

2014 SPEC MOD KIT LESS ELECTRICS

THANKS FOR BUYINGTHE RJSPEED SPEC MODIFIED KIT. IT'S INTENDED TO BE A STEP UP FROM OUR R/C LEG-ENDS CARS AND HAS A SIMPLE ADJUSTABLE REAR SUSPENSION.. YOU SHOULD BE ABLE TO ASSEMBLE THE KIT AND INSTALL THE ELECTRICS IF YOU READ THE DIRECTIONS, LOOK AT THE PICTURES AND THE EXPLODED VIEW DRAWING. YOU WILL NEED A 1/4" WRENCH OR SOCKET, A SMALL PAIR OF PLIERS, AND A 7/16 SOCKET WRENCH FOR THE BODY POSTS AND THE DIFF NUT. HEX WRENCHES ARE INCLUDED FOR THE SOCKET HEAD SCREWS IN-CLUDED IN THE KIT.

YOU WILL NEED A 2 CHANNEL RADIO CONTROL WITH 1 SERVO, A 540 SIZE MOTOR, BATTERY, ESC THAT WILL WORK WITH THE MOTOR YOU HAVE CHOSEN, SERVO SAVER FOR THE BRAND OF SERVO YOU HAVE, AND PAINT FOR THE LEXAN BODY.

OPEN EACH KIT BAG AS NEED TO KEEP FROM MIXING SCREWS AND HARDWARE THAT LOOK ALIKE AND DO NOT LOSE EXTRA HARDWARE THAT MAY BE NEEDED LATER IN THE BUILD.

THIS CAR IS BUILT FOR LEFT TURN OVAL RACING ,BUT MAY BE SET UP FOR LEFT AND RIGHT TURNING BY RE-PLACING THE OFFSET FRONT ARMS WITH 5247 EQUAL LENGTH ONES AND CHANGING THE DIFF TO A 5309 DIFF HUB AND A 5311 OR 5314 SET SCREW HUB.



STEP 2 OPEN BAG MIB ATTACH THE 5076 FLEX PLATE TO THE CHASSIS SIDE WITH TWO 4-40 X 3/8" SCREWS FROM THIS BAG. KEEP THESE SCREWS SEPARATE FROM THE ONES IN MIA. PUSH THE TABS FULLY INTO THE SLOTS AND THREAD THE SCREWS IN CAREFULLY. DO NOT OVER TIGHTEN THEM.



STEP 4 INSERT THE 5246 FRONT AXLE PLATE FROM BAG M1E, THE 5062 BATTERY TRAY, AND THE 5077 BODY MOUNT INTO THE CHASSIS SIDE. MAKE SURE THEY ARE ALL THE WAY INTO THE SLOTS AND IN THE DIRECTION SHOWN IN THE STEP 4 PICTURE.

STEP 1 OPEN BAG M1 AND M1A ATTACH TWO 5245 CHASSIS SPACERS TO EITHER 5074 CHASSIS FRONT WITH 5-40 X 3/8" WITH THE HEX WRENCH AS SHOWN. THE SLIGHTLY LONGER ONES (1/2")ARE FOR THE BODY POSTS. **HINT** –THREAD THE HOLES IN ALL OF THE CHASSIS SPACERS WITH A 4-40 TAP IF YOU HAVE ONE AVAILABLE TO MAKE THE SCREWS HOLD BETTER.



STEP 3 OPEN BAG M1C ATTACH THE 5065 NERF BAR WITH TWO 1 1/4 "LONG SCREWS AND TWO 3/4" LONG SPACERS. INSERT THE SCREWS THROUGH THE CHASSIS, SPACERS AND INTO THE NERF BAR.





STEP 6 ATTACH 3- 5245 CHASSIS SPACERS TO ONE OF THR 5075 CHASSIS REARS.



STEP 8 ATTACH THE OTHER REAR CHASSIS WITH 3 SPACER SCREWS AND TWO FLEX PLATE SCREWS. AS BEFORE, MAKE SURE THE TABS IN THE FLEX PLATE ARE ALL THE WAY IN AND DO NOT OVERTIGHTEN THE SCREWS. IF YOU SHOULD HAVE A PROBLEM STRIPPING ANY OF THE FLEX PLATE SCREWS, OUR 7030 SCREWS AS USED IN THE CHASSIS SPACERS ARE SLIGHTLY LAR-GER IN DIAMETER AND WILL THREAD IN TIGHTER.



