

TC3.S

Control Hub

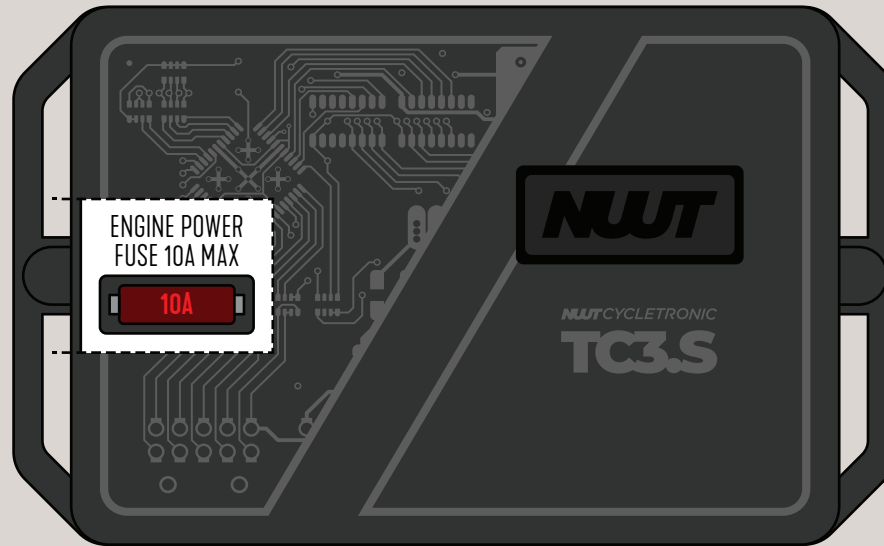
STANDARD SWITCH

FEATURES

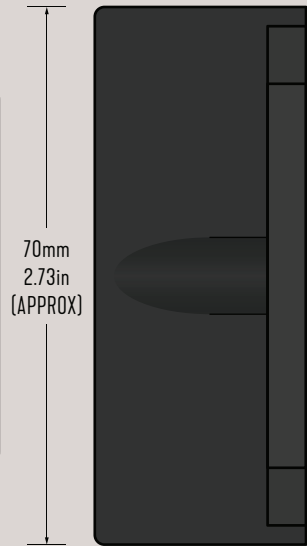
- Complete electrical control hub
- Atmel 8-bit AVR® RISC-based microcontroller
- Trench type MOSFET powered
- Solid State design for water-proof and shock-proof operation
- 4 layer PCB design utilizing SMD components
- PTC smart fuse protection with auto reset
- Optimized for LED lighting
- On board "fly-back" protection circuit
- AC/DC voltage runaway engine shutdown protection
- Enhanced engine power protection with quick blow fuse
- Complete color-coded wiring harness
- No start ignition coil time-out power off
- Starter motor safety lock out with anti-grind
- Starter motor max crank time out
- Brake light flash pre-warning (Selectable)
- Onboard digital flasher (Selectable)
- Intelligent directional switching signal light
- "PARK" position light feature (Brake light)
- Master light control
- Sensor inputs
- Dash gauge outputs (Standard)
- Soft start headlight ON
- Engine run monitoring
- Multi-use internally protected power output
- Handlebar switch size (7/8", 22mm)
- 1 year replacement warranty & tech service

INCLUDES

- TC3.S Control Hub
- Plug in wiring harness (Power, Output, Input, Dash)
- Plug&Go handlebar switch set (Standard/factory style)
- GND harness



