The SR-705 (Speed Reduction) knob makes tuning easier for magnetic loop antenna.

The SR-705 has been designed in Autodesk's Fusion 360 by our engineers and takes 3 1/2 hours for our equipment to build. Each thermoplastic polyester unit is then finished off by hand to fit on any round 1/4 inch nylon shaft. This provides a perfect fit for the Icom AL705 antenna.

WARNING!! Please take care not to overstress and damage any components when removing the old knob with a flat head screwdriver and installing the new knob. Note that the flat head screwdriver would be used to 'shimmy' the old knob off.

How the SR-705 (Speed reduction knob) works

As you will see below, a lever that is made 3 times the size of a standard knob is the same as having a 6:1 reduction drive installed on a variable air capacitor with a 360 degree turning radius.

As an added benefit, the silver rod can be positioned to point left when the loop is tuned for 10 meters and right when tuned for 40 meters.

A 180 degree turn with a reduction of 3:1 = a 360 degree turn with a reduction of 6:1

180/3 = 360/6 or 60/1 = 60/1 or 6:1

–

A knob that is 3 time the size of another equals a reduction of 3:1

$$\mathbf{S_o/S_I = d_o/d_I}$$

Increase the speed the load moves with a Class 3 lever

Since the load or output length ($\mathbf{d_o}$) is longer for a given lever length, the Class 3 lever would result in a greater speed mechanical advantage and be able to project the object faster.

Speed equation

The relationship between the effort speed and load speed is dependent on the ratio of the arms of the lever, according to the equation:

$$S_o/S_i = d_o/d_i$$

where

- S_o is the resulting speed of the output or load
- S_i is the speed of the input or effort
- d_o is the length of the output or load arm
- d_i is the length of the input or effort arm

Note that S_o/S_i is the *speed mechanical advantage* of the lever.

Example: As the AL-705 uses a variable air capacitor with a 180 degree turn, using the 3:1 reduction offered from our SR-705, provides you the equivalent of a 6:1 reduction on a 360 degree turn.

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
★ ★ ★ ★ ★

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5★
100
100%
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3★
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0%
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1. F

   Protected_User_6755878c
   Verified owner
   May 12, 2026

   SR-705 (Speed Reduction) knob

   Verified review - view original

   I could not believe the difference in tuning, it made fine tuning possible, great product!

2. DC

Protected_User_aca9fc80
Verified owner
December 22, 2025
★★★★★
★★★★★
SR-705 (Speed Reduction) knob

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3. LS

Protected_User_fc2b0fe3
Verified owner
October 12, 2025
★★★★★
★★★★★
SR-705 (Speed Reduction) knob

Verified review - view original

This ingenious speed reduction knob installs easily and allows fine tuning of my Alpha Antenna Mag Loop.

4. G

Protected_User_f7b687db
Verified owner
September 19, 2025
★★★★★
★★★★★

SR-705 (Speed Reduction) knob

Verified review - view original

I recently read a magazine article mentioning the use of the Alpha SR-705 knob and quickly ordered it for my Alpha Loop, Jr. It arrived in a couple days and I easily installed it in minutes. It’s amazing how little effort it now takes to precisely tune a loop antenna. Thanks Alpha Antenna for providing this needed accessory.

5. PL

Protected_User_436a27b0
Verified owner
September 17, 2025
★★★★★
★★★★★
SR-705 (Speed Reduction) knob

Verified review - view original

Great improvement over the standard tuning knob

Show more reviews (2)