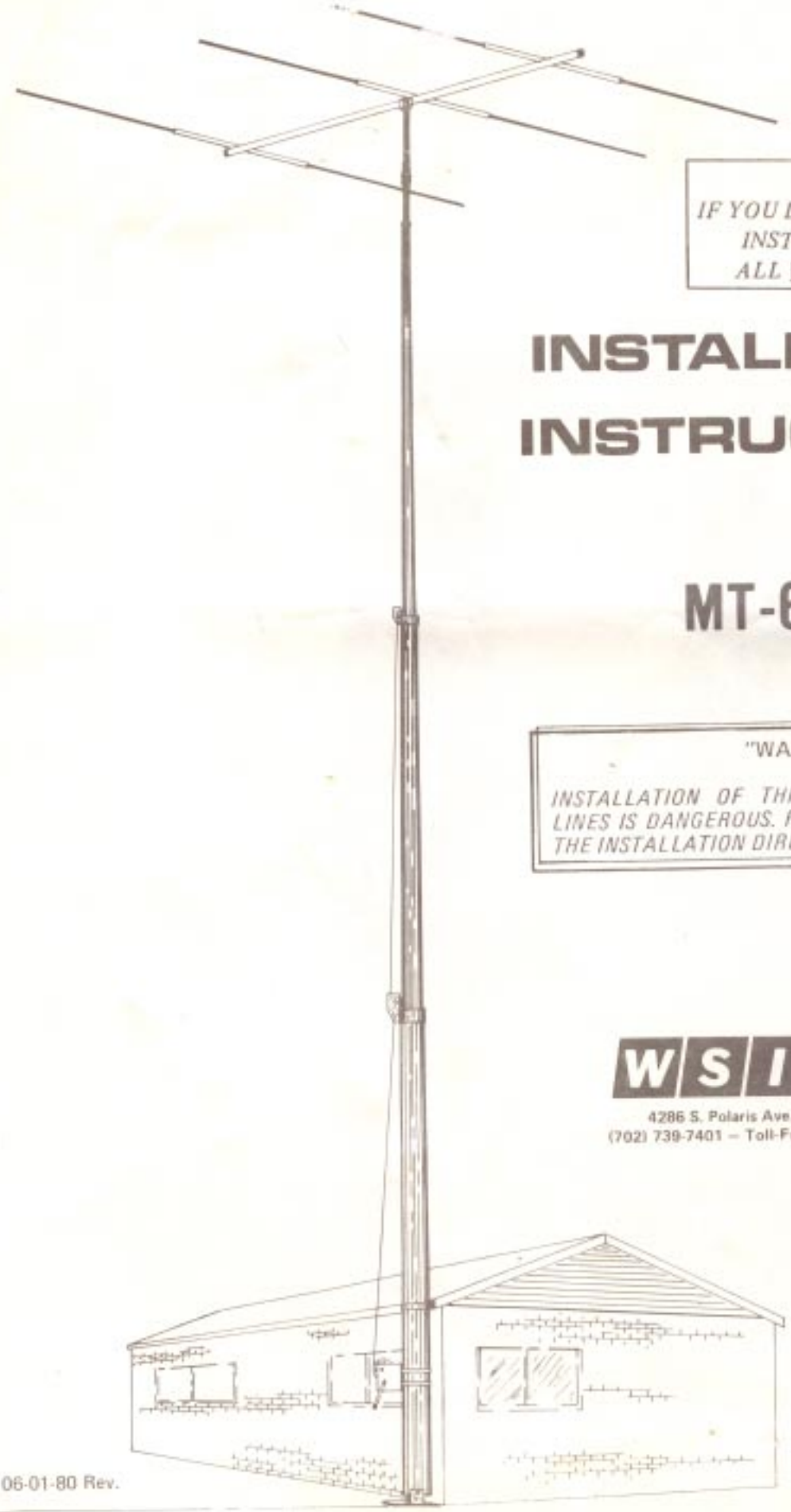


"WARNING"
IF YOU DO NOT READ THESE INSTRUCTIONS FIRST ALL WILL GO WRONG!

INSTALLATION INSTRUCTIONS

MT-61B

"WARNING"

INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS.

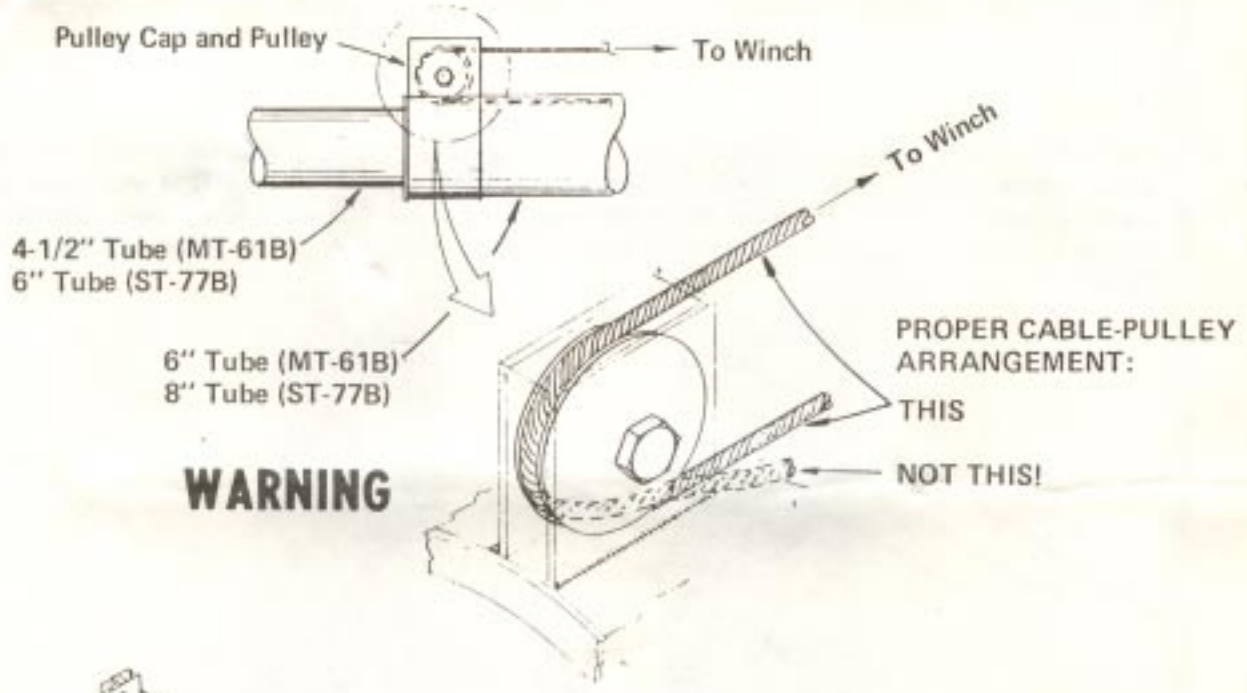
WSI WILSON SYSTEMS, INC.
4286 S. Polaris Ave., Las Vegas, Nevada 89103
(702) 739-7401 – Toll-Free Order Number 800-634-6898

06-01-80 Rev.

