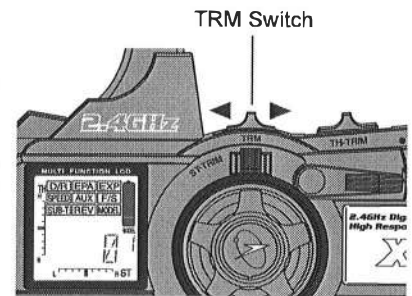


PROGRAMMING MENU

Changing Power Distribution


If desired, the Power Distribution between the Front Throttle and the Rear Throttle can be adjusted to suit your particular setup by adjusting the Throttle High End Point Adjustment for each Throttle. For example, you could adjust the Front Throttle for 100% and the Rear Throttle for 70%. This will distribute more power to the front wheels. To do this, adjust the EPA-TH H End Point Adjustment percentage value to 100% and adjust the EPA-AUX H End Point Adjustment percentage value to 70%. For more information, see page 18.

In addition, you can change the Power Distribution of either the Front Throttle OR the Rear Throttle during use using the TRM switch. For example, you can use this feature to provide more power to the Front wheels by reducing the power to the Rear wheels. To do this, assign either the Throttle High function (to control Throttle Channel 2 EPA High) or the Auxiliary Channel 3 High function (to control Auxiliary Channel 3 EPA High) to the TRM switch. With this setup, the TRM switch will control either the Front Throttle High End Point Adjustment or the Rear Throttle High End Point Adjustment. For more information, see page 41.

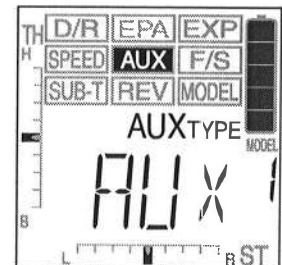


BRAKE - BRAKE MIXING

The Brake Mixing function allows you to use Auxiliary Channel 3 as a second Brake. This function is used primarily with 1/5th scale gas-powered models or other types of models that use two separate brake servos. A Brake Hold function is also featured, which allows you Hold the Auxiliary Channel 3 Brake in the last position it was in when the Brake Hold function is Activated. For example, if your model features two separate brake servos, you can use the Brake Hold feature to keep your model from rolling forward during the start-up process.

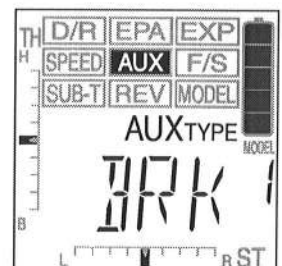
 Prior to programming the Brake Mixing function, the Auxiliary Lever should be in the OFF position (pushed DOWN).


1) Press the Right or Left MENU key to highlight the AUX menu. AUX will be displayed in the Programming Window.



2) Press the +/INC or DEC/- keys until BRK is displayed in the Programming Window and flashing.

3) To select the BRK menu, press and HOLD the +/INC and DEC/- keys at the same time. When selected, BRK will stop flashing.

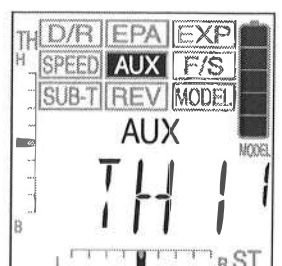


 Once the BRK menu is selected, the Brake Mixing function will be Activated. When you apply brake using the Throttle Trigger, both the Throttle Channel 2 Brake and the Auxiliary Channel 3 Brake will operate in unison.

Choosing the Throttle Channel Option

1) From within the BRK menu, press the Right MENU key. AUX TH1 will be displayed in the Programming Window.

2) Press the +/INC or DEC/- keys to choose the desired Throttle Channel option, either TH1 or TH2.



AUX-TH setting range is TH1 and TH2. The default setting is TH1.

PROGRAMMING MENU

Choosing the Throttle Channel Option. Continued...

Two Throttle Channel options are available as described below:

TH1 - Exponential and Servo Speed settings affect Channel 2 Throttle Brake Side only.

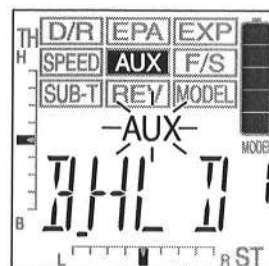
TH2 - Exponential and Servo Speed settings affect both Channel 2 and Auxiliary Channel 3 Throttle Brake Sides equally.

