

CCXB Coupling Extension For Stenson Models Bogie kits.

Introduction:

These coupling extensions are designed for the range of Stenson Models bogie kits. They will allow the different coupling systems available that utilise the NEM type system to be fitted to the bogies. They have been specifically designed for use with the Bachmann small tension-lock couplings, but are equally useable with the equivalent Hornby variants. Any NEM compatible coupling such as Kadee can also be used but may require additional reinforcement with adhesive at the joint. The length of the extension allows a wide range of adjustment for the coupling position.

This kit is suitable for adults only. There are small and/or sharp components. The castings and recommended solders contain lead. Observe appropriate hygiene precautions; do not eat or handle food without first washing hands. The tools and materials recommended also require the care in handling; protection for the eyes and face (dust mask) must be applied when soldering and using a mini-drill.

The components on the etched sheets are all held in position by half etched tags. The fronts of the sheets have the identifying text and should be "face up" for cutting of tags.

It is recommended that a small sharp craft knife is used to remove the components from the frets; Use a hard base surface, such as an off-cut of chipboard or MDF, on which to perform this cutting. Ensure that the blade of the knife used for cutting the tags is regularly changed as soon as there is evidence of wear (I use a small snap-off type knife, which is quick for providing a fresh cutting edge).

Cleanliness is important with solder fluxes, and it is important to "clean as you go". Any residues can cause corrosion of the steel springs in particular, as well as preventing good paint adhesion.

Folds and bends in the kit fall into two basic types:

Folds of 140° are made with the ½ etch "channel" on the inside, and have a specially widened half etch fold line. 90°, or less, are also made with the ½ etch "channel" on the inside. All of the bends and folds can be made either with finger pressure or with smooth faced pliers. Some need a degree of support to avoid distortions. Always take care to maintain a degree of accuracy with these folds as they can influence the final alignment of the components.

All the folds can be performed using a small pair of smooth faced taper nosed pliers, or finger pressure

188° solder is recommended throughout, but this is not critical.

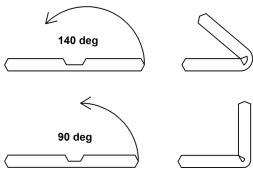


Fig 1

Etched sheet main components:

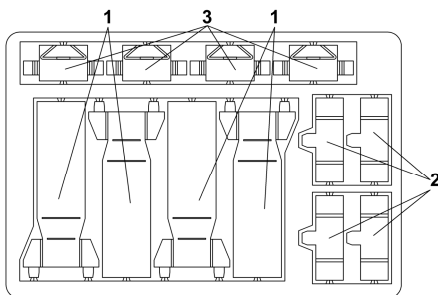


Fig 2

1. Bogie coupling extensions (4 off)
2. Socket frames (4 off)
3. Socket Base plates (4 off)

1. Socket assembly.

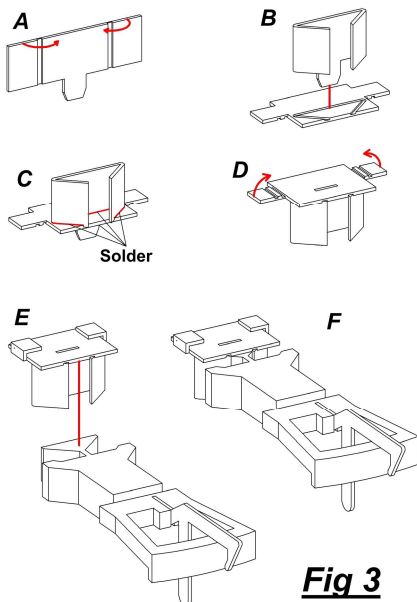


Fig 3

Remove the Socket frames (2) and socket base plates (3) from the etched sheet.

Fold each of the two flaps on the frames 140° as shown (*Fig 1, and Fig 3 A-B*); the last part of the fold is tight and will require a little force. Offer them up to a socket base plate as a check that they are folded correctly; they must sit fully in the half etched channel. Adjust as necessary.

With the socket frame fully inserted, twist the tag to hold in place. The back face of the frame should be at right angles to the base.

Apply flux, and a good fillet of solder to the tab and allow the solder to be drawn in to the joint by capillary action; the solder should be visible all the way round the base of the frame; apply further flux and solder if required. (*Fig 3C*)

Cut off the remaining tab as close as possible to the surface of the frame, and complete total removal, flush with the surface, using a small file and/or a small emery stick. Complete the socket by bending the 2 location tabs over, each of which consists of 2 x 90° bends. One of the extensions (1) can be used as a template to complete this task (*Fig 3D*). Thoroughly wash/clean to remove flux residues.

