



Accessory Guide

Antenna Extension Cables

Document# 53-10171-02 Revision 1.0

The antenna extension cables allow the WSN Sensor or WSN Gateway antennas to be moved to a separate location. This is often useful when the gateway or sensor is located in an area where the antenna has a poor wireless connection.

Understanding RF Coaxial Cable Connectors – **Please Review**

Prior to installing the cables, please note the 4 different types of SMA connectors that are used on RF coaxial cables.

There are 4 types for SMA connectors that are shown below.

For a good connection, the center male pin must connect to a center female socket.

When connecting cables, verify that there is a male center pin that will connect with a female center socket. If there is a mis-match, an adapter may be needed.

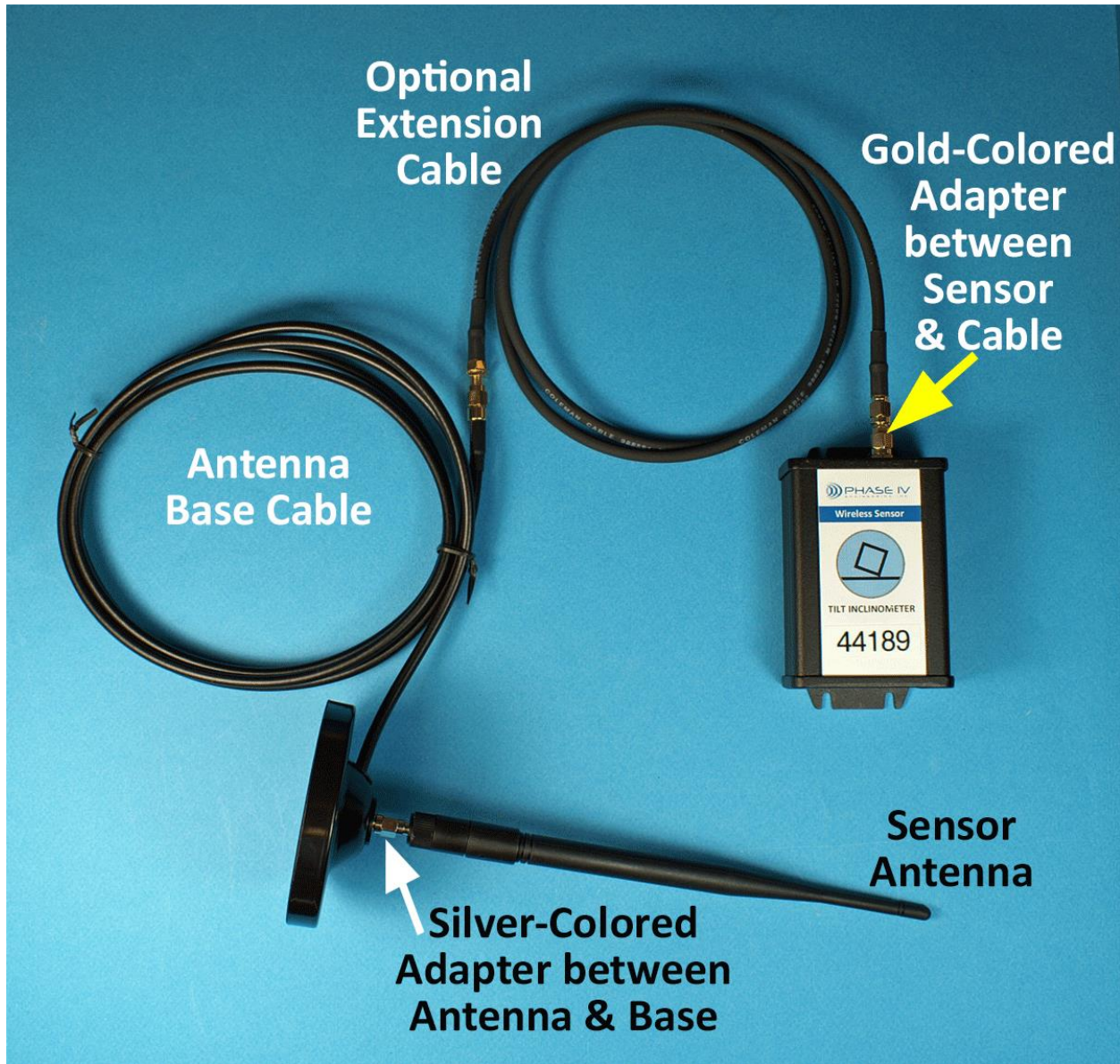


Adding an Extension Cable to an Industrial WSN Sensor

To add an extension cable to an Industrial WSN Sensor, follow the diagram below.

