



R01502 - TL-3C 3-Channel 2.4GHz RC-System

USER MANUAL



2,4G FHSS Technology

DIGITAL PROPORTIONAL RADIO CONTROL SYSTEM

Thank you for purchasing our R/C-System!
Before using, read this manual carefully!

Warranty

With the purchase of this product you purchased at the same time a two-year warranty from date of purchase. The guarantee applies only to the already existing material on the purchase of the product and / or functional defects.

Excluded from the guarantee:

- Damage caused by incorrect use
- Damage caused by neglect of duty of care
- Damage caused by improper handling and maintenance errors
- Liquid damage

For warranty claims, please contact your local dealer.

Should it be necessary to send the product, you must enclose a copy of the invoice and a repair order. You can download it at www.robitronic.com. With direct sending to the service department must be consulted beforehand (held by telephone or e-mail).

The postage costs borne by the consignor. Paid packages are not accepted.

Everyone sent in warranty case is first examined by our service department on admissibility. For reject warranty claims will be charged back to a control and processing fee before we return the product. Repairs not covered under warranty, before the start of the repair must be paid.

Robitronic assumes no liability for damages and losses directly or indirectly, by the sequence of use or misuse of this product and its required accessories products needed for their operation, arise.

Disclaimer

As compliance with the instructions, the operations and conditions when using the device at no time can be monitored by the manufacturer; the manufacturer assumes no liability for damages, costs and / or losses arising from incorrect use and / or incorrect operation or in any way connected.

Intended Use

The remote control is designed exclusively for private use in model construction. The remote control is not for industrial use, e.g. to control machines and equipment, determined.

Any use other than as described above, can lead to damage of the product, and beyond this, with the associated risks, such as short circuit, fire, electric shock, etc.. Contact with water must be avoided!

The remote control must not technically be changed or rebuilt!

The safety precautions are essential to follow!

You as a user are solely responsible for the safe operation of your remote control and your model!



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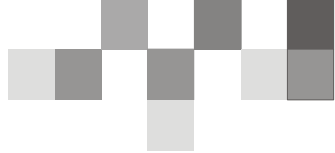
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Caution

To work your R/C with your models correctly and safely, read this manual carefully and keep it in a safe way as a reference introduction in the future.

- This product is only equipped for radio controlled models.
- The usage of this product should be approved by local relevant law or regulations.
- We will not be responsible for the damages caused by unauthorized modification, adjustment or replacement of parts of this product.
- The manual may be altered without prior notice. Please contact us if you have any corrections or clarifications that should be made in the manual.
- Please pay more attention to the parts in this manual, which are marked with „Warning“.
- Because of disturbance, do not work your radio control system simultaneously with others at the same frequency.
- Before starting the transmitter, make sure the transmitter batteries are well loaded. The voltage of transmitter batteries is never lower than 8,6 V, And please check and confirm that the servos are all well and properly connected.
- Please check and have a test on control surfaces to confirm the transmitter handling of each part prior to each take off. The frequencies of the module and the receiver should be the same.
- Keep the radio system away from moist, high temperature and strong shake. Do not clean the product with solvent.
- The antenna does not touch anything else when power switch is turned on. Do not leave this product and its accessories within the reach of small children.
- Please use this product according to our local relevant law or regulation, we are not responsible for any incidents or damages.



1.1 Transmitter Chart



Edit Buttons



1.2 „Binding“ the receiver

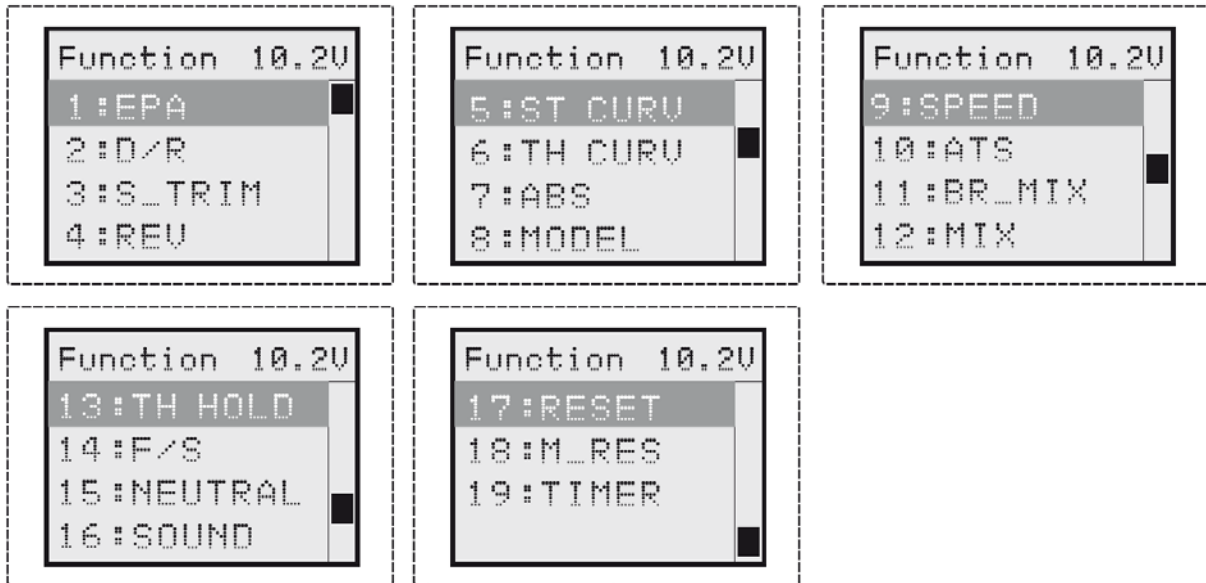
With the binding process the receiver is coupled to the transmitter.

Turn on the transmitter, then connect the power of receiver keeping the receiver „BIND“ button till the light turn on GREEN which means the binding is successful. After that, it's unnecessary to bind again.

- Caution: making sure that the RX and TX within one meter, and around 10 meters no similar device.
- If the LED is flashing, showing the binding failure, please do again as above indication.



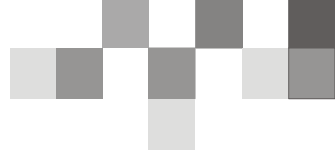
2.1 Characteristics of system



- 3 channels End Point Adjustment.
- Support dual rate function for the STEERING.
- Sub-trim for THROTTLE channel and STEERING channel.
- Model names can use up to 5 letters and numbers, so that easily understood names can be set. A model memory with different fine setups can be created by using the model copy function. Sixteen models can be added.
- Brake mixing for large cars (BRAKE)
 - Brake mixing of the front and rear wheels of 1/5GP and other large cars can be adjusted independently.
 - Anti-skid braking system (A.B.S) This function applies the brakes so that the tires of gasoline engine cars, etc. do not lose their grip on the road even when braking at corners.
- SPEED
 - TH-SPEED: Sudden trigger operation on a slippery road surface will only cause the tires to spin and the model to not accelerate smoothly. By setting the throttle speed function, operation can be performed smoothly and easily. It also suppresses battery consumption.
 - ST-SPEED: When you sense that the steering servo is too fast, etc., the servo operating speed (direction that suppresses the maximum speed) can be adjusted.
- Auto-Start funktion (ATS)
 - A pre-set throttle position, less than full throttle, to be used for the initial acceleration off the line without having wheel spin. When the trigger is released, auto-start is turned off and throttle operates normally again.
- TIMER: The TC-3 has two timers: Down_Timer and UP_Timer.
- Digital trim function: The current trim position is displayed on the LCD screen.

