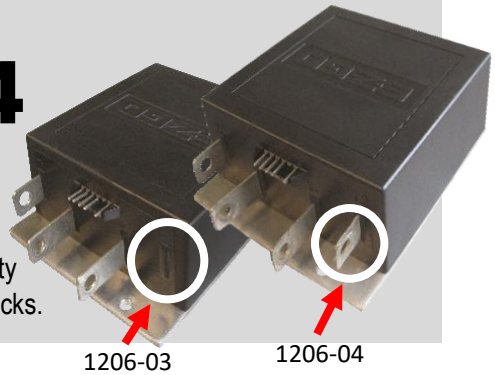
Curtis 1206-03, -04

This sheet is provided to aid in the installation of your remanufactured CURTIS controller. Upon installation, you may encounter problems that may, or may not, be due to a faulty controller. The following steps must be taken to help diagnose a possible cart fault or faulty controller. An analog or digital volt ohm meter (VOM) will be needed to perform these checks.



WARRANTY WILL BE VOID

If These Steps are Not Performed Before Installing The Control

STEPS TO PERFORM ***BEFORE*** CONTROL INSTALLATION

CHECK MOTOR WINDINGS:

☐ Set your VOM to RESISTANCE (Ω).
☐ With your motor disconnected, measure A1 to A2. This should measure BETWEEN .2Ω and 2Ω.
☐ With your motor disconnected, measure F1 to F2. This should measure BETWEEN .8Ω and 3Ω.
☐ With your motor disconnected, measure A1 to F1. This must measure OPEN.
☐ With your motor disconnected, measure F1 to motor case. This should measure greater than 5MΩ.

CHECK MAIN SOLENOID:

☐ Disconnect all wires from the main solenoid.
☐ Set your VOM to RESISTANCE (Ω).
☐ Measure the solenoid coil. This should measure 100Ω - 250Ω (depending on solenoid type).
☐ Connect VOM leads to the main solenoid lugs.
☐ Attach jumpers from main battery positive and negative to the coil (small terminals).
☐ Meter must jump from infinity to LESS THAN .3Ω.
☐ Remove jumpers and reconnect solenoid wiring from the harness. (If suppression diode is present, the non-banded side must go to the black wires – from B- and Reverse Alarm.)

CHECK COTHERM:

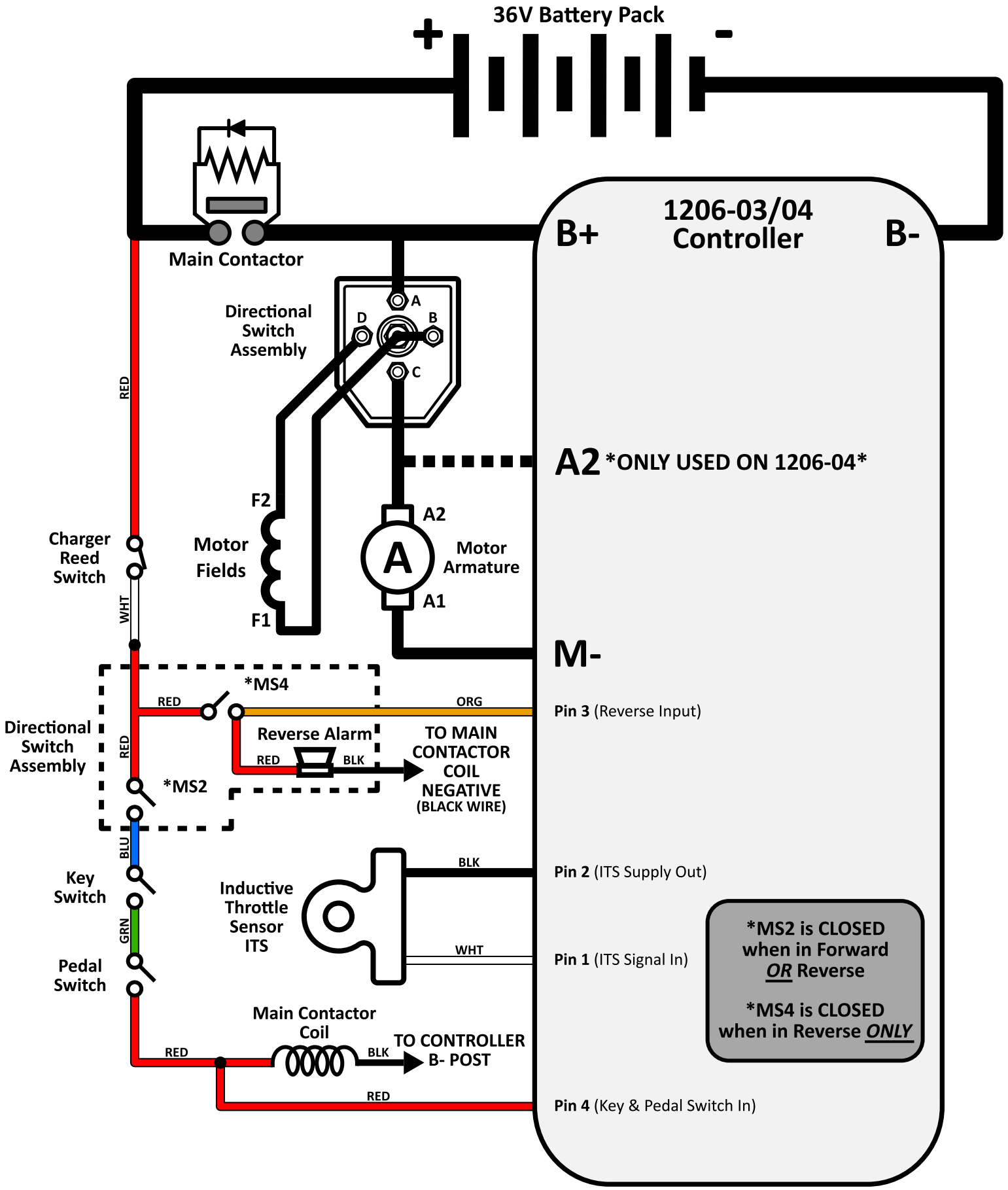
☐ Inspect the cotherm (insulating material) mounted to the heat sink for holes, debris, and tears.
☐ Repair or replace, if necessary.

CHECK THE CART WIRE HARNESS:

☐ Check the connectors on the wire harness for corrosion, loose, broken, burnt or missing pins.
☐ Repair or replace pins as necessary.

IF ANY OF THE ABOVE ITEMS ARE NOT WITHIN THE SPECIFICED RANGES THE CONTROLLER WILL FAIL. THESE ITEMS MUST BE CORRECTED BEFORE THE CONTROLLER IS INSTALLED OR WARRANTY WILL BE VOID.

It is recommended to replace your solenoid at the time of controller replacement. FSIP now stocks popular replacement White Rodgers solenoids for your convenience.


36V Battery Pack
+
-
Main Contactor
1206-03/04
Controller
B+
B-
Directional
Switch
Assembly
A
D
B
C
RED
A2 *ONLY USED ON 1206-04*
F2
Motor
Fields
F1
A2
A
Motor
Armature
A1
Charger
Reed
Switch
WHT
M-
*MS4
RED
ORG
Pin 3 (Reverse Input)
Directional
Switch
Assembly
RED
Reverse Alarm
RED
BLK
TO MAIN
CONTACTOR
COIL
NEGATIVE
(BLACK WIRE)
*MS2
BLU
BLK
Pin 2 (ITS Supply Out)
Key
Switch
Inductive
Throttle
Sensor
ITS
GRN
WHT
Pin 1 (ITS Signal In)
Pedal
Switch
*MS2 is CLOSED
when in Forward
OR Reverse
*MS4 is CLOSED
when in Reverse ONLY
Main Contactor
Coil
TO CONTROLLER
B- POST
RED
BLK
RED
Pin 4 (Key & Pedal Switch In)

EZGO TXT (Non-PDS) Troubleshooting Sequence

FOR SAFETY, ALWAYS LIFT THE DRIVE WHEELS OFF THE GROUND WHEN TROUBLESHOOTING!

