White's Electronics, Inc.

1011 PLEASANT VALLEY ROAD SWEET HOME, OREGON 97386

OPERATORS INSTRUCTIONS

Manufacturers of OREMASTER

MINERAL AND METAL DETECTORS

ELECTRONIC MAGNETOMETERS

SUPER GEIGER AND SCINTILLATION COUNTERS

ULTRA VIOLET LIGHTS

OPERATING INSTRUCTIONS
FOR
COMET MODEL 50

ALL METAL DETECTOR

Please follow these instructions carefully, to operate the instrument correctly. Please practice with the instrument at every opportunity.

INTRODUCTION

We do not believe that you can buy a finer instrument than you have chosen for the use that the instrument is designed for, but remember that the instrument is no better than its operator, (even though we have heard customers say that the instrument was smarter than they.) You are the operator, and the more familiar you become, through use and practice the better operator you will be. The better the operator, the more finds you will make.

GENERAL DESCRIPTION

These instruments are completely transistorized (solid state), giving maximum sensitivity, excellent reliability, and economy in operation. They are designed specifically for coin hunting, but have features which allow them to be used for general exploration.

The audio system is complete, offering both earphone and speaker operation, controlled by a common volume control.

These instruments have a battery testing meter for testing the batteries under operating conditions.

These instruments employ the balanced induction principle of operation, the loop being the heart of this system.

Batteries used are penlight, size "AA" 1 1/2 Volt Cells. Fourteen are required for operation. Six Cells in a holder, yielding 9 volts, and eight in the other holder for 12 volts.

The Single Tuning Control controls tuning of the instrument for the easiest and simplest operation.

ROD AND LOOP ASSEMBLY:

Note the Rod Mounting Bracket is located on the bottom of the instrument. The Rod has a Retainer Pin in it, (See Figure #1) located in the large end for locking the rod in place, to the bottom of the instrument.

To extend the rod, pull the small rod out of the large, align the loop and then tighten the knurled adjusting ring. Place the loop on the free end of the small rod, removing the thumb nuts from the mounting studs on the loop. Insert them up through the holes in the small end of the rod, install the thumb nuts, finger tight.

Inserting the large end of the rod into the mounting bracket on the bottom of the instrument, depress the retaining pins and align to match mating holes. Lock into place. Spiral the loop cable snugly around the rod.

Plug the loop cable into the socket on the front end of the instrument. This socket and plug are marked with yellow alignment dots. Align these dots and insert the plug. This plug and socket are also keyed to allow mating with only the correct pin arrangement.

BATTERY INSTALLATION

Now, open the battery compartment by releasing the latches on each side and swinging the door open from the top. Free the battery connectors by removing the tape. Note one white connector and one black. Also, a white battery holder (8 cells), and a black holder (6 cells). The white is 12 volt D.C., and the black is 9 volt D. C. Be sure and match white to white, and black to black. Snap the battery connector onto the battery holder, noting the connector and battery holder are set up to match in only one polarity. Be sure to observe this polarity because damage can be done to the electronics if forced together in error. (See Battery Diagram)

TESTING OF BATTERIES

To test your batteries, turn the POWER SWITCH to each Battery Check position in turn and note the readings. Good batteries will read between 30-40 on the meter. When your reading drops to 30 on the meter it is time to replace that set of batteries. This test should be made with the batteries under load, that is, with the instrument sounding off at full volume.

METAL SETTING

The Metal Control adjusts the level of sensitivity. Very slowly rotate this control clockwise, (Right) until a tone is heard in the speaker.

For effective results, these adjustments must be made with the instrument in hunting position, (See Figure #2) holding the loop as close to the surface of the area to be explored as is practical for movement of the loop. You are now adjusted for detecting metal.

HUNTING METHODS AND TECHNIQUES

When passing the loop over a non-magnetic conductive metal, such as the metal sample you received with your instrument, the sound will increase in the speaker and will be retained as long as the loop is held over the metal object. As soon as the loop passes away from the metal object, the sound will lower in volume to approximately the same as before the object was detected.

Earphone usage: To use the earphone install its plug into the jack on the instrument. Note this cuts off the speaker giving privacy in listening. You may use the earphone whenever you wish, its special feature being that of giving you a concentrated tone close to your ear, which excludes interfering noises about you.