STEP 10 ATTACH THE 5066 FRONT ARM (SHORTER ONE) ON TOP OF THE FRONT AXLE PLATE WITH A 7025 1/4" SCREW IN THE FRONT HOLE FROM THE BOTTOM AND A BODY POST WITH A 1/2" SCREW THROUGH BOTH PARTS.

STEP 5 SLIDE THE OTHER 5074 CHASSIS FRONT ONTO THE TABS AND RETAIN WITH TWO 3/8 CHASSIS SPACER SCREWS AND THE 5076 FLEX PLATE WITH THE THINNER 3/8 SCREWS FROM IT'S BAG.



STEP 7 ATTACH THE CHASSIS REAR ASSSEMBLY TO THE FLEX PLATE WITH TWO SCREWS FROM THE FLEX PLATE BAG. SLIDE THE REAR MOUNT INTO THE SLOT AT THE TOP OF THE CHASSIS REAR .



STEP 9 ATTACH TWO OF THE BODY POSTS TO THE BODY MOUNT WITH TWO 1/2" SCREWS AND TWO 1/8 THICK SPACERS. ALIGN THE BODY CLIP HOLES IN THE DESIRED DIRECTION BEFORE TIGHTENING.





STEP 12 ATTACH THE BUMPER UNDER THE FRONT AXLE PLATE WITH TWO 1/4" SCREWS. WE USED THE SECOND HOLE FROM THE REAR AND MOUNTED THE BODY ABOUT FLUSH WITH THE FRONT OF THE BUMPER.



STEP 14 ATTACH THE TWO LARGER SET COLLARS ON TOP OF 3/32 THICK NYLON SPACERS . ATTACH TO THE REAR BRACE WITH 1/4" CAP SCREWS. ALIGN THEM SO THE HOLES IN THE COLLARS POINT TO THE BALL STUDS. YOU CAN ADJUST AS YOU PUT THE DAMPER ROD IN PLACE.



STEP 16 INSERT EACH DAMPER ROD THROUGH THE COLLAR ON THE REAR BRACE AND SNAP THE BALL CUP ONTO THE BALL STUD ON THE BODY MOUNT. ADD THE OTHER SILICONE TUBE AND SET SCREW COLLAR ON EACH SIDE. ADD THE SETSCREWS IN ALL FOUR COLLARS. SLIDE THEM AGAINST THE SPRINGS AND SILICONE TUBES AND TIGHTEN LIGHTLY. YOU CAN ADJUST THEM MORE WHEN YOU GET THE CAR READY TO RUN. **STEP11** INSTALL THE LONGER 5066 ARM UNDER THE FRONT AXLE PLATE WITH A 1/4" SCREW IN THE FRONT HOLE FROM THE TOP AND THE BODY POST WITH A 1/2" SCREW.

WE SET UP ALL OF OUR CARS LIKE THIS DURING TEST-ING AND IT PROVED TO PROVIDE MORE POSITIVE STEER-ING BY PRELOADING THE RIGHT FRONT IN THIS WAY IN-STEAD OF HAVING TO ADD MORE PRELOAD TO THE LEFT REAR DAMPER FOR BETTER LEFT TURNING.



STEP 13 OPEN BAG M1D THREAD THE TWO 2/56 BALL STUDS INTO THE BODY MOUNT PLATE.



STEP 15 ASSEMBLE TWO DAMPER RODS BY THREAD-ING THE BALL CUPS ONTO THE THREADED ENDS, THEN SLIDING A SMALL COLLAR, SPRING, AND SILICONE TUBE ON EACH ONE.





STEP 18 PRESS A 5364 STUB AXLE PART WAY INTO EACH 5351 STEERING BLOCK AS SHOWN, ADD A 5221 E-CLIP AND PRESS IT IN THE REST OF THE WAY. MAKE SURE THE HOLE IN THE STEERING BLOCK IS CLEAN. **HINT:** RUN A 1/8 DRILL THROUGH THE HOLE AND/OR TRIM THE OUTER EDGES OF THE HOLES WITH A SHARP HOBBY KNIFE. MAKE SURE THEY SLIDE FREELY ON THE KINGPINS. ADD A LIT-TLE LIGHT GREASE OR SILICONE LUBE, INSTALL THE STEERING BLOCKS, THEN THE SPRINGS, WASH-ERS, AND E-CLIPS