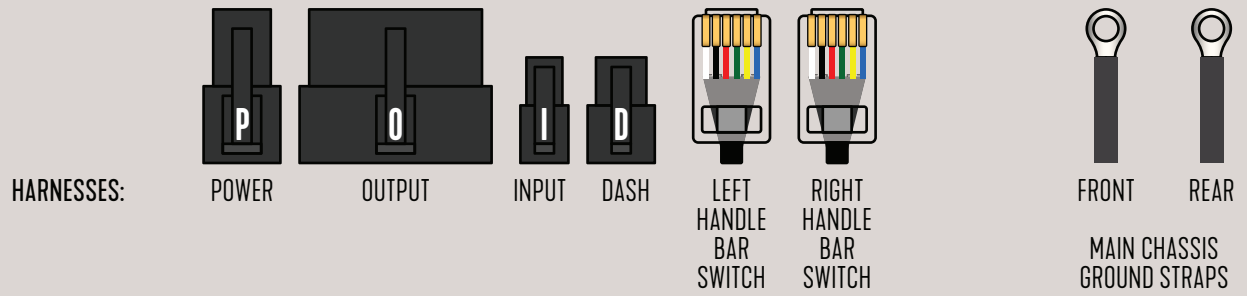
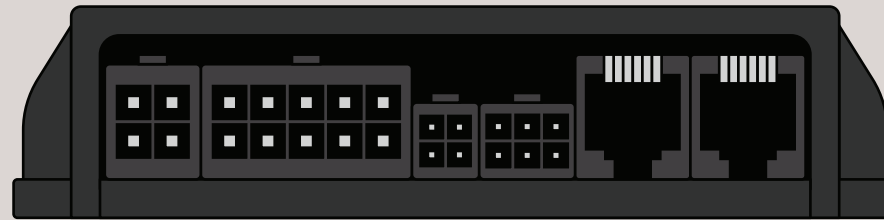
ENGINE POWER
FUSE 10A MAX
10A



70mm
2.73in
(APPROX)

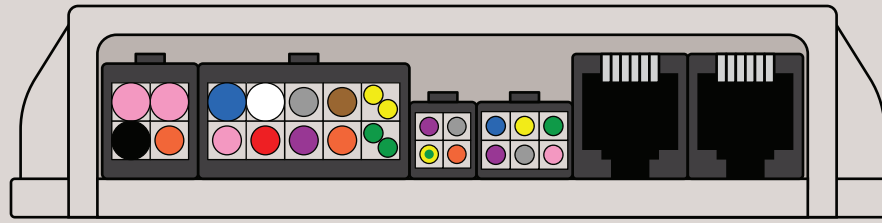
114mm / 4.45in (APPROX)

28mm / 1.1in (APPROX)

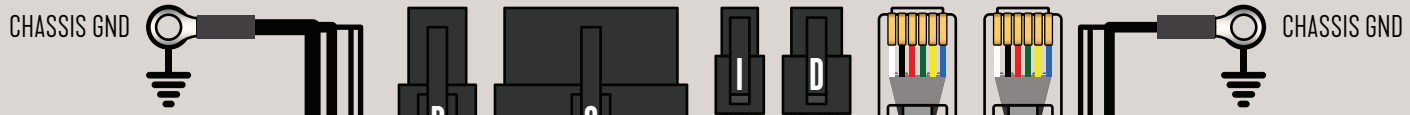


TC3.S

Pinouts



POWER OUTPUT INPUT DASH LEFT RIGHT



FRONT GND

GND	16AWG, 0.5m	(-)	DASH/DRL/HEADLIGHT
GND	18AWG, 0.5m	(-)	HORN
GND	22AWG, 0.5m	(-)	LEFT TURN SIGNAL LIGHT
GND	22AWG, 0.5m	(-)	RIGHT TURN SIGNAL LIGHT

POWER

K+	16AWG, 1.25m	(+)	KEY SWITCH POWER IN (LONG)
GND	16AWG, 0.25m	(-)	CHASSIS GROUND IN
S+	16AWG, 0.25m	(+)	SPARE SWITCH POWER OUT (SHORT)
P+	18AWG, 1.25m	(+)	PARK LIGHT SWITCH IN

OUTPUT

HI	16AWG, 1.25m	(+)	HEADLIGHT HIGH BEAM
F+	18AWG, 0.25m	(+)	PROTECTED POWER
LO	16AWG, 1.25m	(+)	HEADLIGHT LOW BEAM
ENGINE	18AWG, 0.75m	(+)	ENGINE IGNITION POWER
HORN	18AWG, 0.75m	(+)	HORN
STARTER	18AWG, 0.5m	(+)	STARTER SOLENOID / RELAY
TAILLIGHT	18AWG, 0.75m	(+)	TAIL LIGHT MARKER
BRAKELIGHT	18AWG, 0.75m	(+)	BRAKE LIGHT
LEFT TURN	(2) 22AWG, 1.25m, 0.75m	(+)	LEFT TURN SIGNAL LIGHTS (FRONT & REAR)
RIGHT TURN	(2) 22AWG, 1.25m, 0.75m	(+)	RIGHT TURN SIGNAL LIGHTS (FRONT & REAR)

