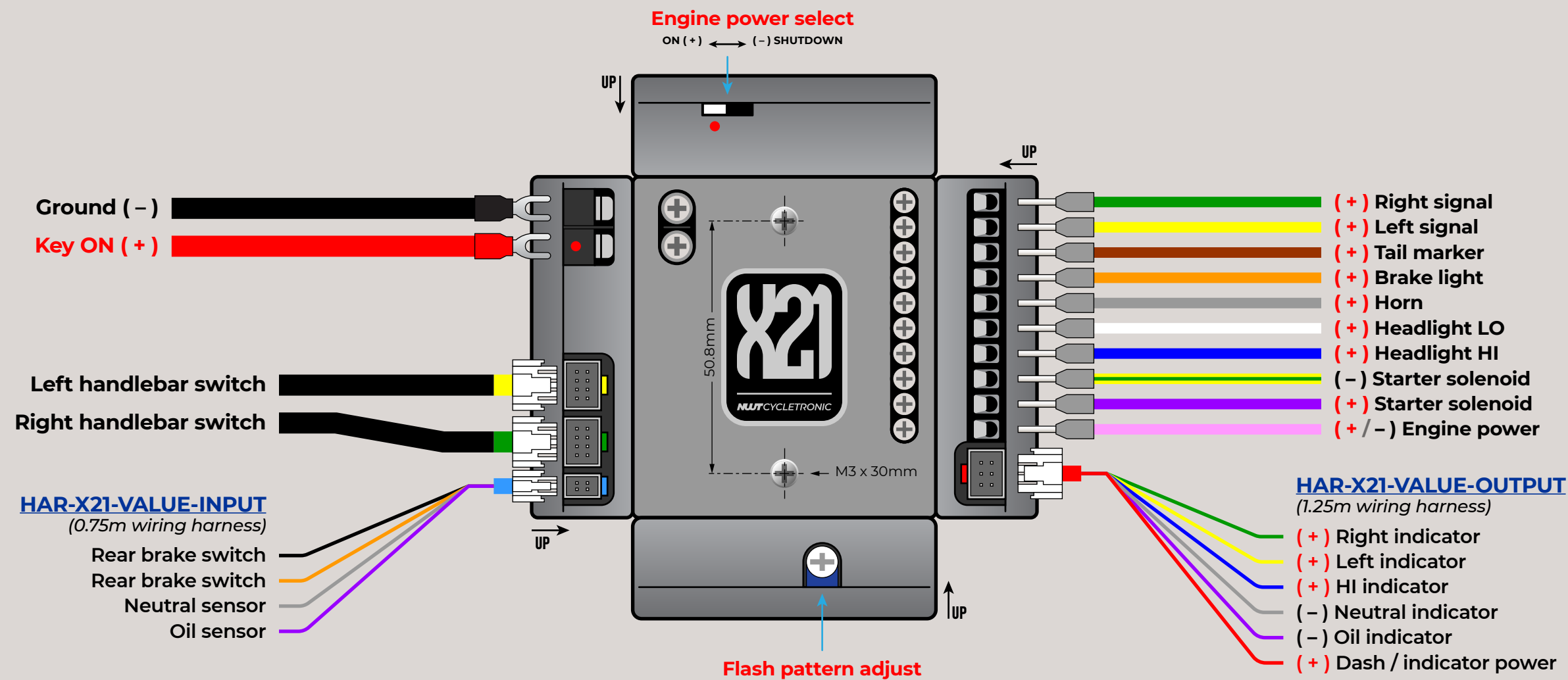


X21 VALUE

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

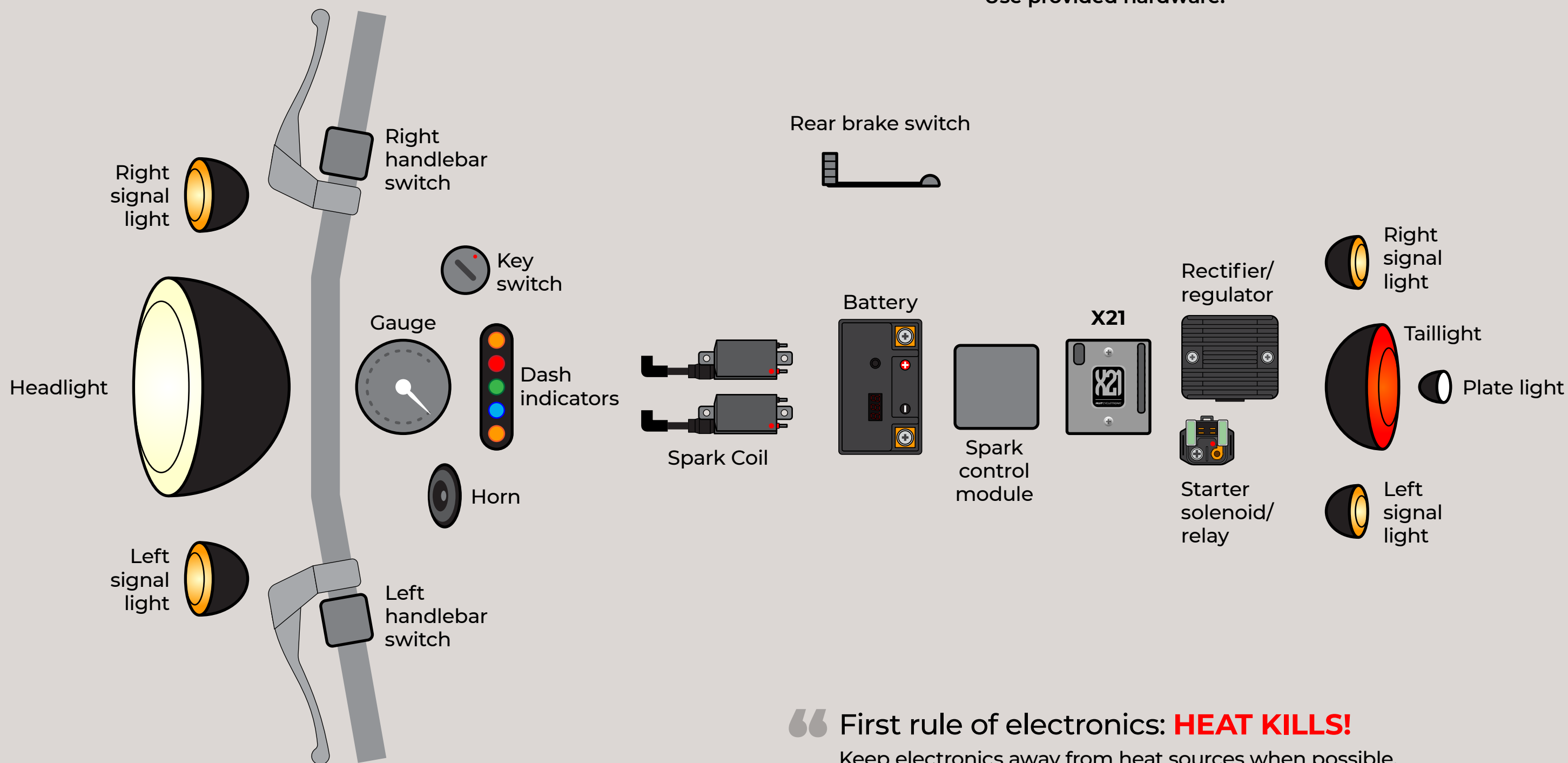
☐ Single FUSE HOLDER **for non protected starter solenoids / key switches**

