**To ON and OFF the RELAY**

**Modbus RTU**

**Force Single Coil (FC=05)**

**Request**

This command is writing the contents of discrete coil # 2 to ON  
in the slave device with address 2.

01 05 0001 FF00 DDFA

01: The Slave Address (01 hex = address1 )  
05: The Function Code 5 (Force Single Coil)  
0001: The Data Address of the coil. (coil# 2 - 1 = 1 = 1 hex).  
             ( 0001 hex = 1 , + 1 offset = coil #2 )  
FF00: The status to write ( FF00 = ON,  0000 = OFF )    
DDFA: The CRC (cyclic redundancy check) for error checking.

**Response**

The normal response is an echo of the query, returned after the coil has been written.

01 05 0001 FF00 DDFA

01: The Slave Address (11 hex = address17 )  
05: The Function Code 5 (Force Single Coil)  
0001: The Data Address of the coil. (coil# 2 - 1 = 1 = 1 hex)  
FF00: The status written ( FF00 = ON,  0000 = OFF )    
DDFA: The CRC (cyclic redundancy check) for error checking.

RELAY1= command is writing the contents of discrete coil # 2

RELAY2= command is writing the contents of discrete coil # 3

RELAY3= command is writing the contents of discrete coil # 4

RELAY4= command is writing the contents of discrete coil # 5

RELAY5= command is writing the contents of discrete coil # 6

RELAY6= command is writing the contents of discrete coil # 7

RELAY7= command is writing the contents of discrete coil # 8

RELAY8= command is writing the contents of discrete coil # 9

**To check status of the RELAY**

**Read Coil Status (FC=01)**

**Request**

This command is requesting the ON/OFF status of discrete coils # 20 to 56  
from the slave device with address 17.

01 01 0001 0008 6C0C

01: The Slave Address (01 hex = address1 )  
01: The Function Code 1 (read Coil Status)  
0001: The Data Address of the first coil to read.  
0008: The total number of coils requested

6C0C: The CRC (cyclic redundancy check) for error checking.

**Response**

01 01 01 02 CRC

01: The Slave Address (01 hex = address1 )  
01: The Function Code 1 (read Coil Status)  
01: The number of data bytes to follow (37 Coils / 8 bits per byte = 5 bytes)  
02: Coils 1 - 8 (0000 0011)  
6C0C: The CRC (cyclic redundancy check) for error checking.