INPUT

OIL	22AWG, 0.75m	(-)	OIL SWITCH
RUN SENSE	22AWG, 0.75m	(~)	IGNITION COIL TRIGGER
NEUTRAL	22AWG, 0.75m	(-)	NEUTRAL SWITCH
REAR BRAKE	22AWG, 0.75m	(-)	REAR BRAKE SWITCH

REAR GND

GND	18AWG, 0.5m	(-)	BRAKE/TAIL LIGHT
GND	22AWG, 0.5m	(-)	RIGHT TURN SIGNAL LIGHT
GND	22AWG, 0.5m	(-)	LEFT TURN SIGNAL LIGHT

RIGHT HANDLEBAR SWITCH

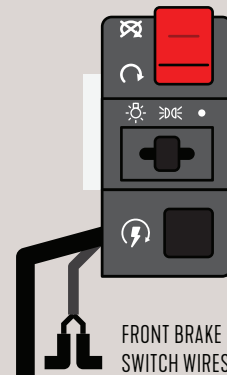
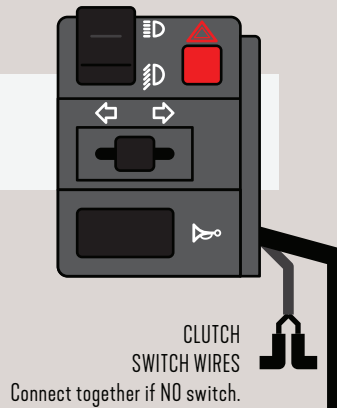
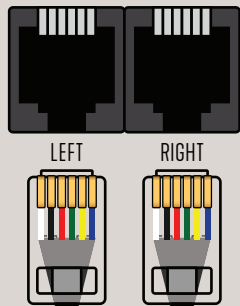
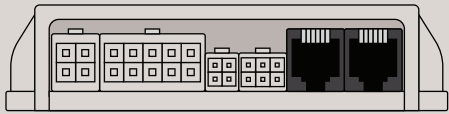
LEFT HANDLEBAR SWITCH

DASH

D+	22AWG, 1.25m	(+)	GAUGE POWER
RIGHT TURN	22AWG, 1.25m	(+)	RIGHT TURN INDICATOR
NEUTRAL	22AWG, 1.25m	(-)	NEUTRAL INDICATOR
LEFT TURN	22AWG, 1.25m	(+)	LEFT TURN INDICATOR
OIL	22AWG, 1.25m	(-)	OIL INDICATOR
HI	22AWG, 1.25m	(+)	HIGH BEAM INDICATOR

TC3.S Switch Set

Plug&Go STANDARD/FACTORY TYPE



TURN HANDLEBAR LEFT AND RIGHT, LOCK TO
LOCK, WHEN ROUTING SWITCH SET CABLES TO
ENSURE YOU HAVE PROPER CABLE SLACK.

TC3.S

Dash Harness

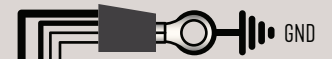
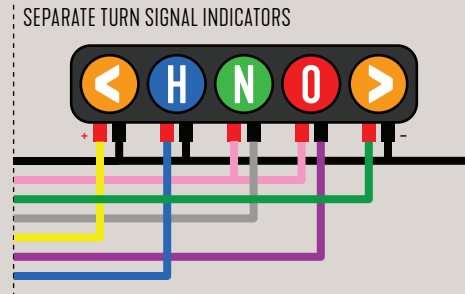
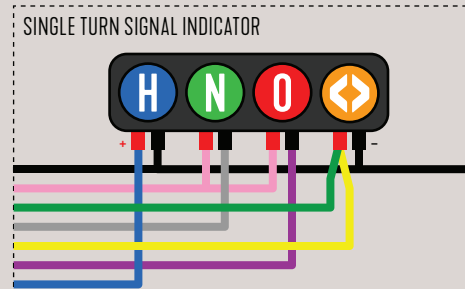
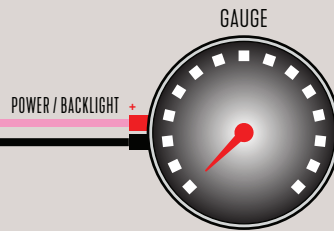
TURNING DUMMY TO SMART LIGHTS



