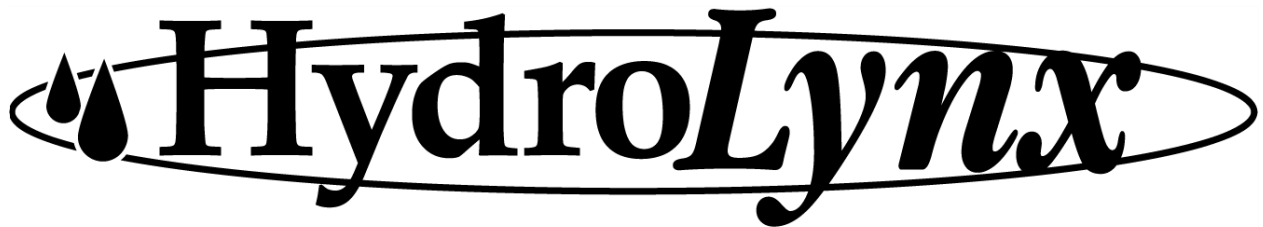


HydroLynx Systems, Inc.

Model 5054TS
Rain Gauge Top Section

Instruction Manual



Document No: A102710
Document Revision Date: December, 2004

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

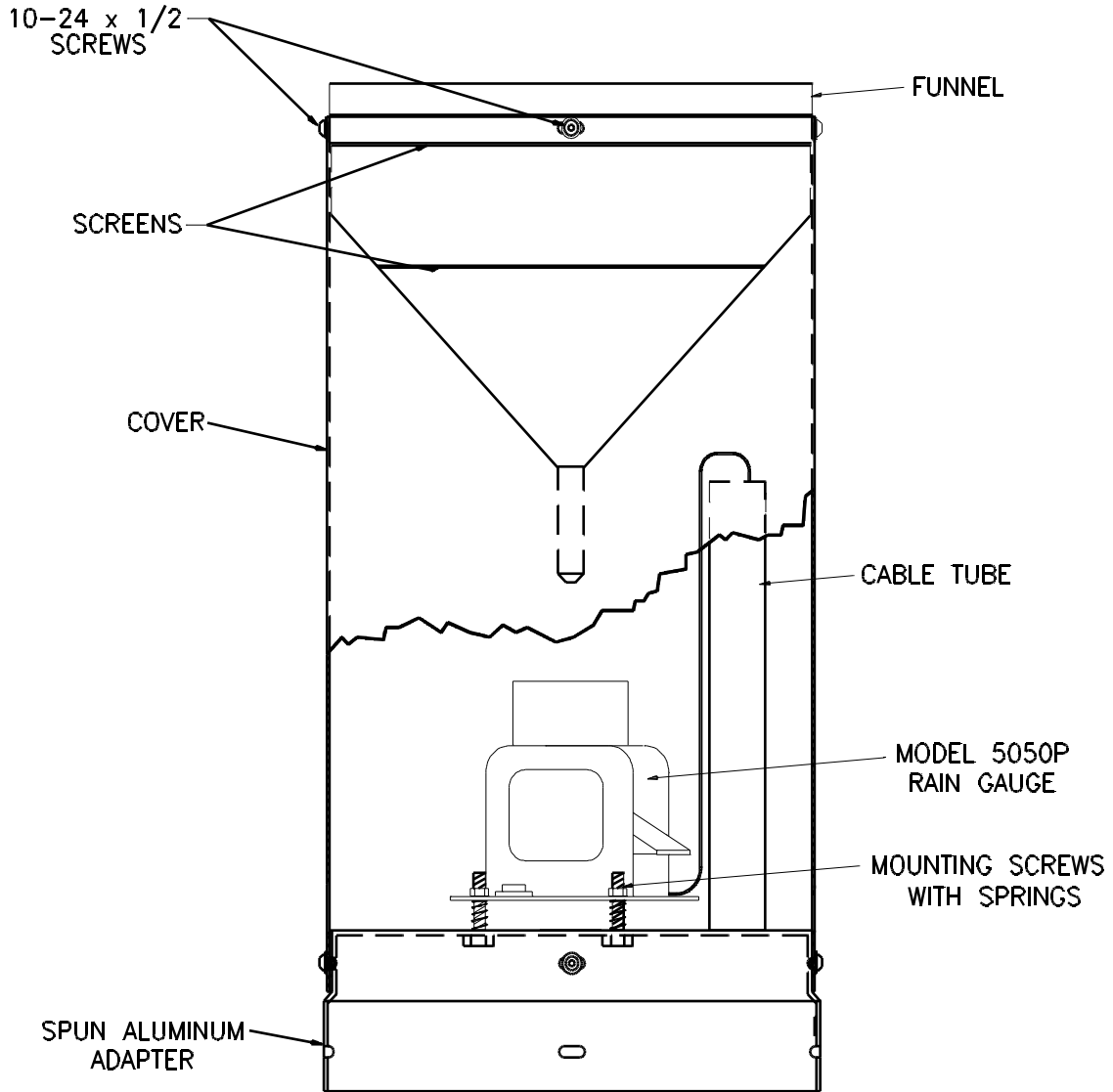
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Equipment Configuration and Parts Identification