Un-screw the antenna from the WSN Sensor.

Connect the cables as shown below.

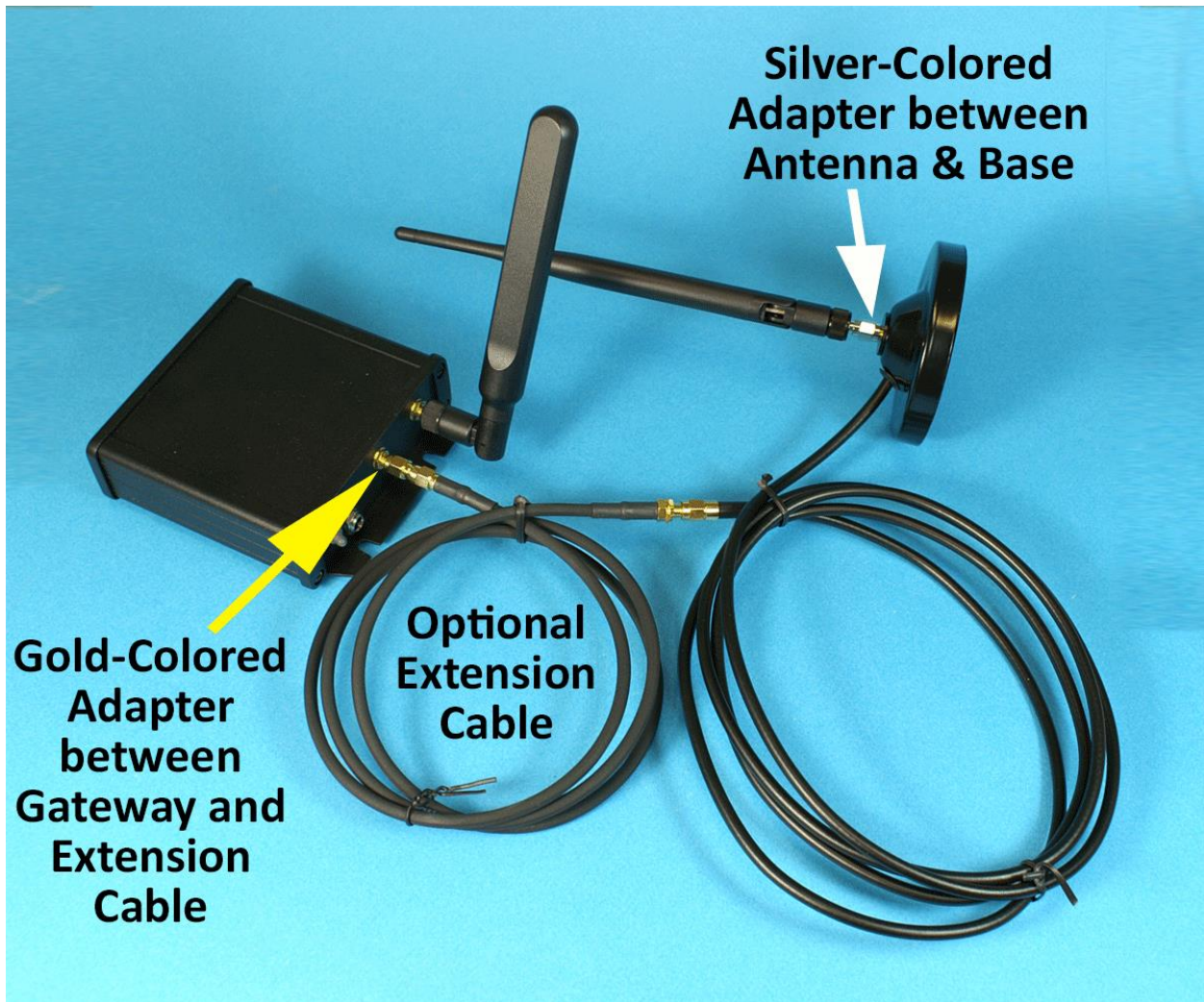


Adding an Extension Cable to a Gateway – Sensor Antenna

The sensor antenna is the antenna that communicates with the WSN Sensors. The Sensor antenna is the longer, skinnier antenna on a Cellular Gateway

The Sensor Antenna is the only antenna on an Ethernet Gateway.

