

General Notes:**Resistors (1/4 watt, +/- 5%)**

Value	Reference	Total	Description	Mouser # (or option)
.27R	R223	1	1/2 watt	660-MOX2CT631RR27J
68R	R216	1		71-CCF0768R0JKE36
220R	R14, R18, R35, R39, R56, R60, R77, R81, R98, R102, R119, R123, R140, R144, R161, R165, R182, R186, R203, R207	20		660-MF1/4LCT52R221J
470R	R8, R29, R50, R71, R92, R113, R134, R155, R176, R197	10		660-MF1/4LCT52R471J
680R	R213, R221	2		71-CCF07680RJKE36
1K8	R211	1		71-CCF071K80JKE36
2K2	R9, R30, R51, R72, R93, R114, R135, R156, R177, R198	10		660-MF1/4LCT52R222J
3K3	R212, R217	2		660-MF1/4LCT52R332J
4K7	R16, R37, R58, R79, R100, R121, R142, R163, R184, R205, R222	11		660-MF1/4LCT52R472J
6K8	R5, R6, R26, R27, R47, R48, R68, R69, R89, R90, R110, R111, R131, R132, R152, R153, R173, R174, R194, R195	20		660-MF1/4LCT52R682J
10K	R7, R10, R12, R15, R28, R31, R33, R36, R49, R52, R54, R57, R70, R73, R75, R78, R91, R94, R96, R99, R112, R115, R117, R120, R133, R136, R138, R141, R154, R157, R159, R162, R175, R178, R180, R183, R196, R199, R201, R204	40		660-MF1/4LCT52R103J
15K	R3, R24, R45, R66, R87, R108, R129, R150, R171, R192, R215, R219, R220	13		71-CCF0715K0JKE36
47K	R11, R32, R53, R74, R95, R116, R137, R158, R179, R200	10		660-MF1/4LCT52R473J
68K	R214	1		279-RR02J68KTB
100K	R4, R13, R17, R25, R34, R38, R46, R55, R59, R67, R76, R80, R88, R97, R101, R109, R118, R122, R130, R139, R143, R151, R160, R164, R172, R181, R185, R193, R202, R206	30		660-MF1/4LCT52R104J
220K	R218	1		279-RR01J220KTB
2M2	R20, R41, R62, R83, R104, R125, R146, R167, R188, R209	10		660-MF1/4LCT52R225J

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Value	Reference	Total	Description	Mouser # (or option)
25K	R1, R2, R22, R23, R43, R44, R64, R65, R85, R86, R106, R107, R127, R128, R148, R149, R169, R170, R190, R191	20	3362 trimmer	652-3362P-1-253LF
A50K	R21, R42, R63, R84, R105, R126, R147, R168, R189, R210	10	potentiometer 9mm "Decay"	<a href="https://www.taydaelectronics.com/50k-ohm-logarithmic-taper-potentiometer-round-shaft-pcb-9mm.html">https://www.taydaelectronics.com/50k-ohm-logarithmic-taper-potentiometer-round-shaft-pcb-9mm.html</a>
B10K	R19, R40, R61, R82, R103, R124, R145, R166, R187, R208	10	potentiometer 9mm	<a href="https://www.taydaelectronics.com/10k-ohm-linear-taper-potentiometer-round-shaft-pcb-9mm.html">https://www.taydaelectronics.com/10k-ohm-linear-taper-potentiometer-round-shaft-pcb-9mm.html</a>

## Capacitors

Value	Reference	Total	Description	Mouser # (or option)
47pf	C2, C9, C16, C23, C30, C37, C44, C51, C58, C65	10		75-1C20C0G470J050B
470pf	C4, C11, C18, C25, C32, C39, C46, C53, C60, C67	10		505-FKP2G004701D00KS
1nf	C5, C12, C19, C26, C33, C40, C47, C54, C61, C68, C73, C74	12		80-R82EC1100SH50J
2.2nf	C75, C76	2		581-SR151C222K
10nf	C72	1		581-SR215C103K
47nf	C1, C8, C15, C22, C29, C36, C43, C50, C57, C64	10		594-K473K10X7RF5UH5
100nf	C3, C6, C10, C13, C17, C20, C24, C27, C31, C34, C38, C41, C45, C48, C52, C55, C59, C62, C66, C69, C71	21		810-FA16C0G1H10400
1uf	C7, C14, C21, C28, C35, C42, C49, C56, C63, C70, C78	11	TANTALUM	581-TAP105K025CRS
100uf	C77	1		80-ESH107M025AE3AA

## Diodes

Value	Reference	Total	Description	Mouser # (or option)
1N457	D1-D30	30		512-1N457

## Transistors

Value	Reference	Total	Description	Mouser # (or option)
2N3904	Q1, Q3, Q5, Q7, Q9, Q11, Q13, Q15, Q17, Q19, Q21, Q23, Q25, Q27, Q29, Q31, Q33, Q35, Q37, Q39, Q41, Q43, Q45, Q47, Q49, Q51, Q53, Q55, Q57, Q59, Q61, Q62, Q63	33		610-2N3904
2N3906	Q2, Q4, Q6, Q8, Q10, Q12, Q14, Q16, Q18, Q20, Q22, Q24, Q26, Q28, Q30, Q32, Q34, Q36, Q38, Q40, Q42, Q44, Q46, Q48, Q50, Q52, Q54, Q56, Q58, Q60	30		610-2N3906

## Miscellaneous

	Total	Description	Mouser # (or option)
Banana jacks (black)	10		530-108-0903-1
Banana jacks (red)	10		530-108-0902-1
Standoffs	7	10mm, M3	855-R30-3011002
Small Davies knobs	20		5164-1610AA
EDAC power connector	1	<i>optional</i>	587-306-50-010

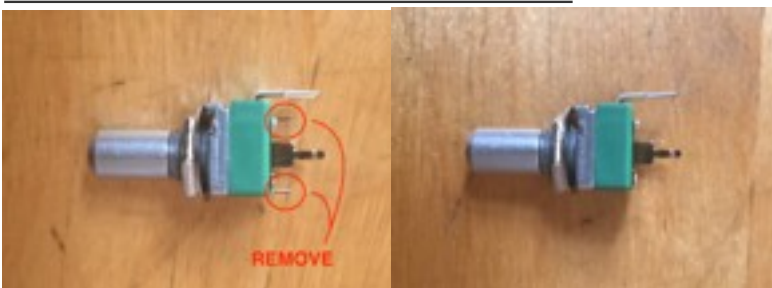
## Mouser Cart

*\*NB: potentiometers, screws, EDAC power connector are not included in the Mouser Cart.*

*\*Some items may be backordered.*

<https://www.mouser.com/ProjectManager/ProjectDetail.aspx?AccessID=7e23b6cb5a>

## Potentiometer Modification



Certain brands (Alpha, etc.) of 9mm potentiometers need to be modified in order to avoid potential problems during operation. If the potentiometer you are using has 2 support tabs on the underside of the body, remove them.

## Calibration

**NB: This process is repeated for each touch pad.**

Probe the left side of C5 (C68 in photo) and adjust the trimmers until the waveform is reduced to ~200mv. If the amplitude of the waveform is too high, the gate out will stay high when the touch pad is released.

