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) cylces 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
			top nibble is temp		00H = Auto	00H = Auto
Trailer consists of	16 (0x10) cycles carrier on		64 deg	02H	01H = Cool	01H = High
followed by	at least 305 (0x130) cycles carrier off		66 deg	03H	02H = Dry	02H = Med
			68 deg	04H	03H = Fan	03H = Low
One Data Bit consists of	16 (0x10) cycles carrier on		70 deg	05H		04H = Quiet
	16 (0x10) cycles carrier off		72 deg	06H	**Chart C**	
			74 deg	07H	high nibble is timer mode	**Chart E**
Zero Data Bit consists of	16 (0x10) cycles carrier on		76 deg	08H	00H = Timer Off	high three bits of byte 11 is swing
	46 (0x2E) cycles carrier off		78 deg	09H	01H = Sleep mode	00H = off
			80 deg	0Ah	02H = Timer Off Time	01H = vertical oscillation
Full Data Transmit (change any parameter except Set and Stop)			82 deg	0BH	03H = Timer On Time	02H = horizontal oscillation
Word 1	Marker Code (M1)	0x14	84 deg	0CH	04H = Off->On	03H = both horiz and vert oscillation
Word 2	Marker Code (M2)	0x63	86 deg	0DH		
Word 3	Marker Code Parity (P)	0x00	88 deg	0EH		
Word 4	Custom Code (C1)	0x10				
Word 5	Sub Custom Code (C2)	0x10				
Word 6	Command Code (D)	0xFE	means long form command (full parameters sent)			
Word 7	Unknown	0x09				
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

		Fujitsu-56 Coding
Stop (Off)	0 0 1 0 1 0 0 0 - 1 1 0 0 0 1 1 0 - 0 0 0 0 0 0 0 0 - 0 0 0 0 1 0 0 0 - 0 0 0 0 1 0 0 0 - 0 1 0 0 0 0 0 0 - 1 0 1 1 1 1 1 1	Dev=16 Key=253 Hex=40 X=2
Step Vert Vane	0 0 1 0 1 0 0 0 - 1 1 0 0 0 1 1 0 - 0 0 0 0 0 0 0 0 - 0 0 0 0 1 0 0 0 - 0 0 0 0 1 0 0 0 - 1 0 0 1 1 1 1 0 - 0 1 1 0 0 0 0 1	Dev=16 Key=134 Hex=9e X=121
Step Horiz Vane	0 0 1 0 1 0 0 0 - 1 1 0 0 0 1 1 0 - 0 0 0 0 0 0 0 0 - 0 0 0 0 1 0 0 0 - 0 0 0 0 1 0 0 0 - 0 0 1 1 0 1 1 0 - 1 1 0 0 1 0 0 1	Dev=16 Key=147 Hex=36 X=108