

## FAN CONTROLLER

### DESCRIPTION

PT2124 is a fan controller housed in a 16-pin plastic DIP.

It includes 3-state output for speed control, one toggle output for swing head control, 4-step timer scale and 4 functional input pins.

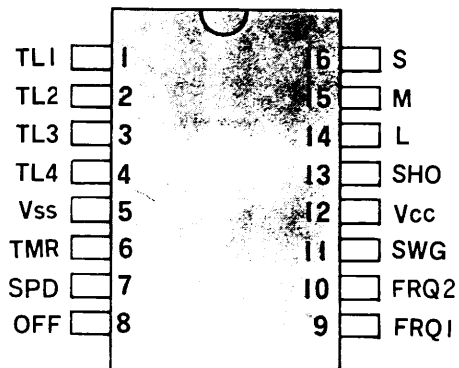
### FEATURES

- CMOS Technology
- Electronic key input switch and timer
- 4-state timer scale, 3-state wind speed
- 2 seconds middle wind start-up
- 1 set toggle input and output
- Auto countdown timer control, LED follow-up
- Two base frequency input, 32768Hz and 50/60Hz

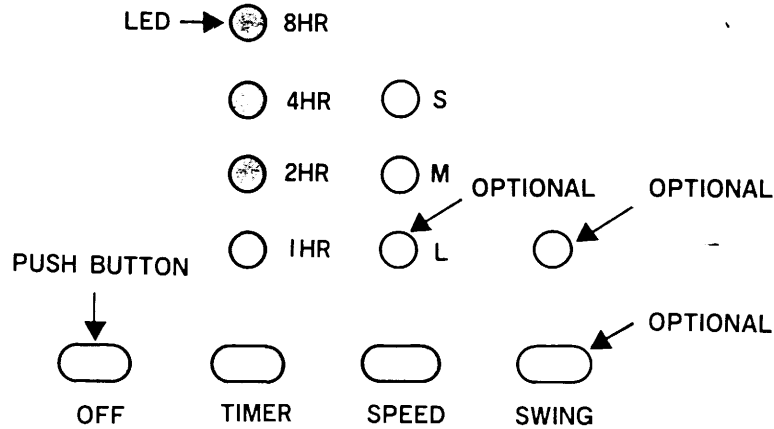
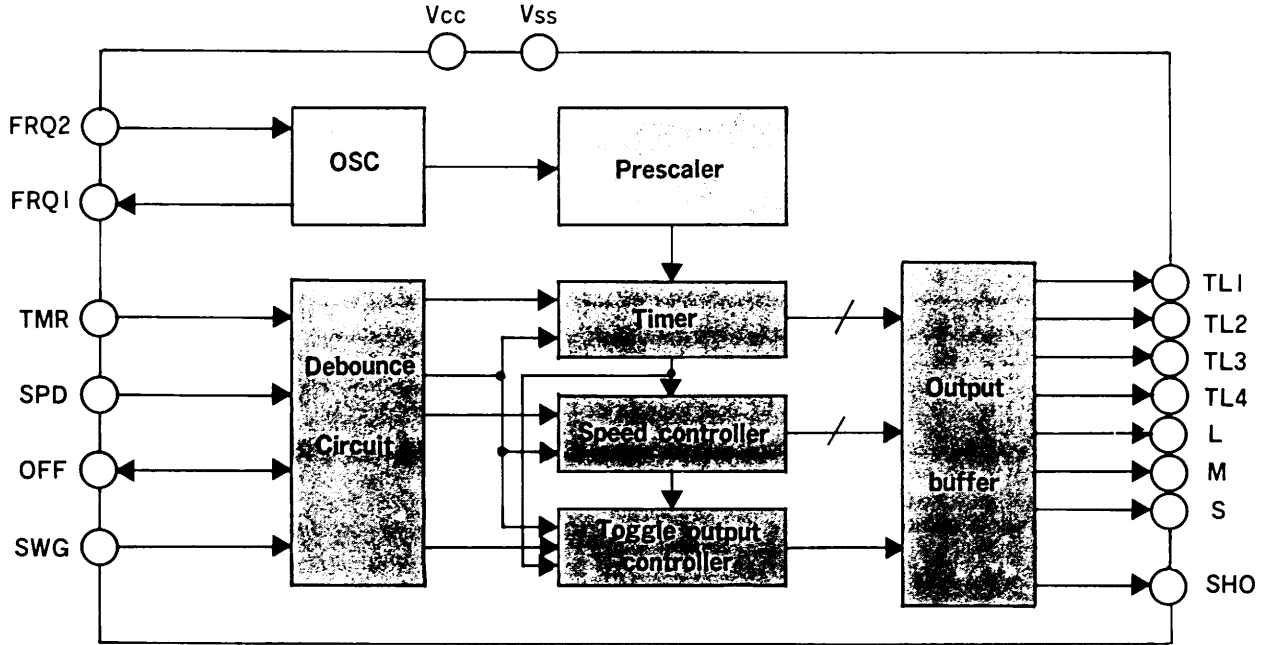
### APPLICATIONS