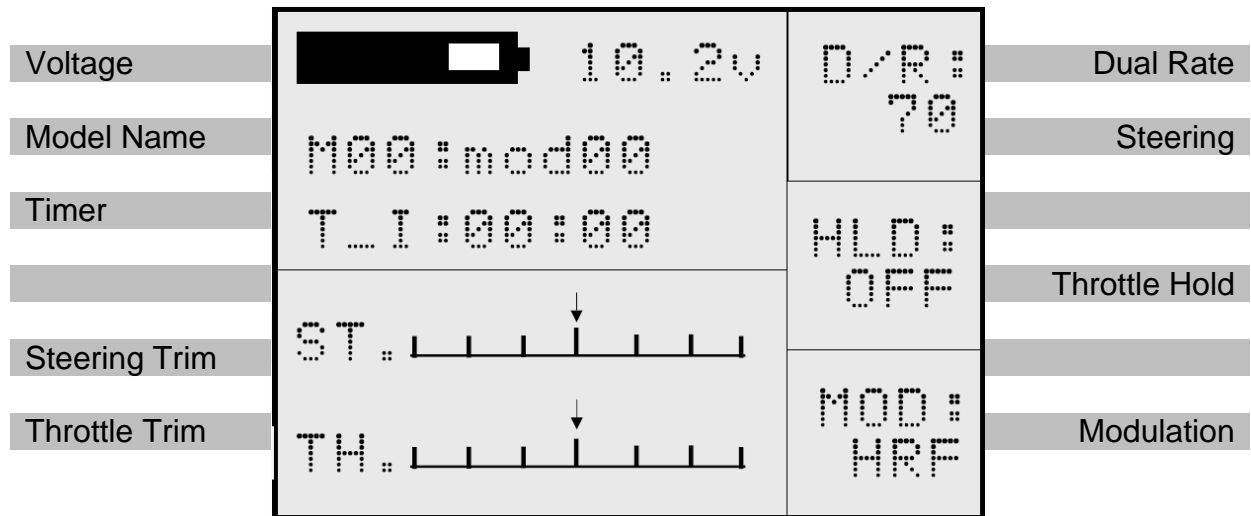
2.2 Menu-introduction

<p style="text-align: center;">EPA</p> <div style="border: 1px solid black; padding: 5px;"> <p>E P A 10.2V</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>ST</td> <td>TH</td> <td>AUX</td> </tr> <tr> <td>F</td> <td>100%</td> <td>120%</td> <td>100%</td> </tr> <tr> <td>B</td> <td>100%</td> <td>120%</td> <td>100%</td> </tr> </table> </div>		ST	TH	AUX	F	100%	120%	100%	B	100%	120%	100%	<p style="text-align: center;">D/R</p> <div style="border: 1px solid black; padding: 5px;"> <p>ST D/R 10.2V</p> <p>POS0: 70%</p> <p>POS1: 100%</p> </div>																												
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<p style="text-align: center;">S_TRIM</p> <div style="border: 1px solid black; padding: 5px;"> <p>S_TRIM 10.2V</p> <p>ST : 0</p> <p>TH : 0</p> </div>	<p style="text-align: center;">REV</p> <div style="border: 1px solid black; padding: 5px;"> <p>REVERSE 10.2V</p> <p>REV <input type="checkbox"/></p> <p>NOR <input type="checkbox"/></p> <p>ST TH AUX</p> </div>																																								
<p style="text-align: right;">ST CURV</p> <div style="border: 1px solid black; padding: 5px;"> <p>ST_EXP 10.2V</p> <table border="1" style="width: 100%;"> <tr> <td>M: EXP</td> <td></td> </tr> <tr> <td>R: 0%</td> <td></td> </tr> </table> </div>		M: EXP		R: 0%																																					
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<p style="text-align: right;">ABS</p> <div style="border: 1px solid black; padding: 5px;"> <p>ABS 10.2V</p> <p>PT: 10% WD: 50</p> <p>CY: 15% DL: 0</p> <p>SM: 0 DT: 1</p> <p>MODE: INH</p> </div>																																									
<p style="text-align: right;">MODEL</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 25%;"> <p>MODEL 10.2V</p> <p>MDL.N : Mod01</p> <p>SEL EDT CPY</p> </div> <div style="border: 1px solid black; padding: 5px; width: 25%;"> <p>MODEL 10.2V</p> <p>MDL.N : Mod00</p> <p>SEL EDT CPY</p> </div> <div style="border: 1px solid black; padding: 5px; width: 25%;"> <p>MDL.N: ADAMI</p> <table border="1" style="width: 100%; text-align: center;"> <tr><td>@</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>↑</td><td>←</td></tr> <tr><td>I</td><td>J</td><td>K</td><td>L</td><td>M</td><td>N</td><td>O</td><td>P</td><td>↻</td><td></td></tr> <tr><td>R</td><td>S</td><td>T</td><td>U</td><td>V</td><td>W</td><td>X</td><td>Y</td><td>Z</td><td></td></tr> </table> </div> <div style="border: 1px solid black; padding: 5px; width: 25%;"> <p>MODEL 10.2V</p> <p>MDL.N : Mod00</p> <p>CPY TO Mod01</p> <p>SEL EDT CPY</p> </div> </div>		@	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	↑	←	I	J	K	L	M	N	O	P	↻		R	S	T	U	V	W	X	Y	Z	
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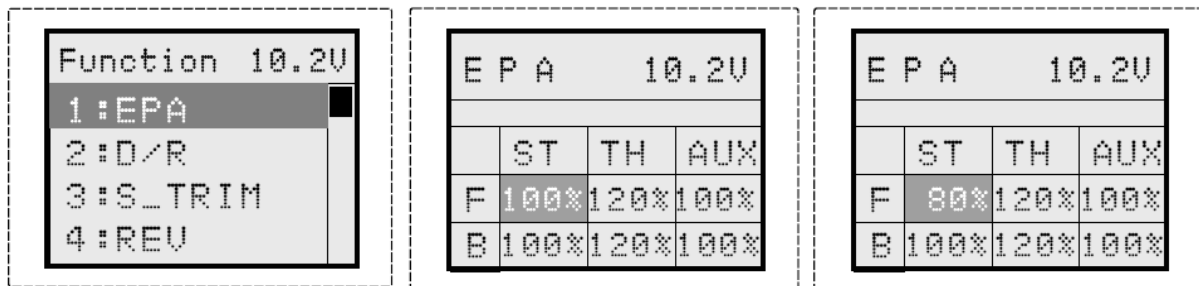


<p style="text-align: center;">SPEED</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">SPEED 10.2V <input type="checkbox"/> ST <input type="checkbox"/> TH SPD.FL: 100% SPD.BK: 100%</div> <div style="border: 1px solid black; padding: 5px;">SPEED 10.2V <input type="checkbox"/> ST <input type="checkbox"/> TH SPD.FL: 100%</div>	<p style="text-align: center;">ATS</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">ATS 10.2V <input type="checkbox"/> TRI: 1 % <input type="checkbox"/> POS: 0 % <input type="checkbox"/> DLY: 0 MOD: INH</div> <div style="border: 1px solid black; padding: 5px;">ATS 10.2V <input type="checkbox"/> TRI: 1 % <input type="checkbox"/> POS: 0 % <input type="checkbox"/> DLY: 0 MOD: ACT</div>
<p style="text-align: center;">BR_MIX</p> <div style="border: 1px solid black; padding: 5px;">BR-MIX 10.2V <input type="checkbox"/> RATE: 80% EN: <input type="radio"/> ON <input checked="" type="radio"/> OFF</div>	<p style="text-align: center;">MIX</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">MIX 10.2V <input type="checkbox"/> ST: L50 R50 <input type="checkbox"/> TH: L50 R50 EN: <input type="radio"/> ON <input checked="" type="radio"/> OFF</div> <div style="border: 1px solid black; padding: 5px;">MIX 10.2V <input type="checkbox"/> TH: L50 R50 <input type="checkbox"/> AUX: L60 R50 EN: <input type="radio"/> ON <input checked="" type="radio"/> OFF</div>
<p style="text-align: center;">TH HOLD</p> <div style="border: 1px solid black; padding: 5px;">TH HOLD 10.2V TH.HOLD: <input type="checkbox"/> VALUE: 0 %</div>	<p style="text-align: center;">F/S</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">F/S 10.2V <input type="checkbox"/> ST: 0% <input type="checkbox"/> ACT <input type="checkbox"/> TH: 0% INH EN: <input type="radio"/> ON <input checked="" type="radio"/> OFF</div> <div style="border: 1px solid black; padding: 5px;">F/S 10.2V <input type="checkbox"/> ST: 0% ACT <input type="checkbox"/> TH: 20% <input type="checkbox"/> INH EN: <input type="radio"/> ON <input checked="" type="radio"/> OFF</div>
<p style="text-align: center;">NEUTRAL</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Neutral 10.2V Set Neutral? <input type="checkbox"/> NO <input type="checkbox"/> YES READY</div> <div style="border: 1px solid black; padding: 5px;">Neutral 10.2V Set Neutral? <input type="checkbox"/> NO <input type="checkbox"/> YES OK</div>	<p style="text-align: center;">SOUND</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">SOUND 10.2V SOUND: INH</div> <div style="border: 1px solid black; padding: 5px;">SOUND 10.2V SOUND: ACT</div>
<p style="text-align: center;">RESET</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">RESET Reset System?</div> <div style="border: 1px solid black; padding: 5px;">RESET RESETTING...</div>	<p style="text-align: center;">M_RES</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">M_RES 10.2V Reset DATA ? <input type="checkbox"/> NO <input type="checkbox"/> YES READY</div> <div style="border: 1px solid black; padding: 5px;">M_RES 10.2V Reset DATA ? <input type="checkbox"/> NO <input type="checkbox"/> YES OK</div>
<p style="text-align: center;">TIMER</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">TIMER 10.2V <input type="checkbox"/> MODE: INH T: 0 m 0 s</div> <div style="border: 1px solid black; padding: 5px;">TIMER 10.2V <input type="checkbox"/> MODE: DN_T T: 3 m 2 s</div>	

