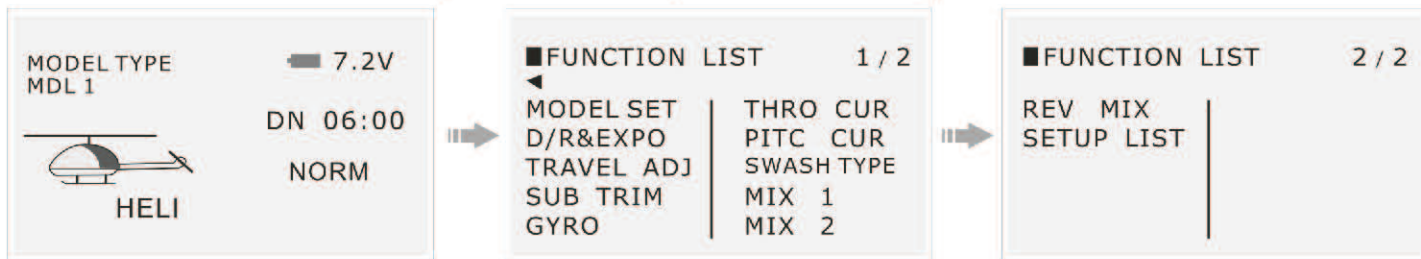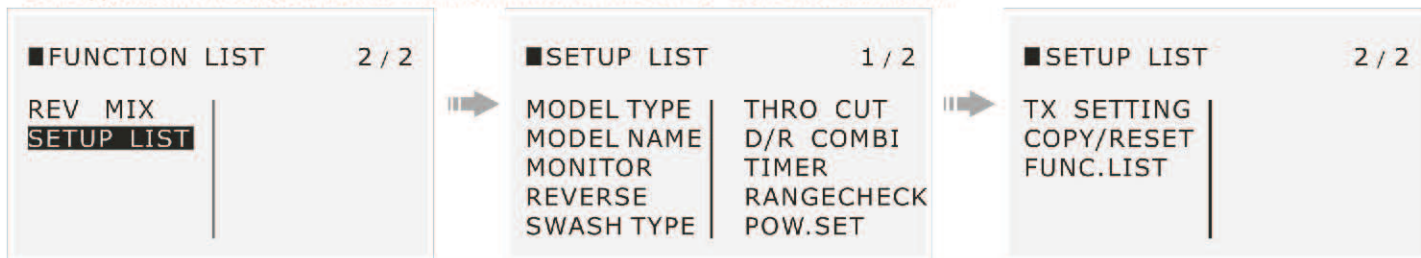# Helicopter Mode:

The i6S organizes the programming screens in two separate categories: FUNCTION LIST and SET UP LIST. The FUNCTION LIST contains programming that is generally used when initially setting up a model, and seldom used at the field. SET UP LIST functions includes Model Type, Model Name, Wing Type, (Swashplate Type for Helis) Model Reset, etc. Note: No radio transmission occurs when a System Setup screen is displayed to prevent accidental servo operation. This protects linkages/servo gears from damage when making programming changes.

FUNCTION LIST and SET UP LIST in Airplane and Heli Model type includes the following screens:

```
MODEL TYPE        ▬ 7.2V
MDL 1
                  DN 06:00
                  NORM
      HELI
```

```
■FUNCTION LIST        1 / 2
◄
MODEL SET    THRO CUR
D/R&EXPO     PITC CUR
TRAVEL ADJ   SWASH TYPE
SUB TRIM     MIX  1
GYRO         MIX  2
```

```
■FUNCTION LIST        2 / 2

REV  MIX
SETUP LIST
```