Fan, Heater Fan, Timer

### PIN CONFIGURATION



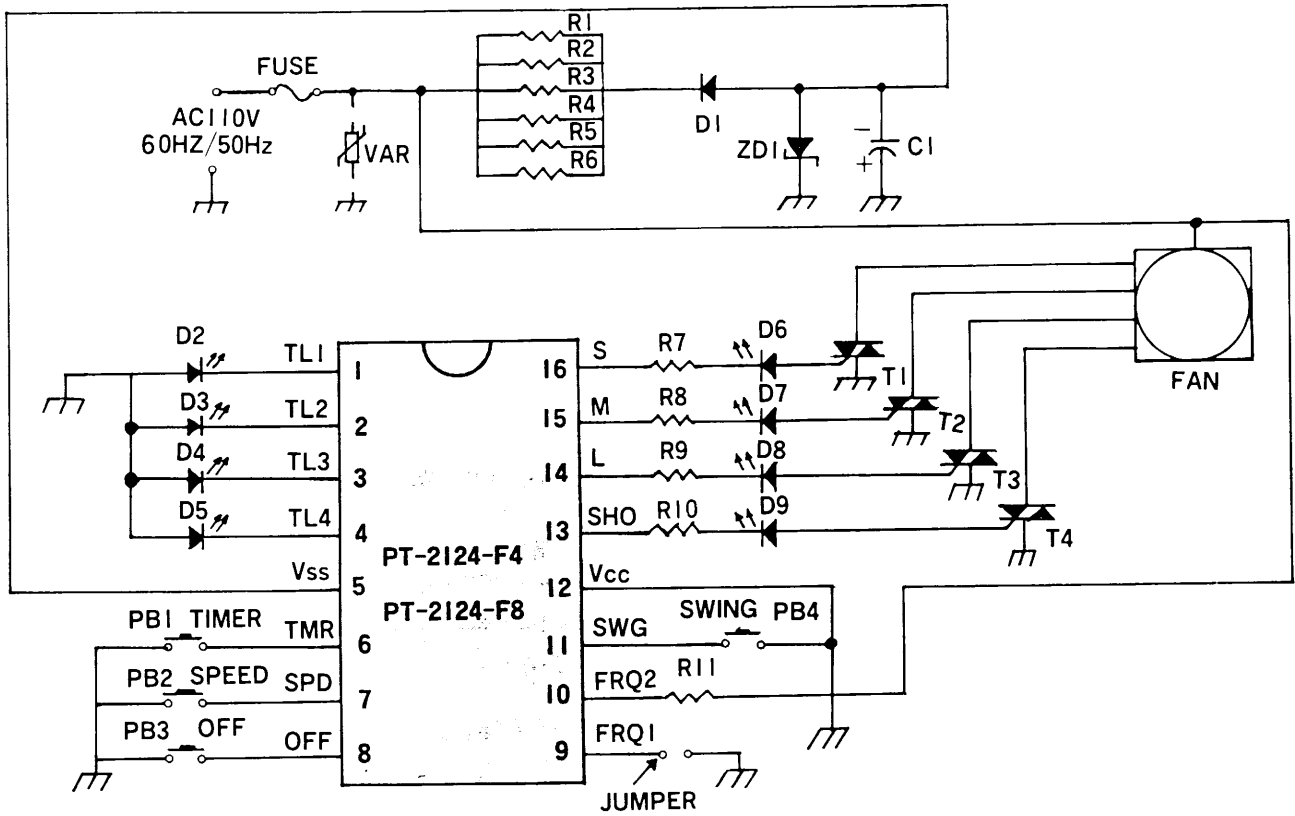
BLOCK DIAGRAM



PT-2124

APPLICATION CIRCUIT

· PT-2124-F4/PT-2124-F8 APPLICATION CKT

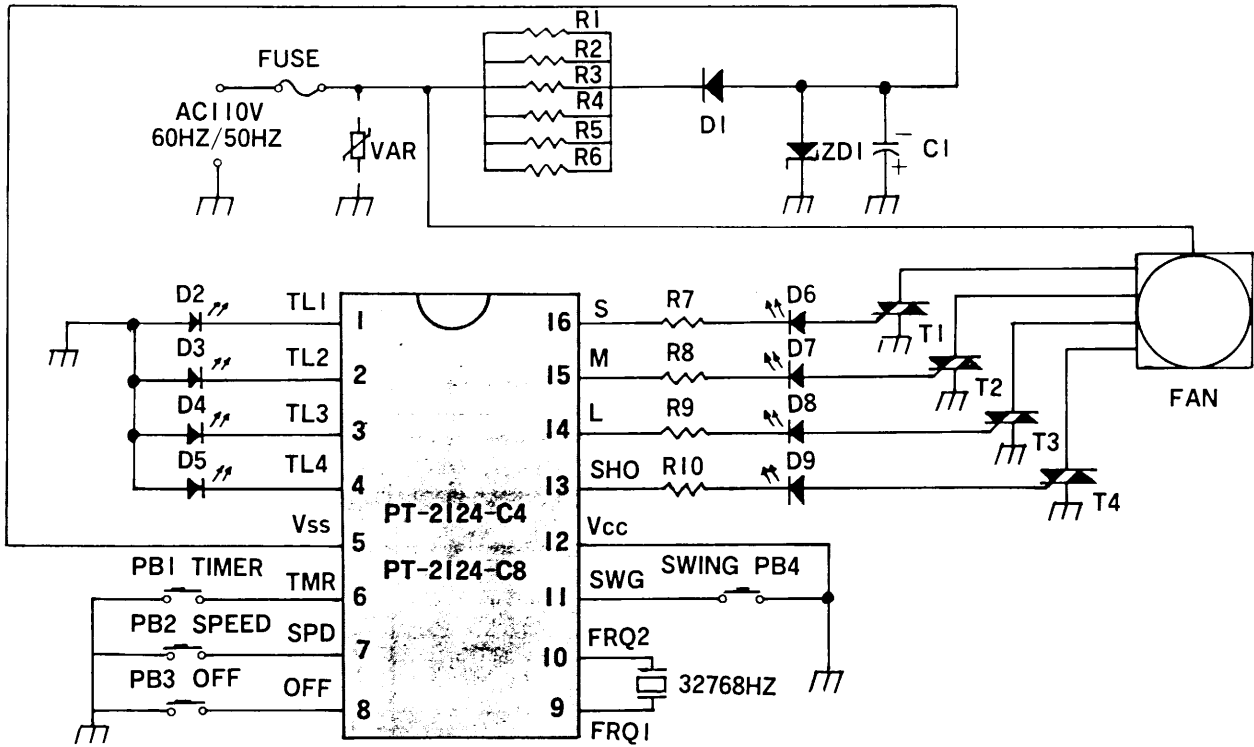


APPLICATION CIRCUIT OF PT 2124 IN AC110V 60HZ/50HZ

PARTS	VALUE	UNIT	TOLERANCE
R1-R6	15K/0.5W	OHM	± 10%
D2-D9	LED	-	
T1-T4	ZO102MA		
ZD1	5.1/0.5W	V	
R7-R10	300/0.25W	OHM	± 10%
DC	IN4006		
C1	470/16V	μ F	± 20%
FUSE	I	A	
R11	2M/0.25W	OHM	± 10%

