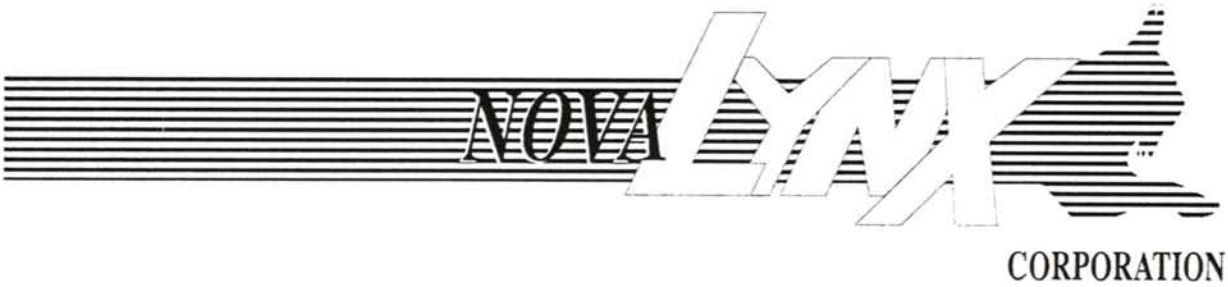
NovaLynx Corporation

TIPPING BUCKET RAIN GAUGE
ELECTRICALLY HEATED 115 VAC

MODELS 260-2500E, 260-2500E-12

USERS MANUAL



REVISION DATE: AUGUST 2000
ECO: 970502

Receiving and Unpacking

Carefully unpack all components and compare to packing list. Notify NovaLynx Corporation 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. Damages to equipment sent via Parcel Post or UPS require the consignee to contact NovaLynx Corporation for instructions.

Returns

If equipment is to be returned to the factory for any reason, call NovaLynx between 8:00 A.M. and 4:00 P.M. Pacific Time and 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 or additional damage in the return shipment. Call NovaLynx for packing instructions in the case of delicate or sensitive items. If packing facilities are not available take the equipment to the nearest Parcel Post, UPS, or freight service and obtain assistance with the packaging. Write the RA# on the outside of the box.

Warranty

NovaLynx Corporation 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. NovaLynx Corporation's obligations under this warranty are limited to, at NovaLynx's option: (i) replacing; or (ii) repairing; any product determined to be defective. In no case shall NovaLynx Corporation's liability exceed product's original purchase price. This warranty does not apply to any equipment that has been repaired or altered, except by NovaLynx Corporation, 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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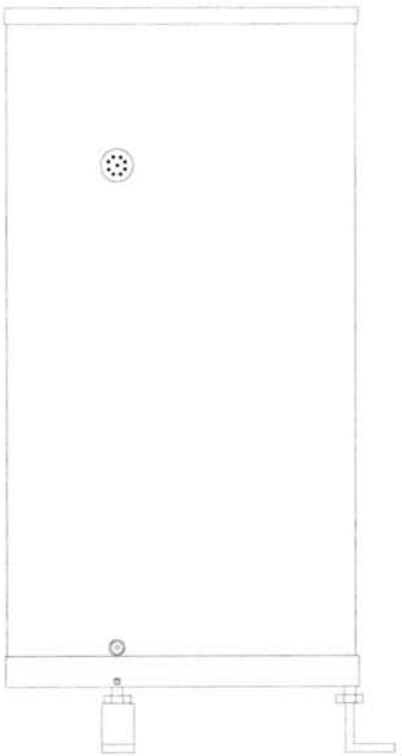
RAIN GAUGE OUTLINE VIEW



MODEL 260-2500E

NovaLynx Corporation

1.0 INTRODUCTION

NovaLynx Corporation manufactures the rain gauges, Models 260-2500E and 260-2500E-12. Model 260-2500E features a standard eight-inch diameter orifice, while the Model 260-2500E-12 has a twelve-inch diameter orifice. Both gauges have been designed with high grade materials and have been built to provide years of trouble-free operation.

The 2500 series of rain gauges are tipping bucket style mechanisms. The tipping bucket design provides signals through the use of a magnet operated reed switch. The switch contact closure may be used with electro-mechanical and electronic counters, event recorders, and electronic recording equipment. The standard version of the rain gauge is calibrated to produce switch contacts for every 0.01" of rainfall. Other calibrations are available upon request provided they do not exceed the physical limitations of the tipping bucket. The tipping bucket design is useful in that it allows unlimited measurements of rainfall. As each tip of the bucket counts the rain, the water is dumped out of the bucket and it exits the gauge through drains located in the base plate.

The NovaLynx rain gauges are constructed using the highest quality materials available. This design provides long-term, trouble free operation with a minimum of maintenance as long as each gauge is properly installed and maintained. Parts of the rain gauge that are fabricated by NovaLynx Corp. are constructed of aluminum with anodized or painted finishes. Fasteners are all stainless steel. Some components are made of high quality plastic.

A basic rain gauge assembly includes a main collection funnel, an outer cover, an internal funnel, a tipping bucket and magnetic switch assembly, a base, and mounting feet with leveling adjustments. Two adjustable screws provide the calibration setting of the tipping bucket by changing the elevation of the bucket resting point.

The three mounting feet have been designed to provide a method of adjusting the gauge's level after installation. Each foot is bolted onto the supporting structure to secure the gauge. An adjusting knob just above the foot is used to fine tune the level of the gauge base. A built-in bulls-eye bubble level is used to determine when the correct level is obtained. Set screws are used to lock the adjusting knobs into position.

Output signals from the rain gauge are available using the terminal block located on the tipping bucket assembly frame. Typically, a two-conductor, shielded cable with a wire size of 20 AWG is used to connect the rain gauge to the recording or data logging equipment. For rain gauges that are furnished by NovaLynx with cable, the cable will be terminated at the rain gauge end by spade lugs. The spade lugs are sized to fit the screw terminals located on the rain gauge.

Unless specified otherwise, the other end of the cable wires will be stripped and tinned. The rain gauge output signal is a momentary switch closure or pulse. Power for the output signal originates in the recording/monitoring equipment and is typically 5 to 12 volts DC.

Electrically heated versions of the 2500 series of gauges are provided for use in cold climates to measure frozen precipitation such as snow and sleet. The electrically heated gauges include the features listed above plus a heater element, thermostat, a fuse holder and fuse, and associated wiring and terminal blocks.