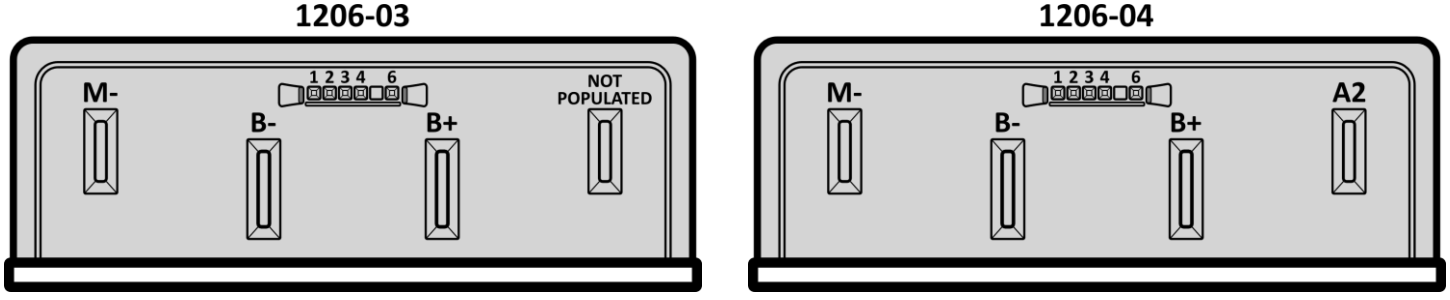
ALL TESTS ARE CONDUCTED WITH RUN-TOW/MAINTENANCE SWITCH IN THE RUN. ALSO, THE CONNECTOR MUST BE ATTACHED TO THE CONTROLLER WHEN MAKING THESE CHECKS. YOU WILL NEED TO 'BACK PROBE' THE PINS FROM THE WIRE SIDE OF THE CONNECTOR. USE A PAPERCLIP IF NECESSARY.

Attach voltmeter negative (-) lead to main battery – for the following tests

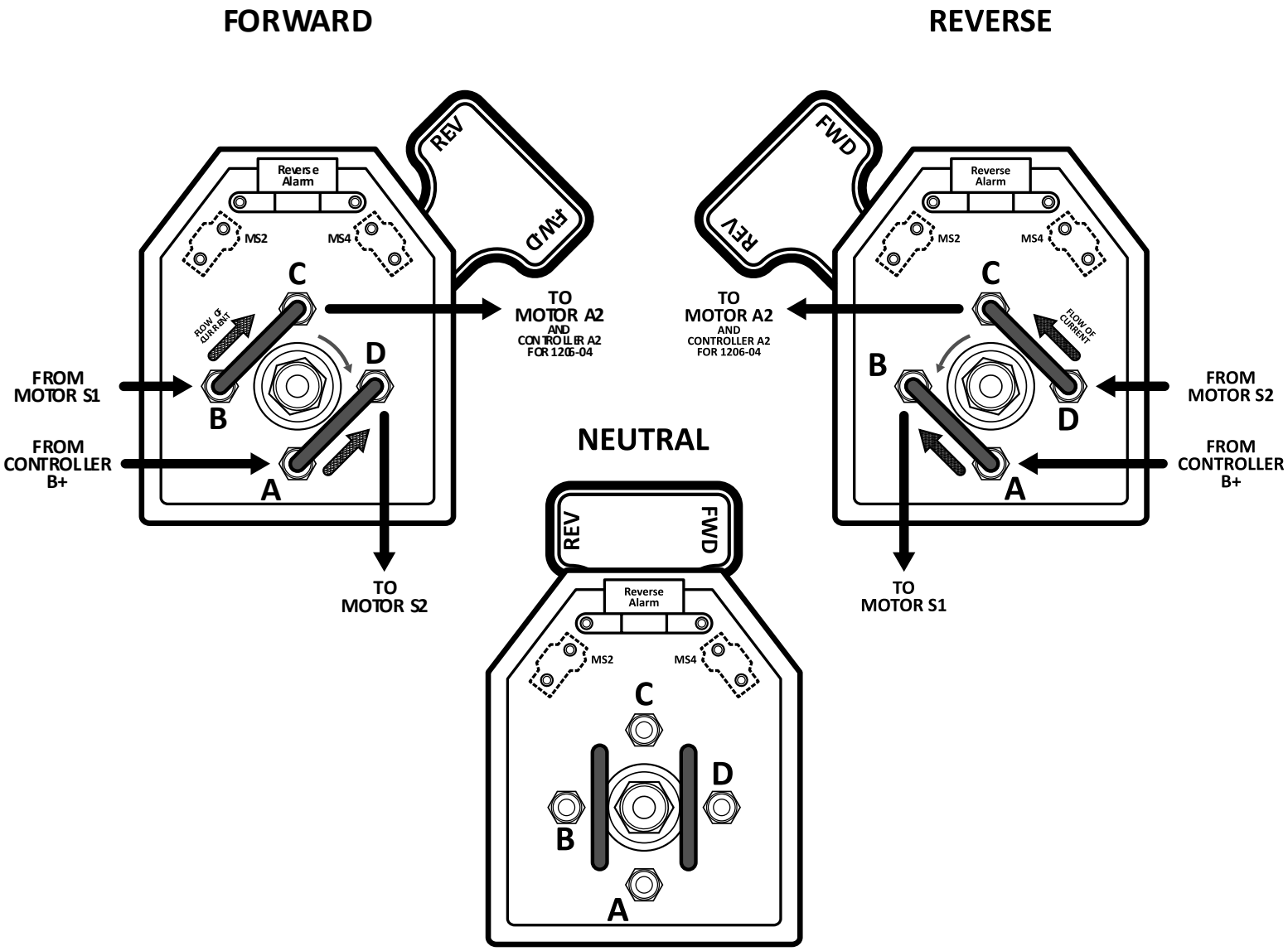
Use the following sequence when checking individual pins (don't skip steps). **If you find a fault, do not move on to the next step until the fault is corrected:**