2.3 Main-Menu overview

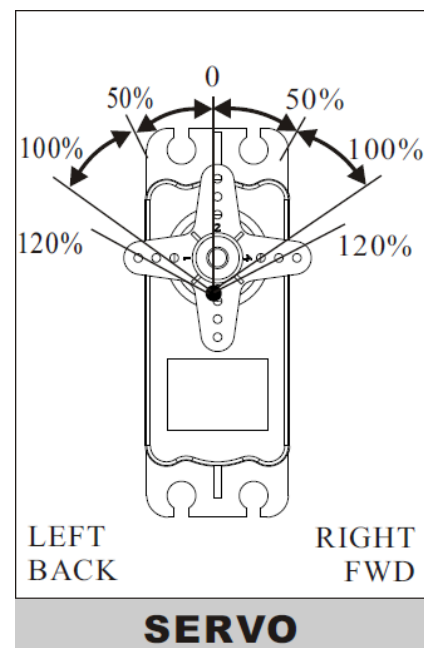


2.4 EPA

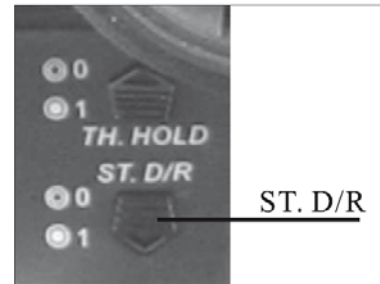
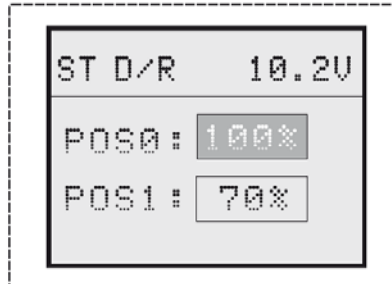
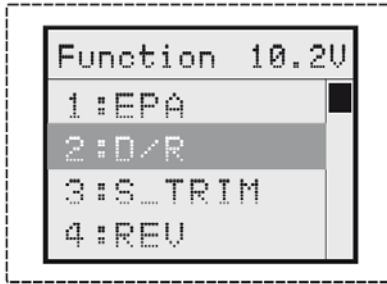


Use this when performing left and right steering angle adjustments, throttle high side/brake side operation amount adjustment, and channel 3 servo up side/down side operation amount adjustment during linkage.

- EPA adjusting value range: 0-120 %,
 - default is 100%
1. Press "ENTER" in the power on interface and enter function menu. Press "+" or "-" to choose "EPA". And press "ENTER" and enter EPA adjusting interface.
 2. Press "ENTER" to choose each adjusting item, and then press "+" to increase and "-" to decrease the value of the corresponding item.
 3. Press "EXIT" to save your setting and leave EPA interface, and back to the function menu interface.
- TERMS: F-FORWARD, B-BACK, ST-STEERING, TH-THROTTLE, AUX-AUXILLIARY



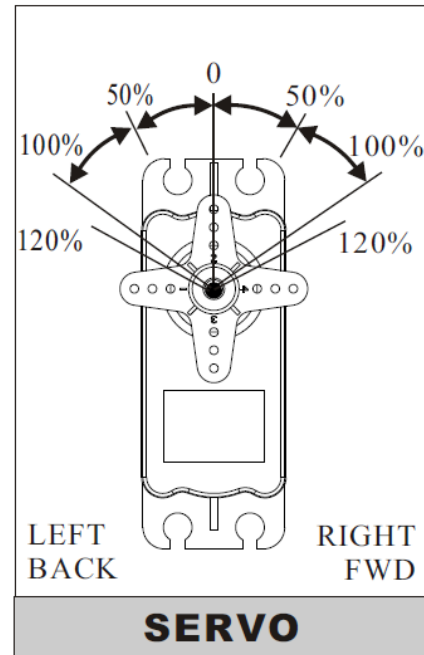
2.5 D/R



D/R is used to change the action range of steering servo when turning the steering wheel. Increasing D/R will make the steering wheel action more sensitive.

- D/R adjusting value range: 0-120%,
- POS0 default value is 100%,
- POS1 default value is 70%.
- Press the ST.D/R dial to select POS0 or POS1, and the value will display in the LCD when it is on the main screen.

1. Press "ENTER" to see FUNCTION MENU.
 2. Press "+" or "-" to choose D/R and press "ENTER" to enter D/R adjusting interface.
 3. Press "+" to increase and to decrease D/R value.
 4. Press "EXIT" to save your setting and leave D/R interface, and back to the function menu interface.
- TERMS: POS-POSITION



2.6 S_TRIM

Use this function to adjust the neutral position of the steering and throttle servos.

Tip:

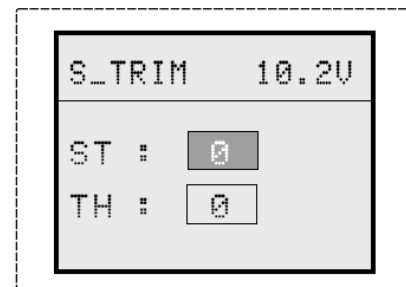
When installing a new servo always ensure that it is already in the neutral position!

SUB TRIM adjusting value range: -100-100

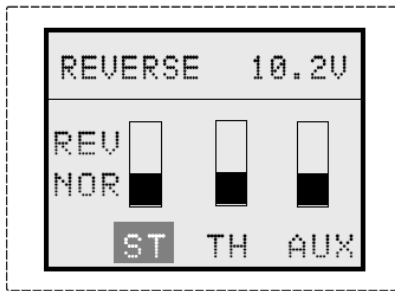
Default is 0

1. Press "ENTER" to see FUNCTION MENU.
2. Press "+" or "-" to choose TRIM, and press "ENTER" to enter SUB TRIM adjusting interface.
3. Press "+" to increase and "-" to decrease SUB TRIM value.
4. Press "EXIT" to save your setting and leave SUB TRIM interface, and back to the function menu interface.

TERMS: ST-STEERING, TH-THROTTLE



2.7 REV



This function reverses the direction of operation of the servos related to transmitter steering, throttle, and channel 3 operation.

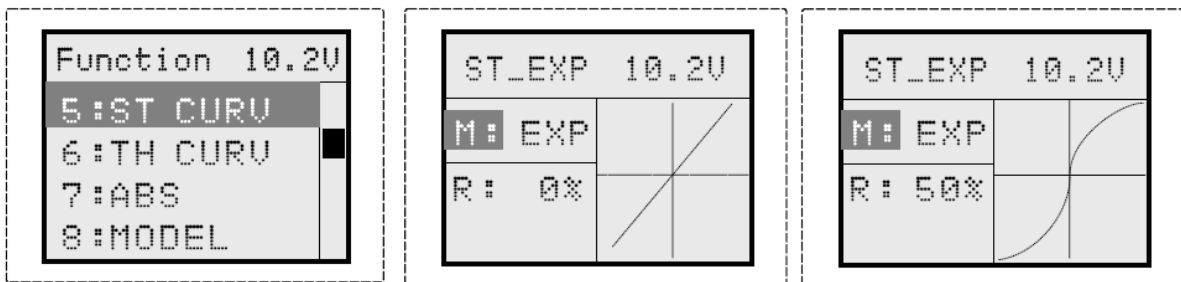
1. Press "ENTER" to see FUNCTION MENU.
2. Press "+" or "-" to choose REVERSE, and press "ENTER" to enter REVERSE adjusting interface.
3. Press "ENTER" to choose each Channel.
4. Press "+" to increase and "-" to choose "REV" or "NOR" .

5. Press "EXIT" to save your setting and leave REVERSE interface, and back to the function menu interface.

Note: However, when the position set by trim or sub trim shifts from the center, the center becomes the opposite side.

TERMS: ST-STEERING, TH-THROTTLE, AUX-AUXILLIARY

2.8 ST_CURV



This function is used to change the sensitivity of the steering servo around the neutral position. It has no effect on the maximum servo travel.

Note: When the setting is not determined, or the characteristics of the model are unknown, start with 0% (when EXP is set to 0%, servo movement is linear)

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the ST CURV function and press ENTER.
3. Use the +/- Key to change the value.
4. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.
 - STEERING CURVE adjusting value range: -100% ~ +100%
 - Default is 0% (Linear)

Steering EXP adjustment

When you want to quicken steering operation, use the "+" button to adjust the + side. When you want to make steering operation milder, use the "-" button to adjust the - side.

When ending setting, return to the function menu by pressing the "EXIT" button.

