



**Auto Meter Products Inc.**

413 West Elm Street  
Sycamore, IL 60178

Service (815) 899-0801  
Toll Free (866)-883-TEST (8378)

[www.autometer.com/test](http://www.autometer.com/test)

## **AC-69 Trailer Dual Pole Circuit Voltage Drop Testing Guide**

**TRAILER DUAL POLE CIRCUIT VOLTAGE DROP TESTING**

Charging and Motor Diagram .....	3
Charging Circuit (Complete Test) .....	4
Charging Circuit (Legs of Circuit Test).....	5-7
Motor Circuit (Complete Test).....	8
Motor Circuit (Legs of Circuit Test) .....	9-13
Warranty .....	15
Contact Information .....	16

**12 MONTHS FROM DATE OF PURCHASE**

The manufacturer warrants to the consumer that this product will be free from defects in material or workmanship for a period of twelve (12) months from the date of original purchase.

Products that fail within this 12 month warranty period will be repaired or replaced at the manufacturer's option to the consumer, when determined by the manufacturer that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of parts and the necessary labor by the manufacturer to effect the repair or replacement of the product. In no event shall the manufacturer be responsible for special, incidental or consequential damages or costs incurred due to the failure of this product.

Improper use, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. The manufacturer disclaims any liability or consequential damages due to breach of any written or implied warranty on its test equipment.

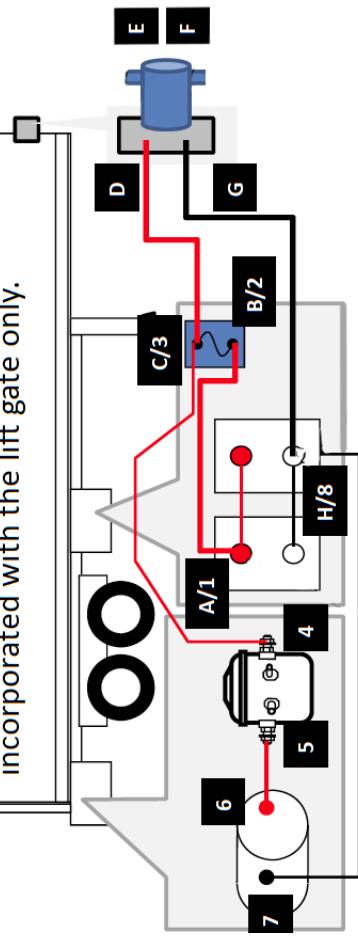
**WARRANTY AND SERVICE INFORMATION**

Warranty claims to the manufacturer's service department must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser and is non-transferable. Shipper damage incurred during return shipments is not covered under this warranty. It is the responsibility of the shipper (the customer returning the Test Equipment) to package the tester properly to prevent any damage during return shipment. Repair costs for such damages will be charged back to shipper (customer returning the Test Equipment).

Protect the product by shipping in original carton or add plenty of over-pack cushioning such as crumpled up newspaper.

**CHARGING AND MOTOR  
CIRCUIT DIAGRAM**

All wiring/components below are in addition to a base trailer when a lift gate has been added. These are all incorporated with the lift gate only.

