



US Tower Corporation

Frequently Asked Questions – Ham Towers

QUESTION : Do I need a permit to install a tower?

ANSWER : We highly recommend checking with your local permit office to see if you are required to have a permit to install a tower. If so We **HIGHLY RECOMMEND** getting a permit before purchasing a tower if one is required.

QUESTION : How do I get the permit?

ANSWER : We recommend that you request in writing from your permit office what they require, ie... which building code, what exposure, what is the required wind speed.

QUESTION : How long does the concrete need to cure?

ANSWER : The concrete foundation needs to cure 28 days before placing a tower on it.

QUESTION : Cable replacement and maintenance.

ANSWER : We recommend that you replace your cables every three years, with regular inspection of the cables. You need to look for any rust, broken strains and/or kinking. We do not recommend lubricating the cables as can cause a more serious damage to them.

QUESTION : Are the tower sections available for purchase?

ANSWER : Tower sections are not available for sale individually. To have a damaged section replaced, the tower must be returned to a US Tower facility.

QUESTION : Are any of US Tower products compatible with other tower manufactures?

ANSWER : Some of our parts are will fit other manufacturers towers. To be sure please call and let us see what we can do for you.

QUESTION : Do we sell replacement parts for the standard hand winch on towers?

ANSWER : US Tower only sells the entire winch or the handle. Usually when parts need to be replaced, we recommend replacing the entire winch assembly.

QUESTION : What is the outside diameter of the mast?

ANSWER : 2" OD.

QUESTION : Does US Tower make a large mast?

ANSWER : All of our towers are designed to use a 2" OD mast. We can provide a larger mast but the tower's top section would require modification to handle the larger mast properly.

QUESTION : Does US Tower manufacture a motorized hand winch for the TRX80 or TRX80HD?

ANSWER : No.

QUESTION : Are there any instructions for the eaves mount?

ANSWER : The eaves mounting instructions are provided in the calculations with a detailed drawing.

QUESTION : How much space is needed to install a US Tower raising fixture?

ANSWER : Dependent upon the raising fixture, but on average you will need 18" to 24" space beyond the concrete foundation to stand comfortably and use the hand winch.

QUESTION : Are there any instructions to bypass the RMC1000 with a motor drive?

ANSWER : For safety reasons, US Tower does not provide the bypass instructions. We only recommend that you connect the RMC1000 for use of the motor drive.

QUESTION : Are there any instructions for the IV16?

ANSWER : The IV16 is designed to slide over the mast and sit on the top of your tower or thrust bearing, with the ends of your antenna anchored. This allows the mast to rotate inside of the IV16.

QUESTION : Will a UST tower support a wind turbine?

ANSWER : Some wind turbines cause vibrations that travel down through the tower sections causing them to loosen resulting in possible tower failure.

QUESTION : Why has US Tower changed the anchor bolts from a J bolt to a regular straight bolt?

ANSWER : The anchor bolts were changed from the J bolts in the 1980s to comply with changes in building codes at the time. Today the high strength bolts come with a welded nut and washer on the end.

QUESTION : Can the tower be laid down horizontal while the tower is extended out?

ANSWER : The raising fixture is not designed to handle the additional weight of the tower when it is extended laying horizontally.

QUESTION : Can a MAB be converted to a rotor base?

ANSWER : No. The MAB cannot be converted. You can however replace the MAB with a MARB and add a spindle cap to the bottom of your tower.

QUESTION : Does the MAB or MARB come with the MAF or does that come separately?

ANSWER : No. The MAF is sold separately.

QUESTION : Can the tower be lowered and raised frequently without damage or danger?

ANSWER : The towers are designed to be raised and lowered as frequently as necessary. We actually have some customers that raise the towers every night for use and lower them again by morning.

QUESTION : What comes in the Lattice Style Tower package?

ANSWER : Lattice style towers come with: 1). The T-Base and anchor bolts. 2). Built-in rotor plate. 3). Hand winch models come with the hand winch already installed. 4). The TMM Series Towers come with an 8' mast.

QUESTION : What comes in the Tubular Style Tower package?

