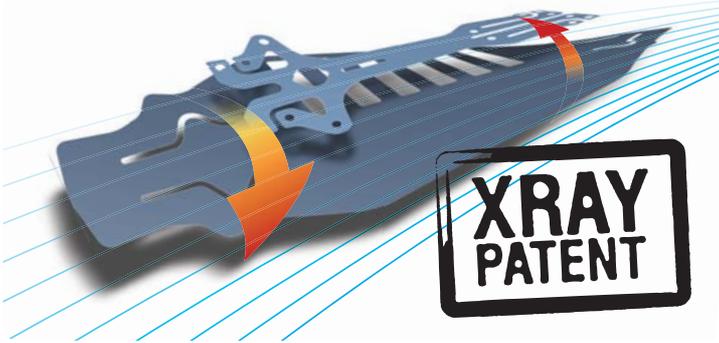


# XRAY T2

## TIPS FOR REMOVING TWEAK FROM THE T2 CHASSIS

### QUALITY ASSURANCE:

XRAY graphite parts are manufactured in-house on highly-accurate German CNC-operated machinery using special production tools which ensure that all correlative holes are drilled within the highest tolerance and in the proper locations. Every T2 chassis is inspected and controlled during production on a special checking tool that ensures that all holes are manufactured correctly and in line. As such, all holes on the chassis are perfectly straight and in line with bulkheads. Additionally, flatness of each chassis is controlled and inspected after the bulkheads are assembled to the chassis. With the specific production process and several control and inspection procedures being used, all chassis are correctly manufactured, flatness is well within RC industry tolerance standards, and bulkheads are mounted tweak-free.



### TWEAK INSPECTION:

The chassis features the Multi-Flex Technology cut-outs which make the chassis more flexible and thus more demanding for precise installation of bulkheads to the chassis as well as to the top deck. It is important to note that the screws have certain manufacturing tolerances and the heads of screws may be slightly eccentric and therefore after the bulkhead is assembled to the chassis may have some tension in certain parts; however, this tension is very minor and will not cause any tweak. If some excessive tweak is present, check if some screw heads are significantly out-of-center, and replace the screws as required.

**XRAY T2**  
AUTHENTIC OPTIONS

### USING XRAY PRODUCTS ONLY:

For best performance, we strongly recommend using only unmodified Authentic XRAY Products to avoid tweak, as all XRAY parts share the same high production tolerances and are created to work together.



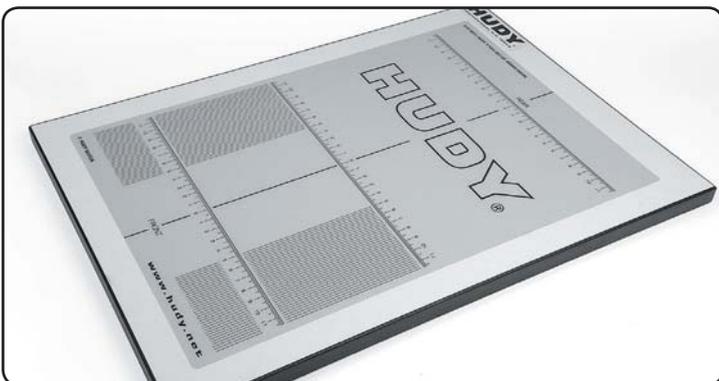
### NON-COUNTERSUNK TOP DECK:

The T2 platform is very different than previous T1 platforms, and a non-countersunk top deck was determined to be the best and most logical choice to achieve the intended results and performance. We suggest not to modify the top deck. Also, use of an aftermarket countersunk top deck may introduce undesired effects, including tweak.

The non-countersunk top deck - after correct installation to the bulkheads and after correct screw tightening - insures that the chassis is tweak-free and provides the desired optimum flexibility.

## REMOVING TWEAK AFTER A CRASH

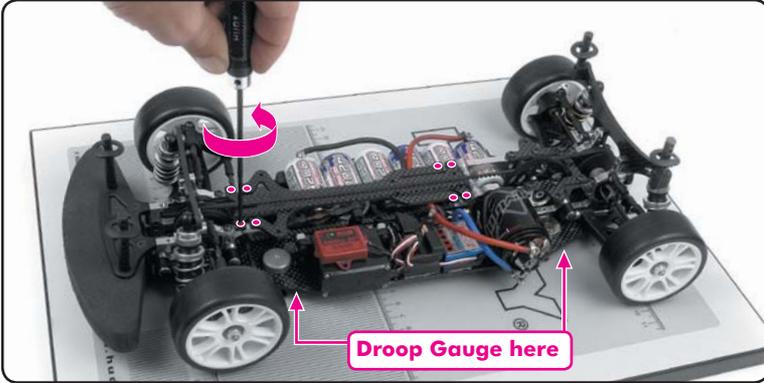
IF YOU CRASH AND YOUR CAR BECOMES TWEAKED, FOLLOW THIS HANDY TIP HOW TO REMOVE THE TWEAK:



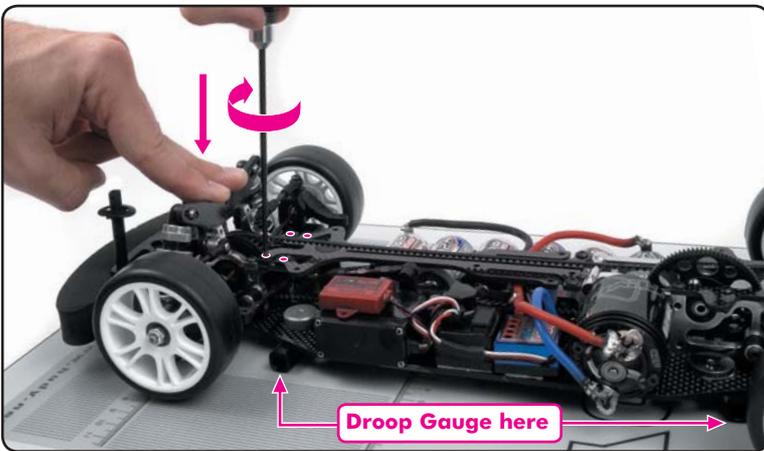
① Use the HUDY set-up board, which is ultimately flat and is a "must have" basic environment for car setup. Checking for tweak on another non-HUDY board may result that tweak will be checked on an uneven surface which may show that the car is tweaked even if it is not. Experience has shown that some other aftermarket boards (for example, those made from Plexiglas or aluminum) are not flat and checking the car on these boards may show a tweaked car even if it is not tweaked. Therefore it is suggested to use only the ultimately flat HUDY set-up board #108201.



2 Place the T2 on the Hudy Droop Gauges (#107702) in the place where front and rear bulkheads are. Verify that your droop gauges are clean and smooth. If any debris (CA glue, etc) is on the gauges, this may result in uneven results.

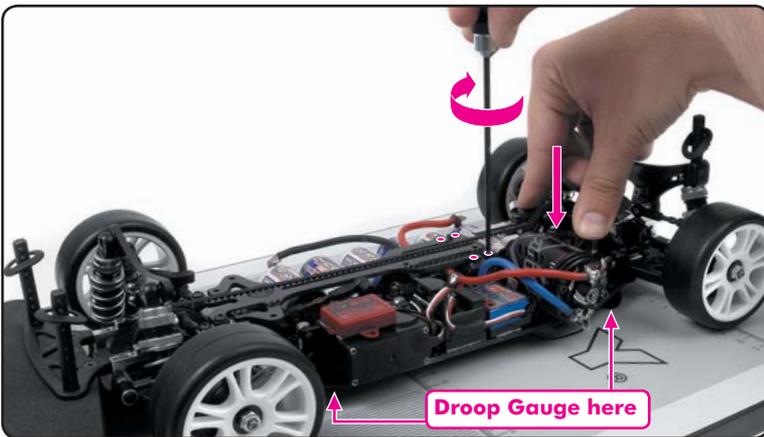


3 Release the screws of the top deck. The released tension will allow the chassis and top deck to return to their normal standard flat position.

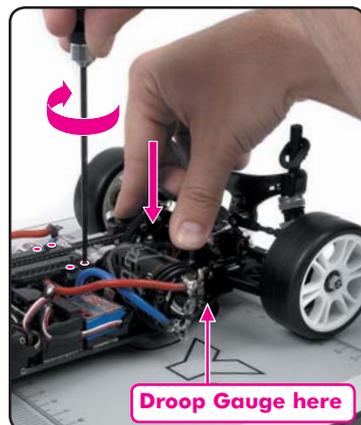


4 Retighten the screws only slightly, not fully.

5 To tighten the screws slightly, start with the screws at the front of the top deck. When tightening the screws in the front of the top deck, push on the chassis through the front shock tower. Tighten the screws lightly.



6 When tightening the screws in the rear, push on the top of the rear bulkheads so you push the car against the droop gauges.