STEP 21 SLIDE A THIN WASHER ON THE AXLE AND IN-SERT IT THROUGH THE REAR BUSHINGS. YOU MAY HAVE TO MOVE IT AROUND A LITTLE TO GET IT THROUGH THE FIRST TIME. **HINT**: GET YOUR AXLE THROUGH THE BUSHINGS, ATTACH A DRILLTO ONE END, LUBE THE BUSHINGS WITH LIGHT OIL AND RUN IT FOR A WHILE TO BREAK THE BUSHINGS IN TO THE SURFACE OF THE AXLE. MAKE SURE TO KEEP IT OILED. AND SLIDE IT BACK AND FORTH A SMALL AMOUNT WHILE RUNNING. ADD THE OTHER SPACERS AND THE SET SCREW HUB. **HINT**: TIGHTEN THE SET-SCREW LIGHTLY, REMOVE THE HUB AND GRIND OR FILE A FLAT SPOT WHERE THE SET SCREW HITS THE AXLE SO THE HUB WON'T SPIN ON THE AXLE UNDER LOAD

STEP 17 OPEN BAG L1B THREAD A 7206 THINNER NUT ONTO EACH 5377 KINGPIN (SMOOTH ONE), INSERT IT THROUGH THE FRONT ARM AND ATTACH WITH A 7207 LOCK-NUT . **HINT**: BEFORE INSTALLING, HOLD THE KINGPIN BY THE THREADED END IN A HAND DRILL AND USE VERY FINE SANDPAPER, THEN METAL POLISH TO MAKE THE SURFACE OF THE KINGPIN SMOOTHER.



STEP 19 OPEN BAG G2 PRESS A DIFF BALL INTO EVERY OTHER HOLE IN THE OUTER ROW OF HOLES IN THE GEAR, THEN LUBE THE BALLS WITH LIGHT GREASE OR SILICONE.



STEP 20 PRESS AN ADAPTOR INTO EACH SIDE OF THE CHASSIS ASSEMBLY AND PRESS AN OILITE BUSHING INTO EACH ONE. MAKE SURE THE ADAPTORS ARE IN THE SAME WAY (WITH THE HOLE UP OR DOWN).







STEP 22 ASSEMBLE YOUR DIFF AS FOLLOWS:

5752 DRIVE RING, GEAR WITH DIFF BALLS , 2ND DRIVE RING, 5740 ALUMINUM ADAPTOR, NYLON HUB, THIN FLAT STEEL WASHER, BLUE BALL CAGE, 2 THIN FLAT WASHERS, 5736 SPRING WASHER AND 7218 DIFF LOCKNUT. MAKE SURE THAT THE DRIVE RINGS ARE IN PLACE AND TIGHTEN THE NUT UNTIL IT 'S HARD TO MAKE THE GEAR SLIP. YOU CAN ADJUST LATER WITH THE CAR RUNNING. *HINT:* YOU CAN SCRATCH THE INSIDE SURFACE OF THE HUB WHERE IT TOUCHES THE ALUMINUM ADAPTOR A LITTLE WITH COARSE SANDPAPER AND USE A LITTLE SUPER GLUE TO KEEP THE HUB FROM SLIPPING ON THE ADAPTOR. *ALSO* TRIM AROUND THE EDGE OF THE HOLE IN THE OUTSIDE OF THE HUB TO MAKE SURE THE BALL THRUST BEARING SITS FLAT.

STEP 23 THIS PICTURE SHOWS THE 2424 BODY POST NUTS INSTALLED, THE 2530 REAR TIRES AT-TACHED WITH TWO SCREWS EACH AND THE 2520 FRONT TIRES WITH THE 5457 BUSHINGS PRESSED IN AND INSTALLED ON THE FRONT AXLES AND RE-TAINED WITH 7207 LOCKNUTS.

IT WILL BE EASIER TO INSTALL THE TIRES AFTER YOU INSTALL THE MOTOR, BATTERY, AND RADIO GEAR YOU HAVE PURCHASED.

WE WILL SHOW ONE WAY TO MOUNT THE ELEC-TRICS AND RADIO GEAR, BUT YOU MAY WANT TO MAKE CHANGES BASED ON WHAT GEAR YOU HAVE PURCHASED. YOU MAY ALSO WANT TO SET UP YOUR STEERING LINKAGE DIFFERENTLY DEPEND-ING ON THE SIZE OF YOUR SERVO. YOU SHOULD BE ABLE TO PAINT,TRIM, AND MOUNT YOUR BODY NOW, ALSO.