2.0 SPECIFICATIONS

Capacity:	Unlimited
Orifice:	
Model 260-2500E	8-inches (20 cm)
Model 260-2500E-12	12-inches (30 cm)
Calibration:	0.01 inches per tip Others on request
Accuracy:	±1% for 1 to 3 inches per hour ±3% for 0 to 6 inches per hour
Switch:	Magnetic reed, SPST N.O. 3 Watts, ¼ A Max. (27vdc Max ~ Surge suppressors)
Operating Temperature:	-30 to 50 C
Storage Temperature:	-40 to 70 C
Heater Power:	115 Vac 50/60 hz @ 400 Watts
Size:	
Model 260-2500E	8 x 17 inches
Model 260-2500E-12	12 x 20 inches
Weight/Shipping:	
Model 260-2500E	7 lbs / 12 lbs
Model 260-2500E-12	14 lbs / 18 lbs
Optional Accessories:	
Wind Screen, Alter Type	Model 260-952
Event Recorder, Drum chart	Model 260-6113-A
Calibrator Bottle	Model 260-2595
Digital Event Counter	Model 260-2596
Rain Logger	Model 260-2101

3.0 INSTALLATION

3.1 SITE REQUIREMENTS

The location of the rain gauge is very important to the successful operation of the instrument. The most accurate measurements are made in relatively sheltered areas protected from gusting and turbulent winds. Openings in orchards or a grove of trees offer the best exposure for the rain gauge. Fences and other structures can help serve as a wind break as long as they are not too tall. In areas that are open with no nearby structures, a wind screen such as Model 260-952 is recommended to protect against wind effects.

Generally, the heights of objects near a rain gauge should be proportional to the distance away from the gauge. The distance of a nearby object should always be at least twice the height of the object above the gauge.

Wind effects on catch losses are more pronounced during snow storms than during a rain storm. A wind screen is generally not used at locations where snowfall constitutes less than 20% of the mean annual precipitation.

Good locations do not always remain obstruction free. Vegetation can grow quickly, changing an excellent exposure into a poor one. Sites should be inspected regularly in order to properly maintain the exposure of the gauge.

In locations with heavy snowfall, the gauge should be mounted on a support or tower to place the gauge well above the average local snow level. The exposure would be best if the tower were to be located among trees of the same height as the tower.

3.2 INSTALLATION

NovaLynx rain gauges are shipped as a complete assembly with no additional assembly required. The gauge, however, should be installed onto a platform or foundation that is fairly close to being level to minimize the amount of adjustment required after the gauge is mounted. Each gauge is equipped with three mounting brackets that also serve as feet. Each foot has a mounting hole with a diameter of 3/8 inches. Other diameters are availbale as a special order item. The holes in the feet should be matched to anchor bolts located in the foundation or on the platforms. for severely tilted foundations, use a set of three hex nuts on each bolt to provide leveling and locking of the rain gauge onto the foundation. For slightly tilted foundations, use the adjustable leveling knobs above each foot to level the gauge. An internally mounted spirit level may be used to assist in the leveling process. A rough level can be taken by placing a carpenter's level across the topof the gauge funnel. Flat washers may be used as shims to help correct large leveling differences. Place the shims under the

mounting feet. A lock washer and a hex nut should be used to secure the gauge onto the anchor bolts. Some correction of the level may be necessary after tightening the hex nuts.

The leveling knobs located above the mounting feet are secured using allen head set screws. These set screws must be loosened before the knobs can be moved. The set screws are accessible from the sides of the base. Retighten the set screws after leveling the gauge to help ensure that the level adjustment will not shift due to loose screws.

The gauge may be installed with the outer cover on or off. Three screws hold the outer cover in place. Take out these three screws to remove the cover. Carefully remove the cover, avoiding hitting any of the internal rain gauge parts. Some of the moving parts are tied down to prevent movement and possible damage during shipping. remove any tape, plastic ties, foam inserts or other objects used to keep the tipping buckets from moving. The bucket assembly should move easily with the packing materials removed.

NOTE: ***For Winter Operation, when snow may occur, it is recommended to remove both funnel screens. This will allow the snow to reach the heated area of the funnel.***
For Summer & Spring Operation Physically Disconnect the AC Power Totally,
This will prevent any AC Power line > Lightning Damage < that may occur during this time.

4.0 THEORY OF OPERATION

The rain gauge operation is relatively simple. As rain is collected by the eight-inch diameter orifice, the rain drops are directed down through the funnel and into the bucket assembly. As soon as the bucket has collected enough rain to represent 0.01 inches
(or 0.25 mm) of rain, the bucket tips. The rain drains out through the drain collection tubes and the magnet is moved past the reed switch. The reed switch closes momentarily, making an electrical contact that is used in conjuction with electronic counting and recording instruments.

5.0 CALIBRATION

Each rain gauge is thoroughly tested before being shipped to the customer. A measured amount of water is passed through the rain gauge to give an expected number of counts according to the diameter of the orifice. The bucket calibration posts have screws that are adjusted until the correct number of counts are acheived with repeated testing. The exact number of counts or nearly the exact number are recorded for each gauge. As long as the number of counts is within the specified accuracy of the gauge, the calibration will be accepted. The calibration of the gauge should not change during shipping unless the gauge becomes damaged. checking of the gauge calibration may be made after the gauge has been installed to ensure the accuracy of the data.

The rain gauge calibration may be checked using a graduated burette or cylinder. Wet the gauge thoroughly allowing water to flow through the gauge before beginning the test. Wetting the gauge compensates for water that adheres to gauge surfaces causing some error in the counts.

Allow a measured amount of water to flow into the gauge at a specified rate. Refer to the table shown below. The tipping bucket should begin tipping and will give the number of tips calculated. The tips may be counted by listening to the bucket assembly and manually tabulating the count or by using the electronic monitoring equipment that is to be connected to the rain gauge during its normal operation. Should the gauge appear to need adjustment, make the adjustments in small increments and retest each change at least three times.

TABLE 5.1 - STANDARD RAIN GAUGE CALIBRATION QUANTITIES

MODEL NUMBER	TIP	VOLUME OF WATER
260-2500E	0.01"	8.24 ml
260-2500E	0.05"	41.20 ml
260-2500E	0.2 mm	6.48 ml
260-2500E	0.5 mm	16.22 ml
260-2500E-12	0.01"	18.53 ml
260-2500E-12	0.2 mm	14.60 ml
260-2500E-12	0.5 mm	36.48 ml

Use a flow rate of 1 ml per second to avoid bucket over-flow and loss of water due to splashing. The desired accuracy is ±3% of the volume at 1 to 6 inches of precipitation per hour. Best results are obtained by taking a multiple of the volume of water and counting a number of tips. For example, the 0.01" calibration at 100 counts requires 824 milliliters of water.

To verify the rain gauge calibration after the gauge has been installed, best results may be obtained using the calibration bottle. The bottle may be filled to the specified level and then placed into the funnel of the gauge. While the bottle slowly empties the water into the funnel other tasks may be performed if necessary. If the calibration bottle is not available, use any calibrated measuring device and slowly pour the water into the gauge. Keep track of the bucket tips either manually or through the use of the electronic monitoring equipment. For field testing methods, use an expected accuracy of ±5% since the control of the methods is not as good as when in the laboratory. The total number of tips should equal the amount of water poured into the gauge, divided by the calibrated number of tips per the number of milliliters of water shown in the table. For example, a quart of water is equal to 946.3 milliliters. So for a 0.01" calibration, the number of counts for a quart of water should be 946.3 ÷ 8.24 = 114.8.