DASH PLUG



TURN HANDLEBAR LEFT AND RIGHT, LOCK TO LOCK, WHEN ROUTING DASH CABLES TO ENSURE YOU HAVE PROPER CABLE SLACK.



FRONT GND STRAP
MOUNT ON MAIN FRAME/CHASSIS

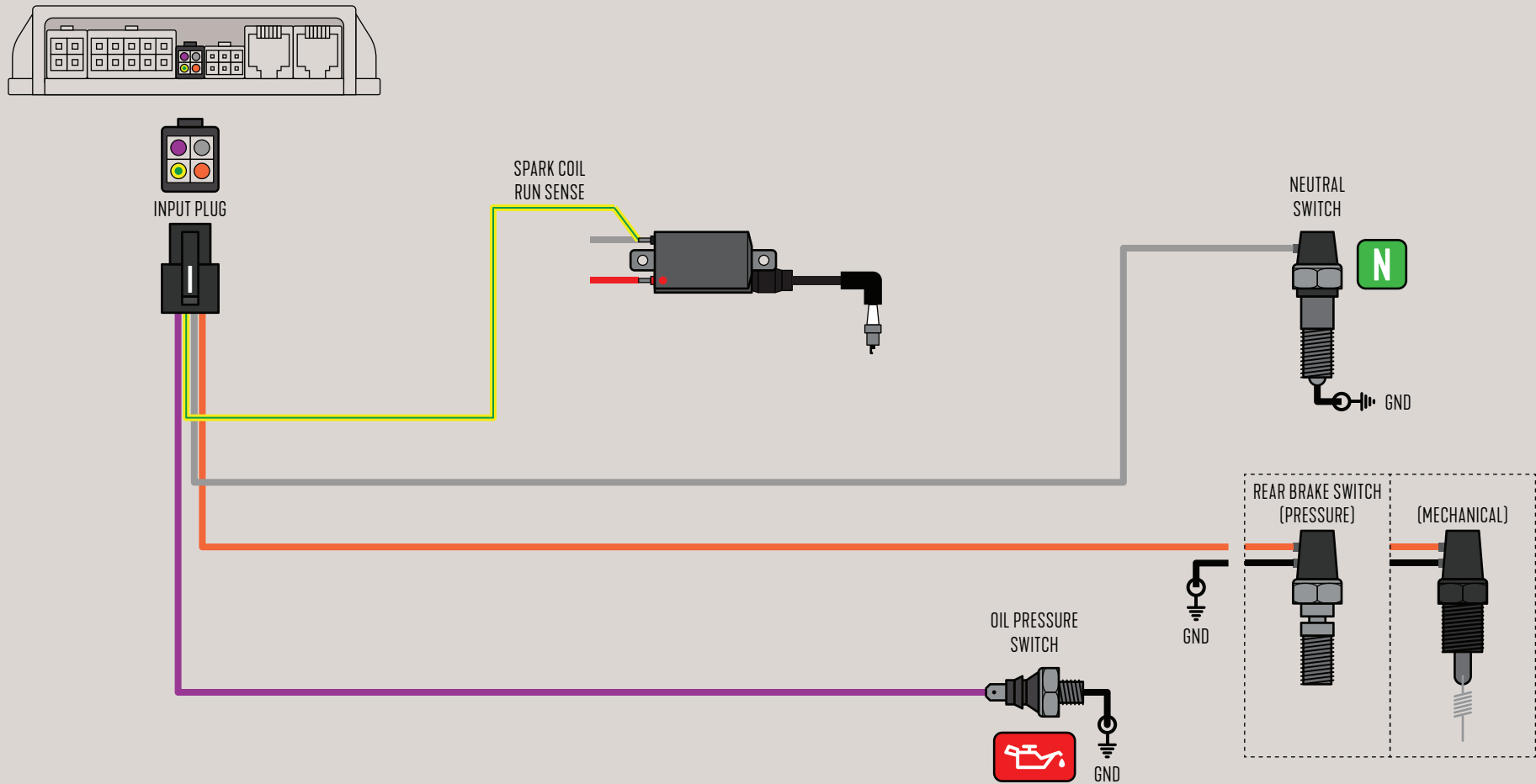
16AWG DASH/DRL/HEADLIGHT
18AWG HORN
22AWG LEFT TURN SIGNAL LIGHT
22AWG RIGHT TURN SIGNAL LIGHT

