

## AT4 V2.0 Servo protection device installation

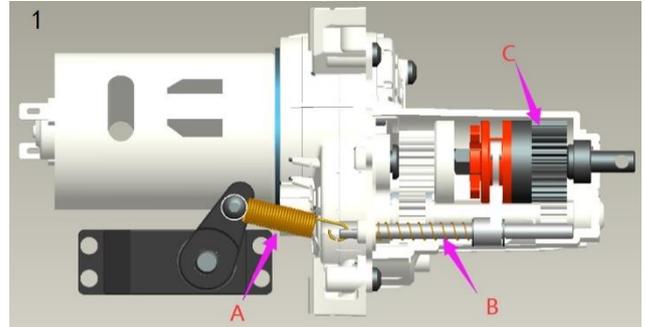
**Note:** the following adjustment operation under the condition of overhead vehicle, power on and servo arm uninstillation.  
**Remind:** The initial position (midpoint position) corresponding to the remote signal and a corresponding mechanical position after installing the servo arm. This applies to all remotes and servo.

### V2.0 Servo protector working and adjustment:

#### Transmission shifting:

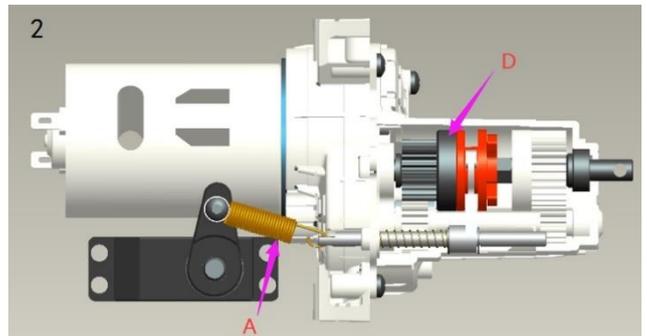
**Slow gear:** the remote is in the defined slow gear state, and the servo in the midpoint position. At this time, the protection spring A not tension. The shift chuck in the transmission box is pushed into the slow gear c (Picture 1) by the internal return spring B. at this time, the gearbox in slow output.

It's mean the installation angle of the servo arm can not make the protection spring a produce tensile deformation. (Also can set by the rudder of the remote control. The RTR version is unadjustable.)



**Fast gear:** the remote turn to the defined fast gear state, the servo acts to pull the protection spring A, Pull the shift lever to bring the chuck into the fast gear d (picture 2). At this time, the transmission in the fast output.

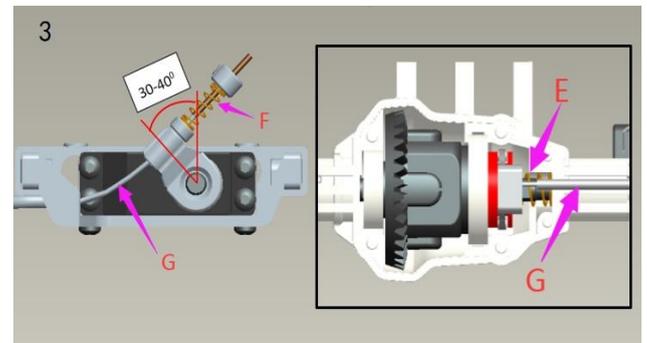
It's mean the swing angle of the servo arm make the protection spring a fully pull out the shift lever and produce a tension of about 2-3mm. (Also can set by the rudder of the remote control. The RTR version is unadjustable.)



#### Differential lock and unlock:

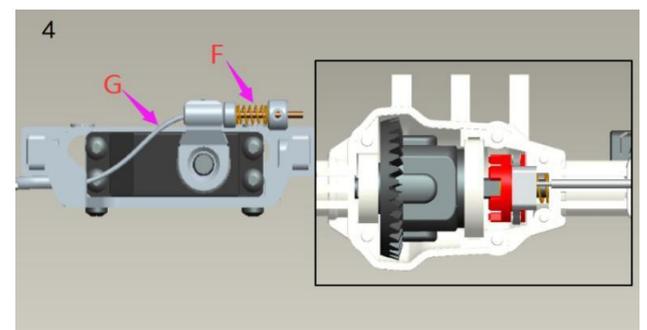
##### Differential locking:

The default state of AT4 front and rear axles are not controlled by cable tension is lock differential state. At this time, the return spring E in the axle pushes the chuck into the differential housing, and the differential is locked. The servo in the locking position of the differential lock defined by the remote control, the installation position of servo arm as shown in Picture 3, and the differential lock protection spring F is in a fully relaxed state. And the cable G is relaxed.



##### Differential Unlock:

The remote control switches to the defined unlocking state. The servo rotates to the unlocking position of the differential lock defined by the remote control, the servo arm rotates as shown in Picture 4, and the differential lock protection spring F in a compressed state. At the same time, the cable G is in tension. It's meaning the servo arm swing angle make the protection spring F enough to fully pull the differential lock cable and produce about 2-2.5mm compression. (Also can set by the rudder of the remote control. The RTR version is unadjustable.)