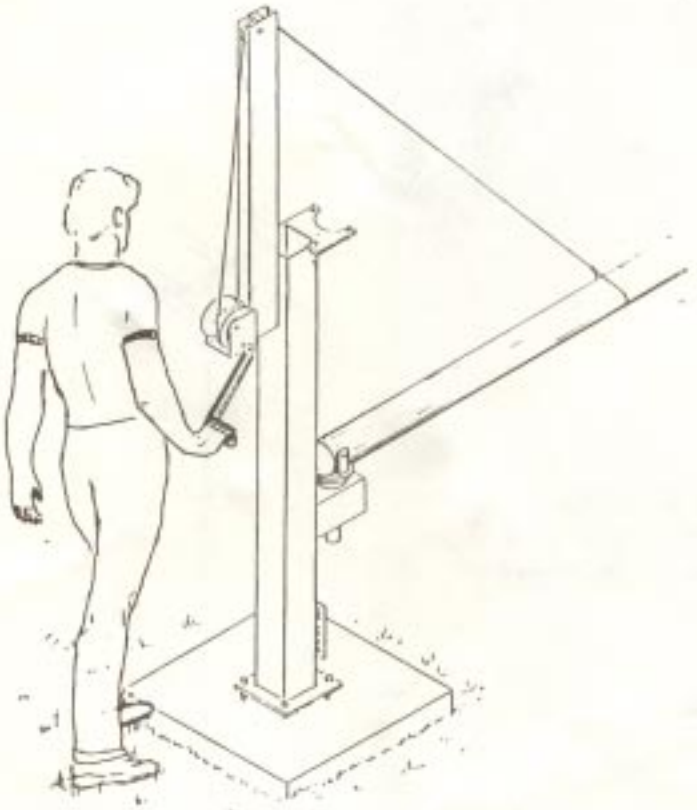
SAFETY BULLETIN

The following general safety precautions should be strictly adhered to to prevent possible harm to yourself and/or damage to the tower and its components.

1. Prior to raising your tower and its antenna make absolutely certain that the winch cable is around the pulley *first*, as shown below. Next, install winch and take up cable slack. Check pulley again to be sure the cable is properly engaged with the pulley and no "roll-off" occurs.



WARNING

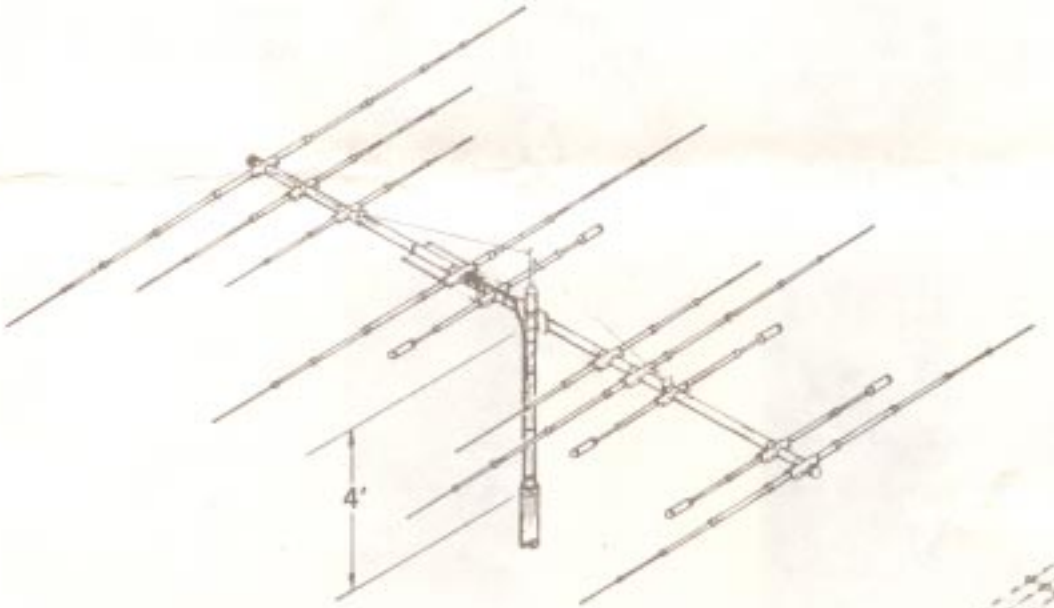


WARNING

2. Keep all personnel clear when raising tower to horizontal. Take no chances — keep clear!

3. If winch is excessively hard to turn — Stop! This is an indication that something is drastically wrong. Lower your tower and make a full investigation of the cable and pulley alignment as described in Step 1 above, before proceeding further.

4. The wind load specifications given in the tower instructions are for 50 mph winds only. Since most areas receive winds in excess of 50 mph on occassions, we recommend that you keep your tower cranked down at least 15 ft. below maximum height when not in use or during windy seasons. Also, we do not recommend going above 4 ft. on the 2" O.D. tubing with a large antenna such as the Wilson SY40.



5. Also, in windy areas the wind load capability of Wilson towers can be increased to 20 sq. ft. at 80 mph by guying the top section only. A rotating guy collar and guy kits are available for all towers.

PARTS LIST

MT-61B TOWER

	PART NUMBER	QUANTITY	DESCRIPTION	CHECK LIST
	WT-284	1	Model MT-61B Tower, Assembled	_____
	WT-261	1	Accessory Box, MT-61B	_____
			ACCESSORY BOX CONTAINS	
*	WT-258	1	Base Plate for 6" Tubing	_____
	WT-260	1	Winch Plate for 6" Tubing	_____
*	WT-259	1	Wall Bracket for 6" Tubing	_____
	WT-207	2	U-Bolts, 3/8"-16 UNC x 6"	_____
	WT-242	1	Winch	_____
	-----	1	Winch Handle (See Winch Sheet)	_____
	-----	1	Winch Instructions	_____
	-----	1	Tower Instructions	_____
	WT-262	1	MT-61B Hardware Bag	_____
			HARDWARE BAG CONTAINS	
*	WT-085	2	Anchor Bolts, 1/2"-13 UNC x 8", Black	_____
	WT-090	6	Hex Nuts, 3/8"-16 UNC	_____
*	WT-093	2	Hex Nuts, 1/2"-13 UNC, Black	_____
	WT-247	1	Hex Nut, 5/8"-11 UNC	_____
	WT-086	2	Hex HD Bolts, 3/8"-16 UNC x 1"	_____
	WT-245	1	Hex HD Bolt, 5/8"-11 UNC x 7-1/2"	_____
	WT-095	6	Lockwashers, 3/8" Split Ring	_____
	WT-246	1	Lockwasher, 5/8" Split Ring	_____
	-----	1	Winch Hardware Bag (See Winch Sheet)	_____

*These items not included when FB-45B or RB-45B is used.