APPLICATION CIRCUIT

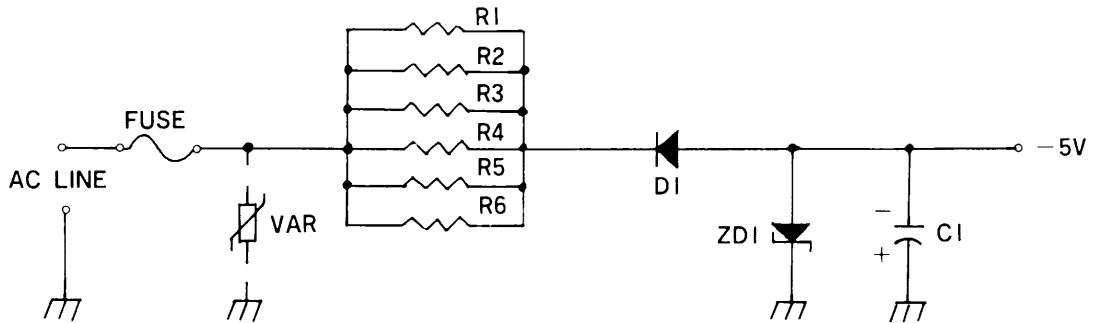
· PT-2124-C4/PT-2124-C8 APPLICATION CKT



APPLICATION CIRCUIT OF PT 2124  
IN AC 110V 60HZ/50HZ

PARTS	VALUE	UNIT	TOLERANCE
R1-R6	15K/0.5W	OHM	± 10%
D2-D9	LED		
T1-T4	ZO102MA		
ZD1	5.1/0.5W	V	
R7-R10	300/0.25W	OHM	± 10%
D1	1N4006		
C1	470/16V	μ F	± 20%
FUSE	1	A	

POWER SUPPLY APPLICATION CIRCUIT

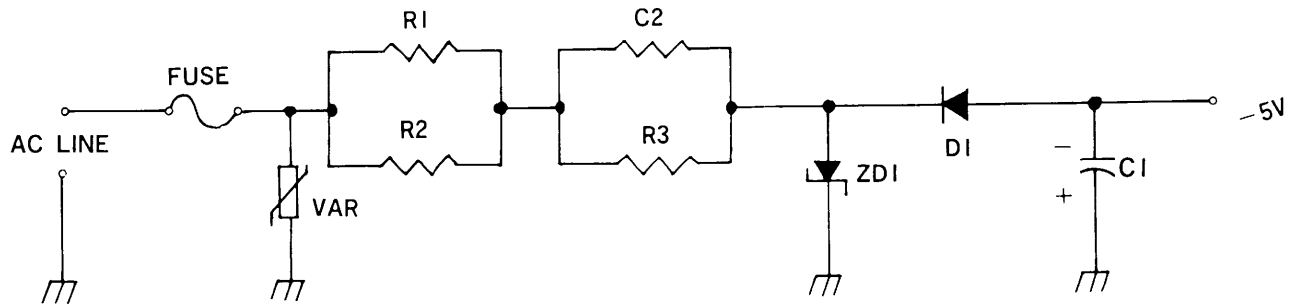


LOW COST RESISTIVE POWER SUPPLY

AC LINE 110V 50/60HZ				
PARTS	VALUE	UNIT	TOLERANCE	REMARK
VAR	200	V		OPTIONAL*
ZDI	5.1/0.5W	V		
R1-R6	1.5K/0.5W	OHM	± 10%	
DI	1N4006			
CI	470/16V	μ F	± 20%	
FUSE	1	A		OPTIONAL*

