

# TC3.P Control Hub

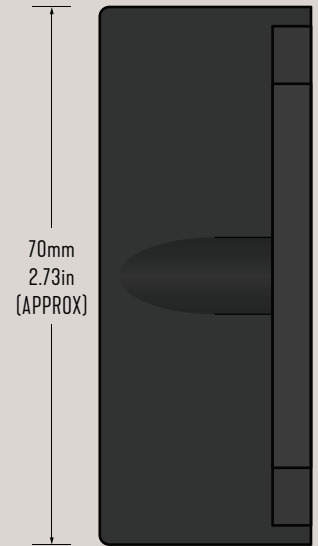
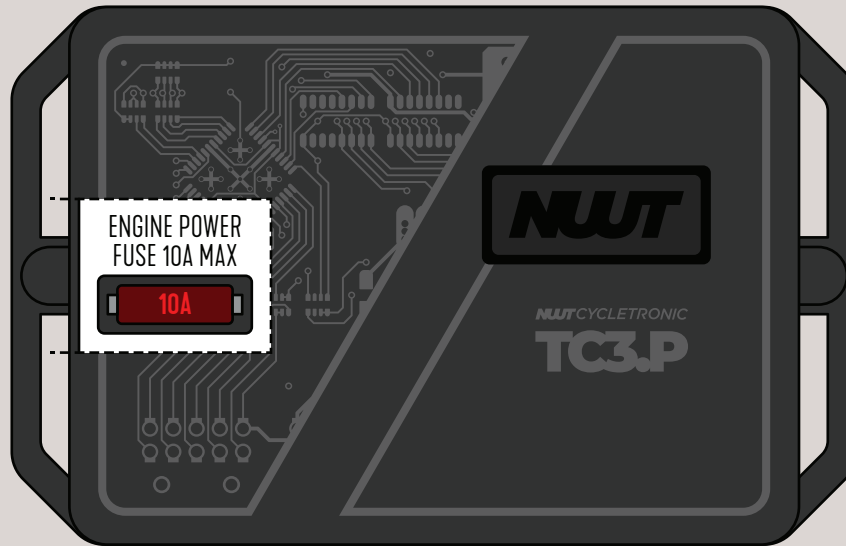
PUSH BUTTON SWITCH

**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 (Headlight only)
- 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

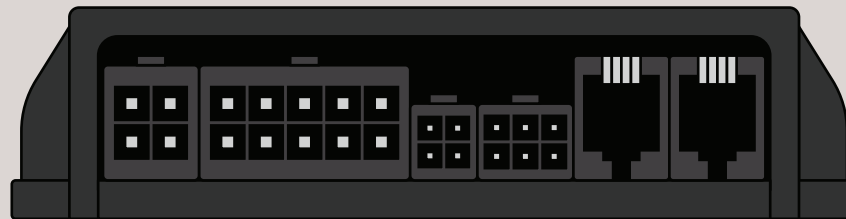
**INCLUDES**

- TC3.P Control Hub
- Plug in wiring harness (Power, Output, Input, Dash)
- Plug&Go handlebar switch set (Push button type)
- GND harness

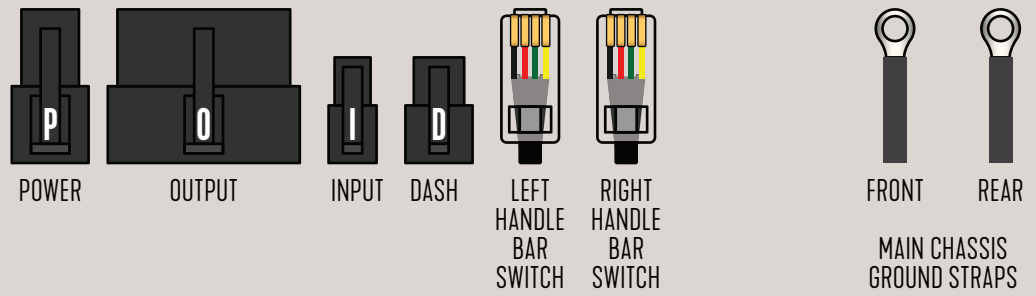


111mm / 4.35in (APPROX)