Adjust the Volume Control so as to not "Blast" your ears with excessive volume, when a metal object is detected, but still retain enough tone so that even a slight tone change will be easily distinguishable. The small deeper coins, at times give just a slight tone change, due to their depth. In these cases, the phones are the most effective method of detection.

Tin cans, bottle caps, tin foil, aluminum foil, cartridge cases, coins, silver gold, copper, lead and brass are some of the high conductive metals that will cause a response in the speaker or earphones.

The instrument is not designed to react to sticks, rags, bones, paper or any other non metallic objects.

When looking for small metal objects, such as coins, the ability of the instrument to detect them will vary in different areas. The more mineralized the soil, the more difficult it is to detect them, and the less mineralized, the easier. Also the longer the metal object has been buried, usually the easier and deeper it may be detected, as the ground becomes electrically conductive from the metal object over a period of time. In some cases you may detect a very old tin can and after digging it up, still receive a reading over the spot the can was buried in.

To locate hidden or buried metal objects, slowly and systematically sweep the loop across the area to be checked, (See Figure A) being very careful to hold the instrument so that the loop is held at as constant and uniform height as possible with the least up and down variation in relation to the formation or ground you are using the instrument over. When searching for small objects, such as a single coin, the instrument should be tuned in with the loop held as close to the ground as possible. Hold this height as close as you possibly can, and search the ground carefully, usually on the surface, if possible, depending on the surface you are using the instrument over. If the ground is rough, you may have to zero the instrument in higher. For larger objects, one can hold the instrument approximately 1 to 2 inches above the surface to be explored. Keep repeating this process until you have explored the entire area. With each sweep of the instrument you will cover approximately 6 feet by 3 inches. If there is anything under the surface, and it is within detectable range of the instrument, you should be able to find it.

In the short green grass, such as a lawn, it is possible to place the loop on the grass, tune it in, and slide the loop over the grass to locate the smaller objects. The loop automatically is kept at the same height by the grass, so a uniform and more constant tone may be maintained, which is important for the very small objects. For large objects, the instrument may be carried at a higher elevation and it is not so critical to height variation and will respond to the larger metal object. To practice, lay some metal objects on a wood floor or on your lawn and more the loop over them, and notice the way the instrument responds.

It is a good policy to slightly adjust the Tuning Control every 5 to 10 minutes to keep the instrument at its highest peak of sensitivity, when searching for small objects, such as single coins, along beaches, etc., and every 10 to 15 minutes or so for larger objects.

SERVICE - WARRANTY - REPLACEMENT BATTERIES

This model contains one battery holder containing 6 AA 1 1/2 volt batteries and one containing 8 AA 1 1/2 volt batteries. You may order new replacement batteries directly from our plant, if you cannot find them locally or at your dealers. The new penlight battery system is better in many respects to the old type batteries:

1. Longer life
2. Readily available
3. Superior performance
4. Cheaper in replacement. (If one cell fails, you only need to replace the one cell.)

Replacements: Any AA penlight batteries.

Alkaline energizers and batteries of this type may be used and give even longer life.

Note: All batteries last longer if used in many short periods, rather than in a couple of long periods of use.

When through operating the instrument, turn the Power Switch-Tuner Control to the "Off" position.

The instrument has a full two (2) year warranty on parts and labor (except batteries) to the original purchaser.

If ever in need of service, ship the instrument by insured parcel post, freight or stage, prepaid and enclose a letter advising the nature of your troubles. It may be returned to the factory address listed below, or to one of our Service Centers listed in the back.

CAUTION: Care should be taken in excessively cold weather to protect the instrument, as well as the batteries from freezing.

The instrument should also be protected from exposure to excessive heat when not in use.

If the instrument is to be laid away for any great length of time, the battery pack should be unsnapped and the pack removed from the instrument and the batteries stored in a dry, cool place, such as on a shelf in a closet. This will prevent damage to the instrument in case one or more of the batteries are damaged or in case the power switch is left on or gets turned on accidently. The damage to the instrument in this case is similar to what occurs in a flashlight, when the battery is discharged and the liquid escapes to damage the case and components.

WHITE'S ELECTRONICS, INC.
1011 Pleasant Valley Road
Sweet Home, Oregon 97386

Printed in U.S.A.