NEED ASSISTANCE?
Email make, model, year of bike to
techservice@nwtcycletronic.com

MOUNT ALL COMPONENTS onto desired location.

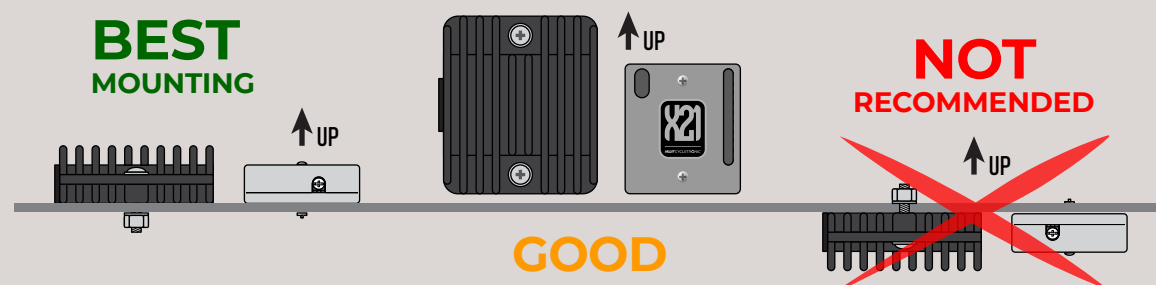
DO NOT route wires/cables at this time.

