



1/10-SCALE FRONT-WHEEL DRIVE TOURING CAR



INSTRUCTION MANUAL



INTRODUCTION

Congratulations on purchasing your Awesomatix car! The A800FX car was produced by UAB Awesomatix company. The A800FX car utilises many unique features, including some patented innovations.

BEFORE YOU START

The A800FX car is the high-quality, innovative 1/10-scale front-wheel drive touring car and should be built only by persons with previous experience building R/C model racing cars.

This is not a toy and is not intended for use by children without direct supervision of a responsible, knowledgeable adult. Read the instruction manual carefully and fully understand it before beginning assembly. If you have any problems or questions please do not hesitate to contact the Awesomatix team at support@awesomatix.com. If, for any reason, you decide that you do not want your A800FX car you must not begin assembly.

Your A800FX car cannot be returned to UAB Awesomatix for a refund or exchange if it has been fully or partially assembled.

This kit is a radio controlled model racing product and could cause harm and personal injury. The A800FX car is designed for use on r/c car race tracks. It should not be used in general public areas. Awesomatix Innovations accept no responsibility for any injuries caused by making or using this kit.

Due to policy of continuous product development the exact specifications of the kit may vary. Awesomatix Innovations do reserve all rights to change any specifications without prior notice. All rights reserved.

ASSEMBLY NOTES

Before starting each build-stage check that you have the right quantity and size of items for the build-stage. To assist you with the assembly of your A800FX car we have included full-size images of all the small hardware parts laid out so that you can place items on top of the images to check are they correct size/length. You can find the useful tips and pictures of A800FX assembling on the Internet site: http://site.petitrc.com/reglages/awesomatix/SetupSheetsAwesomatixA800.html

GENERAL PRECAUTIONS

- Many of the items in this kit are small enough to be accidentally swallowed and are therefore potential choking hazards, making them potentially fatal. Please ensure that when assembling the kit you do so out of the reach of small/young children.
- Take care when building, as some parts may have sharp edges.
- Please read this manual carefully to understand which ancillary items (tools, electrics, electronics etc) are used with this kit.
- Awesomatix Innovations accept no responsibility for the operation of any such ancillary items.
- · Exercise care when using tools and sharp instruments.
- · Follow the operating instructions for the radio equipment at all times.
- Never touch rotating parts of the car as this may cause injury.
- Keep the wheels of the model off the ground when checking the operation of the radio equipment.
- To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models.
- The model car is not intended for use on roads or areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Do not run your car in poor light or if it goes out of sight. Any impairment to your vision may result in damage to your car or, worse, injury to others or their property.
- As a radio controlled device, your car is subject to radio interference from things beyond your control. Any such interference may cause a loss of control of your car so please consider this possibility at all times.
- When not using RC model, always disconnect and remove battery.
- · Insulate any exposed electrical wiring to prevent dangerous short circuits.
- Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely.
- Check connectors for if they become loose and if so reconnect them securely. Never use R/C models with damaged wires. A damaged wire is extremely dangerous and can cause short-circuits resulting in fire.

EQUIPMENT RECOMMENDED (NOT INCLUDED)

- Radio Transmitter
- Radio Receiver
- Electronic Speed Control
- Steering Servo
- Electric Motor
- Pinion Gear (64 or 48 Pitch)
- Spur Gear (64 or 48 Pitch)
- 7.4 V Li-Po Battery
- 190mm Body Shell
 Touring Con Wheele Time
- Touring Car Wheels, Tires, Inserts

TOOLS RECOMMENDED (NOT INCLUDED)

- 1.5mm, 2.0mm Hex Driver
- 5.5mm, 9mm, 3/8", 10mm Wrenches
- Callipers
- Hobby Knife
- Camber Gauge
- Ride Height Gauge
- Thin CA Glue
- Thread Lock
- Diff Silicone Oil
- Joint Grease



FINISHED

Note: Use other combinations of SH0.5, SH1.0 and SH1.75 Spacers under appropriate Pivot Balls and Ball Studs to adjust your car set-up to better suit different track conditions.











Rebuildable Damper Set

Note: Every **A800FX** kit includes four factory assembled and oil filled **D2.2** Rebuildable Dampers. **D2.2** damper allows for both dampening adjustment via thicker silicon oil, and consistent performance since the racer can rebuild the shock. The factory assembled and oil filled **D2.2** Rebuildable Dampers come with 500 cst pure silicone oil inside.