OPERATOR'S T.R. TIPS
(REVISED)

With the instrument assembled and ready to operate, bury a coin in the ground approximately one inch down and lying flat. Place the instrument so that the loop is on the ground and horizontal. Next, turn the instrument "on", with it in the Null or "0" position. Start turning the Metal-O-Mineral dial counter-clockwise, until a tone is heard. Now, go back the other way (clockwise) until it just goes quiet.

Now you should be able to move the loop about, without it making any noises, unless it is passing over some metal object. If it is making noises, then you may need to turn it a little more toward the Mineral Setting (clockwise).

Be sure that you are rubbing the loop on the ground and that you are not lifting the edges as you sweep it across the ground. Now, practice on the coin that you buried.

The further counter-clockwise you can turn the Metal-O-Mineral dial, without the instrument giving false readings, the more sensitive it will be.

A demonstration is worth a thousand words - for the best results, see your local dealer and ask for a demonstration.

NOTE: These tips are mainly for beginners and are to be used only as a rough guide. Once the operator gets the general idea of how to operate the instrument, he may want to use it with a slight tone.

Gary W. Morris
Service Department Manager
White's Electronics, Inc.

GWM/et

Printed in U.S.A.

White's Electronics, Inc.

Telex 36-4450 / Phone (503) 367-2138 / 1011 Pleasant Valley Road / Sweet Home, Oregon 97386

Dear Customer

In order to provide you with prompt service on your detector, we have established a network of factory authorized service centers. These centers have been carefully selected and instructed to perform Warranty Service work, as covered by the terms of our Warranty, as well as non-warranty service work. The list of Service Centers on the following page is provided for your convenience. We also recommend you contact your local dealer for assistance.

In addition to these service centers listed, we at the factory, are concerned about our individual customer. If you have any questions or problems, please write to me personally.

Sincerely,

Gary W. Morris

Gary W. Morris
Service Manager

GM:et

ALABAMA: Montgomery 36105
Southern Treasures
P O Box 2612
Phone: 205/265-8828

ARIZONA: Tempe 85252
Desert Fox
P O Box 26309
Phone: 602-963-6152

ARIZONA: Phoenix 85034
Scott Engineering Inc
2216 E. Magnolia
Phone: 602/252-6866

CANADA: Abbotsford , BC
White's Electronics Ltd
33784 Hazel Street
Phone 604/853-0232

CALIFORNIA: San Diego 92104
San Diego Coin Exchange
3784 30th St.
Phone: 714/296-3131

CALIFORNIA: Redlands 92373
Burnett Electronics
24 N. Buena Vista St.
Phone: 714/792-6309

CALIFORNIA: Mt View 94040
W. H Haney Co
1328 El Camino Real
Phone: 415-968-8542

COLORADO: Wheatridge 80033
Denver Metal & Mineral Det.Sls.
6117 W 38th St.
Phone: 303/422-4566

FLORIDA: Jacksonville 32201
Edgewood Coin Shop
934 S. Edgewood Ave.
Phone: 904/389-0013

FLORIDA: N. Miami Beach 33162
Kenin, Inc.
1834 N. E. 163rd St.
Phone: 305/949-7681

GEORGIA: Gainesville 30501
Electronic Sales Co
851 Main SW Drive
Lakeshore Mall
Phone: 404/532-3334
or /532-3177

ILLINOIS: Villa Park 60181
Electronic Exploration
111 S. Wisconsin
Phone: 312/834-7060

INDIANA: Elkhart 46514
White's Electronics Inc.
Elk Air Industrial Park
Dexter Drive East
Phone: 219/264-1413

IOWA: Council Bluffs 51501
Detector Supply
309 North 17th St
Phone: 712/322-1633

IOWA: Davenport 52801
Spragg Electronics Service
532 Brady Street
Phone: 319/323-9921 & 23

KANSAS: Wichita 67213
Quintin Bonta
617 Chase Street
Phone: 316/942-6965

MICHIGAN: Mt Clemens 48043
Treasure Land
38554 Groesbeck Hwy
Phone: 313/465-0600

MICHIGAN: Mt Pleasant 48858
Box Bar G Western Store
(Formerly Gormans Gun Shop)
205 East Broadway
Phone: 517/773-7553

MINNESOTA: Albert Lea 56007
Phelps Communication Center
Rainbow Terrace D6
Phone: 507/373-1111

MISSISSIPPI: Ocean Springs 39564
Clay's Sport Shop
2744 Bienville Blvd
Magnolia Park Shopping Center
Phone: 601/875-7183