28mm / 1.1in (APPROX)

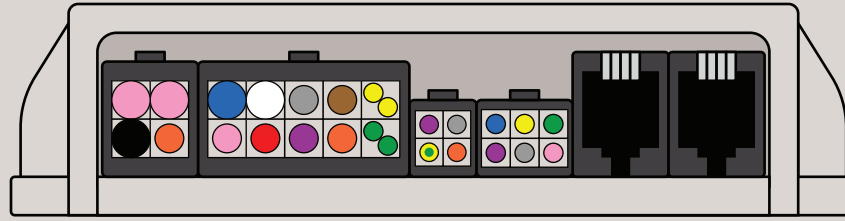


HARNESSES:

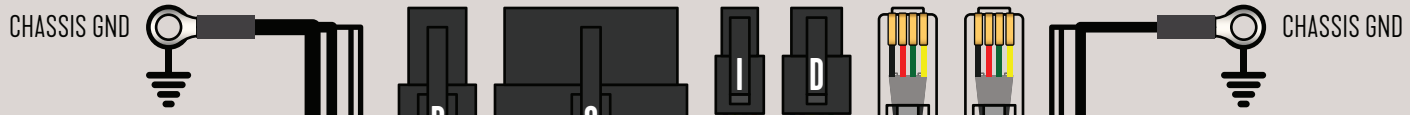


# TC3.P

## 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
GND	22AWG, 0.5m	(-)	RIGHT TURN SIGNAL

### 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**

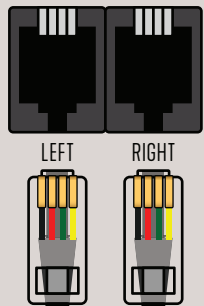
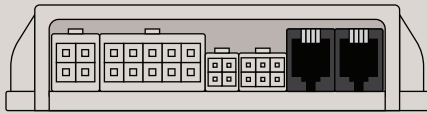
**LEFT HANDLEBAR SWITCH**