When ordering replacement parts, always give part number and description.

INSTALLATION:

Read these instructions completely before starting any work, and check to see that you have all the parts listed on the parts list. Also determine that qualified personnel, all required tools and materials, and all local building permits are at hand.

Select a location for your tower that will permit you to lay it flat on the ground while you assemble everything, and then allow you to raise it to the vertical position with wide clearance from all obstacles — particularly power and telephone lines, and all associated poles, towers, guy lines, and related strutures and parts.

Your tower must be firmly anchored at its base, and securely held at some other point higher up on the lower section of tubing (Figure 1). The exact requirements depend on local soil and weather conditions, and other particulars of the site you have selected. Because of this, the customer must assume responsibility for providing construction suitable to the site selected, and for complying with all local building codes. We strongly recommend you obtain the advice of a local engineer or contractor before starting any work.

One of the best anchors for your base plate is concrete, with the anchor bolts cast in place. If you choose an alternate method, be sure it is equally strong and effective.

Preassemble your anchor bolts to the base plate with one nut each, and press this down into the wet concrete immediately after it has been poured and struck. The center of the base plate (between the two vertical ears) is the center of your tower. If the erect tower is to attach to a structure — such as the side of the house — drop a plumb bob from the point of contact, and locate the center of the base plate 3" outside, to allow clearance for the 6" diameter lower tube. (Figure 2) The axis through the holes in the vertical ears (for the hinge bolt) must be at right angles to the direction the tower will lie when horizontal.

Do not install the tower until the concrete is fully cured — at least 7 days.

Lay your tower in place with pulley brackets down, and assemble the hinge bolt through the ears on the base plate and the holes in the tower base. Secure with a lockwasher and hex nut — tighten the nut only ¼ turn beyond full compression of the lockwasher. Place a temporary support (such as a wooden box or sawhorse) under the upper end of the lower section to provide clearance for installing the winch and antenna. (Figure 3).

Remove the shipping wire from the top of the tower. Pull the upper section of tubing out enough to break loose the tape inside the tube holding the cable down. Push the upper section of tubing back down. This should produce a cable loop. With your finger, pull the loop up causing the cable to come out from the inside of the tower. (The free end is to be attached to the winch after it is installed).

Install the antenna and rotor (if used) per the manufacturer's instructions. Extend the 2" O.D. mast at the top of the tower as desired, but no more than the windload are of the antenna permits — dimension "H" on the illustration.

When ready, pull your tower into the vertical position. Use a winch or block-and-tackle if available, and exercise extreme caution — any contact with power or telephone lines can result in serious injury or death.

Secure the tower with the wall bracket furnished, or by other means equally strong. Be sure the structure attached to and the method of attachment are strong enough to hold the tower without damage to themselves or the tower under the worst possible adverse conditions. (Figure 4).

As an alternative method of installing your tower, we highly recommend the Wilson Model RB-61B Rotating Base Raising Fixture, or the Wilson Model FB-61B Fixed Base Raising Fixture. These products are especially engineered for your MT-61B Tower. Both provide secure mounts, and an easy convenient means of raising and lowering the tower. In addition, RB-61B enables you to mount your rotor under tower, where it is more convenient and accessible, and places no stress on the mast.

Preassemble the winch bracket with the 3/8"-16 UNC x 1" bolts, lockwashers and nuts. Then install the winch on the tower at a position that will approximately be shoulder height when vertical. Install the winch using the 6" U-bolts, lockwashers, and hex nuts as shown in Figure 5. Tighten the nuts only to full compression for the lockwasher.

Attach the cable to the winch per the winch manufacturer's instructions. Install the winch handle per the same instructions, and crank the winch to take up cable slack only. (WARNING! READ WINCH INSTRUCTIONS CAREFULLY).

Under high wind conditions sufficient deflection in a fully extended tower will make retraction extremely difficult due to friction. Therefore it is strongly recommended that in prevalently windy areas a length of 1/8" Dia Aircraft-type steel cable be premanently attached to the top of the tower. Thus by tugging on the cable on the windward side of the tower the deflection can be sufficiently reduced to allow the tower to be retracted much easier. This is illustrated in Figure 6. This figure also suggests a method to protect your Coax and Rotor cable under these conditions also. If you choose to implement these recommendations then obviously they must be incorporated prior to raising the tower to its vertical position.

Figure 7 illustrates in schematic form the tower extension process when you begin cranking the winch handle. Gravity will assist the retraction process when the cable is allowed to un-wind.

MAINTENANCE:

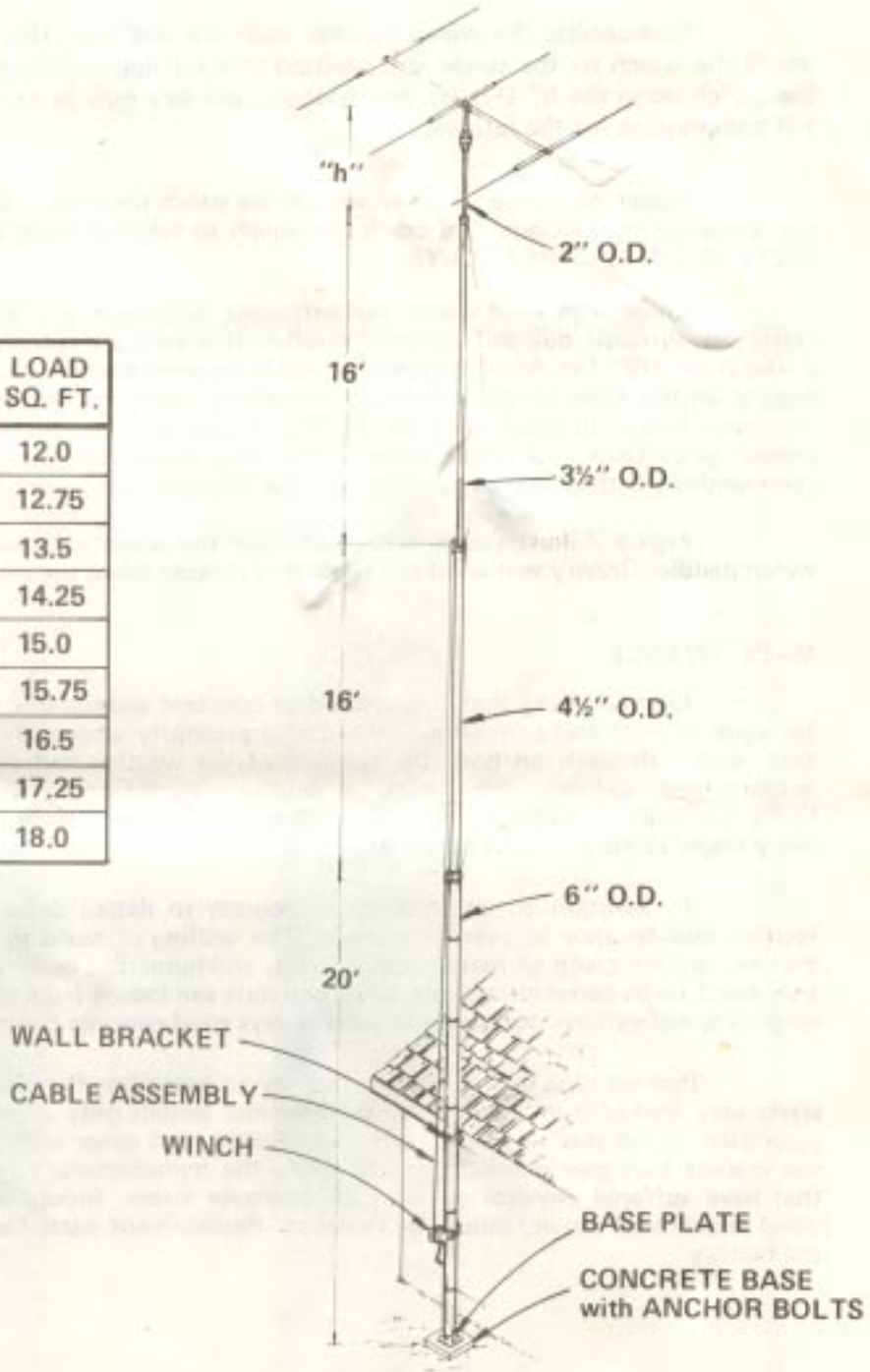
Like anything that is subjected to constant weathering, your tower must be inspected regularly for signs of wear and corrosion, and repaired promptly whenever damage occurs. The frequency of inspection needed depends on both the severity of the weather and the severity of the application. With light antenna loads and calm dry weather, a thorough inspection every six months is usually adequate. But with heavy antenna loads and strong winds coupled with rain or snow, a thorough inspection immediately after every major storm is always necessary.

In addition to an inspection program to detect damage, you should also have a program of routine maintenance to prevent damage. The settling of building foundations, changes in mean air temperature, normal creep of metals under stress, and numerous other diverse factors can all have an effect, and may need to be compensated for. Bolts and nuts can loosen from vibration, and may have to retightened to original specifications, and rotating parts always need periodic cleaning and lubrication.

Prompt repair of damage is the key to extending the useful life of your tower. Corrosion usually starts very gradually in small areas, and becomes serious only if neglected. When you discover corrosion — especially rusted steel — clean it off immediately, and cover with paint. There are numerous products on the market that give excellent