Helicopter SETUP LIST:
Rotating the ROLLER to the SET UP LIST from FUNCTION LIST, then press the ROLLOER to select the SET UP LIST. When SET UP LIST appears on the screen, release the roller. And all of the SET UP LIST shows as below.
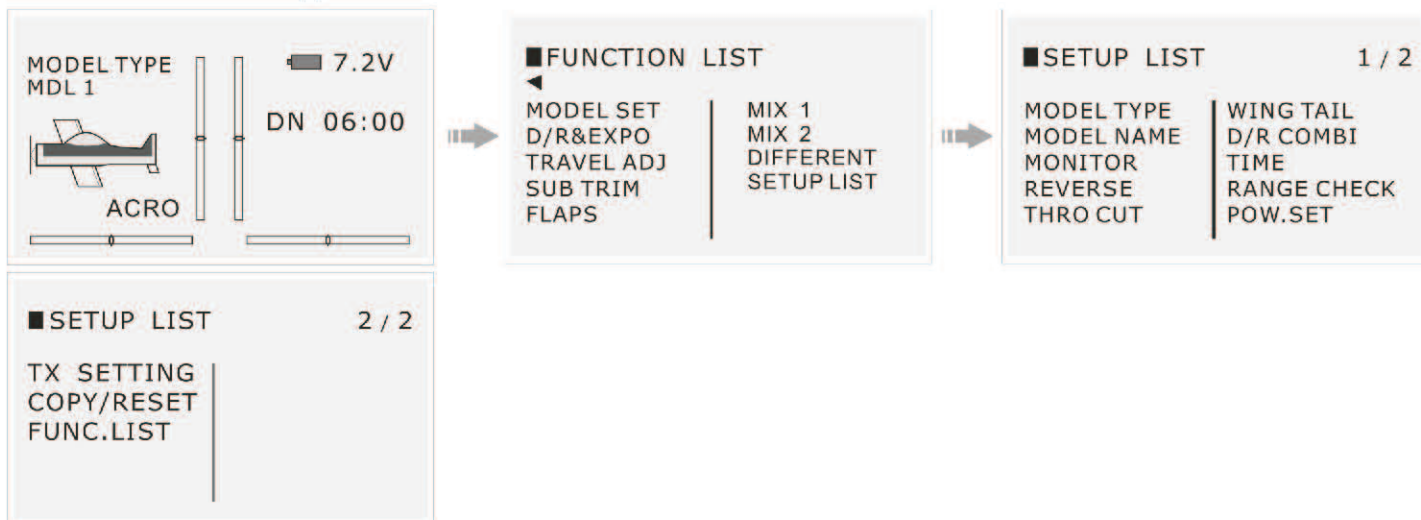
```
■FUNCTION LIST        2 / 2

REV  MIX
SETUP LIST
```

```
■SETUP LIST          1 / 2

MODEL TYPE    THRO CUT
MODEL NAME    D/R COMBI
MONITOR       TIMER
REVERSE       RANGECHECK
SWASH TYPE    POW.SET
```

```
■SETUP LIST          2 / 2

TX SETTING
COPY/RESET
FUNC.LIST
```

HELICOPTER FUNCTION LIST

1.MODEL SET	7.PITC CUR
2.D/R & EXPO	8.SWASH MIX
3.TRAVEL ADJ	9.MIX 1
4.SUB TRM	10. MIX 2
5.GYRO	11. REV MIX
6.THRO CUR	12.SETUP LIST

HELICOPTER SETUP LIST

13. MODEL TYPE	19. D/R COMBI	25.FUNC.LIST
14. MODEL NAME	20. TIME	
15. MONITOR	21. RANGE CHECK	
16. REVERSE	22. POW. SET	
17. SWASH TYPE	23. TX SETTING	
18. THRO CUT	24. COPY/RESET	

Airplane Mode:

Airplane SET UP LIST: Rotating the ROLLER to the SET UP LIST from FUNCTION LIST, then press the ROLLOER to select the SET UP LIST. When SET UP LIST appears on the screen, release the roller. And all of the SET UP LIST shows as below.
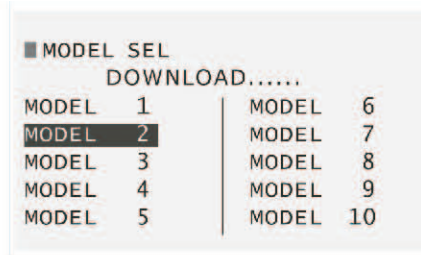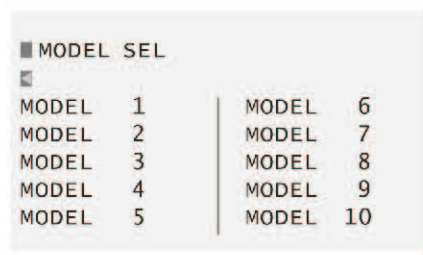
```
MODEL TYPE        ▬ 7.2V
MDL 1
                  DN 06:00

      ACRO
```

```
■FUNCTION LIST
◄
MODEL SET     MIX 1
D/R&EXPO      MIX 2
TRAVEL ADJ    DIFFERENT
SUB TRIM      SETUP LIST
FLAPS
```

```
■SETUP LIST          1 / 2

MODEL TYPE    WING TAIL
MODEL NAME    D/R COMBI
MONITOR       TIME
REVERSE       RANGE CHECK
THRO CUT      POW.SET
```

```
■SETUP LIST          2 / 2

TX SETTING
COPY/RESET
FUNC.LIST
```

