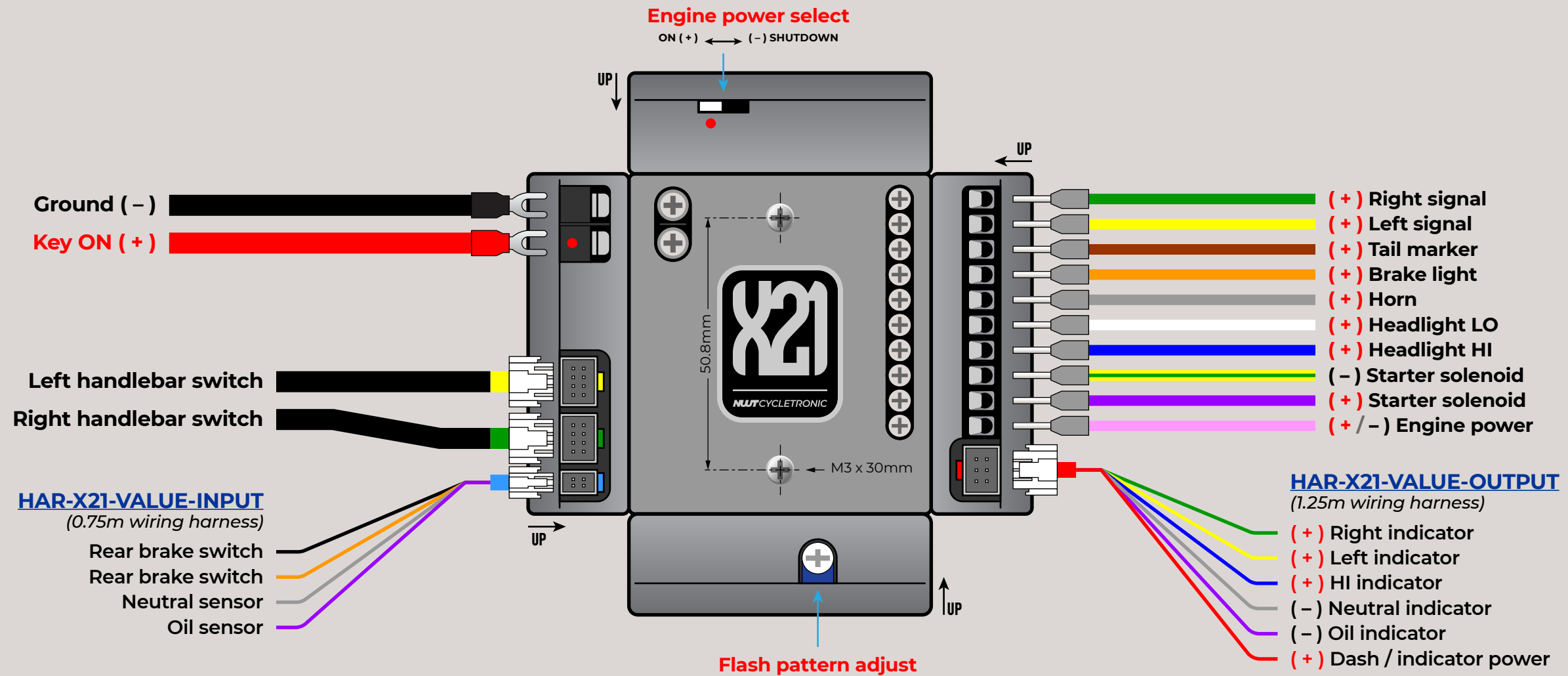


# X21 VALUE

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.

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



#### Need parts? Parts suggestions?

Have a chat with one of our affiliates:

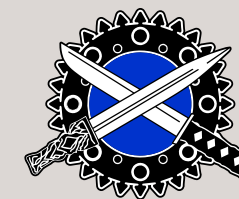


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[sales-europe@nwtcycletronic.com](mailto:sales-europe@nwtcycletronic.com)