TERMS: M-MODE, R-RATE

2.9 TH_CURV

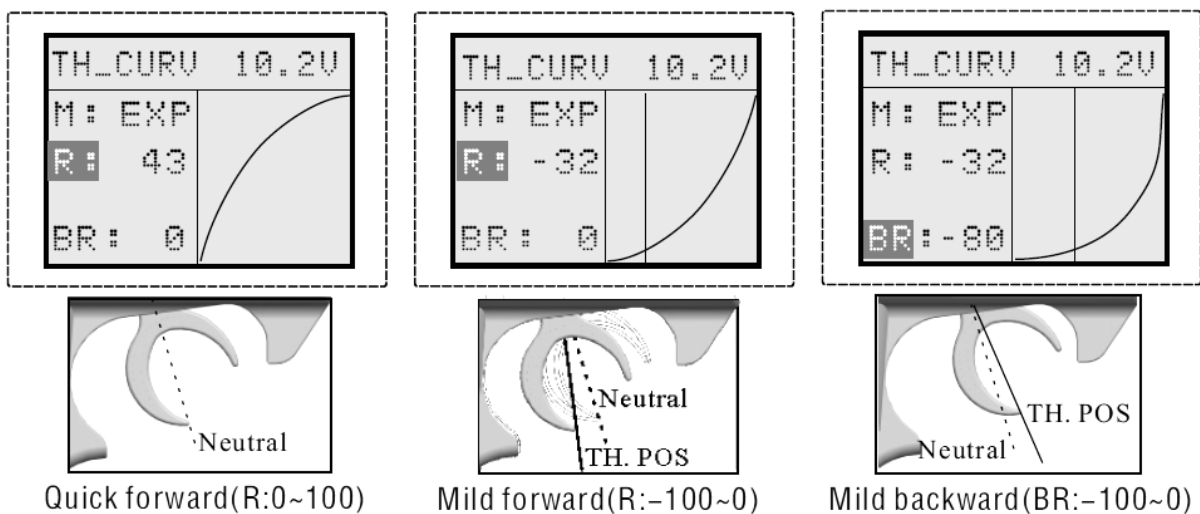
This function makes the throttle high side and brake side direction servo operation quicker or milder. It has no effect on the servo maximum operation amount. For the

high side, selection from among three kinds of curves (EXP/VTR/CUR) is also possible.

Note: When the course conditions are good and there is no sense of torque at the power unit, set each curve to the + side (quick side). When the road surface is slippery and the drive wheels do not grip it, set each curve to the - minus (mild) side.

Note: Brake side only has EXP curves.

- 1 Press "ENTER" to see FUNCTION MENU
- 2 Use the +/- Keys to select the TH CURV function and press ENTER.
- 3 Press ENTER to select a setting.
- 4 Use the +/- Key to change the value.
- 5 Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.



Adjustment method for EXP curve

- Select EXP at setup item "M"
- Select setup item "R" and make the following adjustments:

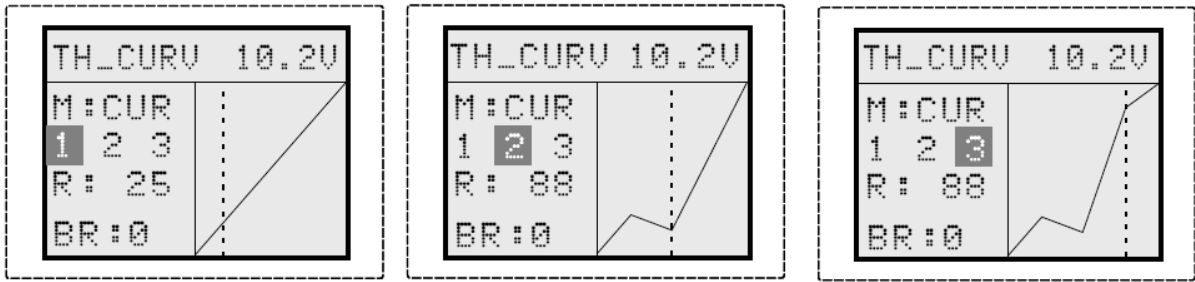
1 .Forward side adjustment:

Use the "+" button to adjust the + side when you want to quicken the rise and use the "-" button to adjust the - side when you want to make the rise milder.

2. Brake side adjustment:

Select the setting item "BR" by ENTER button and use the "+" button to adjust the + side when you want to quicker the rise and use the "-" button to adjust the - side when you want to make the rise milder.

3. When ending setting, return to the initial screen by pressing "EXIT".



Adjustment method for CUR curve

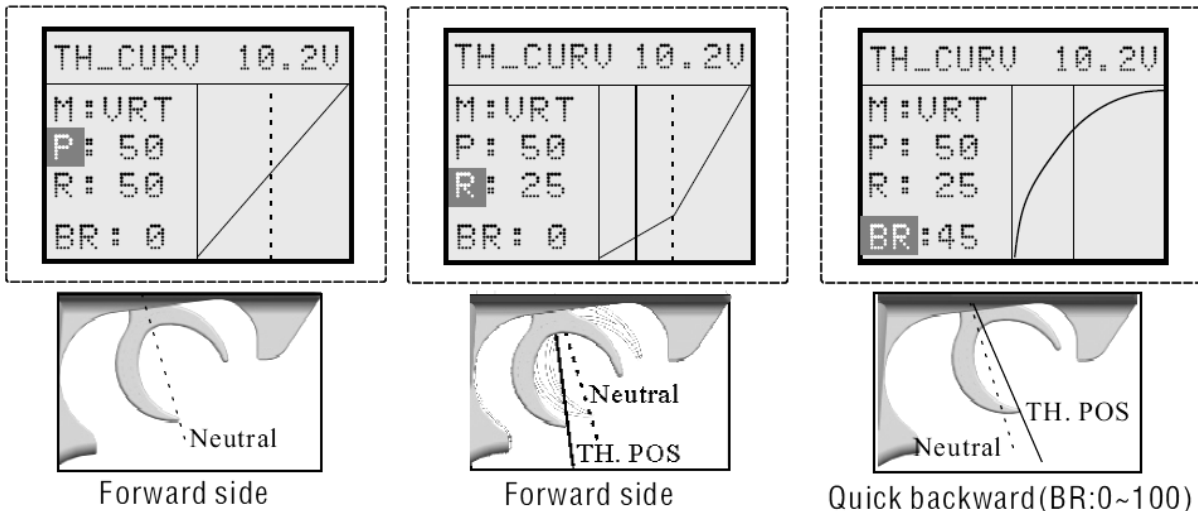
- Select CUR at setup item "M"
- Select setup item "R" and make the following adjustments:

1. Curve setup:

Select the setting item "1:" (1st point), by ENTER button and use the "+" and "-" buttons to set the 1st point.

Set the throttle curve by sequentially setting "2:" (2nd point) ~ "3:" (3th point).

2. When ending setting, return to the initial screen by pressing the EXIT
 TERMS: M-MODE, R-RATE, BR-BRAKE, VTR-VERTICAL, CUR-CURVES
 P-TRIGGER POS , 1 ~ 3 - Curves point 1-3.



Adjustment method for VRT curve

- Select VRT at setup item "M"
- Select setup item "R" and make the following adjustments:

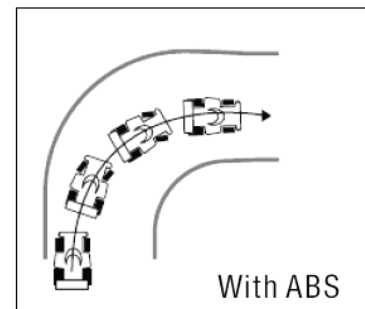
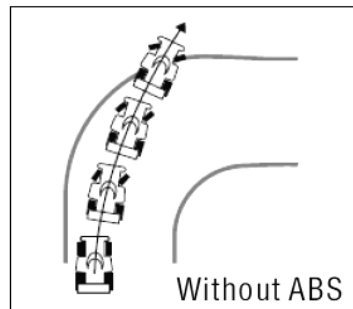
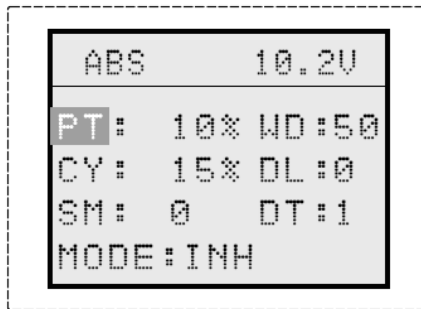
1. Forward side adjustment:

Use the "+" button to adjust the + side when you want to quicken the rise and use the "-" button to adjust the side when you want to make the rise milder.

2. Curve switching point adjustment:

When you want to change the curve switching point relative to the throttle trigger, select the setting item "P" by ENTER button, and use the "+" and "-" buttons to move to the point you want to set.