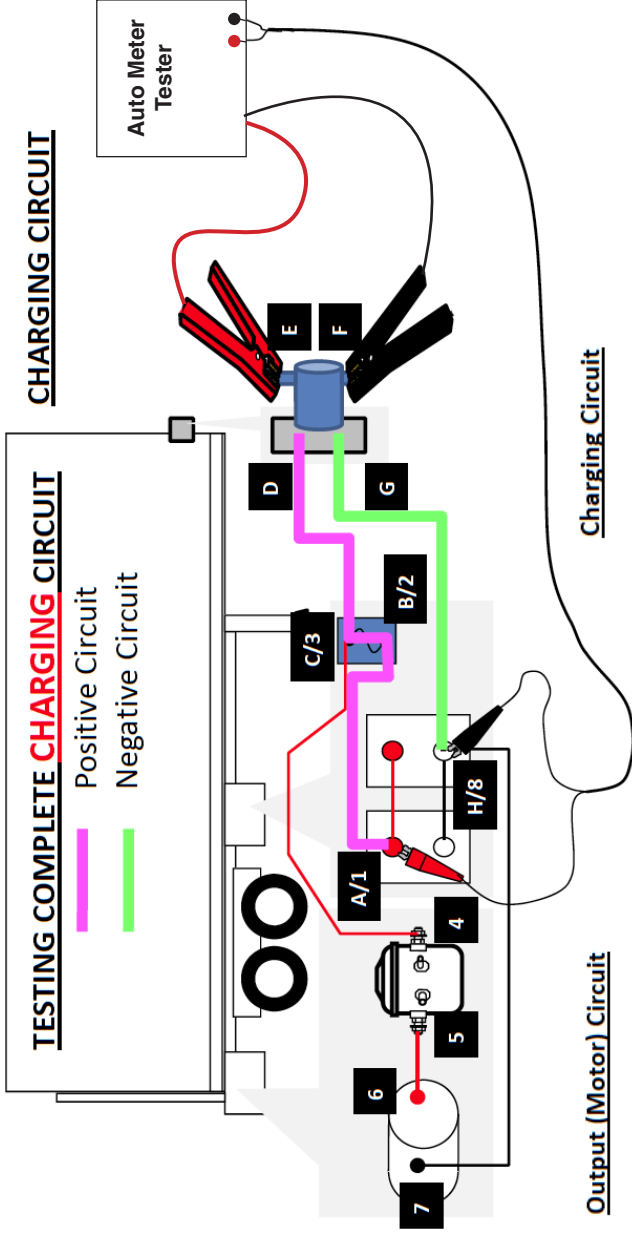


**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative

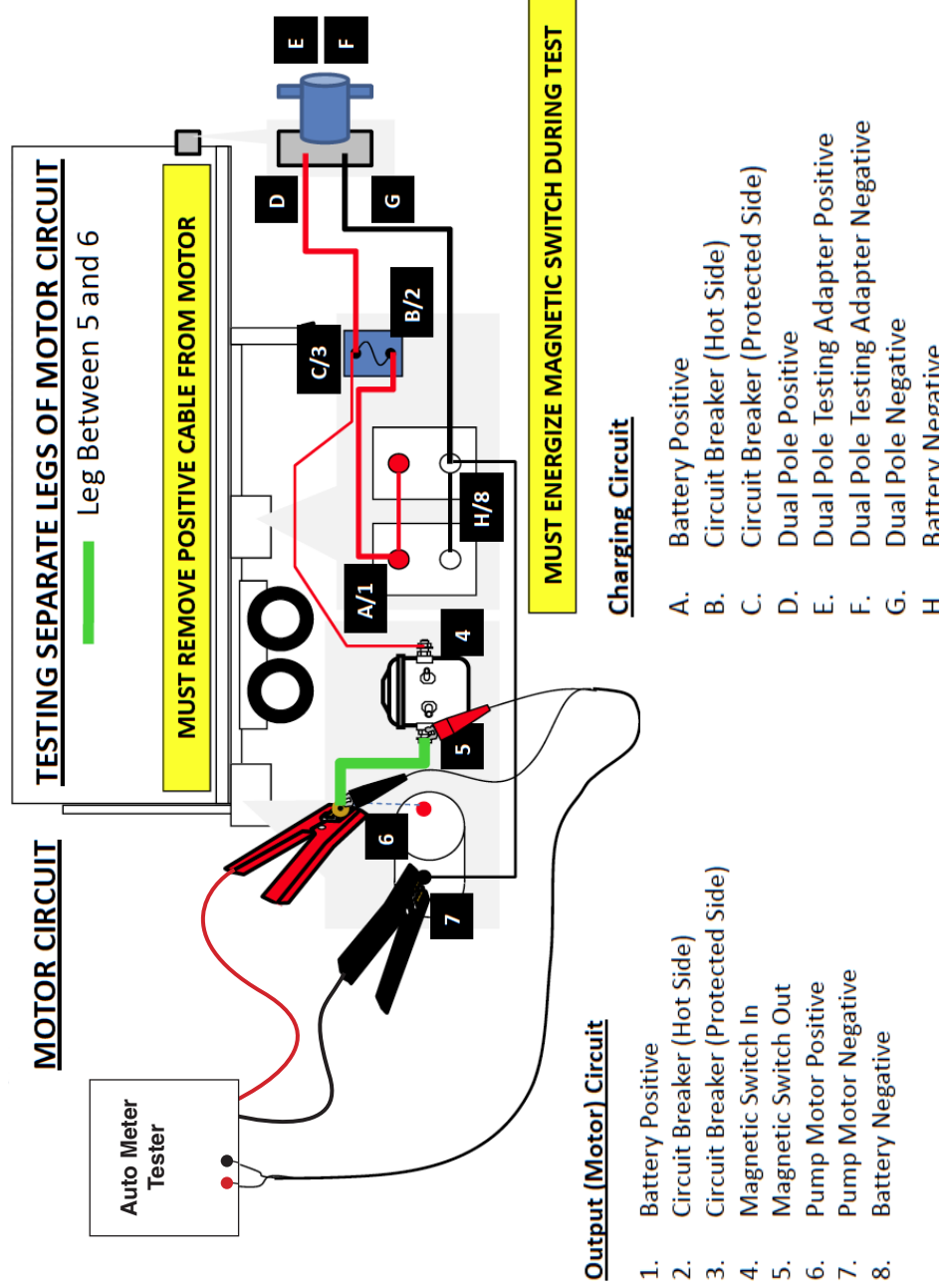


**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



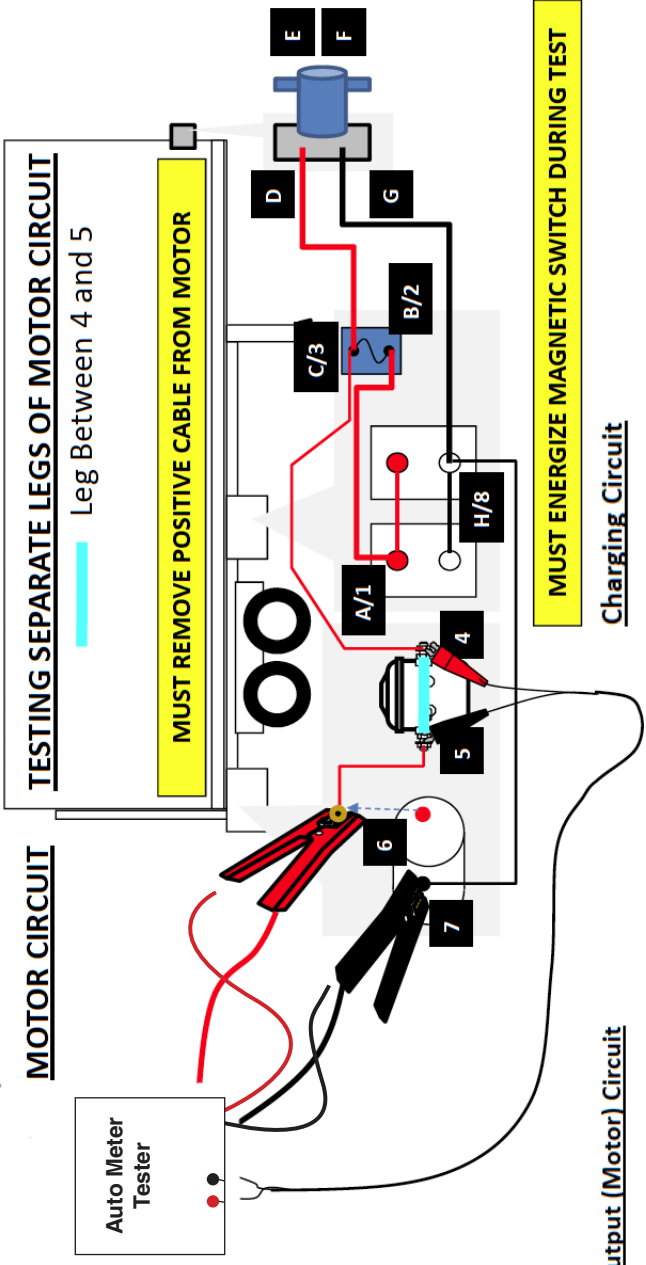