⚠ Regardless of choice, Auxiliary Channel 3 Throttle servo Brake Side Exponential and Servo Speed are not adjustable separately.

Using the Brake Hold Function

1) To use the Brake Hold function, move the Auxiliary Lever to the ON position (pushed UP). AUX B_HLD will be displayed and AUX will flash in the Programming Window.

⚠ When using the Brake Hold function, the Auxiliary Channel 3 Brake servo will Hold in the last position it was in when the Brake Hold function is Activated, while still maintaining full control over the Channel 2 Throttle and Brake.

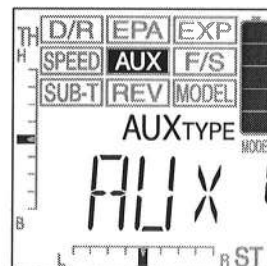


A MIX - AUXILIARY MIXING

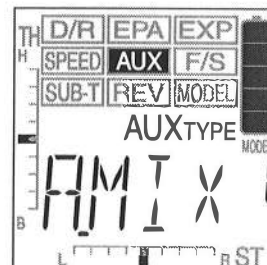
The Auxiliary Mixing function allows you to Mix either Steering Channel 1 or Throttle Channel 2 to Auxiliary Channel 3, while maintaining separate End Point Adjustments, Servo Reversing, and other channel-specific settings. The Auxiliary Mixing function is useful for when a custom Mix is necessary. For example, if your monster truck features dual Front steering servos, instead of using a Y-Harness to join the two steering servos together, you can use Steering to Auxiliary Mixing to operate both steering servos together and still be able to make fine-tuned adjustments to each servo separately. In addition, if your model features a remotely adjustable rear wing, you could use Throttle to Auxiliary Mixing to raise and lower the rear wing as you increase and decrease the throttle.

⚠ Prior to programming the Auxiliary Mixing function, the Auxiliary Lever should be in the OFF position (pushed DOWN).

1) Press the Right or Left MENU key to highlight the AUX menu. AUX will be displayed in the Programming Window.



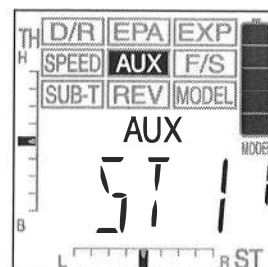
2) Press the +/INC or DEC/- keys until A_MIX is displayed in the Programming Window and flashing.



3) To select the A_MIX menu, press and HOLD the +/INC and DEC/- keys at the same time. When selected, A_MIX will stop flashing.

Choosing the Master Channel and Steering and Throttle Channel Options

1) From within the A_MIX menu, press the Right MENU key. AUX ST1 will be displayed in the Programming Window.

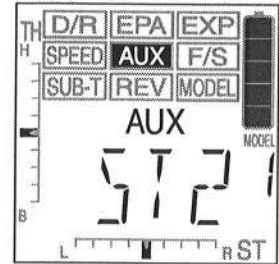


PROGRAMMING MENU

Choosing the Master Channel and Steering and Throttle Channel Options. Continued....

- 2) Press the +/INC or DEC/- keys to choose the desired Master Channel and that specific Channel option. The Master channel is the channel you would like to Mix with Auxiliary Channel 3. For example, if your monster truck features dual Front steering servos, choose ST1 or ST2. Or, if you want your Throttle to control a separate servo, choose TH1 or TH2.

AUX-A_MIX setting range is ST1, ST2, TH1, or TH2. The default setting is ST1.



Two Steering Channel options and two Throttle Channel options are available as described below:

ST1 - Steering Dual Rate, Exponential, and Servo Speed settings affect Channel 1 Steering Servo only.

ST2 - Steering Dual Rate, Exponential, and Servo Speed settings affect both Channel 1 and Auxiliary Channel 3 Steering servos equally.

TH1 - Exponential and Servo Speed settings affect Channel 2 Throttle Brake Side only.

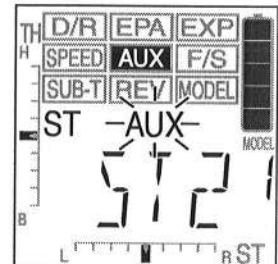
TH2 - Exponential and Servo Speed settings affect both Channel 2 and Auxiliary Channel 3 Throttle Brake Sides equally.