TOP SECTION
(CUT AWAY VIEW)

1.0 INTRODUCTION

1.1 General Description

The Model 5054TS is the standard ALERT rain gauge housing designed to attach to any ALERT station standpipe. Its design also allows for stand alone mounting with roof mount, pole mount, or leg mount options. It is used with the standard ALERT rain gauge sensor, Model 5050P. The 5054TS top section assembly consists of a spun shelf, an cover, a funnel and debris screens.

1.2 Specifications

Material:	Corrosion resistant materials
Sensor:	5050P; refer to manual A102850
Funnel size:	11" high x 12" i.d.
Protective screens:	2 each on funnel
Cover size:	19-1/2" high x 12" diameter
Spun adapter size:	12-1/2" high x 12-7/32" o.d.
Total height:	22-1/4" high

2.0 INSTALLATION

The details of the installation will vary with the type of mounting but all will include these steps: mount the spun shelf with the 5050P attached, run cable, level gauge, attach cover and funnel, and place screens into the funnel.

2.1 Standpipe

Route the cable with the connector down through the cable tube.

Attach connector to the ALERT Data Transmitter Precipitation Port. Lower Data Transmitter into the standpipe.

Place spun shelf, with 5050P attached, onto standpipe and attach with 10-24x1/2" button head screws.

Level gauge.

Place cover, with funnel attached, onto spun shelf and attach with 10-24x1/2" button head screws.

Place screens into funnel. The large screen is notched in order to fit below funnel attachment hardware; once is in place rotate screen to prevent it from blowing out during high winds.

2.2 Roof Mount

The Roof Mount is intended to be installed on a flat surface. A base plate, refer to drawing AC103867, is welded to the spun shelf and provides four 1/2" mounting holes.

2.3 Pole Mount

The Pole Mount is intended to be installed onto a 2" pipe. A pole mount base, refer to drawing AC107861, is attached to the spun shelf; a 2" floor flange is attached to this base.

2.4 Leg Mount

The Leg Mount is intended to be installed over uneven surfaces or where other site considerations require this mounting. The spun shelf is modified and a reinforcing ring is added; refer to drawings AC104987, AC104988, and AC104989.

2.5 Cable Ports

There are three type of cable ports: the cable tube, the cover connector port and the cover strain relief. The cable tube is used in standpipe installations while the cover ports are used in the stand alone installations. The connector port accommodates the 5050P MS connector, while the strain relief is used when the cable has "tinned ends".

3.0 THEORY OF OPERATION

The 5054TS ALERT Rain Gauge incorporates in its design the collection orifice, tipping bucket mounting, and discharge drain. The HydroLynx 5054TS includes design changes which have improved operation and maintenance.

3.1 Collection Orifice

The collection orifice is a 12 inch diameter funnel. Two debris screens are used in the funnel to keep leaves and other wind blown debris from clogging the funnel tips. There have been two changes to this assembly. First, the bottom screen is no longer welded to the funnel; this allows the funnel to be cleaned easier. Second, the distance from the top screen to the orifice opening is more than doubled; this minimizes water loss due to rain splashing on the screen.

3.2 5050P Mounting

The 5050P Mounting has also changed; the leveling screws are now a part of the spun shelf instead of the 5050P assembly. This change allows the use of springs in the mounting assembly which dampens vibrations to the 5050P.

3.3 Discharge Drain / Cover

A design change intended to improve maintenance led to the elimination of the drain holes and wind baffles of the earlier 5054TS. The change separated the cover and the spun shelf into two pieces which allows access to the 5050P; it also allows water to drain between the cover and the spun shelf.

