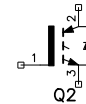Designed By Ray C. Richter
For personal use only. For commercial use
please contact me at rrichter@unimatrixtech.com.
ALL Copyrights enforced 2021.

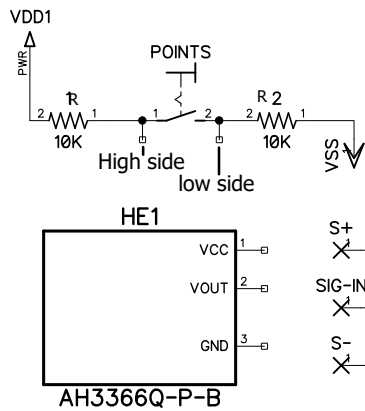OPTION
IRG4BC15UD--L (IRG4BC15UD-)
Q2
IGBT FGP3040G2-F085

OPTION
POINTS
- no input capacitor required, CD4047B takes care of bounce.
- can be set to give a positive or negative pulse.
- timing NOT affected by rpm UNLESS you want it too.
- use the CD4047B to adjust the dwell (coil charge time).
- Once triggered cannot be retriggered by noise.

4 to 18 volts
VDD2
Showing for Negative trigger going in.

OPTION
To Sparkplug
PAD4   PAD6
PAD5
TR2
U15-TRANSFORMER (U15)
VSS
(-)

FOR POINTS
Place resistor either before or after
depending if you want a positive pulse
or a negative pulse.

SW/JP

Use to Select polairity
Q or Q (not).

IC1.1
AST   Q
AST
-T
+T
RET
R/C   OSC
C
R
RES
CD4047B

J1

OPTION
To Sparkplug 1
PAD7
PAD2
TR1
U15-TRANSFORMER (U15)
PAD8
To Sparkplug 2
or Ground.
(-)

VDD1
POINTS
R
10K
High side
low side
R 2
10K
VSS

R1 10k
C2 100uf
C1 0.1uf
R3 10k
C3 0.1uf
R4 100K
VDD3
IC1.P VDD
VSS 7   14
CD4047B

R4 & C3 SETS DWELL TIME
Time=2.48 x R x C
Approx. C=Farads

PAD1
Q1
PHE13007,127
(-)

R5 220
LED.1
VSS
For R5 when using >7 volts
use a 560 ohm resistor.
(-)

HE1
VCC   1
VOUT 2
GND   3
AH3366Q-P-B

S+
SIG-IN
S-
R2 10K

B(-)
VSS

Hall Effect Output
WITH NO RESISTORS

+T Input/Q Output

This gives automatic timing advance.

+T Input/Q NOT Output

-T Input/Q Output

-T Input/Q NOT Output
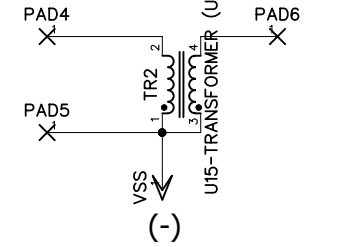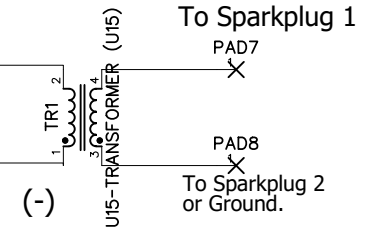
Ignition Using CD4047B

TITLE: Simplest Sparky Overview

Document Number: VERY SIMPLE SPARKY

REV: 1

Date: 2021-07-26 10:17 PM   Sheet: 1/1