

# TX9929

## Medium Power Long Range Remote Control Transmitter (DC 12V)

(SAW filter stabilized) **315 MHz**

### Application

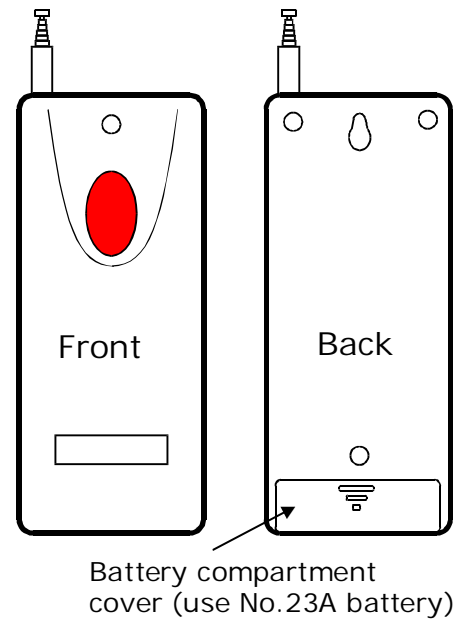
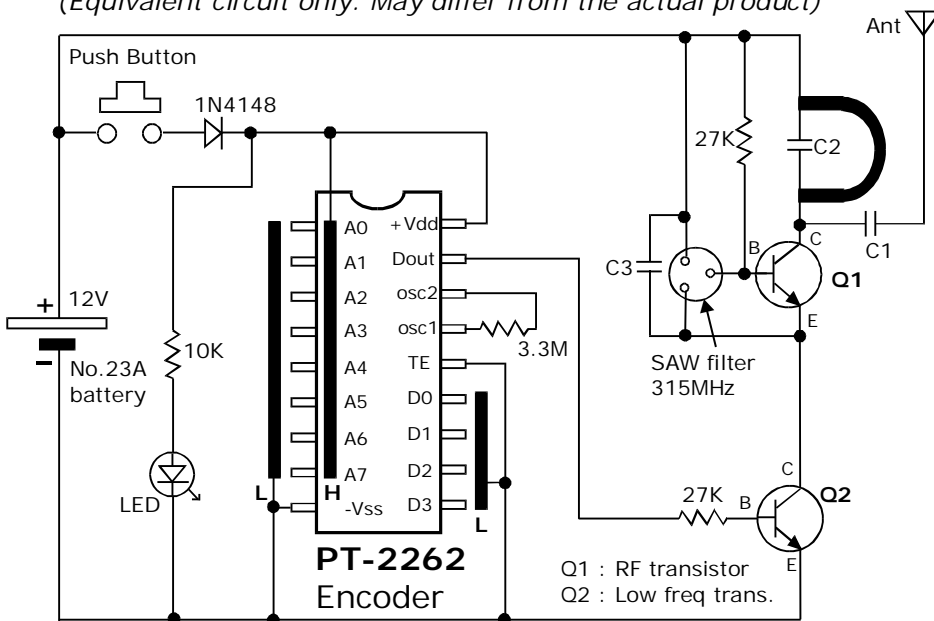
- 1) Long range remote control
- 2) Remote door bell & switches
- 3) General purpose remote control transmitter

### Specifications : (supplied by manufacturer)

Operating voltage : DC 12V (use GP No. 23A alkaline battery)	Operating current : < 15mA
Oscillator : SAW filter stabilized	Modulation : ASK (Amplitude-Shift-Keying)
RF frequency : 315 MHz $\pm 150\text{KHz}(\text{max})$	RF Power : 30 mW
Encoder : PT2262 digital encoder IC	

### Schematic

(Equivalent circuit only. May differ from the actual product)



### About PT2262 encoder

The PT2262 encoder IC has 6561 possible address codes ( $3^8 = 6,561$ ).

**A0 ~ A7 : Tri-state Address bits (8 trinary bits)**

Each address pin can assume one of the 3 possible states.

i.e : **H** (logic **1**) (usually the +ve supply of the circuit)

**L** (logic **0**) (usually the ground of the circuit)

**F** (floating) (not connected)



## D0 ~ D3 : *Binary* Data bits (4 binary bits)

Each data pin can be either **H** or **L**

i.e : **H** (logic **1**) (*usually the +ve supply of the circuit*)

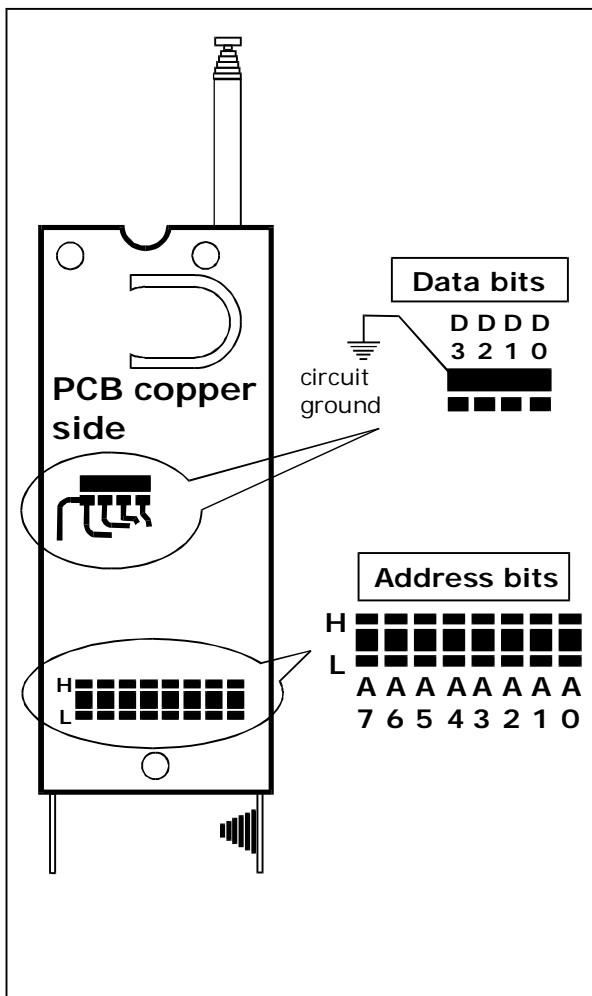
**L** (logic **0**) (*usually the ground of the circuit*)

**Important note:** if a data pin is left open (floating), that particular bit will be encoded as logic **1**

**Operation** Pressing the button, TX9929 will transmit a 12 bit serial code (8-bit address + 4-bit data) continuously. Transmission stops when the button is released.

## Programming Instruction

*( you will need a soldering iron for soldering the address or data pin(s) to the +ve or -ve copper strip(s) )*



**Data pins : D3, D2, D1, D0**

NOTE : an open pin is encoded as logic 1

D	D	D	D	solder bridge	Example 1:				
3	2	1	0		D	D	D	D	
L					3	2	1	0	
					logic	1	1	0	1

D	D	D	D		Example 2:				
3	2	1	0		D	D	D	D	
L					3	2	1	0	
					logic	1	0	0	0

**Address pins : A7, A6, ..., A0**

H										Example 3:							
L	A	A	A	A	A	A	A	A	A	A7 ~ 0 = logic							
	7	6	5	4	3	2	1	0		H	H	F	L	L	F	H	

H										Example 4:							
L	A	A	A	A	A	A	A	A	A	A7 ~ 0 = logic							
	7	6	5	4	3	2	1	0		H	L	F	L	F	H	F	F

**Important note:** Avoid using the address code "LLLLLLLL" (all address pins grounded). The chance of a decoding error is extremely high if you use this code.