! Regardless of choice, Auxiliary Channel 3 servo Steering Dual Rate, Steering/Throttle Exponential and Steering/Throttle Servo Speed are not adjustable separately.

Using the Auxiliary Mixing Function

- 1) To use the Auxiliary Mixing function, move the Auxiliary Lever to the ON position (pushed UP). A_MIX and either ST AUX or TH AUX (depending on the Master channel chosen) will be displayed and AUX will flash in the Programming Window.

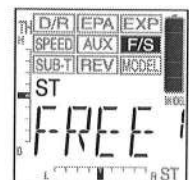
! The Master channel (either Steering Channel 1 or Throttle Channel 2) always controls the Slave channel (Auxiliary Channel 3).



! With the Auxiliary Mixing function Activated, you can press the +/INC or DEC/- keys during use to switch between the different Mixes (ST1, ST2, TH1, and TH2 described above). When you do this, the radio control system will change to the chosen Mix immediately and that specific Mix will be displayed momentarily in the Programming Window before reverting to A_MIX. Do this with caution as unintended consequences could result!

F/S - FAIL SAFE

The Fail Safe function automatically moves the servos to a predetermined position in the event that the signal between the transmitter and the receiver is interrupted, whether due to signal degradation or to low transmitter battery. Several different setting options are available. The Fail Safe function can be set to Hold the servos in the last position they were in when the signal was lost, or each of the servos can be set to move to a custom position when the signal is lost. For example, the throttle servo moves to the Brake Side to engage the brakes and stop your model. If you're driving a gas- or glow-powered boat, the Fail Safe function could be set to lower the throttle to idle and turn the rudder slightly left or right so that the boat will continue in slow circles.



In addition, a Receiver Battery Voltage Fail Safe function is available which allows you to set a custom voltage that the Receiver Battery Fail Safe function will Activate at. This is useful if you're using servos with a higher than normal current draw that might run out of power before the receiver does.

Setting the Fail Safe

! Fail Safe can be set on each of the three channels individually. In addition, Fail Safe settings are Model-specific, meaning you can have different Fail Safe settings for each Model in memory. The Fail Safe settings will be retained even if the transmitter loses power or if the transmitter and receiver must be paired again.

Three Fail Safe options are available for each channel as described below:

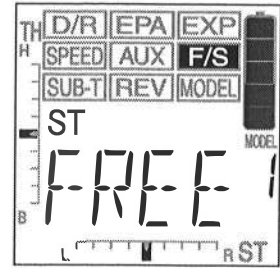
FREE - Fail Safe is disabled for this channel. Servos can move freely when the signal is lost.

HOLD - When Fail Safe Activates, the servo will be held in the last position it was in when the signal was lost.

% (PERCENTAGE) - When Fail Safe Activates, the servo will go to a predetermined position when the signal is lost.

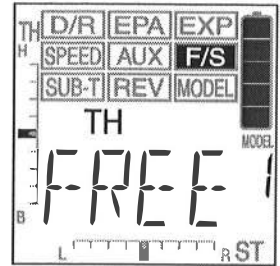
PROGRAMMING MENU

- 1) Press the Right or Left MENU key to highlight the F/S menu. ST FREE will be displayed in the Programming Window.



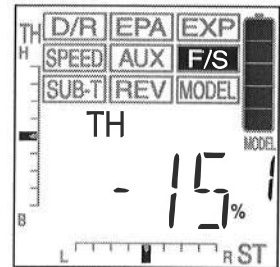
- 2) From within the F/S menu, press the Right MENU key to display TH FREE.
- 3) Press the +/INC or DEC/- keys to set the desired Fail Safe option for the Throttle channel. If you choose to use a predetermined % value, see step 5 below.

FAIL SAFE setting range is FREE, HOLD, or %. The default setting is FREE.



! If FREE or HOLD is chosen for the Throttle channel, you cannot Activate the Receiver Battery Voltage Fail Safe function. A % value must be chosen for the Throttle channel to be able to Activate the Receiver Battery Fail Safe function.

- 4) To set the Throttle Fail Safe to a predetermined position (% value), push the throttle trigger toward the Brake Side the amount you want the throttle servo to move to when Fail Safe Activates, then press the +/INC and DEC/- keys at the same time. The percentage the throttle servo will travel will be displayed in the Programming Window.



