

HydroLynx Systems, Inc.

Model 5054 Self Reporting Rain Station

Instruction Manual



Receiving and Unpacking

Carefully unpack all components and compare to the packing list. Notify HydroLynx Systems immediately concerning any discrepancy. Inspect equipment to detect any damage that may have occurred during shipment. In the event of damage, any claim for loss must be filed immediately with the carrier by the consignee. If the equipment was shipped via Parcel Post or UPS, contact HydroLynx Systems for instructions.

Returns

If equipment is to be returned to the factory for any reason, call HydroLynx between 8:00 a.m. and 4:00 p.m. Pacific Time to request a Return Authorization Number (RA#). Include with the returned equipment a description of the problem and the name, address, and daytime phone number of the sender. Carefully pack the equipment to prevent damage during the return shipment. Call HydroLynx for packing instructions in the case of delicate or sensitive items. If packing facilities are not available, take the equipment to the nearest Post Office, UPS, or other freight service and obtain assistance with packaging. Please write the RA# on the outside of the box.

Warranty

HydroLynx Systems warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from the date of shipment from the factory. HydroLynx Systems' obligations under this warranty are limited to, at HydroLynx's option: (i) replacing; or (ii) repairing; any product determined to be defective. In no case shall HydroLynx Systems' liability exceed product's original purchase price. This warranty does not apply to any equipment that has been repaired or altered, except by HydroLynx Systems, or that has been subjected to misuse, negligence, or accident. It is expressly agreed that this warranty will be in lieu of all warranties of fitness and in lieu of the warranty of merchantability.

Address

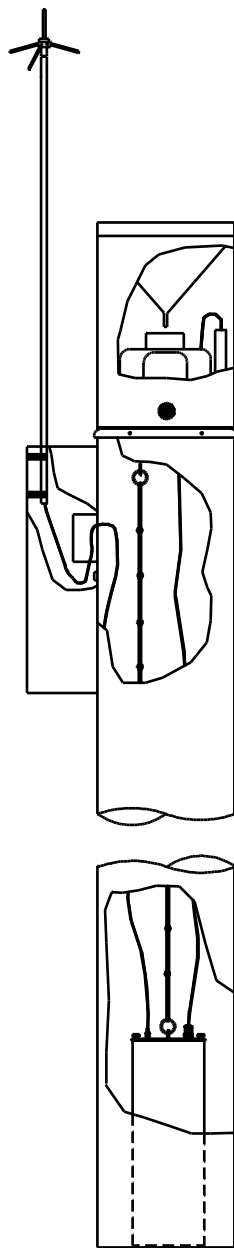
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Equipment Configuration and Parts Identification



- 1> Standpipe
- 2> Antenna mast
- 3> Antenna
- 4> Antenna cable
- 5> Data Transmitter
- 6> 5054TS
- 7> 5050P
- 8> Access door (optional)

MODEL 5054

Figure 1

1.0 INTRODUCTION

1.1 General Description

The Model 5054 Self-Reporting Rain Stations are complete packaged gauges which transmit precipitation data on a real-time basis.

1.2 Equipment Included

- 1> Standpipe
- 2> Antenna mast
- 3> Antenna
- 4> Antenna cable
- 5> Data Transmitter
- 6> 5054TS
- 7> 5050P
- 8> Access door (optional)

1.3 Specifications

Height of mast:	13'2" above ground level
Material:	Aluminum and stainless steel
Transmitter:	5096 Data Transmitter
Sensor:	5050P
Orifice size:	12"
Protective screens:	2 in the collection funnel
Drain holes:	4 each, 7/8" diameter

2.0 INSTALLATION

Refer to the Basic Gauge Installation Manual for information on setting up the standpipe. Note that the 5054TS is used instead of the standpipe cap, refer to the 5054TS Manual.

2.1 Site Selection

2.1.1 Radio Path

Refer to Basic Gauge Manual and Radio Path Survey.

2.1.2 Data Collection

The site should be representative of the area being monitored for rain fall amounts. Consider these factors while selecting the site:

Obstructions: As a general rule the height of nearby objects above the gauge should be no greater than half their distance from the gauge.

Protected sites: High winds and wind turbulence generally reduce the accuracy of a rain gauge. Therefore, when the gauge is shielded from the wind its accuracy is better than in an open, unshielded area.

Open sites: Avoid areas where individual or small groups of objects may set up troublesome eddy currents near the gauge. It is usually better to have the gauge in a completely open area rather than near an isolated object.