results when the manufacturer's instructions are followed carefully. Parts that have suffered physical damage, by whatever means, should be repaired as soon as possible; or if beyond economical repair, should be replaced. Replacement parts for all Wilson products are available from the factory

EXTENDED ANTENNA HEIGHT (FEET)	LENGTH "h" (FEET) *	LOAD SQ. FT.
61	9	12.0
60	8	12.75
59	7	13.5
58	6	14.25
57	5	15.0
56	4	15.75
55	3	16.5
54	2	17.25
53	1	18.0

Chart based on 50 mph wind. *CAUTION' Do not extend the mast beyond the "h" dimension as determined by the antenna wind load.



BASIC INSTALLATION PROCEDURE:

This figure illustrates what your MT-61B Tower will look like when completely installed. The major components are identified while installation and assembly details are described in the following figures. Your basic steps should be:

1. Dig a 18" square by 48" deep hole. Pour the concrete and install the anchor bolts with the base plate attached (Figure 2). Allow 7 days for the concrete to cure.
2. Attach Tower to base plate and raise to operating position. Attach wall bracket (Figures 3&4).
3. Attach winch and install cable assem. (Figure 5).
4. If you select to incorporate the recommendations regarding windy areas refer to Figure 6, however they must be implemented prior to raising the tower.

FIGURE 1

DRAWN EJW
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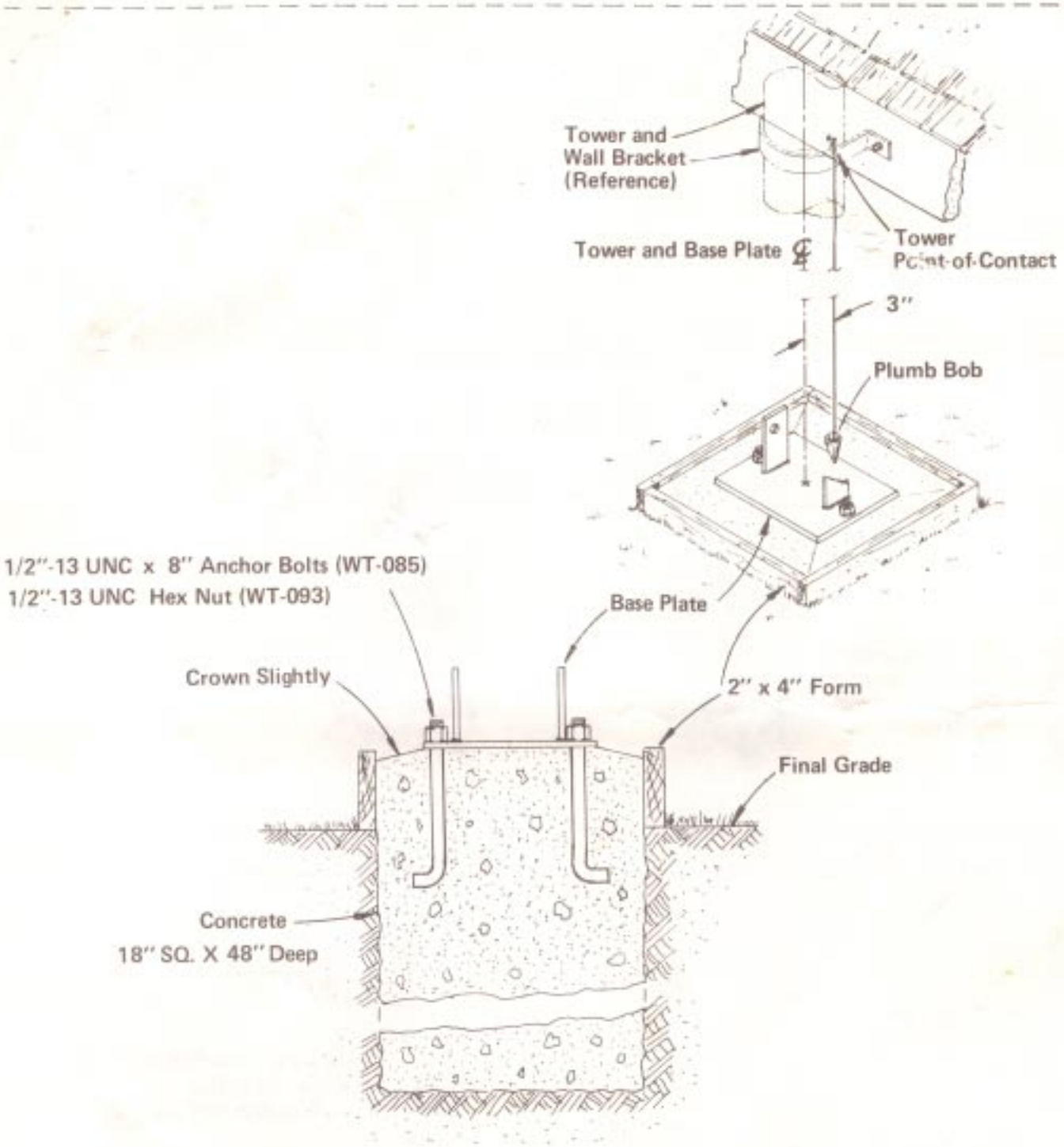

