The image features a black HUDY QUICK-TWEAK STATION tool with a silver carrying case. The tool has a scale on its side and a central adjustment knob. The carrying case is silver with the product name 'QUICK-TWEAK STATION' printed on it. The background is dark with pink and white decorative swirls and patterns.

HUDY

INSTRUCTION MANUAL
QUICK-TWEAK STATION

EXCLUSIVE PROFESSIONAL

HUDY QUICK-TWEAK STATION



Correct tweak is one of the most important concerns that influences the overall performance of the car; a badly-tweaked car has a very negative impact on a car's handling. As such, it is very important to check and correct tweak regularly; pro racers check tweak a number of times after each run.

The new HUDY Quick-Tweak Station allows you to quickly and easily check and correct tweak on your race car to help ensure proper, consistent handling.

FEATURES

- Center axle is specially ground to be perfectly straight & level with ends additionally hand ground for precision fitment into bearings
- Manually-selected ball-bearings are precisely pressed into the base plates to ensure free rotation and bind-free movement, allowing easy deflection from even small amounts of tweak
- Ball-bearings are degreased and lightly oiled with AeroShell 12™ fluid for ultra-free and smooth operation
- Base plates are CNC machined from strong, lightweight aluminum; specially milled-out cavities in the bottom of each base plate give ultra lightness; both left and right sides are identically weighted for perfect balance
- Precision spirit level in pivoting base plate; base plate material is milled out from around spirit level for easy viewing in any position
- Base plates are black coated for protection and stylish look, precision laser-engraved track-width scale of 160–220mm



- Three adjustable threaded feet allow easy level adjustment
- Universal station fits all 1/10 on-road cars; the fixed base plate can be moved along the center axle to shorten the Quick-Tweak Station for measuring 1/12 cars as well

ASSEMBLY & ADJUSTMENT

- 1 Before you check & correct the tweak of the car, make sure that you are working on perfectly flat surface. For best results use the ultra-flat HUDY Set-up Board (#108201) and HUDY Set-Up board decal (#108211).



- 2 Install two threaded feet into the bottom of the fixed base plate.



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- 3 Install a threaded foot into the bottom of the center axle, near the end for the pivoting base plate.



- 4 Slide the other end of the center axle through the holes in the fixed base plate.



- 5 Adjust the length of the tweak station to correspond to the car you are measuring; the length of the car varies between categories.



- 6 Adjust the tweak station so it is level.



Fixed Base Plate: Lay the pivoting base plate along the top of the fixed base plate so you can observe the spirit level. Adjust one or both threaded

feet until the bubble in the spirit level is between the middle lines.



Center Axle: Lay the pivoting base plate along the top of the center axle so you can observe the spirit level. Adjust the threaded foot in the center axle until the bubble in the spirit level is between the middle lines.

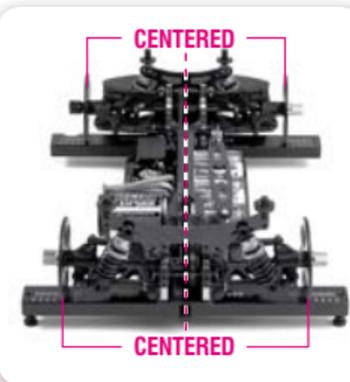
- 7 Reattach the pivoting base plate to the end of the center axle; slide the stepped end of the center axle through the bearings of the pivoting base plate.



5

PREPARING TO MEASURE TWEAK

The weight of rubber tires varies due to the different weights of inserts and tires. For electric rubber-tired cars we recommend using the #109370 HUDY alu set-up wheels for rubber tires for better checking of tweak. For 1/10 electric foam-tired touring cars and pan cars, we recommend using foam tires.



Adjust the position of the car to ensure each end of the car is centered on its base plate. The outer edge of each wheel (at one end of the car) should be beside equivalent marks on each side of the base plate.

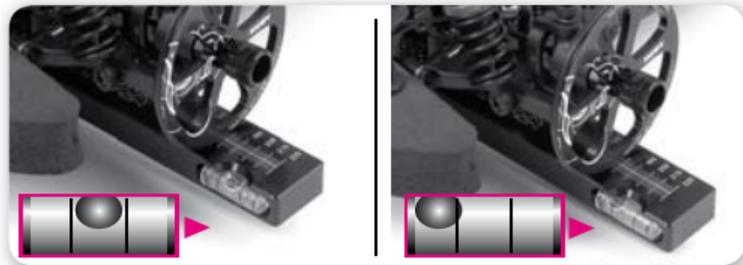
For example, if you are measuring a car with a 190mm track-width, the outer edge of each wheel should be beside the engraved number "190" on each side of the base plate.

MEASURING TWEAK

Determine which end of the car you want to check for tweak, and then place that end of the car (front or rear) on the FIXED base plate. The other end of the car should be placed on the PIVOTING base plate.

For example, to check REAR tweak, place the REAR wheels on the FIXED base plate, and place the FRONT wheels on the PIVOTING base plate.