- 5) If desired, repeat the previous procedures to set the Fail Safe settings for the Steering channel and Auxiliary Channel 3.
- 6) Check to ensure your Fail Safe settings are working properly prior to running your model. For safety, it's preferable to have someone hold your model. To check the Fail Safe settings, make sure that both the transmitter and receiver are turned ON, then, while someone is holding your model, turn the transmitter OFF. The servos should react correctly based on the Fail Safe option chosen.

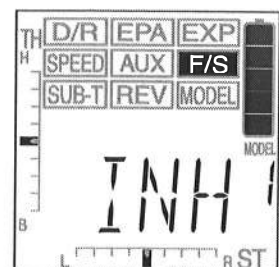
Receiver Battery Voltage Fail Safe Function

The Receiver Battery Voltage Fail Safe function allows you to set a custom voltage that the Receiver Battery Fail Safe function will Activate at. When your receiver battery voltage drops to the programmed voltage, the throttle servo will move to the predetermined position as described in step 4 above. If this occurs, recharge or replace your receiver batteries.

! If FREE or HOLD is chosen for the Throttle channel, you cannot Activate the Receiver Battery Voltage Fail Safe function. A % value must be chosen for the Throttle channel to be able to Activate the Receiver Battery Fail Safe function.

! The Receiver Battery Voltage Fail Safe function works only with FHSS-3 receivers. It is not supported when used with FHSS-2 receivers.

- 1) Follow steps 1 through 5 above to set a predetermined Throttle Fail Safe percentage value.
- 2) From within the F/S menu, press the Right MENU key to cycle through ST, TH, and AUX, then press the Right MENU Key again. INH will be displayed in the Programming Window.

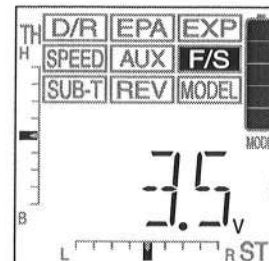


PROGRAMMING MENU

- 3) Press the +/INC or DEC/- keys to set the desired Receiver Battery Fail Safe Voltage.

VOLTAGE setting range is 3.5v to 5.0v. The default value is INH (Inhibited)

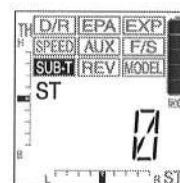
! The receiver will operate down to 2.5 volts, however, the minimum operating voltage of most servos is higher than that. The voltage should be set to a value that will allow all of your servos to operate at maximum output. You will need to check your servo's specifications to determine the minimum voltage required for the compliment of servos you're using.



SUB-T - SERVO SUB-TRIM

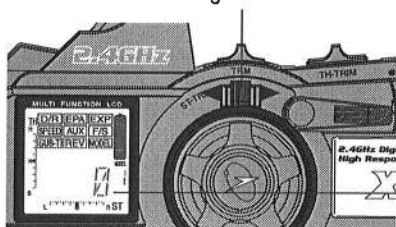
The Sub-Trim function allows you to correct the neutral trim setting for steering and throttle, making it possible to center the trim switches while ensuring the steering and throttle servo horns remain centered. It's not unusual that when you center a servo and install the servo horn, the servo horn is not perfectly centered. The Sub-Trim function allows you to center the servo horn perfectly, without altering the servo End Point travel. The Sub-Trim function can also be used for Auxiliary Channel 3 when it is being used with a Mix. For example, you can use the Sub-Trim function to adjust the neutral trim setting of your front and rear steering servos independently when the Four Wheel Steering Mixing function is used.

! Before adjusting the Sub-Trim function you should set the Steering Trim to '0' and the Throttle Trim to '0' using the ST-TRM and TH-TRM switches.



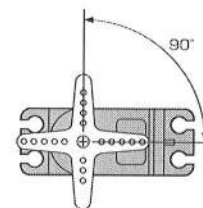
Adjusting the Steering Sub-Trim

Steering Trim Switch

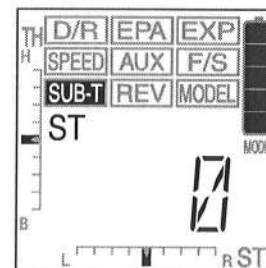


- 1) Set the Steering Trim to '0' using the ST-TRIM switch. Push the ST-TRIM switch forward to increase Steering Trim in one direction and pull the ST-TRIM switch back to increase Steering Trim in the opposite direction. The current amount of Steering Trim is indicated on the LCD in both digital format in the Programming Window and in scaled format along the bottom of the LCD.