#### NEED ASSISTANCE?

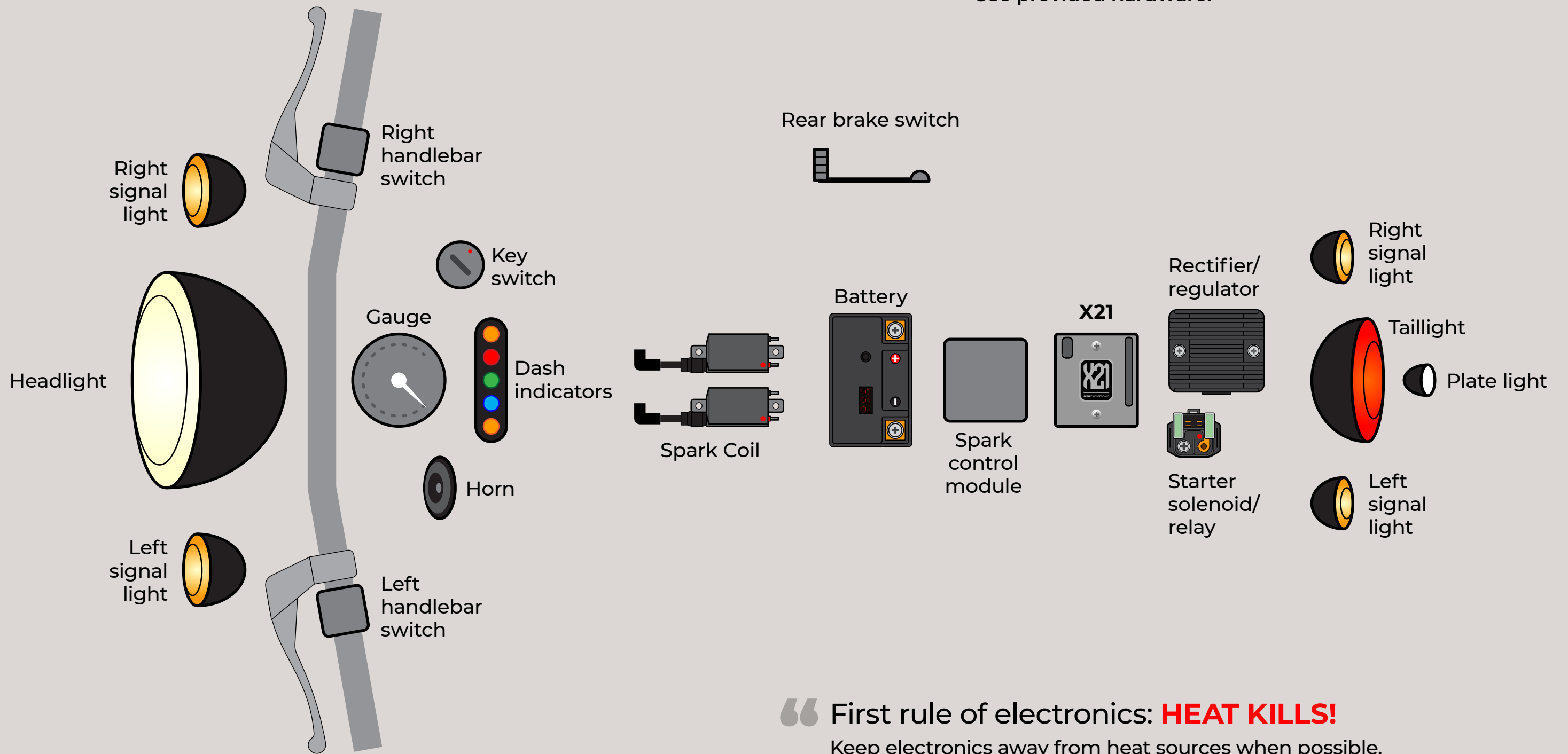
Email make, model, year of bike to  
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## COMPONENT CHECKLIST

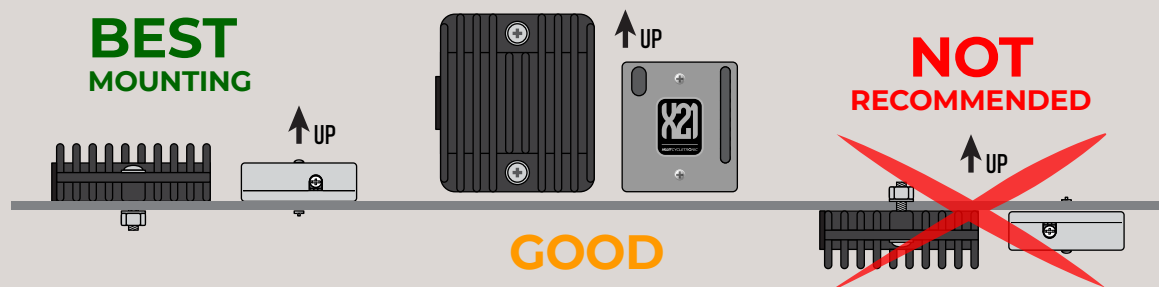
**MOUNT ALL COMPONENTS** onto desired location.