4.0 MAINTENANCE

4.1 Cleaning

- Ensure that the funnel tip is not clogged; use a baby bottle brush or a large pipe cleaner.
- Clean the screens of excessive debris such as mud and bird droppings.
- On older 5054TS the four drain holes located on the outer cover should also be cleaned.

4.2 Inspection

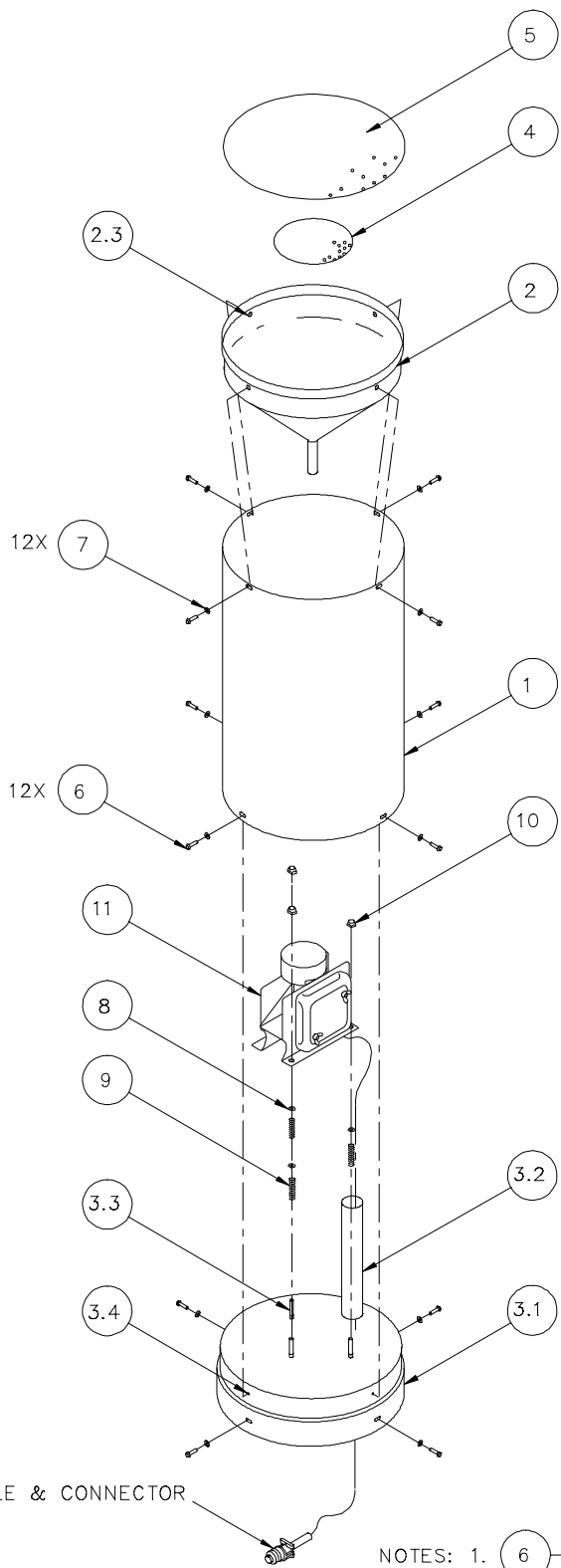
- Inspect the 5050P cable and connector for any signs of damage. Correct any loose fittings on the connector and re-solder any broken or corroded wires inside the connector.
- Inspect the 5054TS for loose or missing fasteners. Replace any damaged, missing, or corroded fasteners.
- Inspect the funnel for damage. Replace damaged funnel and any missing debris screens immediately to prevent loss of data.

4.3 5050P


The tipping bucket rain gauge should be serviced as outlined in the 5050P manual. Check bubble level indicator and adjust sensor if necessary.

