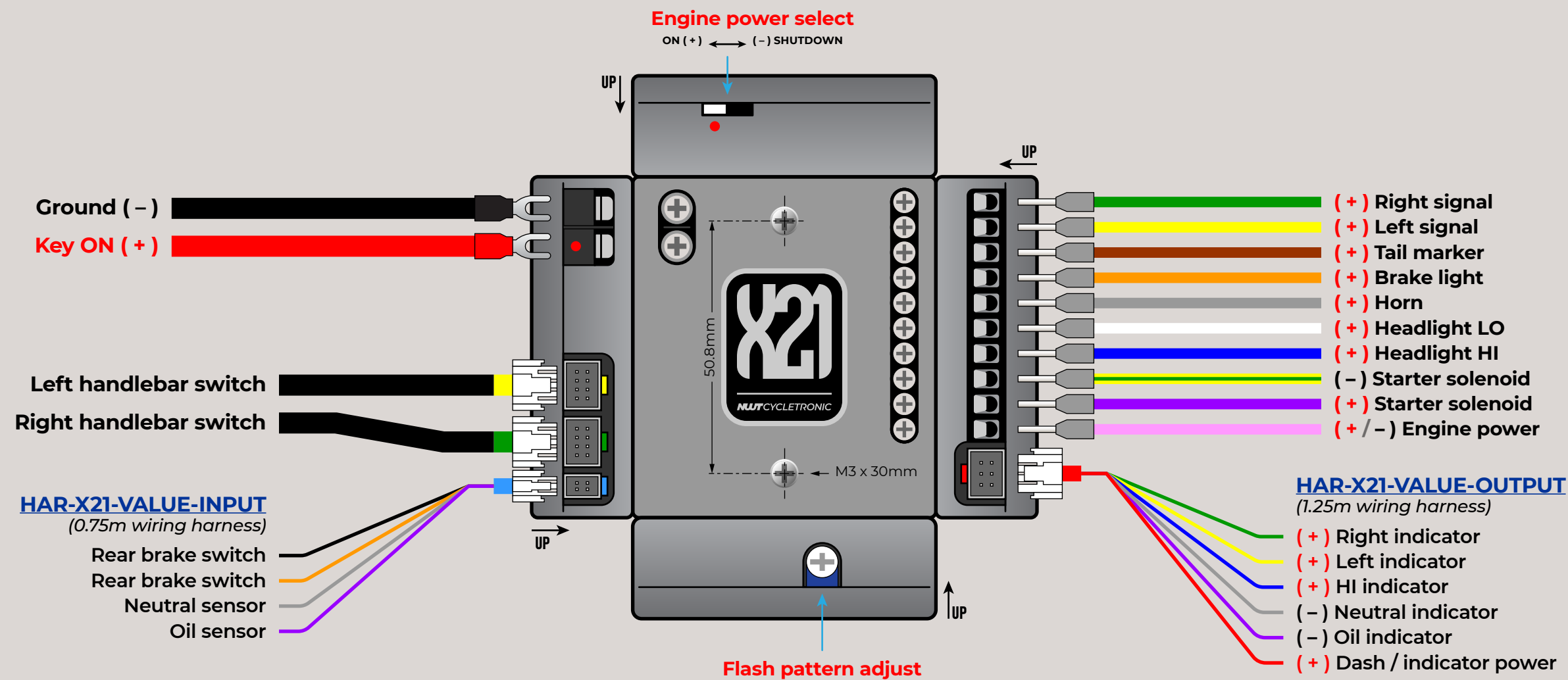


X21 VALUE

Control Hub

BOX DIMENSION: L = 70mm, W = 62mm, H = 21mm



Read installation thoroughly before starting.

- [ ] Section A      Component checklist
- [ ] Section B      Component mounting
- [ ] Section C      Power / charging / starting
- [ ] Section D      Engine power / spark coil
- [ ] Section E      Lights / horn
- [ ] Section F      Switches / dash lights
- [ ] Section G      System check
- [ ] Section H      Finalizing

“Take pictures and document your progress.

It comes in handy if or when you need help.

Share your project with us and inspire others.

Most importantly, **HAVE FUN!**

**It’s a hobby, remember?**

We’re here for you all the way.

