

Dual Phase Extraction Inlet



Installation Manual

P/N 95232 Rev 6-16-11



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1. Component Identification ————— Page 1

2. How It Works ————— Page 2

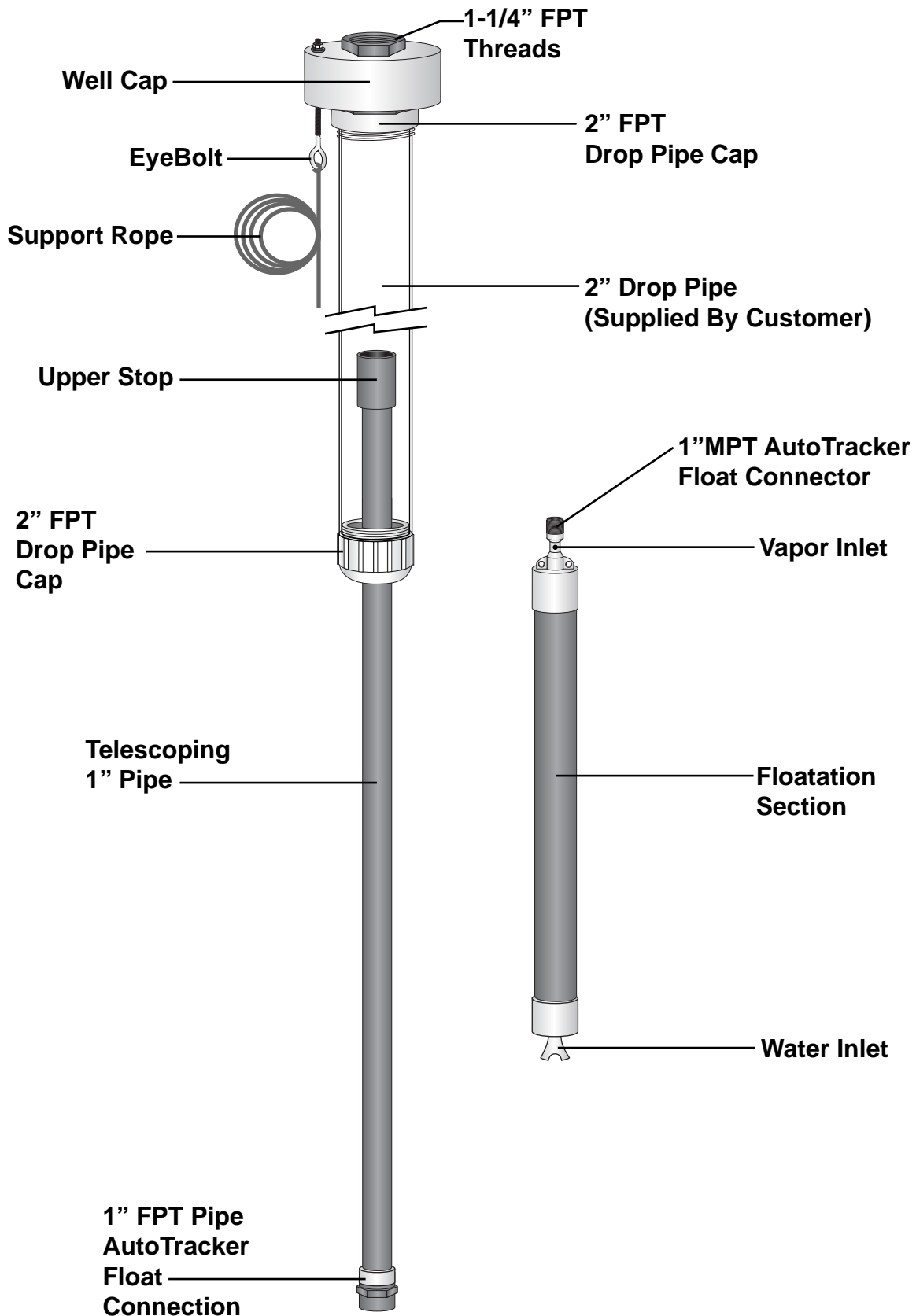
3. Installation Preparation ————— Page 3

4. Installation Sequence ————— Pages 4-7

5. Troubleshooting/Contact Information ————— Pages 8

6. Warranty ————— Pages 9-10

Figure 1



The AutoTracker is a floating inlet that allows vapor and liquid recovery to continue without disruption due to changing water levels. As shown in **Figure 2A**, the float tracks changes in water level, and the telescoping section slides up into the 2-in. PVC drop pipe attached to the well cap. The AutoTracker float has a vapor inlet hole in its upper end, as shown in **Figure 2B**, while the liquid enters at the bottom end. Vapor flow is drawn into the hole in the upper end of the float. During normal operation, the AutoTracker is designed to float with the liquid level approximately 1 ft. below the top of the float assembly, as shown in **Figure 2A**.