ANSWER : The standard MA40 and MA550 come with: 1). The base. 2). Anchor bolts. 3). Eave mounting bracket. 4). Hand winch. Please note that all other tubular towers require a MAB or MARB base.

QUESTION : Can the tower be stopped at any height?

ANSWER : The towers can be used at any height from the maximum extended height all the way down to the nested height.

QUESTION : Can the base and bolts be purchased before the tower?

ANSWER : Yes. Just call one of our friendly and knowledgeable customer service staff members and they will supply you with a price and shipping cost. If you ordered the base and bolts direct and plan on purchasing the tower direct at a later date, just send us a copy of your invoice and we will deduct the cost of the base and bolts from your tower cost (minus the shipping cost).

QUESTION : Shipping the tower?

ANSWER : As soon as the tower is completed, tested and packaged for shipping, one of our agents will call you to be sure that you are ready to receive the tower.

QUESTION : How is the tower packaged?

ANSWER : All of our towers are shipped by a flat bed service to avoid damage. The tower will come assembled and banded together with 2" x 4" skids placed under the tower to allow easy access for off loading purposes. Once a truck is coordinated for shipping your tower, the driver will call 12 to 24 hours in advance to schedule the delivery.

QUESTION : Who is responsible for unloading the tower?

ANSWER : The customer is responsible for off loading the tower from the truck. Please remember that the truck delivering your tower is usually 40' in length. Be sure that they have room to get in and out. If you do not have room at your location for a delivery truck of this length, we suggest contacting a local lumber yard, wrecking yard, etc... in your area, to see if they will unload the tower and reload it onto a smaller vehicle for delivery to your site. Such places usually charge a small fee for this. In addition, please contact and submit your delivery address to US Tower before your tower is shipped.

QUESTION : How do I unload the tower?

ANSWER : There are several options for off loading the tower upon delivery. All of these options are dependent upon your area and resources available. The main thing to remember is the weight you will need to lift and the standard height of a flatbed, which is usually 48". The crane is one option and is recommended for off loading the larger towers. Renting a fork lift is also an option. Access to a tractor with a lift or a tow truck with a lift on the back.

QUESTION : Can the tower be picked up at the factory?

ANSWER : Yes. We will contact you when the tower is completed and at that time you can schedule a time to pick it up. We will be more than happy to even help you load it.

QUESTION : What size pulleys are on my tower?

ANSWER : Because of ongoing improvements over the years to make a better, stronger tower, many parts have changed over the course of our company's history. We highly recommend that you carefully measure the pulleys that you wish to replace before calling us. That way we can get you the correct pulley.

QUESTION : Does the age of my tower matter when purchasing replacement parts?

ANSWER : Over the years, there has been many changes to the tower to accommodate the ever changing requirements of the newest antennas on the market and because of this, communicating the age of your tower is very important. If you are unsure of the age of your tower, please take some clear and definitive photos and send them to us at sales@ustower.com and we will do our best to determine the approximate age and/or make of your tower. If you are unsure what the name of the part is, please send clear and definitive photos to us at sales@ustower.com so that we can help you identify it and get you the appropriate replacement part.

QUESTION : How does the TRX80 attach to my tower?

ANSWER : The raising fixtures attach to the t-base. The arms have special ears that they attach to and the main piece bolts to the t-base.

QUESTION : Can I purchase a TRX80HD even though I do not have a heavy duty tower?

ANSWER : The TRX80 and the TRX80HD are designed to work on several different towers. Unfortunately, the TRX80 will not fit on the same towers as the TRX80HD does and vice versa. The TRX80 will work on the following tower: • TX438, TX455, • HDX538, • HDX555, • TMM433SS, • TMM433HD, • TMM451SS. The TRX80HD will work on the following towers: • TX472, • TX489, • HDX572, • HDX589 *Please note that this tower requires a special TRX80HD #9 to operate on this tower.

QUESTION : Do you have a list of recommended tower installers in my area?

ANSWER : Yes. There is a list of tower installers provided on our web site or you can call our customer service line at 559.564.6000 to have us locate an installer nearest to your area.

