11   GREE heat pumps

11.1   Dual pulse train

Remotes: YAA1FB, YB1F2 (sends four pulse-trains when one or both timers are active)

IR pulse type: IRT_23 and IRT_24, see 5.21.

Byte	Explanation
LI	*Lead in 1st pulse train*
0-4.3	1st pulse train see 11.1.1
LO	*Lead out 1st pulse train*
LI	*Lead in 2nd pulse train*
0-3 (5-8)	2nd pulse train see 11.1.2
LO	*Lead out 2nd pulse train*

11.1.1 1st pulse train 4.3 bytes

IR pulse type: IRT_23, see 5.21.1.

Byte	Bits	Explanation
0 (0)	0..2	**MODE**: **AUTO** – 0x0, **COOL** – 0x1, **DRY** – 0x2, **FAN** – 0x3, **HEAT** – 0x4 Auto has no temp display or control and sets temperature to 25°C - 0x9. DRY disables fan control and sets fan to 1. Fan allows temp control !
	3	**Power: ON** - 0x1, **OFF** - 0x0
	4..5	**FAN**: **Auto** - 0x0, **1** - 0x1, **2** - 0x2, **3** - 0x3, **4** - 0x3, **5** - 0x3 DRY disables fan control and sets fan to 1.
	6	**SWING: ON** - 0x1, **OFF** - 0x0 (see bit 0..3 byte 0 (5))
	7	'**SLEEP**': **ON** - 0x1, **OFF** - 0x0
1 (1)	0..3	**Temperature**: 16°C - 30°C – 0x0 - 0xE. When in 'Auto' mode: no control and set to 25°C - 0x9
	4..7	**No timer**: 0x0, Use this for the Pebble Air '**TIMER-OFF**', '**TIMER-OFF**'+'**TIMER-ON**': 0xC '**TIMER-ON**': 0x9, 0xA
2 (2)	0..3	Timer related: keep 0x0
	4	'**TURBO**': **ON** - 0x1, **OFF** - 0x0
	5	'**LIGHT**': **ON** - 0x1, **OFF** - 0x0. Is on by default.
	6	'**Health**': **ON** - 0x1, **OFF** - 0x0 (Fir tree icon). Is on by default.
	7	'**X-FAN**': **ON** - 0x1, **OFF** - 0x0
3 (3)	0	'**Scavenging**': **ON** - 0x1, **OFF** - 0x0 (House with air in/out)
	1..3	Always 0x0
	4..7	Always 0x5
4 (4)	0..2	Always 0x2
	5..7	These bits not transmitted

11.1.2 2nd pulse train 4 bytes

IR pulse type: IRT_24, see 5.21.2.

Byte	Bits	Explanation
0 (5)	0..3	**Vertical vane**: **Auto** (bit 6 byte 0 (0) is 0x0): **Auto**: 0x0. **Fix** (bit 6 byte 0 (0) is 0x0): **Ahead - Down**: 0x2, 0x3, 0x4, 0x5, 0x6. **Swing** (bit 6 byte 0 (0) is 0x1): **All**: 0x1, **Low** $^1/_3$: 0x7, **Center** $^1/_3$: 0x9, **High** $^1/_3$: 0xB.
	4..7	**Horizontal vane**: **Auto** (bit 6 byte 0 (0) is 0x0): **Auto**: 0x0. **Fix** (bit 6 byte 0 (0) is 0x0): **Left - Right**: 0x2, 0x3, 0x4, 0x5, 0x6. **Wide**: 0xC. **Swing** (bit 6 byte 0 (0) is 0x1): **All**: 0x1, **Spread**: 0xD.
1 (6)	0..1	**'TEMP'** display at the unit: 0x0, 0x1, 0x2, 0x3
	2	'I FEEL': **ON** - 0x1, **OFF** - 0x0
	3	Always 0x0
	4..7	**YAA1FB, FAA1FB1, YB1F2**: Always 0x2 **YAG1FB**: Always 0x0
2 (7)		Always 0x0
3 (8)	0..3	Always 0x0

	4..7	Check:
		`(  (Byte [0 (0)] & 0x0F) + (Byte [1 (1)] & 0x0F)`
		` + (Byte [2 (2)] & 0x0F) + (Byte [3 (3)] & 0x0F)`
		` + ((Byte [0 (5)] & 0xF0) >> 4) + ((Byte [1 (6)] & 0xF0) >> 4)`
		` + ((Byte [2 (7)] & 0xF0) >> 4)`
		` + 10) & 0xF`