2.10 ABS



ABS— Anti-Lock Brake System

When the brakes are applied while cornering with a 4 Wheel Drive or other type of vehicle, under-steer may occur. The generation of under-steer can be eliminated and corners can be smoothly cleared by using this function.

- When the brakes are applied, the throttle servo will pulse intermittently. This will have the same effect as pumping the brakes in a full size car.
- The brake return amount, pulse cycle, and brake duty can be adjusted.
- The region over which the ABS is effective can be set according to the steering operation.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the ABS function and press ENTER.
3. Press ENTER to select PT item. Use +/- to change the value. Range: 0%-100%.
4. Press ENTER to select WD item. Use +/- to change the value. Range: 0-100
5. Press ENTER to select CY item. Use +/- to change the value. Range: 0-30.
6. Press ENTER to select DL Item. Use +/- to change the value. Range: 0-100.
7. Press ENTER to select DT item. Use +/- to change the value. Range: 0- 5
8. Press ENTER to select SM item. Use +/- to change the value. Range: 0-100%. If this value is 0, disable the steering mix.
9. Press ENTER to select MODE item. Use +/- to change INH, TH, AUX or TH & AUX.
10. Press EXIT twice to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

TERMS:

PT-Operation Throttle Trigger point

WD-Brake return amount. Sets the rate at which the servo returns versus trigger operation for brake release. When set to 0%, the ABS function is not performed.

CY-Cycle speed. The smaller of the set value, the faster the pulse cycle.

DL-Delay amount. Sets the delay from brake operation to ABS operation. When set to 0%, the ABS function is activated without any delay.

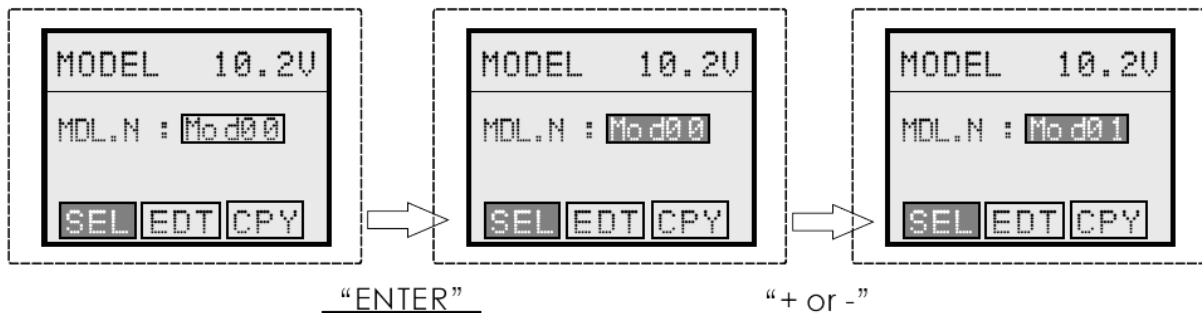
SM-Steering Mix

DT-Cycle duty ratio. Sets the proportion of the time of the brakes are applied and the time of the brakes are released by pulse operation.

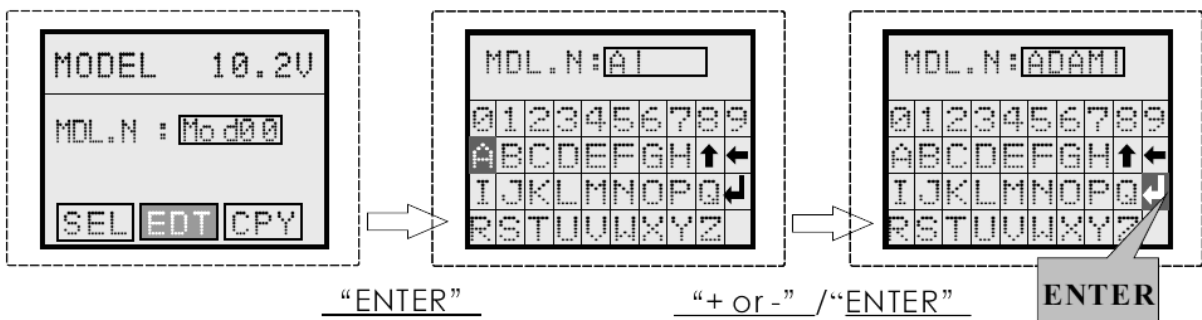
MODE-If it is selected to INH, the function disable. If it is selected to TH, the ABS function for THROTTLE brake.

2.11 MODEL

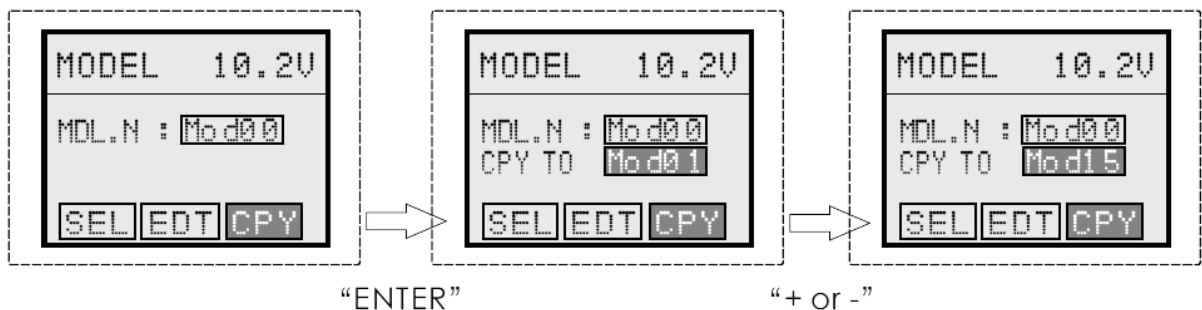
Press "ENTER" in the power on interface, and enter function menu interface. Press "+" or "-" to choose MDL, and press "ENTER" to enter MODEL adjusting interface.



1. Press "ENTER" to choose "mod00". (SEL)
2. Press "+" or "-" to choose "mod00~mod15"
3. Press "EXIT" to save your setting and leave SEL interface, and back to the function menu interface.



1. Press "+" or "-" to choose "EDT".
2. Press "ENTER" to enter rename mode. Press "+" or "-" to choose "0.1.2....I"
3. Press "↵" to save your modified and return to the MODEL Screen..
4. Press "EXIT" to save your setting and leave EDT interface, and back to the function menu interface.

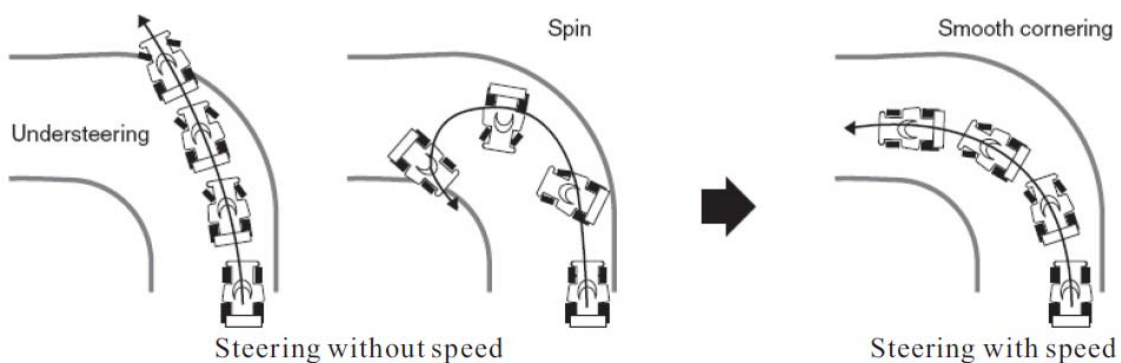


1. Press "+" or "-" to choose "CPY".
2. Press "ENTER" to enter copy mode. Press "+" or "-" to choose "Mod01 ... Mod15"
3. Press "ENTER" to save your setting and Press "EXIT" and leave CPY interface, and back to the function menu interface.