**MOTOR CIRCUIT**

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



**MOTOR CIRCUIT**

**TESTING SEPARATE LEGS OF MOTOR CIRCUIT**

— Leg Between 4 and 5

**MUST REMOVE POSITIVE CABLE FROM MOTOR**

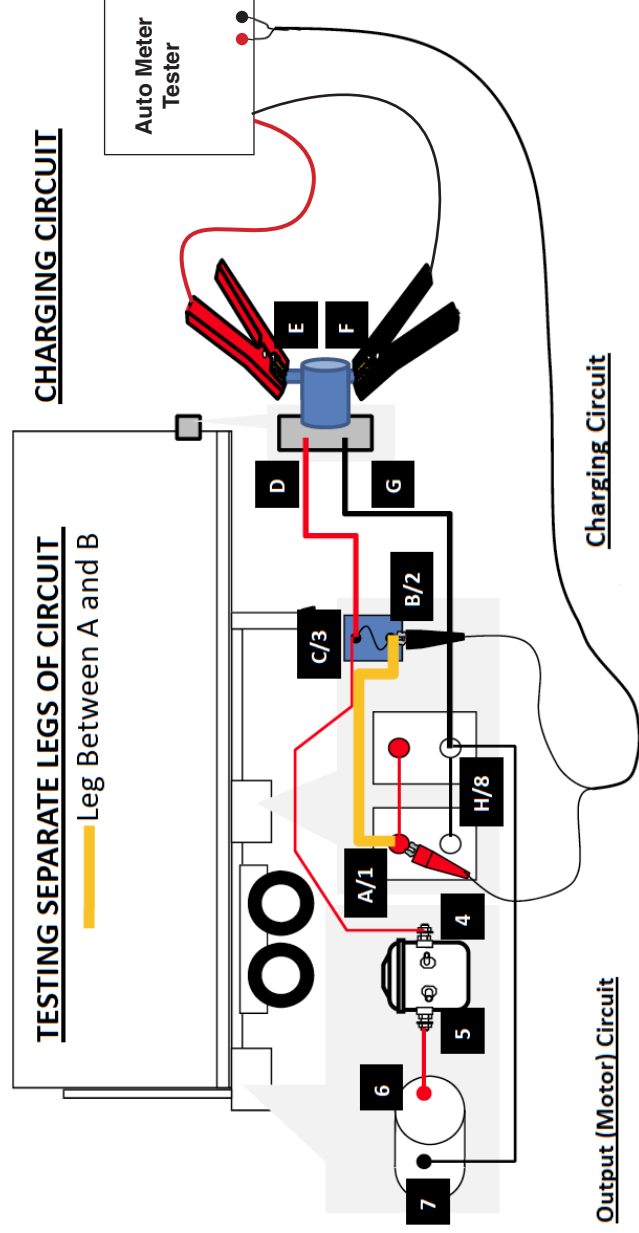
**MUST ENERGIZE MAGNETIC SWITCH DURING TEST**

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



**TESTING SEPARATE LEGS OF CIRCUIT**

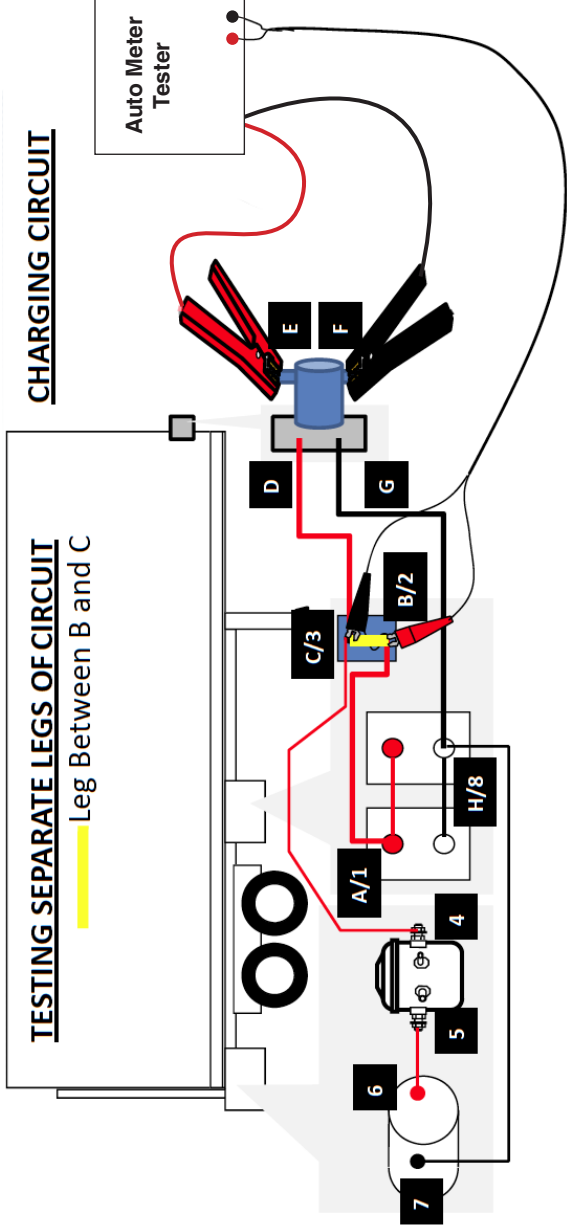
