

Lightning Rod kit with Aluminum Tapered Point, Mast Clamp, 8' Ground Rod & clamps, & leg Grounding Lug. Order wire separately below.

LR-8400

#4 Ground Wire, order next longer length from tip of mast to ground rod

CW-2540 25 feet

CW-5040 50 feet

CW-7540 75 feet

CW-1040 100 feet

CW-1240 125 feet

CW-1540 150 feet

GR-5080 5/8 by 8 ft. ground rod weight 8lbs

GR-4400 Ground rod wire clamp weight .5lb

TL-0470 Terminal lug, for wire size to 4 /00



Thrust Bearing premium weatherized twin bearing for rotating setups, 1.3" to 2.6" mast diameter; **TB-25**

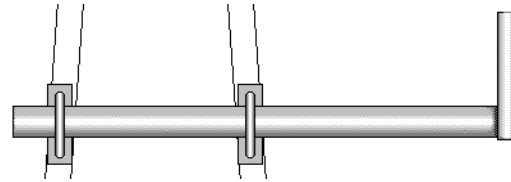


Mast Adaptor for non-rotating setups. Secures masts, 1.3" to 2.1" dia. two required, one at tower top and one at base of mast. **MC-10**

Side Arm for adding other antennas, weather gear, etc. 7" high by 1.31" diameter mast, U bolt mounting hardware included.

24" Long # **RA-6024**

48" Long # **RA-6048**



MASTS Select the mast that matches your needs

M1049	9' X 1.90" OD X .145 wall galv. steel heavy dty	25 lbs
MA2069	9' X 2.375" OD, .154 wall aluminum heavy dty	12 lbs
MA1049	9' X 1.90" OD, .145 wall aluminum medium dty	9 lbs
MA5050	5' X 1.315 OD, .133 wall aluminum light duty	3 lbs
MA1050	5' X 1.90 OD, .145 wall aluminum medium duty	5 lbs



GLENMARTIN
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RT-1832

TAPERED TOWER

OWNER'S MANUAL

DATE PURCHASED:

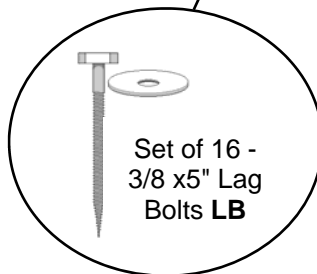
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RT-1832 TOWER SPECIFICATIONS

Maximum Height	17.5 Feet / 5.33 Meters
Maximum Width	32 Inches / 0.81 Meters
Material	6061-T6 Al. 1/8"x1.5"x1.5" Angle
Stainless steel Hardware	Nylon self-locking Nuts
Maximum Mast Diameter	2-3/8 Inches / 6 cm
Maximum length of Mast	9 Feet / 2.74 Meters
Max. balanced load weight	125 pounds / 55kg (center balanced)
Rotator Plate	Fits most 4-bolt mounted rotators

Notes to Loading Chart:

- 1) Tower designed in accordance with applicable IBC, AASH-TO, and ANSI/TIA-222 standards
- 2) Tower designed with 3-Second gust, exposure C, structure class II, topographic 1
- 3) Max. projected area is the total equipment wind area the tower can support under a specific wind speed
- 4) Roof elevation assumed to be 100 ft. Wind areas in loading chart based on this assumption
- 5) Specific structure study may be required if roof is significant higher than 100 ft and with heavy loading
- 6) Reactions at tower legs and base are factored per ASCE 7's load combinations
- 7) Roof shall be verified to meet specified reactions listed in loading chart before installation
- 8) Concrete pier sizes based on presumptive soil and recommended for ground mounting

Wind Load Chart

Wind speed (mph)	85	90	95	100	105	110	115	120
Max. projected area (sq.ft)	8	7.2	6.7	6.1	5.6	5.1	4.7	4.3
Down at leg (kip)	2.74	2.86	3.02	3.18	3.32	3.48	3.63	3.79
Uplift at leg (kip)	2.65	2.78	2.96	3.12	3.28	3.44	3.61	3.78
Shear at leg (kip)	0.29	0.31	0.33	0.35	0.37	0.39	0.41	0.44
Shear at base (kip)	0.81	0.87	0.95	1.02	1.09	1.17	1.24	1.32
O.T.M (kip-ft)	10.16	10.63	11.28	11.88	12.45	13.05	13.65	14.28
Hole/Pier diameter (in)	6	6	6	6	6	6	6	6
Hole/Pier depth (in)	42	44	46	48	52	54	56	58
Concrete yard (cu. yard)	0.10	0.11	0.11	0.12	0.13	0.13	0.14	0.14