- |  |   |
|--|---|
| <input type="checkbox"/> Battery ( <b>MANDATORY</b> )                              | <input type="checkbox"/> 8awg or LARGER wires ( battery / solenoid / starter motor )                    |
| <input type="checkbox"/> Rectifier/regulator ( <b>MANDATORY</b> )                  | <input type="checkbox"/> 16awg wires ( key switch )   |
| <input type="checkbox"/> Starter solenoid/relay <i>*electric start bikes only*</i> | <input type="checkbox"/> 18awg wires ( horn / headlight / etc. )  |
| <input type="checkbox"/> Spark control module ( CDI / TCI / points breaker )       | <input type="checkbox"/> 20awg or SMALLER wires ( LED lights )  |
| <input type="checkbox"/> Spark plug coil(s)  | <input type="checkbox"/> Various size RING terminals  |
| <input type="checkbox"/> Key switch  | <input type="checkbox"/> Various connectors or solder with shrink tube                                  |
| <input type="checkbox"/> Gauge(s)  | <input type="checkbox"/> Zip ties   |
| <input type="checkbox"/> Dash indicators   | <input type="checkbox"/> Tape / cable wraps / split loom  |
| <input type="checkbox"/> Headlight   | <input type="checkbox"/> Single FUSE HOLDER <i>*for non protected starter solenoids / key switches*</i> |
| <input type="checkbox"/> Signal lights   |   |
| <input type="checkbox"/> Horn  |   |
| <input type="checkbox"/> Taillight   |   |
| <input type="checkbox"/> Plate light <i>*optional*</i>                             |   |
| <input type="checkbox"/> Brake switch ( front / rear )                             |   |
| <input type="checkbox"/> Neutral sensor switch                                     |   |
| <input type="checkbox"/> Additional sensors/switches ( oil / clutch )              |   |

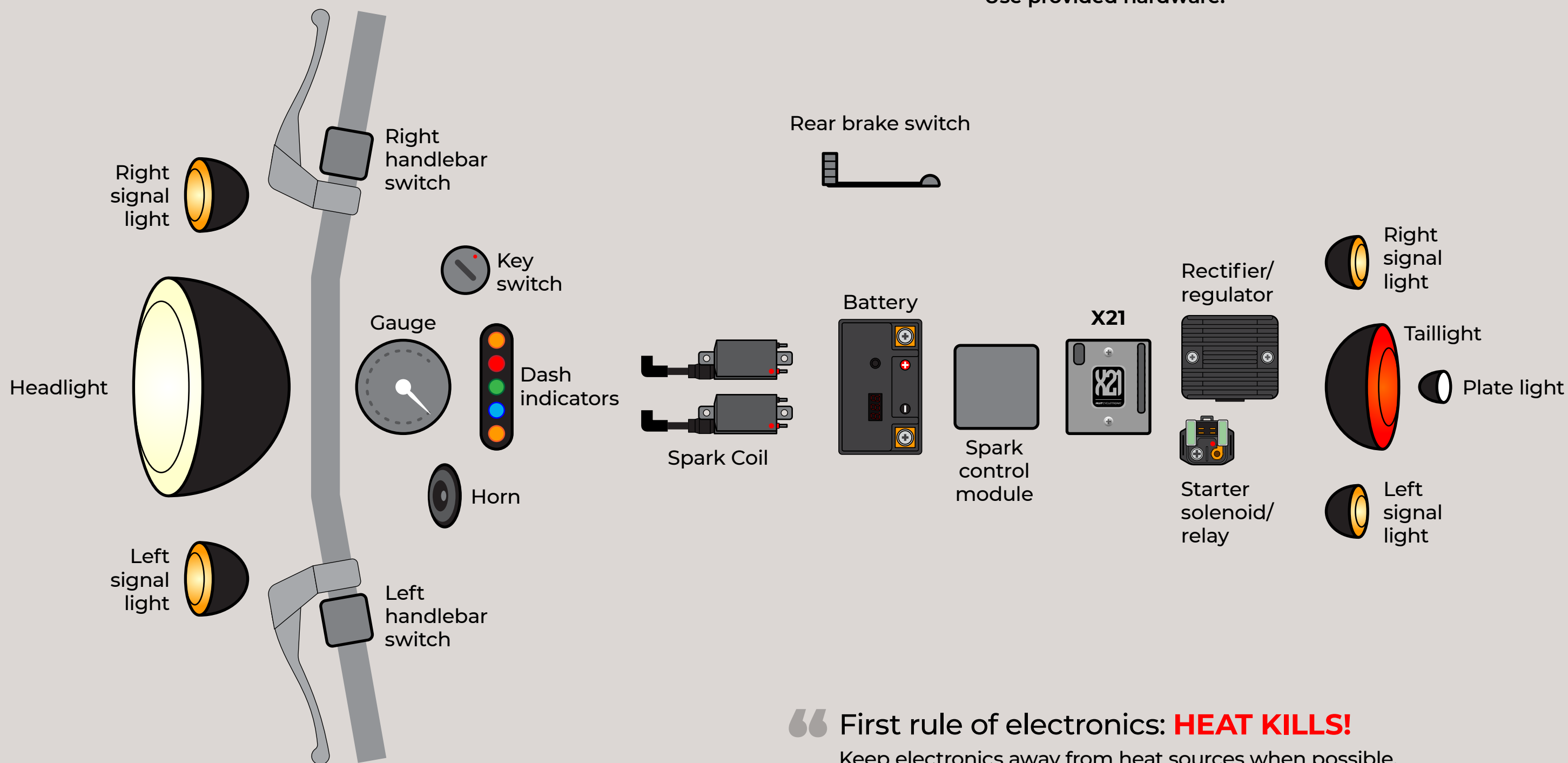
**NEED ASSISTANCE?**  
 Email make, model, year of bike to  
[techservice@nwtcycletronic.com](mailto:techservice@nwtcycletronic.com)