- 2) Install the servo horn (or servo saver) onto your steering servo, making sure that the servo horn (or servo saver) is as close to being centered as possible. In some cases, if using a servo horn, you can get the servo horn closer to being centered by rotating the servo horn 180° and reinstalling it.



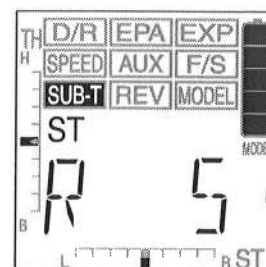
- 3) Press the Right or Left MENU key to highlight the SUB-T menu. ST 0 will be displayed in the Programming Window.



- 4) Press the +/INC or DEC/- keys to adjust the Steering Sub-Trim value to center the servo horn.

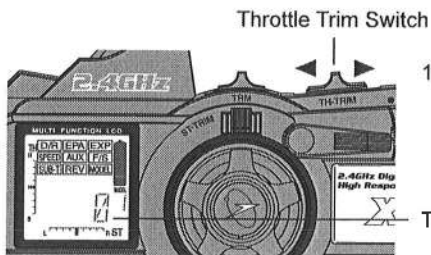
SUB-T ST setting range is 100L to 100R. The default setting is 0.

! After adjusting the Steering Sub-Trim value, use the End Point Adjustment function to reset the desired amount of servo travel in both directions. For more information, see page 17.



PROGRAMMING MENU

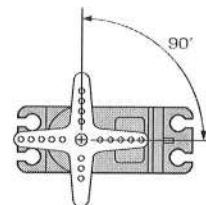
Adjusting the Throttle Sub-Trim



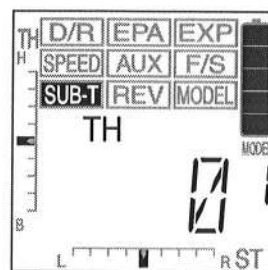
- 1) Set the Throttle Trim to '0' using the TH-TRIM switch. Push the TH-TRIM switch forward to increase Throttle Trim in one direction and pull the TH-TRIM switch back to increase Throttle Trim in the opposite direction. The current amount of Throttle Trim is indicated on the LCD in both digital format in the Programming Window and in scaled format along the left side of the LCD.

- 2) Install the servo horn onto your throttle servo, making sure that the servo horn is as close to being centered as possible. In some cases, you can get the servo horn closer to being centered by rotating the servo horn 180° and reinstalling it.

! If your model features an Electronic Speed Control, the use of the Throttle Sub-Trim function is not necessary.



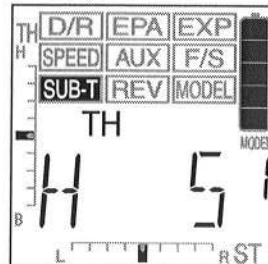
- 3) From within the SUB-T menu, press the Right MENU key to display TH 0.



- 4) Press the +/INC or DEC/- keys to adjust the Throttle Sub-Trim value to center the servo horn.

SUB-T TH setting range is 100H to 100L. The default setting is 0.

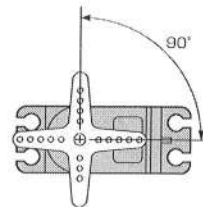
! After adjusting the Throttle Sub-Trim value, use the End Point Adjustment function to reset the desired amount of servo travel in both directions. For more information, see page 18.



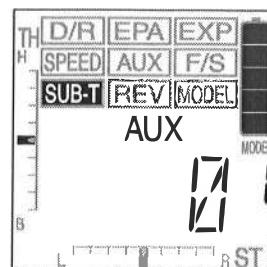
Adjusting the Auxiliary Channel 3 Sub-Trim

! The Auxiliary Channel 3 Sub-Trim cannot be adjusted if the Auxiliary High and Low function is chosen in the AUX menu. In this case, dashes will be displayed in the Programming Window when SUB-T AUX is selected.

- 1) Install the servo horn onto your Auxiliary Channel 3 servo, making sure that the servo horn is as close to being centered as possible. In some cases, you can get the servo horn closer to being centered by rotating the servo horn 180° and reinstalling it.