2.12 SPEED

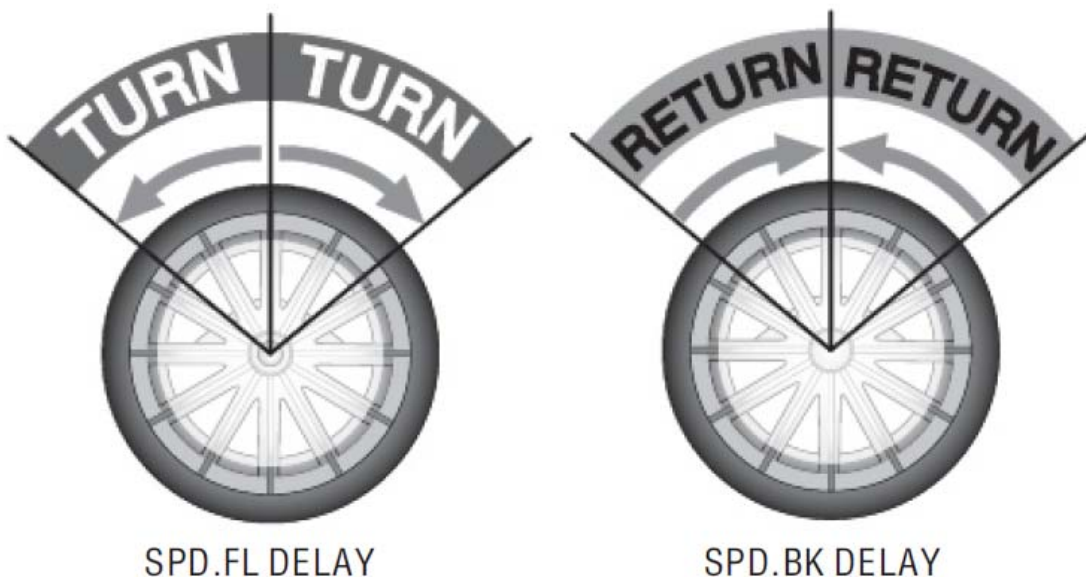


Steering Speed



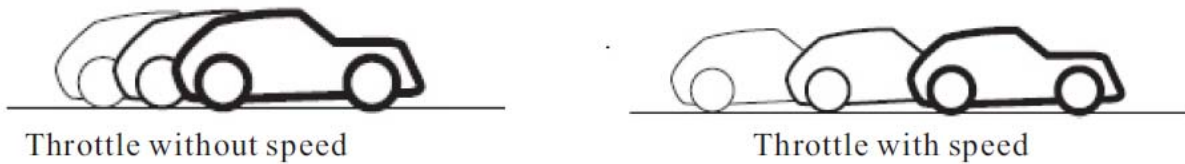
This function include tow items: STEERING SPEED and THROTTLE SPEED.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the SPEED function and press ENTER.
3. Press ENTER to select a setting.
4. Use the +/- Key to change the value.
5. Press EXIT twice to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.



- Quick steering operation will cause momentary under steering, loss of speed, of spinning. This function is effective in such cases.
- This function limits the maximum speed of the steering servo. (Delay function)
- The steering speed when the steering wheel is operated (TURN direction) and returned (RETN direction) can be independently set.
- If the steering wheel is turned slower than the set speed, the steering servo is not affected.

Throttle Speed



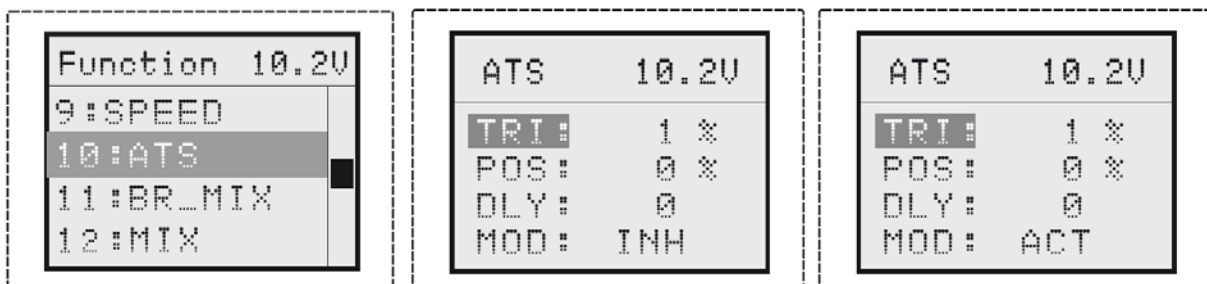
- Sudden throttle trigger operation on a slippery road only causes the wheels to spin and the vehicle cannot accelerate smoothly. Setting the throttle speed function reduces wasteful battery consumption while at the same time permitting smooth, enjoyable operation.
- Throttle servo (amp) operation is delayed so that the drive wheels will not spin even if the throttle trigger is operated more than necessary. This delay function is not performed when the throttle trigger is returned and at brake operation.
- - Adjustment:
 1. Select the TH button by +/- Keys.
 2. Press Enter to select SPD. FL item.
 3. Use +/- Keys change the value.
 4. Press exit twice return to the function menu.

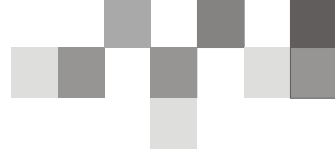
Terms

SPD.FL- SPEED FORWARD DELAY Bereich: 0~100%, Standard: 0.

SPD.Bk- SPEED BACKWARD DELAY Bereich: 0~100%, Standard: 0.

2.13 ATS





ATS Automatic Start

When the throttle trigger is set to full throttle simultaneously with starting when the track is slippery, the car wheels will spin and the car will not accelerate smoothly. When the Start function is activated, merely operating the throttle trigger slowly causes the throttle servo to automatically switch from the set throttle position to a preset point so that the tires do not lose their grip and the car accelerates smoothly.



- When the throttle trigger is moved to the preset trigger position (TRI), the throttle servo moves to the preset position (POS).
- When the throttle trigger is operated slowly so that the wheels will not spin, the car automatically accelerates to the set speed.
- This function is effective only for the first throttle trigger operation at starting. This function has to be activated before every start.
- When the throttle trigger is returned slightly, the Start function is automatically deactivated and the set returns to normal throttle trigger operation.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the ATS function and press ENTER.
3. Press ENTER to select TRI item. Use +/- to change the value.
Range: 0%~+100%..
4. Press ENTER to select POS item. Use +/- to change the value.
Range: -100%~100%.
5. Press ENTER to select DLY item. Use +/- to change the value. Range: 0-100.
6. Press ENTER to select MOD item. Use +/- to change INH or RUN.
7. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

TERMS:

TRI - Throttle trigger position.

POS - Preset position

DLY - ATS Delay time


MOD - ATS Ready setting

2.14 BR_MIX



BR_MIX —BRAKE MIXING

When using a secondary brake system set the BRAKE MIX value to a percentage of the Throttle Brake.



This mixing uses the 2nd channel to control the rear brakes and the 3rd channel to control the front brakes. This function can be used in conjunction with the TH TRIM and TH EPA to fine tune the power and balance of the overall braking system.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the BR_MIX function and press ENTER.
3. Press ENTER to select a item.
4. Use the +/- Key to change the value.
5. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

TERMS:

RATE - the rate of brake between 3rd channel and 2nd channel. Default value: -120% ~ +120%.

EN - the start or close switch of this function. Select "ON" to start the function, and "OFF" to close the function

2.15 MIX

This function allow customer to apply mixing between the steering, throttle and channel 3 channels. There are main channel and sub-channel in the MIX selection. The servo travel value of the sub channel is changed along with the change of the main channel according to the setting rate.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the BR_MIX function and press ENTER.
3. Press ENTER to select a item.
4. Firstly main channel setting. Select channel No. (ST, TH.AUX) by "+" or "-". L and R separately correspond to the rate of Left and Right servos of the main channel mix
5. Secondly sub channel setting. Select channel No. (ST, TH.AUX) by "+" or "-". L and R separately correspond to the rate of Left and Right servos selected in the sub channel.
6. Third Press ENTER to select EN item. Use +/- to select "ON" to enable the function and "OFF" to disable the function.
7. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

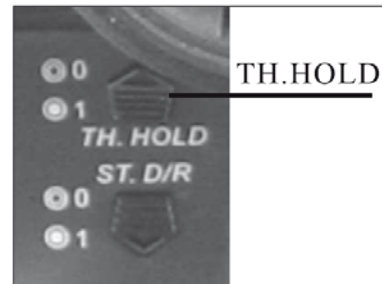
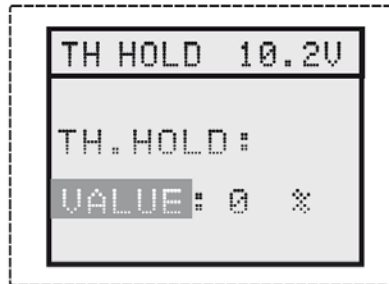
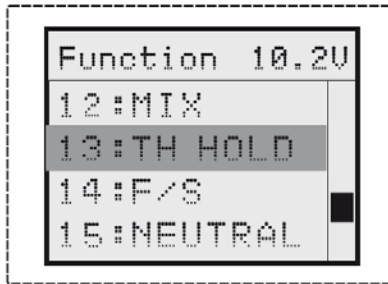
For example: current setting: ST: L 50% R 30%

TH: L 20% R 50%

EN: select "ON"

If throttle servo is 60% on the right and rudder servo is 50% on the right, and then after setting, throttle servo is: $50 \times 30\% + 60\% \times 50\% = 45\%$. Throttle servo will act along with the action of STEERING servo.