\* Note: Safer for connection

POWER SUPPLY APPLICATION CIRCUIT



LOW COST CAPACITIVE POWER SUPPLY

AC LINE							
110V 50/60HZ				220V 50/60HZ			
PARTS	VALUE	UNIT	TOLERANCE	VALUE	UNIT	TOLERANCE	REMARK
VAR	200	V		400	V		OPTIONAL*
ZDI	5.6/0.5W	V		5.6/1W	V		
R1	100/0.5W	OHM	± 10%	47/1W	OHM	± 10%	
R2	100/0.5W	OHM	± 10%	47/1W	OHM	± 10%	
R3	100K/1W	OHM	± 10%	100K/1W	OHM	± 10%	
DI	1N4006			1N4006			
C1	470/16V	μ F	± 20%	470/16V	μ F	± 20%	
C2	1.5/250V	μ F	± 20%	1.0/400V	μ F	± 20%	
FUSE	I	A		I	A		OPTIONAL*

\* Note: Safer for connection

## ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Ratings	Unit
V <sub>CC-VSS</sub>	Supply voltage	-0.3~6	V
V <sub>I</sub>	Input voltage	V <sub>SS</sub> -0.3~V <sub>CC</sub> +0.3	V
V <sub>O</sub>	Output voltage	V <sub>SS</sub> -0.3~V <sub>CC</sub> +0.3	V
P <sub>d</sub>	Power consumption	300	mW
T <sub>opr</sub>	Operating temperature range	-10~70	°C
T <sub>stg</sub>	Storage temperature range	-40~125	°C

## DC ELECTRICAL CHARACTERISTICS

Normal operation range: T<sub>a</sub> = 0°C~70°C, V<sub>CC-VSS</sub> = 5V ± 10%

Parameter	Symbol	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
Supply voltage	V <sub>CC</sub>		-6	-5	-3	V
Stand-by current	I <sub>SB</sub>	V <sub>CC</sub> - V <sub>SS</sub> = 5V OSC stop all output pin open	—	—	100	μA
Input "high" level voltage	V <sub>IH</sub>		-1.5	—	—	V
Input "low" level voltage	V <sub>IL</sub>		—	—	-3.5	V
Output "low" level voltage	V <sub>OL</sub>	connect LED To V <sub>CC</sub>	—	-1.6	—	V
Output "low" level current (TL1~TL4)	I <sub>OL</sub> (V <sub>OL</sub> = -1.6V)	connect LED To V <sub>CC</sub>	9	10	—	mA
Output "low" level current (L,M,S,SHO)	I <sub>OL</sub> (V <sub>OL</sub> = -4.6V)	connect 300Ω and LED to G of TRIAC	6.5	7.6	—	mA

## ORDERING INFORMATION

PART NUMBER	OSCILLATION/TIMER LEVEL	PACKAGE
PT-2124-F4	AC line/0.5hr, 1hr, 2hr, 4hr.	16 PIN DIP
PT-2124-F8	AC line/1hr, 2hr, 4hr, 8hr.	16 PIN DIP
PT-2124-C4	Crystal/0.5hr, 2hr, 2hr, 4hr.	16 PIN DIP
PT-2124-C8	Crystal/1hr, 2hr, 4hr, 8hr.	16 PIN DIP

PT-2124-XXN-NNXI-X

Package Code : In Plastic DIP, this code is omitted

C: Ceramic DIP

F: Flat Package

H: Chip Form

L: Plastic Leaded Chip Carrier

P: Pin Grid Array

S: Small Outline

Function code : X: N: No middle wind start-up function

M: Middle wind start-up function

I: I set toggle output

Specific Code: Defines specific device performance characteristics

This code will be omitted if only one version is available

F-AC 50/60Hz base clock

C-Crystal(32768Hz) base clock

4-0.5hr, 1hr, 2hr, 4hr. timer level

8-1hr, 2hr, 4hr, 8hr. timer level

Part Number: 4 digits

Prefix of PTC