MISSOURI: St Louis 63123
Roussin Printing Co.
8700 Gravois
Phone: 314/638-1722

NEW HAMPSHIRE: Hudson 03051
Radio Intelligence Comm. Syst.
14 Ridgecrest Drive
Phone: 603/883-0000

NEW JERSEY: Lincoln Pk. 07035
Wayne Divers
25 Oak Street
Phone: 201/694-9201

N MEXICO: Albuquerque 87108
Andrews Electric Co.
109 California St SE
Phone: 505/265-1567

N MEXICO: Eunice 88231
J. E. Earhart
Box 171, 1407 8th St
Phone: 505/394-2997

NEW YORK: Great Neck 11020
Ship & Shore Communications Co.
607 Middle Neck Rd
Phone: 516/482-5646

NEW YORK: Massapequa 11762
Atlantic Metal Detector Sales
1021 Park Blvd.
Phone: 516/799-1172

N. DAKOTA: Grand Forks 58201
McGiffins Coin & Stamp
103 N. 3rd. St.
Phone: 701/772-5311

OHIO: Minerva 44657
Blanchard's
218 N. Market Street
Phone: 216/868-4544

OKLAHOMA: Tulsa 74112
The Treasure Shack
8500 East Eleventh
Phone: 918/828-5062

OREGON: Sweet Home 97386
(Factory)
White's Electronics, Inc.
1011 Pleasant Valley Rd
Phone: 503/367-2138

RHODE ISLAND: W. Warwick 02893
Bob's Service
137 Brookside Ave
Phone: 401/828-5062

TEXAS: Odessa 79760
Fireball Electronic Met Det. Sls.
3528 Fairlane
Phone: 915/366-4802

TEXAS: S Houston 77587
Alexander Enterprises
616 Arkansas
Phone: 713/946-6399

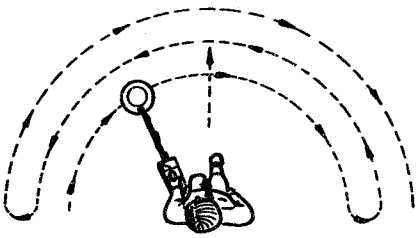
TEXAS: Arlington 76010
Arlington Electronics
915 E. Park Row
Phone: 817/261-9441

VIRGINIA: Roanoke 24015
Roanoke TV Service
1211 4th St.
Phone: 405/345-5625

W. VIRGINIA: Charleston 25312
Roland Barnett
Rt 4, Box 124,
Phone:

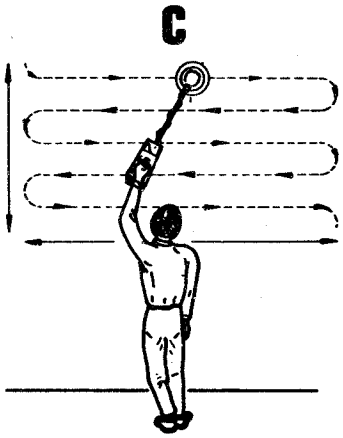
WASHINGTON: Tacoma 98446
J. S. Electronics
10305 Waller Road E
Phone: 206/531-1736