CONCRETE BASE AND BASE PLATE INSTALLATION:

Dig hole 18" square by 48" deep and secure 2" x 4" form at top. Pour concrete. Assemble anchor bolts to base plate and work into wet concrete locating center of base plate with a plumb bob as shown above. Crown top of concrete for good water run-off. Allow 7 days for the concrete to cure before proceeding further. Spray anchor bolt and nut with Rustoleum or any similar rust prevention product.

FIGURE 2

DRAWN CFW
APPROVED

MT-61B

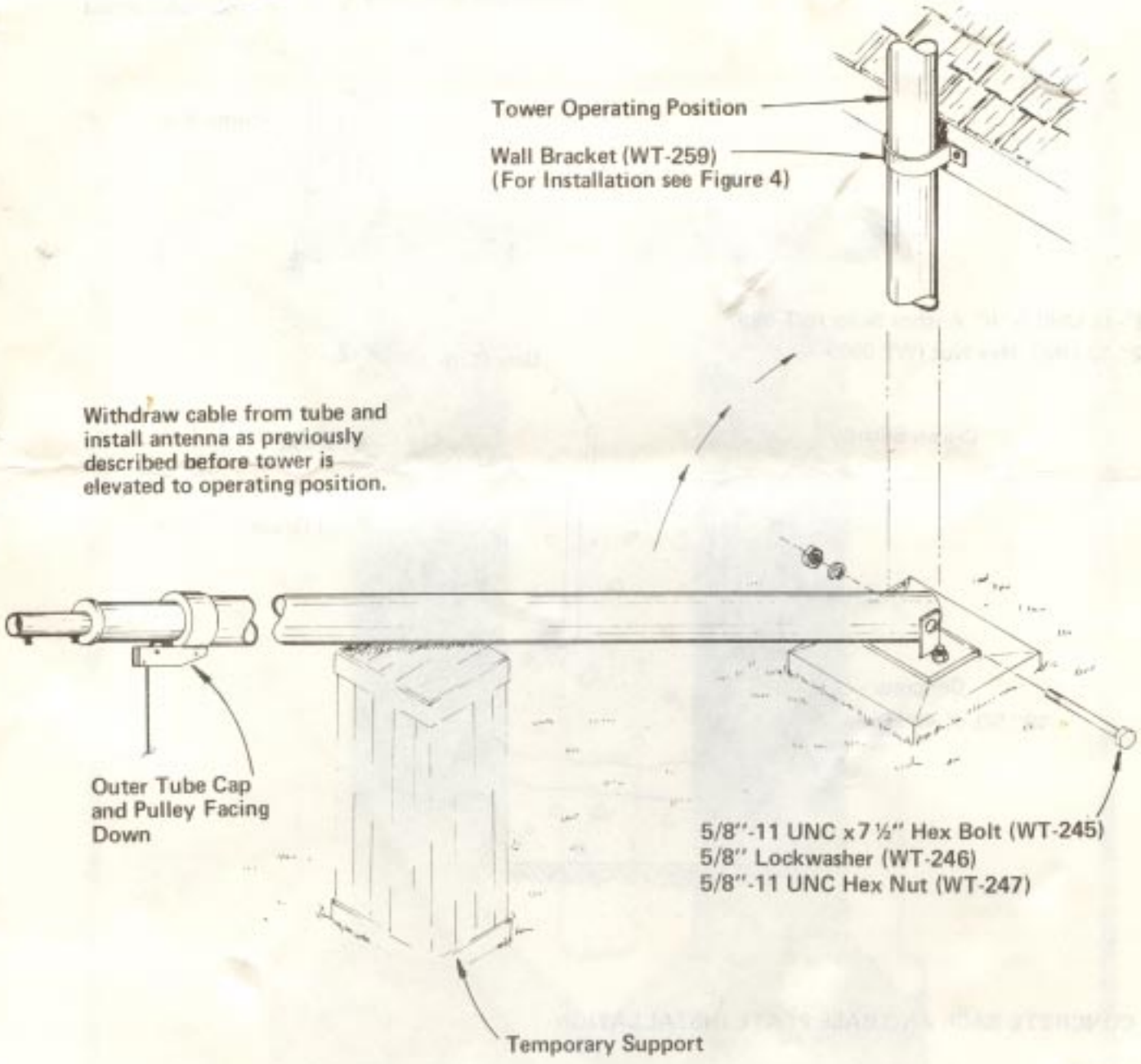

FIGURE 3

DRAWN GTW
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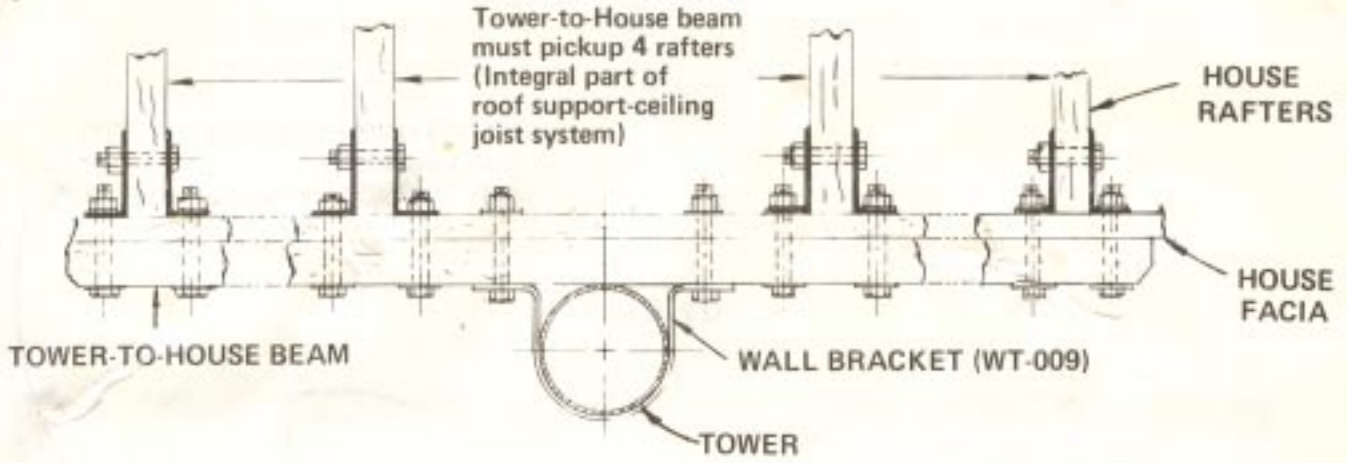

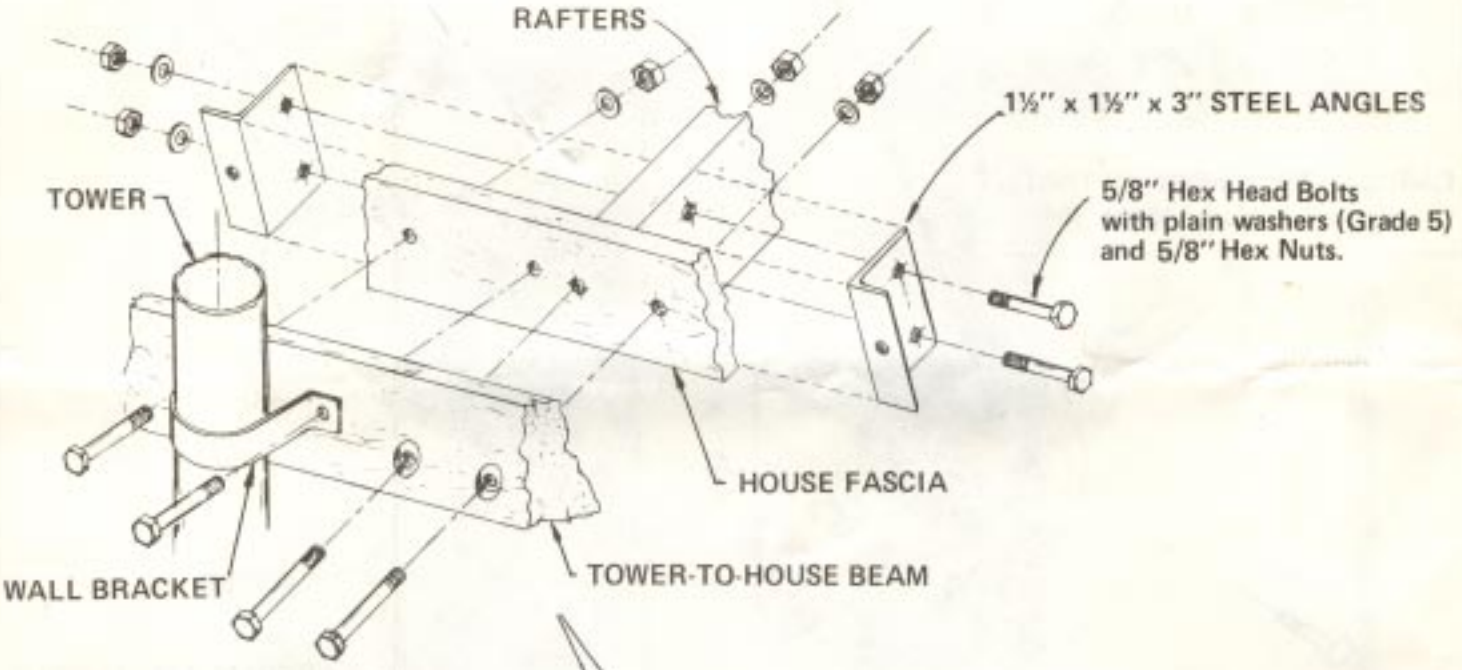

NOTE:

Tower-to-House beam is trimmed from 4" x6" DF lumber to match Facia-Rafter angle and is attached with 5/8" Hex Head Bolt, 5/8" Flat Washers and 5/8" Hex Nuts as shown. Spotfacing holes for bolt heads will be necessary. For houses without a Facia, a short section should be added.