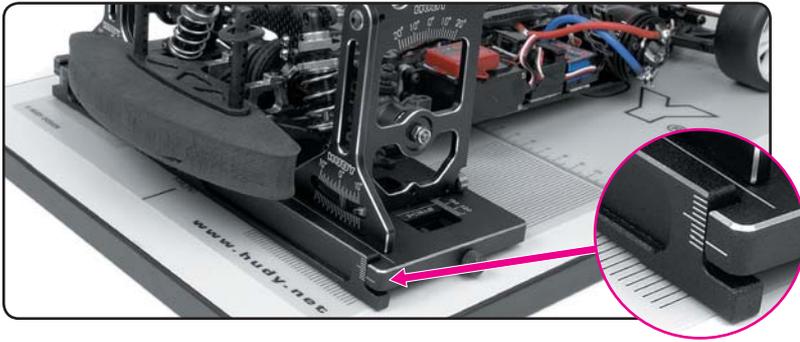
7 If the chassis is flat and lays flatly on the droop gauges, then it is correct. Now tighten all screws fully. Again follow the same procedure.

When tightening the screws fully in the front of the top deck, push on the chassis through the front shock tower.

When tightening the screws fully in the rear, push on the top of the rear bulkheads so you push the car against the droop gauges.

If the chassis is not flat then repeat this procedure again.

## REMOVING TWEAK FROM OTHER SOURCES



After you set the chassis flat on the droop gauges but it still seems tweaked use the HUDY Tweak Station which will instantly discover any tweak. If you have the chassis flat on the droop gauges then the tweak comes from some other source. There are other factors which can influence and create tweak.

**TIP** To fully understand the theory, how to identify and how to adjust the Tweak using HUDY Tweak Station, read the XRAY T2 SET-UP BOOK pages **20~23**.

Here are typical factors that can create tweak:

### SHOCK ABSORBERS

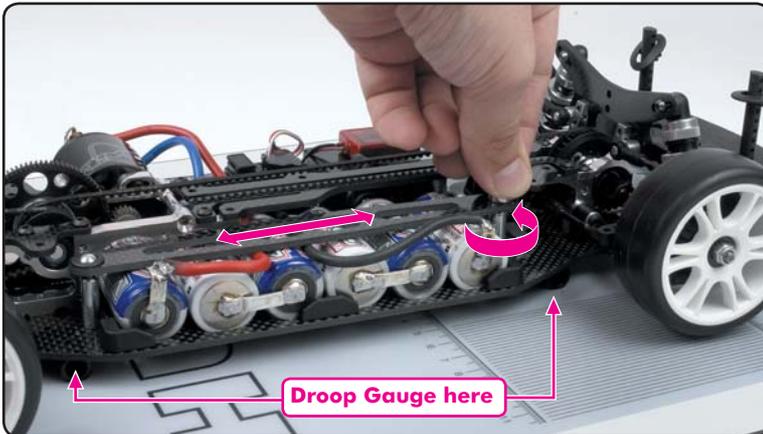


The most important factor for a tweak-free car is to have left with right shocks set up perfectly equal with springs. Both pairs of shocks must have:

- same rebound
- same compression of springs
- same oil viscosity
- same amount of holes open
- same shock mounting position on arm and shock tower

**TIP** To fully understand the theory about shocks, read the XRAY T2 SET-UP BOOK pages **30~32**.

### BATTERY ASSEMBLY TWEAK



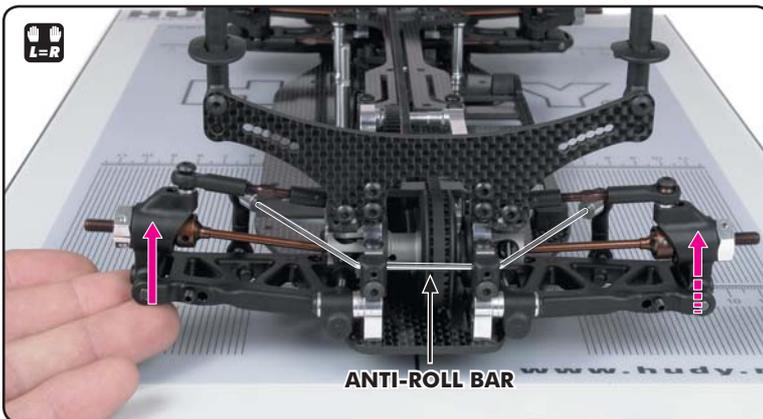
**Problem:** The batteries are overtightened and are deforming the chassis.

**Solution:** If you use the optional Graphite Battery Strap release the locking wheel slightly, so the battery strap sits freely and can slightly move. If you use the tape, reinstall it again.

