

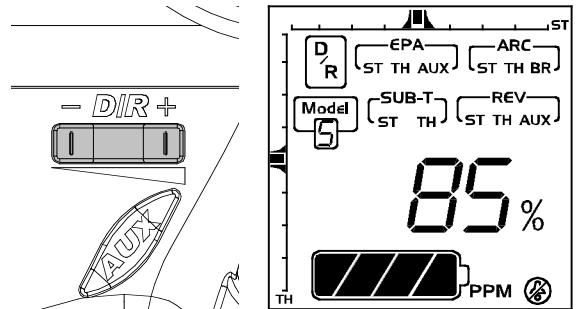
## 2. D/R (Dual Rate) $\frac{D}{R}$

Press the right edit button, then the cursor will move to "D/R" and enter the steering servo dual rate setting function. On the "Value Display", the current D/R value will be shown. Use the up and down edit buttons to adjust the value.

This D/R function is to adjust the overall travel of the steering servo. And the D/R setting, the steering servo left and right steering angles will be adjusted simultaneously.

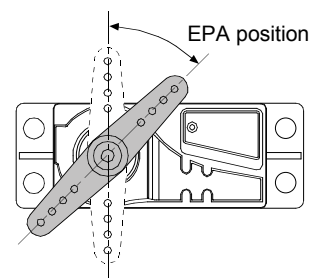
The default steering D/R setting is 100%, the maximum is 150% and the minimum is 0%. More travel (Higher D/R %) means more sensitivity for the steering wheel operating.

You also can use the "Digital Steering D/R(Dual Rate) lever" to adjust the D/R value all the time even the transmitter function mode is not under the D/R mode.



## 4. EPA (End Point Adjustment) $\frac{EPA}{ST TH AUX}$

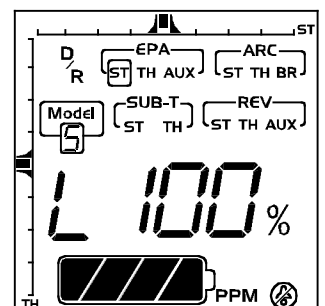
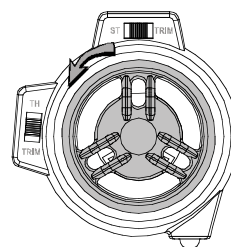
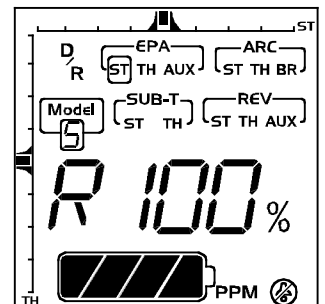
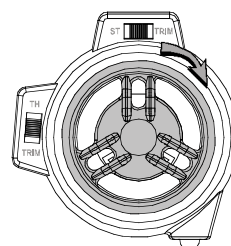
Basically, EPA (End Point Adjustment) function is to determine the maximum travel end points for each servo. And for both side traveling, the individual EPA can be set with difference value. Move the cursor to the channel you select to start the setting procedure.



### 4.1) EPA / ST $\frac{EPA}{ST TH AUX}$

This function is to adjust the right(R) and left(L) maximum steering angle. When entry this mode, the right side steering angle EPA setting will be started first. So on the "Value Display" area, "R" and the current EPA value will be show there. Using the up/down button to adjust the value to get the steering servo right side traveling EPA setting. Turn the steering wheel to the left side, then the "R" on the display will be switched to "L" and you can adjust the value to get the steering servo left side traveling EPA setting. Under the mode, just use the steering wheel to choose the direction you like to set.

The default steering servo EPA value is 100%, the maximum is 120% and the minimum is 0%.



#### NOTE:

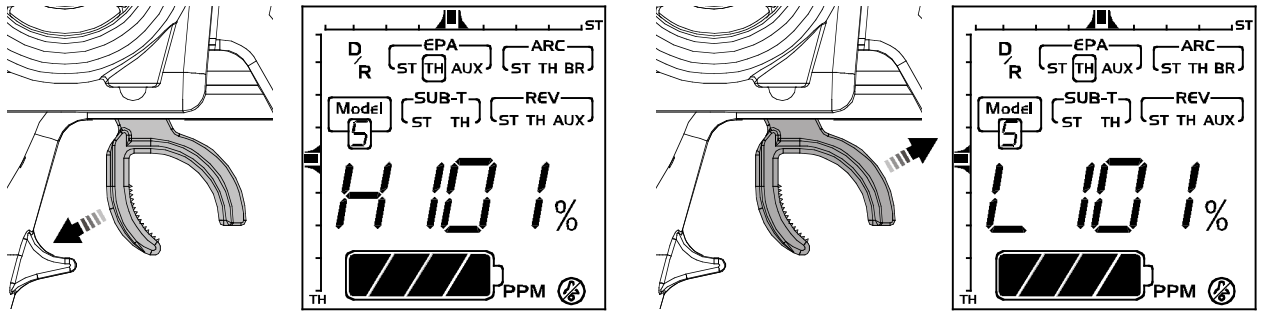
If the maximum servo traveling is interference with the mechanical limit, then it will cause the linkage binding or even damage the servo. So the best way to set the steering EPA is to hold the steering wheel on the full turn position, then adjust the EPA to the suitable value and make sure the steering linkage without binding.