AIRPLANE FUNCTION LIST

26.MODEL SET	32.MIX 2
27.D/R & EXPO	33.DIFFERENT
28.TRAVEL ADJ	34.SETUP LIST
29.SUB TRM	
30.FLAPS	
31.MIX 1	

Airplane SET UP LIST

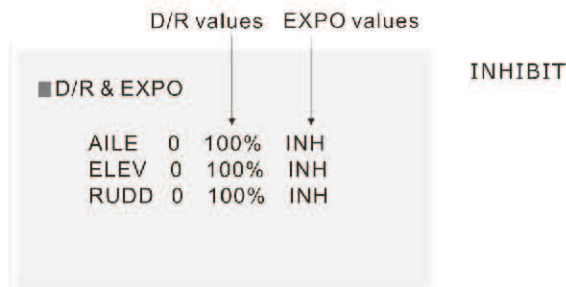|	
35. MODEL TYPE	41. D/R COMBI
36. MODEL NAME	42. TIME
37. MONITOR	43. RANGE CHECK
38. REVERSE	44. POW. SET
39. THRO CUT	45. TX SETTING
40. WING TAIL	46. COPY/RESET
	47.FUNC.LIST

1.MODEL SET : to access the MODEL SELECT function through FUNCTION LIST.

■ MODEL SEL			
◁			
MODEL	1	MODEL	6
MODEL	2	MODEL	7
MODEL	3	MODEL	8
MODEL	4	MODEL	9
MODEL	5	MODEL	10

■ MODEL SEL			
DOWNLOAD......			
MODEL	1	MODEL	6
MODEL	2	MODEL	7
MODEL	3	MODEL	8
MODEL	4	MODEL	9
MODEL	5	MODEL	10

" B B B "

In this screen, the establishing of models, for the model memories can be up 10 models for freely registered.
Press and hold the roller while turning on the transmitter. When FUNCTION LIST appears on screen, release the roller. Then rotate the ROLLER to Highlight Model Select, and then press the roller to access the function shows as above pictures.
Rotate the roller to highlight the desired model then press to select. Then "download... ..."showing on the Screen for seconds, while three "B B B" sounds, it means set up successful, and returns to the previous Screen. The model name will display on the main screen.

2.D/R & EXPO: D/R & EXPONETIAL

D/R values   EXPO values

■ D/R & EXPO			
AILE	0	100%	INH
ELEV	0	100%	INH
RUDD	0	100%	INH

INHIBIT

Dual Rates and exponentials are available on the aileron, elevator and rudder channels. You can assign them to numerous switches including the light mode switch.
Dual Rate:
Affects the overall travel which in turn affects control response sensitivity equally throughout the range of that channel. Reducing the dual rate reduces the maximum control rate as well as overall sensitivity.
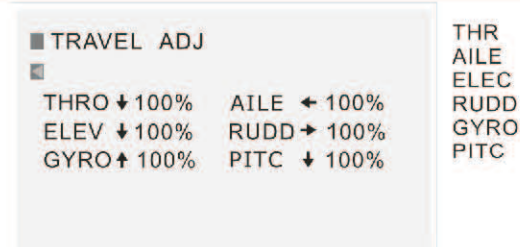**Exponential:**
Affects the sensitivity around center but has no affect on the overall travel. Positive Exponential reduces control sensitivity around neutral for more precise control but does not affect the maximum control response.
Note:
Positive and negative exponential values are available. A positive expo value reduces control sensitivity around center. It does not affect maximum travel and is recommended. Negative exponential values increase sensitivity around neutral and is seldom used.