Should the calibration of the rain gauge appear to be incorrect and in need of adjustment, change the heights of the two calibration posts adjustment screws. To change the screw heights, loosen the nut on the top of the post that locks the screw into place. Rotate each screw by a small amount only and recheck the calibration for the new screw positions. Empty all water from the buckets but do not dry off the buckets. The exact amount of water needed for a single bucket tip may be added into a bucket to see how closely the calibration post screw may be to the position needed for the bucket to tip. After obtaining this point of adjustment, tighten down the locking nuts on the calibration posts screws and test the gauge using a large amount of water at the proper flow rate and count the total number of tips.

The calibration post screws should be adjusted upward whenever the amount of water needed to cuase the bucket to tip is more than the amount shown in the calibration table. Whenever less water than the amount in the table causes the bucket to tip, the screws need to be adjusted downward. The two sides of the bucket assembly should generally be at about the same calibration adjustment. There may be situations where one of the bucket calibration post screws has moved and is off more than the other screw. In this situation the single tip amount of water calibration method may be better for correcting the one side of the bucket to match the other side more closely. Do not dry the buckets during the adjustment procedure.

Carefully tighten the locking nuts on the calibration post screws after completing the adjustments. Recheck the calibration to ensure that the screws have not shifted as the nuts were tightened.

6.0 MAINTENANCE

Annual maintenance of the rain gauge is recommended. Cleaning of the gauge more often may be necessary in areas where there are considerable amounts of airborne debris such as leaves, and dust that is blown into the gauge. Cleaning includes removal of the outer cover, rinsing and drying off of the buckets, cleaning of the drain holes, and removal of debris from all of the screens. The outer and inner funnels should also be rinsed and dried off to remove dirt, dust and insects. Use a baby bottle brush and clean water to clean out the funnel tubes.

The gauge calibration should be tested during the maintenance procedure and adjusted if necessary. If there is regularly scheduled maintenance of the gauge, the calibration can be checked less often.

The electrical output of the gauge should be tested to ensure that the magnet and switch assemblies are still functioning. The switch used in the gauge is a momentary contact, normally open, single pole switch. Test the switch using an ohmmeter, buzzer, or counter, or by observing the data of the monitoring equipment normally connected to the rain gauge. Manually move the bucket assembly and look for the switch closure. Check the 5 Amp fuse for the heater Power, make sure it is not open.

Upon completion of testing and cleaning of the gauge, and before replacing the outer cover and funnel, verify that the gauge is still level. If the bulls-eye level is faulty or has dried out, place a carpenter's level across the top edge of the funnel to measure the level. Adjust the leveling knobs at the mounting feet if the gauge is not level.

Replace or repair any of the gauge components that appear to be damaged or are not functioning properly. The outer funnel should be replaced if the rim has become dented or bent. Repaint the outer cover as needed. Replace any hardware that is missing or has become rusted and corroded. Inspect the signal and any power cables for signs of wear or damage that may expose the wires. Replace the cables as needed. Use wire ties to secure the cables to prevent damage from high winds. For best results, use conduit to protect the cables.

7.0 TROUBLESHOOTING

Failure of the rain gauge to operate usually is the result of loose wiring. Inspect the cable connections to ensure the connections are solid and are correctly made.

Inspect the motion of the bucket assembly to ensure that the buckets move smoothly and without any interference. Check the magnet to see that it passes over the switch without any physical contact and that the switch closes when the magnet passes over it. Should the bucket motion appear to be sticky, remove the bearings and inspect them for wear. Annual replacement of the bearings may be necessary in areas where there are high amounts of rain.

Check the inlet funnel and funnel screens for blockage whenever the rain gauge operation appears to be low or missing. Also inspect the drain tubes for debris that may interfere with the bucket motion.

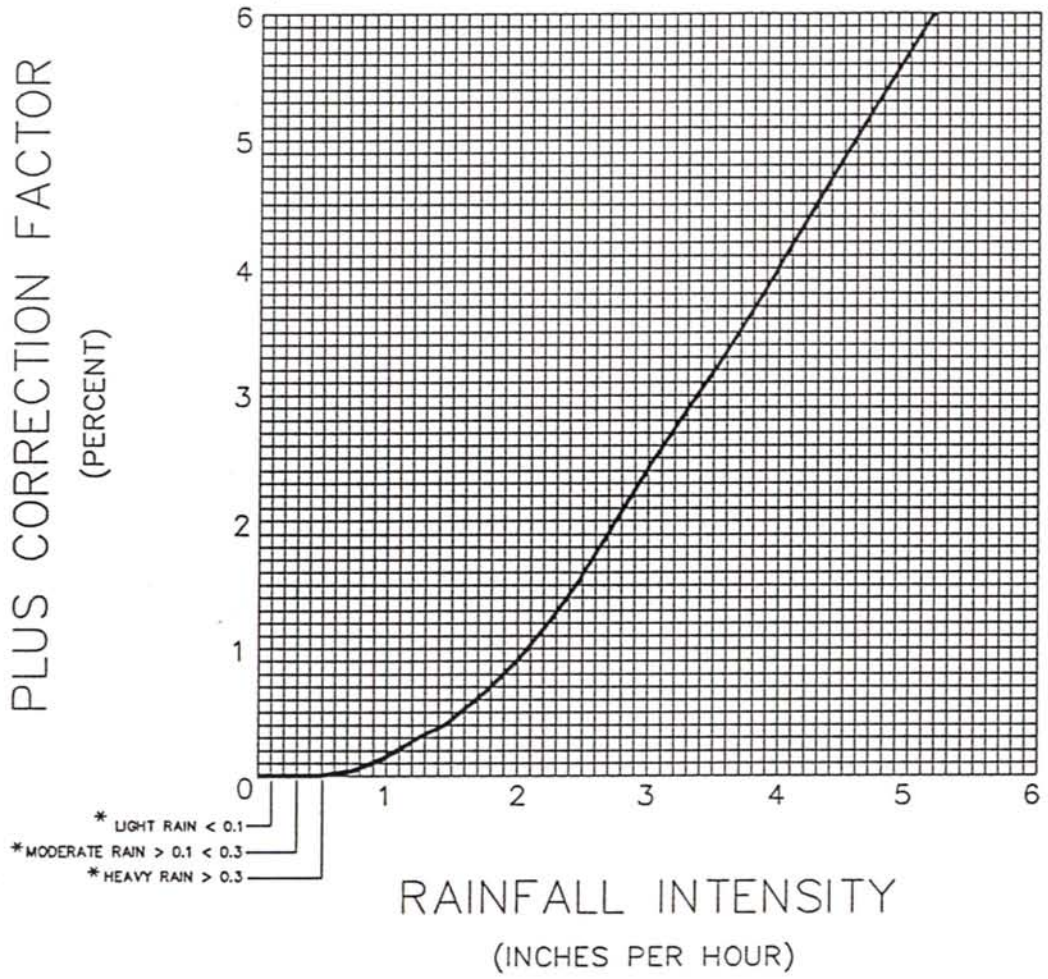
Check the surge protection diode that is placed across the output signal terminals. A shorted diode will cause loss of signal. Replace the diode if it has shorted. The surge protection diode must be in place whenever the gauge is to be used with an electro-mechanical counter or event recorder. The maximum voltage rating is 27 vdc.