3.0 THEORY OF OPERATION

The 5054 Rain Station's tipping bucket generates a digital signal whenever one millimeter of rainfall drains through the top section assembly. The digital signal input to the Data Transmitter is translated into an ALERT formatted message and transmitted via radio links to the central site.

4.0 TESTING AND MAINTENANCE

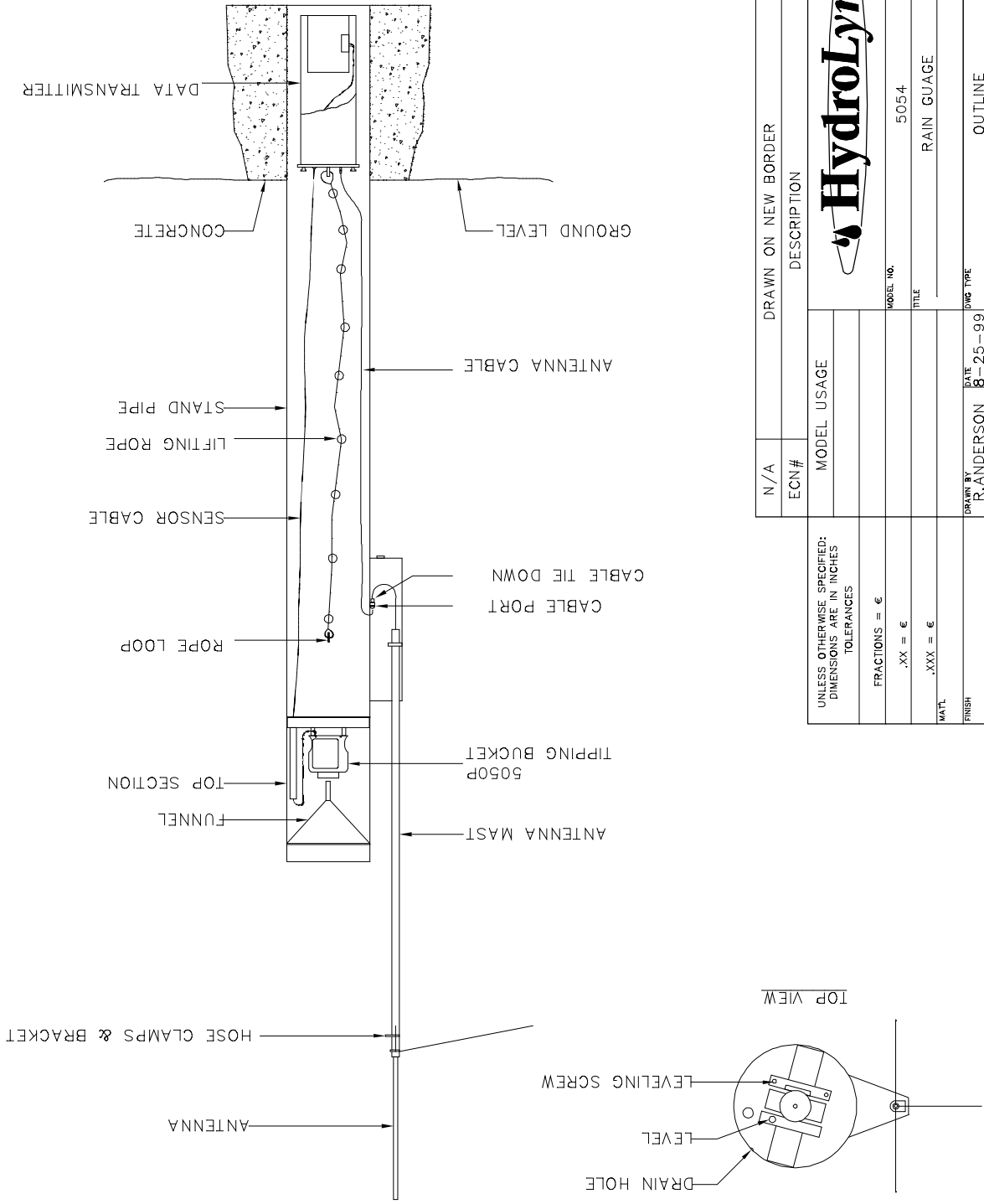
The 5054 is a packaged station and consists of separate components; refer to the 5050P, 5054TS and 5096 Manuals for testing and maintenance of these parts. Also, the Basic Gauge Manual describes a standard test procedure and includes a Maintenance Report form for all packaged stations.