- 2) From within the SUB-T menu, press the Right MENU key to display AUX 0.



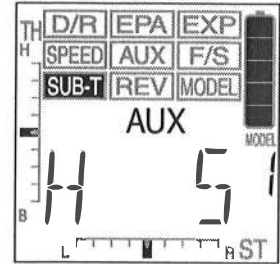
PROGRAMMING MENU

Adjusting the Auxiliary Channel 3 Sub-Trim, Continued...

- 3) Press the +/INC or DEC/- keys to adjust the Auxiliary Channel 3 Sub-Trim value to center the servo horn.

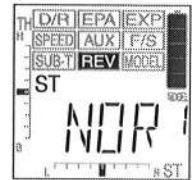
SUB-T AUX setting range is 100H to 100L. The default setting is 0.

- ! After adjusting the Auxiliary Channel 3 Sub-Trim value, use the End Point Adjustment function to reset the desired amount of servo travel in both directions. For more information, see page 19.



REV - SERVO REVERSING

The Servo Reversing function allows you to electronically switch the direction of servo travel. For example, if you move the steering wheel to the right, and the steering servo moves to the left, you can use the Servo Reversing function to make the steering servo move to the left. The Servo Reversing function is available for all three channels.



Changing Steering Servo Reversing

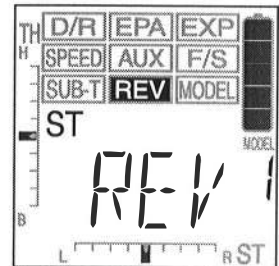
- 1) Press the Right or Left MENU key to highlight the REV menu. ST NOR will be displayed in the Programming Window.



- 2) Press the +/INC or DEC/- keys to change the direction of Steering servo travel.

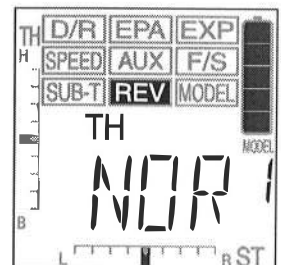
REV-ST setting range is NOR and REV. The default setting is NOR.

- ! When you change the direction of Steering servo travel, the servo horn may no longer be centered. If this occurs, use the Steering Sub-Trim function to center the servo horn. For more information, see page 35.



Changing Throttle Servo Reversing

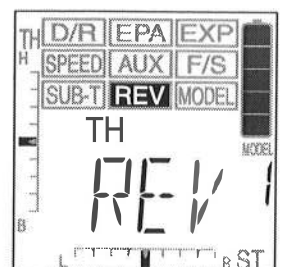
- 1) From within the REV menu, press the Right MENU key to highlight TH NOR.



- 2) Press the +/INC or DEC/- keys to change the direction of Throttle servo travel.

REV-TH setting range is NOR and REV. The default setting is NOR.

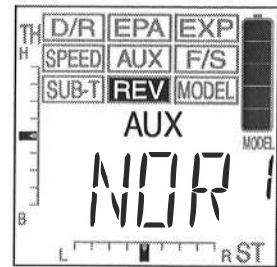
- ! When you change the direction of Throttle servo travel, the servo horn may no longer be centered. If this occurs, use the Sub-Trim function to center the servo horn. For more information, see page 36.



PROGRAMMING MENU

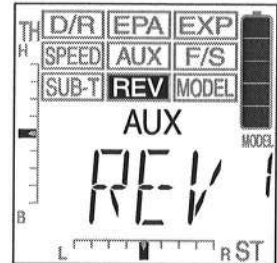
Changing Auxiliary Channel 3 Servo Reversing


- 1) From within the REV menu, press the Right MENU key to highlight AUX NOR.



- 2) Press the +/INC or DEC/- keys to change the direction of Auxiliary Channel 3 servo travel.

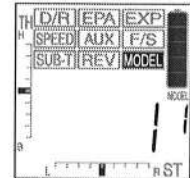
REV-AUX setting range is NOR and REV. The default setting is NOR.



 When you change the direction of Auxiliary Channel 3 servo travel, the servo horn may no longer be centered (except if the Auxiliary High and Low function is chosen in the AUX menu). If this occurs, use the Sub-Trim function to center the servo horn. For more information, see page 36.