5.0 FORMS AND DOCUMENTS

AC107258	Assembly - 5054TS Top Section
AC107840	Assembly - Roof Mount Base
AC103867	Fabrication - Plate, Roof Mount Base
AC107861	Fabrication - Base, Pole Mount
AC104987	Fabrication - Spun Shelf, Foot Mount
AC104988	Fabrication - Reinforcing Ring, Foot Mount
AC104989	Fabrication - Foot Mounting
AC108022	Installation - 5050P With Spring Mount
AC104766	Assembly - 5054TS-FM Foot Mounted Chassis

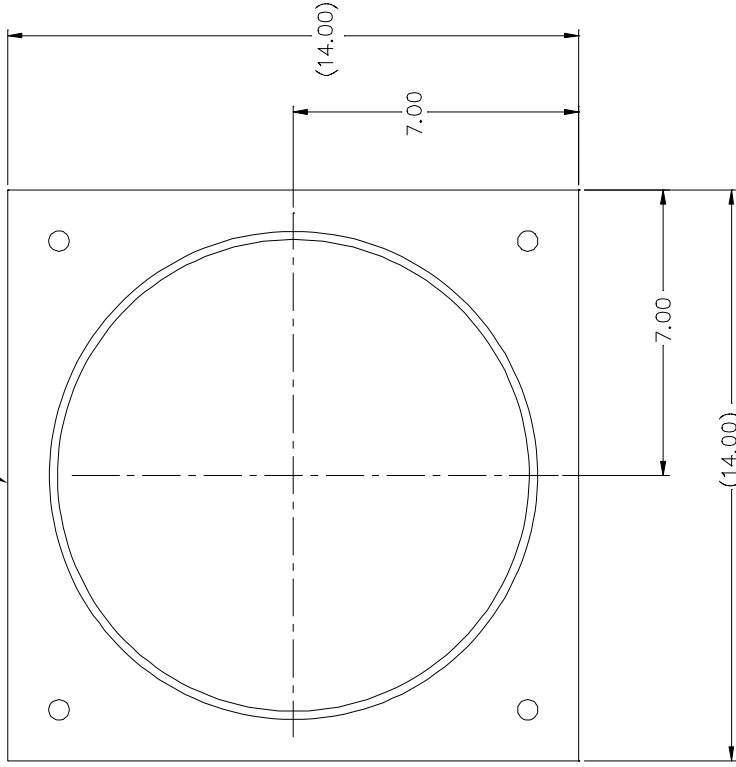


5050P CABLE & CONNECTOR

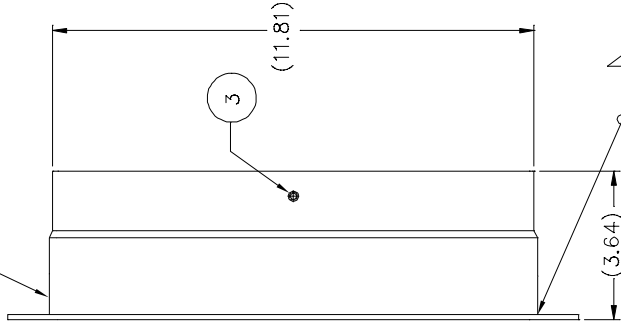
NOTES: 1.  NUMBER IN BUBBLE IS BOM REF. NO.
 2. TOP BOM REF. NO. IS 1.2.1.0.

N/A	REDRAWN ON NEW BORDER	10-6-98
980101	ADD LOCKING HEX NUTS	1/8/98
ECN#	DESCRIPTION	DATE
Hydrolynx		
MODEL USAGE	MODEL NO.	5054TS
5054		
5081		
5090 / 5054TS	TITLE	TOP SECTION
DRAWN BY J.C.GREENE	DATE 10-6-98	DWG TYPE ASSEMBLY
CHECKED BY	DATE	SIZE B
		DWG NO. AC107258
		REV B