CAUTION : ^^LIVE 115 VAC IS PRESENT ^^AT THE TERMINAL BOARD.
Disconnect AC POWER when Servicing

The heater operation is controlled by a freeze point type thermostat. 115vac power is conneted to the 400 watt base heater when the theromstat temperature is below 40°F. The heater power is turned off when the thermostat temperature is above 60°F. To Check the heater itself the resistance is 36 ohms. To check the thermostat use an ohmmeter, and vary the tempeature: less then 35°F = 0 ohms, greater than 65° = open.

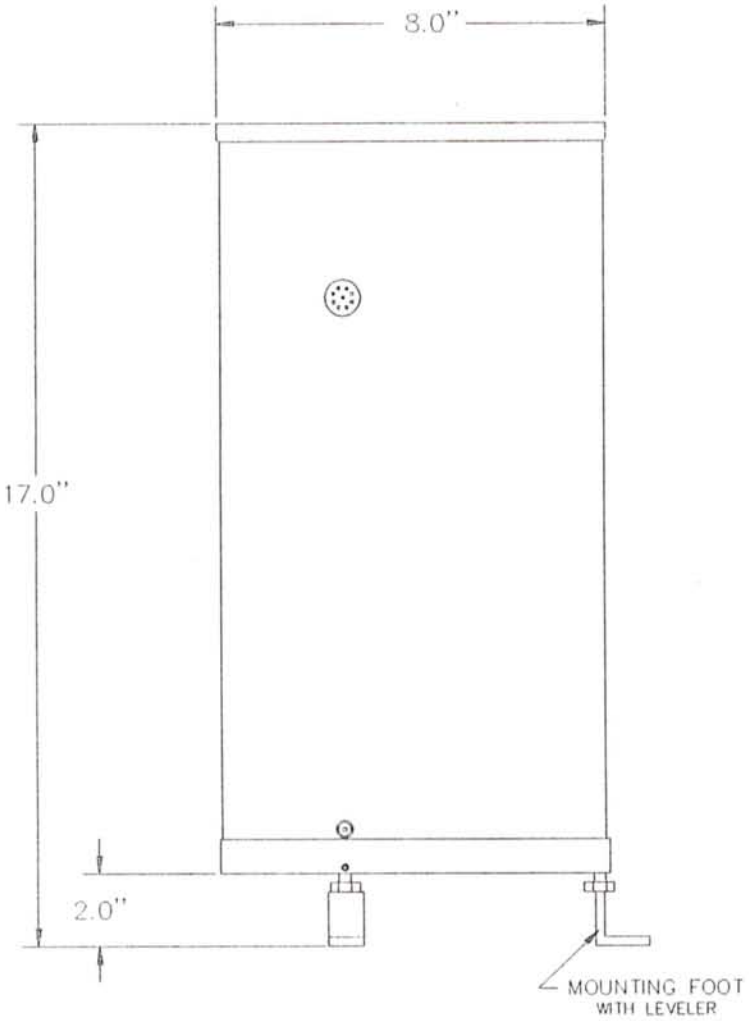
RAINFALL CORRECTION CHART

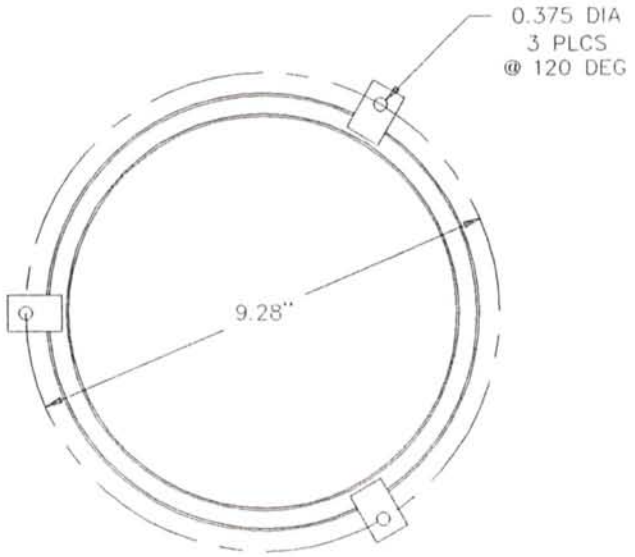
(NOVALYNX 8 INCH DIAMETER RAIN GAGES)



NOTE: CORRECTION OF RAINFALL DATA IS NORMALLY NOT REQUIRED EXCEPT FOR EXTREMELY HEAVY, TORRENTIAL CONDITIONS.