The pivoting base plate will indicate if there is tweak at the OTHER end of the car.



• If the bubble in the spirit level is centered, there is no tweak at the other end of the car.

• If the bubble in the spirit level is offset to one side, the other end of the car is tweaked.

Example for checking front tweak:

Following the example above, check for rear tweak by placing the rear wheels on the fixed base plate, and place the front wheels on the pivoting base plate. Looking at the front of the car (on the pivoting base plate), if the base plate is tilted down to the right (under the FRONT RIGHT wheel), that means there is excess tension on the REAR LEFT wheel (the diagonally-opposed wheel).

CORRECTING TWEAK

Each type of car platform uses different methods for correcting tweak:

- For touring cars (or other cars with fully-independent suspension), tweak adjustments are typically made using shock spring preload.
- For pancars (such as 1/12 pancars like the XRAY XII), tweak adjustments are typically made using tweak screws in the center T-bar.

Refer to your car's set-up guide for explicit instructions on correcting tweak.

Each time you make an adjustment, re-check the alignment. You shouldn't have to make large adjustments to get things in balance; if you have to keep making turns and the car does not seem to balance, there is probably something else that needs attention.

To correct tweak on a touring car with fully-independent suspension:

- If a particular wheel pushes down on the pivoting base plate (causing it to tilt down), the DIAGONALLY OPPOSITE wheel (on the fixed base plate) has too much tension on it.
- When you determine the wheel (on the fixed base plate) that has too much tension on it, reduce spring preload on that wheel, and increase spring preload by an equal amount on the other wheel on the fixed base plate.

The examples on the right show how to adjust tweak in the REAR suspension - REAR wheels on FIXED base plate & FRONT wheels on PIVOTING base plate.

To adjust tweak in the FRONT suspension, turn the car around so the FRONT wheels are on the FIXED base plate and the REAR wheels are on the PIVOTING base plate.

Loosen this spring collar

Tighten this spring collar

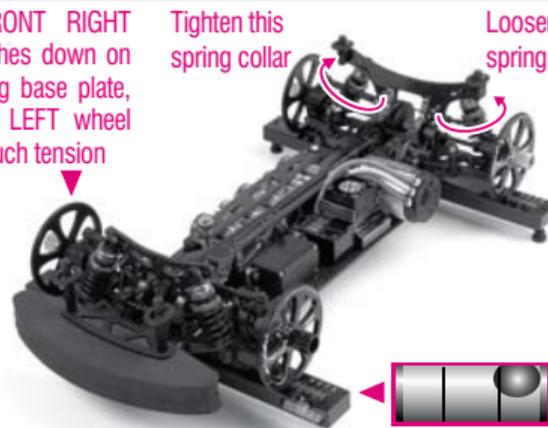


If the FRONT LEFT wheel pushes down on the pivoting base plate, the REAR RIGHT wheel has too much tension.

If the FRONT RIGHT wheel pushes down on the pivoting base plate, the REAR LEFT wheel has too much tension

Tighten this spring collar

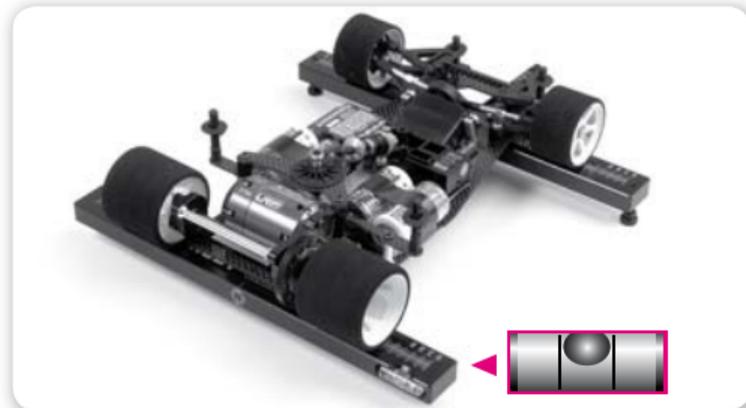
Loosen this spring collar



To correct tweak on a pancar with T-bar rear suspension:

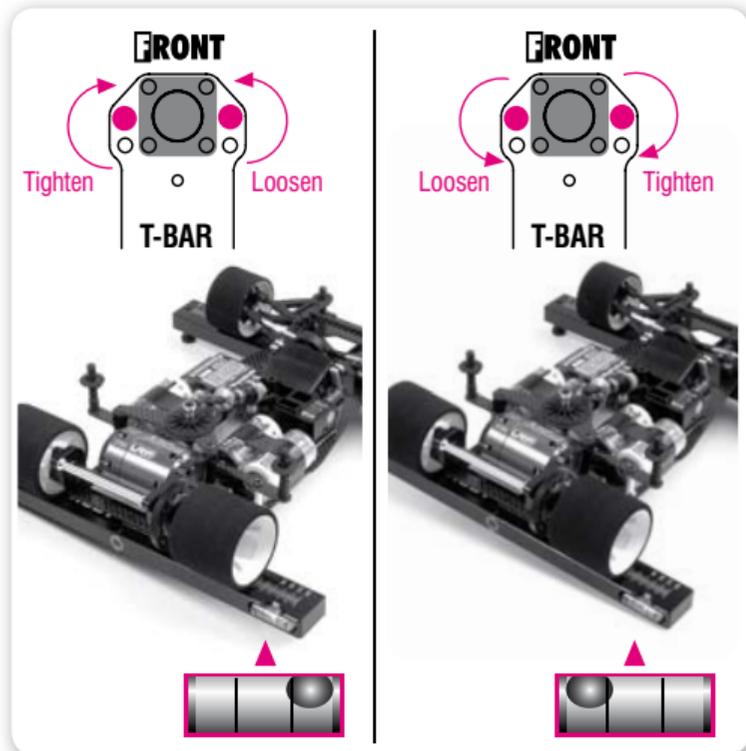
Tweak on a 1/10 and 1/12 pan car with T-bar suspension can ONLY be adjusted via setscrews on the T-bar.

- The FRONT tires must be placed on the FIXED base plate, and the REAR tires must be placed on the PIVOTING base plate; tweak cannot be adjusted if the car is turned opposite to this.



- If a particular rear wheel pushes down on the pivoting base plate (causing it to tilt down), the tweak screw on the OPPOSITE side of the T-bar has too much tension on it.
- When you determine the tweak screw (in the T-bar) that has too much tension on it, loosen that tweak screw, and tighten the other tweak screw by an equal amount.

In the RIGHT example below, the REAR RIGHT wheel is pushing down on the pivoting base plate too much. This means the LEFT tweak screw has too much tension. LOOSEN the LEFT tweak screw, and TIGHTEN the RIGHT tweak screw by an equal amount.



Setting up an RC racecar is necessary to make the car perform well. Aside from tweak there are numerous other set-up adjustments that can be made (depending on the type of car) such as camber, caster, toe, ride height, downstops, and many others. Car setup is a complex matter, as all adjustments interact. Fine-tuning the set-up will make your car faster and often easier to drive near its performance limit. This means that all the effort you put into your car in preparing it and optimizing the setup will pay off in better results and more satisfaction.

HUDY offers a complete product line of professional set-up equipment for complete car set-up and adjustment. HUDY is fully dedicated to designing, developing, and producing the world's best, smartest, and most professional set-up equipment and tools. With their long and distinguished history for coming up with unique ideas and innovations, HUDY is the leader in the RC tool and set-up industry... there simply is no better.

- 1/10 Nitro Touring Cars
- 1/10 Electric Touring Cars
- 1/10 Pan Cars
- 1/12 Electric Touring Cars
- 1/12 Pan Cars

HUDY SET-UP ACCESSORIES

The HUDY Quick-Tweak Station is perfect for quickly checking for tweak of your car. For complete geometry adjustment, HUDY also offers the All-In-One Set-up Solution which gives you all the tools necessary to completely set up the car geometry as well as setting tweak with the HUDY Ultimate Tweak Station. The HUDY Ultimate Tweak Station integrates with the rest of the set-up components for a highly-precise and accurate tweak adjustment, allowing you to perform all set-up adjustments in one session



>> #109305
Universal Set-up System all 1/10 nitro & electric touring cars



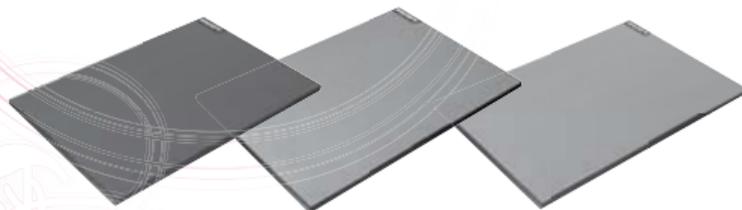
>> #109405
Universal Set-up System for 1/12 & 1/10 Pan Cars



>> HUDY Ultimate Tweak Station
(included only in All-In-One Set-up Solution #108255)



>> #109370
HUDY Set-up Wheels for 1/10 Rubber tires



>> #108205 HUDY Set-up Board DARK GREY
#108203 HUDY Set-up Board SILVER
#108204 HUDY Set-up Board TITANIUM



>> #107750
HUDY Quick Camber Gauge for 1/10 Touring Cars 1.5°, 2°, 2.5°



>> #107702
Droop Gauge Support Blocks



>> #107712
Droop Gauge -3mm~10mm



>> #107719
HUDY Quick Downstop Gauge Tool 1.0 ~ 6.5mm



>> #107718
Ride Height Gauge Stepped for 1/10 & 1/12 Pan Cars



>> #107716
Ultra-fine Ride Height Gauge Step increment: 0.2mm



>> #107714
Ultra-fine Droop Gauge Step increment: 0.2mm



>> #107713
Ride Height Gauge Stepped 2mm~15mm



>> #107715
Ride Height Gauge Flat 1mm~15mm



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