The build instructions for **D2.2** Rebuildable Dampers is on this page.

For disassembling please do all steps in the reverse order.

1) Stretch and place **OR18V** O-ring in the groove of the **AT40-1** Cup.

Insert P45R/P45V Piston into AT41-2 Vane cavity. Align the outer face of P45R/P45V Piston with the outer edge of AT41-2 Vane cavity.
 Stand AT42-1 Case up and fill ~1/2 of volume with the desirable silicone oil. Insert AT41-2 Vane into AT42-1 Case slowly full way down.
 Add more silicone oil. Oil should cover the AT41-2 Vane completely. It is highly recommend that damper be placed into a vacuum pump to remove air. Otherwise let the damper sit for 30m+ to allow air bubbles to escape.

5) With the damper still vertical (important !), screw **AT40-1** Cup into the **AT42-1** Case with a 9mm socket wrench until fully threaded. Do not force the **AT40-1** Cup - once aligned, it will screw on easily. The excessive oil should go out through the gap between **AT40-1** and **AT41-2** Vane. Please don't remove this oil from the bearing cavity of **AT40-1** Cup on this stage!

6) Place OR155V O-ring into AT40-1 Cup. You can use a piece of an appropriate tube to press o-ring slowly and fully into cavity.

7) Place B85 bearing and one SH5X7X0.1 shim onto AT41-2 Vane output shaft.

8) Clean up oil off the outer surface of damper.









Note: **DIN914 M3X3** screw should be installed only in case of **DRSS** - Dual Rate Spring System function want to be used. More info about **DRSS** can be found on the **P09X** product page of the **http://shop.awesomatix.com** webshop.

STEP 5 (cont'd)	땨
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	0	SC2X6	M2x6 Cap Head Screw	x4
	0	SRS	Spring Rating Screw	x4
	0	RHS	Ride Height Screw	x4
Q		SPR03	Shock Pointer	x4
		P09X	Shock Screw Holder	x4

AMITAR	Damper Holder Right	ΧZ
AM17XL	Damper Holder Left	x2
D2.2	Damper	x4
SPR01	STD Shock Sprin	x2
SPR01S	Soft Shock Sprin	x2
SPR02X	Shock Rod Guide	x4

Attention! After installation of SPR02X rotate the complete D2.2 damper within AM17XR/L until the maximum up travel is reached and secure SC2X6 screw in the AM17X/RL after that. At the max up travel position the SPR02X should touch the stopper on AM17X/RL !!!





STEPS 5 FINISHED Assemble 2 Right Shocks and 2 Left Shocks.



Note:

Initial position of **RHS** Ride Height Screw is ~0,6mm. Don't tighten **SRS** Spring Rating Screw too much to avoid **P09X** thread damage.















SB25X8









Attention! Tighten SB3X8 screws of AM88L/R with 2mm ball hex driver after tightening of SF3X10 screws. Tighten all three rear SF3X10 screws now.



STEP 17





AWESOMVIIX



Notes: The given rods and arms sizes are approximately for 4° front caster and 0° rear caster, 2° both front and rear cambers, 1,0° rear toe-in and 1° front toe out angles. Use a setup station or angles gauge for further precise suspension geometry setting. See our recommendations on page #18 for quick and easy suspension geometry change.



STEP 24





ST110 and **ST105** Round Weights can be used for adjusting of the proper total weight and for the desirable F/R and R/L weight distribution.

ST110 10g Round Weight ST105 5g Round Weight







SUSPENSION SETTING TECHNIQUE





SHOCK SETTING TECHNIQUE

Attention! These Shocks allow to adjust the Damping and Spring rates without replacement of the shock's fluid and spring.

1. Damping and Shock Spring rate setting

Increase A-distance (slide Shock outward) to increase Damping and Spring rates simultaneously and concordantly to each other. A-distance range is 0 - 4.4mm. Use outer **SF3X10** Flat Head Screw to unlock Shock and to lock it at desirable position. Decrease **B** distance (slide **P09** Shock Screw Holder outward) to increase Spring rate only at the fixed Damping rate value. Use **SRS** Spring Rating Screw to unlock Shock Screw Holder and to lock it at desirable position.

2. Shock Spring preload setting

Turn IN (CW) **RHS** Screw to increase spring preload. Turn OUT (CCW) **RHS** Screw to decrease spring preload. Use Spring preload setting to adjust Ride Height value.