AVOID EXTENDING GROUND WIRES
KEEP SHORT AS POSSIBLE.

TC3.S

Input Harness

RUN SENSE / NEUTRAL / OIL / R-BRAKE

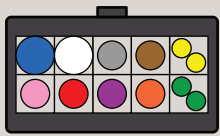
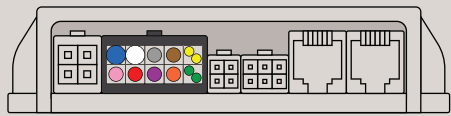


CHECK SWITCHES FOR PROPER FUNCTIONALITY
CLEAN/REBUILD/REPLACE WHEN NECESSARY

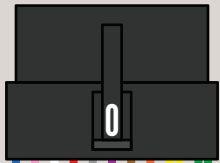
TC3.S

Output Harness

LIGHTING / HORN



OUTPUT PLUG



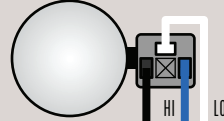
HRNX.105



LEFT TURN



HEADLIGHT



RIGHT TURN



FRONT GND STRAP
MOUNT ON MAIN FRAME/CHASSIS

16AWG DASH/DRL/HEADLIGHT
18AWG HORN
22AWG LEFT TURN SIGNAL LIGHT
22AWG RIGHT TURN SIGNAL LIGHT

AVOID EXTENDING GROUND WIRES
KEEP SHORT AS POSSIBLE.

YOUR NEW GENERATION CONTROL HUB **DOES NOT NEED ANY ADDITIONAL PARTS** TO RUN LED LIGHTS. THEY PRODUCE LOW TO NO HEAT AND ARE ENERGY EFFICIENT.

PROTECTED KEY POWER

Output Harness:
POWER / STARTING / CHARGING PAGE

Output Harness:
ENGINE POWER / SPARK COILS PAGE

REAR GND STRAP
MOUNT ON MAIN FRAME/CHASSIS

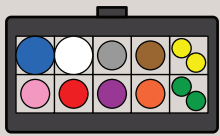
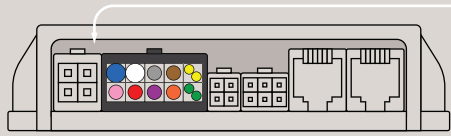
18AWG TAIL LIGHT
22AWG LEFT TURN SIGNAL LIGHT
22AWG RIGHT TURN SIGNAL LIGHT

DO NOT EXTEND OR LENGTHEN GND
WIRES KEEP SHORT AS POSSIBLE.