Check that your chosen coupling assembly fits satisfactorily in the completed socket (*Fig 3E-F*). If the fit is slack, it can be tightened by compressing the open end with the coupling in situ; but do not overdo this until final assembly as the coupling has to be removed to facilitate further soldering.

2. Coupling Extension bar

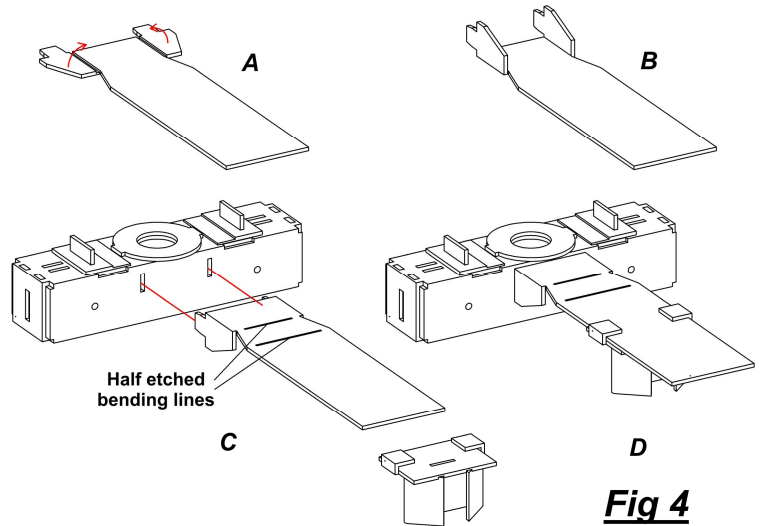
Remove the bogie coupling extensions (1) from the etched sheet.

Fold the 2 reinforcement location tabs 90° (*Fig 4 A-B*).

The 2 tabs will now locate in the Stenson Models bolster (*Fig 4 C-D*) and the socket assembly can be slid on to the extension. The position is adjustable over the length of the extension with two provisos:

1. There must be a clearance between the outer axle of the bogie and the rear face of the socket frame
2. The coupling itself must protrude beyond the buffer line so that it prevents potential buffer lock on curved track

The two half etched bending lines are too narrow for full folds. These facilitate bends to be made easily at these locations in either direction so that vertical alignment (coupling height) can be achieved compatible with other rolling stock.



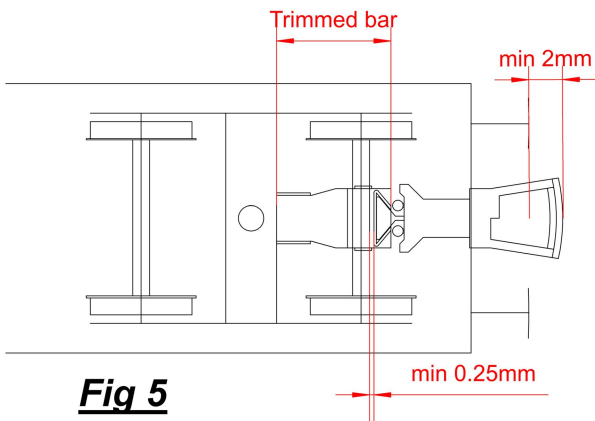
It is preferable to trim the length of the extension before securing it to the bolster with solder. In the case of those bogies with frames, it may be necessary to alter the outer cross member.

The variety of coupling type that can be used with this system prevents specific recommendations; this is up to the individual with their chosen coupling design and use.

A schematic arrangement of a bogie fitted with a Bachmann standard small coupling is shown in *Fig 5*.

The rear of the socket should clear the axle by at least 0.25mm and the coupling bar should be a minimum of 2mm in front of the buffer head.

Locate the trimmed extension in the bolster slots and hold in place by twisting the protruding tabs inside the bolster. Make sure the extension is parallel with the top of the bolster. Apply flux and solder to secure, with a good fillet all the way round the joint lines.



Slide the socket into place with the coupling located; adjust the position carefully (*Fig 5*) and mark this on the extension bar. Remove the coupling and solder the socket to the extension taking care to ensure it remains truly square and in line, finally thoroughly wash the assembly to remove any flux residues before re-assembling. A typical arrangement is shown in *Fig 6*.

Any slight sloppiness of the coupling in the socket can be tightened by compressing the socket frame. Alternatively Cyanoacrylate adhesive is a more permanent "fix".