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

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



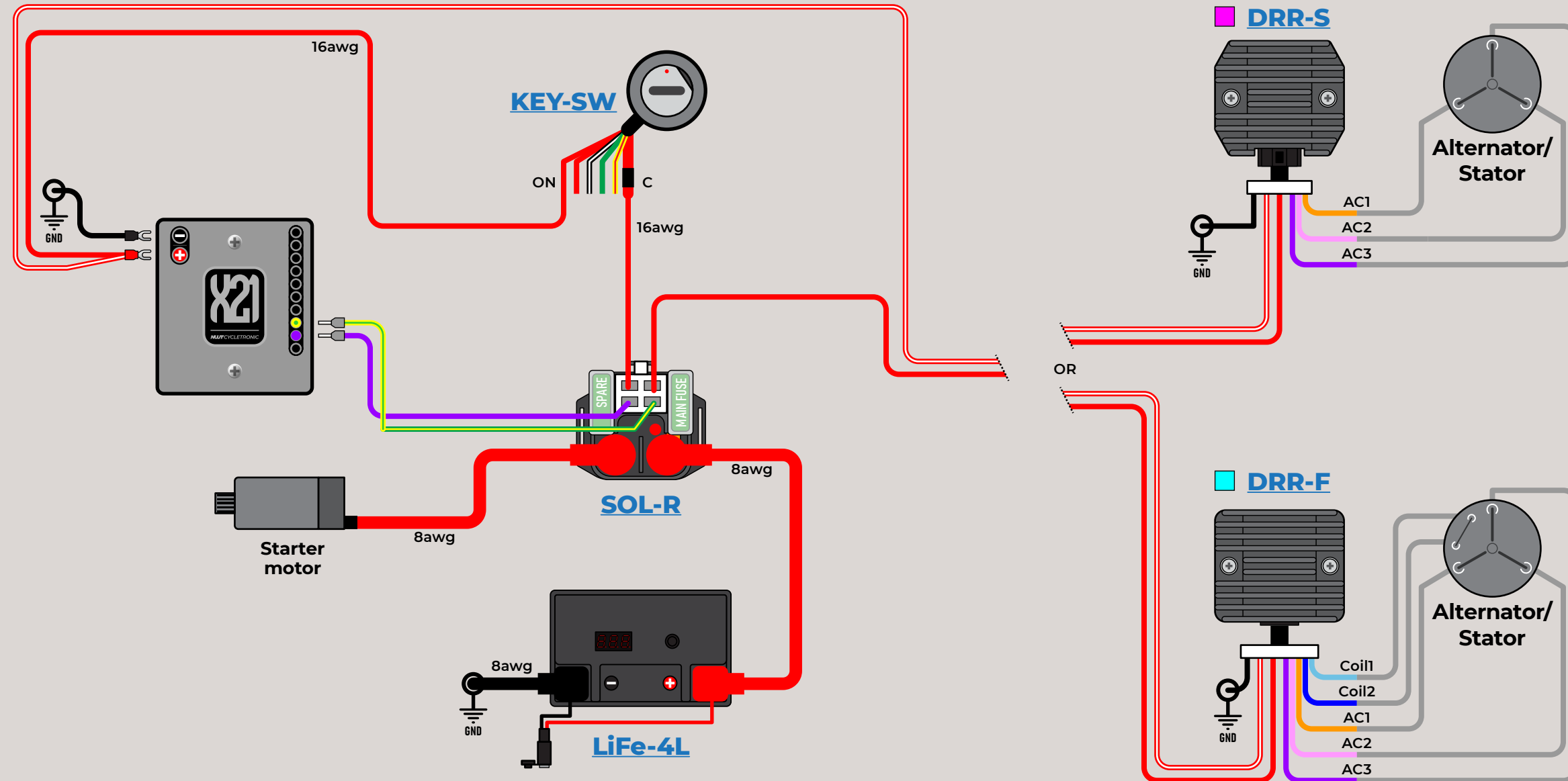
“ First rule of electronics: **HEAT KILLS!**  
Keep electronics away from heat sources when possible.



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**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.”

