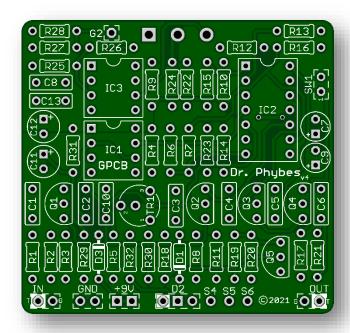
## **Dr. Phybes v4 2021**

Build an amazing Classic Phase 90 and use the included Script Mod switch to mellow out the Phase or try our 45/90 Mod which cuts two stages just like the Phase 45 version. That is a lot of classic phaser tones in one circuit board.



Board Dimensions (W x H) 2.12" x 2.00"

Part	Value		
R1	1M		
R2	10k		
R3	470k		
R4	10k		
R5	22k		
R6	10k		
R7	10k		
R8	22k		
R9	10k		
R10	10k		
R11	22k		

Part	Value		
R12	10k		
R13	10k		
R14	22k		
R15	10k		
R16	22k		
R17	150k		
R18	150k		
R19	150k		
R20	56k		
R21	150k		
R22	150k		
R21	150k		

Part	Value		
R23	3M9		
R24	4k7		
R25	470k		
R26	150k		
R27	22k		
R28	22k		
R29	10k		
R30	1M		
R31	47R		
R32	1k8		
C1	10n		

Part	Value			
C2	47n			
С3	47n			
C4	47n			
<b>C</b> 5	47n			
C6	47n			
С7	22u			
C8	10n			
С9	<b>10</b> u			
C10	47n			
C11	100u			
C12	<b>100</b> u			

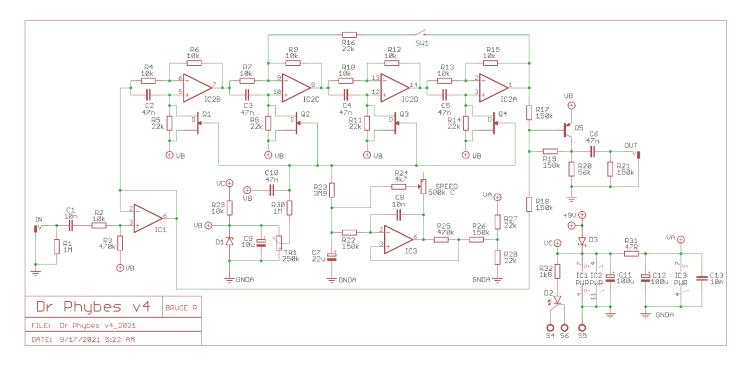
Part	Value			
C13	<b>10</b> n			
D1	1n4733			
D2	Status LED			
D3	1n5817			
Q1-Q4	*2N5952			
Q5	2N4125			
IC1	TL071			
IC2	TL074			
IC3	TL061			
SPEED	C500k			
TR1	250k			

#### **STATUS LED**

\*D2 is a Status LED that can be either a Bi-Color Common Anode or a Standard On/Off LED. (See Tip Sheet) SW1 is a SPST or SPDT switch for the Script Mod. If you do not use SW1 just leave the pads open.

#### New in this GuitarPCB 2021 version release:

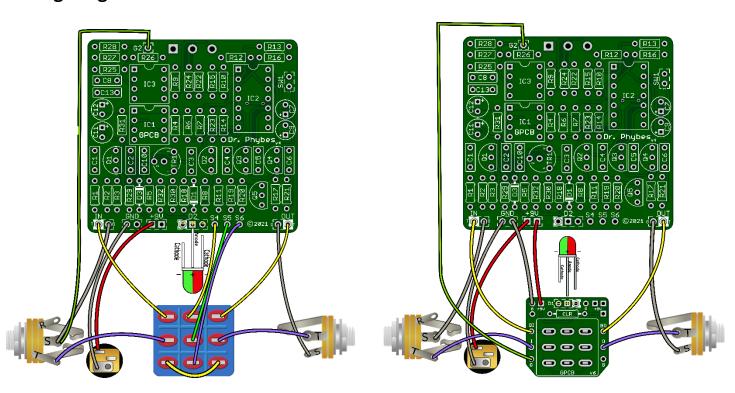
- Added 1N5817 circuit protection diode which is superior.
- Added an on-board potentiometer.
- Larger off-board wiring pads.
- Added extra +9v and Ground pads for "Combo Builds" allowing easy wiring options and connectivity.



