

REP Design LLC

Southington, CT 06489

860.426.1894

n7emw@cox.net

www.repDesign.us

INSTALLATION INSTRUCTIONS:

AMB-Sksp1-ATU2[®] - Adjustable Dual-Plate Bracket For “Any Size” Tuner, For BKT-SKSP-1

Thank you for your purchase; we appreciate your business and interest in our products.

These instructions describe how to install the AMB-Sksp1-ATU2[®] (“ATU2”) super heavy-duty bracket for installing medium and large automatic antenna tuners for use with our BKT-SKSP-1 super heavy-duty mount for the Shakespeare #4245 antenna spring base, designed for military and amateur radio HF antennas. You can mount a variety of auto tuner sizes, as they mount between two heavy-duty plates and are held together with four 3/8 inch bolts.

The BKT-SKSP-1 mount IS REQUIRED for the ATU2. When ordering the ATU2, specify the dimensions of your auto tuner so we can include the appropriate length of bolts.

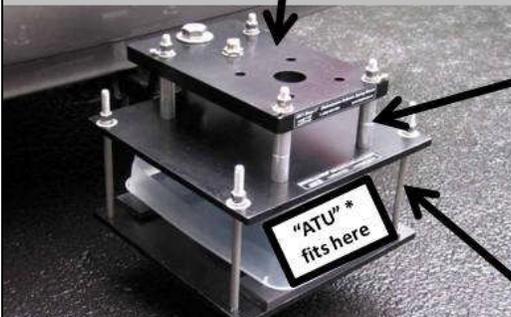
The Shakespeare spring base will fit the Shakespeare 16 ft. and 32 ft. vertical antennas and the Hi Q Antennas 5 and 6 series “ruggedized” HF motorized antennas. This is the same spring base that Hi Q Antennas sells. It will work with any antenna that can screw into the Shakespeare 1 inch diameter threaded tenon.

The following is what you get standard, with the ATU2[®]

The diagram below shows all of the parts that come with the ATU2. The BKT-SKSP-1 is ordered separately.

AMB-Sksp1-ATU2: Hardware Illustration

BKT-Sksp-1
SHD Shakespeare military
spring mount (spring not shown)



PARTS LIST

(all hardware is aluminum or 18-8 SS, 3/8x16”)

- -2- 3/8” x 12” x 12” 6061 aluminum plates (hand buffed aluminum or powder coat finishes)
- -4- heavy-duty rubber strips, 3/8” x 2” x 9”
- -4- short bolts (4-3/4” long)
- -4- long bolts (7-1/2” long *or sized to fit thickness of customer’s ATU* (see “ATU Fit Diagram”))
- -8- (2 per bolt) aluminum spacers to mount top plate 2-1/2” below the BKT-SKSP-1 (so spring contact does not touch plate)
- -16- flat washers
- -8- lock washers + nuts
- -6- HD solder lugs
- -1- label & instruction manual



SHORT BOLTS (-4-) (fasten upper plate to BKT-Sksp-1)

Each bolt includes:

- -2- 1-1/4” alum. spacers
- -1- 3/8” HD solder lug (for counterpoise wires &/or grounding to vehicle)
- -2- flat washers
- -1- lock washer
- -1- nut

LONG BOLTS (-4-) (fasten two plates together, with ATU* in-between)

Each bolt includes:

- -2- flat washers
- -1- lock washer
- -1- nut

Each of 2 of 4 bolts ALSO include:

- -1- HD solder lug (for grounding ATU to nearest bolt)

* “ATU” – automatic antenna tuner

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The left photo shows the ATU2 bolted below our BKT-SKSP-1 mount attached to a trailer hitch on the N7EMW mobile. Note that the Shakespeare spring base is not shown. The right photo shows two of the four heavy-duty rubber strips that protect and help grip the top and bottom of “any size” of antenna tuner. Works great with some of the military auto tuners!



Safety First!

*Use caution if you are installing your antenna on a vehicle, balcony or other location where the antenna could fall on someone or cause damage if it were to come off. It is solely up to the user to determine the suitability of the ATU2 with their antenna and mounting situation. As with any antenna installation, be careful around thunderstorms and lightning, and you may want to remove your antenna or disconnect the coax BEFORE a storm appears - remember that if you can hear thunder you can be struck by lightning! These instructions are meant to provide general guidelines but can not provide all of the details on how to safely install your mount and antenna, as each installation is unique. If you feel that you cannot safely install the ATU2, you are not sure, or it does not meet your needs, you may return it for a refund within two weeks (see Warranty for details). **SAFETY FIRST!***

What You Need In Addition To the “BKT”

The following items are needed with the ATU2.

- **Our BKT-SKSP-1 super heavy duty mount is required, as this is the mount for the Shakespeare spring base.**
- Shakespeare 4245 spring (from Shakespeare dealers; same one also sold by Hi Q Antennas).
- Antenna – Shakespeare verticals or Hi Q Antennas “ruggedized antennas (series 5 & 6).
- Bolt or trailer hitch ball (3/4-1” diameter) for attaching the BKT-SKSP-1 to your hitch, bumper etc.
- Jumper cables from the spring base to the auto tuner, etc., and connectors and coax.
- Ground cable(s) for attaching the auto tuner ground point(s) to one or two provided solder lugs.