# COMPONENT CHECKLIST

**MOUNT ALL COMPONENTS** onto desired location.

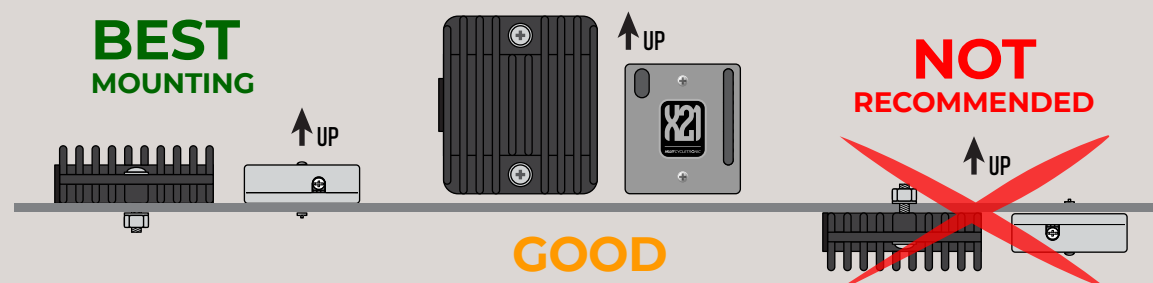
**DO NOT** route wires/cables at this time.

**DO NOT** enlarge or alter the X21 mounting holes.  
Use provided hardware.



“ First rule of electronics: **HEAT KILLS!**

Keep electronics away from heat sources when possible.



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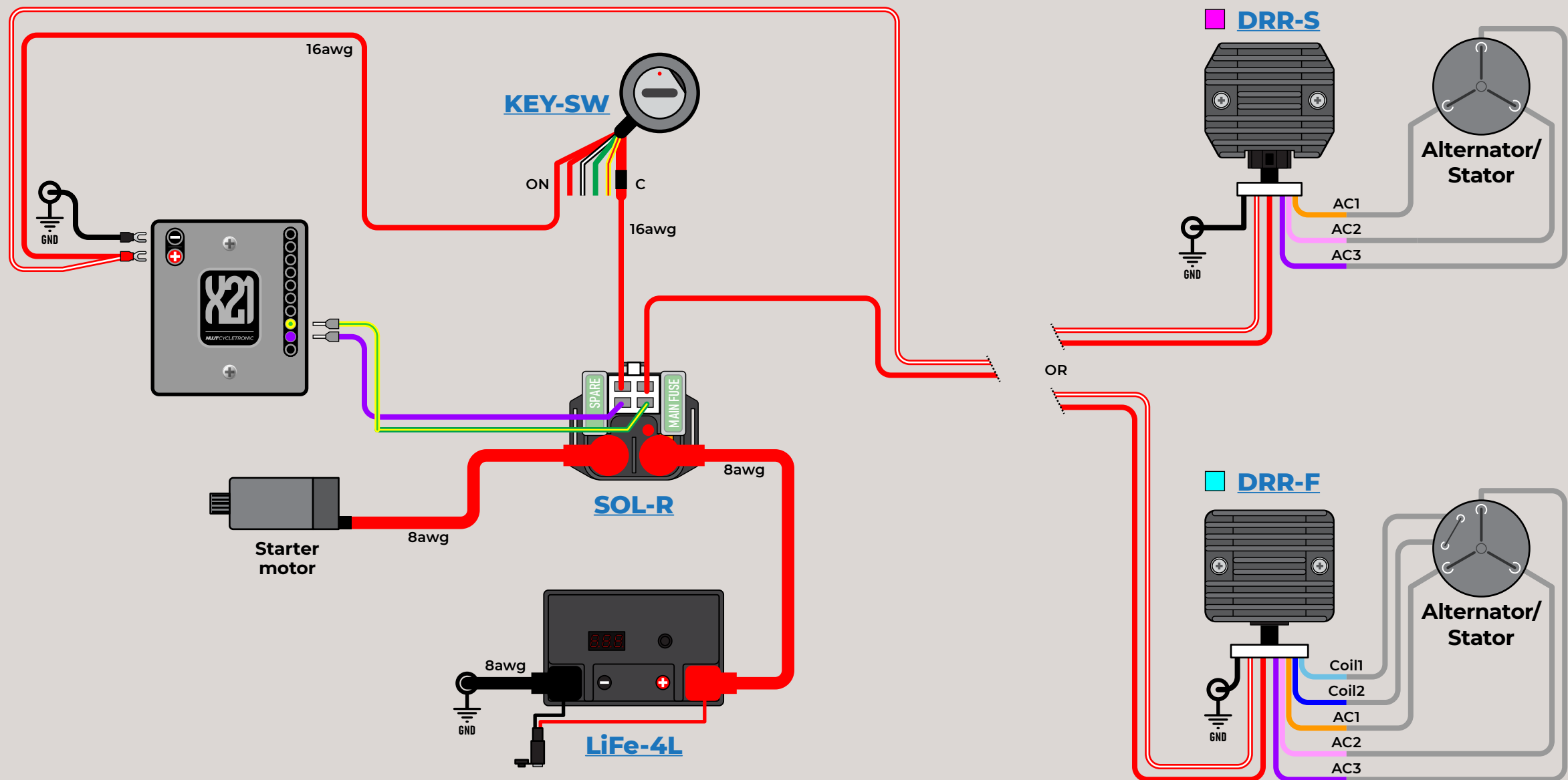
COMPONENT MOUNTING