1

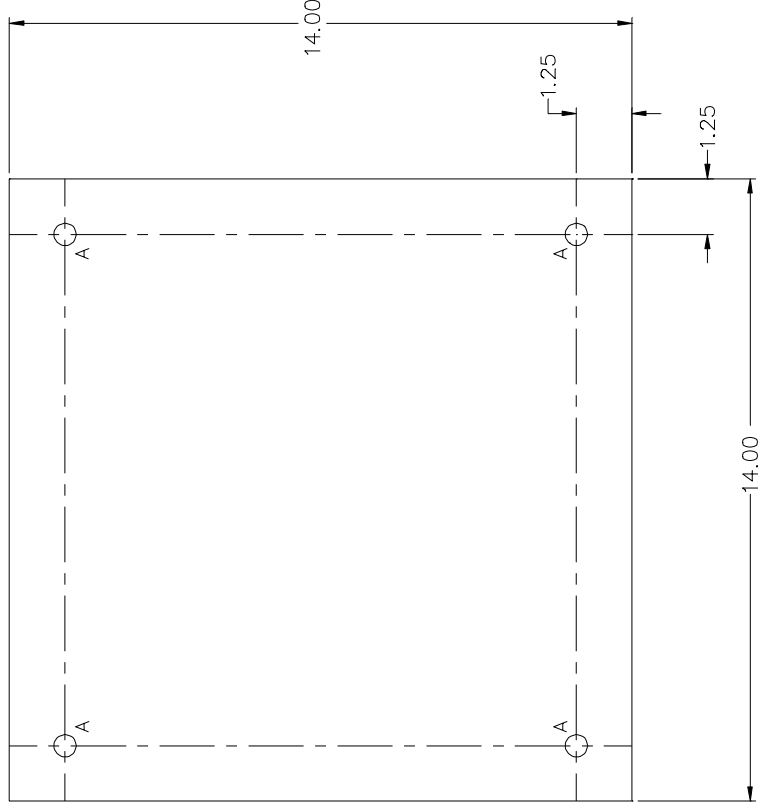


2



- NOTES: 1. MAKE FROM ITEMS SHOWN IN TABLE.
 2. USE WITH ROOF MOUNTED TOP SECTION.
 3. INSTALL NUT INSERTS TO INSIDE FACE BEFORE WELDING PLATE TO SHELF.

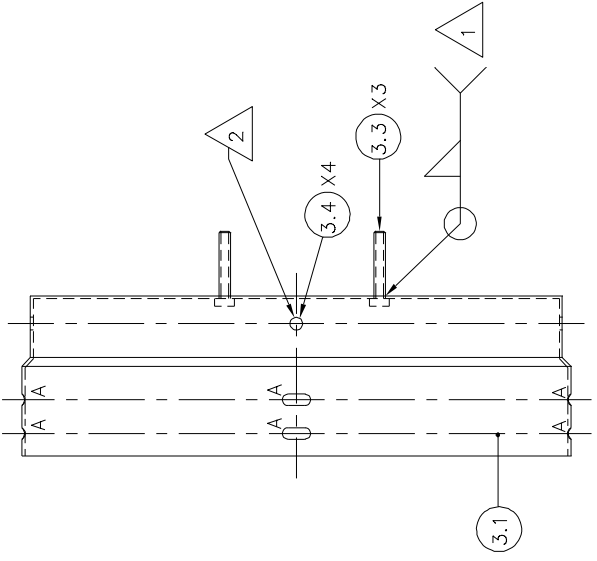
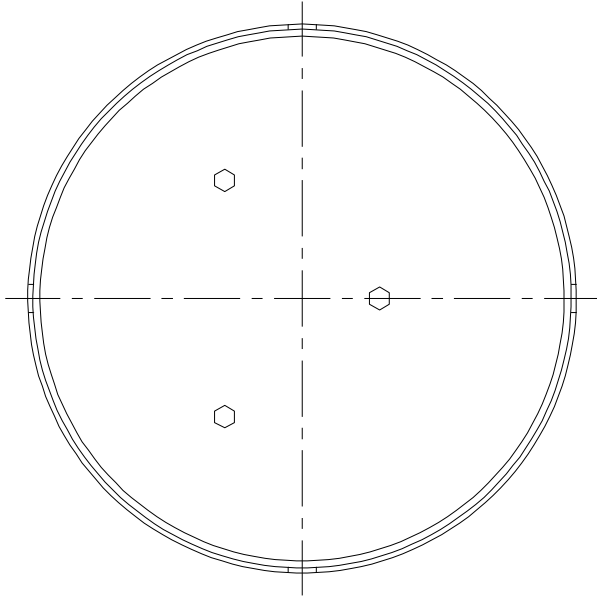
N/A	REDRAWN ON NEW BORDER	5/27/99
NL006	NEW RELEASE	3/9/94
ECN#	DESCRIPTION	DATE
MODEL USAGE		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES		
FRACTIONS = 6		
.XX = 6 .01		
.XXX = 6 .005		MODEL NO. 5054TS-RM
MATERIAL		TITLE BASE
FINISH POWDER COAT. COLOR TBA	DATE 5/27/99	DWG TYPE FAB / ASSEMBLY
TREATMENT	CHECKED BY	SIZE B
		DWG NO. AC107840
		REV B



HOLE SCHEDULE

A = .50 THRU (X4)