#### **Build Notes:**

- There are two mandatory ground pads, GND & G2. Both grounds must be connected for proper function.
- \*Q1 through Q4 Requires (4) Genuine Matched 2N5952's. GuitarPCB carries quality Hand Matched Sets.
- A 5.1v Zener Diode required 1N4733
- For a tighter SPEED control, you may try an A100K. This reduces the amount of the slow region available in the rotation of the potentiometer which is not noticeable.
- Pedal Placement is important. Test both Pre and Post Distortion for different tonal characteristics.
- Q5 is a general purpose PNP silicon transistor; possible substitutes are 2N3906, 2N5087, BC559B.

## **Wiring Diagram**



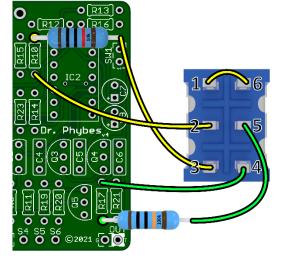
## \*STATUS LED

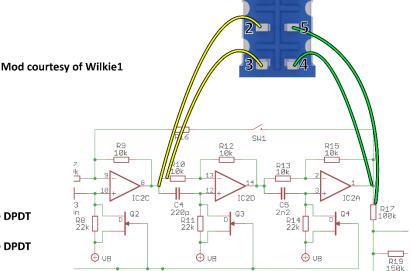
Note: If you are using our 3PDT board, you should omit wires and parts from S4, S5 & S6, D2 and R32 (CLR). The CLR and LED will be populated on the 3PDT board instead.

## 2 Stage / 4 Stage Mod

The Vibe operates normally with 4 independent stages. With this Mod you can switch it to 2 stages. Follow the instructions for a more versatile Vibe.

When the switch is connecting Lugs 1-2 and 5-6 it will be in 2 Stage Mode. Flip the switch and you will be back in stock 4 Stage Mode. Note: There will be a slight "pop" if you switch while the pedal is on. This is normal. Simply turn the pedal off before switching.



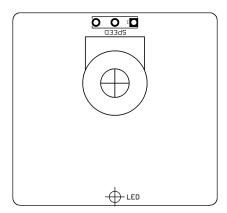


R24

- 1. Lift R10 as shown and connect the lead to Lug 3 of the DPDT
- 2. Connect the empty pad of R10 to Lug 2 of the DPDT
- 3. Lift R17 as shown and connect the lead to Lug 5 of the DPDT
- 4. Connect the empty pad of R17 to Lug 4 of the DPDT
- 5. Add a Jumper from Lug 1 to Lug 6.

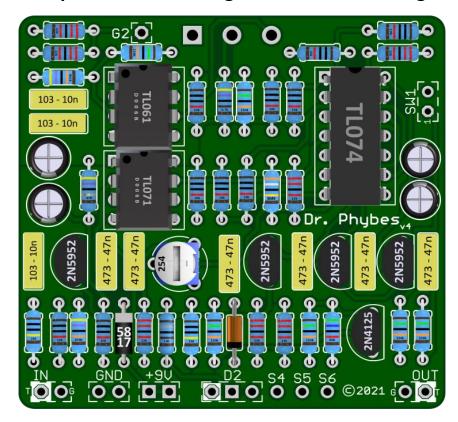
Note: The 45/90 Mod above does not come with kits. Contact and ask for availability.