SECTION

**B**

REMOVE FUSE from fuse holder before starting.  
DO NOT install fuse until instructed.

Use recommended wire gauge size.  
DO NOT over torque/tighten screw terminals.



My wire colors

My type [ ] [ ] [ ]

Alternator/stator

Coil1 \_\_\_\_\_  
Coil2 \_\_\_\_\_  
AC1 \_\_\_\_\_  
AC2 \_\_\_\_\_  
AC3 \_\_\_\_\_

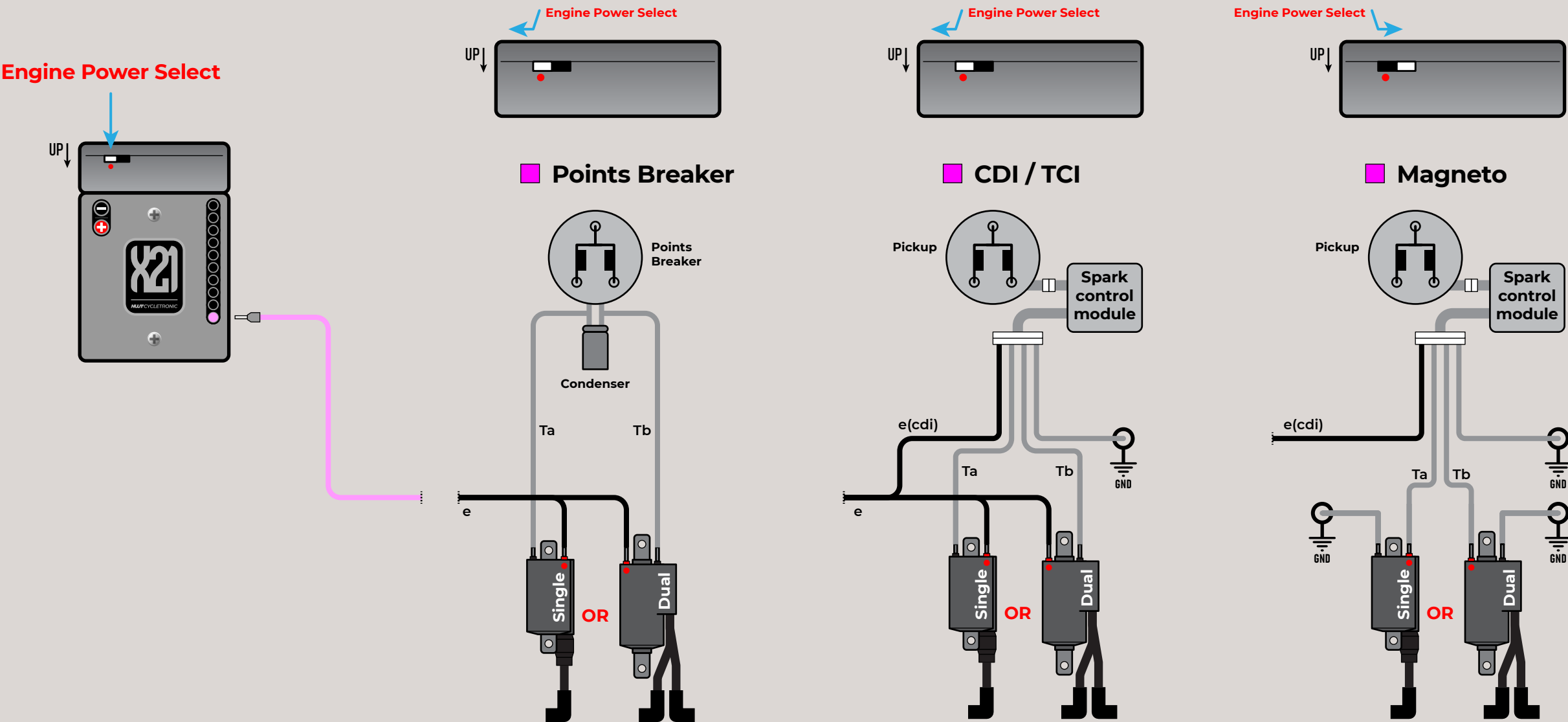
“Modernize your charging system with a digital type rectifier/regulator for a safer and more efficient charging source.”