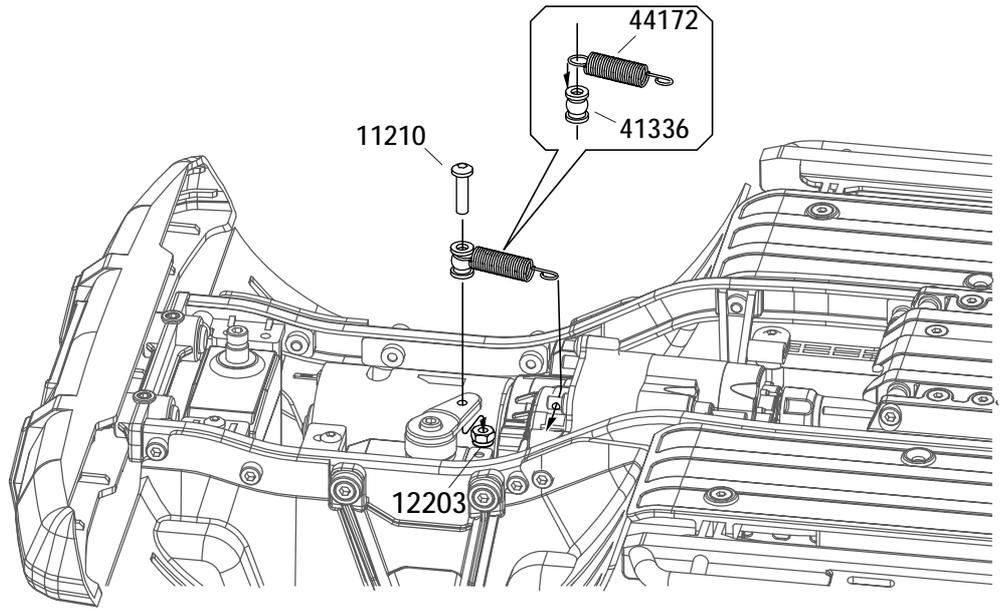
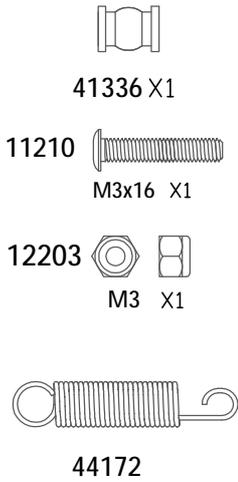
**Remind: Turn on the remote control after above debugging is completed, repeatedly switch the fast gear & slow gear of the transmission, start the throttle and turn the wheel to confirm that the state switch is in place and smooth.**

**What circumstances should v2.0 servo protector be installed?**

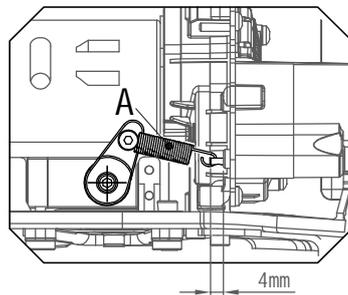
The main reason for the damage of the steering gear in some RTR vehicles is that the strength of the steering gear protection device is too large or the adjustment is not fine enough. The v2.0 steering gear protection device can effectively protect the steering gear. At present, the at4 RTR without failure in normal use can replace the steering gear protection device of the gearbox first, and the differential lock steering gear protection device can be replaced according to the actual use.

**RTR upgrade to remote control, Servo and Kit model**

Non RTR original configuration of remote control and steering gear is adopted. Please replace the v2.0 steering gear protection device. Please debug the remote control and steering gear according to the above adjustment instructions. Please pay attention to adjust the stroke of the steering gear from small to large during debugging (you can set 20% of the rudder as the starting point first).

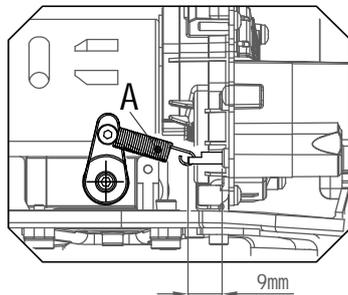


Shift servo installation and adjustment



Slow gear

Slow gear: the remote is in the defined slow gear state, and the servo in the midpoint position. At this time, the protection spring A not tension. The shift chuck in the transmission is pushed into the slow gear by the internal return spring, and the transmission is at the slow output. It's mean the installation angle of the servo arm can not make the protection spring a produce tensile deformation. (Also can set by the rudder of the remote control. The RTR version is unadjustable.)