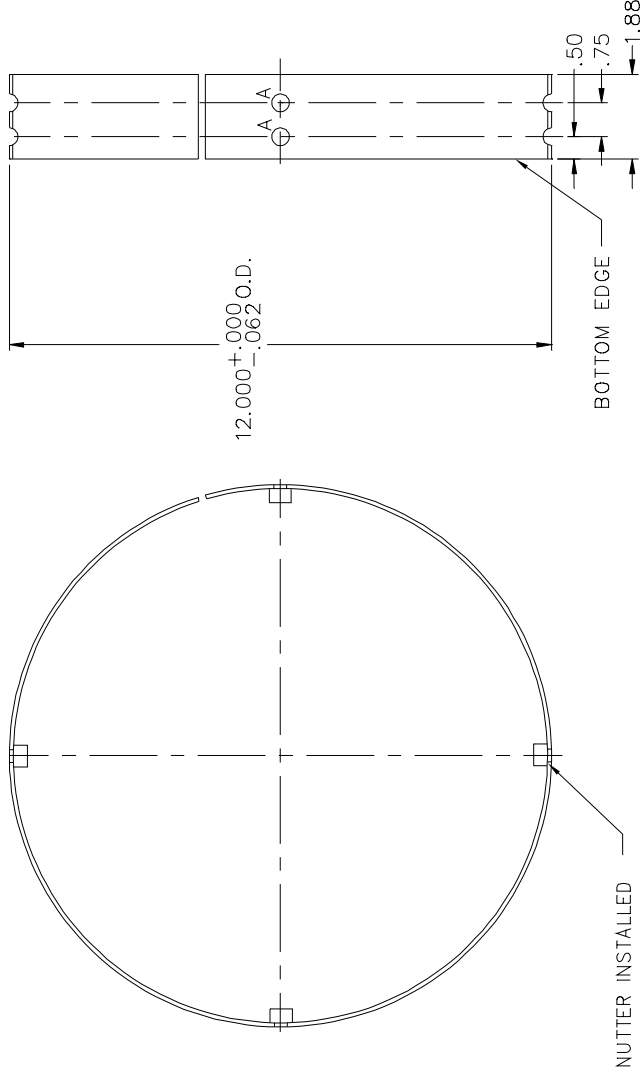
N/A	REDRAWN ON NEW BORDER	5-26-99
NL004	ACAD REDRAW	3-9-94
ECN#	DESCRIPTION	DATE
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES	MODEL USAGE	
FRACTIONS = € N/A		
.XX = € .01		
.XXX = € .005		
MATL 1/8" THK ALUM 6061 T6		
FINISH AS ISSUED		
TREATMENT		
DRAWN BY W. LEDDINGTON	DATE 5-26-99	DWG TYPE FAB
CHECKED BY	DATE	SIZE A
	DWG NO. AC103867	REV B
	MODEL NO. 5054TS-RM	
	TITLE PLATE, ROOF MOUNT BASE	



- NOTES:
- 1 WELD 1/4-20 X 1 1/2" LONG ALUM BOLTS FROM BOTTOM SIDE, WATERTIGHT (X3).
 - 2 INSTALL NUTTERS (X4).
 - 3. FINISH POWDER COAT.
 - 4. 1 → NUMBER IN BUBBLE IS BOM REF. NO.
 - 5. TOP BOM REF. NO. IS 1.2.1c

ECN#	DESCRIPTION		DATE
MODEL USAGE	HydroLynx		
5054TS-PM			
5054TS-RM	MODEL NO.	5054TS	
	TITLE	SHELF, SPUN ALUM	
	DWG TYPE	WITHOUT CABLE TUBE	
DRAWN BY	DATE	FAB/ASM	
S. TURNER	11/07/00		
CHECKED BY	DATE	SIZE	REV
		A	A
		DWG NO.	AC104987

- NOTES: 1. RING TO FIT INSIDE SPUN SHELF.
 2. DRILL HOLE TO FIT 1/4-20 NUTTER, 8 PLACES.
 3. NUTTERS MUST EXTEND INTO INSIDE OF RING.
 4. HOLE SIZE SHOWN FOR ALUMINUM NUTTER TA2520, STANLEY FASTENERS.