Need assistance with “My wire colors”?  
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POWER / CHARGING / STARTING

DO NOT install fuse until instructed.  
Pay attention to “Engine Power Select” switch position.

DO NOT over torque/tighten screw terminals.



My wire colors

My type ☐

Points breaker / Pickup

Ta \_\_\_\_\_

Tb \_\_\_\_\_

Original Spark control module

Ta \_\_\_\_\_

Tb \_\_\_\_\_

e(cdi) \_\_\_\_\_

GND \_\_\_\_\_

Original coil(s)

Ta \_\_\_\_\_

Tb \_\_\_\_\_

e \_\_\_\_\_

“ Save some headache.

Inspect, clean and secure spark plug CAP.

Spark plug cables hard? Inspect for breaks.

DO NOT ASSUME, check!

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ENGINE POWER / SPARK COIL

**DO NOT** install fuse until instructed.

**DO NOT** over torque/tighten screw terminals.

“ Your X21 does not need additional parts to run LED lights.  
LED lights produce low heat to no heat and are energy efficient.

**Aftermarket parts**

Aftermarket or aftermarket replacement parts refer to vendor for wire colors.

**OR** include wiring diagrams/pictures in your email for assistance.

**My wire colors**

**Front signal lights**

marker \_\_\_\_\_  
turn \_\_\_\_\_  
GND \_\_\_\_\_

**Rear signal lights**

turn \_\_\_\_\_  
GND \_\_\_\_\_

**Taillight**

marker \_\_\_\_\_  
brake \_\_\_\_\_  
GND \_\_\_\_\_

**Plate light**

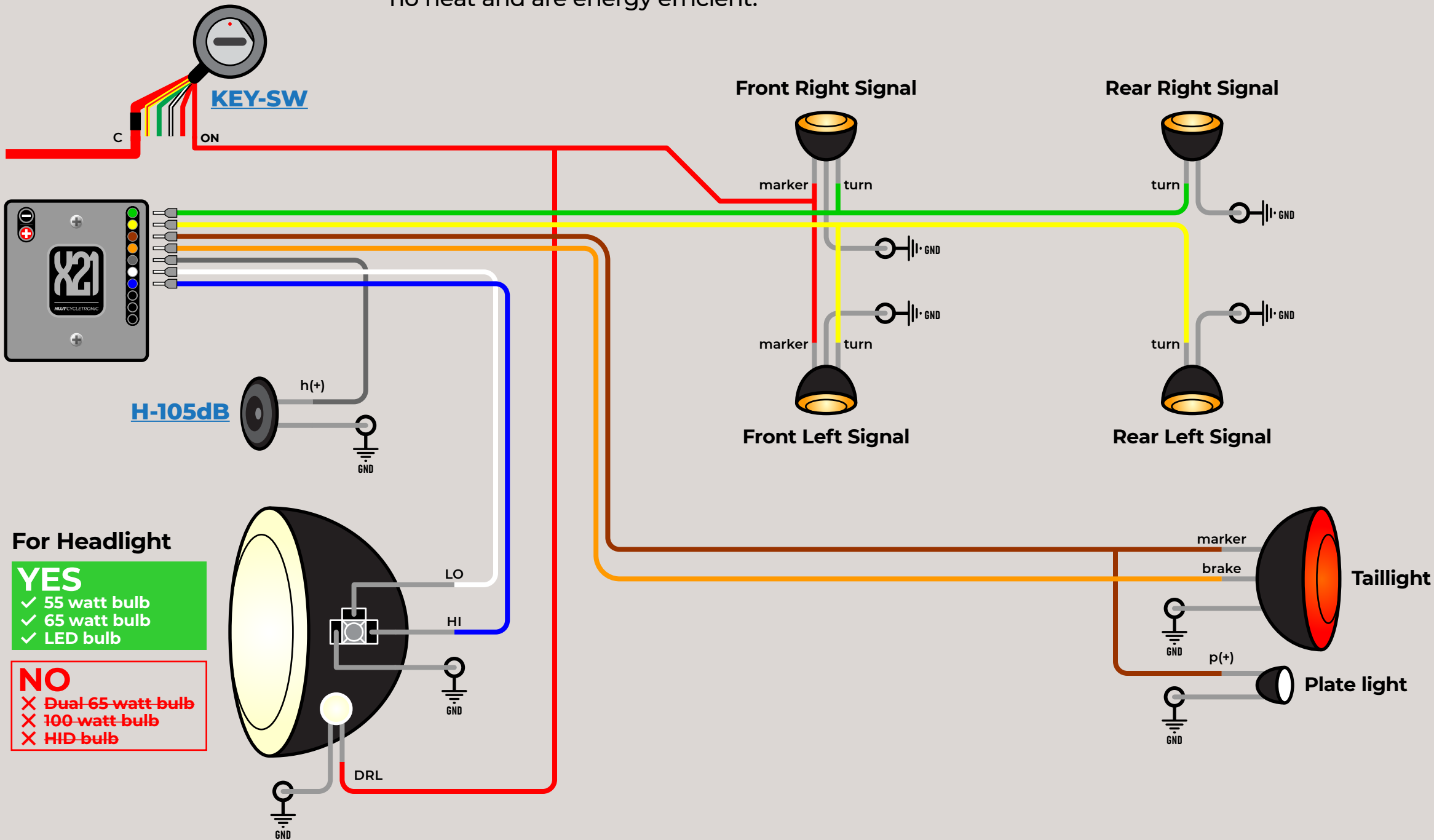
p(+) \_\_\_\_\_  
GND \_\_\_\_\_

**Horn**

h(+) \_\_\_\_\_  
GND \_\_\_\_\_

**Headlight**

DRL \_\_\_\_\_  
GND \_\_\_\_\_  
LO \_\_\_\_\_  
HI \_\_\_\_\_  
GND \_\_\_\_\_



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LIGHTS / HORN

**DO NOT** install fuse until instructed.

**Pay attention to cable slack** for steering head movement.

#### Aftermarket parts

Aftermarket or aftermarket replacement parts refer to vendor for wire colors.