### 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

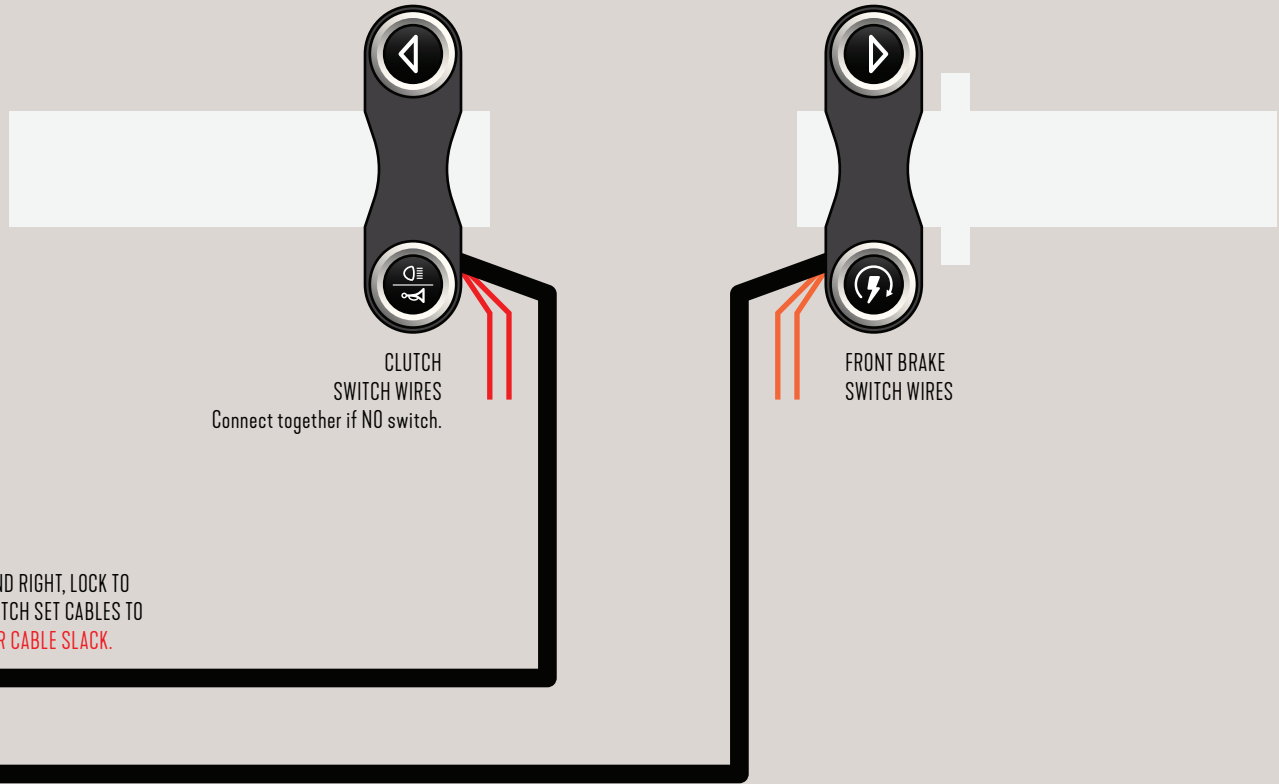
# TC3.P Switch Set

Plug&Go PUSH BUTTON TYPE



LEFT

RIGHT



CLUTCH SWITCH WIRES  
Connect together if NO switch.

FRONT BRAKE SWITCH WIRES

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

# TC3.P

## Dash Harness

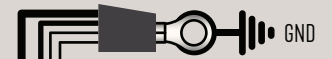
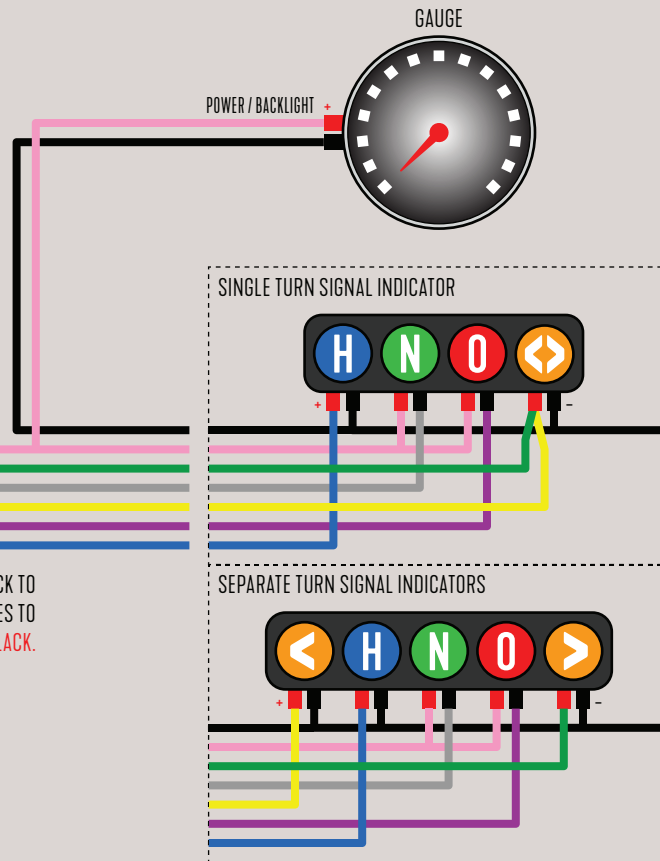
TURNING DUMMY TO SMART LIGHTS



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

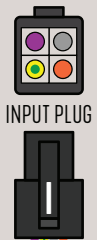
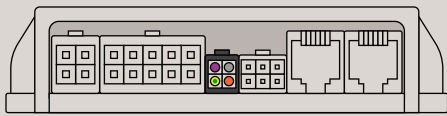
16AWG DASH/DRL/HEADLIGHT  
18AWG HORN  
22AWG LEFT TURN SIGNAL LIGHT  
22AWG RIGHT TURN SIGNAL LIGHT

AVOID EXTENDING GROUND WIRES  
KEEP SHORT AS POSSIBLE.

