

Fujitsu Model AR-RY16 Air Conditioner Remote Control

Carrier Frequency = 38kHz +/- 1%
 Carrier Period = 26.3 uSec
 Basic unit is = 410uSec +/- 3%; which is approximately 16 cycles of the carrier frequency

Leader consists of	125 (0x7C) cycles carrier on		Chart A - Word 9		Chart B		Chart D
followed by	62 (0x3E) cycles carrier off		LSB = 0 if change in temp/ 1 = if unit coming on		low two bits of byte 10 are master control		low 3 bits of byte 11 is fan speed
Trailer consists of	16 (0x10) cycles carrier on		top nibble is temp		00H = Auto		00H = Auto
followed by	at least 305 (0x130) cycles carrier off		64 deg 02H		01H = Cool		01H = High
One Data Bit consists of	16 (0x10) cycles carrier on		66 deg 03H		02H = Dry		02H = Med
	16 (0x10) cycles carrier off		68 deg 04H		03H = Fan		03H = Low
Zero Data Bit consists of	16 (0x10) cycles carrier on		70 deg 05H		Chart C		Chart E
	46 (0x2E) cycles carrier off		72 deg 06H		high nibble is timer mode		high three bits of byte 11 is swing
Full Data Transmit (change any parameter except Set and Stop)			74 deg 07H		00H = Timer Off		00H = off
Word 1	Marker Code (M1)	0x14	76 deg 08H		01H = Sleep mode		01H = vertical oscillation
Word 2	Marker Code (M2)	0x63	78 deg 09H		02H = Timer Off Time		02H = horizontal oscillation
Word 3	Marker Code Parity (P)	0x00	80 deg 0Ah		03H = Timer On Time		03H = both horiz and vert oscillation
Word 4	Custom Code (C1)	0x10	82 deg 0BH		04H = Off->On		
Word 5	Sub Custom Code (C2)	0x10	84 deg 0CH				
Word 6	Command Code (D)	0xFE	86 deg 0DH				
Word 7	Unknown	0x09	88 deg 0EH				
Word 8	Unknown	0x30					
Word 9	B4-B7 = Temp	See Chart A					
	B0 - On/Off State Flag	If B0 = 1 Unit was Off and is now On; if B0 = 0 then unit was already On					
Word 10	B4-B7 = Timer Mode	See Chart C					
	B0-B3 = Master Control	See Chart B (note - even in fan only mode temperature is sent even though not displayed on RC)					
Word 11	B4-B7 = Swing Mode	See Chart E					
	B0-B3 = Fan Speed	See Chart D					
Word 12	Timer Off Value - low word	Timer value in minutes (0 to 595). For Sleep mode no of minutes to run/for Timer Off number of minutes from now to turn off					
Word 13	B0-B2 = Timer Off Value - high bits						
	B3 = New Timer Off Value Flag	Set when new Sleep or Timer Off value sent					
	B4-B7 Timer On Value - low byte						
Word 14	B0-B6 Timer On value High Bytes						
	B7 = New Timer On Value Flag	Set when new Timer On value sent					
Word 15	Unknown	0x20					
Word 16	Checksum? Sum of Word 8 to Word 16 equals XX00H						

Single Value Commands

Stop (Off) 00101000-11000110-00000000-00001000-00001000-01000000-10111111
 Step Vert Vane 00101000-11000110-00000000-00001000-00001000-10011110-01100001
 Step Horiz Vane 00101000-11000110-00000000-00001000-00001000-00110110-11001001

Fujitsu-56 Coding

Dev=16 Key=253 Hex=40 X=2
 Dev=16 Key=134 Hex=9e X=121
 Dev=16 Key=147 Hex=36 X=108