**Problem:** There is insufficient play between the batteries and battery strap (when used as an optional part).

**Solution:** In this case, file the battery slots to allow more play of the batteries when placed on the chassis.

### TWEAKED ANTI-ROLL BAR

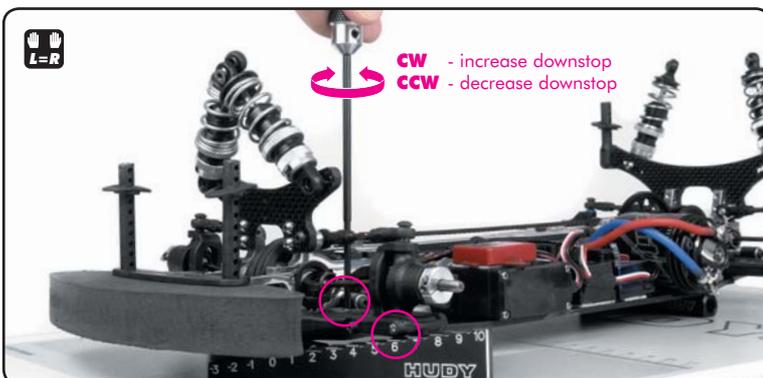


**Problem:** Your front and/or rear anti-roll bars are tweaked (when used as an optional part). To check if an anti-roll bar is tweaked, first remove the wheels, and then put the car on the flat setup board so the suspension is not in contact with the board (you may have to use downstop blocks). Slowly lift the left suspension and note how high you have to lift it before the right suspension starts to lift. Repeat this for the right side. If the left and right suspensions do not start to lift at the same height, the anti-roll bar is tweaked.

**Solution:** Change the length of one or both anti-roll bar linkages. The side that reacts the slowest (that is, the side that has to be raised the most before the other side comes up) needs a longer linkage, or the other side needs a shorter linkage.

**TIP** To fully understand the theory and how to adjust the Tweak through anti-roll bars, read the XRAY T2 SET-UP BOOK page **23**.

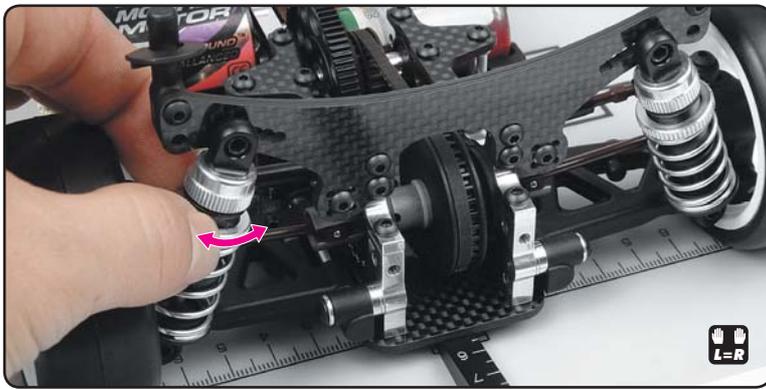
### UNEVEN DOWNSTOPS



**Problem:** Your left and right downstops are not equal. This makes the car handle like it is tweaked and the HUDY Tweak Station will evaluate this unevenness as tweak.

**Solution:** Set the downstops on both left and right side equally in front and/or rear through the downstop screws. Typical downstop setting is 5 or 6. For measuring and adjusting the downstops use the HUDY Droop Gauge #107712.

**TIP** To fully understand the theory and how to adjust the Droop, read the XRAY T2 SET-UP BOOK pages **10~11**.

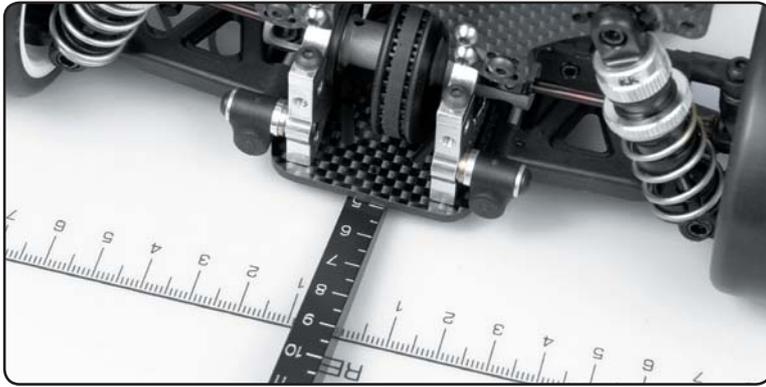


## ADJUSTING TWEAK USING SPRING PRELOAD

**Problem:** Incorrectly adjusted springs can result in one side of the car being firmer or higher than the other, causing difference when turning left or right.

