

## 2292 Low Profile Internal Compensation Units

Please read the instructions and familiarise yourself with the parts and options before bending, gluing or soldering anything. All 90° fold lines are on the inside of the fold. Each fret is sufficient for two wagons

These units allow easy compensation of most four wheeled RTR wagons where the clearance between the floor and axle is limited. Specific examples might be HO or 7mm narrow gauge models which run of 16.5mm track. Based on the same (three point support) principle as conventional compensating W-irons, they feature internal bearings on the 'rocking' end. Pin points must be removed from the ends of the rocking axle while the other axle retains its pin points and existing mountings.

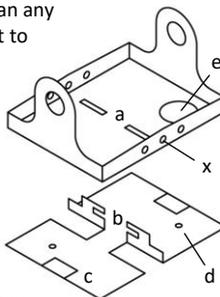
Remove the components from the fret and clean any remaining 'tabs'. Fold the main suspension unit to form an open 'box' as shown. Fold the two location tabs on the mounting plate (b).

Locate the main suspension unit on the mounting plate passing the tabs (b) through the slots (a). Bend the inner ends of the tabs in opposite directions to hold the unit without restricting the rocking movement.

Taking care not to damage the wheels, file or grind the pin points on one axle so that the ends are flush with the wheel faces. Remove one wheel from the axle and thread it through the holes in the legs of the suspension unit. Open these out with a needle file or broach if necessary. Remove the axle and paint or chemically blacken the suspension unit.

Re-fit the axle. Replace the wheel and adjust the retaining tabs (b) to achieve the right balance of rocking motion and 'slop'; a little lubrication will help. Washers are supplied (on the etch) to take up excessive side-play - try to use an equal number on each side.

How the rocking unit is fitted to the vehicle will depend on a number of factors which are specific to the vehicle (like the wheel diameter) so only outline guidance can be given. The fixed axle at the non-rocking end of the vehicle should be fitted first. This will define the ride height. If replacing



original wheels with finer scale pinpoint alternatives, the 26mm long axles may be longer than the originals and provision will have to be made. At the 'rocking' end moulded W-Irons should be left in place to mask the rocking unit behind them. A clear area 11 x 14mm (the size of the mounting plate) is needed on the underside of the floor. In all probability this will have to be built up to give the correct ride height but it might be necessary to remove some underframe material. Moulded W irons may have strengthening ribs where they join the underframe which have to be removed to allow the unit to rock.

If using wheels with an over flange diameter of less than 10mm, the rocking unit will run out of range at about +/- 12°; a cross level discrepancy of about 3.5mm. If this is considered too much, or if using larger diameter wheels, the tabs (c) can be bent down to act as end stops. If using larger diameter wheels without restricting the angular range, there is a danger that the rocking unit will find its own 'end stop' when the wheel fouls the underframe or the mounting plate. It may sometimes be necessary to narrow the mounting plate by filing it back or bending the outer edges upward. As an alternative, the mounting plate can be dispensed with and the rocking unit mounted on wire 'axle' inserted through the holes (x).

The pilot holes (d) are provided as a guide in case the modeller wishes to pin or screw the mounting plate to the vehicle. The corresponding clearance holes (e) are there to ensure that the rocking unit does not foul the heads of the pins or screws.

© DART CASTINGS 14 03 2017

### Dart Castings

17 Hurst Close  
Staplehurst  
Kent  
TN12 0BX



[www.dartcastings.co.uk](http://www.dartcastings.co.uk)