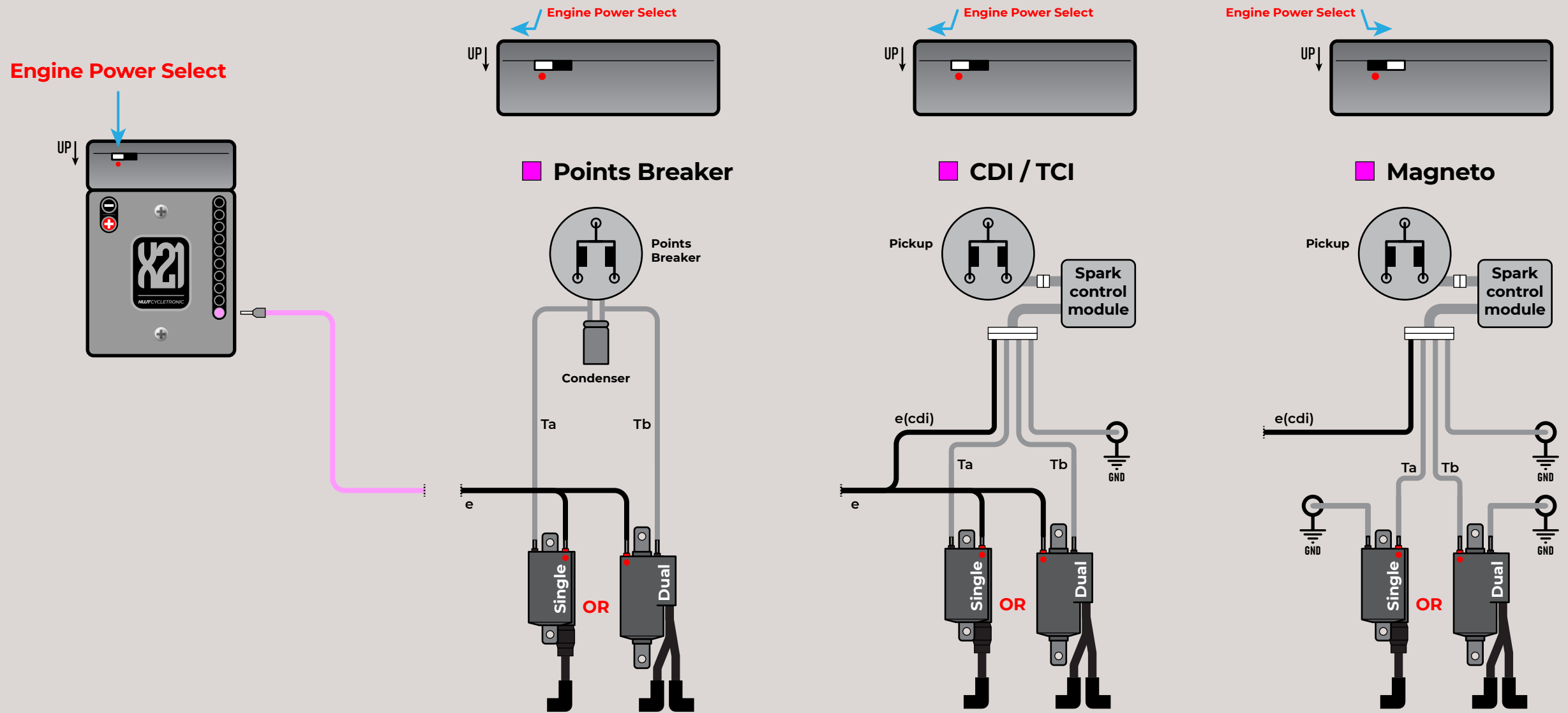
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**POWER / CHARGING / STARTING**

**DO NOT** install fuse until instructed.

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

Pay attention to "Engine Power Select" switch position.