3.TRAVEL ADJ: TRAVEL ADJUST

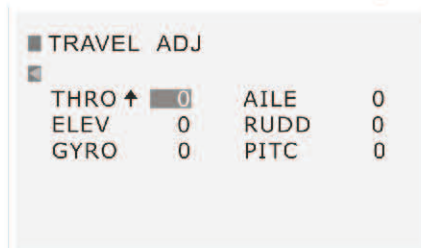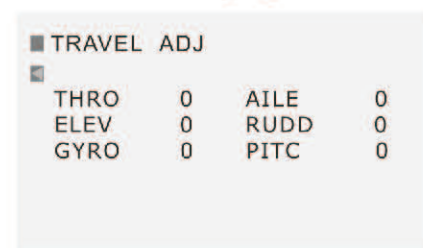| ■ TRAVEL ADJ			
◁			
THRO ↓100%		AILE ← 100%	
ELEV ↓100%		RUDD → 100%	
GYRO ↑ 100%		PITC ↓ 100%	

THR
AILE
ELEC
RUDD
GYRO
PITC

This function allows adjustment of the servo left -right(and up - down) control surface angles for each channel separately. The angle adjustment is carried out referenced to the neutral position. Adjustment is possible over an adjusting range between 0 and 125% for each of left - right (up - down) directions. The standard value is 100%, and this is the normal control surface angle.

4.SUB TRM: To access the SUB TRIM FUNCTION

Press and hold the roller while turning on the transmitter. When FUNCTION LIST appears on the screen, release the roller. The i6S is now in FUNCTION Setup Mode.
Rotate the roller to highlight SUB TRM then press to access the function. The following screen appears:

■ TRAVEL ADJ			
◁			
THRO	0	AILE	0
ELEV	0	RUDD	0
GYRO	0	PITC	0

■ TRAVEL ADJ			
◁			
THRO ↑	0	AILE	0
ELEV	0	RUDD	0
GYRO	0	PITC	0

Highlight the desired Trim value then press the roller to access. Rotate the roller to change to the desired trim value. Press to accept. Repeat to adjust all trim steps.

The Sub-Trim function supports electronic adjustment for each of 6 channels, with a range of + or - 100%.
Note: Use only small Sub-Trim values so a servo's maximum travel is not overdrive.

5.GYRO

```
■ GYRO
◄
RATE            SW-F.MODE
0 :  60.0%
1 :  50.0%
```

```
■ GYRO
◄
RATE            SW-GYRO
0 :  60.0%
1 :  50.0%
```

```
■ GYRO
◄
RATE            SW-INH
0 :  60.0%
1 :  50.0%
```

Switch options (INH,GYRO or F. MODEL), F. MODEL opens option to make the switch position the same or opposite for 0=NORMAL and 1=STUNT

Option Switch   Option Value (0-100%)

Options (INH or ACT). Choosing ACT opens adjustable values.

Gyro function supports setting gain for gyros that have remote gain ability, generally on a given switch, or can be tied in with flight modes to allow further flexibility. This function is not useful on some helicopters, because it does not allow "stick priority" mix for stick override of the gyro function. A curve or multi-point mix may allow greater flexibility for some models. Refer to your model's manual for recommend gyro settings.

6.THRO CUR

The Thro Cur function supports setting values for 5 positions in the throttle response curve of 3 different modes: NORM(Normal), STUNT and HOLD.

Important: In TH. HOLD, throttle curve is a flat line representing a hold condition. You can adjust this at the 5 positions (L, 2, 3, 4 and H). The throttle trim switch is only active when the flight mode switch is in the NORM (0) position. Throttle trim increases or decreases engine/motor revolutions per minute (rpm) to achieve a reliable idle in NORM. The throttle trim switch has no effect in F MODE 1 (Stunt) or in TH. HOLD 1 (active).

NORMA/STU : F-MODE GEAR
HOLD : TH HOLD MIX

THRO CUR (NORM)

```
■ THRO CUR
◄ NORM  STU HOLD
L   0.0   100   0.0
2  25.0   90.0
3  50.0   80.0
4  75.0   90.0
H  100    100
                    (%)
```

NORM: each value set up in the Normal flight mode. The value range: 0~100.