— Leg Between A and B

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



**CHARGING CIRCUIT**

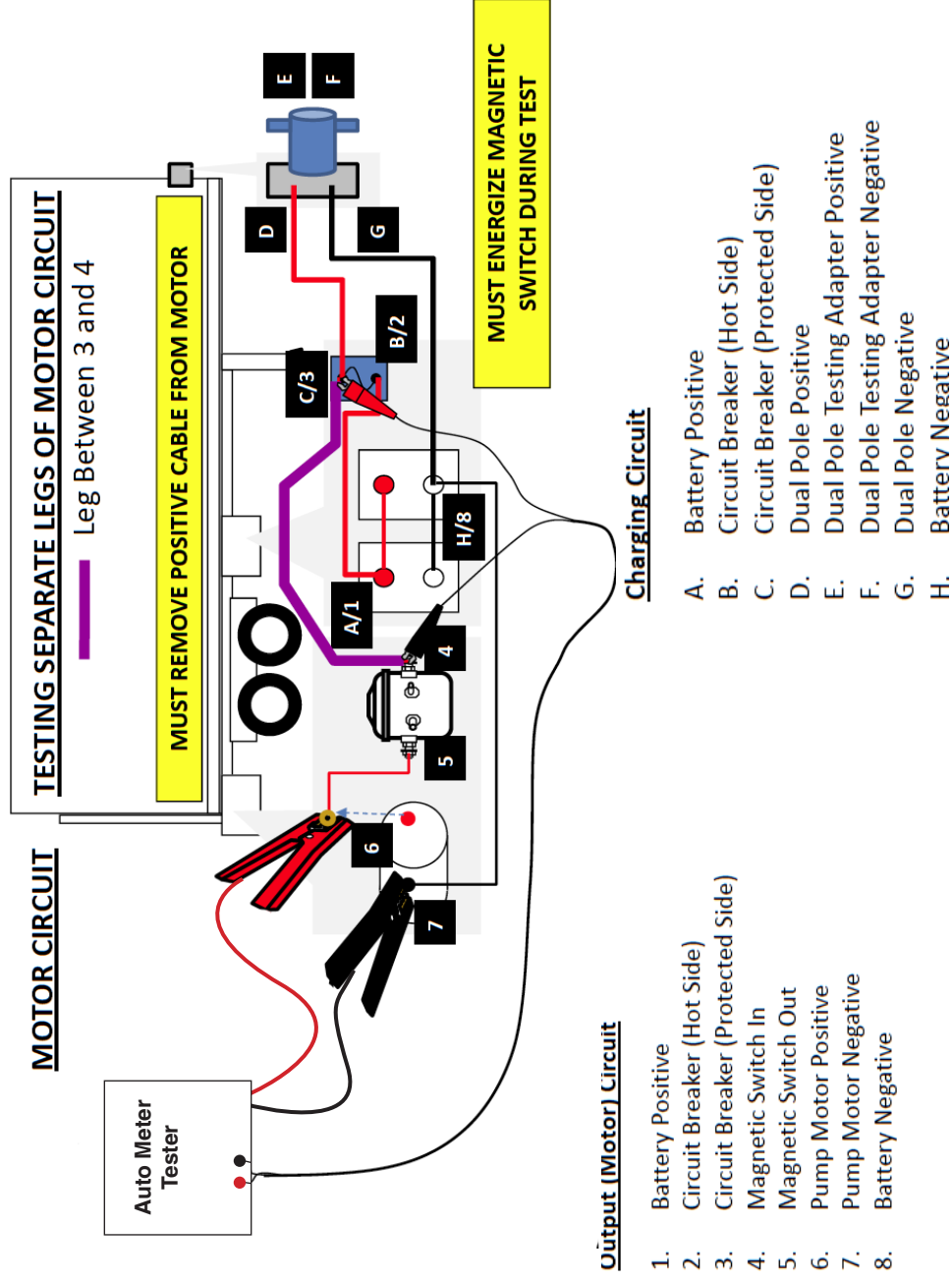
**TESTING SEPARATE LEGS OF CIRCUIT**  
 — Leg Between B and C