Figure 2A

Low Water Level

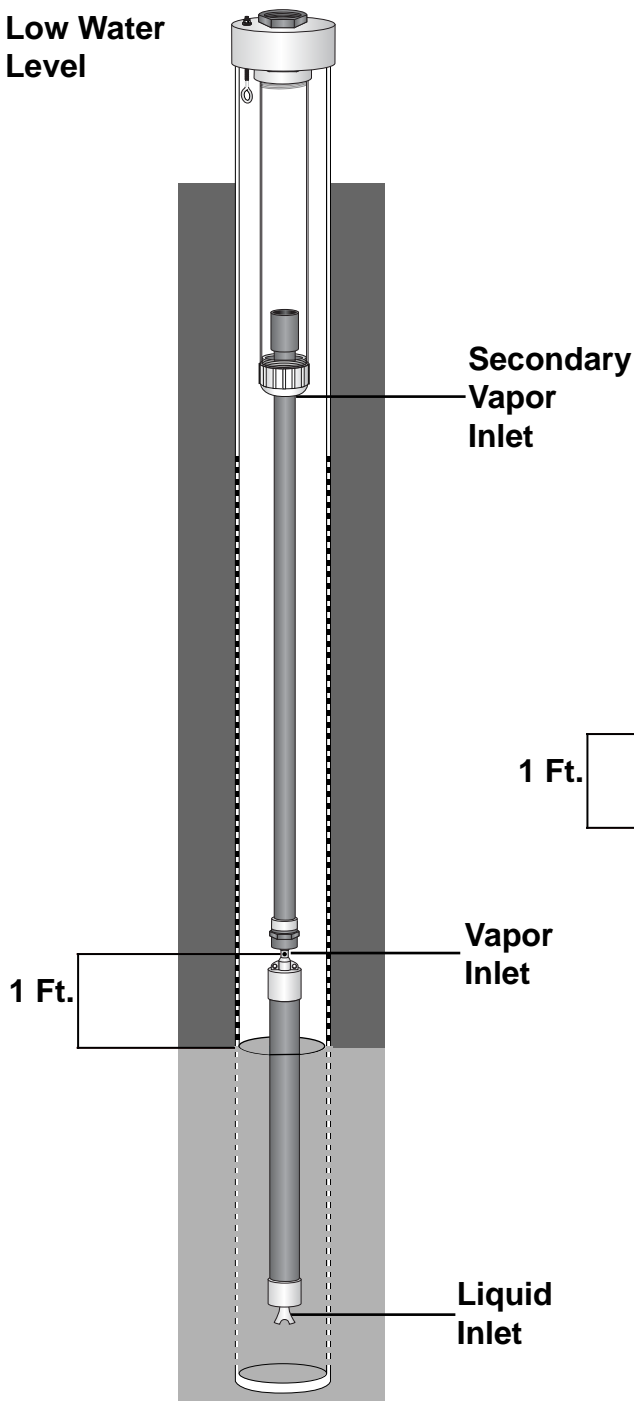
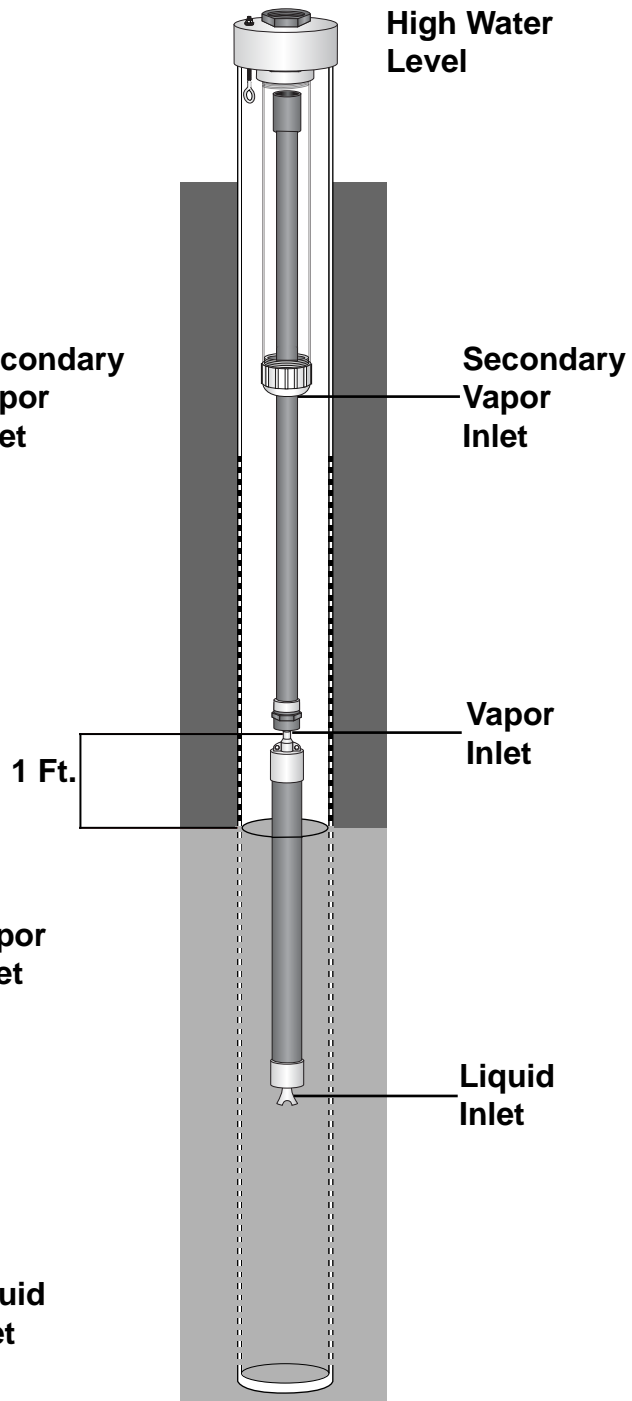