THRO CUR (STU)

```
■ THRO CUR
◄ NORM  STU  HOLD
L   0.0  100   0.0
2  25.0   90.0
3  50.0   80.0
4  75.0   90.0
H  100    100
                    (%)
```

STU:each value set up in the STUNT flight mode. The value range: 0~100.

THRO CUR(HOLD)

```
■ THRO CUR
◄ NORM STU  HOLD
L   0.0   100    0.0
2  25.0   90.0
3  50.0   80.0
4  75.0   90.0
H  100    100
                    (%)
```

HOLD: in TH. HOLD curve, the value range: −10~100.

7.PITC CUR

The Pitc Cur function supports setting values for 5 positions in the pitch response curve of 3 different modes: NORM (Normal), STUNT and TH. HOLD. Understanding throttle curve makes pitch curve adjustment easier to understand. Refer to your model's manual for recommended settings.

NOTE: please set up the TH.HOLD function first Before set up the HOLD curve value.

PITC CUR (NORM)

```
■ PITC  CUR
◄ NORM  STU  HOLD
L   0.0   0.0    0.0
2  25.0   25.0   25.0
3  50.0   50.0   50.0
4  75.0   75.0   75.0
H  100    100    100
                      (%)
```

NORMA: each value set up in the Normal flight mode. The value range: 0 - 100%.

PITC CUR (STU)

```
■ PITC  CUR
◄ NORM  STU  HOLD
L   0.0   0.0    0.0
2  25.0   25.0   25.0
3  50.0   50.0   50.0
4  75.0   75.0   75.0
H  100    100    100
                      (%)
```

STU: each value set up in the STUNT flight mode. The value range: 0 - 100%

PITC CUR (HOLD)

```
■ PITC  CUR
◄ NORM  STU  HOLD
L   0.0   0.0    0.0
2  25.0   25.0   25.0
3  50.0   50.0   50.0
4  75.0   75.0   75.0
H  100    100    100
                      (%)
```
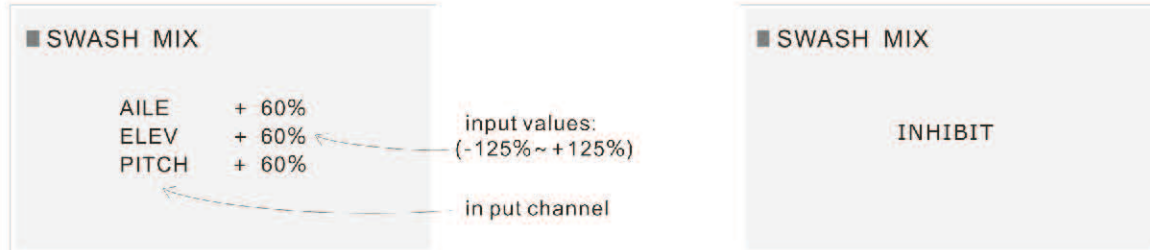
HOLD: in TH. HOLD curve, the value range: 0 - 100%

8.SWASH MIX

■ SWASH MIX

```
AILE    + 60%
ELEV    + 60%  ←------  input values:
PITCH   + 60%           (-125%~+125%)

                ←------  in put channel
```

■ SWASH MIX

INHIBIT

The Pitc Cur function supports setting values for 5 positions in the pitch response curve of 3 different modes: NORM (Normal). STUNT and TH. HOLD. Understanding throttle curve makes pitch curve adjustment easier to understand. Refer to your model's manual for recommended settings.

This swash mixing is for easily carrying out swash plate movement setting for helicopters that incorporate CCPM systems.

1. First, it will be necessary to set all of the settings to their standard conditions. Further, the aileron and elevator trim and the hovering pitch trim should be set to neutral.

2. After selecting the desired SWASH TYPE, determine each of the servo movement directions using the reverse switchs so that the pitch movements are normal.

3. After adjusting the SUB Trims so that each of the servo horns makes a right angle with the linkage when all of the servos have been set to neutral position, set the linkages so that the swash plate is horizontal.