#### 4.2) EPA/TH

This function is to adjust the full throttle (H) and low/brake (L) operating amount.

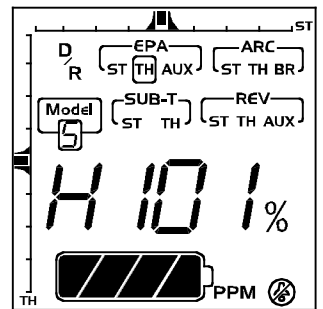
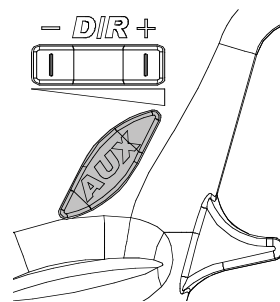
Entry the EPA/TH setting mode, pull the trigger back, "H" will be show on left side of the "Value Display" and the current EPA value will be show beside "H". Using the up/down button to adjust the value to get the full throttle EPA setting.

Push the trigger forward, then "H" will changed to "L", then use the up/down button to adjust the value to get the brake EPA setting.



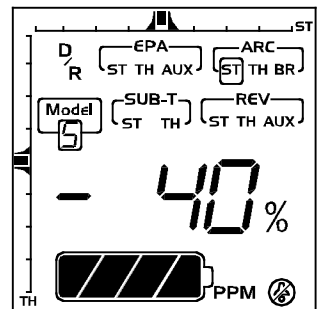
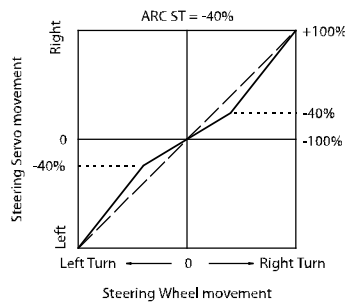
#### 4.3) EPA/AUX

This function is to adjust the auxiliary 3rd channel EPA. Entry the EPA/AUX setting mode, same as previous steering and throttle EPA setting process, you can press the AUX Ch Button to select each side servo traveling setting. On the display, it will show "H" and "L" to represent the different side EPA setting.



### 5. ARC (Adjust Rate Control)

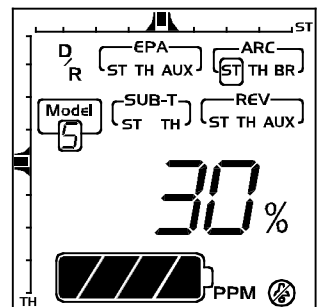
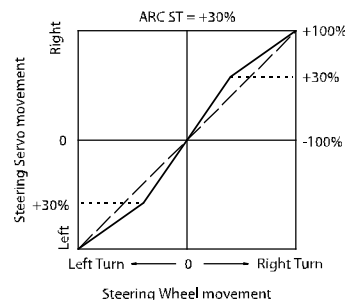
This ARC function is to change the correspond movement curve of the servo and operating stick. (steering wheel and throttle trigger) When ARC is 0%, then the movement curve is linear. All the default ARC percentage value is 0%. The detail setting and effect of this function are described as below.



#### 5.1) ARC/ST

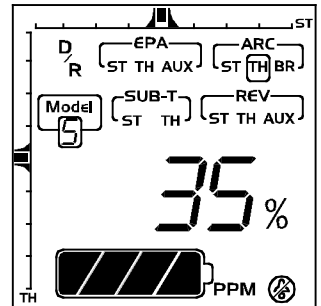
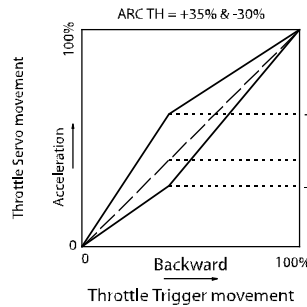
Basically, this function is to change the sensitivity of the steering servo around the neutral position. So this value setting will effect both sides (left and right) of the steering servo movement in the same time and same percentage.