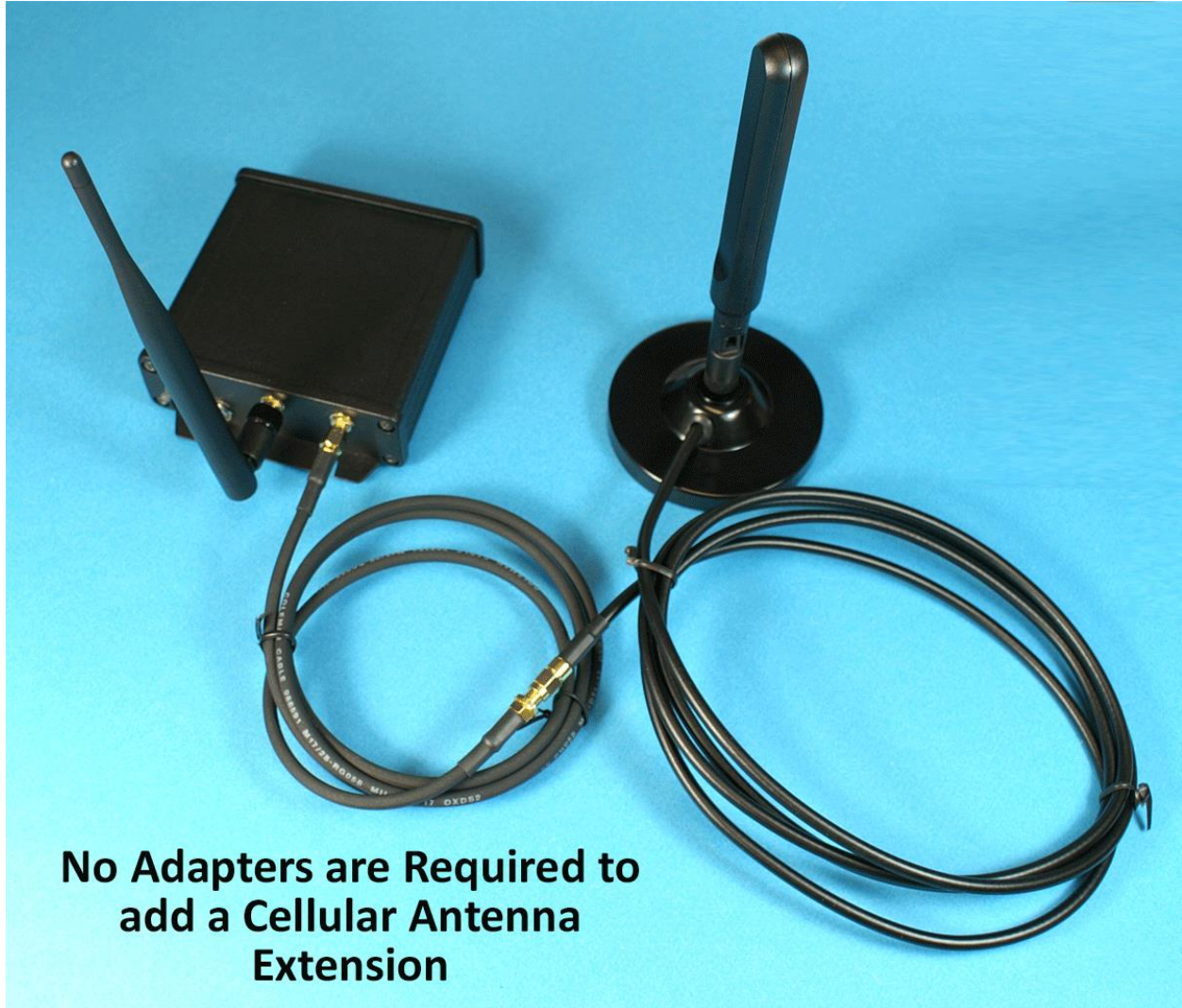
Follow the diagram below to add an extension cable to the Sensor Antenna. Adapters are required for the Sensor Antenna cable extensions.



Adding an Extension Cable to a Cellular Gateway – Cellular Antenna

The Cellular Antenna is the shorter, wider antenna that talks to the Verizon Cellular Network.

No adapters are needed to extend the cellular antenna away from the Gateway.



Attaching the Antenna Base

The antenna base may be glued or fastened to the mating surface.

When gluing the base, remove the felt backing prior to applying the glue.



Support

For technical support, call Phase IV Engineering at 303-443-6611 and ask for a WSN technical support technician.

Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.; corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.), volatile or flammable gas, dusty conditions, under low or high pressure, places with salt water, oils chemical liquids or organic solvents, where there are excessively strong vibrations, other places where similar hazardous conditions exist. Compact sensors should not be used around wet or excessively humid locations

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

By their nature, WSN sensors are intended to be used for supplemental monitoring and not part of a control system and not part of any safety system.