Figure 2B

High Water Level



1. Determine the well cap configuration that will be used with the AutoTracker: standard 4-in. slip cap from QED, custom cap from QED, or cap from other source. The QED well cap terminates in a 2 in. PVC female pipe thread connecting the drop pipe and a barb connecting the 1-1/4" ID vacuum line.
2. Determine expected range of water level fluctuation the AutoTracker will be expected to operate over.
3. Review the operating range chart below to determine the length of 2-in. Schedule 40 PVC drop pipe needed to properly position the AutoTracker in the well. The 2-in. PVC pipe and any couplings required will need to be locally obtained.

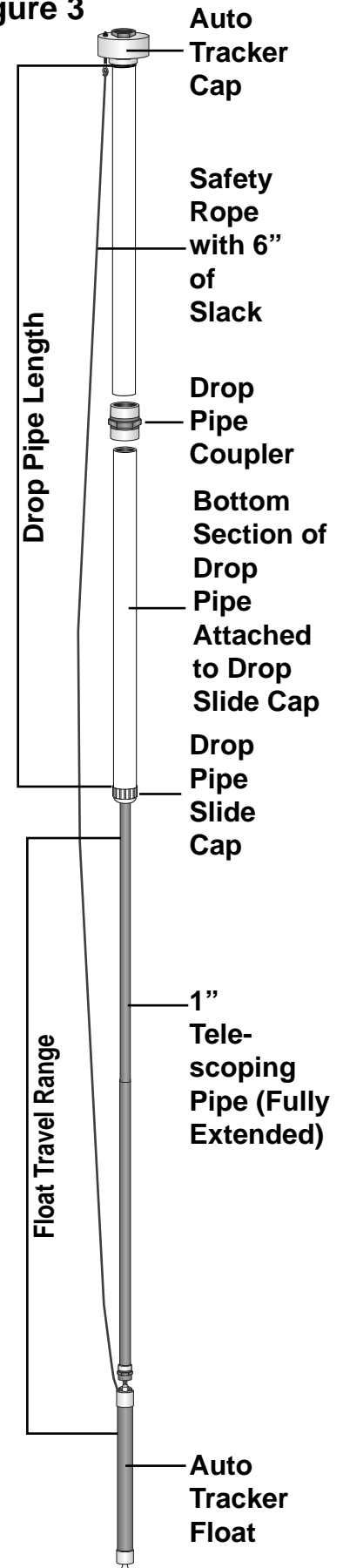
AT-5 Drop Pipe Length/ Float Travel Range Guide

Desired Midpoint of Float Travel Range	Float Travel Range	Drop Pipe Length Required
8.5 Ft. (2.5 m)	6-11 Ft. (1.8 - 3.3 m)	5 Ft. (1.5 m) (Minimum)
13.5 Ft. (4.1 m)	11-16 Ft. (3.3-6.4 m)	10 Ft. (3 m)
18.5 Ft. (5.6 m)	16-21 Ft. (6.4-4.8 m)	15 Ft. (4.5 m)
23.5 Ft. (7.1 m)	21-26 Ft. (4.8 -7.9 m)	20 Ft. (6 m)
28.5 Ft. (8.7 m)	26-31 Ft. (7.9-9.4 m)	25 Ft. (7.6 m)
33.5 Ft. (10.2 m)	31-36 Ft. (9.4-10.9 m)	30 Ft. (9.1 m) (Maximum)
Other	±2.5 Ft. (.76 m) from Midpoint	= Midpoint -3.5 Ft. (1 m)