Negative steering ARC setting will make it less sensitivity (slower) around the neutral point operating area and faster out of the neutral point area. Positive steering ARC will have the opposite effect.



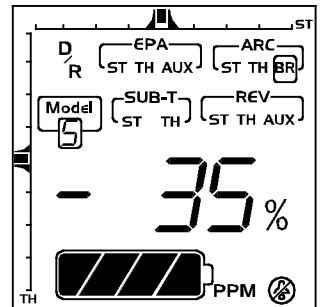
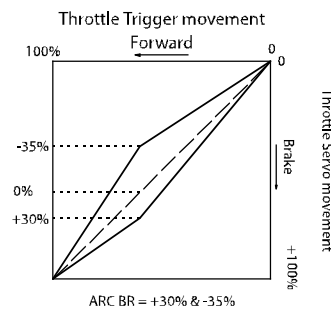
## 5.2) ARC/TH

This function is to adjust the sensitive of the accelerating. On the throttle servo, this value is to adjust the curve from neutral point to the full throttle position. Normally, the positive ARC/TH percentage will increase the “punch” feeling and negative ARC/TH will broaden the power band.



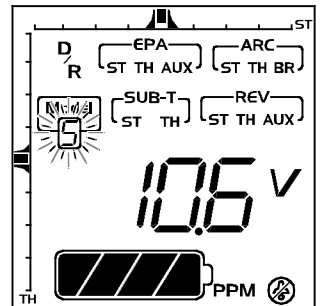
## 5.3) ARC/BR

This function is to adjust the sensitive of the brake feeling. On the throttle servo, this value is to adjust the curve from neutral point to the throttle full close position. The positive ARC/BR percentage will have quick brake and negative with milder brake.



## 6. Model Number

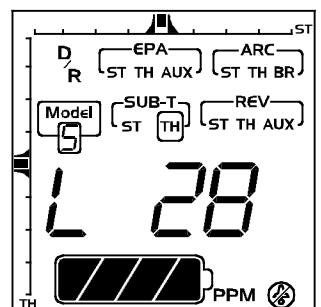
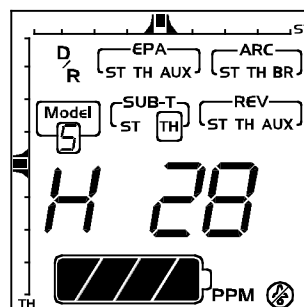
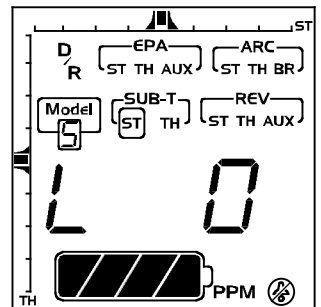
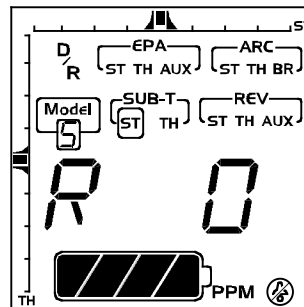
There are 10 set data can be saved in the radio memory code (Model 0~9). When you entry this function mode, the Model No will “flash” and show in the “Model” No icon. You can use up(+)/down(-) buttons to call the model you want to choose. When the radio is turn on, the model that you choose in last time will be re-called and show the model No on the model icon. Under the model No you choose, when you do any change of the function data, the data will be saved automatically.



## 7. SUB-T (Sub trim)

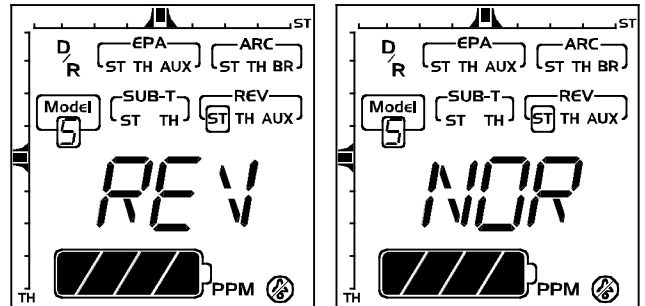
SUB-T(sub trim) function is to do the minor adjustment of the neutral point of the steering and throttle servos. Use the “up”(+) and “down”(-) buttons to do the adjustment. Under the SUB-T/ST mode, use the “up”(+) button to increase the movement of the steering servo neutral point toward right side and use the “down”(-) button toward left side. The default value will be 0 and show “R 0” on the display. If the adjusting is to the left side and over the default neutral point, then the “R” will be changed to “L”.