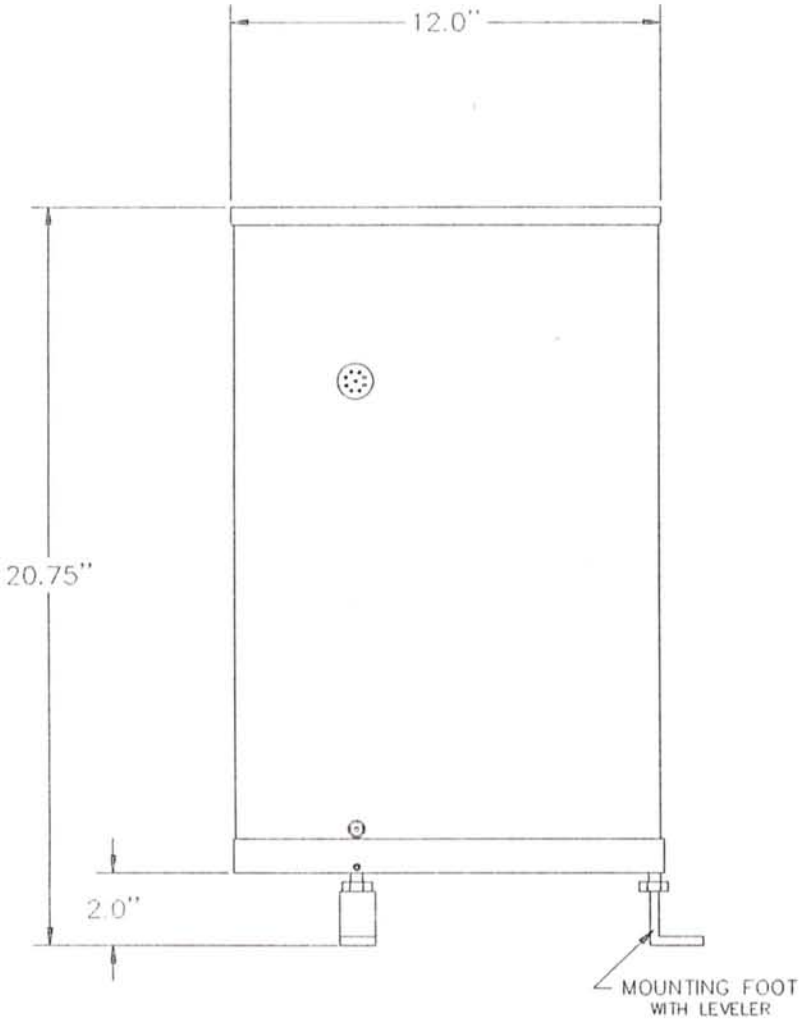
*FEDERAL METEOROLOGICAL HANDBOOK NO. 1

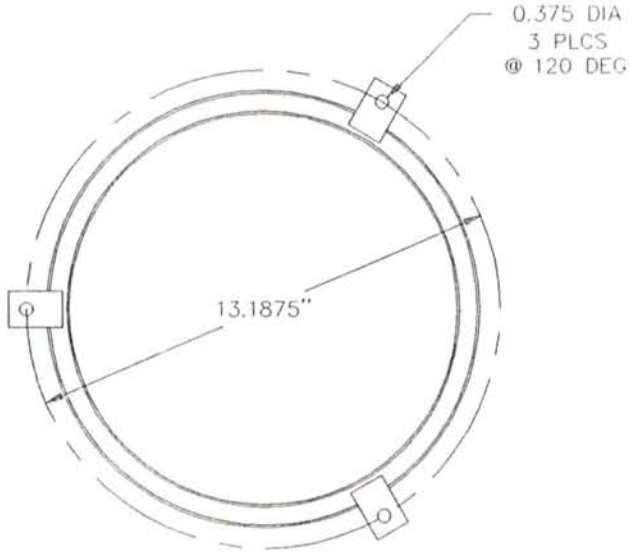




MOUNTING FEET PATTERN

VOTAX SYSTEMS INC			C
TITLE: OUTLINE DIMENSION DRAWING 8 INCH RAIN GAGE			
MOD. USAGE 260-2500			SHEET 1 OF 1
BY RGN	SCALE NONE	DWG. NO.	930116
DATE 1-07-93			





MOUNTING FEET PATTERN

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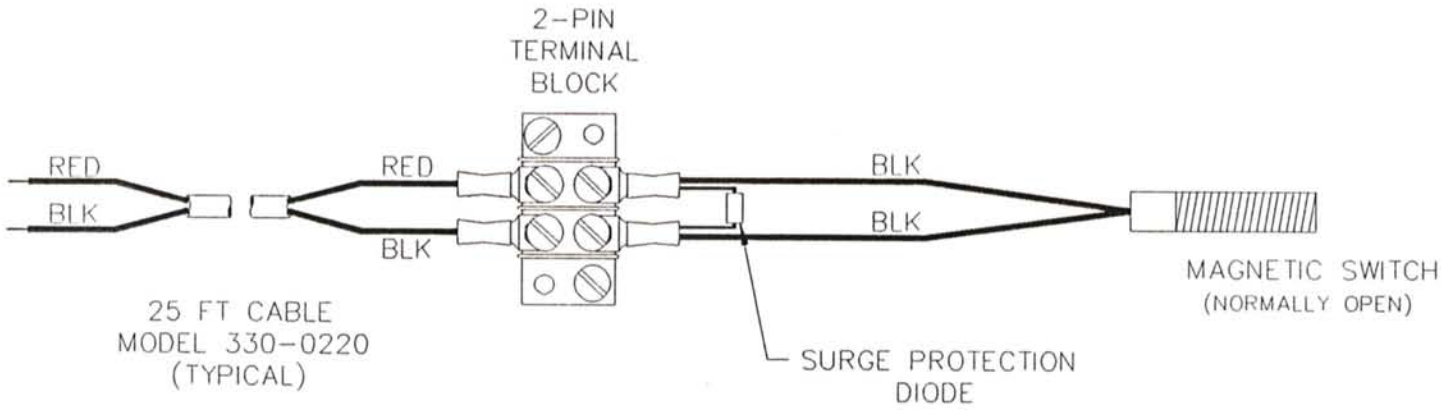
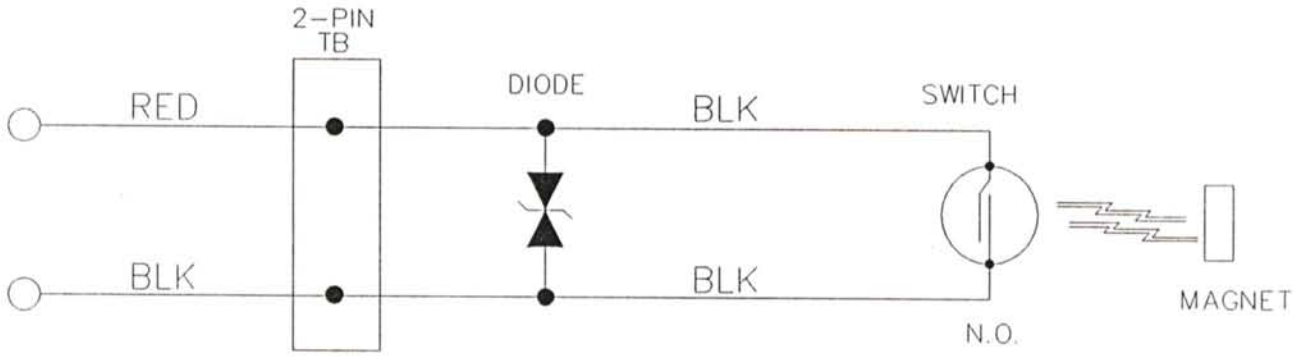
MOD. USAGE 260-2500-12			SHEET 1 OF 1
BY RGN	SCALE NONE	DWG. NO	930118
DATE 1-07-93			