- ☐ Measure the voltage at the main battery positive post (let's call it Pack Voltage)
- ☐ **Pin 4** ***With Key Switch On, in Forward, and Pedal Down***, must equal Pack Voltage and solenoid must click
  - *If not, check Charger Interlock (Reed Switch) in charger receptacle, MS2 in the Directional Switch Assembly, Key Switch, Pedal Switch (MS3), and wiring for an open condition.*
- ☐ **Pin 3** ***With Key Switch On, in Forward, and Pedal Down***, must equal 0V
  - *If not, check MS4 for a shorted condition.*
- ☐ **Pin 3** ***With Key Switch On, in Reverse, and Pedal Down***, must equal Pack Voltage
  - *If not, check MS4 for an open condition.*
  - *If Pack Voltage, but Reverse Alarm does not sound, verify Reverse Alarm for issues.*
- ☐ **Pin 2** ***With Key Switch On, in Forward, and Pedal pressed enough for Solenoid to engage***, must equal approximately 12-16V
  - *If not, remove ITS black wire and recheck. If voltage returns to 12-16V, replace the ITS Sensor. If the voltage remains below 12V, potential controller issue.*
- ☐ **Pin 1** ***With Key Switch On, in Forward, and Pedal pressed enough for Solenoid to engage***, must equal approximately 0.6V **±0.3V**
  - *If not, check wiring between ITS and Pin 1 of controller. If wiring is good, check if ITS Plunger in cart is set correctly. Otherwise, potential controller issue.*
- ☐ **Pin 1** ***With Key Switch On, in Forward, and Pedal fully depressed***, must equal approximately 1.6V **±0.3V**
  - *If not, check wiring between ITS and Pin 1 of controller. If wiring is good, check if ITS Plunger in cart is set correctly. Otherwise, potential controller issue.*

Controller Differences



Directional Switch Assembly Breakdown



FSIP Electronics also offers the following Technical Support options …

Troubleshooting Manuals / Codes
www.shop.fsip.biz/en/content/technical-documents

Live Tech Support Chat
www.shop.fsip.biz

Technical Support Forum
fsip.websitetoolbox.com

PRE-INSTALLATION INSTRUCTIONS MUST BE FOLLOWED OR WARRANTY WILL BE VOID

IMPORTANT!
1206-03/04
TROUBLESHOOTING INFORMATION
INCLUDED IN THIS PACKET

FSIP ELECTRONICS
A division of TVH