



AB Slotsport

Dedicated to supplying the best Slot Racing Products to Racers Worldwide

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BUILD THE ALL MOTOR FORMULA ONE CHASSIS

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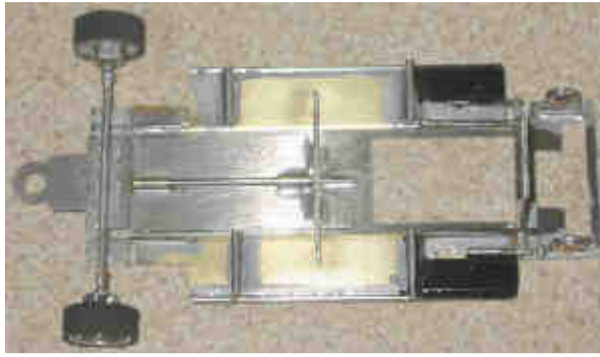
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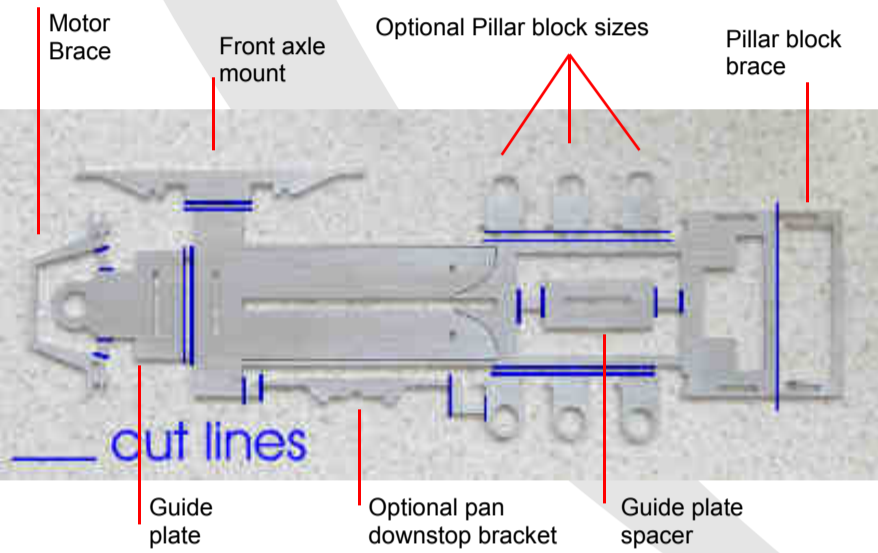
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The AB Slotsport ALL MOTOR Formula One chassis allows racers the flexibility of building this chassis for a wide range of classes without making major adaptations to components or the design. 3 sets of pillar blocks are included in the kit which allow all motors from Mabuchi S cans to Falcons, C cans and S16D motors to be utilised and still keep the motor in the right place and get correct gear mesh.

Building the kit is simplicity itself and the end result will be a chassis which not only handles great with a selection of motors, but is also tough and competitive. At the time of writing the kit is available as "laser component only" without the brass pans. The photos in this page detail a chassis built with standard K&S brass strip (16g x 0.500" wide) + the addition of outriggers in 16G piano wire to make the full width. This, as well as making up the legal width also has the benefit of reinforcing the outer edge of the pans, preventing deformation in crashes. Constructors may obviously also cut pans from wider sheet if required. The following picture shows the laser kit with cut lines shown in blue.



Start by carefully chopping up the kit with your trusty Dremmel. Clean any laser burn or flash from individual components. When assembling the chassis use a good quality acid flux (AB Stay Clean) and a solder with a high Silver content (JK) this will ensure your chassis is strong.

Start by assembling the centre section, front first. Tin the guide plate spacer, guide plate and chassis centre section along with the front axle mount. Ensure all components fit neatly together, assemble, flux and sweat the assembly together (see front end photos).

Next, cut centre pivot tubes from 1/16" bore K&S tube and assemble with K&S 16g centre pivot. Solder tubes into position (being careful not to solder these to the pivot wire and then solder the back of the pivot wire to the centre section.

Fit the optional Pan downstop bracket across the rear centre section pivot tube and solder in place. (you may wish to utilise the downstop mount to mount an additional pan downstop wire between the pans, however, the rear stops work well if fitted correctly and this is really just there as a brace for the pivot tube and an option for those who want a "belt and Braces" build option.

Moving rearward, solder the motor brace in place and then assemble and solder the rear pillar blocks of your choice and the pillar block brace (assemble as complete assembly, flux and solder as one assembly).



BRASS PANS.

Cut the brass pans from 16g brass sheet. Either use 0.500 wide K7S strip + the additional 16g wire outer rails or use wider strip and cut to required width. Allow 1mm front to rear pan float.

For rear Upstop and rear pan pivot wires use K&S 0.055" piano wire. Bend the pivots as shown and assemble as per photo on the right. You may find it easier to place a piece of "baking foil" between the pan and centre section when soldering the pan to the centre section by mistake (it happens!).

After soldering check that the pan moves easily front to back.

For the front pan pivots, ensure the holes in the front axle support are clear of solder. Recess the wire location on the pan slightly using a Dremmel with a cutting disk attached, so the wire fits semi-recessed into the pan as shown opposite. Use K&S 0.032" piano wire for front pan pivots. Ensure after soldering these that the pan floats forward and aft freely (approx 1mm movement) and that when the chassis is lifted from the block that the pans stay flat in line with centre section and do not "Droop". You may wish to fit an optional pan downstop wire across the "option brace" (as illustrated above) but ensure that the square brass receptor tubes on the pans do not restrict forward and aft and also upward pan movement.

Once pans are in place and all movement is good, install pin tubes on pans. It is an idea to put some shim (or flattened pin tube) under the pin tubes to raise them from the pan slightly. This will make body mounting easier and stronger. As illustrated the 14.6mm dia. Fronts wheels will give a front ground clearance under the chassis of 0.025" with the axle directly soldered to the top of the axle support. If using different front wheel diameter, adjust the bracket by slight grinding or the addition of a shim or locate axle on the front of the bracket as opposed to "on top" to provide correct height and clearances.

Use 16g K&S for the front axle. Wire wrap the front axle to axle support as illustrate to provide extra strength. To align the rear bearings correctly it is easiest to utilise an "Alignment tool" to ensure the motor shaft is in the same horizontal plain as the axle. To ensure that the axle is dead horizontal, select a couple of identical gears of the correct diameter and use each end of the axle. Open pillar block holes slightly with a Dremmel fitted with a grinding burr and then solder bearings in place as per photo to the left. All will then line up just great. In the illustrated example we are using a TWP Ultra G12 C can motor, C Can motor pillar blocks and 39t Sonic gears to get the correct height.

One the rear end is aligned, solder the motor in position to the top of the motor brace and the underside of the motor box, fit your favourite gear ratio, add lead wire, guide flag etc and go racing!