Regulatory Certifications and Information

See WSN System Manual that came with the WSN Gateway for Regulatory Information.

TERMS OF PURCHASE AND SOFTWARE LICENSE

This Terms of Purchase and Software License ("Agreement") is a legal agreement between you (either an individual or an entity) (referred to hereafter as "you" or "licensee") and Phase IV Engineering Inc. ("Phase IV"). By installing the software ("Software") and/or clicking an "ok" or other similar button during purchase from Phase IV's website, and/or using the Software, sensors or other products ("Hardware") purchased from Phase IV, you are agreeing to be bound by the terms of this Agreement. The Software and Hardware shall be collectively referred to herein as the "Products".

COPYRIGHT. The Software and accompanying materials (including any images, "applets", photographs, animations, video, audio, music and text incorporated into the Software and accompanying materials) is owned by Phase IV and/or its licensors and is protected by United States copyright laws and international treaty provisions and all other applicable national laws. Therefore, you must treat the Software and accompanying materials like any other copyrighted material (e.g. a book or musical recording) except that you may either (a) make one copy of the Software solely for backup or archival purposes or (b) transfer the Software to a single hard disk provided you keep the original solely for backup or archival purposes. You may not copy the user documentation accompanying the Software. You may not repackage the Software for distribution by any means.

GRANT OF LICENSE. The Software is licensed to you by Phase IV and/or its licensors and at no time do you have any ownership of the Software. This Agreement permits you to install the Software (not including licenses) on any computer. This Agreement permits you to activate a license on single PC for each license purchased. You agree to allow the Software to communicate, via the Internet, to Phase IV and/or its licensors' servers for any purpose which may include but not limited to version checking, license validation, license activation, and license deactivation. For PC based products, license activation is linked to the computer's name, also known as the computer's network name. If you need to change your computer's network name for any reason, you agree that you must use the "remove license" procedure (located on the activation screen) prior to renaming the computer name, and reactivate the license after the computer name has been changed. Once a license is activated on a machine, it is your responsibility to protect it. If an activated license is destroyed for any reason, it cannot be activated again. Phase IV and/or its licensors reserve the right to revoke any Software license for any reason, including, but not limited to breach of this Agreement or if piracy is detected.

TRANSFER OF LICENSE. Licenses are non-transferable between parties except by written permission in advance from Phase IV and/or its licensors. A license may be transferred from one PC to another, provided the license is removed from the original PC first, only by means of using the deactivation or "remove license" feature located within the Software itself. You agree to allow Phase IV and/or its licensors licensing servers to control license movement, and agree that due to the problem of software piracy, licenses cannot be moved between machines in any other manner. You understand that due to these procedures, should a computer become inoperable for any reason by which the Software license cannot be deactivated, you must have your license reset. Due to the problems of software piracy, Phase IV and/or its licensors limits the number of license resets per calendar year to three per single license. Should a license need a fourth reset in a calendar year, you must purchase a new license to replace the lost license if you wish to continue using the Software.

RESTRICTED USES. You may not install or use the Products on or in conjunction with computers that are connected to life-saving or life-supporting medical equipment, nor on or in conjunction with any equipment used in the production or administering of drugs or breathable gasses, nor on or in conjunction with any equipment that, through malfunction or misuse, could directly or indirectly cause physical injury or death.

OTHER RESTRICTIONS. You hereby agree not to reverse engineer, decompile or disassemble the Products. You agree not to analyze the Products, their data files, or transmission protocols in an attempt to discover its systems and methods of operation. You agree not to communicate to others any discovery of technical procedures, systems and methods, or protocol of the Products. You hereby agree that the Products do not infringe on any patent, copyright, trademark, or other intellectual property rights under your control either directly or indirectly, or under the control of any company or other entity to which you report. You agree to hold harmless Phase IV and/or its licensors in any intellectual property dispute that might arise from the discovery or disclosure of such information by you as a result of a violation of this paragraph.

U.S. GOVERNMENT RESTRICTED RIGHTS. The Software and documentation are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the United States Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of The Rights in Technical Data and computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software-- Restricted Rights at 48 CFR 52.227-19, as applicable.

EXPORT CONTROLS. You may not download or otherwise export or re-export the Products or any underlying information or technology except in full compliance with all United States and other applicable laws and regulations.

INSTALLATION, MAINTENANCE AND SUPPORT. You are solely responsible for the installation and/or maintenance of the Products, and for the proper installation, configuration, and operation of any supporting software or hardware and other services upon which the Products rely. The Products are delivered with certain default settings which may not be appropriate for all computers. You are responsible for selecting the correct settings for your server, and clients, as well as any other software or operating system.