PARTS LIST

Part	QTY	Serial	Description	Part	QTY	Serial	Description
1	8	RT12812	1832 Leg	20	4	RT12830	Lower Mount Plate
2	4	RT12813	Horiz. Brace 6.2"	21	4	RT12831	Diag. Brace 23.49"
3	4	RT12814	Diag. Brace 18"	22	4	RT12810	Roof Mount Foot
4	4	RT12815	Diag. Brace 19.1"	23	2	RT12832	Rotator Mount Plate
5	3	RT12816	Horz. Brace 11.07"	24	1	PR11119	Ladder Rung 11.07"
6	4	RT12817	Diag. Brace 20.43"	25	1	PR11120	Ladder Rung 13.42"
7	3	RT12818	Horz. Brace 13.42"	26	1	PR11121	Ladder Rung 15.78"
8	4	RT12819	Diag. Brace 21.92"	27	1	PR11122	Ladder Rung 17.9"
9	3	RT12820	Horz. Brace 15.78"	28	1	PR11123	Ladder Rung 20.25"
10	3	RT12821	Horz. Brace 17.9"	29	1	PR11124	Ladder Rung 22.6"
11	4	RT12822	Diag. Brace 25.12"	30	1	PR11125	Ladder Rung 24.95"
12	3	RT12823	Horz. Brace 20.25"	31	1	PR11126	Ladder Rung 27.31"
13	4	RT12824	Diag. Brace 26.95"	32	4	RT12850	Leg Clip
14	3	RT12825	Horz. Brace 22.6"	33	192	ZH-9201	1/4"-20 X 3/4" Bolt
15	4	RT12826	Diag. Brace 28.85"	34	192	ZL-9602	1/4"-20 Nylok Nut
16	3	RT12827	Horz. Brace 24.95"	35	4	ZH-9226	3/8"-16 X 1" Bolt -18-8SS
17	4	RT12828	Diag. Brace 30.82"	36	4	ZL-9610	3/8"-16 Nylok Nut -18-8SS
18	3	RT12829	Horz. Brace 27.31"	37	4	ZW-9714	3/8" Flat Washer 18-8SS
19	4	RT12801	Thrust Bearing Plate				

SAFETY RULES

1. Never mount any tower system close to wires or power lines. Stay at least 1½ times the overall height away from any power lines or wires.
2. Never attempt to touch someone who is in contact with power lines or wires.
3. Never climb the tower. Serious injury could result from a fall. This is even more dangerous when you are on a roof top.
4. If you drop something while working on a roof, NEVER try to catch or stop it. Let it fall and keep your own balance secure.
5. Use the buddy system. Always have someone helping nearby.
6. Always keep children away.
7. NEVER attempt to install or attempt to repair equipment while under the influence of drugs, alcohol or any medication.
8. Certain applications may require field drilling.

Please keep these instructions in a safe place after installation. If you sell your tower, pass these instructions on to the new owner.

Glenmartin WARRANTY

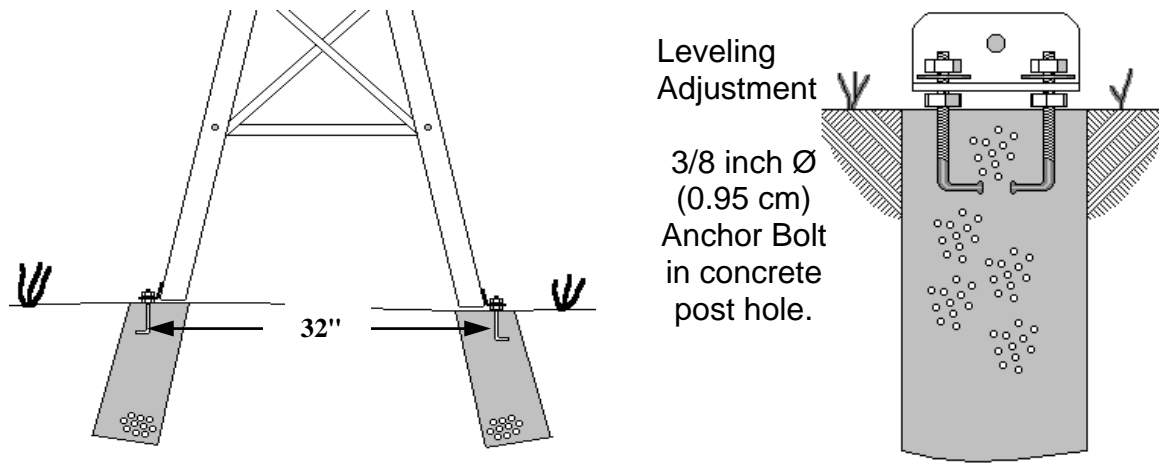
Glenmartin warrants the RT-1832 Roof Tower for one full year. If this tower fails to give the original purchaser complete satisfaction within one year from the original date of purchase, return it to the nearest authorized distributor and GlenMartin, Inc. will repair it, free of charge. GlenMartin, Inc. will not be liable for loss or damage to property or any incidental or consequential loss or expense from property damage due directly or indirectly from the use of this product.



