TRINITY HEAD TRACKER MODULE SPECIFICATION REV A

Rev History: Rev A   9/13/2013   New document

Features:

Axis:	3 axis (pan, tilt, roll)
Sensors:	Magnetic compass, inertial accelerometer, gyroscope
IMU:	9 DOF (each sensor is 3 axis resulting in a 9 degrees of freedom)
Cased version:	Available and bundled with 3 types of data cables for common radios

Operation notes:

Head tracker initiates in pause mode. Head tracker reset button needs to be depressed and held to start camera motion. Default range motion is normal. Your radio may support extended motion but may result in errant behavior.

Menu navigation and settings:

Beep code	Mode
1 short beep:	P/T/R on ch 5/6/7
2 short beep:	P/T/R on ch 6/7/8
3 short beep:	Long beep then enter P/T only channel setting sub menu
	1 short beep: P/T only on ch 5/6
	2 short beep: P/T only on ch 5/7
	3 short beep: P/T only on ch 5/8
	4 short beep: P/T only on ch 6/7
	5 short beep: P/T only on ch 6/8
	6 short beep: P/T only on ch 7/8 No selection: exit menu
4 short beep:	Long beep then enter reverse servo direction sub menu
	1 short beep: reverse pan direction
	2 short beep: reverse tilt direction
	3 short beep: reverse roll direction No selection: exit menu
1 long beep:	adjust servo center point: press to gain manual control of the camera with the headset. Adjust camera to desired center position and press button to set new camera center. Note that if your servos are not near the center point before adjusting, the servo travel may be limited.
1 short beep:	Long beep then enter pan ratio sub menu
	1 short beep: ratio = 1:1
	2 short beep: ratio = 1:1.5 No selection: exit menu
2 short beep:	Long beep then enter tilt ratio sub menu
	1 short beep: ratio = 1:1
	2 short beep: ratio = 1:1.5 No selection: exit menu
3 short beep:	auto pause on/off (if movement exceeds 90 degree, put HT in pause mode)
4 short beep:	Long beep then enter motion limits sub menu
	1 short beep: standard range = 1.04 ms – 2.0ms (center = 1.52ms +/- 0.48)
	2 short beep: extended range = 0.8ms – 2.24ms (center = 1.52ms +/- 0.72) No selection: exit menu
5 short beep:	Long beep then enter cycle time sub menu
	1 short beep: standard cycle (8CH PPM, 20ms)
	2 short beep: rapid cycle (3CH PPM, 8ms) No selection: exit menu
6 short beep:	Restore factory defaults
2 long beep:	no selection made, automatically exits menu