SRS/RHS Screws arrangement |



3. SRS/RHS Screws arrangements change The reverse arrangement of these screws is possible also.



SRS/RHS Screws arrangement II





GRAPHS OF THE SUSPENSION STIFFNESS DEPENDING ON THE POSITION OF THE DAMPER (SIZE A) AND SHOCK SCREW HOLDER (SIZE B)



FINAL DRIVE RATIO CHART

DRIVE TRAIN RATIO IS 1,9

1,9	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106
28																											7,19
29																										6,88	6,94
30																									6,59	6,65	6,71
31																								6,31	6,37	6,44	6,50
32																							6,06	6,12	6,18	6,23	6,29
33																						5,82	5,87	5,93	5,99	6,05	6,10
34																					5,64	5,64	5,70	5,76	5,81	5,87	5,92
35																				5,37	5,43	5,48	5,54	5,59	5,65	5,70	5,75
36																			5,17	5,23	5,28	5,33	5,38	5,44	5,49	5,54	5,59
37																		4,98	5,03	5,08	5,14	5,19	5,24	5,29	5,34	5,39	5,44
38																	4,80	4,85	4,90	4,95	5,00	5,05	5,10	5,15	5,20	5,25	5,30
39																4,63	4,68	4,73	4,77	4,82	4,87	4,92	4,97	5,02	5,07	5,12	5,16
40															4,47	4,51	4,56	4,61	4,66	4,70	4,75	4,80	4,85	4,89	4,94	4,99	5,04
41														4,31	4,36	4,40	4,45	4,495	4,54	4,59	4,63	4,68	4,73	4,77	4,82	4,87	4,91
42													4,16	4,21	4,25	4,30	4,34	4,39	4,43	4,48	4,52	4,57	4,61	4,66	4,70	4,75	4,80
43												4,02	4,07	4,11	4,15	4,20	4,24	4,29	4,33	4,37	4,42	4,46	4,51	4,55	4,60	4,64	4,68
44											3,89	3,93	3,97	4,02	4,06	4,10	4,15	4,19	4,23	4,28	4,32	4,36	4,40	4,45	4,49	4,53	
45										3,76	3,80	3,84	3,88	3,93	3,97	4,01	4,05	4,10	4,14	4,18	4,22	4,26	4,31	4,35	4,39		
46									3,63	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,97	4,01	4,05	4,09	4,13	4,17	4,21	4,25			
47								3,52	3,56	3,60	3,64	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,96	4,00	4,04	4,08	4,12				
48							3,40	3,44	3,48	3,52	3,56	3,60	3,64	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,96	4,00					
49						3,30	3,33	3,37	3,41	3,45	3,49	3,53	3,57	3,61	3,64	3,68	3,72	3,76	3,80	3,84	3,88						
50					3,19	3,23	3,27	3,31	3,34	3,38	3,42	3,46	3,50	3,53	3,57	3,61	3,65	3,69	3,72	3,76							
51				3,09	3,13	3,17	3,20	3,24	3,28	3,32	3,35	3,39	3,43	3,46	3,50	3,54	3,58	3,61	3,65								
52			3,00	3,03	3,07	3,11	3,14	3,18	3,22	3,25	3,29	3,33	3,36	3,40	3,43	3,47	3,51	3,54									
53		2,90	2,94	2,98	3,01	3,05	3,08	3,12	3,15	3,19	3,23	3,26	3,30	3,33	3,37	3,41	3,44										
54	2,85	2,85	2,89	2,92	2,96	2,99	3,03	3,06	3,10	3,13	3,17	3,20	3,24	3,27	3,31	3,34											
55	2,76	2,80	2,83	2,87	2,90	2,94	2,97	3,01	3,04	3,07	3,11	3,14	3,18	3,21	3,25												