4.1 Site Maintenance

- Trim trees and other vegetation which interferes with gauge operation.
- Check standpipe grounding. As standpipe installations age the electrical ground, provided by the contact of aluminum pipe to concrete, deteriorates at some locations. A symptom of this is a high rainfall count. Model 5054SGK Standpipe Ground Kit can be installed to provide a reliable ground.

5.0 FORMS AND DRAWINGS

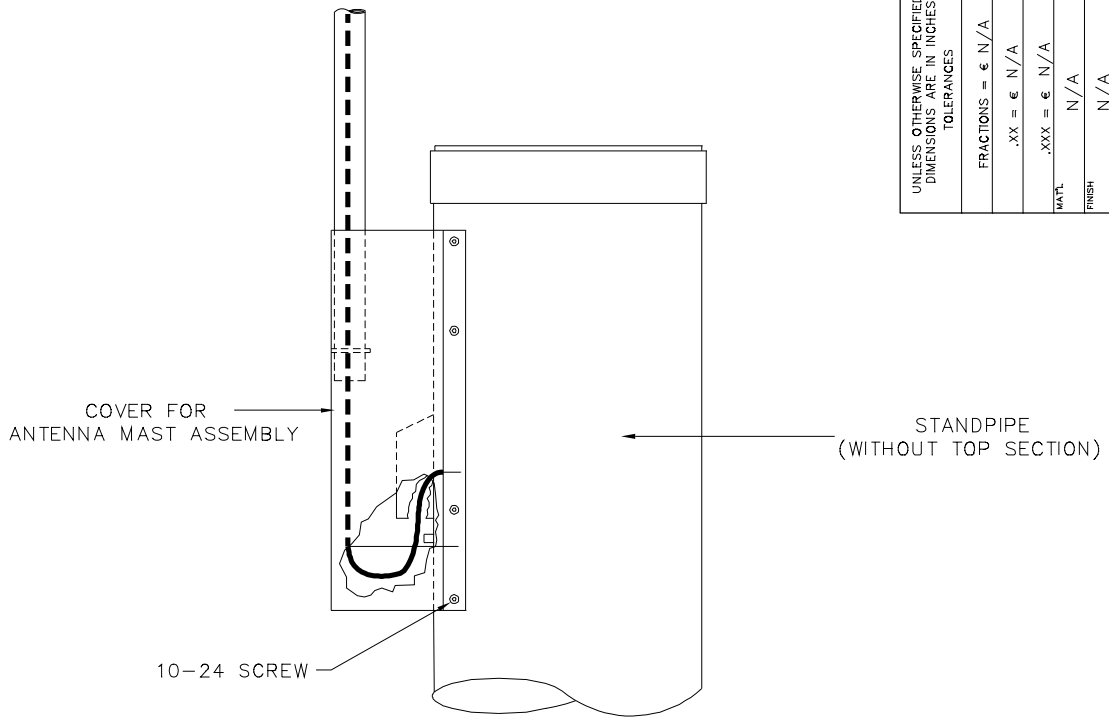
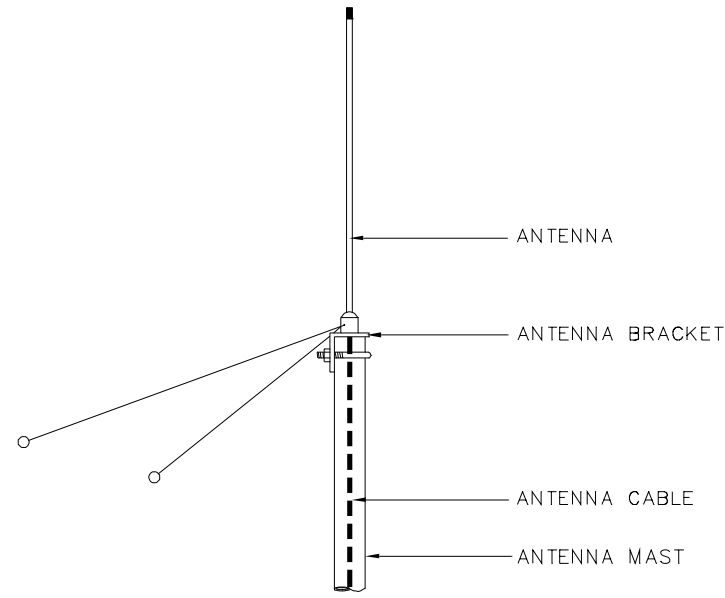
AC108035 Outline - Rain Gauge
AC107251 Outline - Antenna Assembly
AC102302 Assembly - Rain Gauge