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.



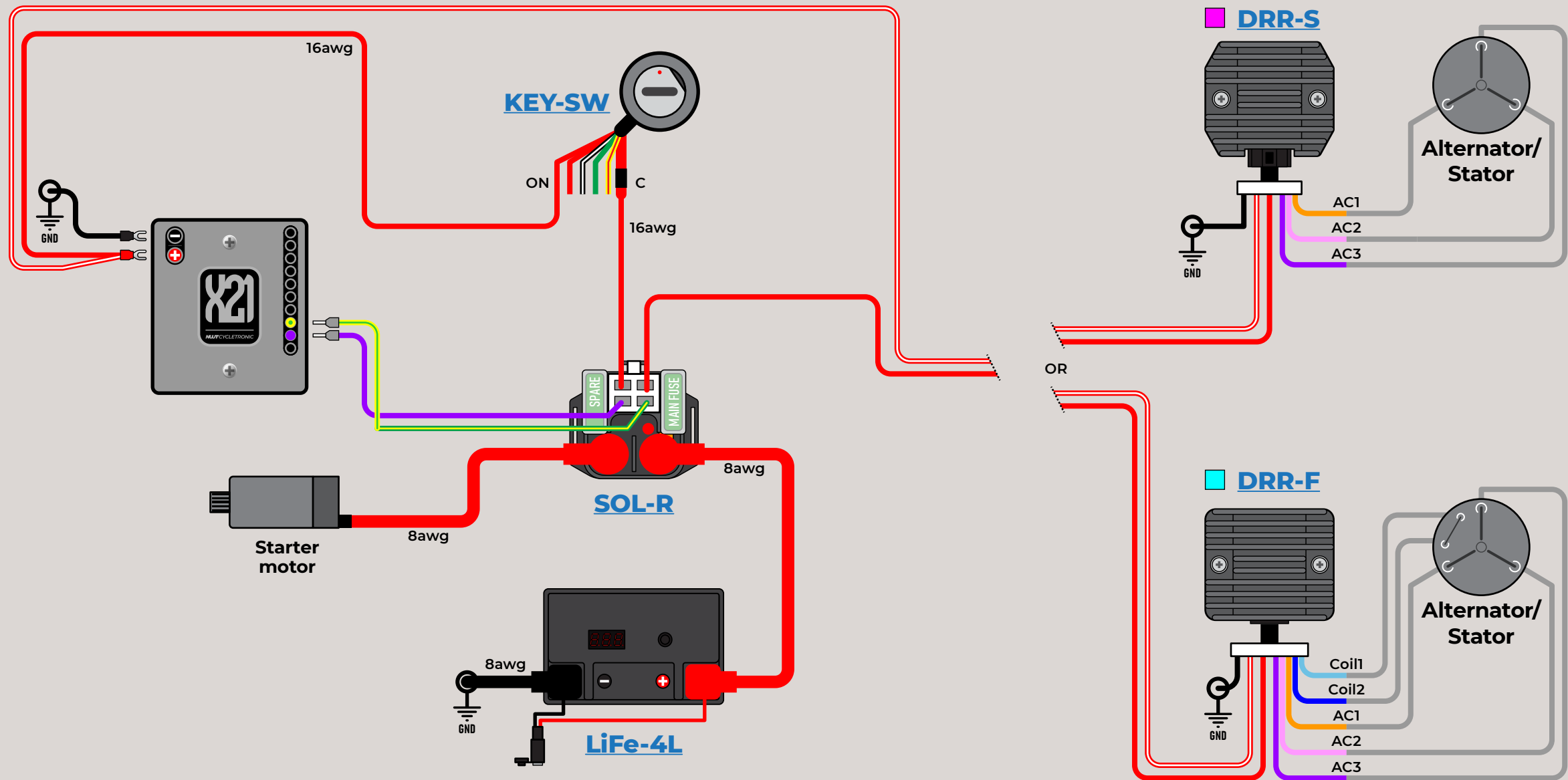
NEED ASSISTANCE?