AT-10 Drop Pipe Length/ Float Travel Range Guide

Desired Midpoint of Float Travel Range	Float Travel Range	Drop Pipe Length Required
16 Ft. (6.4 m)	11-21 Ft. (3.3-4.8 m)	10 Ft. (3 m) (Minimum)
21 Ft. (4.8 m)	16-26 Ft. (6.4-7.9 m)	15 Ft. (4.5 m)
26 Ft. (7.9 m)	21-31 Ft. (4.8 -9.4 m)	20 Ft. (6 m)
31 Ft. (9.4 m)	26-36 Ft. (7.9-10.9 m)	25 Ft. (7.6 m)
36 Ft. (10.9 m)	31-41 Ft. (9.4-12.5 m)	30 Ft. (9.1 m) (Maximum)
Other	± 5 Ft. (1.5 m) from Midpoint	= Midpoint -6 Ft. (1.8 m)

Figure 3

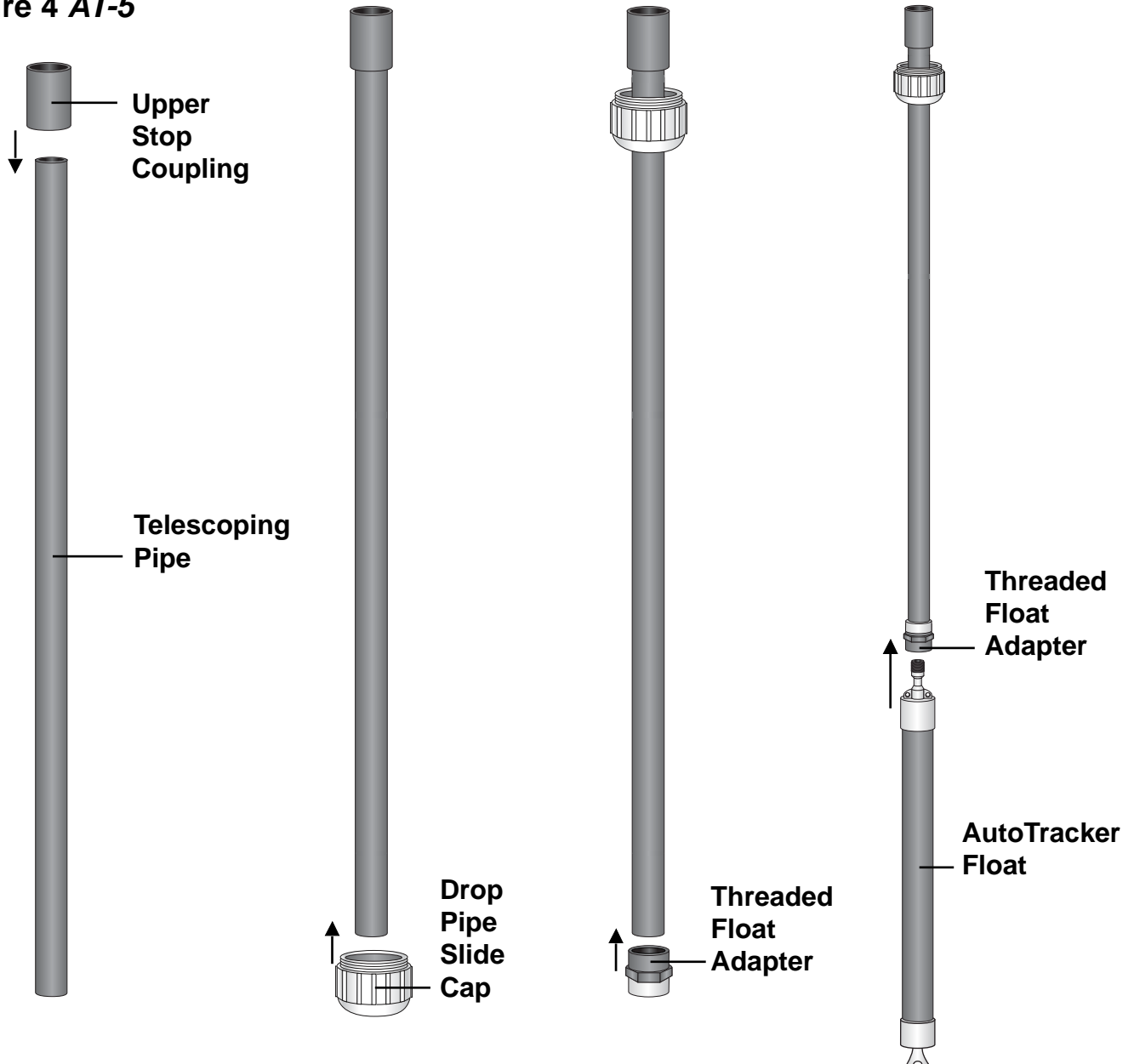


AutoTracker Installation Sequence

1. For the **AT-5** with its single, 5-ft. section of telescoping pipe, insert the lower end of the 1-in. telescoping pipe down through the hole in the drop pipe cap, as shown in **Figure 4**, with the drop pipe cap socket pointed upward. Next, use PVC primer and cement to connect the upper stop coupling onto the top end of the 1-in. telescoping pipe above the drop pipe cap, then cement the threaded adapter onto the lower end of the 1-in. telescoping pipe where the AutoTracker float will be attached. Then thread the AutoTracker float onto the threaded adapter on the lower end of the 1-in. telescoping pipe, using the Teflon tape supplied.

