

the Master to switch between Slaves, Master Transmitter mode and Master Receiver mode without losing control over the bus.

Table 19-3. Status codes for Master Receiver Mode

Status Code (TWSR) Prescaler Bits are 0	Status of the 2-wire Serial Bus and 2-wire Serial Interface Hardware	Application Software Response					Next Action Taken by TWI Hardware
		To/from TWDR	To TWCR				
			STA	STO	TWIN T	TWE A	
0x08	A START condition has been transmitted	Load SLA+R	0	0	1	X	SLA+R will be transmitted ACK or NOT ACK will be received
0x10	A repeated START condition has been transmitted	Load SLA+R or	0	0	1	X	SLA+R will be transmitted ACK or NOT ACK will be received SLA+W will be transmitted Logic will switch to Master Transmitter mode
		Load SLA+W	0	0	1	X	
0x38	Arbitration lost in SLA+R or NOT ACK bit	No TWDR action or	0	0	1	X	2-wire Serial Bus will be released and not addressed Slave mode will be entered A START condition will be transmitted when the bus becomes free
		No TWDR action	1	0	1	X	
0x40	SLA+R has been transmitted; ACK has been received	No TWDR action or	0	0	1	0	Data byte will be received and NOT ACK will be returned Data byte will be received and ACK will be returned
		No TWDR action	0	0	1	1	
0x48	SLA+R has been transmitted; NOT ACK has been received	No TWDR action or	1	0	1	X	Repeated START will be transmitted STOP condition will be transmitted and TWSTO Flag will be reset STOP condition followed by a START condition will be transmitted and TWSTO Flag will be reset
		No TWDR action or	0	1	1	X	
		No TWDR action	1	1	1	X	
0x50	Data byte has been received; ACK has been returned	Read data byte or	0	0	1	0	Data byte will be received and NOT ACK will be returned Data byte will be received and ACK will be returned
		Read data byte	0	0	1	1	
0x58	Data byte has been received; NOT ACK has been returned	Read data byte or	1	0	1	X	Repeated START will be transmitted STOP condition will be transmitted and TWSTO Flag will be reset STOP condition followed by a START condition will be transmitted and TWSTO Flag will be reset
		Read data byte or	0	1	1	X	
		Read data byte	1	1	1	X	