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COMPONENT MOUNTING

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 _____

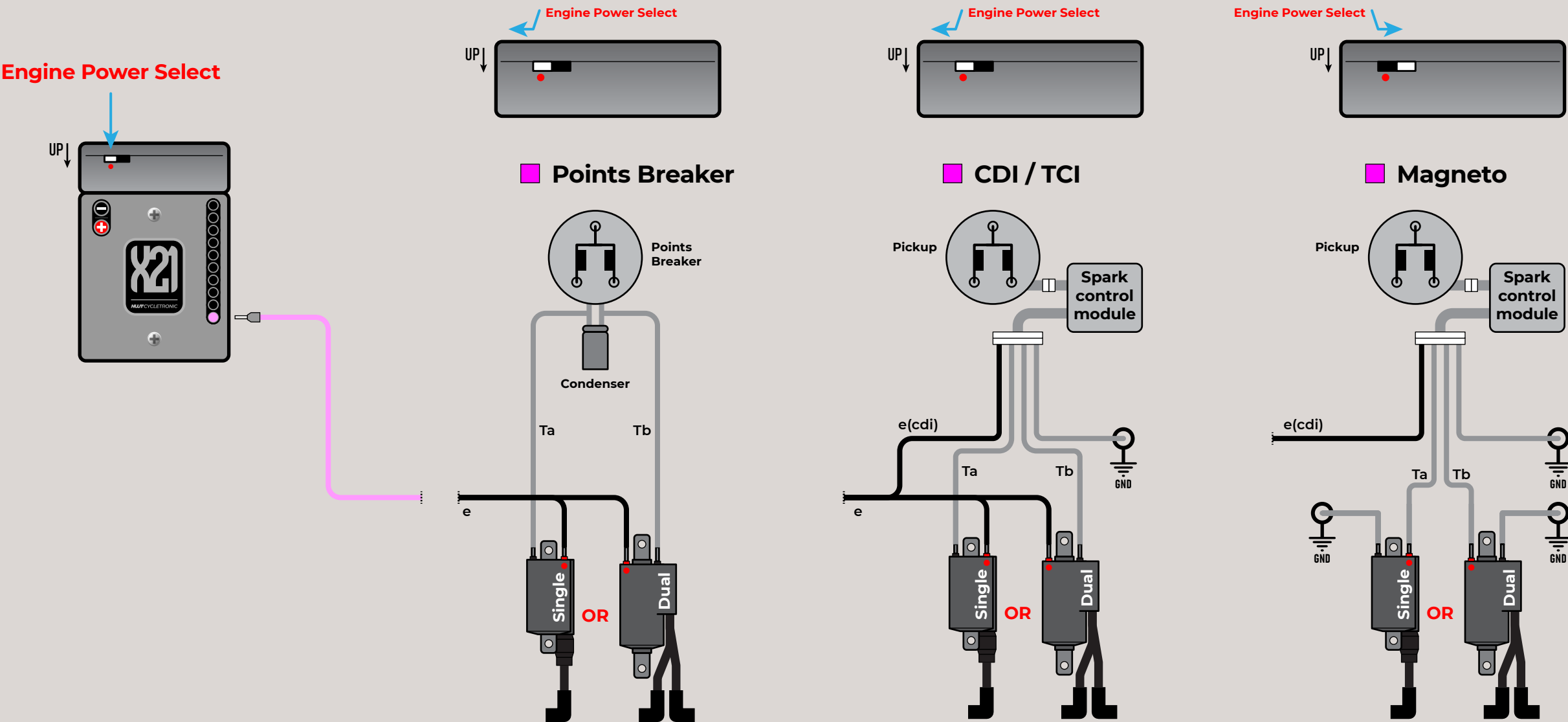
“Modernize your charging system
with a digital type rectifier/regulator
for a safer and more efficient
charging source.”

Need assistance with “My wire colors”?
Email make, model, year of bike to
techservice@nwtcycletronic.com

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!