**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**

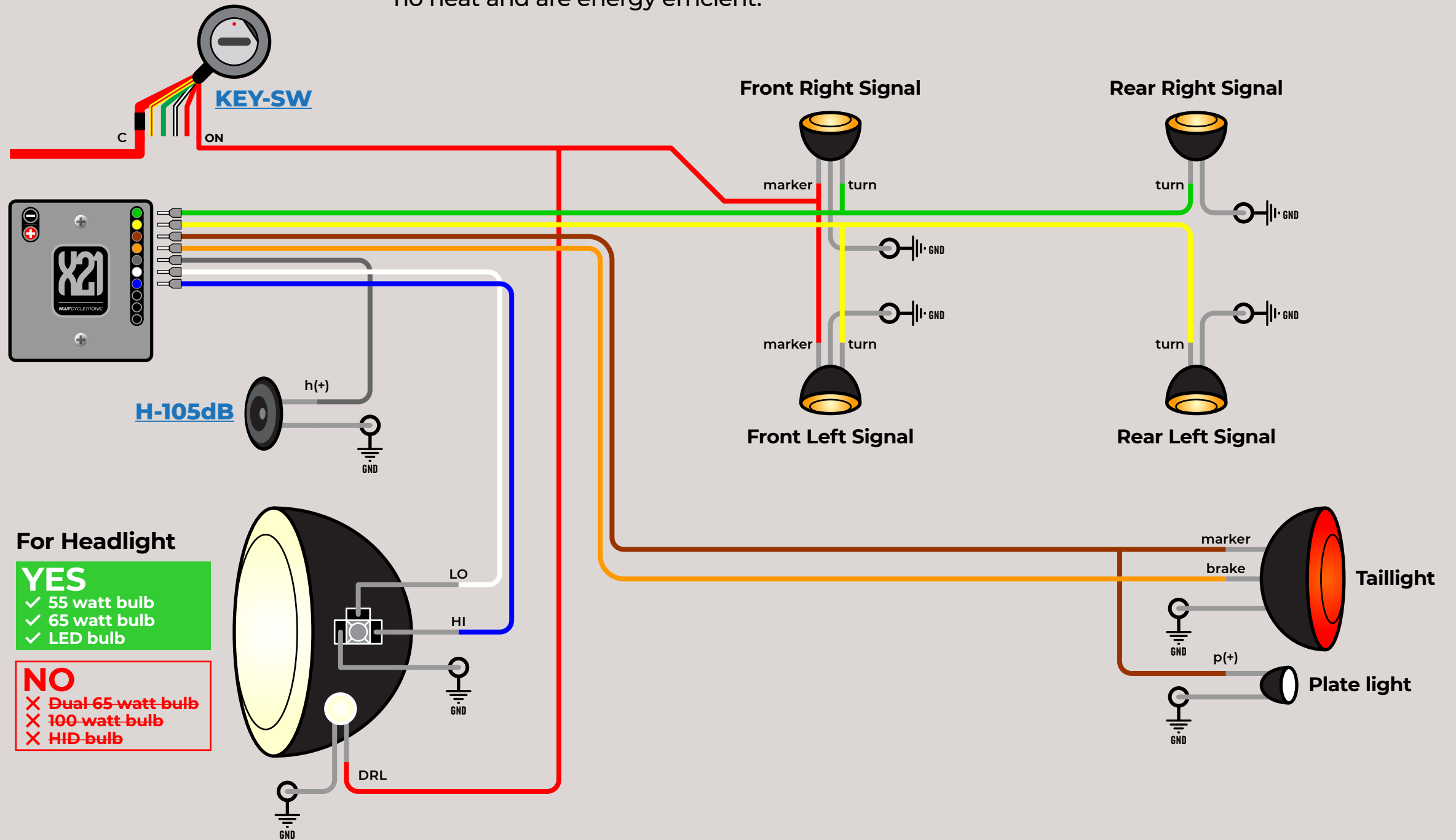
p(+) \_\_\_\_\_  
 GND \_\_\_\_\_

**Horn**

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

**Headlight**

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



**For Headlight**

- YES**
- ✓ 55 watt bulb
  - ✓ 65 watt bulb
  - ✓ LED bulb

- NO**
- ✗ Dual 65-watt bulb
  - ✗ 100-watt bulb
  - ✗ HID bulb

Need assistance with "My wire colors"?  
 Email make, model, year of bike to  
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**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 \_\_\_\_\_