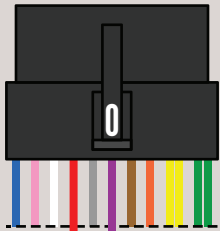
TC3.S

Output Harness

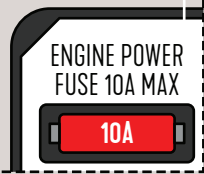
ENGINE POWER / SPARK COILS



OUTPUT PLUG



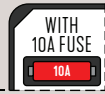
Output Harness:
LIGHTING / HORN PAGE



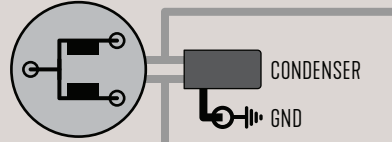
ENGINE POWER
FUSE 10A MAX

10A

POINTS BREAKER



WITH
10A FUSE



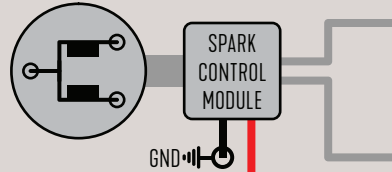
CONDENSER

GND

CDI (CAPACITOR DISCHARGE IGNITER) / TCI (TRANSISTOR CONTROLLED IGNITER)



WITH
10A FUSE



SPARK CONTROL
MODULE

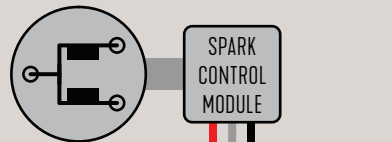
GND

MAGNETO



NO FUSE

REMOVE PRE
INSTALLED
FUSE

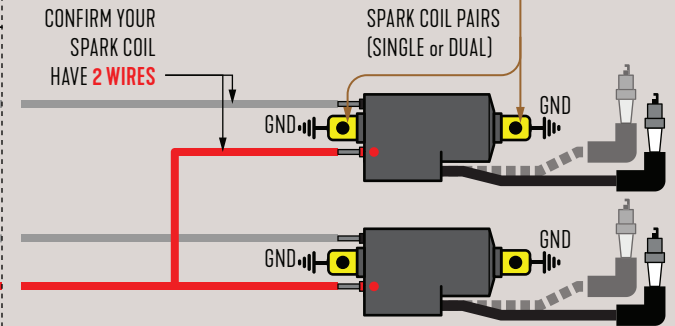


SPARK CONTROL
MODULE

GND

CONFIRM YOUR
SPARK COIL
HAVE 2 WIRES

IT IS ABSOLUTELY CRITICAL
THE COIL **CENTER CORES**
ARE GROUNDED SOLID,
DIRECT METAL TO METAL
ON THE MAIN CHASSIS.



SPARK COIL PAIRS
(SINGLE or DUAL)

GND

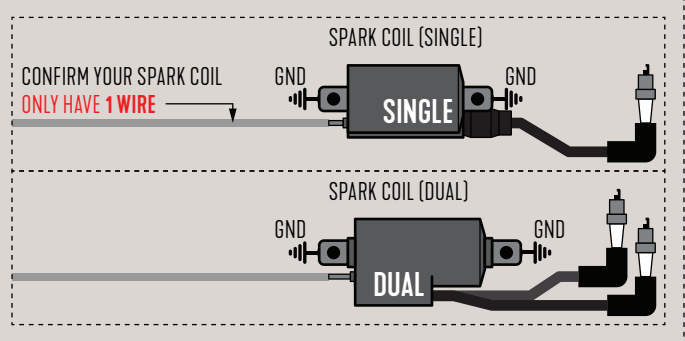
GND

GND

GND

DO NOT ASSUME, CHECK!
INSPECT, CLEAN AND SECURE SPARK PLUG CAP.
HARD SPARK PLUG CABLES? INSPECT FOR BREAKS.
EVEN BRAND NEW PARTS CAN BE DEFECTIVE.

CONFIRM YOUR SPARK COIL
ONLY HAVE 1 WIRE



SPARK COIL (SINGLE)

GND

GND

SPARK COIL (DUAL)

GND

GND

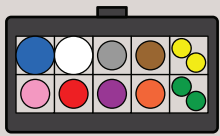
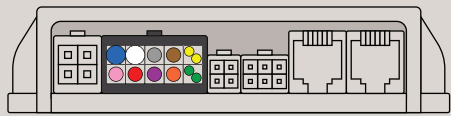
Output Harness:
POWER / STARTING / CHARGING PAGE