C10



**Drill Tips:** Measure your components before selecting a drill bit. We recommend drilling the pot holes, mounting the pots in the enclosure, and then soldering the pots to the board. This approach should resolve the issue of the pots not fitting through the holes after soldering. We also recommend you make the holes for the pots a little larger than the threads in case you decide to remove the board and put it back in during the build, to avoid problems. Use this guide at your own risk. Make sure page scaling is turned off when you print this PDF, or the image above may be smaller than expected. Verify everything before drilling.

## **Populated Board Image for Troubleshooting**



For more build guides and tutorials please visit the <u>Guides Page</u> at GuitarPCB.com For specific build support please visit our dedicated <u>Support Forum</u> <u>Soldering Tutorial on YouTube</u>

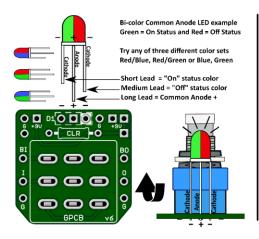
### Need Kits - Check out our authorized worldwide distributors:

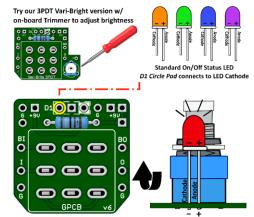
- USA Check out <u>PedalPartsAndKits</u> for all your GuitarPCB kit needs in the USA.
- Europe Das Musikding Order either boards or kits direct from Europe.
- PedalPartsAustralia Order either boards or kits direct from Australia

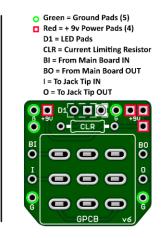
COLOR	1st Band	2nd Band	3rd Band	Multiplier	Tolerance	Band 1 Band 3 Tolerance
BLACK	0	0	0	1Ω		1
BROWN	1	1	1	10Ω	±1%	
RED	2	2	2	100Ω	±2%	470k
ORANGE	3	3	3	1ΚΩ		47
YELLOW	4	4	4	10ΚΩ		
GREEN	5	5	5	100ΚΩ	±0.5%	 Band 2 Multiplier
BLUE	6	6	6	1ΜΩ	±0.25%	Dana 2 Walapilei
VIOLET	7	7	7	10ΜΩ	±0.10%	
GREY	8	8	8	100ΜΩ	±0.05%	
WHITE	9	9	9	1GΩ		4 7 0 x <mark>보 진 %</mark>
GOLD				0.1Ω	±5%	47
SILVER				0.01Ω	±10%	

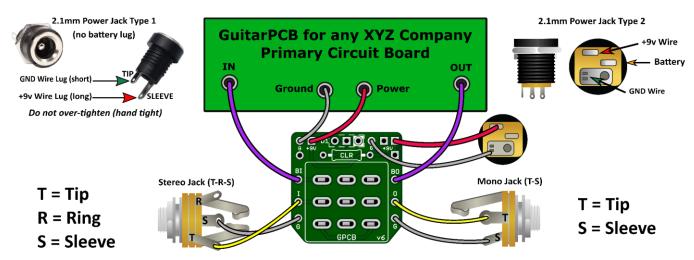


# **GuitarPCB Tip Sheet**

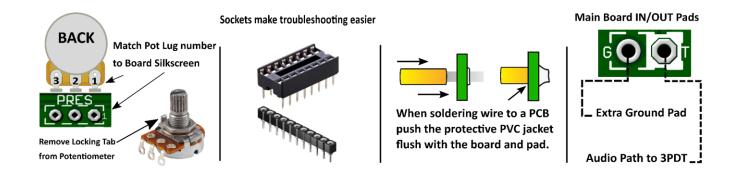








Multiple +9v and Ground Pads are convenient hookup points for additional circuits within the same enclosure. This also allows for diverse wiring schemes to suit indiviual needs.





## Input/Output Jack Wiring T = Tip | R = Ring | S = Sleeve

A Stereo Jack is only needed if using a Battery. Otherwise use a Mono Jack Battery Strap RED wire is connected to Power Jack Battery Strap Black wire is connected to RING (stereo jack) If wiring an LED to our 3PDT Wiring Board then S4, S5 & S6 are not needed