# TC3.P

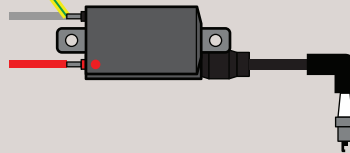
## Input Harness

RUN SENSE / NEUTRAL / OIL / R-BRAKE

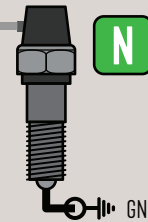


INPUT PLUG

SPARK COIL  
RUN SENSE

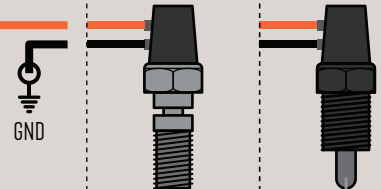


NEUTRAL  
SWITCH



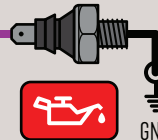
GND

REAR BRAKE SWITCH  
(PRESSURE) (MECHANICAL)



GND

OIL PRESSURE  
SWITCH

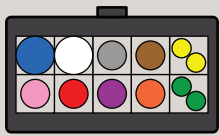
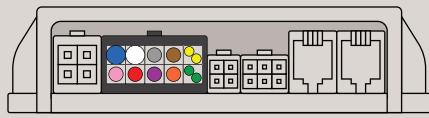