TC3.S

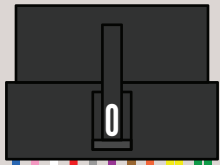
Output Harness

POWER / STARTING / CHARGING

MODERNIZE YOUR CHARGING SYSTEM
WITH A **DIGITAL TYPE** RECTIFIER+REGULATOR
FOR SAFER AND MORE EFFICIENT CHARGING SOURCE



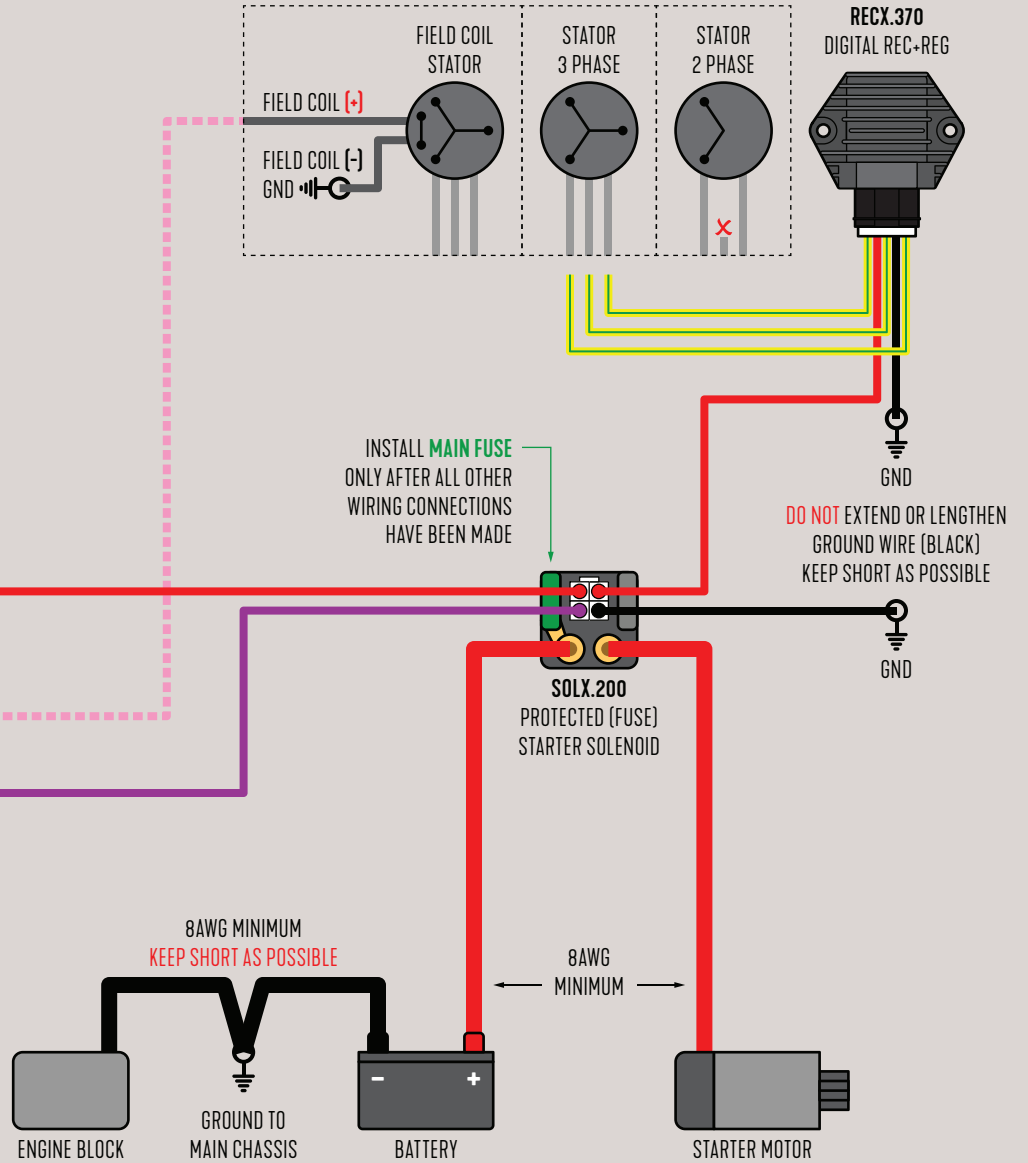
OUTPUT PLUG



Output Harness:
LIGHTING / HORN PAGE

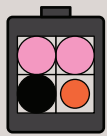
Output Harness:
ENGINE POWER / SPARK COILS PAGE