64dp SPUR GEAR SIZE

AWESOMVLIX®

48dp SPUR GEAR

	1,9	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	21																					7,24
	22																				6,82	6,91
	23																			6,44	6,53	6,61
ш	24																		6,10	6,18	6,25	6,33
NZ	25																	5,78	5,85	5,93	6,00	6,08
20	26																5,48	5,55	5,63	5,70	5,77	5,85
Ā	27															5,21	5,28	5,35	5,42	5,49	5,56	5,63
U	28														4,95	5,02	5,09	5,16	5,23	5,29	5,36	5,43
0	29													4,72	4,78	4,85	4,91	4,98	5,04	5,11	5,18	5,24
Z	30												4,497	4,56	4,62	4,69	4,75	4,81	4,88	4,94	5,00	5,07
д	31											4,29	4,35	4,41	4,47	4,54	4,60	4,66	4,72	4,78	4,84	4,90
89	32										4,10	4,16	4,22	4,28	4,33	4,39	4,45	4,51	4,57	4,63	4,69	4,75
4	33									3,92	3,97	4,03	4,09	4,15	4,20	4,26	4,32	4,38	4,43	4,49	4,55	
	34								3,74	3,80	3,86	3,91	3,97	4,02	4,08	4,14	4,19	4,25	4,30	4,36		
	35							3,58	3,64	3,69	3,75	3,80	3,85	3,91	3,96	4,02	4,07	4,13	4,18			
	36						3,43	3,48	3,54	3,59	3,64	3,69	3,75	3,80	3,85	3,91	3,96	4,01				
	37					3,29	3,34	3,39	3,44	3,49	3,54	3,59	3,65	3,70	3,75	3,80	3,85					
	38				3,15	3,20	3,25	3,30	3,35	3,40	3,45	3,50	3,55	3,60	3,65	3,70						
	39			3,02	3,07	3,12	3,17	3,22	3,26	3,31	3,36	3,41	3,46	3,51	3,56							
	40		2,90	2,95	2,99	3,04	3,09	3,14	3,18	3,23	3,28	3,33	3,37	3,42								
	41	2,78	2,83	2,87	2,92	2,97	3,01	3,06	3,10	3,15	3,20	3,24	3,29									

64dp PINION GEAR SIZE

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SETUP SHEET



COMMENTS:

Editable setup sheet can be downloaded from: http://site.petitrc.com/reglages/awesomatix/SetupSheetsAwesomatixA800.html



Standard Spare Parts

Parts#	Description
AM06WL	Steering Block
AM14FX	Steering Arm
AM15-3	Battery Nut
AM17XL	Damper Holder L
AM17XR	Damper Holder R
AM19FX	Upper Arm Holder
AM23-1	Rear Steering Arm
AM24-8	Central Servo Holder
AM77FX	Motor Mount FWD
AM78X1	Bulknead
AM88R	Shock Holder R
AM88L	Shock Holder L
AT 13FA	
ΔΤ21	Pivot Ball
ΔΤ25	
ΔΤ25-44	Turnbuckle Long 44 mm
AT40-1	Damper Cup
AT41-2	Damper Vane
AT42-1	Damper Case
AT55M	Spur Nut
AT62	Spur Holder
AT67	Pullev Washer
AT120-FX	20T Alloy Pulley FWD
AT123B	GD2B Case1
AT124B	GD2B Case2
AT142	Sway Bar Stopper
AT157	Rear Upright FWD
ST01	Front Axle
ST03	Ball Stud
ST05L	Shock Rod
ST113	IFJ Universal Bone
ST116	IFJ/IRJ Cross
ST16	U-Joint Cross
ST17-1	
ST019	Top Deck Screw
ST23X	IRJ Outdrive
5124	4,8x6mm Ball Stud
ST241VI ST21 1	4,0X011111 Ball Stud
ST31-1 ST39	Universal Nut
ST50 ST68	Elanged Wheel Nut
ST00 ST70	Guide Bar FWD
ST105	5g Round Weight
ST110	10a Round Weight
ST152	Steering Holder FWD
ST265	Bumper weight FWD
G07	GD2 Satellite Gear
G08	GD2 Bevel Gear
D2.2	D2.2 Damper
P01	Ball Joint-1
P02	Ball Joint-2
P03	Arm Ball Cap
P04	Arm Hasp
P05	Sway Bar Joint
P07	Arm Clip
P09X	Shock Screw Holder
P12X	Sway Bar Holder
P13-4	Ball End
	Bumper Set
P15FX	Foam Bumper FWD
P16	
r23	Outer Battery Holder