**OR** include wiring diagrams/pictures in your email for assistance.

#### My wire colors

##### Gauge

backlight \_\_\_\_\_

b(-) \_\_\_\_\_

##### Left indicator

L(+) \_\_\_\_\_

L(-) \_\_\_\_\_

##### Neutral indicator

N(+) \_\_\_\_\_

N(-) \_\_\_\_\_

##### HI indicator

H(+) \_\_\_\_\_

H(-) \_\_\_\_\_

##### Oil indicator

O(+) \_\_\_\_\_

O(-) \_\_\_\_\_

##### Right indicator

R(+) \_\_\_\_\_

R(-) \_\_\_\_\_

##### Turn indicator

T(+) \_\_\_\_\_

T(-) \_\_\_\_\_

##### Rear brake switch

brake sw \_\_\_\_\_

brake sw \_\_\_\_\_

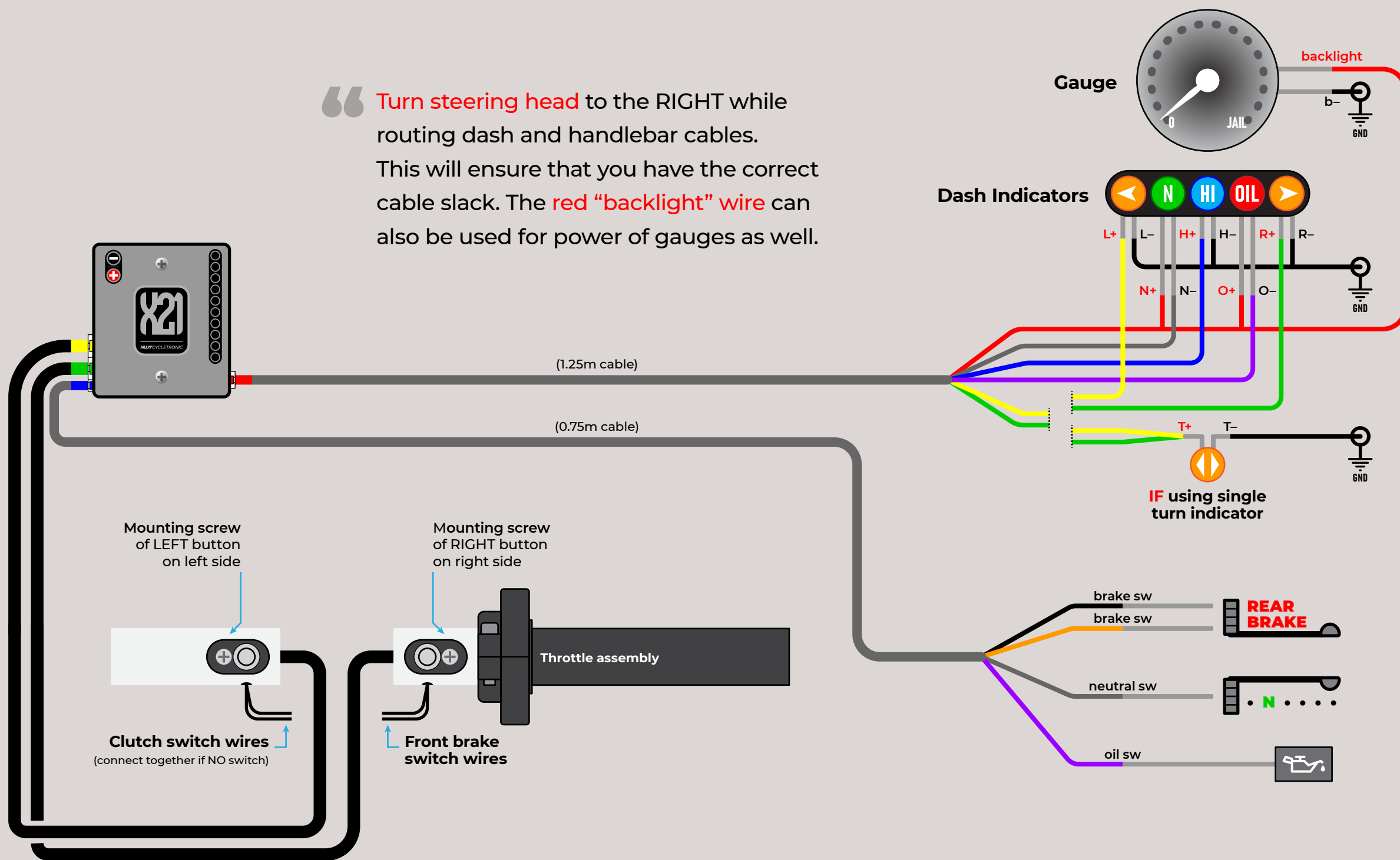
##### Neutral switch

neutral sw \_\_\_\_\_

##### Oil switch

oil sw \_\_\_\_\_

“ Turn steering head to the RIGHT while routing dash and handlebar cables. This will ensure that you have the correct cable slack. The red “backlight” wire can also be used for power of gauges as well.