SUB-T/ST mode is to adjust the throttle servo. Use the same adjusting process as the SUB-ST, just the characters will be changed from R/L (right/left) to H/L (high/low).



## 8. REV (reverse) REV ST TH AUX

REV (reverse) function is to reverse the rotation direction of the servos related to transmitter operating. Entry this mode, the "NOR"(normal) or "REV"(reverse) will be showed on the display and can be switched by press the "up" (+) or "down" (-) buttons to change the direction. For each individual servo (steering, throttle & AUX) rotation direction can be changed to match the correct operating requirement.



## Frequency List

There are 4 main frequency (26Mhz/27Mz/40Mhz/75Mhz) are available for the Cougar P3i. Base on the difference country's regulation, you should choose the suitable frequency to match your country's rule. The following table show the difference band(crystal) available for each frequency.

26MHz(Red)		27MHz(Red)		40MHz(Yellow)		75MHz(Blue)	
FREQUENCY	CH NO.	FREQUENCY	CH NO.	FREQUENCY	CH NO.	FREQUENCY	CH NO.
26.815	261	26.995	4(1)	40.665	50	75.410	61
26.825	262	27.045	9(2)	40.675	51	75.450	63
26.835	263	27.095	14(3)	40.685	52	75.630	72
26.845	264	27.145	19(4)	40.695	53	75.670	74
26.855	265	27.195	24(5)	40.715	54	75.890	85
26.865	266	27.255	30(6)	40.775	58	75.930	87
26.875	267			40.825	82		
26.885	268			40.885	86		
26.895	269			40.965	90		
26.905	270			40.985	92		

Each frequency is assigned a colored flag. Attach this flag to the end of your transmitter antenna so that other modelers can determine you frequency from a distance. This is very important since it is not possible for more than one model to operate on the same frequency at the same time.

## FCC Rules and Regulations

You are responsible for the proper operation of your station (transmitter) at all times and are responsible for observations, servicing, and maintenance as often as may be necessary to ensure proper operation. Each internal repair and each internal adjustment to an FCC type accepted R/C transmitter must be made in accordance with the technical regulations specified by the FCC. The internal adjustments should be performed by, or under the immediate supervision and responsibility of, a person certified as technically qualified to perform transmitter maintenance and repair duties in the private land mobile services and fixed services by an organization or committee representative of users in those services.

The FCC at this time does not require the modeler to obtain a special license for the operation of this unit. However, it is still the owner's responsibility to observe all FCC rules & regulations governing its use. For a copy of these rules write to:

Federal Communications Commission  
Washington, DC 20554

## Using Caution at the Racing Track

- Always check if there is anyone operating on the same frequency. If so, make sure that you don't turn on at the same time.
- Do not operate the model or use the radio in rain, lightning, or at night.
- Do not operate the model or use the radio if you have been drinking alcohol or under the influence of any other substance that will affect your skills.
- Always check battery power before you operate.
- Always keep your transmitter clean: wipe it with a mild detergent or window cleaner if there is any fuel, oil, dirt, or dust on the transmitter.
- Keep out of reach of children.
- Do not store the radio in temperatures below -10 °C (14°F) or above 40°C (104°F) or in a humid, dusty, or high vibration environment. Keep the radio away from direct sunlight.
- To prevent corrosion, take out the batteries if you are going to store the radio for a long period.
- The servos will glitch at ±25° if there is any frequency at about 200~250 MHz nearby when using this radio.

## Accessories



AQ1682  
Cougar P3 TRANSMITTER Only



AQ1799-3-26  
TR301F Receiver, FM26Mhz  
AQ1799-3-27  
TR301F Receiver, FM27Mhz  
AQ1799-3-40  
TR301F Receiver, FM40Mhz  
AQ1799-3-75  
TR301F Receiver, FM75Mhz



AQ0487  
TR405A Receiver, AM27Mhz  
AQ0570  
TR405A Receiver, AM40Mhz



AQ1685-F-26  
Transmitter RF Module, FM26Mhz  
AQ1685-F-27  
Transmitter RF Module, FM27Mhz  
AQ1685-F-40  
Transmitter RF Module, FM40Mhz  
AQ1685-F-75  
Transmitter RF Module, FM75Mhz



AQ1684-A-26  
Transmitter RF Module, AM26Mhz  
AQ1684-A-27  
Transmitter RF Module, AM27Mhz  
AQ1684-A-40  
Transmitter RF Module, AM40Mhz



2970 Ni-MH BATTERY KIT(12pcs),  
w/110V CHARGER  
2971 Ni-MH BATTERY KIT(12pcs),  
w/230V/2P CHARGER  
2972 Ni-MH BATTERY KIT(12pcs),  
w/230V/3P CHARGER