GND

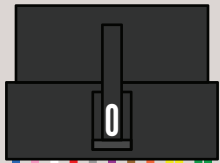
CHECK SWITCHES FOR PROPER FUNCTIONALITY  
CLEAN/REBUILD/REPLACE WHEN NECESSARY

# TC3.P Output Harness

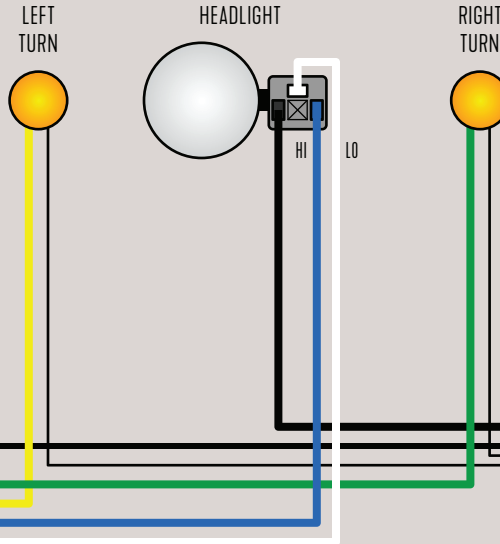
LIGHTING / HORN



OUTPUT PLUG



HRNX.105

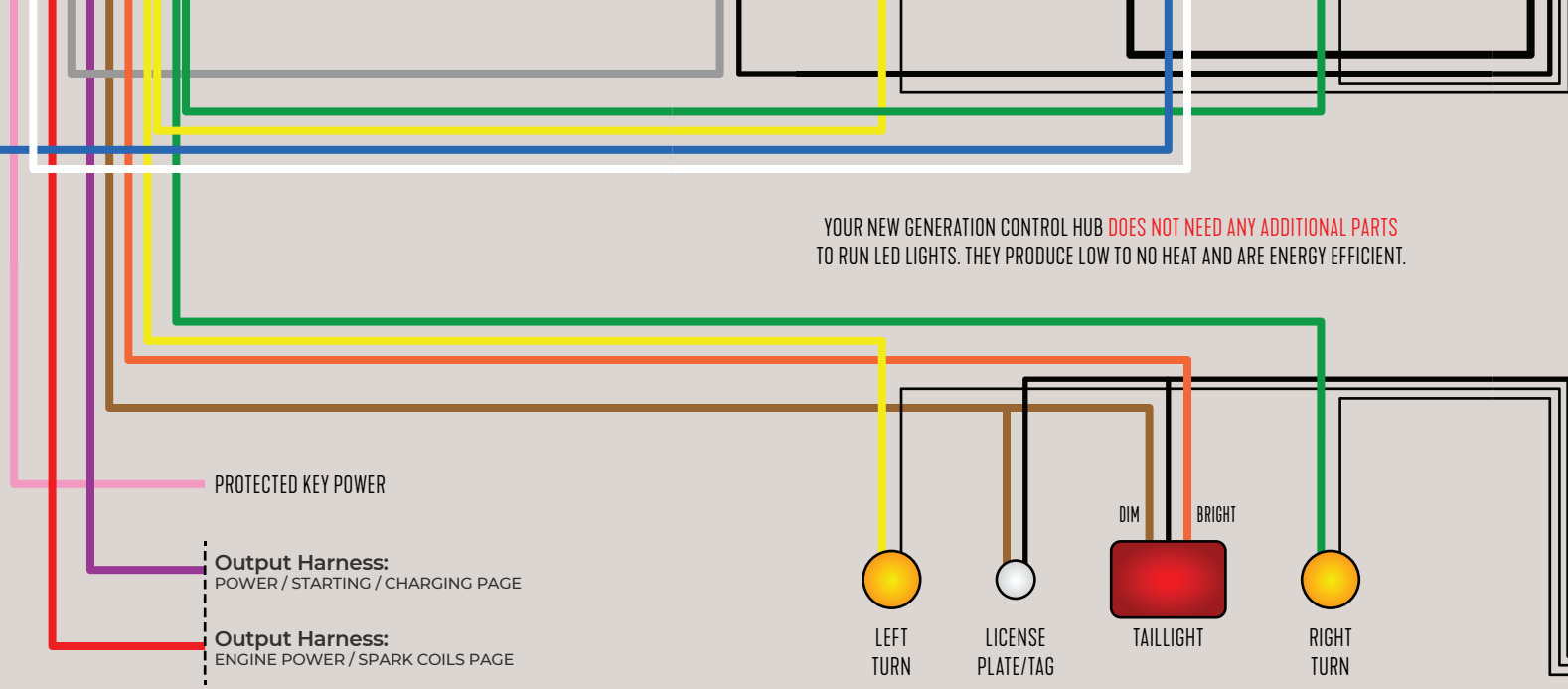


FRONT GND STRAP  
MOUNT ON MAIN FRAME/CHASSIS

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.



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.

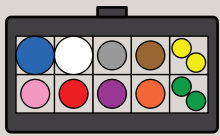
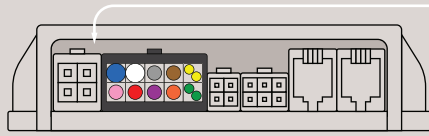
PROTECTED KEY POWER

Output Harness:  
POWER / STARTING / CHARGING PAGE

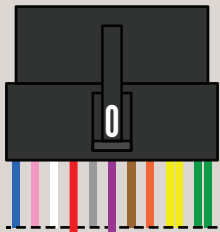
Output Harness:  
ENGINE POWER / SPARK COILS PAGE