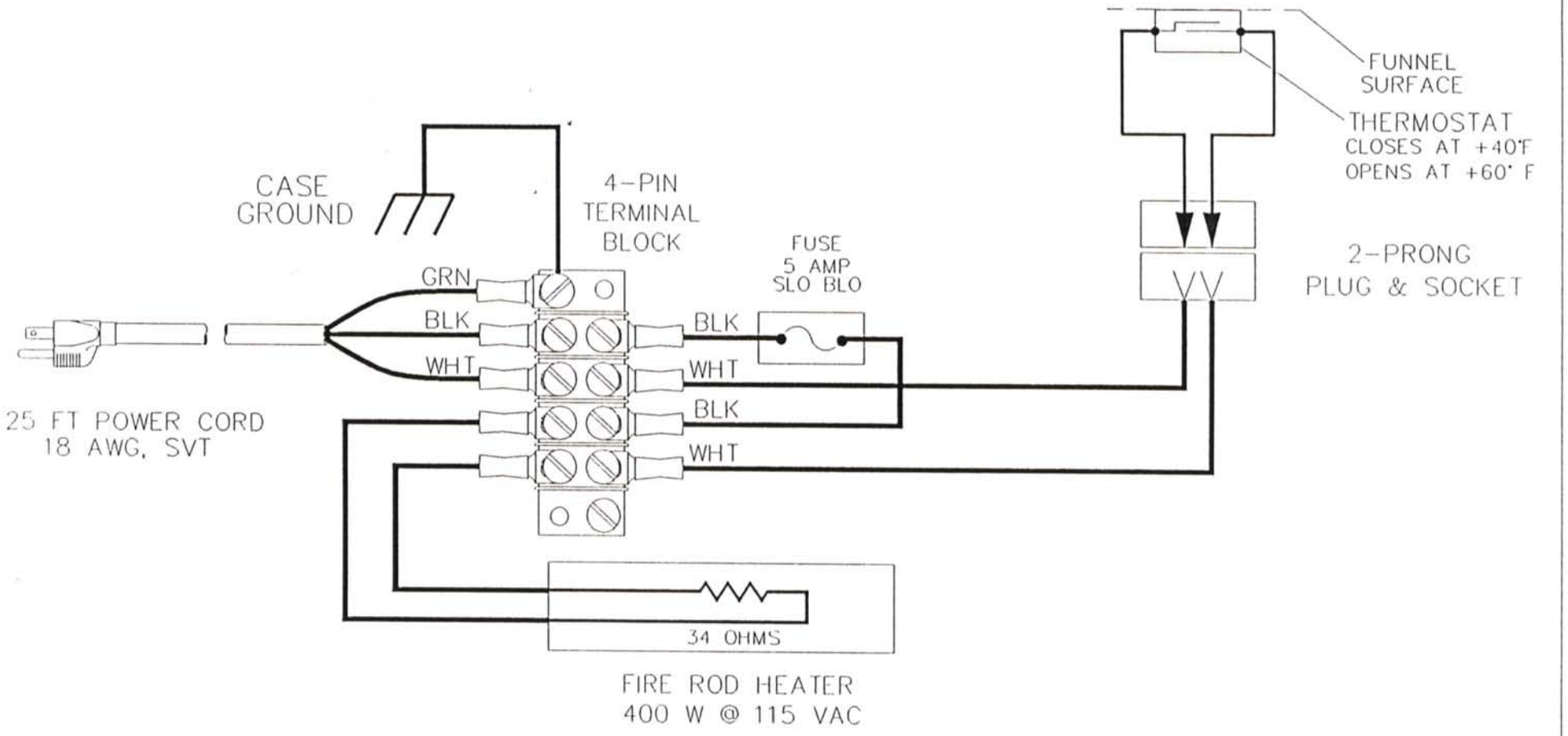
27 VDC
MAXIMUM

3 WATTS
0.25A @ 175 VDC
MAXIMUM

TYPICAL CLOSURE TIME
0.1 SECOND

NOTES:
1. TYPICAL OF BOTH HEATED AND UNHEATED RAIN GAUGES.

NOVALYNX CORPORATION	C
TITLE: SCHEMATIC, SWITCH, MAGNETIC, TIPPING BUCKET RAIN GAUGE	
MODEL USAGE 260-2500, 260-2500-12	SHEET 1 OF 1
BY RGN	SCALE NONE
DATE 11-25-97	DWG NO. 10000346



WARNING

115 VAC WILL BE ALIVE ON THE 4-PIN TERMINAL BLOCK WHENEVER THE POWER CORD IS PLUGGED INTO A POWER OUTLET. TERMINALS ARE EXPOSED INSIDE THE RAIN GAUGE.

NOVALYNX CORPORATION			C
TITLE: SCHEMATIC, HEATER POWER, TIPPING BUCKET RAIN GAUGE			
MODEL USAGE 260-2500E, 260-2500E-12			SHEET 1 OF 1
BY RCN	SCALE NONE	DWG. NO. 10000347	
DATE 11-25-97			

Part Number 160-2500H Heater Kit Installation Instructions

These instructions are intended to be used with Drawing Number 10000343 Assembly, Rain Gauge Elect. Heated, 12" Dia. It is also valid for the 8" Rain gauge.

The components for the heater assembly are shown in Drawing Number 1000323.

1. Install the 4-Pin-Terminal-Block(20) to the side of the Tipping Bucket Support(5)using 2, 6-32x1/2 screws with lock washers.

2. Install the Connector & Fuse-Holder-Bracket(12) to the side of the Tipping Bucket Support(5) using 2, 6-32x1/2 screws with lock washers.

3.Install the Socket(22) into the Connector & Fuse-Holder-Bracket(12) using 2, 6-32x3/8 screws and lock washers.

4. Put the orange power cord(29) through the hole in the base and secure it with the Strain Relief(31)

5. Install the Heat-Sink-Tube(13) onto the base(17). First clean out the through holes, then use heat transfer compound on the bottom of the Heat-Sink-Tube(13) prior to securing it in place with 3, 6-32x1/2 screws and lock washers.

6. Insert the heating element(26) into the Heat-Sink-Tube(13) and secure it with the set screw(47)

7. Mount the Fuse-Holder & Hex-Nut(33) onto the Connector & Fuse-Holder-Bracket(12).

8. The Thermostat Bracket & Thermostat assembly(15)&(27) is attached to the Funnel Tip with the Clamp(40).

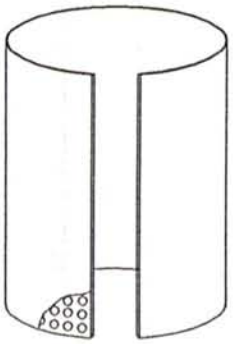
9. Wire the heater element, fuse, and thermostat as shown in Drawing Number 10000247.

10. Line the can with the Silver Insulating Foil and tape in place. Cut 3 holes in the insulating foil to match with the 3 ventilation holes in the can..

11. Place the Warning Label on the inside base surface.

NovaLynx Corporation, P.O. Box 240, Grass Valley, CA 95945 Ph 530-823-7185

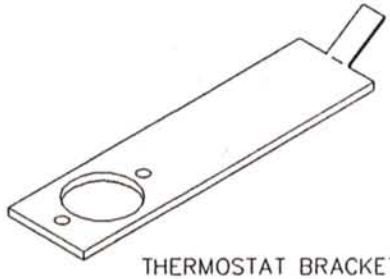
5 Mar 2003
cna



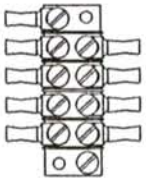
INSULATING FOIL
25"x 11"

SILVER TAPE

2"x 11"

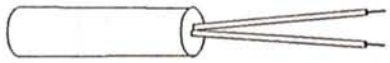


THERMOSTAT BRACKET
(SHOWN IN INVERTED POSITION)