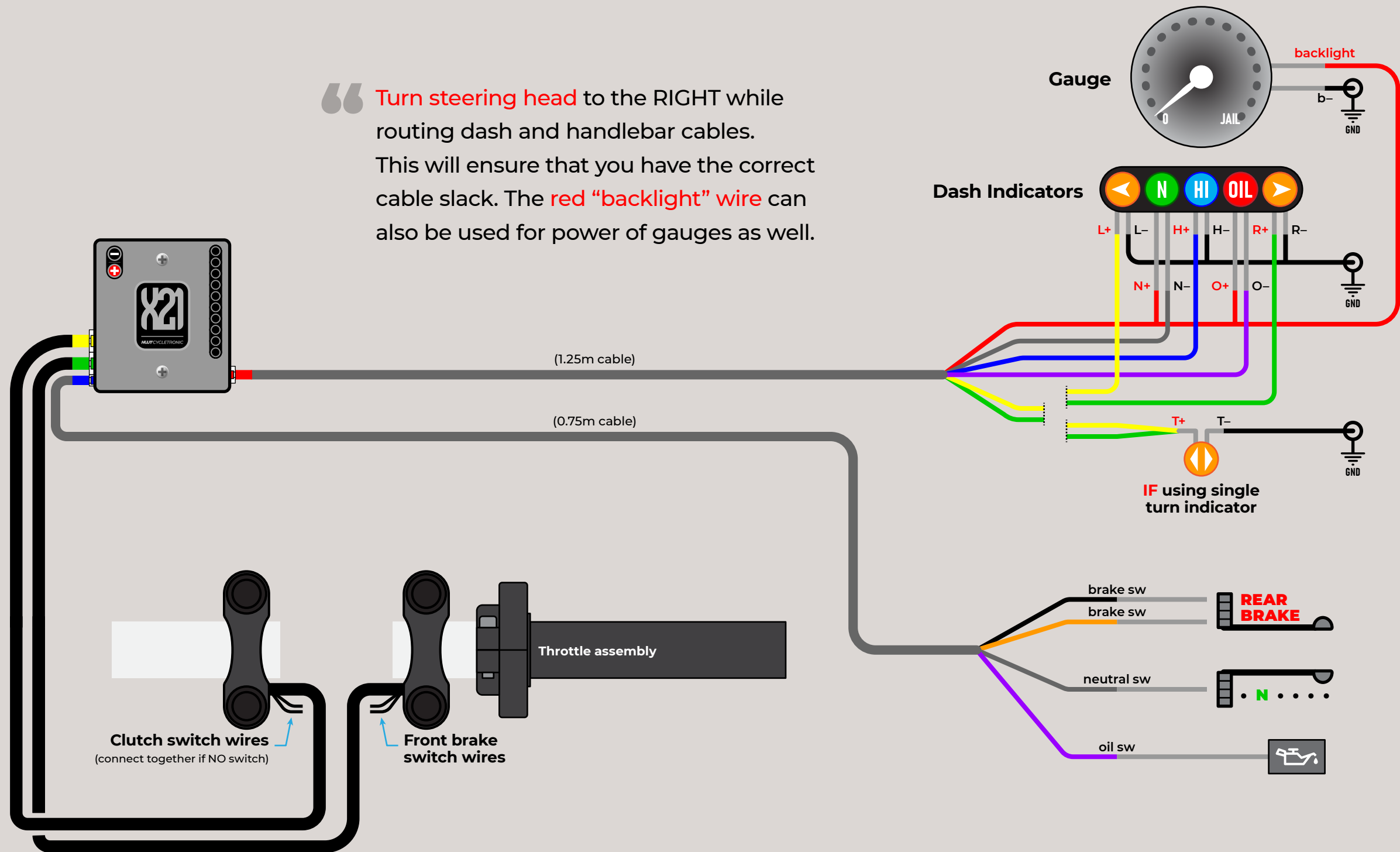
**Neutral switch**

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.