CAUTION: During assembly be careful not to hold the pipe and float in a horizontal orientation without the float section being supported, as this could result in breakage of the float section's plastic nipple.

Figure 4 AT-5

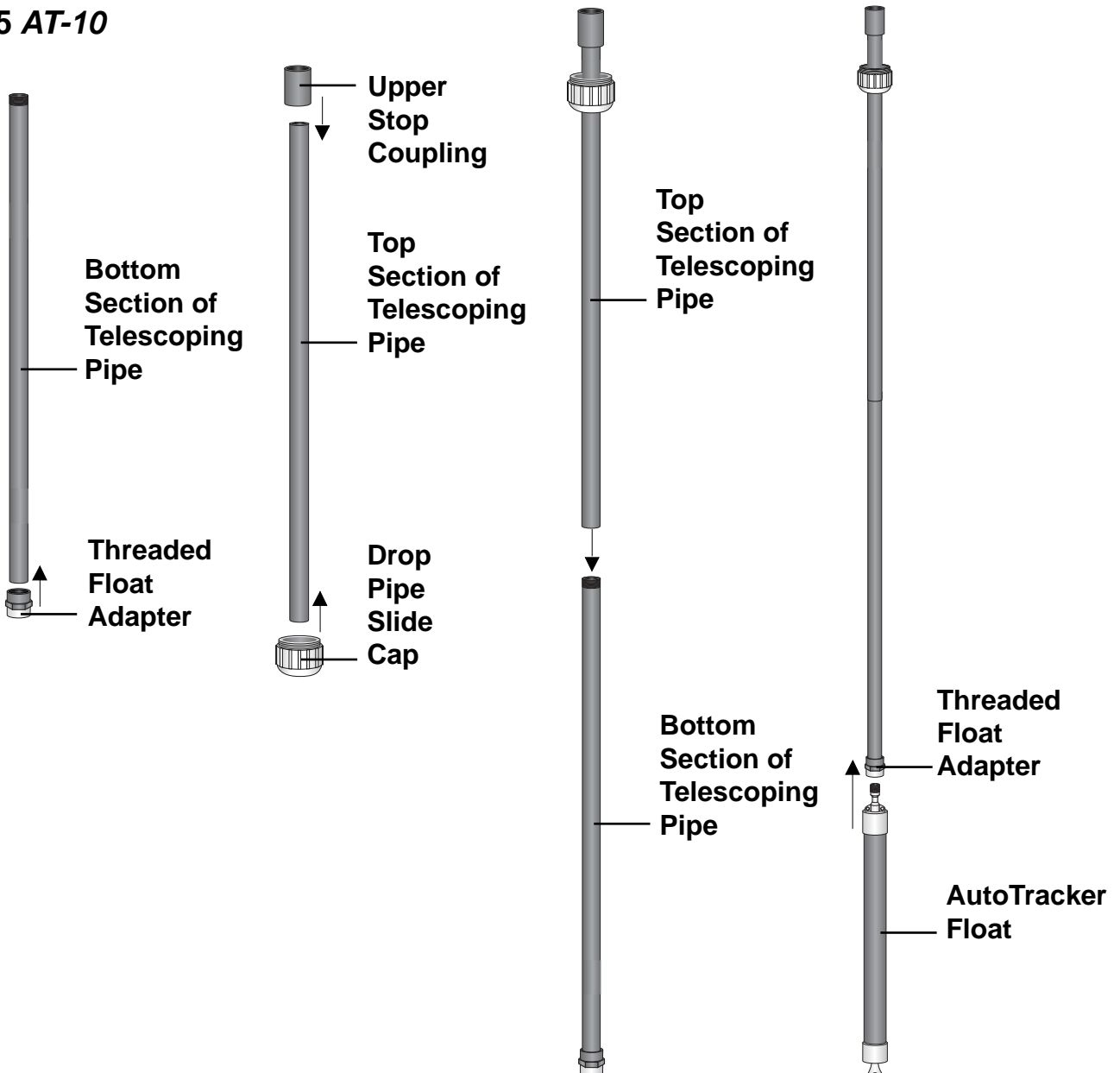


AutoTracker Installation Sequence

2. For the **AT-10** with its two sections of 1-in. telescoping pipe, as shown in **Figure 5**, cement the upper stop coupling onto the upper end of the top section of telescoping pipe, then cement the threaded adapter for the AutoTracker float to the lower end of the bottom section telescoping pipe. Insert the telescoping pipe through the drop pipe slide cap with the cap's socket pointed upward, toward the stop coupling, and thread the two telescoping pipe sections together at the flush joint thread. Then thread the AutoTracker float onto the threaded adapter on the lower end of the 1-in. telescoping pipe, using the Teflon tape supplied.