QUESTION : What is the fall zone of the tower?

ANSWER : The fall zone of the tower is the area in which the tower will land if it were to fall.

QUESTION : Will the tower platform work on all UST Towers?

ANSWER : The service platform is designed to work on the lattice style towers only. It clips on the top of the bottom section to provide you with a platform to stand on while you service the antenna and/or rotor.

QUESTION : Is there a detailed description of the raising fixtures?

ANSWER : The installation instructions are only one page for the raising fixture. If you have any problems or questions please do not hesitate to contact us for help.

QUESTION : Are there any wiring diagrams to install the motor drives?

ANSWER : All motor drives are installed at the factory before shipment. We then stand the tower up and test it to be sure it is working properly before packaging the tower up for shipment.

QUESTION : Are there any cabling diagrams to assist in replacing the cables?

ANSWER : We highly recommend that you hire a professional tower installer to assist you with the changing of the cables.

QUESTION : Do you have to use grout on the base?

ANSWER : No. The grout assists in keeping moisture away from the base to protect it, so we recommend it but it is not a requirement.

QUESTION : How long does the concrete have to set before the tower can be installed?

ANSWER : The concrete needs to cure for a minimum of 28 days before installing the tower.

QUESTION : What grade of steel is used for the anchor bolts?

ANSWER : ASTM F1554 Gd.55

QUESTION : What grade of steel is used for the bolts that connect the tower to the base?

ANSWER : ASTM A325

QUESTION : What size bolts are used to connect the tower to the base?

ANSWER : The bolt size depends on the model of tower. Please call us for a recommendation.

QUESTION : Is there a list of parts for my tower?

ANSWER : Due to the vast array of changes to towers and parts over the years, we recommend calling our customer service department to speak with a tower specialist who can then assess your needs and make a recommendation.

QUESTION : What type of rotor will fit in my tower?

ANSWER : The following is a list of rotors and compatible towers: Hygain = •.T2X which fits HDX and MARB, • HAM IV which fits HDX, TX, MARB and TMM433HD, • CD-45 which fits HDX, TX, MARB and TMM433HD. Yeasue = G800 which fits TMM433SS and the TMM541SS, •GS2700 which fits HDX, TX, MARB and TMM433HD. M2 = • OR2800 which fits HDX.

QUESTION : How far from the thrust bearing plate does the rotor plate sit?

ANSWER : Approximately 4 to 5 feet from the top of the tower.

QUESTION : If I have an RMC1000, can I still raise and lower the tower at the base of the tower?

ANSWER : Yes. Just set your RMC on local and you can operate the tower from the base at the control box.

QUESTION : Is the RMC1000 wired or wireless remote?

ANSWER : The raising fixtures attach to the t-base. The arms have special ears that they attach to and the main piece bolts to the t-base.

QUESTION : What type of cable is needed to hook up the remote control?

ANSWER : It requires a heavy duty eight way rotor cable to connect to the tower.

QUESTION : What is the typical delivery time frame once the tower is ordered?

ANSWER : The manufacturing schedule will depend on the amount of orders we have at the time. All towers are built to order.

QUESTION : How do I ground my tower?

ANSWER : We highly recommend that you contact a local electrician to see which codes apply to your area.

QUESTION : How do I pour the concrete without the anchor bolts moving?

ANSWER : You start by attaching them to the t-base with a nut on the top and the bottom of the t-base. Lay a couple of 2x4's across the foundation and drive nails in part way. Bend them over the t-base to hold it in place while pouring the concrete.

QUESTION : How do I pour the concrete without the anchor bolts moving?

ANSWER : You start by attaching them to the t-base with a nut on the top and the bottom of the t-base. Lay a couple of 2x4's across the foundation and drive nails in part way. Bend them over the t-base to hold it in place while pouring the concrete.

QUESTION : How much torque is need for the anchor bolts?

ANSWER : The bolts are to be tightened to a snug tight condition.

QUESTION : How much torque is need for the connecting bolts?

ANSWER : The bolts are to be tightened to a snug tight condition.