Need assistance with “My wire colors”?
Email make, model, year of bike to
techservice@nwtcycletronic.com

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

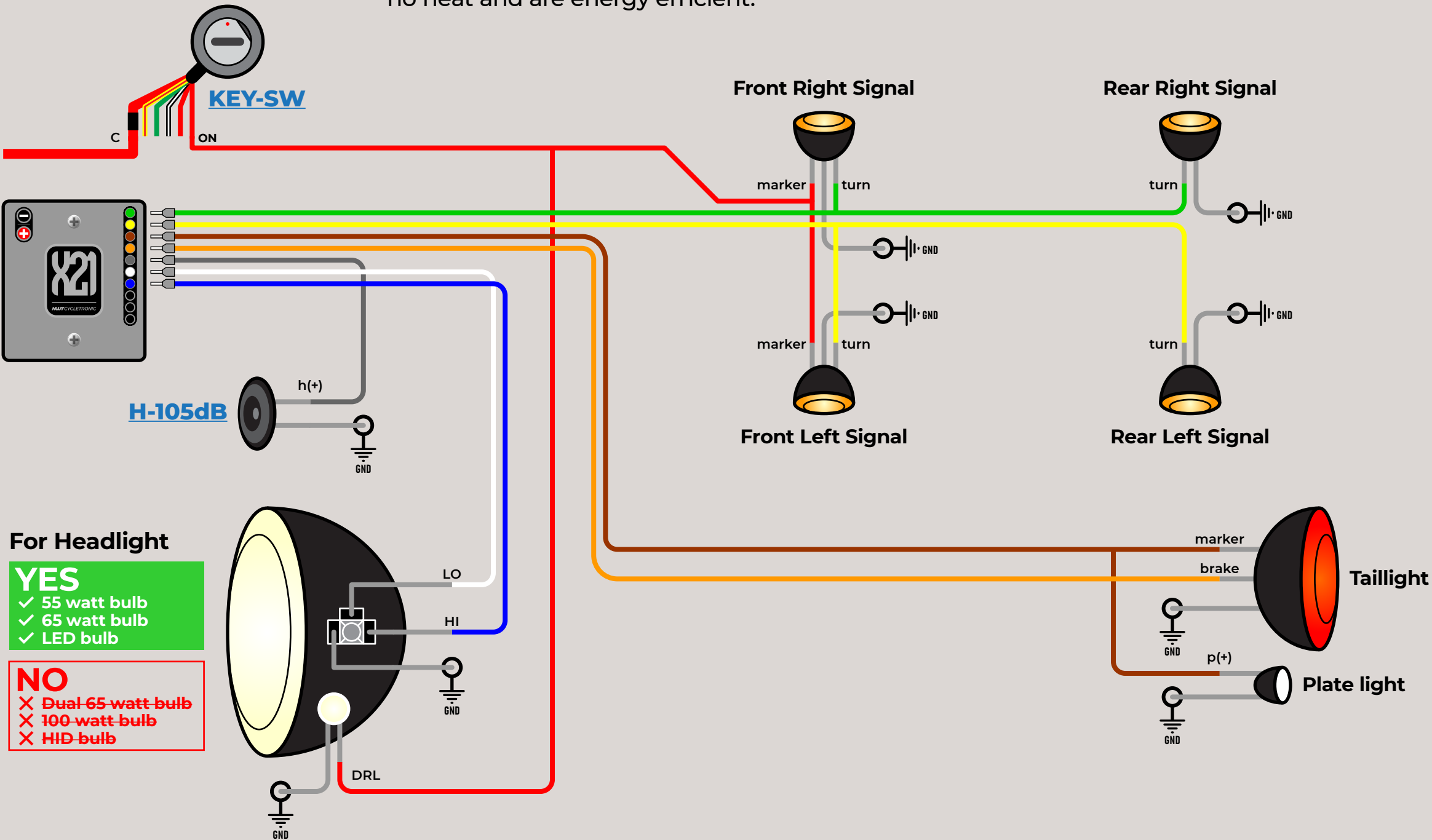
p(+) _____
GND _____

Horn

h(+) _____