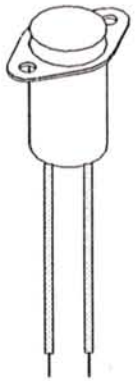


4 PIN
TERMINAL BLOCK
& 9 SPADE LUGS

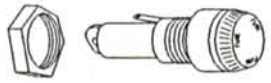
CONNECTOR & FUSE
HOLDER BRACKET



FIREROD HEATER

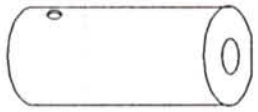


THERMOSTAT



FUSE HOLDER
& HEX NUT

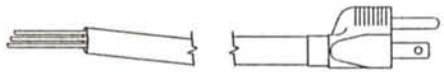
FUSE
5A, 3AG



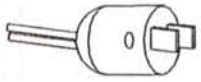
HEAT SINK TUBE

CLAMP

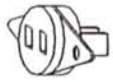
STRAIN RELIEF



POWER CORD



PLUG



SOCKET

WARNING
115 VAC

WARNING LABEL

DRAWING NOT TO SCALE

971001	REVISE T-STAT & MOUNT BRACKET	10-6-97
ECO#	DESCRIPTION	DATE

NOVALYNX CORPORATION

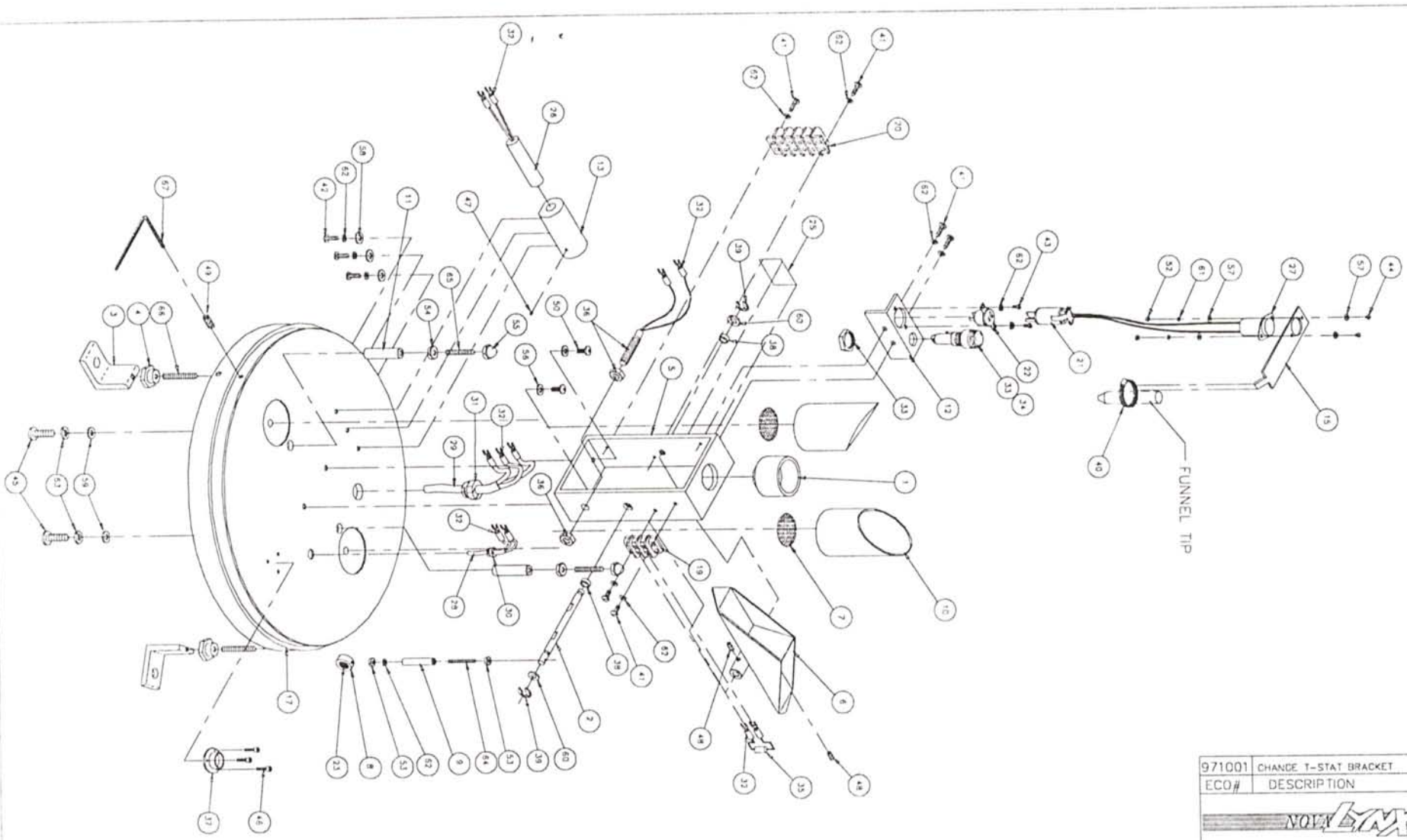
C

TITLE
PARTS IDENTIFICATION
RAIN GAGE ELECTRIC HEATER KIT

MODEL USAGE 260-2500H

SHEET 1 OF 1

BY RGN	SCALE NONE	DWG. NO.	10000323
DATE 10-6-97			



NOTES:
1. COVER AND 12" FUNNEL NOT SHOWN.