2.16 TH_HOLD



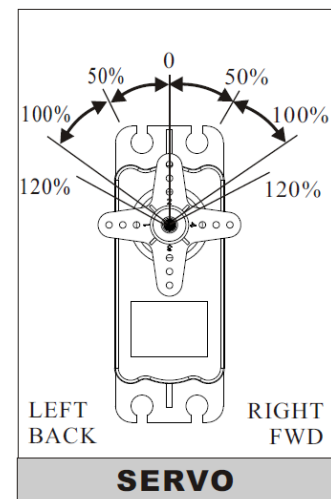
This function allows the Throttle Servo to be set to a percentage of the total travel range. This is an alternative to using the motors choke when starting up the model. Throttle hold can be performed by pressing the switch to stop the engine. It can be performed for accident braking. When pressing the switch, throttle trigger doesn't work until the switch is pressed again.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the TH HOLD function and press ENTER.
3. Use the +/- Key to change the value.
4. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

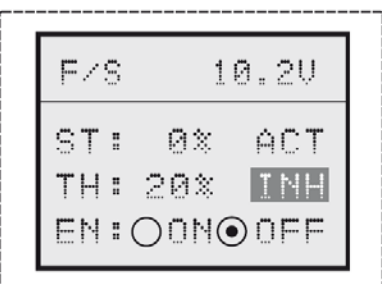
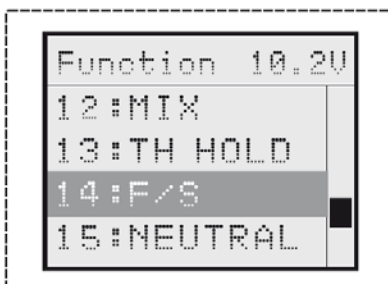
TERMS:

VALUE -- Throttle hold position.

Range: -120% to +120%. Default value: 0%.



2.17 F/S



If the RF signal loss, it should occur the receiver adjust the Steering or Throttle or both to a preset value. The servo value of Steering channel and Throttle channel in the fail status can be set through fail safe function.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the F/S function and press ENTER.
3. Press ENTER to select a item.
4. Use the +/- Key to change the value.
5. Press EXIT twice to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

TERMS:

ST — To set the servo value of Steering channel. Range -120% to +120%.

Default: 0%.

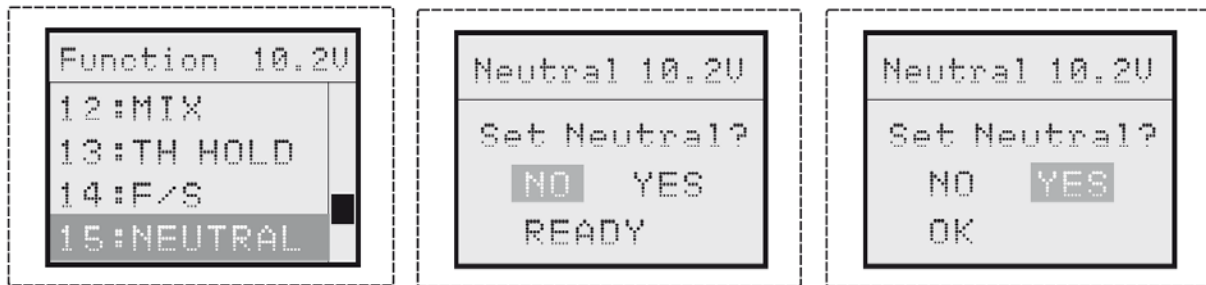
INH—Fail Save function doesn't work. ACT---the function works.

TH— To set the servo value of Throttle channel. Range -120% to +120%. Defaults:0.

INH—Fail Save function doesn't work.ACT---the function works.

EN—the Fail Save function is ON or OFF

2.18 NEUTRAL

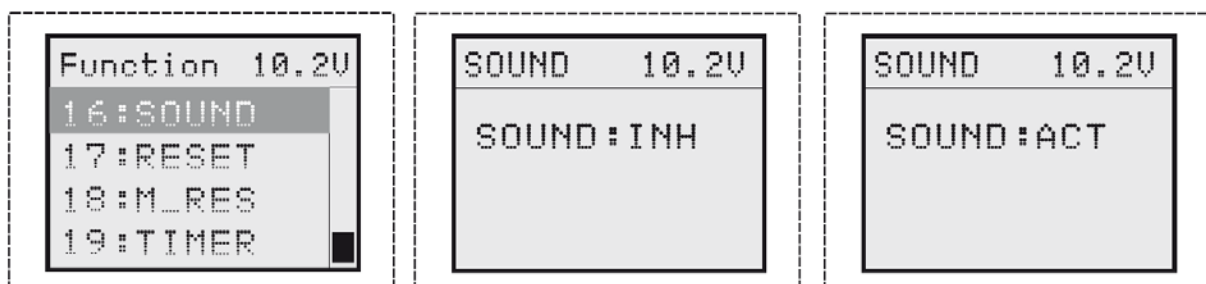


This function can calibrate the neutral of the STEERING wheel or THROTTLE trigger.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the NEUTRAL function and press ENTER.
3. Use the +/- Keys to select YES.
4. Press ENTER to calibrate the neutral.
5. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen

Note: Don't movement the STEERING wheel or THROTTLE trigger in the calibrate procedure.

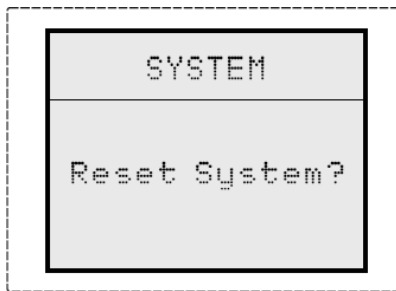
2.19 SOUND



This function can open or close the buzzer sounding.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the SOUND function and press ENTER.
3. Use the +/- Keys to select INH or ACT.
4. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen

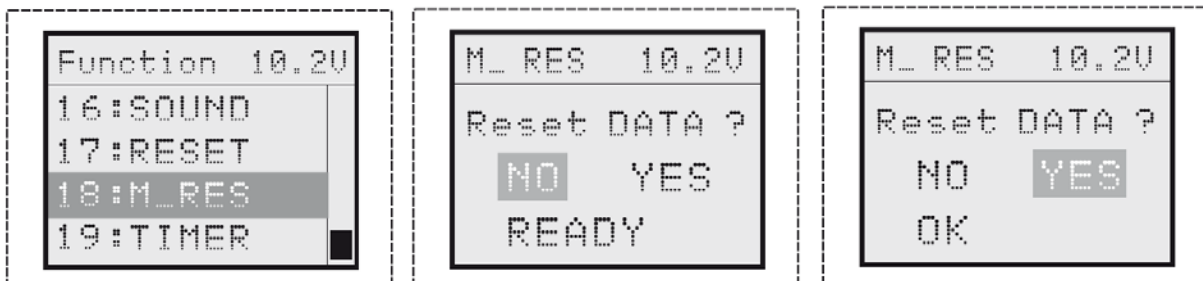
2.20 RESET



All the setting in the system will be reset to the default values by this reset function. It takes about 30 seconds.

1. Press "ENTER" to see FUNCTION MENU.
2. Use the +/- Keys to select the RESET function and press ENTER.
3. Press ENTER to reset the TL-3C memory.
4. Press "EXIT" twice to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen.

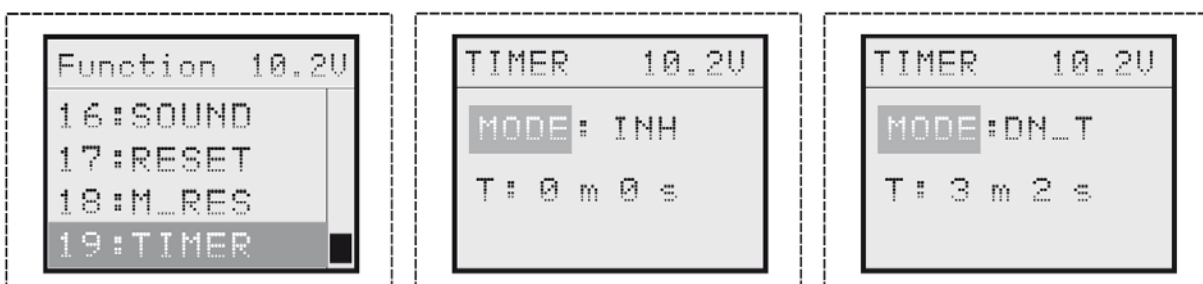
2.21 MODEL RESET



This function will reset the data of the current model memory to default values.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/- Keys to select the M_RES function and press ENTER.
3. Use the +/- Keys to select YES
4. Press ENTER to reset the data
5. Press EXIT to save and return to FUNCTION MENU, press EXIT again to return to the Main Screen

2.22 TIMER



Use the timer by selecting one of the two timers UP TIMER and DOWN TIMER and if the MODE is INH, It will close the TIMER Function.