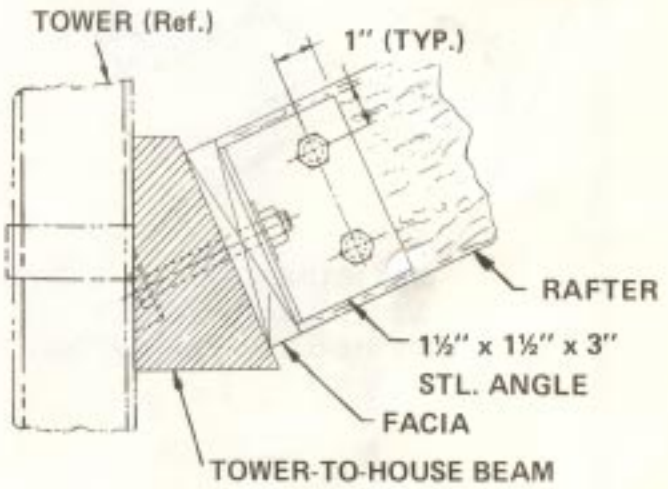

FIGURE 4

DRAWN GTW
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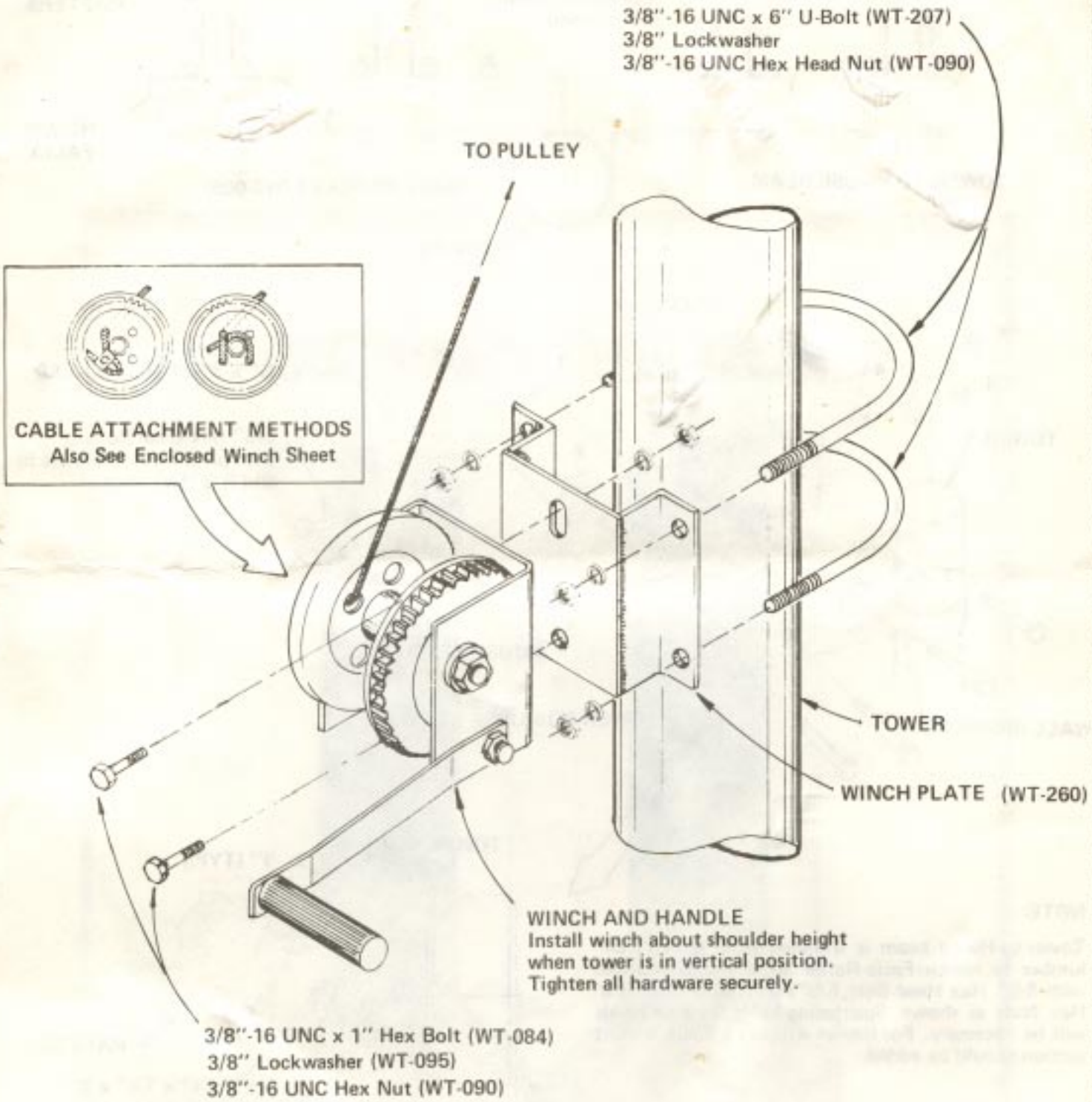

FIGURE 5

DRAWN
APPROVED

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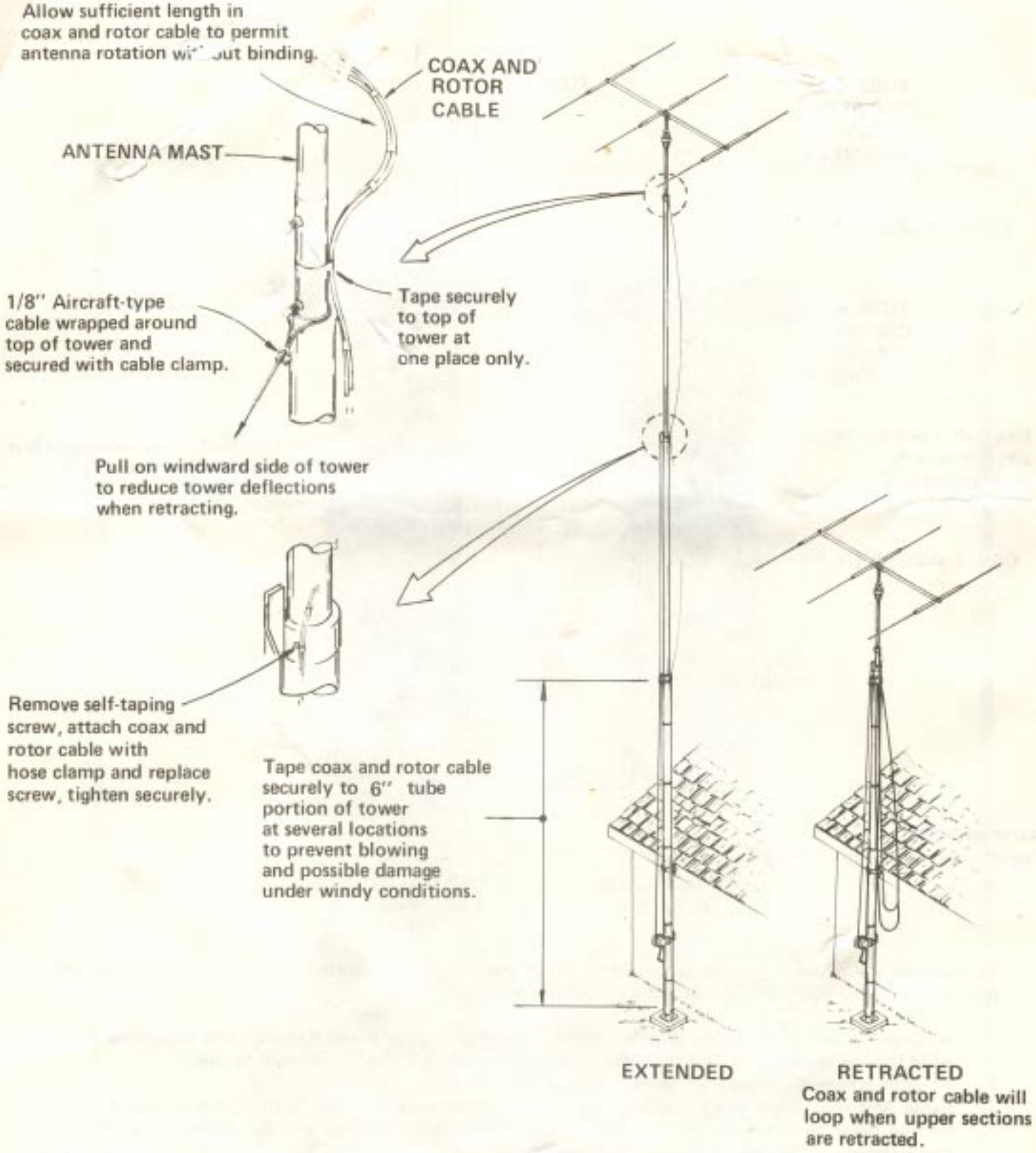