CAUTION: During assembly be careful not to hold the pipe and float in a horizontal orientation without the float section being supported, as this could result in breakage of the float section's plastic nipple.

Figure 5 AT-10



3. Gather together the materials for the 2-in. drop pipe, then connect the bottom section of 2-in. drop pipe to the slide cap, as shown in **Figure 6**.
4. To aid removal of the AutoTracker from the well for inspection or service, and to secure it in case of pipe breakage, a safety rope is provided. The proper rope length must be allowed to allow free and full travel of the AutoTracker float, yet not obstruct the well with too much rope. First lie the AutoTracker assembly on the ground and extend the telescoping sections to their full length. As shown in **Figure 7**, then lay the entire length of drop pipe on the ground, and the cap, to approximate the finished length once the entire assembly is in the well. Attach one end of the 3/16-in. poly rope to one of the eyes at the top of the AutoTracker float, then tie the other end of the rope to the eye under the well cap, such that approximately 6 inches of slack is available at full extension.

Figure 6

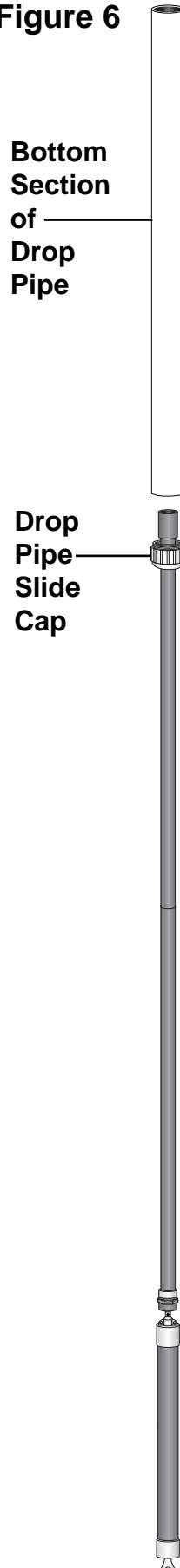
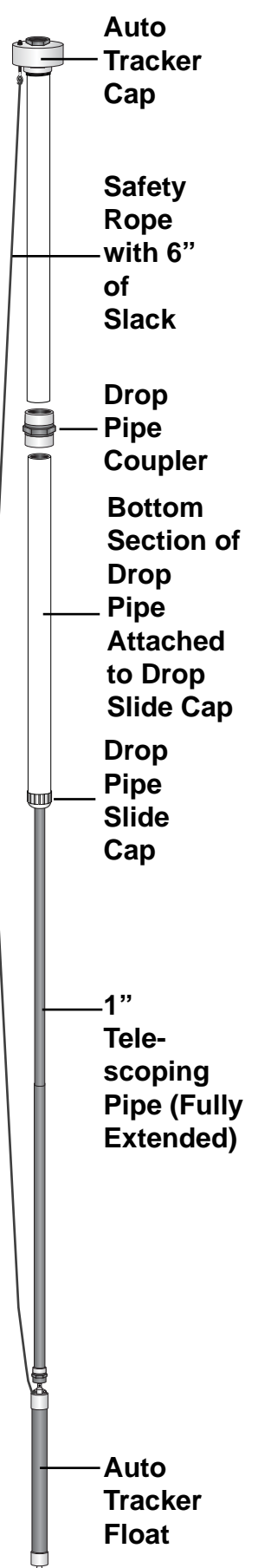


Figure 7



- Retract the AutoTracker fully, hold the end of the poly rope to keep the AutoTracker retracted, and lower the assembly with the first, bottom section of drop pipe, into the well, as shown in **Figure 8**. Then, one at a time, attach the next sections of drop pipe until the full length is achieved. Attach the AutoTracker well cap to the top of the drop pipe as shown in **Figure 9**, and lower the cap onto the well casing.
- Position the AutoTracker cap in place, attach the vacuum supply to the threaded adapter on the AutoTracker well cap. The AutoTracker system is now ready for normal operation.