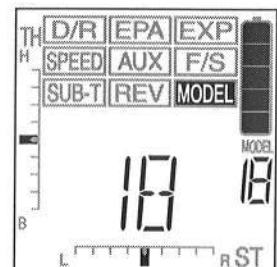
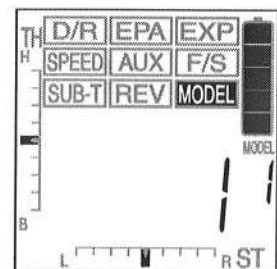
MODEL - MODEL SELECT

The Model Select function allows you to store and retrieve Programming Data for any model 1 through 18. If you have Programming Data stored for more than one model, using the Model Select function to load the Programming Data for the particular model that you wish to use. The currently selected Model Number is displayed below the Battery Indicator.



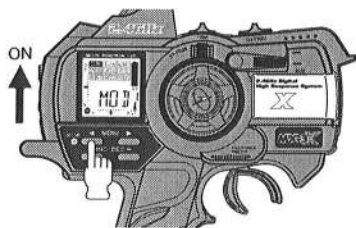
Selecting a Model

- 1) Press the Right or Left MENU key to highlight the MODEL menu. The Model Number currently in memory will be displayed in the Programming Window.
- 2) Press the +/INC or DEC/- keys to select the desired Model Number 1 through 18. The currently displayed Model Number below the Battery Indicator will flash.
- 3) To load the currently displayed Model Number Programming Data into memory, press and HOLD the +/INC and DEC/- keys at the same time. When loaded, the Model Number will stop flashing.





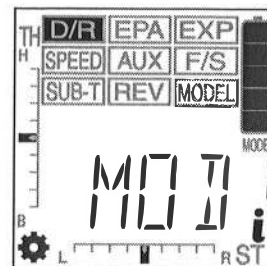
WARNING Model Programming Data changes immediately upon selection. Do not attempt to change the Model Number when your model's receiver is turned ON under actual operational conditions. You may lose control of your model or the servos may be damaged.

SETUP MENU

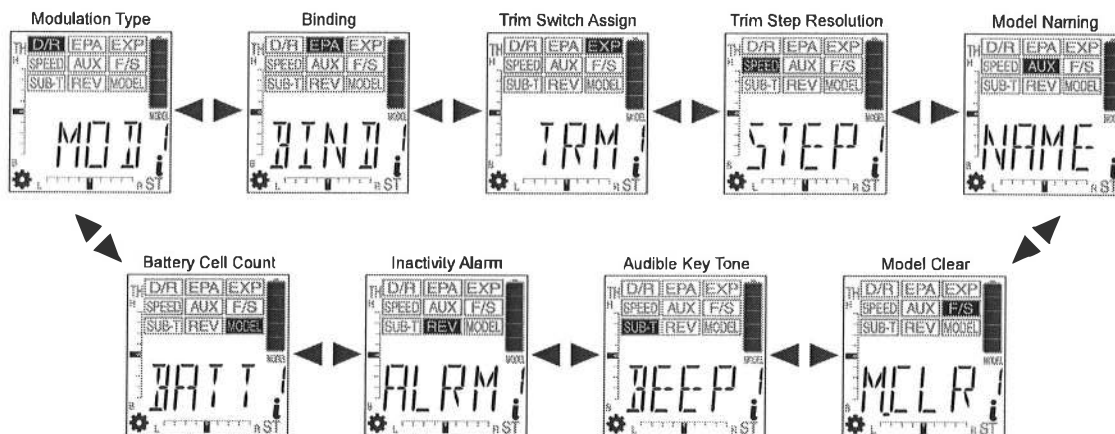


To enter the SETUP menu, press and hold the Left MENU key and turn the transmitter ON.

! All SETUP menu options displayed are indicated by the Setup Menu  icon in the lower left corner of the LCD. The  icon indicates that you are at the top level of that specific menu.



The following SETUP menu options are available by repeatedly pressing the Right MENU key or the Left MENU key:



! Because certain areas of the LCD are printed onto the display, the PROGRAMMING menu selections displayed will NOT change when cycling through the various SETUP menu options. This is normal because those areas of the LCD are printed onto the display. For example, when D/R is highlighted, MOD will be displayed in the Programming Window.