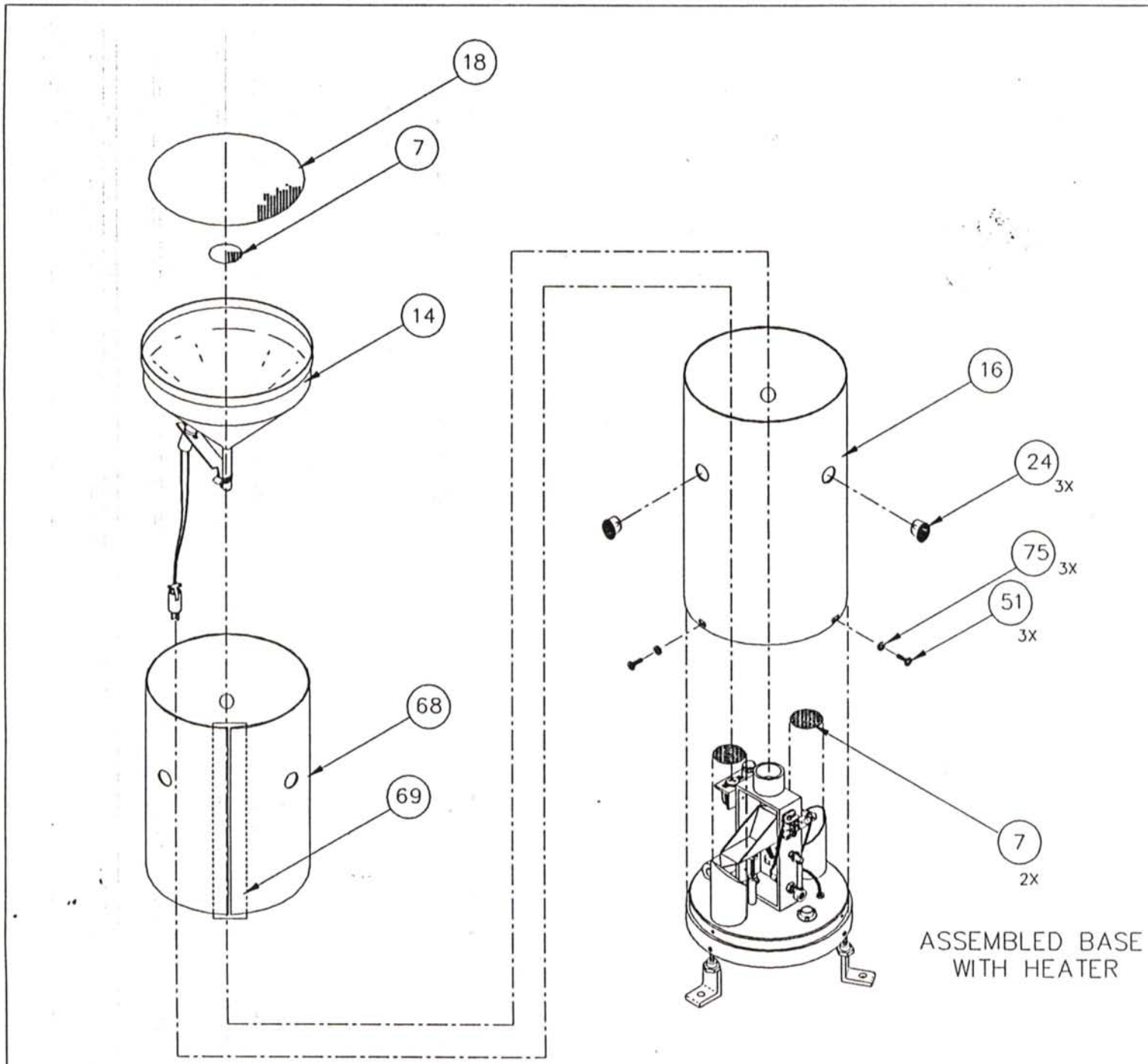
971001	CHANGE T-STAT BRACKET	10/6/97
ECO#	DESCRIPTION	DATE

NOVALYNX CORPORATION

D

TITLE
ASSEMBLY, RAIN GAUGE
ELECT. HEATED, 12" DIA

MODEL USAGE 260-2500E-12		SHEET 1 OF 1
BY RN DATE 11-19-97	SCALE 1=1	DWG. NO. 10000343



NOVALYNX CORPORATION

C

TITLE
ASSEMBLY, 8" ELECTRICALLY HEATED RAIN GAUGE

MODEL USAGE - 260-2500E		SHEET 1 OF 1
BY RGN	SCALE 1:1	DWG. NO. 10000341
DATE 11-18-97		

MODEL 260-2500E

Parts List for Rain Gauge, Electronically Heated

ITEM NO.	NL P/N	DESCRIPTION	QTY.
1	10000006	Funnel, Inner	1
2	10000007	Shaft, Bucket	1
3	10000008	Foot, Leveling	3
4	10000009	Knob, Leveling	3
5	10000011	Bracket, Bucket	1
6	10000024	Bucket, 0.01" per tip	1
7	10000026	Screen, 1 5/8" Dia., Funnel & Drain Tube	3
8	10000027	Holder, Magnet 3/8" Dia.	1
9	10000028	Cover, Magnet Arm	1
10	10000029	Tube, Collection	2
11	10000030	Post, Calibration Screw	2
12	10000086	Bracket, Connector Thermostat	1
13	10000087	Heat Sink Tube/Heater Mount	1
14	10000116	Funnel, 8" I.D., Anodized with Tip	1
15	10000263	Bracket, Thermostat Mount	1
16	10000139	Cover, Outer, 8" I.D.	1
17	10000140	Base, 8" O.D.	1
18	10000225	Screen, 7-5/8" Dia., Funnel	1
19	21051401	Terminal Block, 2-Pin	1
20	21051404	Terminal Block, 4-Pin	1
21	21008102	Connector, 2-Prong Plug T-stat Power	1
22	21008103	Connector, 2-Prong Receptical, T-stat Power	1
23	25000002	Magnet, 3/8" Dia.	1
24	28000402	Plug, 7/8" Dia., Vented, Black Nylon	3
25	28010100	Label, Warning, 115 VAC	1
26	28900102	Heater, Fire Rod	1
27	28900303	Thermostat	1
28	330-0220	Cable, Signal, 20/2 PVC Stranded (ft)	25
29	330-0320R	Cable, Power, 16/3 SJTW-A Outdoor (25ft)	1
30	41500313	Strain Relief, 3/8" O.D., Signal Cable	1
31	41500314	Strain Relief, 5/8" O.D. Power Cable	1
32	41900600	Terminal, Spade Lug #6 Nylon Insulated	13
33	44000200	Fuse Holder, Panel Mount	1
34	44200105	Fuse, 5 Amp Slo-Blo	1
35	46311501	Diode, Surge Protection	1
36	51001802	Switch, Magnetic Proximity, 12" Leads	1
37	64802001	Level, Bull's Eye Spirit Bubble	1
38	71010000	Bearing, 0.25X0.375 SS Mini	2
39	71131102	E-ring, 1/4 ID X .210 X .029 SS	2
40	71309001	Hose Clamp 7/32-5/8 Dia, Worm Gear	1
41	72082003	Screw, 6-32 X ½ Pan Hd Slot SS	2
42	72082005	Screw, 6-32 X 5/8 Pan Hd Slot SS	3
43	72082001	Screw, 6-32 X 1/4 Pan Hd Slot SS	2
44	72083502	Screw, 4-40 X 1/4 Pan Hd Slot SS	2
45	72084002	Screw, 1/4-20 X 5/8 Pan Hd Slot SS	2
46	72122003	Screw, 2-56 X 3/8 Socket Hd SS	3
47	72146100	Screw, 6-32 X 1/4 Set Cup Point SS	1
48	72146301	Screw, 8-32 X 3/16 Set SS	2

MODEL 260-2500E

Parts List for Rain Gauge, Electronically Heated

ITEM NO.	NL P/N	DESCRIPTION	QTY.
49	72148201	Screw, 1/4-20 X 1/4 Set SS	3
50	72188002	Screw, 10-32 X ½ Button Hd Socket SS	2
51	72188003	Srew, 10-32 X ½ Hex Washer Hd SS	3
52	72211301	Nut, 4-40 Hex SS	2
53	72211401	Nut, 6-32 Hex SS 5/16 X 7/64	2
54	72225201	Nut, 8-32 Hex SS 11/32 X 1/8	2
55	72246302	Nut, Acorn 8-32 Hex SS .330 X .375	2
56	72300301	Washer, Flat #10 SS 13/64 X 7/16 X .031	2
57	72302100	Washer, Flat #4 SS	4
58	72302101	Washer, Flat #6 SS	3
59	72310501	Washer, Flat 1/4 SS	2
60	72310502	Washer, Flat 1/4Teflon .25 X .50 X .062	2
61	72341001	Washer, Split #4 SS	2
62	72341101	Washer, Split #6 SS	12
63	72341401	Washer, Split #1/4 SS .255 X .493 X .062	2
64	72450601	Stud, 6-32 X 2 SS	1
65	72450602	Stud, 8-32 X 1-1/2 SS	2
66	72450603	Stud, 10-32 X 1-1/2 SS	3
67	72600000	Allen Wrench 1/8	1
68	10000366	Insulating Bubble Wrap 25 X 11"	1
69	10000367	Tape, Silver, 2" X 11" Long	1
70	60082000	Wire, Teflon, 20 AWG White	33"
71	60082001	Wire, Teflon, 2- AWG Black	12"
75	72310810	Washer, #10, Nylon	3