1. Press "ENTER" to see FUNCTION MENU
2. Use the +/-Keys to select the TIMER function and press "ENTER".
3. Press ENTER to select an item.
4. Use the +/- Keys to change the value
5. Press "EXIT" to save and return to FUNCTION MENU, press "EXIT" again to return to the Main Screen

UP TIMER function

- Press "ENTER" to select the MODE. Use +/- Keys to select UP_T. (UP TIMER).
- The UP TIMER can be used to count the time from 0 minute 0 second to the stop time. The stop time is set from 0 minute 0 second to 99 minute 30 second.
- The first start operation will be linked to the throttle trigger.
- The passage of time is announced by sounding of a buzzer each minute after starting.
- The buzzer will sound 'B-B-B...' when the timer is up to the stop time.

DOWN TIMER function

- Press "ENTER" to select the MODE. Use +/- Keys to select DN_T. (DOWN TIMER).
 - The DOWN TIMER can be used to count the time from preset time 0 minute 0 second.
- The preset time is set from 0 minute 0 second to 99 minute 30 second.
- The first start operation will be linked to the throttle trigger.
 - The passage of time is announced by sounding of a buzzer each minute after starting.
 - The buzzer will sound 'B-B-B...' when the timer is down to the 0 minute 0 second.

3.1 TRIM_ADJ

Please start the motor or the engine while making the adjustment of these settings.

1. Connect the receiver, servos and other components and then turn on the power switches of transmitter and receiver.
2. Be sure the Steering trim and Throttle trim on the transmitter are at their neutral position.
3. When turning on the transmitter, please make sure the transmitter antenna is completely extended. Turn on the transmitter before turning on the receiver, while turn off the receiver before turning off the transmitter.

Steering trim

Steering neutral adjustments can be made by moving the steering trim knob to the left or the right.

Racers tip:

Always check and be sure the servo is at its neutral position before installing a servo. Adjust the servo horn hole position and linkage so both are parallel. When a servo saver is used place it as closer to center position as possible. Be sure the steering trim on the transmitter is at the neutral position.

Trim operation and maximum Servo travel

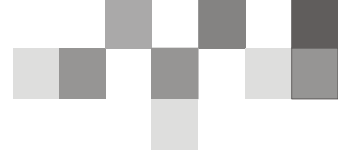
Changing the trim can affect the overall settings. When adjustments are made with the trims, please recheck your installation for maximum servo travel. (Steering EPA right side and left side).

When trim movement goes to extremes

That means if you make a lot of trim movement to get a servo to the neutral position, please reposition the servo horn or servo saver on the servo and inspect your linkage installation.

Throttle Trim

Throttle neutral adjustments can be made by moving the throttle trim to the left or the right.



Racers tip

When using an electronic speed controller, please set the throttle trim to neutral and make adjustments to the speed control. On a gas powered model, set the trim to neutral and adjust the linkage to the point where carburetor is fully closed in accordance with the engine instruction manual.

Trim operation and travel

Trim adjustments will affect the overall servo travel, so please check the (back-ward) movement after the adjustment

When trim movement goes to extremes

That means if you make a lot of the trim movement to get the servo to the neutral position, please re-center the servo horn closer to the neutral position and inspect your throttle linkage.

3.2 Handling procedure for batteries



Battery Replacement

1. Remove the battery cover from the transmitter by sliding it in the direction of the arrow.
2. Remove the used batteries.
3. Load the new AA size batteries. Pay very close attention to the polarity marking and reinsert accordingly.
4. Slide the battery cover back onto the case.

Caution

Always be sure you reinsert the batteries in the correct polarity order. If the batteries are loaded incorrectly, the transmitter may be damaged.

When the transmitter is not used, always remember to remove the batteries. If the batteries do happen to leak, clean the batteries case and contacts thoroughly. Make sure the contacts are free of corrosion.

Battery low voltage alarm indicator

Shows the remote control to a low battery, renew or recharge batteries earliest possible. Rechargeable batteries can be charged via the charging jack on the device. It is important to observe correct polarity.

The assignment is:

Pin +
Ring -

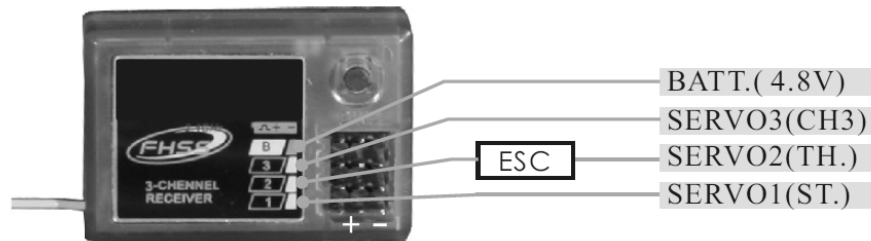


Battery Disposal

Some countries require special handling of used of batteries, please contact the agencies responsible for recycling hazardous wastes in your local area.

3.3 Wiring of the receiver

- Always ensure the correct wiring of your servos!
- BEC-enabled electronic controllers are connected directly to the channel 2.



3.4 Technical data

2.4GHz transmission, characteristics

- The RC-System use the FHSS technology
- The RC-System operates in the range 2.403 to 2.477 GHz (ISM band universally approved)

Transmitter:

Type:	TL-3C with LCD
Technology:	FHSS
Channels:	3
Frequency band:	2,4GHz
Voltage:	9,6V, <150mA
Weight:	360 g

Receiver:

Type:	XY3000 - Art. Nr.: R01550
Technology:	FHSS
Channels:	3
Frequency band:	2.4GHz
Voltage:	4,8~6V <30mA
Weight:	9 g

Operating temperature: 0° bis 70°C.

FCC ID:V6KN-4Q

This device complies with Part 15 of the FCC Rules. The use of the device depends on the following conditions:

1. The device may not cause harmful interference.
2. The device works even if it receives Disturbances that could lead to malfunctions

4. Declaration of Conformity (DOC)

**Konformitätserklärung gemäß dem Gesetz über Funkanlagen und
Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&TTE)**
Declaration of Conformity in accordance with the Radio and Telecommunications Terminal Equipment Act (FTEG)
and Directive 1999/5/EG (R&TTE)

Robitronic Electronic Ges.m.b.H.

Brunhildengasse 1/1

1150 Wien – Austria

erklärt, dass das Produkt: Robitronic Fernsteuerset TL-3C **R01502**
declares that the product: inklusive Empfänger **R01550**

Geräteklasse: **2**
Equipment class:

bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen des § 3 und den
übrigen einschlägigen Bestimmungen des FTEG (Artikel 3 der R&TTE) entspricht.
complies with the essential requirements of § 3 and the other relevant provisions of the FTEG (Article 3 of the
R&TTE Directive), when used for its intended purpose

Angewendete harmonisierte Normen:
Harmonised standards applied:

EN 62311:2008 Gesundheit und Sicherheit gemäß § 3 (1) 1. (Artikel 3 (1) a))
EN 60950-1+A11:2009 Health and safety requirements pursuant to § 3 (1) 1. (Article 3 (1) a))

EN 301 489-1 V1.8.1:2008 Schutzanforderungen in Bezug auf die elektromagnetische
EN 301 489-17 V2.1.1:2009 Verträglichkeit § 3 (1) 2, Artikel 3 (1) b))
Protection requirement concerning electromagnetic compatibility
§ 3 (1) 2, Article 3 (1) b))

EN 300 328 V1.7.1:2006 Maßnahmen zur effizienten Nutzung des Frequenzspektrums
§ 3 (2) (Artikel 3 (2))
Measures for the efficient use of the radio frequency spectrum
§ 3 (2) (Article 3 (2))

CE 0678 

Wien, 04. Jänner 2010


Robert Schachhuber, Geschäftsführer
Robert Schachhuber, Managing Director

Robitronic Electronic Ges.m.b.H. - Brunhildengasse 1/1 - 1150 Wien - Austria
Tel: +43 1 982 09 20 Fax: +43 1 982 09 21 E-Mail: info@robitronic.com Web: www.robitronic.com



Electronic products are raw materials and do not belong in the trash. If the device is at the end of its useful life, dispose the device in accordance with applicable statutory regulations at the municipal collection points. Disposing of household waste is prohibited.

Version 1.2

Robitronic Electronic GmbH
Brunhildengasse 1/1, A-1150 Wien
Österreich
Tel.: +43 (0)1-982 09 20
Fax.: +43 (0)1-98 209 21



Technische Änderungen sowie Änderungen in Ausstattung und Design vorbehalten.

DIGITAL PROPORTIONAL RC SYSTEM