GND _____

Headlight

DRL _____
GND _____
LO _____
HI _____
GND _____



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 _____

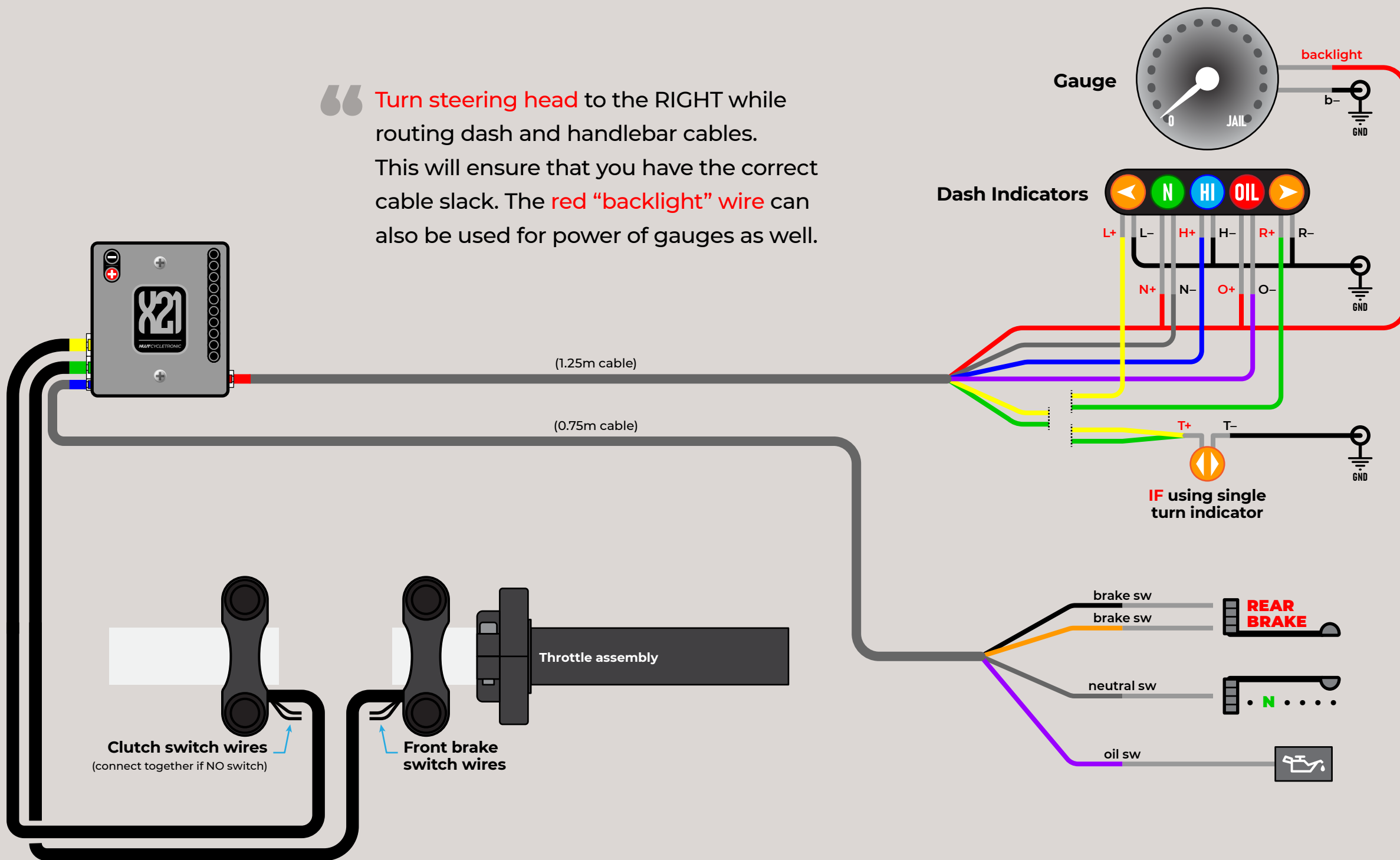
Neutral switch

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.