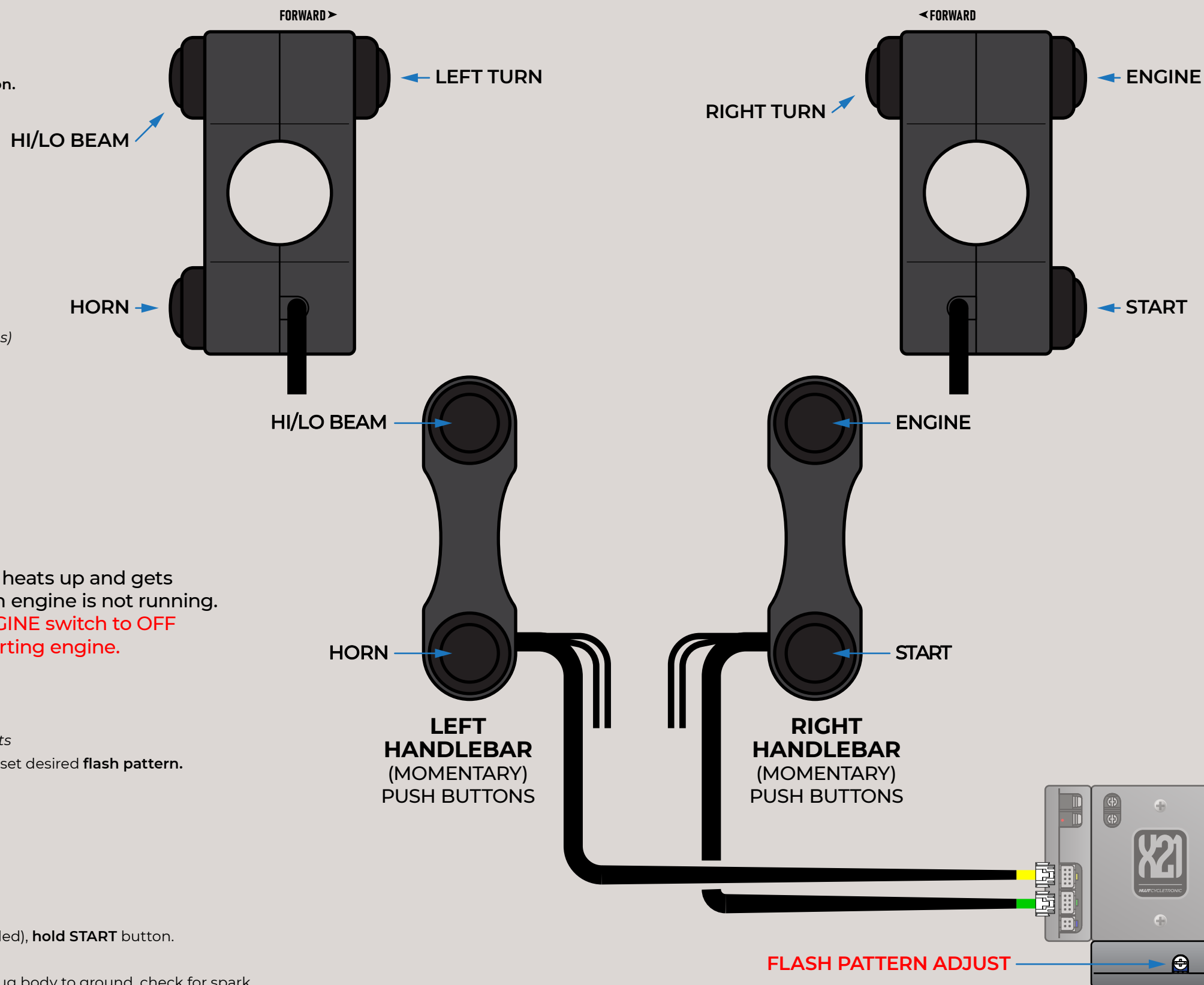
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SWITCHES / DASH LIGHTS



- Do a visual once over on the wiring job.
- Have ALL switches and Key in OFF position & gear in NEUTRAL position.
- Install MAIN Power fuse.
- 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)
- Check FRONT and REAR brake switch.  
= bright brake light ON
- Tap HI BEAM button 1 time.  
= HI beam ON and HI indicator ON, LO beam OFF  
While HI beam ON, tap HI BEAM button 1 time or hold HI BEAM button.  
= HI beam OFF and HI indicator OFF, LO beam ON
- Tap HI BEAM button 3 times.  
= headlight OFF  
Tap HI BEAM button again 3 times.  
= headlight ON  
HI beam always available.
- Push HORN button  
= horn ON while push
- Tap LEFT TURN and RIGHT TURN 1 time.  
= ALL signal lights ON and turn indicators ON, also used as Hazard Lights  
Slowly rotate FLASH PATTERN ADJUST dial on X21 in either direction to set desired flash pattern.  
Tap LEFT TURN and RIGHT TURN 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
- Tap ENGINE button 1 time  
= engine ON  
While NEUTRAL indicator ON or CLUTCH pulled (if clutch switch is installed), hold START 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 ENGINE button 1 time or hold ENGINE button  
= engine OFF  
START button ONLY available if ENGINE switch is ON and gear in NEUTRAL or CLUTCH pulled.
- Turn ALL switches OFF

“ Spark coil heats up and gets HOT when engine is not running.  
Leave ENGINE switch to OFF unless starting engine.



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SYSTEM CHECK (VALUE-P)

## 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.**

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