OPERATING ILLUSTRATIONS

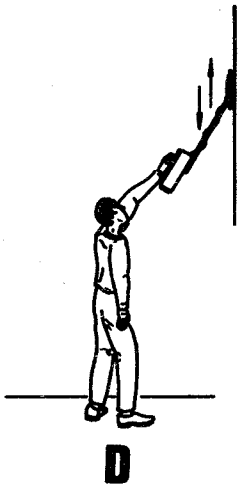


A

B



C

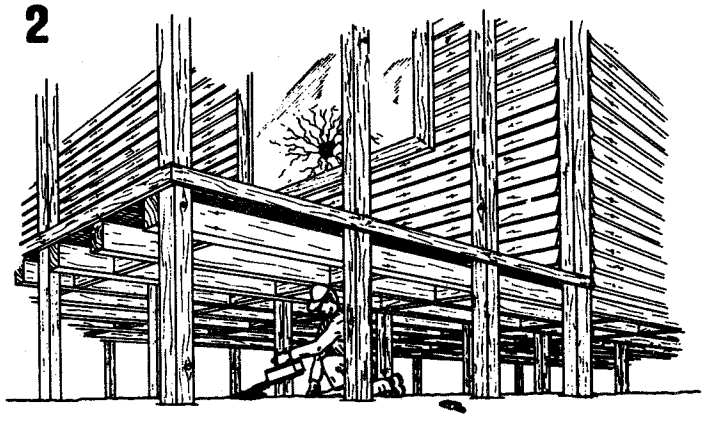


D

As shown in Diagrams A and B, when you are working on the ground, move forward in a straight line, at the same time, moving the loop from side to side across in front of you. The distance between each swath of the loop is determined by the size of the loop you are using. With a 6" loop you would make a 3" step, with 12" loop you would make a 6" step, and so on. Using this method of hunting enables the hunter to cover more ground, more completely, in less time. For tuning your loop, hold it as close to the ground as possible.

Diagrams C and D show you just one more of the many ways the versatile design of the White's instrument can help you either in prospecting or treasure hunting. This diagram demonstrates the extra ability the design gives in reaching to the out-of-the-way places. This system can be used for checking outcroppings, walls, etc.

2



Remember, a lot of old artifacts and treasure have been found under old buildings, as well as in the attics. When going through an old homestead, never overlook any place or area that could represent a good hiding place. So if you are planning such a trip, follow these simple illustrations and prepare your instrument. At a time like this you don't want to pass up any chances.

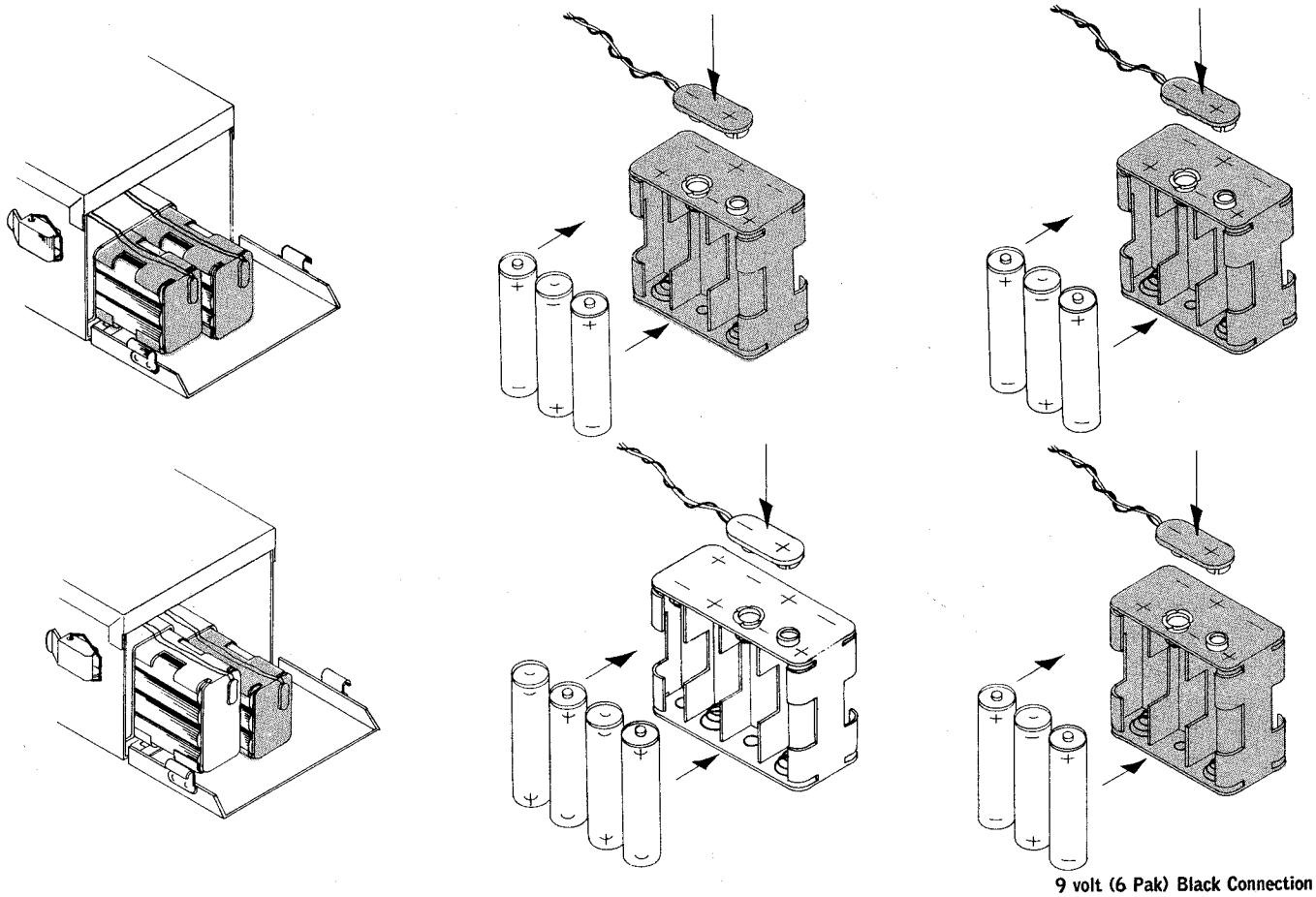
America's Largest Line of Metal Detectors