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Ground Installation Recommendations



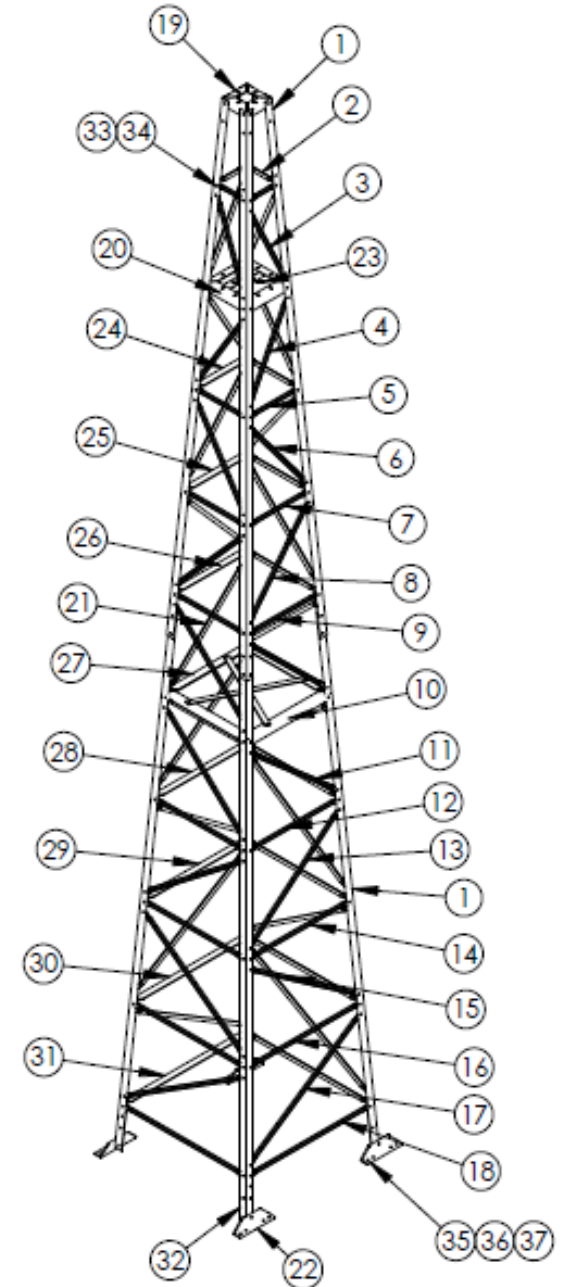
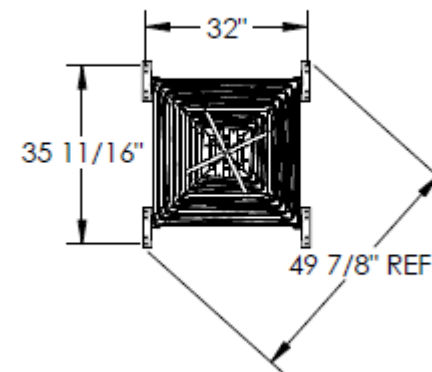
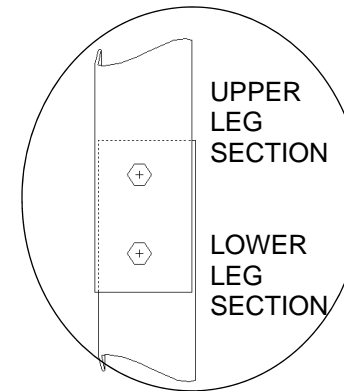
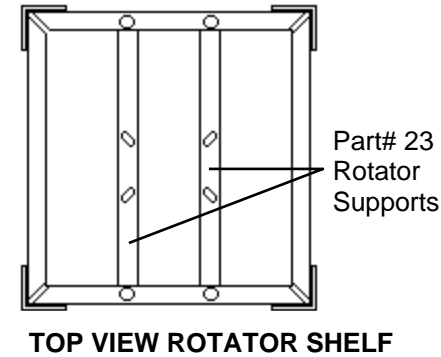
GROUND INSTALLATION RECOMMENDATIONS

1. Place 4 concrete post holes according to recommendations in loading chart on page 2 per specific wind and loading
2. Use 3/8" (0.95cm) anchor bolts with leveling nuts (GME # EL-3744) to secure mounting brackets. Ensure at least 3"-4" (8-10cm) of the anchor bolt is above the concrete surface.
3. Always install an adequate grounding system on your tower.