STEP 24 YOU CAN MOUNT YOUR STEERING SERVO WITH FOAM TAPE INCLUDED IN THE KIT, SCREWS IF IT HAS THE RIGHT TYPE OF MOUNTS , OR INSTALL MOUNT POSTS ON THE FRONT AXLE PLATE AND SCREW THE SERVO TO THEM. YOU SHOULD SET YOUR SERVO ON THE FRONT AXLE AND HOOK UP THE LINKAGE TO SEE IF YOU WILL NEED TO BEND THE LINKAGE WITH THE SIZE OF SERVO YOU HAVE. THE OUTPUT SHOULD BE NEAR THE CENTER OF THE CHASSIS. WE SHOW A SMALL SERVO WITH THE ARM SETUP OR DOWN. ONE WAY REQUIRED BENDING OF THE LINKS AND THE OTHER DID NOT. MAKE SURE THAT YOU CHECK THE MOVEMENT OF THE LINKGE BEFORE YOU ATTACH THE SERVO, ESPECIALLY IF YOU ARE USING THE TAPE.

STEP 25 REMOVE THE DAMPERS AS NECESSARY AND IN-STALL THE 540 SIZE MOTOR YOU HAVE CHOSEN WITH TWO SCREWS AND WASHERS FROM THE M3 BAG. USE THE IN-CLUDED PINION GEAR OR YOUR OWN IF YOU NEED A DIFFER-ENT SIZE. LINE THE PINION UP WITH THE DIFF GEAR AND SE-CURE WITH THE SET SCREW. MAKE SURE THE SET SCREW HITS ON THE FLAT OF THE MOTOR SHAFT SO IT WILL NOT SLIP. ADJUST THE MOTOR UNTIL THERE IS A VERY SMALL AMOUNT OF PLAY BETWEEN THE GEARS. ROTATE THE AXLE A COUPLE OF TIMES AND RECHECK THE GEAR MESH BEFORE TIGHTEN-ING THE SCREWS. THE LARGE PINION GEAR (40T) YOU SEE IN THE PICTURE WAS USED IN TESTING ON A LARGE CARPET OVAL. IT IS NOT INCLUDED IN THE KIT.



MOUNT THE REST OF YOUR ELECTRON-ICS ON THE TOP OF YOUR BATTERY TRAY AS NECESSARY WITH THE SERVO TAPE IN-CLUDED. THE PICTURE SHOWN IS OF ONE OF OUR TEST CARS. WE MOUNTED THE RE-CEIVER FORWARD SO THE WIRES FROM THE ESC AND SERVO WILL REACH. THE ESC CAN BE MOUNTED ON THE TOP OF THE TRAY, BUT IN THIS CASE WE PUT IT UNDER THE TRAY TOWARD THE BACK TO GET THE WEIGHT LOWER.

MOUNT YOUR BATTERY BELOW THE TRAY TO GET THE HEAVIEST WEIGHT LOW. WE RECOMMEND A VELCRO STRAP LIKE YOU FIND AT YOUR LOCAL HOBBY SHOP OR HOME STORE. WE USED A VELCRO STRIP BETWEEN THE BATTERY AND THE UNDER-SIDE OF THE TRAY TO KEEP THE BATTERY FROM SLIDING AND A VELCRO STRAP AROUND BOTH. THIS ASSURES THAT THE BATTERY WILL STAY IN PLACE. **IF YOU**

ARE GOING TO USE A LIPO BATTERY AS SHOWN, MAKE SURE YOU REMOVE IT FROM THE CAR AND PUT IT INTO A LIPO SAFE BAG TO CHARGE OR DIS-CHARGE IT.

NOTE ALSO THAT WE SLID THE BATTERY TO THE LEFT SIDE AND USED SOME SCRAP FOAM TO KEEP IT THERE. (NOT SHOWN). MAKE SURE TO ROUTE YOUR WIRING SO THAT IT WILL NOT GET TANGLED IN THE WHEELS OR DRAG ON THE TRACK NOTE ALSO THAT WE USE THE OPTIONAL LEGENDS STEERING RODS ON THIS TEST CAR.





NOW YOU NEED TO CHARGE YOUR BATTERY, PLUG EVERTHING IN, TURN ON YOUR TX AND CAR AND GO THROUGH THE MANUFACTURER'S RECOMMENDED PROCEDURES FOR SETTING UP YOUR RADIO GEAR INCLUDING THE THROTTLE AND STEERING. MAKE SURE THE DIRECTIONS ARE CORRECT, THAT THE STEERING OR THROTTLE IS NOT REVERSED AND YOU GET THE AMOUNT OF THROW NEEDED. NOW INSTALL YOUR TIRES AND BODY AND GO OUT AND HAVE FUN RACING!