# TC3.P Output Harness

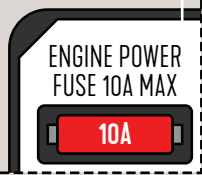
ENGINE POWER / SPARK COILS



OUTPUT PLUG



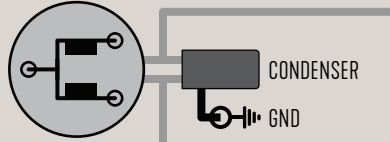
Output Harness:  
LIGHTING / HORN PAGE



ENGINE POWER FUSE 10A MAX

10A

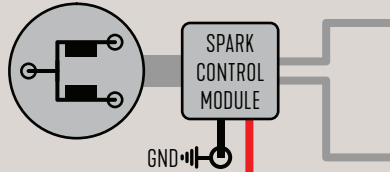
## POINTS BREAKER



CONDENSER

GND

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

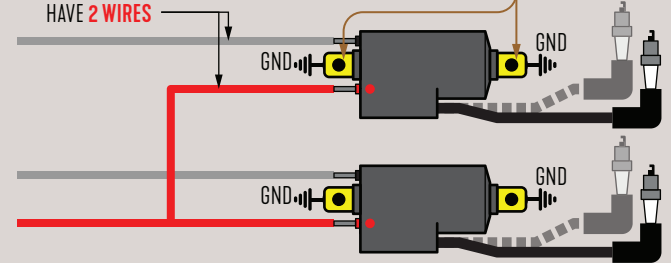


SPARK CONTROL MODULE

GND

CONFIRM YOUR SPARK COIL HAVE 2 WIRES

SPARK COIL PAIRS (SINGLE or DUAL)



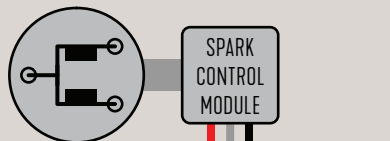
IT IS ABSOLUTELY CRITICAL THE COIL **CENTER CORES** ARE GROUNDED SOLID, DIRECT METAL TO METAL ON THE MAIN CHASSIS.

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.

## MAGNETO



REMOVE PRE INSTALLED FUSE

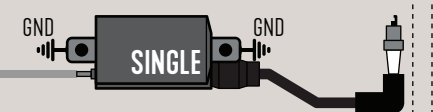


SPARK CONTROL MODULE

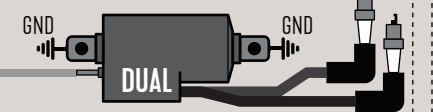
GND

CONFIRM YOUR SPARK COIL ONLY HAVE 1 WIRE

SPARK COIL (SINGLE)



SPARK COIL (DUAL)



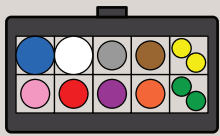
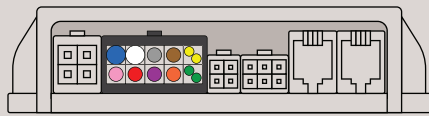
Output Harness:  
POWER / STARTING / CHARGING PAGE