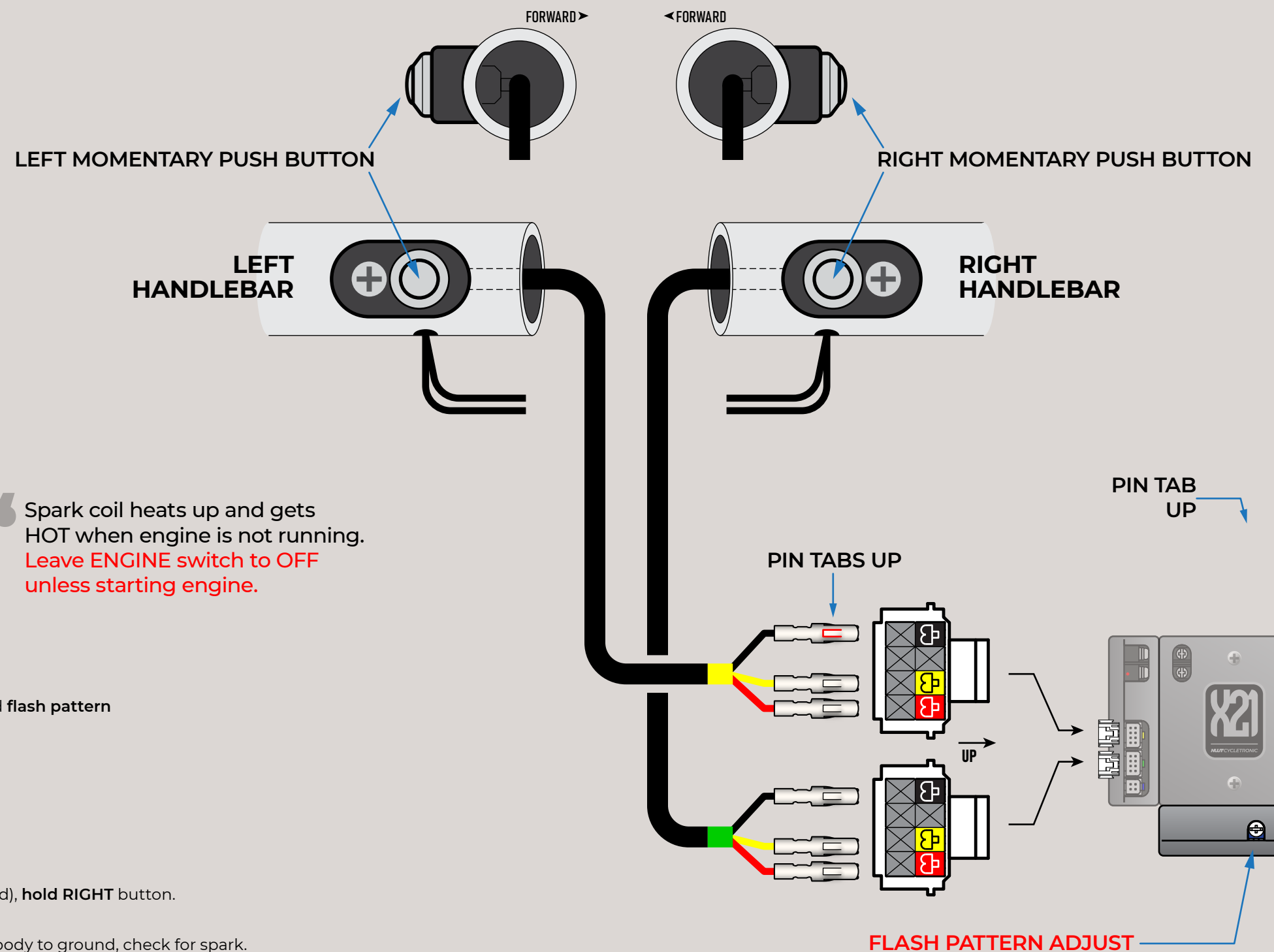


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SWITCHES / DASH LIGHTS



1. Do a visual once over on the wiring job.
2. **Have ALL switches and Key in OFF position & gear in NEUTRAL position.**
3. Install MAIN Power fuse.
4. Turn **KEY SWITCH** to **ON** position.  
 = X21 LED will blink 3 times and then ON solid  
 = signal lights will blink 2 times  
 This indicates the system is ready.  
 = NEUTRAL and OIL indicator lights ON  
 = front marker lights ON (if installed)  
 = plate light ON (if installed)  
 = taillight marker ON  
 = headlight LO "soft start" ON (light will gradually come to full brightness)
5. Check **FRONT** and **REAR** brake switch.  
 = bright brake light ON
6. **Tap LEFT** button **2 times**.  
 = HI beam ON and HI indicator ON, LO beam OFF  
 While HI beam is ON, **tap LEFT** button again **2 times**.  
 = HI beam OFF and HI indicator OFF, LO beam ON
7. **Tap LEFT** button **3 times**.  
 = headlight OFF  
**Tap LEFT** button again **3 times**.  
 = headlight ON  
 HI beam always available.
8. **Hold LEFT** button.  
 = horn ON while hold
9. **Tap LEFT** button and **RIGHT** button **1 time**.  
 = ALL signal lights ON and turn indicators ON  
 Slowly rotate **FLASH PATTERN ADJUST** dial in either direction to set desired **flash pattern**  
**Tap LEFT** button and **RIGHT** button again **1 time**.  
 = ALL signal lights OFF and turn indicators OFF  