Parts#	Description
	Betten/ Clown
P20	Ballery Clamp
P39	GD2 Cross Pin
P45R	Damper Piston
P46R	Diff Piston
P49	Steering Rack FWD
P56	Antenna Holder
P110	Bearing Housing
P138	38T Pulley
CO1EXC	Lower Deck Carbon EW/D
	Lower Deck Alloy EWD
	Europapaian Arm
C04IVI1+0.0	
C04M1+9.0	Suspension Arm
C27FX	Top Deck FWD
C34	Rear Strut FWD
C105	Rear Body Holder FWD
C107	Front Top Deck FWD
SWB10	Sway Bar 1.0mm
SWB11	Sway Bar 1.1mm
SWB12	Sway Bar 1.2mm
SPR01	Shock Spring
SPR01S	Shock Spring Soft
	Shock Bod Cuido
SPRUZA	Shock Rou Guide
SPR03	Shock Pointer
SPR05	Body Clip
SPR07	E-Ring
SH0.5	6x3x0.5mm Spacer (silver)
SH1.0	6x3x1.0mm Spacer (gray)
SH1.75	6x3x1.75mm Spacer (black)
SH12X1.5	4x12x1,5mm Spacer
WA02	3x5x0.2 Washer
WA03	5x15x0.3 Washer
PIN01	1 5x7 8 Pin
	1 5v5 8 Din
	1.000000000000000000000000000000000000
ORUSV	
ORU6	5.5mm O-RING
OR155V	Damper O-Ring
OR18	1x8mm O-ring
B106RS	MR106RS Bearing
B85	MR85 Bearing
B84SS	MR84ZZ Bearing
B63SS	MR63ZZ Bearing
B415	B415ZZ Bearing
SRS	Spring Rating Screw
RHS	Ride Height Screw
SC2X4	M2v4 Can Head Screw
SC2X6	M2x6 Cap Hoad Scrow
SC2A0	M2 Eve Dutton Hood Scrow
SB2.5X8	M2.5x8 Bullon Head Screw
SS3X3	M3x3 Set Screw
SS3X3-914	M3x3 Set Screw DIN914
SS3X4	M3x4 Set Screw
SB3X4F	M3x4 Flange Head Screw
SB3X5	M3x5 Button Head Screw
SB3X6	M3x6 Button Head Screw
SB3X8	M3x8 Button Head Screw
SB3X10	M3x10 Button Head Screw
SF3X5	M3x5 Flat Head Screw
SF3X6	M3x6 Flat Head Screw
SE3X8	M3v8 Flat Head Scrow
SE2V10	May10 Elat Load Saraw
	NIJA IU FIAL MEDU SUIEW
DEL225B	
DGIX	Damper Guage Set
INS-A800FX	A800FX Manual
STS-A800FX	A800FX Stickers Sheet

Optional Parts

Parts#	Description
C04M1+1.5	Suspension Arm Long
C04AL1+0.5	Alloy Suspension Arm
C04AL1+1.5	Alloy Suspension Arm Long
C04AL+8.0	Alloy Suspension Arm Long
C04AL+9.0	Alloy Suspension Arm Long
C07A	Carbon bumper
C26	Top Stiffener
ST17	Universal Ring
ST24L	4.8x10mm Ball Stud
ST69-00	Linear Spring Screw
ST113US	IFJ Universal Bone
AT06	Alloy Antenna Holder
AT13W	Wheel Hex Wide
AT15	Bearing Spacer
AT21ST-A	Pivot Ball Steel Short
AT78	Damper Piston
AT139	Fan Holder
AM06L	Steering Block
AM12-1	Alloy Battery Holder
AM14LS	Steering Arm
AM19-2	Upper Arm Holder
AM19-2US	Upper Arm Holder
AM19-4X	Upper Arm Holder
AM78ST	Bulkhead
DT10-2-1	Bearing Housing
DT10-3	Bearing Housing
OR152S	U-Ring
P20	Front Universal Ring
P40F	Servo Arm (Futaba)
P40K	Servo Arm (KO)
P45L	Sponge Piston
P45Y	Rubber Piston
P138LF	38T Pulley Low Friction
RHS-P	Precise Ride Height Screw
SB3X5AL	M3x5 Alloy Button Head Screw
SH0.1	6x8x0.1 Shim
SH0.25	3x6x0.25mm Shim
SH3X5X0.5	3x5x0.5mm Shim
SPR08	Body Support Set
SS3X5	M3x5 Set Screw
SWB13	Sway Bar 1.3mm
BW22	Battery Holder 22 g
T01	5.5/4 mm Wrench
D2.2-S	Damper Set
FCB	Flexible Caster Block Set
BC1	Battery Clamp Set
r00	Progressive Spring System



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