RECOMMENDATIONS ON MOUNTING ANTENNAS

1. Mount rotator.
2. We recommend using a Thrust Bearing (GME #TB-25) to support mast.
3. Use the shortest mast necessary to match installation.
4. Always keep tower, mast & antennas 1½ times the height away from overhead power lines.
5. Adjust rotator, thrust bearing and mast so they are concentric (centered).
6. We **strongly** advise lightning protection for your new tower. Ground your system to achieve a goal of ground resistance at 25 ohms or less. See our tower accessories on Page 8 of this manual.

RT-1832 PART LOCATOR



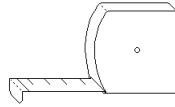
TOOLS YOU'LL NEED FOR ASSEMBLY AND INSTALLATION



SOCKET SET



ADJUSTABLE
END WRENCH



TAPE MEASURE



ELECTRIC DRILL
5/16" & 3/8" DRILL BITS



CAULKING GUN

ASSEMBLY

1. Lay out four sides of the tower with all braces laid in place according to illustration on page 3. This will help keep track of the wide variety of brace lengths. Determine that all parts are present.
2. Lay out four tower leg sections (PART 1) positioned in an inverted "V". **The upper section of the tower overlaps the lower legs (See illustration).** Bolt the sections together.
3. Bolt in the leg reinforcement clips (PART 32) to the inside of each leg at the bottom.
4. The first face to be assembled on the tower is the "ladder" face. Bolt top brace (PART 24) and bottom **angle** brace (PART 31) to the inside of the tower legs with 1/4-20 stainless steel screws and nuts. Repeat this process for the other braces on one face of the tower, both horizontal and diagonal. Use the **angle** horizontal braces for this first side and the 1/4"-20 x 3/4" bolts. Do not tighten the bolts at this time. Remember that the illustration on page 3 is an outside view and this could confuse you.
5. Repeat the process for the other legs, bolting all braces on the inside of the angle legs. You should now have two sides of your tower completed.
6. Join the previously assembled sides at the top (PART 19) and bottom (PART 31). Now continue to bolt the horizontal and diagonal braces in place on the two remaining sides of the tower.
7. Bolt the two rotator support bars (PART 23) in place across the lower mounting plate (Part 20).

8. Enlarge hole at bottom outside of leg with 3/8" drill bit to accommodate 3/8" bolt used to attach the Leg Clip (PART 22) to tower leg. Flat washers are used on each side of the 3/8" bolt.

9. Carefully tighten all nuts.

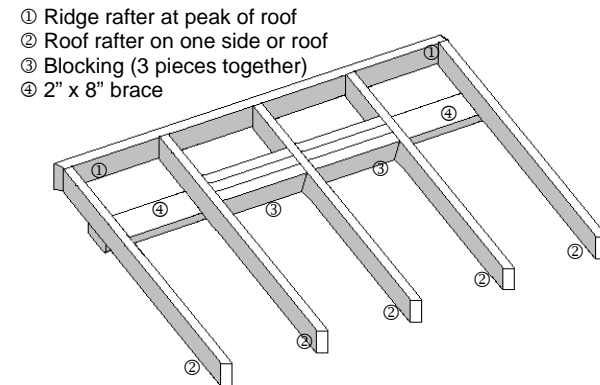
10. Mount a Thrust Bearing (Optional part # TB-25) to the top of the tower, and your rotator on the rotator support braces. For non-rotating systems, use a Mast Clamp (# MC-10) on the rotator shelf, and thrust bearing shelf.

11. Attach the tower as solidly as possible to a roof or other suitable location. Please see roof and ground installation recommendations.

The following installation instructions are recommendations. For the best possible foundation for your tower, please consult a local contractor or engineer.

TYPICAL ROOF INSTALLATION

1. These instructions assume a composition shingle roof on wood.
2. When possible, it is best to bolt the mounting brackets directly to the center of rafters. If that is not possible, bracing should be added as in the drawing shown below.
3. Silicone is applied under and between the shingle flaps, then under the tower mounting brackets.
4. Drill 5/16" pilot holes for the lag bolts (GME part # LB-3755). Fill the pilot holes with silicone before inserting lag bolts.
5. Once lag bolts are tight, caulk heads of bolts with additional silicone.
6. Use a level across the thrust bearing plates to ensure plumbness.



③ & ④ are additional blocking added to support the roof tower