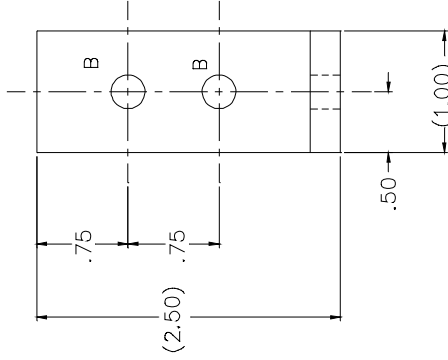
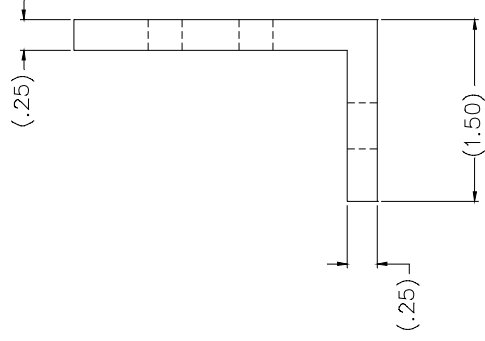
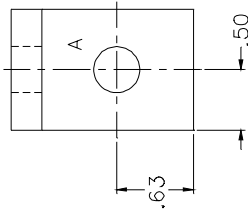


HOLE SCHEDULE

A = .391 (X8)

NUTTER INSTALLED

N/A	REDRAWN ON NEW BORDER	5/26/99
ECN #	DESCRIPTION	DATE
MODEL USAGE	HydroLynx	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES	MODEL NO.	5054TS-FM
FRACTIONS = € N/A	TITLE	RING, REINFORCING
.XX = € .01	DWG TYPE	FAB
.XXX = € .005	DATE	6-3-99
MAT'L 0.090" THICK ALUM.	CHECKED BY	HARGAN
FINISH AS ISSUED	DATE	6-3-99
TREATMENT	SIZE	A
	DWG NO.	AC104988
	REV	A