MOD - MODULATION TYPE

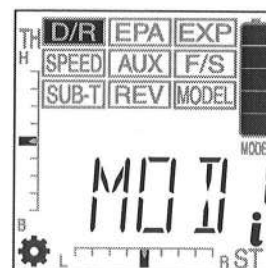
The Modulation Type function allows you to choose the transmitter Modulation Type. The Modulation Type can be changed to match the receiver you're using. For example, if you wish to use an Airtronics 2.4GHz FHSS-2 receiver with your transmitter, you would need to change the Modulation Type to FH2 prior to Binding your transmitter and receiver. Modulation Type is model-specific, meaning that you can have one model use FH3 Modulation and another model use FH2 Modulation, etc.



Choosing the Modulation Type

- 1) Press the Right or Left MENU key to highlight the D/R menu. MOD will be displayed in the Programming Window.
- 2) Press the +/INC or DEC/- keys to display the desired Modulation Type that matches the receiver that you're using. The Modulation Type displayed that's not currently in use will begin to flash.

MOD setting range is FHS3, FH3F, FH2, and DS2. The default setting is FH3.



The following Modulation Type options are available:

FH2 - Select this Modulation Type when using Airtronics 2.4GHz FHSS-2 receivers.

FH3 - Select this Modulation Type when using Airtronics 2.4GHz FHSS-3 receivers.

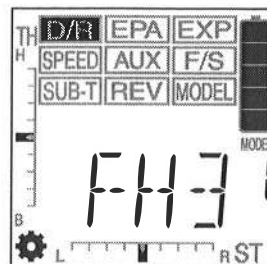
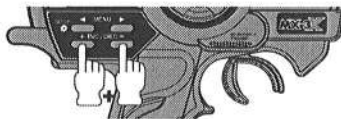
FHF3 - This Modulation Type is NOT used in North America. This Modulation Type is typically used in France.

DS2 - This Modulation Type is NOT used in North America. This Modulation Type is typically used in Japan.

SETUP MENU

Choosing the Modulation Type. Continued...

- 3) To choose the displayed Modulation Type, press and hold both the +/INC and DEC/- keys at the same time for approximately 1 second. The transmitter will beep and the Modulation Type displayed will stop flashing.




WARNING Do not attempt to change the Modulation Type when your model's receiver is turned ON under actual operational conditions. The transmitter will lose communication with the receiver and loss of control will result.

BIND - BINDING

The Binding function allows you to 'Bind' the transmitter and receiver pair. When new, it is necessary to pair the transmitter and receiver to prevent interference from radio controllers operated by other users. This operation is referred to as 'Binding'. Once the Binding process is complete, the setting is remembered even when the transmitter and receiver are turned OFF. Therefore, this procedure usually only needs to be done once. Under some circumstances, the receiver may not operate after turning the transmitter and receiver ON. If this occurs, perform the Binding process again.

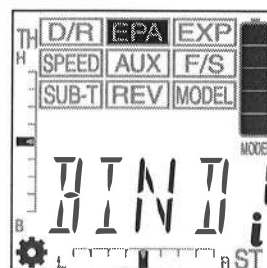


 The MX-3X 2.4GHz FHSS-3 radio control system uses FHSS-3 technology, however, the transmitter is compatible with both FHSS-3 and FHSS-2 Airtronics 2.4GHz receivers. To bind the transmitter to an Airtronics FHSS-2 2.4GHz receiver (available separately), the transmitter Modulation Type must first be changed to FH2. For more information, see page 39.

 Before beginning the Binding process, connect your servos and battery to the receiver, using the diagram on page 11. Make sure that the receiver is turned OFF and that the transmitter is turned ON and in the SETUP menu.

Transmitter and Receiver Binding

- 1) Press the Right or Left MENU key to highlight the EPA menu. BIND will be displayed in the Programming Window.




- 2) While holding down the Bind Button on the receiver, turn the receiver ON. The Bind LED on the receiver will flash slowly. After approximately 2 seconds, release the Bind Button. The Bind LED on the receiver will continue to flash slowly.



 Use the tip of a pencil or a 1.5mm hex wrench to reach the Bind Button on the receiver.

- 3) Press the +/INC key on the transmitter. PUSH INC will flash in the Programming Window.

 After releasing the Bind Button, you must press the +/INC key quickly (within a couple of seconds). If you take too much time, you may need to restart the Binding process.