 Check LEFT turn, check RIGHT turn ( **1 tap ON, 1 tap OFF** )  
 = signal lights ON and turn indicator ON to button pushed
10. **Tap RIGHT** button **2 times**  
 = engine ON  
 While NEUTRAL indicator is ON or CLUTCH pulled (if clutch switch is installed), **hold RIGHT** button.  
 = engine **CRANKING** and headlight OFF during  
**If engine not ready to run**, install spark plug to Spark Coil, then spark plug body to ground, check for spark.  
 While engine is ON, **tap RIGHT** button **2 times**.  
 = engine OFF  
**START** button **ONLY** available if ENGINE switch is ON **and** gear in NEUTRAL or CLUTCH pulled.
11. Turn **ALL** switches OFF

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**SYSTEM CHECK (VALUE-M)**

## Finalizing system installation

1. **Remove MAIN Power fuse.**
2. Organize wires and cables.
3. Cut and shorten excess wiring.
4. Bundle, wrap or tape to protect wiring.
5. **Turn steering head to the RIGHT while routing dash and handlebar cables.**

**This will ensure that you have the correct cable slack.**

6. Secure bundle with zip ties.
7. Secure and tighten all nuts, bolts, screws, duct tape, twist wires and whatever the fuck else you used to mount your shit down.
8. Thoroughly inspect all connection points.
9. **REPEAT Section G.**

### NEED ASSISTANCE?

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