Fast gear

Fast gear: the remote turn to the defined fast gear state, the servo acts to pull the protection spring A, pull the shift lever to bring the chuck into the fast gear and the transmission is the fast gear output. It's mean the swing angle of the servo arm make the protection spring a fully pull out the shift lever and produce a tension of about 2-3mm, Over stretching and servo under force over, It's easy cause damage to the servo. (Also can set by the rudder of the remote control. The RTR version is unadjustable.)

Tip: Turn on the remote control after above debugging is completed, repeatedly switch the fast gear & slow gear of the transmission, start the throttle and turn the wheel to confirm that the state switch is in place and smooth.

41818 X2



11401



M3x4 X2

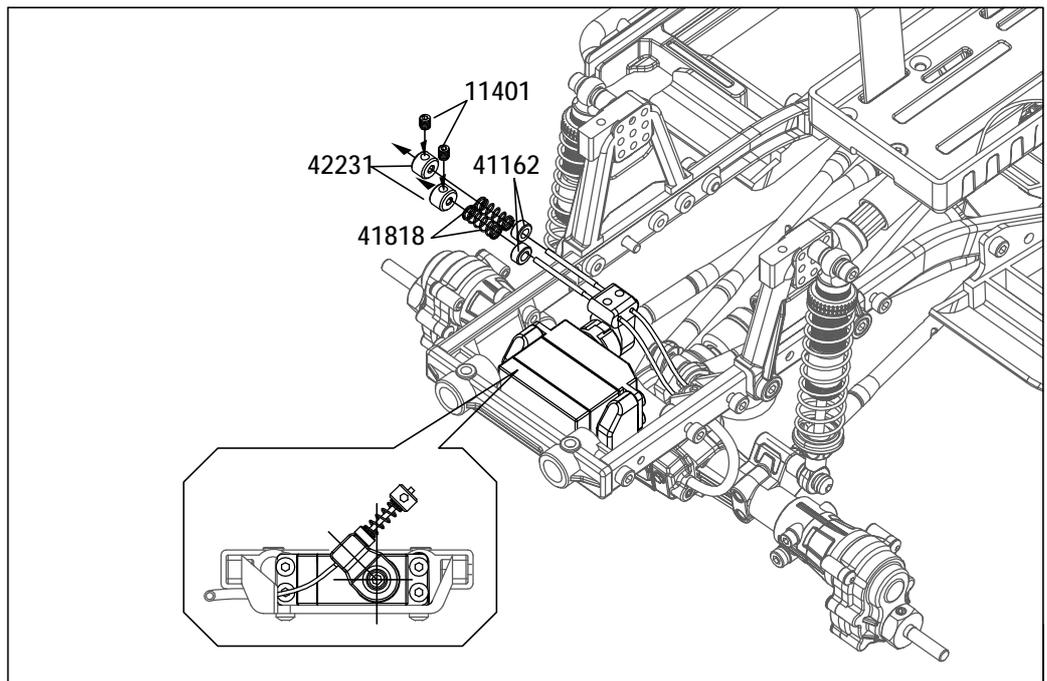
42231 X2



41162 X2

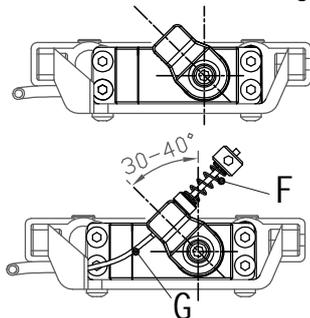


Ø6xØ3.2x3 X2



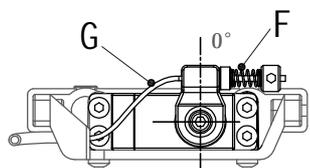
### Differential Lock servo adjustment

#### Differential locking



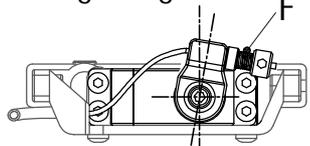
1. Suspend the frame and rotate the wheels for make sure the front and rear axle differential is locked.
2. Switch the remote differential lock to the defined state, and install it to the servo arm as shown on the drawing.
3. Install the accessories according to the drawing, and make sure the differential lock protection spring F and cable G are in the fully released state, and then lock the locator screw.

#### Differential unlock



4. The remote control turn to the defined unlocking state. At this time, the servo on the unlocking position of the differential lock defined by the remote control, the servo arm rotation position as left shown, and the differential lock protection spring F on compressed state and the cable G in tension. In other words, the servo swing angle at this time makes the protection spring f enough to fully pull the differential lock cable and produce about 2-2.5mm compression.  
( Also can set by the rudder of the remote control . The RTR version is unadjustable.)

#### Wrong Diagram



#### Notice:

1. When the differential lock is open, as left-shown the protection spring F is over compressed. Please reduce the servo route or adjust the position of the positioner immediately, otherwise it's danger risk on the servo.
2. Suggest to the servo route (End point) should be adjusted from small to large.