SOFTWARE UPDATES. From time to time Phase IV and/or its licensors release updates for the Software, and may notify you of their availability through one or several methods. Because Phase IV and/or its licensors cannot know conclusively if you have received a notification, you are responsible for periodically checking the informational web site at www.phaseivengr.com/support for the availability of updates. You agree that you will download and apply updates to the Software as updates are released, in a timely way. Phase IV and/or its licensors may not support Software that is not at the current version. Phase IV and/or its licensors may, at our sole discretion, make updates and other services available only to customers who have current maintenance subscriptions.

LIMITED WARRANTIES. With respect to the Software, Phase IV and/or its licensors offer no form of a "money-back guarantee." Because Software can be downloaded and used immediately after online purchase, all sales are final and non-refundable. For defective Software returned within one year from the date of purchase, Phase IV will repair or replace, at its option, the Software without charge. With respect to any Hardware, Phase IV warrants the Hardware as being free of defective materials and faulty workmanship. If warranted goods are returned to Phase IV within one year from the date of purchase, Phase IV will repair or replace, at its option, without charge those items it finds defective. The foregoing is your sole remedy and is in lieu of all damages, warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, PHASE IV AND ITS LICENSORS, THEIR OFFICERS, EMPLOYEES, SUPPLIERS AND AGENTS DISCLAIM ALL OTHER WARRANTIES NOT SPECIFICALLY PROVIDED HEREIN, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO SUITABILITY FOR ANY PARTICULAR PURPOSE, OR THE ABILITY OF THE LICENSEE TO OPERATE THE PRODUCTS OR A SUCCESSFUL BUSINESS BASED ON THE PRODUCTS.

EFFECT OF PRIOR AGREEMENTS. This Agreement supersedes any prior agreement between you and Phase IV with respect to the Products.

ORAL AGREEMENTS NOT BINDING. This Agreement is the entire agreement between you and Phase IV with respect to the Products. Oral changes and agreements have no effect. This Agreement may be altered only by a written agreement signed by both you and Phase IV.

ACCEPTANCE OF THESE CONDITIONS. By downloading, installing or using the Products, you accept the terms of this Agreement. In addition, you accept the Products on an "as-is" and "as available" basis, except as otherwise provided herein.

NO LIABILITY FOR CERTAIN DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL PHASE IV AND/OR ITS LICENSORS, THEIR OFFICERS, EMPLOYEES, SUPPLIERS OR AGENTS BE LIABLE FOR ANY DAMAGES (WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR TORT, INCLUDING WITHOUT LIMITATION, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR EXEMPLARY DAMAGES, DAMAGES FOR PERSONAL INJURY OR DEATH, LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTIONS, LOSS OF BUSINESS INFORMATION OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE OR OPERATE THE PRODUCTS, MISAPPLICATION, FAILURE TO READ AND UNDERSTAND THE OPERATING INSTRUCTIONS IN ALL ITS FORMS—HELP FILES, WEB BASED, PRINTED, AND VERBAL—EVEN IF PHASE IV AND/OR ITS LICENSORS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, PHASE IV'S AND/OR ITS LICENSORS', THEIR OFFICERS', EMPLOYEES', SUPPLIERS' AND AGENTS' ENTIRE LIABILITY UNDER THIS AGREEMENT OR IN CONNECTION WITH THE USE OF THE PRODUCTS SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU TO PHASE IV FOR THE PRODUCTS.

INDEMNIFICATION; ATTORNEYS' FEES. You agree to indemnify and hold harmless Phase IV and/or its licensors, their officers, employees, suppliers and/or agents against any damages or liabilities (including reasonable attorneys' fees) arising out of your improper use of the Products. In addition, should it become necessary for Phase IV and/or its licensors to retain counsel to enforce its rights, or defend any action or inaction under this Agreement arising out of your breach of this Agreement, you agree to pay all costs of such enforcement and/or defense, including, but not limited to, all court costs and other litigation expenses, together with Phase IV's and/or its licensors' reasonable attorney fees. This Agreement shall be governed by the laws of the State of Colorado and shall inure to the benefit of Phase IV and/or its licensors and any successors, administrators, heirs, and assigns. Any action or proceeding brought by either party against the other arising out of or related to this Agreement shall be brought only in a state or federal court of competent jurisdiction located in Denver, Colorado. The parties hereby consent to in personam jurisdiction of said courts.

SEVERABILITY. In the event any term (or portion thereof) of this Agreement is determined to be unenforceable by a court of competent jurisdiction, the unenforceability of such term (or portion thereof) shall not affect the validity or enforceability of any other terms of this Agreement.

****END OF AGREEMENT****