QUESTION : Can you use the eave mount with the MAB or MARB?

ANSWER : The eve mount is not designed to be used with the MAB or the MARB base.

QUESTION : What are the dimensions for the rotor plate?

ANSWER : The rotor plate dimension is dependent on the model of the tower. Each rotor plate is drill with four elongated holes to make them as universal as possible to most standard rotors.

QUESTION : What do I need to obtain a building permit?

ANSWER : Unfortunately all permit offices are different; each city in each state can require different information for installing a tower. We highly recommend that you contact your local permit office and request in writing exactly what they require. Please send us the written information from your permit office and we will see what we can do to provide you with the right information to get your permit.

QUESTION : Does US Tower guarantee the calculations they provide will pass the permit office?

ANSWER : We request that you receive in writing from your permit office exactly what they require. The only guarantee that we can provide is that it will meet the requirements that were provided to us in writing.

QUESTION : Are the any specs on the Masts sold by US Tower?

ANSWER : Standard Masts: • have a wall thickness of .120". Reinforced Masts: • have a wall thickness of .250" on the reinforced end. • Have a yield strength of 36 KSI. Cromolly Masts: • Have a wall thickness of .375" • Has a yield strength of 107 KSI.

QUESTION : Can items purchased through a US Tower distributor be returned to US Tower?

ANSWER : If an item needs to be returned and was purchase through a US Tower distributor. You will need to contact the distributor you purchased it from and they will make the arrangements for the return.

QUESTION : Can items be returned to US Tower?

ANSWER : All parts (except cables) can be returned to US Tower within 30 days as long as they are in good condition. There will be a restock fee. Please contact us first to make the arrangements and get the details.

QUESTION : Is there a parts catalog?

ANSWER : Unfortunately because there has been so many changes to the towers over the years there is not.

QUESTION : Are calculations done with the tower nested or extended?

ANSWER : The standard calculations are done with the tower extended at one foot above the top.

QUESTION : How are the towers packaged for shipping?

ANSWER : All towers are shipped by a flatbed service. The towers will be banded together and place on skids to allow access under them.

QUESTION : Can the cables be lubricated?

ANSWER : We do not recommend lubricating the cables. The lubrication only attracts dirt and debris causing cuts and scarring into the cable resulting in a shortened cable life span.

QUESTION : How often should the cables on my tower be replaced?

ANSWER : We recommend every three years dependent on your climate. We highly recommend regular inspection of the cables for any wear, breaking of strains, or any stretching.

QUESTION : What type of oil can be used for the motor drive?

ANSWER : The motor themselves are sealed and do not require any oil.

QUESTION : Does the thrust bearing need to be re-greased?

ANSWER : The thrust bearing comes with a standard grease fitting that will fit any standard grease gun. We recommend that this is done on a regular schedule.

QUESTION : What type of grease is used on the thrust bearing?

ANSWER : Standard automotive grease.

QUESTION : Can a UST tower be guyed?

ANSWER : The standard telescoping tower can only be guyed to the top of the bottom section.

QUESTION : Does US Tower ship outside the United States?

ANSWER : Yes, over the years US Tower have shipped towers all over the world. Please contact our office of shipping professionals and they will find the most economical way to ship your tower to you.

QUESTION : Can an RMC1000 be wired to a wind sensor?

ANSWER : We do not provide this option at this time.

QUESTION : Can I get more detailed instructions for the foundation and the rebar cage?

ANSWER : The page in calculations provides detailed instructions for the rebar cage. If you have any questions or problems please contact our office we would be happy to go over them and explain them.

QUESTION : Does US Tower sell the rebar cage?

ANSWER : No. US Tower does not sale the rebar cages. You can contact a local welding shop with the instructions. Most will provide a price for building one.

QUESTION : Do I have to attach the coax cable to each coax arm?

ANSWER : We recommend that you only attach to the top coax arm.

QUESTION : What happens to the coax cable when the tower is lowered?

ANSWER : With the cable attached to the top arm it will allow the cable to slide through the other arms like guides. When you lower your tower the cable will lay on the ground next to the tower.

