Product Overview

Rugged 6-40 meter mobile HF antenna requiring an external tuner but no physical band-change adjustments.

Key Specifications

Specification	Details
Bands	6,10,12,15,17,20,30,40M
Power	100W PEP SSB; 50W CW; 10W Digital/FM/AM
Weight	32 oz
Deployed length	5 ft 5 in
External tuner	required

Best For

- Vehicle HF operation
- EmComm mobile use
- Operators wanting band changes without whip adjustments

What’s Included

- 5-ft stainless steel whip and ferrule
- Black AutoMatch with 3/8-24 stud and SO-239

Setup and Operation

Mount to bonded vehicle metal as high as practical, keep the whip away from parallel vehicle-frame alignment, and connect an external tuner with the recommended 18-25 ft feedline.

Performance and Technical Guidance

This Mobile HF antenna requires:

- No changing of whips
- Zero physical adjustments to change bands
- No external power or control interface box
- An external tuner

Videos

Analysis

Native SWRs are handed off to an external tuner, which is required. A recommended feedline 18 to 25 feet is recommended.

Band	Native SWR	SWR Once Tuned
6M	1.8	1.2
10M	4	1.4
12M	5.8	1.6
15M	6.1	1.8
17M	5.1	1.5
20M	4.1	1.4
30M	5.2	1.5
40M	4.4	1.4

Read More Here about **Optimizing the HF Alpha MOTO Antenna**

Mounts

Because there are hundreds of car variations throughout the years, we created the following URL so you can select and work with those who sell mounts for many types of vehicles:

Mount for sale | eBay

Just remember, it's not so much the Mount, but it is instead the location that matters for best performance. To that end and ignoring those who say to 'drill a hole in the middle of your roof', the best 'practical' place to install this antenna is the passenger side front wheel well or the passenger side rear bed rail.

NOTE – Please choose a mount that has a Female 3/8-24 Nut for mounting the 3/8-24 Male Molt that is used to install the MOTO. Just leave enough clearance for your coax at the bottom of the MOTO or purchase the optional UHF Elbow Adapter and/ or Riser Kit.

Warning

Never Remove or Loosen any of the Bolts, Washers, Nuts, or Caps on the AutoMatch

Options

For even more Effective Radiated Power when parked, either the optional 9’4″ element for 10-40M or 60′ element for 10-80M can be deployed without removing the MOTO from your vehicle. Just remove the 5′ whip and replace it with either of the optional elements.

Additionally, **tuner-free operations** and **increased power handling** to 250 PEP SSB, 125 CW, or 25 watts for digital modes is enabled when the 60′ element for 10-80M is installed.

Installation

1. Ensure there is as much metal directly under the mount & antenna as possible. Searching for a Fender Mount that fits your vehicle is a good place to start. You may also need our Riser Kit for various mounts for what you select.
2. Ensure the mount is placed as high as possible and that it connects to the metal on your vehicle.
3. Don’t run the whip/element parallel to the frame of your vehicle, which is the ground.
4. Attach your tuner to the mobile HF antenna with 18 to 25 feet of coax.

MOUNTS – We do not recommend using a lip or magnetic mount, because losses on 40M become too great when a direct surface mounting hardware is not used. If you do end up using a magnetic mount, then the widely available Tri-Magnetic Mount should be used to increase the safety and capacitive grounding of such a mount. Just note that you will need to cut the coax off and short the braid to the center conductor of the coax for magnetic mounts in order to complete the path to ground.

Performance guarantee from the Founder of Alpha Antenna. “This antenna works very well with an external tuner on 6, 10, 12, 15, 17, & 20 meters. On 30 it works well, and you’ll make decent regional contacts on 40 meters. On 60 & 80 meters, it’s a receive only antenna, although contacts have been logged.”

Support Resources

- User Manuals: Alpha Antenna User Manuals hub.
- Videos: Related videos.
- Guidance / FAQs: Available HERE.
- Customer Reviews: Scroll to bottom of this page.

We Listen

We are dedicated to improving all of our systems. Specifications and descriptions are subject to change without notice.

5.0

Based on 61 reviews

5★
100
100%

4★
0%

3★
0%

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1★
0%

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1. JF

   Protected_User_a303c0fc

Reviewer
Featured Review
July 23, 2026

★★★★★
★★★★★

6-40M HF Mobile EmComm antenna

Verified review - view original

Excellent antenna….!!! Works great…Tunes nicely 20m thru 6m with good ground. Works flawlessly with the Z100a tuner.

2. PB

Protected_User_77fa24e9
Verified owner
Featured Review
May 24, 2026

★★★★★
★★★★★

6-40M HF Mobile EmComm antenna

Verified review - view original

The Alpha MOTO so far has been awesome. I’m running it mobile with my FTX-1 Optima with only the tuner in the radio and it tunes 40m-6m I am very impressed. I’ve done a couple parks on the air (pota) activations and it did really well. Once I get parked, I use your 9ft 4inch Mil whip and it really preforms. Thank you so much for your help. Awesome products, God Bless and 73 KI5OLV

3. DE

Protected_User_428367e4
Verified owner
Featured Review
August 1, 2024
★★★★★
★★★★★
6-40M HF Mobile EmComm antenna

Verified review - view original

This 6-40 Meter Mobile HF Antenna works great. Top quality and workmanship. My first contact was a station in France on CW, 40 meters. I use an Icom IC-706 MKIIG with a LDG remote tuner. I have the antenna mounted on a 2015 Silverado truck. I have purchased several antennas from Alpha Antennas and I am very satisfied with everything!
Sincerely
David E Phillips W8DEP

4. K

Protected_User_5fd01c0f
Reviewer
Featured Review
November 27, 2011
★★★★★
★★★★★
6-40M HF Mobile EmComm antenna

I’ve been hesitant to get into HF mobile for a quite a while due to the can-o-worms that it can be – plus a big obnoxious screwdriver antenna just wasn’t my cup of tea on my truck. A friend recommended the Alpha Moto and I’m real glad he did. It was quite an easy install and it performs great paired with my FT-857 and LDG tuner. Bottom line -> its a fair priced multi-band mobile HF

antenna that performs very well and keeps you from looking like a mad scientist rolling down the road.

5. TK

Protected_User_73e80e96
Verified owner
November 5, 2026

★★★★★
★★★★★

6-40M HF Mobile EmComm antenna

Verified review - view original

Great value

Show more reviews (56)