for one year according to the terms of the official warranty document. If the sonar appears to be defective please contact SMC by email or phone to discuss your options. In many cases we can help resolve issues without having to return the unit, but if not, SMC pledges to repair your sonar as quickly as possible. For sonar returns, you need to contact SMC for a “Case Number” and provide details of the problem(s) - this allows us to prepare so your sonar can be repaired and returned to you quickly. We ask that you ship the sonar in its original protective storage case. If still under warranty the unit will be repaired and returned to you at no cost; otherwise you will be charged for parts, labor and return shipping. We will provide you with an estimate of any repair and wait for approval before proceeding with the work.

In most cases, it is not advisable to open or attempt to repair the sonar in the field. However, this may be the only option if time is critical. SMC is best qualified to make that determination and our personnel can provide step-by-step instructions if that is determined to be the best course of action. Your warranty may be void if you attempt such servicing without first contacting SMC.

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## 7 WARRANTY INFORMATION

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### ARIS EXPLORER LIMITED WARRANTY

Sound Metrics Corp. (SMC) warrants that the ARIS Explorer (“Product”) will be free from defects in materials and workmanship under normal usage for one year from the date the Product is shipped to the first purchaser of the Product (“Warranty Period”), unless SMC has agreed in writing to alter any of the foregoing terms.

Any implied warranties, including without limitation the implied warranties of merchantability and fitness for a particular purpose, shall be limited to the duration of this limited warranty, otherwise the repair, replacement, or refund as provided under this express limited warranty is the exclusive remedy of the consumer, and is provided in lieu of all other warranties, express or implied. In no event shall SMC be liable, whether in contract or tort (including negligence) for damages in excess of the purchase price of the product, or for any indirect, incidental, special or consequential damages of any kind, or loss of revenue or profits, loss of business, loss of information or data, software or applications or other financial loss arising out of or in connection with the ability or inability to use the product to the full extent these damages may be disclaimed by law.

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another. This warranty extends only to the first purchaser of the Product, and is not transferable.

This limited warranty is your exclusive remedy, and applies to new Product purchased in the United States or Canada, which are accompanied by or sold with this written warranty.

If the Product proves defective during the warranty time period, please contact SMC by email or phone to discuss options for repair or replacement at the sole option of SMC. SMC will, in a timely manner, provide you an option for repair or replacement but that, in any event, SMC will repair or replace your Product in a commercially reasonable time. For warranty work, you must first contact SMC for a “Case Number” and provide details of the problem(s) - this allows preliminary preparation so your Product can be repaired or replaced as necessary. We ask that you ship the Product to SMC or SMC’s designated repair depot in its original protective storage case. The Product will be repaired or replaced and returned to you at no cost. SMC reserves the right to use functionally equivalent conditioned/refurbished/pre-owned or new parts in the case of repair or replacement. In most cases, it is not advisable to open or modify the Product in any manner. However, this may be the best initial action if time is critical. SMC is best qualified to make that determination and their personnel can provide step-by-step instructions if that course of action is determined best at SMC’s sole discretion. Any attempt to alter the Product in any manner or the misuse or abuse of the Product may void your warranty.

LAST REVISION 07-09-2013

## CONTACT US

### Manufacturer

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### Distributor

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