QUESTION : When do I know the tower is fully extended with the MD75?

ANSWER : You will need to keep a careful eye open to know when the tower sections have been extended. When a MD75 is sold with a tower, we install it and paint a red mark on the leg so that you will know when you need to shut it off. WE highly recommend that if you install a MD75 yourself that you paint a band to know when to shut off the motor drive.

QUESTION : Will the top section come out if over extended?

ANSWER : There are several safety guards to prevent this from happening.

QUESTION : Why do I need a thrust bearing?

ANSWER : The thrust bearing is designed to support the weight of your antenna(s) and mast off of your rotor and extending its life.

QUESTION : Does the thrust bearing work on all towers?

ANSWER : The TB2US will work on all lattice style towers with the exception of the TMM433SS.

QUESTION : Why does the raising fixture lean back?

ANSWER : The raising fixtures are designed to be used on more than one model of tower. In order for them to lift some towers they need to be able to lean back from them.

QUESTION : What do I do about rust on my tower?

ANSWER : For superficial rust spots you can run a wire brush or sand paper of it to remove some of it. Then you can spray it with a can of cold galvanize spray.

QUESTION : Do I have to take the antennas and mast out to replace the rotor?

ANSWER : We do offer a MRF – mast raising fixture. It mounts at the top of the tower and raises the mast up to allow access to the rotor.

QUESTION : Does the tower have to be brought down to change the cables?

ANSWER : Yes. The tower must be nested and laid over before the cables are changes.

QUESTION : Can the tower be climbed?

ANSWER : Under no circumstances should you ever climb the tower. It could cause bodily injury or even death.

QUESTION : Do I need a mast raising fixture?

ANSWER : This depends on if you will need to replace or work on your rotor with having to take off your antennas and mast.

QUESTION : How do I attach the mast raising fixture if the tower is already installed?

ANSWER : The MRF will mount on the second plate down from the top. The cable will then go to the bottom of your mast. A bracket will be provided to attach the cable to the mast.

QUESTION : Can I use more than one set of coax arms?

ANSWER : The towers only has enough room on each section for one coax arm.

QUESTION : How many AMPS do I need at the base of the tower?

ANSWER : You will need a minimum of 20 amps at the tower.

QUESTION : How loud is the motor drive?

ANSWER : The motor drives on the towers are designed to be very quiet and only emit a low electrical hum.

QUESTION : Can the motor drive be installed after the tower is installed?

ANSWER : On most towers the MD75 can easily be installed at a later time.

QUESTION : What kind of damage do I look for after a storm?

ANSWER : After a storm you need to make sure that nothing is bent, torn off and the tower itself is straight.

QUESTION : Can I leave my tower up during a storm?

ANSWER : This dependent on the size of the storm and your tower rating. If a large storm is coming it is always recommended to lower the tower.

QUESTION : Do the towers have GPS?

ANSWER : No, not this time.

QUESTION : How tall of a mast is recommend for a tower?

ANSWER : This is dependent on the tower. TMM SERIES: up to a 15' mast. MA SERIES: up to a 15' mast. TX SERIES: up to a 20' mast. HDX SERIES: up to a 20' mast.

QUESTION : Can two thrust bearings be installed on a tower?

ANSWER : Yes. On larger towers a second rotor plate can be installed for an additional cost.

QUESTION : Can the tower be painted?

ANSWER : The towers can be painted but it is not recommended. The paint will not adhere very well, will wear off easily were the sections rub and the process is expensive.

QUESTION : Does US Tower manufacture an aluminum telescoping tower for the private sector?

ANSWER : Not at this time.

QUESTION : How hard is it to crank up the tower with a hand winch?

ANSWER : Depending on the tower size you will apply 5 to 7 lbs of pressure to rotate the winch handle.

QUESTION : Does US Tower manufacture custom parts for other manufactures towers?

ANSWER : No, we do not. But we would be very happy to see if our parts will fit on your tower.

QUESTION : Can I get a special rotor plate drilled for my rotor?

ANSWER : Yes, You must provide in writing, a drawing with the exact measurements and hole pattern.