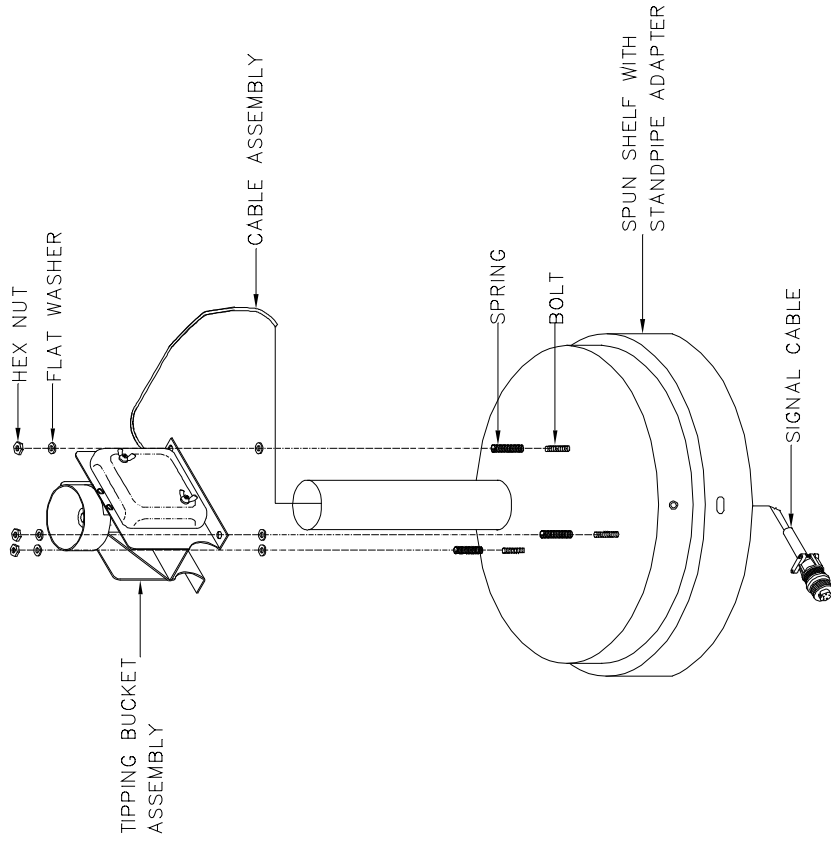


HOLE SCHEDULE

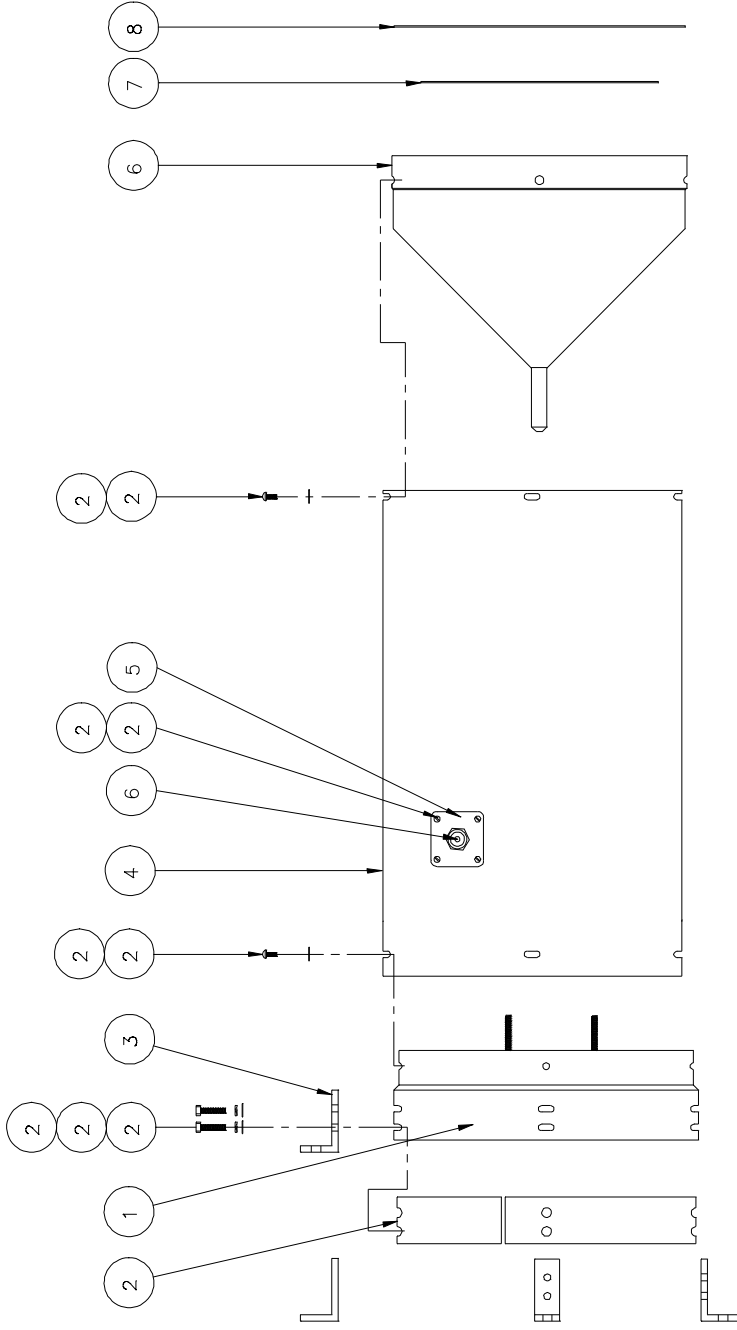
A = DRILL 3/8 (.38) THRU

B = DRILL 9/32 (.28) THRU (X2)

ECN#	DESCRIPTION	DATE
	HydroLynx	
	MODEL USAGE	
	MODEL NO. 5054TS-LM	
	TITLE FOOT MOUNTING	
	DWG TYPE FAB	
	SIZE A	
	DWG NO. AC104989	
	REV A	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES		
FRACTIONS = € N/A		
.XX = € .01		
.XXX = € .005		
MATT 1 1/2 " X 2 1/2 " 1/4 " ALUM		
FINISH CLEAR ANODIZE		
TREATMENT		
DRAWN BY J D LACKIE	DATE 0/21/99	
CHECKED BY		



ECN #	DESCRIPTION	DATE
MODEL USAGE	HydroLynx	
MODEL NO.	5054TS	
TITLE	5050P WITH	
DWG TYPE	SPRING MOUNT	
DRAWN BY	S. HEINEMANN	DATE 02/12/99
CHECKED BY		DATE
SIZE	A	DWG NO. AC108022
		REV



N/A	REDRAWN ON NEW BORDER	12/21/99
ECN#	DESCRIPTION	DATE
HydroLynx		
MODEL USAGE		
MODEL NO. 5054TS - FM		
TITLE TOP SECTION FOOT MOUNTED		
CHASSIS		
DRAWN BY O. SCIORELLI		
DATE 12/21/99	DWG TYPE ASSEMBLY	REV A
CHECKED BY	SIZE B	DWG NO. AC104766