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ECN#	DESCRIPTION	DATE
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES		
FRACTIONS = €		
.XX = €		
.XXX = €		
MATERIAL		
FINISH		
TREATMENT		
DATE	DATE	DATE
8-25-99	8-25-99	8-25-99
DRAWN BY	CHECKED BY	DATE
R. ANDERSON		
SIZE	FIG. NO.	REV.
B	B	A
OUTLINE	AC108035	



MODEL NO. 5054
 TITLE RAIN GUAGE
 DWG TYPE OUTLINE
 AC108035

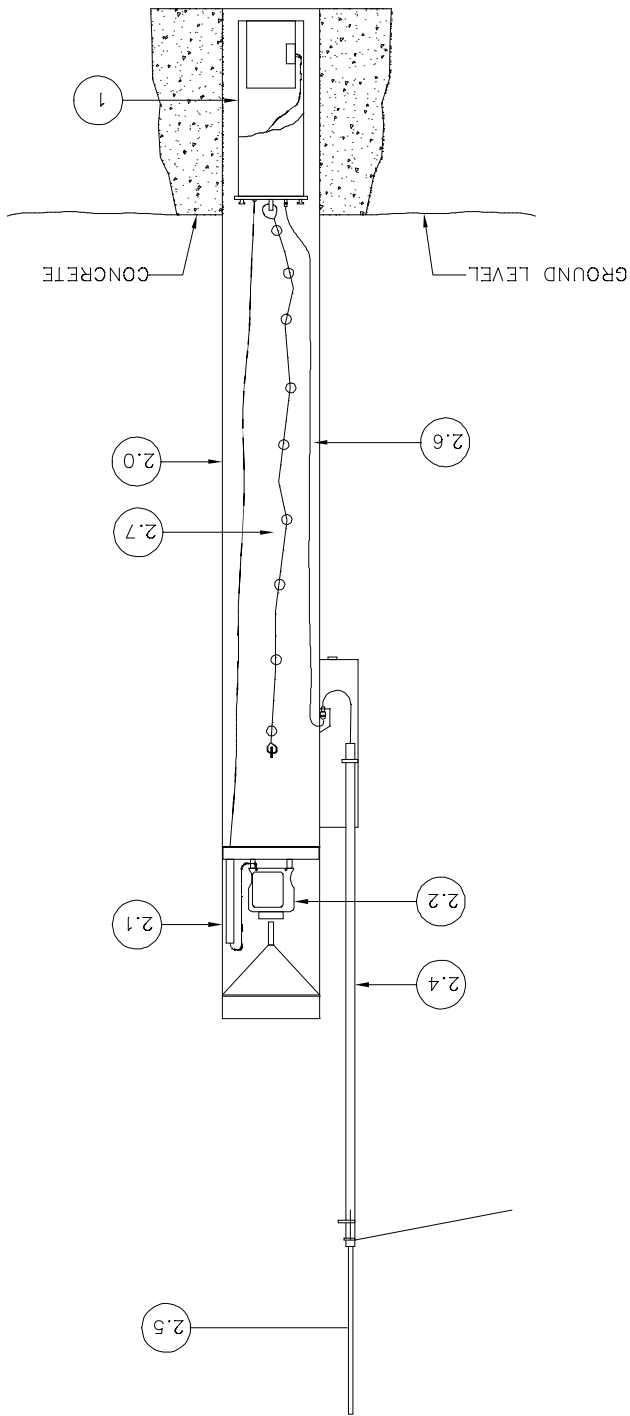


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HydroLynx		
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DRAWN BY	DATE	DWG TYPE
M. DEVAUGHN	9/30/98	OUTLINE
CHECKED BY	DATE	SIZE
		B
	DWG NO.	AC107251
		REV A


UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES

FRACTIONS = ϵ N/A
 .XX = ϵ N/A
 .XXX = ϵ N/A

MAT'L N/A
 FINISH N/A
 TREATMENT N/A



NOTE 1. 1.0 NUMBER IN BUBBLE IS BOM REF NO.
 2. TOP BOM REF NO IS 1.0

N/A	REDRAWN ON NEW BORDER	3/5/99
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DRAWN BY G. BARRITT		
DATE 3/5/1999		
CHECKED BY		
DATE	SIZE	REV
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ASSEMBLY		AC102302