4. Carry out the pitch operation(throttle operation), and then carry out the fine adjustment of each of the movement amounts by implementing left and right control surface angle adjustment with the intention of compensation for the variation in each of the servo control surface angles in order to make the swash plate move horizontally.

5. Carry out aileron or elevator operation. In the situation where the movement is in the opposite direction, the corresponding mixing amount should be set in the minus direction in the swash mixing.

6. The necessary movement amounts corresponding to each stick movement should be adjust using this mixing amount. Although the variable range $\pm 125\%$, if the amount is too large the servo maximum control surface angle will be exceeded. Accordingly, if the movement amount is insufficient, adjust is using the servo horn hole position.

9.MIX 1

Mix 1 and 2 functions mix percentages between 2 channels, or a channel with itself (THROTTLE cannot be mixed with itself or as a slave).

You can program mixes so that stick or switch inputs control 2 or more servos.

The first channel is the master channel; the second is the slave channel. You can adjust directional mix values (U. D, L and R) between 125% to +125%.

The mix can either be enabled (ON) all times or assigned to a switch, enabling and disabling the mix as needed while operating a model. You can also link trim so that adjusting master channel trim will also adjust slave channel trim.

When a mix is enabled and the assigned input control is moved, the master channel sends output at the same time the slave channel sends output.

Output is sent to the model in the direction and to the position assigned in the Mix screen. Output sent to model will match assignments in Mix screen.

Mix Options

Aileron to Rudder: Causes rudder to move when ailerons move. This helps with airplanes that have adverse movement of the nose around the center axis (yaw) (right aileron results in left nose movement (yaw)). When programming aileron to rudder mix in the same direction, the airplane makes coordinated turns using ailerons only.

Elevator to Flap: Causes flaps (or flaperons) to move when elevator is moved. resulting in tighter looping maneuvers, or to provide aileron reflex for some 3D maneuvers such as Harriers.

Dual Elevators: Requires Gear to Gear Mix of -100% to -100% to inhibit (INH) Gear Channel Switch, then Elevator to Gear Mix of +100% to +100% to activate the Gear channel to work as a slave to the elevator channel. This makes dual elevator setups possible.

Rudder to Aileron or Elevator: Eliminates roll and pitch cou-pling (roll and pitch happening at the same time) when rudder is applied. This is normally used to correct coupling in knife-edge flight.

Mix function in inhibit situation

■ MIX 1

INH

Mix function in active situation

■ MIX 1

ACT

Master channel   Slave channel

                                    Activate
                                    Inhibit
■ MIX 2

```
THRO→  PITC  ACT
RATE  D   0% U    0% ←
SW  ON       TRIM INH
```
                              Mixing amount
                              ±125%

Switch option   Option for trim adjustment link

10. REV MIX

The revolution mixing in this transmitter is based on the hovering points(output values from the stick center position on the pitch curve), and it is possible to set separate mixing amounts in each of UP and Down direction, in addition, because these transmitter settings use the Flight Mode NORM and STUNT. Move the F MODE switch to active a flight mode.

```
■REVO  MIX

  NORM            STUNT
  UP     0%       UP     0%
  DN     0%       DN     0%
```

Note: in the situation where a tail lock (head lock) gyro is being used, set it to not be used(Make all settings 0%).

Corresponding mixing amount (L125% to 0 to R125%)

In normal flying, values of around 5% should be preset in both the UP and DOWN directions, and fine adjustment should be carried out in actual flight. During overflying in STUNT flight, it can be expected that the mixing amounts should be around half those in normal flying. In addition, in situations where more advanced revolution mixing is required, program mixing should be utilized.

11. SETUP LIST

SET UP LIST: Rotating the ROLLER to the SET UP LIST from FUNCTION LIST, then press the ROLLOER to select the SET UP LIST. When SET UP LIST appears on the screen, release the roller. And all of the SET UP LIST shows as below.

```
■FUNCTION LIST    2 / 2

REV  MIX
SETUP  LIST
```

```
■SETUP  LIST      1 / 2

MODEL TYPE  |  THRO  CUT
MODEL NAME  |  D/R  COMBI
MONITOR     |  TIMER
REVERSE     |  RANGECHECK
SWASH TYPE  |  POW.SET
```