Figure 8

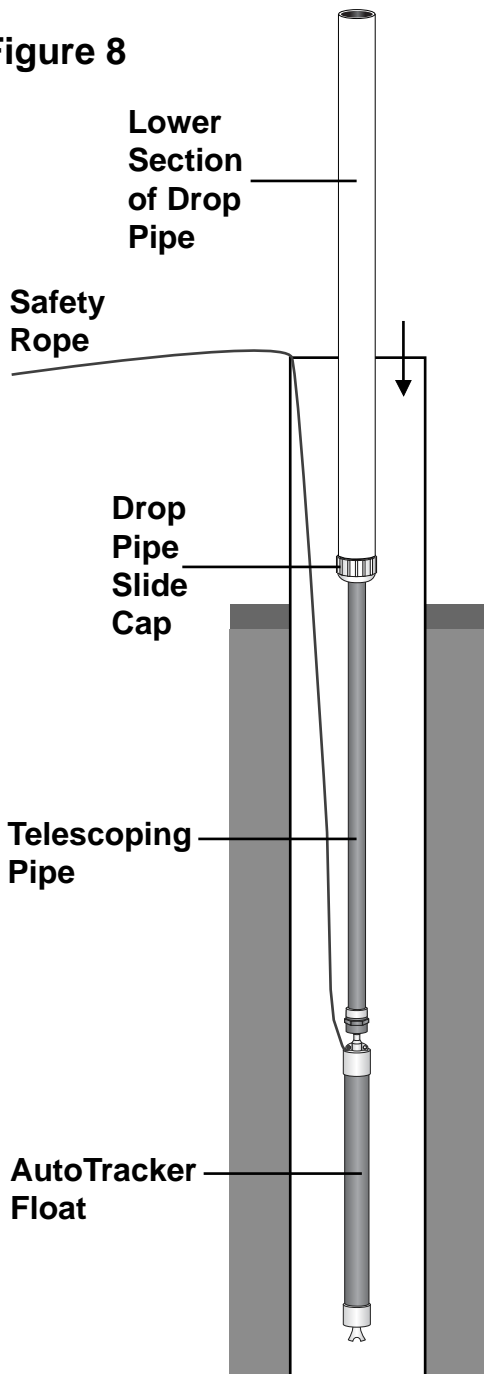
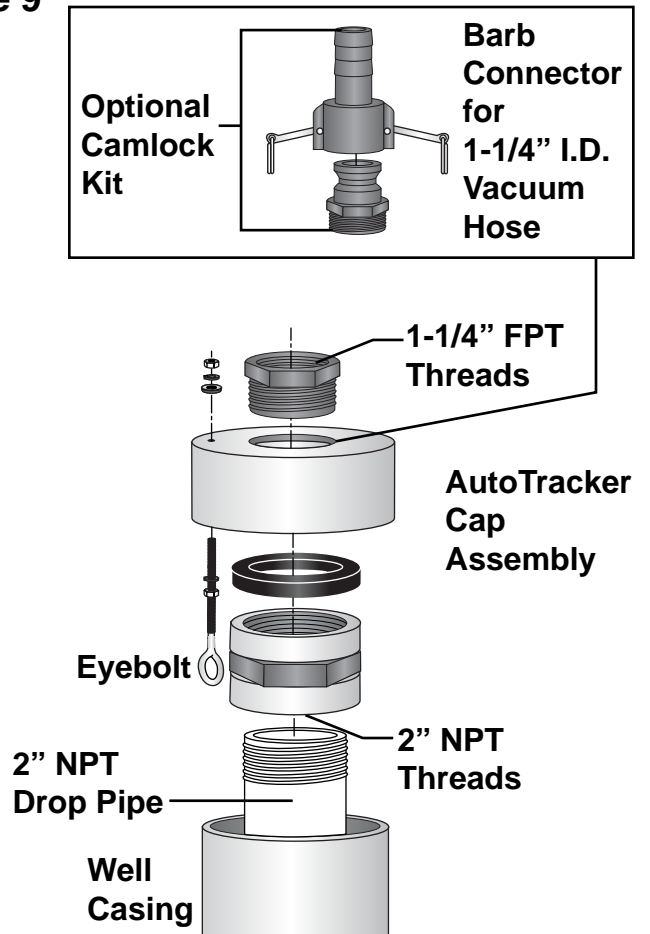
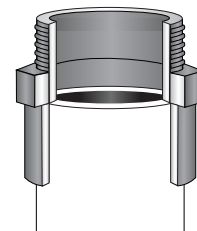


Figure 9



NOTE:

Drop pipe can be threaded (as shown above) or have a threaded adapter glued to it. But it must end in a 2" NPT.



The AutoTracker is a simple system that should require little maintenance. Periodic inspections are advised to determine whether fouling conditions are hampering free movement of the float within the well. Clean the exterior of the float if required. Check to see that the telescoping sections and AutoTracker are securely threaded together. Call QED at **1-800-624-2026** for replacement parts.



QED Environmental Systems, Inc. (QED) warrants to the original purchaser of its products that, subject to the limitations and conditions provided below, the products, materials and/or workmanship shall reasonably conform to descriptions of the products and shall be free of defects in materials and workmanship. Any failure of the products to conform to this warranty will be remedied by QED in the manner provided herein

This warranty shall be limited to the duration and the conditions set forth below. All warranty durations are calculated from the original date of purchase.

1. The AutoTracker is warranted for 12 months: 100% material and 100% workmanship.

2. Parts and Repairs warranted for ninety (90) days: 100% material and 100% workmanship; when repairs are performed by QED or its appointed agent; from date of repair or for the full term of the original warranty, whichever is longer. Separately sold parts are warranted for ninety (90) days: 100% materials and 100% workmanship.