**Solution:** Adjusting tweak using spring preload should be done only after all other items have been checked and corrected.

**!** Adjusting tweak using spring preload is an advanced set-up procedure and therefore it is strongly suggested that you read and fully understand the details on this set-up procedure in the XRAY T2 SET-UP BOOK on page **22**.

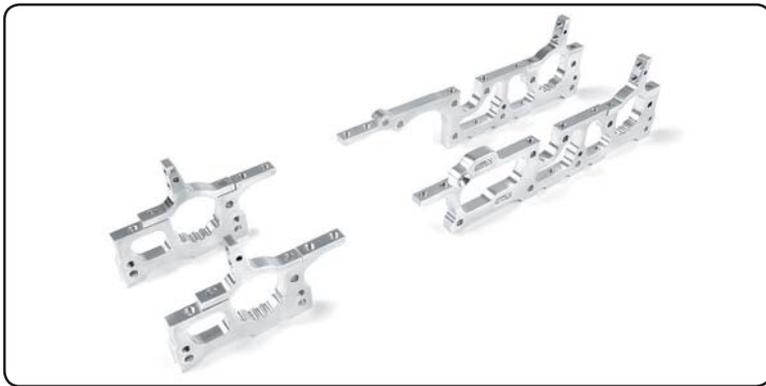


## UNEQUAL RIDE HEIGHT

**Problem:** Unequally adjusted ride height may result in a tweaked car. To check your current setting of the ride height use the HUDY Ride Height Tool #107715.

**Solution:** Adjust the ride height through shock preloads so it is equal on left and right side under the chassis.

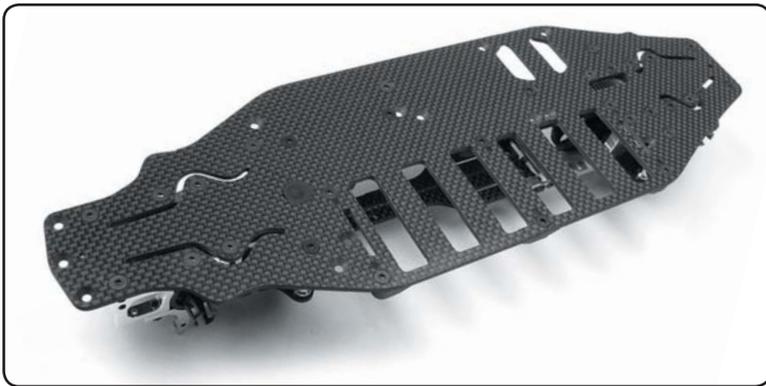
**TIP** To fully understand the theory and how to adjust the Ride Height, read the XRAY T2 SET-UP BOOK pages **8~9**.



## BENT BULKHEADS

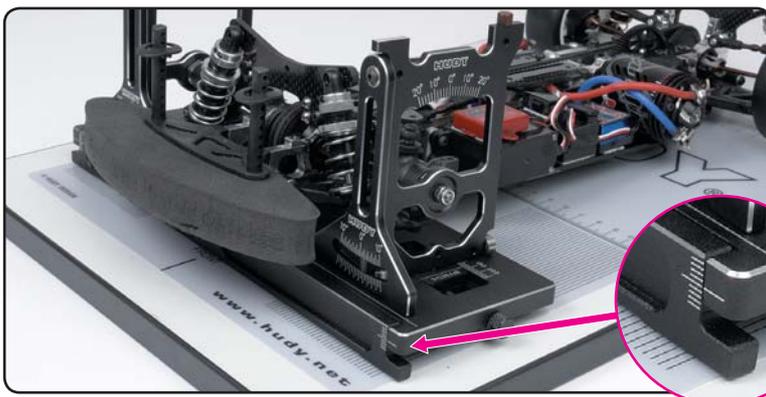
**Problem:** In the event of a very serious crash the bulkheads may bend slightly and this may result in tweak.

**Solution:** Replace any bulkheads which seem to be bent.



## **TIP** CHASSIS SCREW TIGHTENING

When tightening screws from the bottom of the chassis, initially you should only tighten them slightly. Afterwards, tighten all screws fully.



## UN-TWEAKED CAR

After you set the chassis flat on the droop gauges and check for the other sources of tweak and remove any present tweak, your car should be perfectly tweak-free. To verify your tweak-free car, use the HUDY Tweak Station.

Check for tweak after each run.