Fit Guide – For Antenna Tuner and Vehicle Clearance

Refer to this diagram to determine if:

- (1) Your auto tuner will fit the ATU2 – when ordering please provide the dimensions of your tuner so we can provide the appropriate length of the lower bolts; and
- (2) You have enough ground clearance below your trailer hitch for this large setup – there is a wide variety of readily available trailer hitch receivers with different lengths and different “rises”. The “rise” is the distance that the hitch receiver “bends” above or below your trailer hitch – are available up to about 10 inches of rise which is more than sufficient for this really cool setup! With the appropriate receiver, this will work with both trucks and cars. Our first customer is installing his ATU2 on a Toyota Prius – pretty cool setup with 32 foot whip for stationary mobile!

AMB-Sksp1-ATU2: Automatic Antenna Tuner (ATU) Fit Guide

ROAD CLEARANCE DIMENSIONS (BKT-Sksp-1 mounted to TOP of trailer hitch):

approx. 3.5" to ATU top

ATU Height

1" under ATU

ATU Length (any length will fit):
 • plate is 12" long but ATU can be longer as it can stick out beyond plates
 • if shorter than 10" we will install rubber pads closer together *(be sure to let us know when ordering)*

ATU Width:
 ANY width UP TO 10-1/4"

ATU Height:
 4-1/4 to 5-1/4 "
 with standard 7-1/2" long bolts
 OR
bolts sized according to customer's ATU (can fit ANY height ATU)
 → Be sure you have enough road clearance below the lower plate!!

All dimensions in inches
 "ATU" – automatic antenna tuner

WHEN ORDERING:

→ LET US KNOW the DIMENSIONS of YOUR ATU so we can be sure we include the appropriate length of bolts.

→ An ATU will NOT FIT if it is wider than 10-1/4"

Tools Needed to Install BKT and Options

No special tools are required. A wrench is needed to tighten the mounting bolts.

Quick Installation Guide

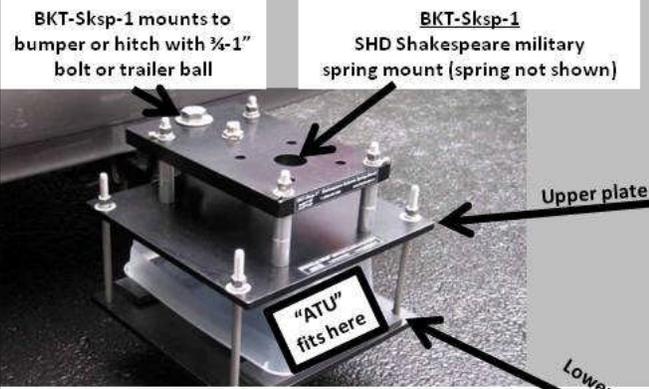
First, mount the BKT-SKSP-1 to your hitch or bumper (the BKT must be ordered separately). If mounting to a bumper be sure that the bumper does not intrude into the ATU2. If mounting to a receiver hitch, be sure that it has enough rise for road clearance below your setup. Then mount the Shakespeare spring to the BKT-SKSP-1. → see diagram on next page

Next, install the ATU2 according to the instructions on the diagram below.

AMB-Sksp1-ATU2: Installation of "Dual Mounting Plates"

BKT-Sksp-1 mounts to bumper or hitch with 3/4-1" bolt or trailer ball

BKT-Sksp-1 SHD Shakespeare military spring mount (spring not shown)



Quick Install Guide:

- Mount upper plate to BKT-Sksp-1** (Note: upper plate near label sticks farther back than BKT-Sksp-1; note spring hole position):
 - Insert four (4) 4-3/4" bolts into bottom of upper plate with one flat washer under each bolt head
 - Insert two 1.25" spacers per bolt on top of upper plate (keeps bottom of spring contact from touching upper plate)
 - Insert this assembly into bottom of BKT-Sksp-1
 - On top of BKT-Sksp-1, place a flat washer, solder lug, lock washer and nut on each bolt; securely tighten
- Mount lower plate (ATU is held between upper & lower plates)**
 - Rotate bottom plate so holes align with top plate
 - Insert 4 longer bolts from bottom of lower plate, with one flat washer under each bolt head + 1-2 solder lugs for grounding your antenna tuner.
 - Place auto. antenna tuner ("ATU") on top of bottom plate
 - Insert assembly with ATU into bottom side of upper plate
 - On top of upper plate, place a flat washer, lock washer & nut; securely tighten. HAPPY DX!

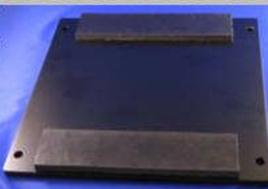
UPPER PLATE:
Top side of upper plate (note label "faces backward")



Bottom side of upper plate (3/8" thick x 2" wide rubber pads grip & protect top of automatic antenna tuner ["ATU"])



LOWER PLATE:
Top side of lower plate (3/8" thick rubber pads grip & protect bottom of ATU) – placed closer together if ATU is <10" long)



Bottom side of upper plate



Note: "light" areas around bolt holes on powder coat finishes are masked off for bare metal contact, for grounding purposes.

Options

We offer cables and connectors for the ATU2 that may be of interest to you. Check them out at: <http://www.repdesign.us/gpage7.html>

Spare parts, accessories, downloads and related products.

Let us know if you need spare parts or are looking for something that we do not yet provide – your idea could become a new product! As a specialty company, we are looking for unique ideas to serve the amateur and two-way radio community.

Warranty Summary

All products include a **two (2) week "return for any reason"** and **six (6) month manufacturing defects limited warranty**. If you should need to return your product please contact us **IN ADVANCE** to obtain a return authorization number. **Please refer to the complete warranty terms that are enclosed with your order; this is also included on our web site.**

Changes to These Instructions

We periodically update our instructions. The latest versions (PDFs) with color photos can be found on our "DOWNLOADS" web page, under "MANUALS". The version date code is provided at the bottom of each page.

HAPPY DX!