Power Harness
PAGE

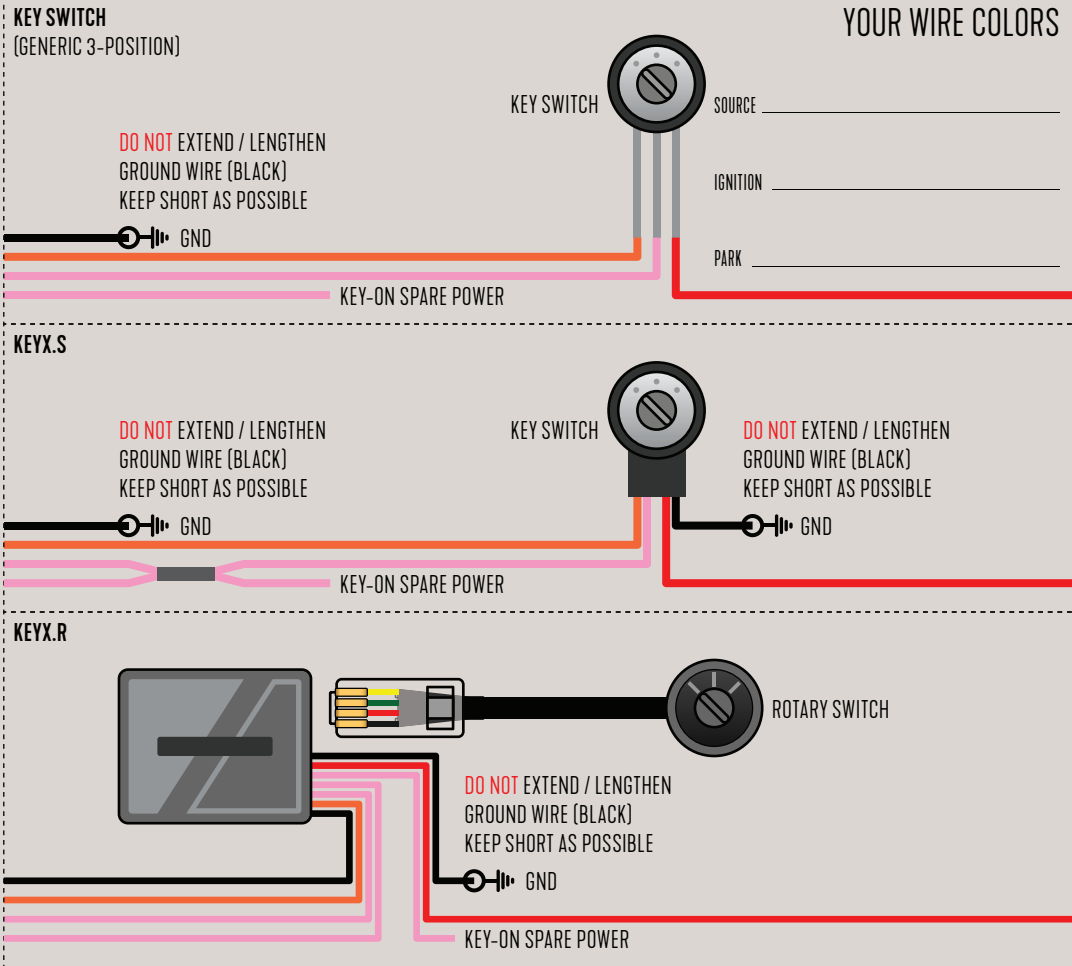


TC3.S

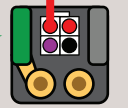
Power Harness KEY SWITCH



POWER PLUG



INSTALL MAIN FUSE ONLY AFTER ALL OTHER WIRING CONNECTIONS HAVE BEEN MADE



SOLX.200 PROTECTED (FUSE) STARTER SOLENOID