Buyer's Remedy

Buyer's exclusive remedy for breach of said warranty shall be as follows: if, and only if, QED is notified in writing within the applicable warranty period of the existence of any such defects in the said products, and QED upon examination of any such defects, shall find the same to be within the term of and covered by the warranty running from QED to buyer, QED will, at its option, as soon as reasonably possible, replace or repair any such product, without charge to the buyer. If QED for any reason, cannot repair a product covered hereby then QED's sole responsibility shall be, at its option, either replace the defective product with a comparable new unit at no charge to the buyer, or to refund the full purchase price. If the product proves not to be defective within the terms of this warranty, then all costs and expenses in connection with the processing of the purchaser's claim and all costs for repair, parts and labor as authorized by owner here under shall be borne by the Purchaser.

WARRANTY CLAIMS PROCEDURE (RESPONSIBILITY OF PURCHASER)

The original purchaser's sole responsibility in the instance of a warranty claim shall be to notify QED or its appointed agent, of the defect, malfunction, or other manner in which the terms of this warranty are believed to be violated. The purchaser may secure performance of obligations hereunder by contacting the Customer Service Department of QED or its appointed agent, and:

1. Identifying the product involved by model or serial number, or other sufficient description, that will allow QED, or its appointed agent, to determine which product is defective.
2. Specifying where, when, and from whom the product was purchased.
3. Describing the nature of the defect or malfunction covered by this warranty.
4. After obtaining authorization from QED, sending the malfunctioning component via a RMA# (Return Material Authorization number) to the address provided at that time.

In no event shall such allegedly defective products be returned to QED without its consent, and QED's obligations of repair, replacement or refund are conditioned upon the Buyer's return of the defective product to QED

QED shall be released from all obligations under all warranties if any product covered hereby is repaired or modified by persons other than QED's service personnel unless such repair by others is made with the written consent of QED

The foregoing warranty does not apply to major subassemblies and other equipment, accessories, and other parts manufactured by others, and such other parts, accessories, and equipment are subject only to the warranties, if any, supplied by their respective manufacturers. QED makes no warranty concerning products or accessories not manufactured by QED. In the event of failure of any such product or accessory, QED will give reasonable assistance to Buyer in obtaining from the respective manufacturer whatever adjustment is reasonable in light of the manufacturer's own warranty.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY (INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE), WHICH OTHER WARRANTIES ARE EXPRESSLY EXCLUDED HEREBY, and of any other obligations or liabilities on the part of QED, and QED neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with said products, materials and/or workmanship. It is understood and agreed that QED shall in no event be liable for incidental or consequential damages resulting from its breach of any of the terms of this agreement, nor for special damages, nor for improper selection of any product described or referred to for a particular application.

This warranty will be void in the event of unauthorized disassembly of component assemblies. Defects in any equipment that result from abuse, operation in any manner outside the recommended specification procedures, use and applications other than for intended use, or exposure to chemical or physical environment beyond the designated limits of materials and construction will also void this warranty.



Defects in any equipment that result from failure to install it in accordance with the Operation & Installation Manual will also void this warranty

Chemical attack of liquid contacting equipment and supplies shall not be covered by this warranty. A range of materials is available from QED and it is the Buyer's responsibility to select materials to fit the Buyer's application. QED will only warrant that the supplied liquid contacting materials will conform to published QED specifications and generally accepted standards for that particular material.

Exposure of equipment to temperatures in excess of 120⁰ degrees F shall void this warranty

ILLUSTRATIONS AND DRAWINGS

Reasonable Effort has been made to have all illustrations and drawings accurately represent the product(s) as it actually was at the time of doing the illustrations and drawings.

However, products may change to meet user requirements and therefore may not be reflected in the literature. In addition, literature may be up-dated to reflect the most recent equipment revision(s). Changes to either or both equipment and/or literature can be made without notice.

CHANGES WITHOUT NOTICE

Prices and Specifications are subject to change without notice.

SHIPPING DATES

Shipping dates are approximate and are subject to delays beyond our control.

F.O.B. POINT AND TITLE

All material is sold F.O.B. factory. Title to all merchandise sold shall pass to Buyer upon delivery by Seller to carrier at factory. All freight insurance is the responsibility of the Buyer and shall be charged to the Buyer on the invoice unless directed in writing. All Freight claims are the Buyer's responsibility.

TERMS

Payment terms are net 30 days; 1.5% per month past due.

STATE AND LOCAL TAXES

Any taxes, duties or fees which the seller may be required to pay or collect upon or with respect to the sale, purchase, delivery, use or consumption of any of the material covered hereby shall be for the account of the Buyer and shall be added to the purchase price.

ACCEPTANCE

All orders shall be subject to the terms and conditions contained or referred to in the Seller's quotation, acknowledgments, and to those listed here and to no others whatsoever. No waiver, alteration or modification of these terms and conditions shall be binding unless in writing and signed by an executive officer of the Seller. All orders subject to written acceptance by QED Environmental Systems Inc., Ann Arbor, MI, U.S.A.

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