WE
WHITE'S ELECTRONICS

WHITE'S ELECTRONICS, INC. 1011 Pleasant Valley Road • Sweet Home, Oregon 97386

BATTERY DIAGRAM

Note: **To prevent damage in shipping, the batteries have been removed from your instrument and placed in a separate container within the shipping carton. See following diagram for proper installation.**



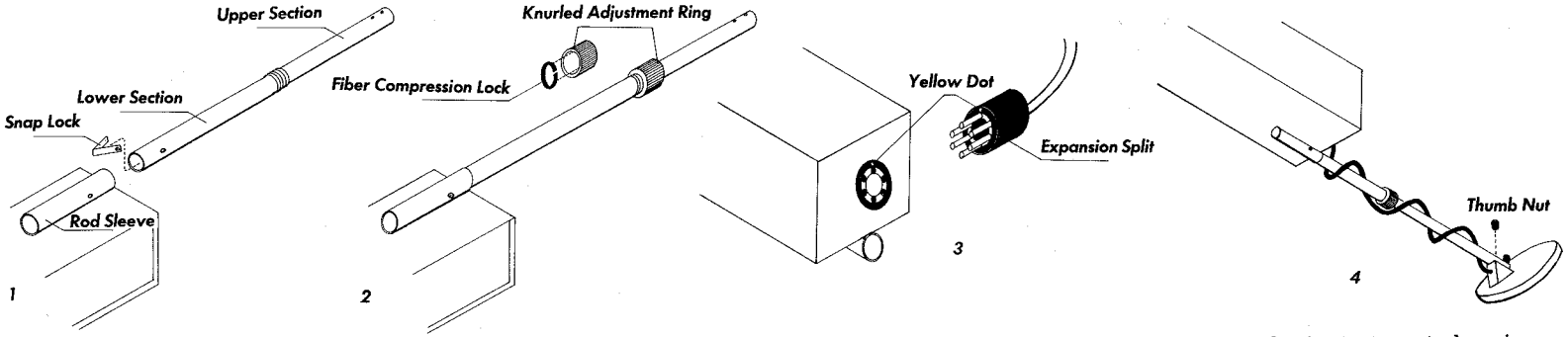
9 volt (6 Pak) Black Connection
12 volt (8 Pak) White Connection

BATTERY-PACK ILLUSTRATION

	EVEREADY	BURGESS	WHITE'S
1.5 Volt "AA" (Battery Pack Models)	1015	910	B-1

When ordering replacement batteries from the factory, please state the instrument model, voltage of batteries and battery number.

ROD ASSEMBLY, DRAWINGS



When you receive your instrument with the knurled adjustment rod, it may be necessary to install the snap lock. As illustrated in Figure Number 1. Depress snap lock and insert it in the lower section. Insert the lower section into the rod sleeve.

Figure Number 2 shows the fiber compression lock; make sure it is inside the knurled adjustment ring. Slip the ring over the upper section; adjust rod to desired length and tighten ring as shown.

When attaching the loop cable to the instrument chassis, make sure the yellow dot on the plug matches the one on the instrument. As shown in Figure Number 3 (note: the "Expansion Split", as pictured in Figure Number 3, is to allow assembly and disassembly of the plug cap and is not a manufacturer's defect).

Attach the loop with the thumb nuts as shown in Figure Number 4. Always coil the loop cable as snugly as possible, without pulling or stretching it.

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