FIGURE 6

DRAWN EW
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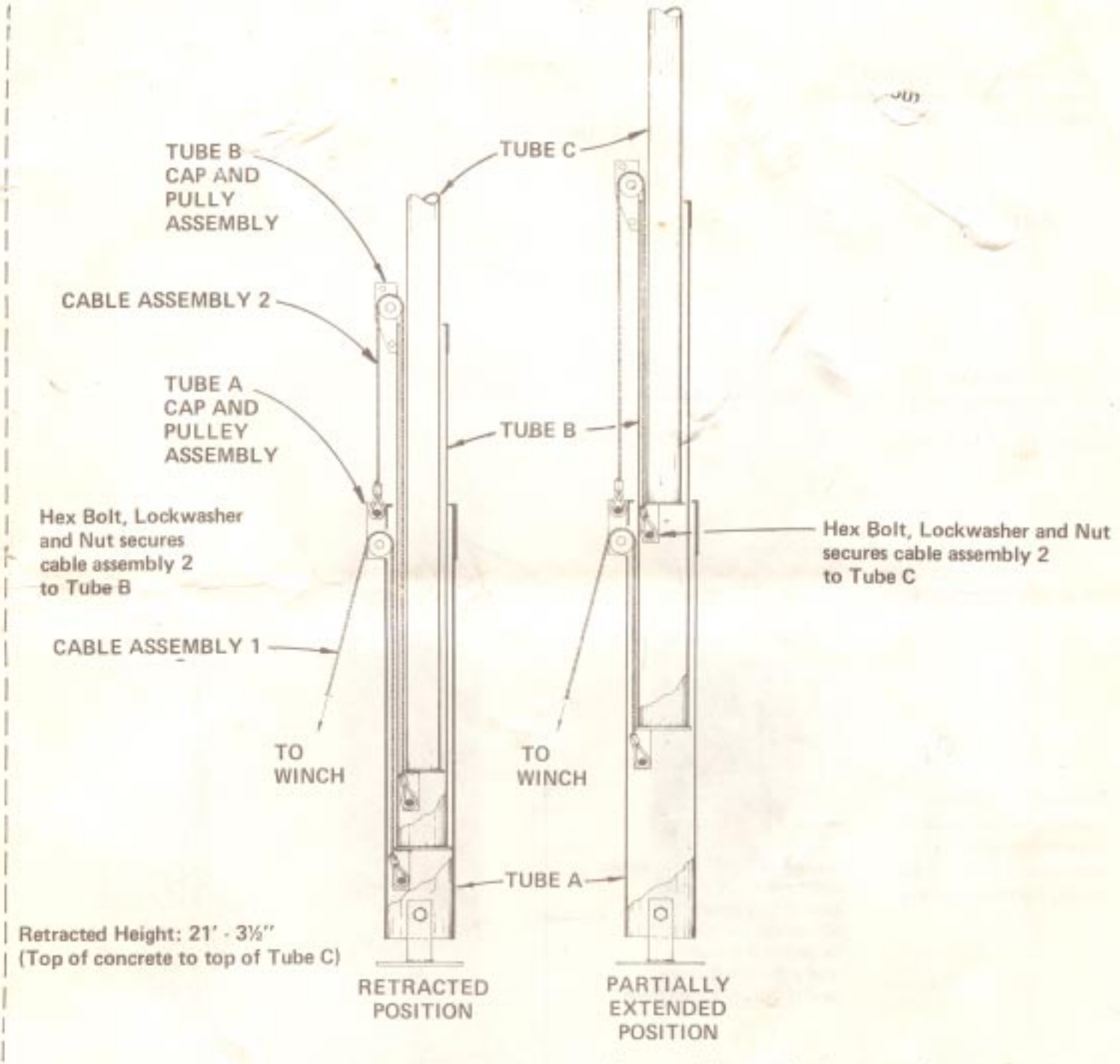

To describe the tower extension process, two tower positions are illustrated - the retracted position and a partially extended position. The extension process is as follows:

1. As Cable Assembly 1 securely attached to the lower end of Tube B and threaded over the pulley mounted in the cap assembly of Tube A is wound up by the winch, Tube B will begin to rise.
2. As Tube B rises, the pulley mounted in its cap assembly must rise also.
3. Cable Assembly 2 is a fixed length assembly. As it is securely attached to the cap assembly of Tube A on one hand, to the lower end of Tube C on the other and threaded over the pulley mounted in the cap assembly of Tube B, any upward movement of Tube B will cause Tube C to rise accordingly. This is best noted in the illustration showing the partially extended tower.
4. Allowing Cable Assembly 1 to be unwound by the winch, Tubes B and C will retract due to gravity.

FIGURE 7

DRAWN STW
APPROVED MT

MT-61B

WSI

90 DAY LIMITED WARRANTY

TOWERS

WILSON SYSTEMS, INCORPORATED ("WILSON") warrants that your new TOWER has been manufactured free of defects in design, material and workmanship. If this product fails to give satisfactory service due to defects covered by warranty, including any warranty implied by law such as WARRANTIES OF MERCHANTABILITY OR FITNESS, for a period of NINETY DAYS FROM THE DATE OF PURCHASE, "WILSON" will, at its option, replace or repair the unit, or any defective part free of charge.

To obtain warranty service, contact WILSON SYSTEMS, INC., or should this be inconvenient, pack it securely, and send it with proof of purchase date and a letter explaining the problem, shipping cost prepaid, to CUSTOMER SERVICE DEPT., WILSON SYSTEMS, INC., 4286 SO. POLARIS, LAS VEGAS, NEVADA 89103.

IMPORTANT

Please note: A written "Return Goods Authorization" must first be obtained from "WILSON" prior to shipping anything to the plant, with a copy of the authorization included inside the carton. Warranty service covers only repair or replacement of the TOWER only. "WILSON" is not responsible for costs of removal or reinstallation, or shipping to the place of repair. The warranty period is not extended due to repair or replacement.

"WILSON" reserves the right to make reasonable charges for service if there is evidence of damage due to alteration, misuse or installation not according to the enclosed instructions.

NOTE

After installation, and within 30 days of purchase, a photograph of the installation must be submitted with the warranty card for proper registration of your tower. WARRANTY IS NULL AND VOID IF PHOTOGRAPH AND CARD NOT RETURNED WITHIN SPECIFIED TIME PERIOD.

"WILSON" IS NOT RESPONSIBLE FOR DAMAGE TO OTHER EQUIPMENT OR PROPERTY OR FOR ANY OTHER CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, WHETHER BASED ON CONTRACT, NEGLIGENCE OR STRICT LIABILITY, MAXIMUM LIABILITY SHALL NOT, IN ANY CASE, EXCEED THE PURCHASE PRICE OF THE UNIT.

(Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.)

(This warranty gives you specific legal rights. You may also have other rights which may vary from state to state.)

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