# TC3.P

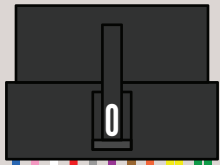
## Output Harness

POWER / STARTING / CHARGING

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

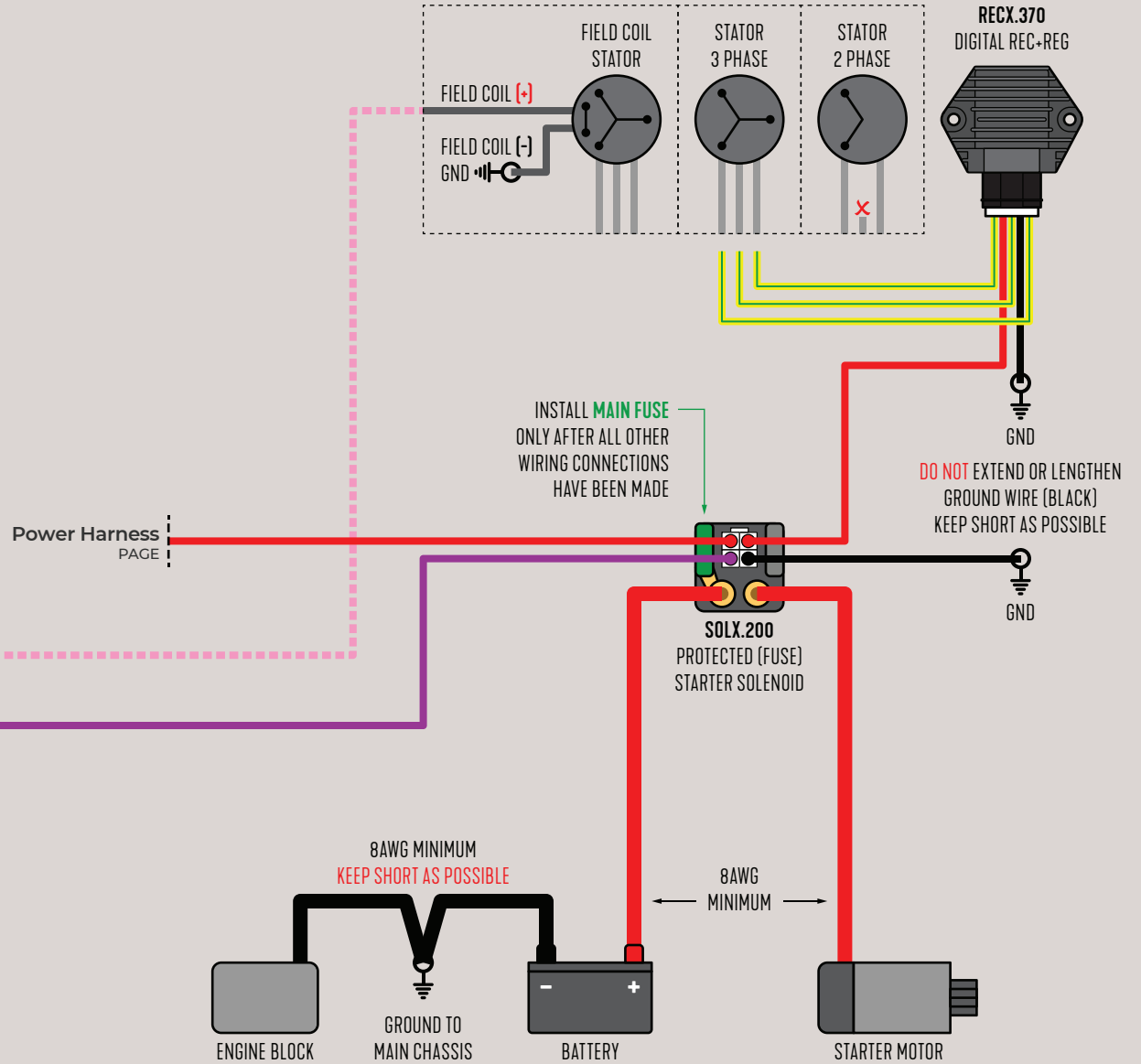


OUTPUT PLUG



Output Harness:  
LIGHTING / HORN PAGE

Output Harness:  
ENGINE POWER / SPARK COILS PAGE

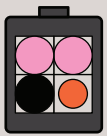
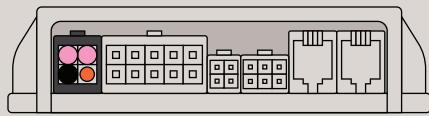




# TC3.P

## Power Harness

### KEY SWITCH



POWER PLUG



#### KEY SWITCH (GENERIC 3-POSITION)

DO NOT EXTEND / LENGTHEN  
GROUND WIRE (BLACK)  
KEEP SHORT AS POSSIBLE

GND



KEY SWITCH

#### YOUR WIRE COLORS

SOURCE \_\_\_\_\_

IGNITION \_\_\_\_\_

PARK \_\_\_\_\_

KEY-ON SPARE POWER

#### KEYX.S

DO NOT EXTEND / LENGTHEN  
GROUND WIRE (BLACK)  
KEEP SHORT AS POSSIBLE

GND



KEY SWITCH

DO NOT EXTEND / LENGTHEN  
GROUND WIRE (BLACK)  
KEEP SHORT AS POSSIBLE

GND

KEY-ON SPARE POWER

#### KEYX.R



ROTARY SWITCH

DO NOT EXTEND / LENGTHEN  
GROUND WIRE (BLACK)  
KEEP SHORT AS POSSIBLE

GND

KEY-ON SPARE POWER

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



SOLX.200  
PROTECTED (FUSE)  
STARTER SOLENOID