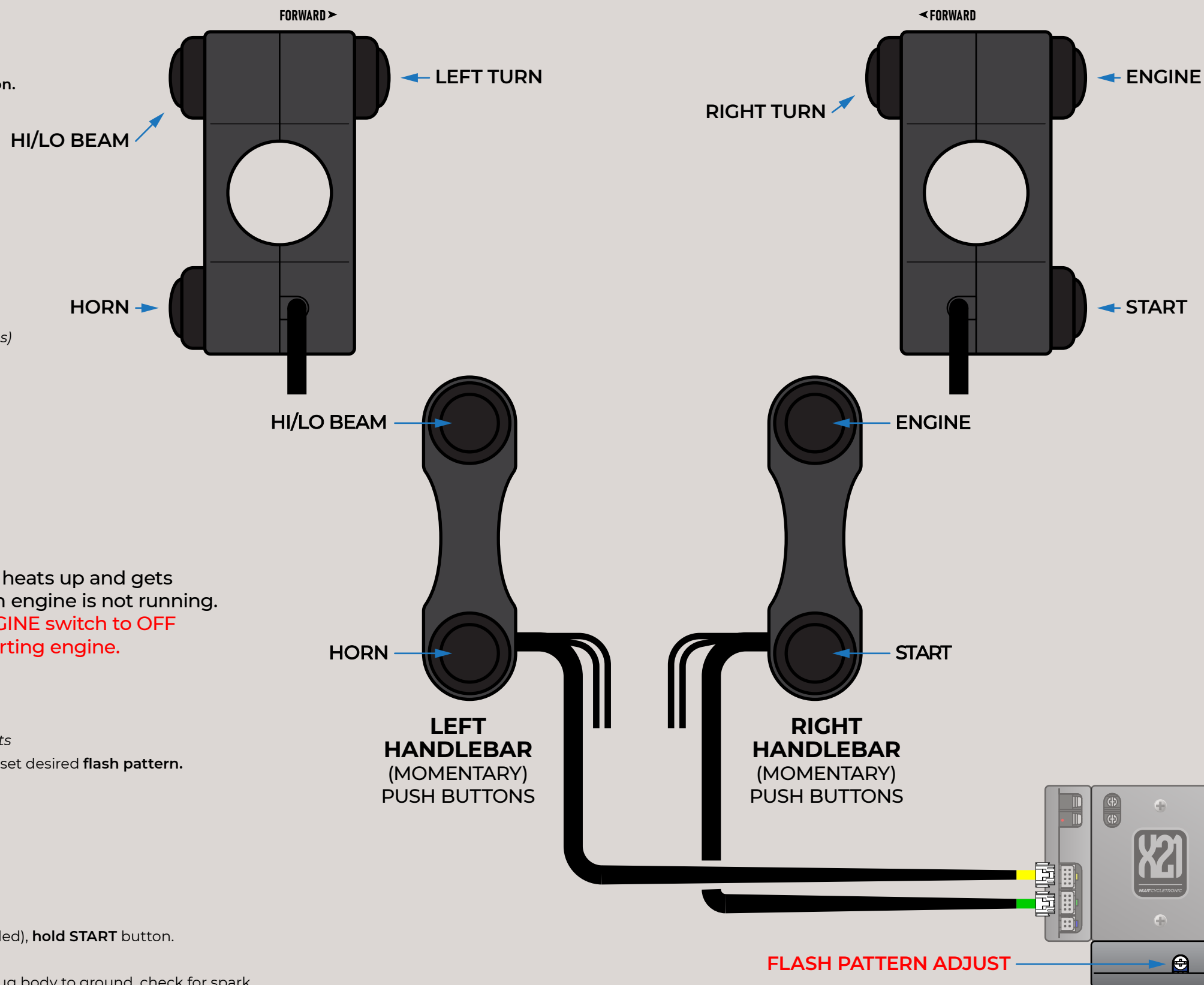
Need assistance with “My wire colors”?
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SWITCHES / DASH LIGHTS

System check: **Value-P** handlebar switch

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 **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
7. Tap **HI BEAM** button **3 times**.
 = headlight OFF
 Tap **HI BEAM** button again **3 times**.
 = headlight ON
 HI beam always available.
8. Push **HORN** button
 = horn ON while push
9. 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
10. 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.
11. Turn **ALL** switches OFF

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

**NEED ASSISTANCE?**

Email make, model, year of bike to
techservice@nwtcycletronic.com

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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