AT2139  
TX/Rx CHARGER, 110V



AT2140  
TX/Rx CHARGER, 230V/2P



AT2141  
TX/Rx CHARGER, 230/3P



2927 Ni-MH BATTERY PACK/FLAT,  
4.8V/1200mAH 2/3A



2939 Ni-MH BATTERY PACK/  
SQUARE, 4.8V/1200mAH 2/3A



2969-J/S Ni-MH BATTERY PACK/  
FLAT, 4.8V/1100mAH AA



2946 Ni-MH BATTERY PACK/  
FLAT, 9.6V/1100mAH AA



8114 STANDARD SERVO,  
S1903



8121 STADARD SERVO,  
S1903MG



8118 HIGH TORQUE SERVO,  
S2008MG



8120 HIGH TORQUE SERVO,  
S1807MG



8126 DIGITAL SERVO,  
DS1213



8127 DIGITAL SERVO,  
DS1015



8117 MINI SERVO, C1016



## Service

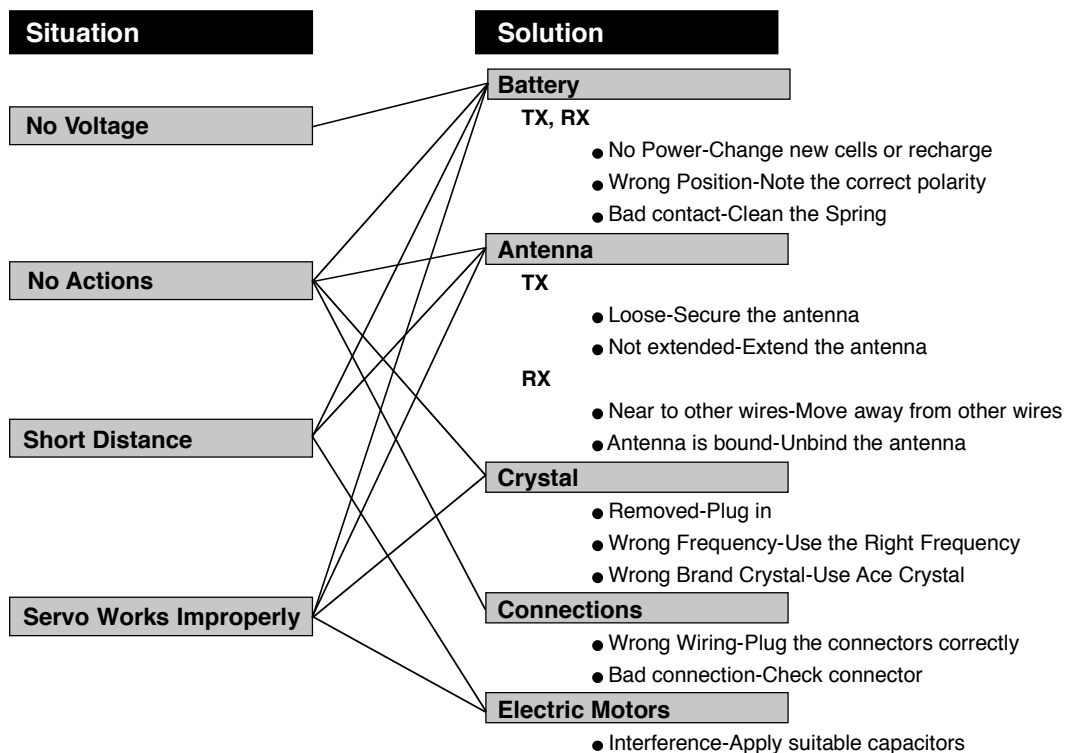
Thank you for purchasing of the ACE RC COUGAR Radio. Thunder Tiger strives to bring you the highest level of quality and service we can provide. We race and test our products around the world to bring you state-of-the-art items. Thunder Tiger guarantees that you should enjoy many hours of trouble free use from our R/C products. Thunder Tiger products have been sold worldwide through the authorized distributors that are supported directly and rapidly from Thunder Tiger. You may find that Thunder Tiger is always pursuing to explore new items creatively with highest quality. To update the latest product information and to get the best technical support, please feel free to contact your local hobby shops or Thunder Tiger authorized distributor.

### TROUBLE SHOOTING

Do not try to operate your model if you find your radio is not working properly. Check out the radio as following steps. If you can not solve the problems then contact with the Thunder Tiger authorized distributor for service.

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Manufactured by

**THUNDER TIGER CORP.**

<http://www.thundertiger.com>

JJ6071