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



**MOTOR CIRCUIT**

**TESTING SEPARATE LEGS OF MOTOR CIRCUIT**

— Leg Between 3 and 4

**MUST REMOVE POSITIVE CABLE FROM MOTOR**

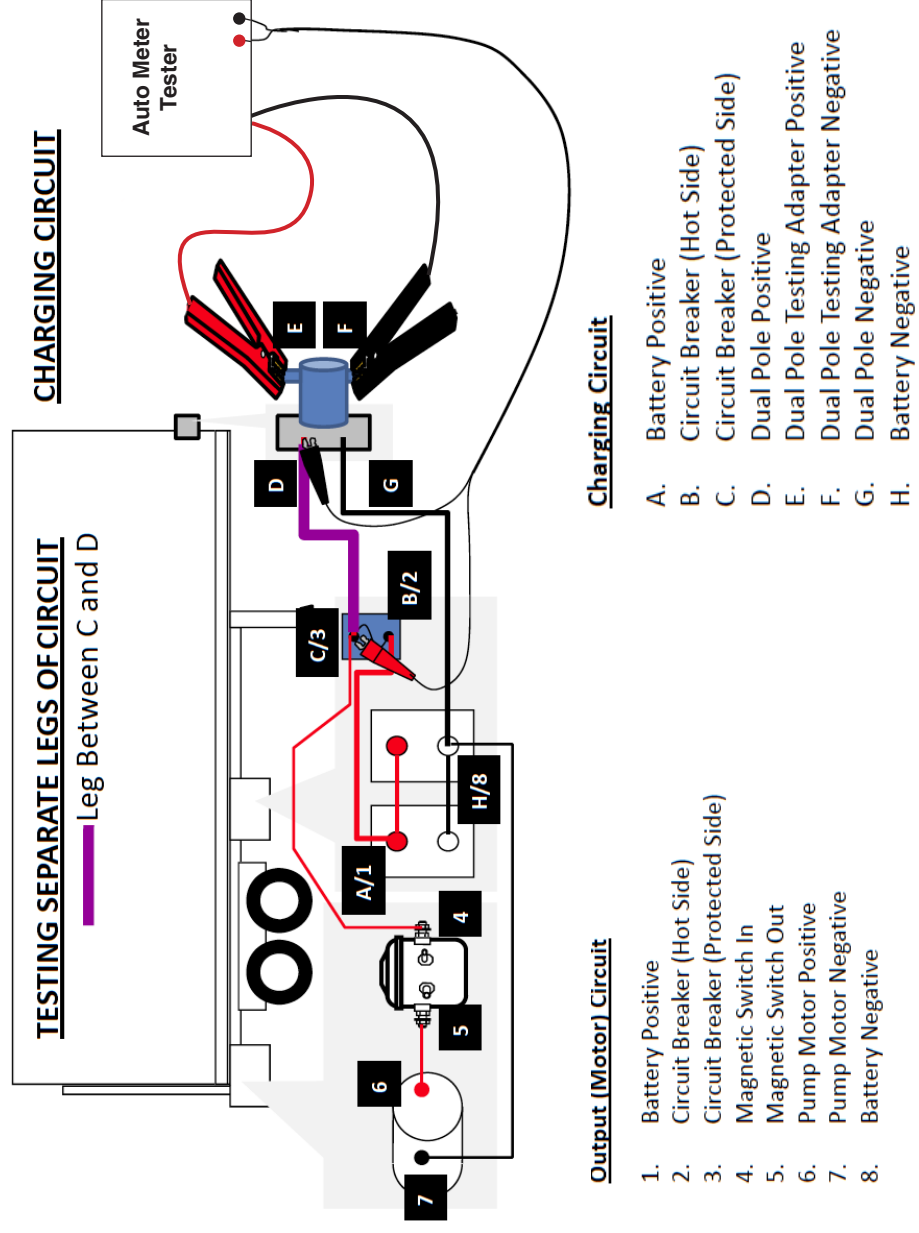
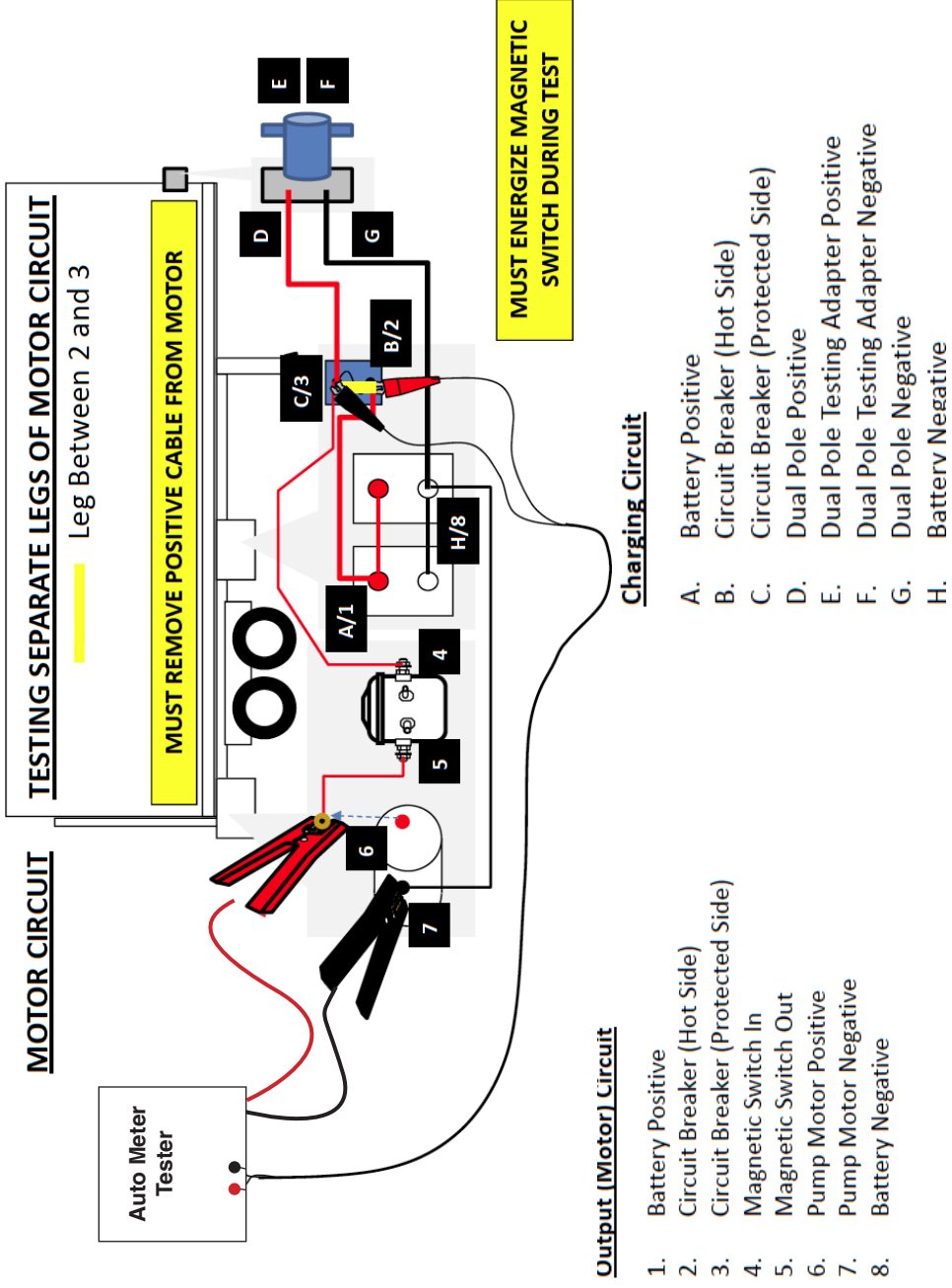
**MUST ENERGIZE MAGNETIC SWITCH DURING TEST**

**Output (Motor) Circuit**

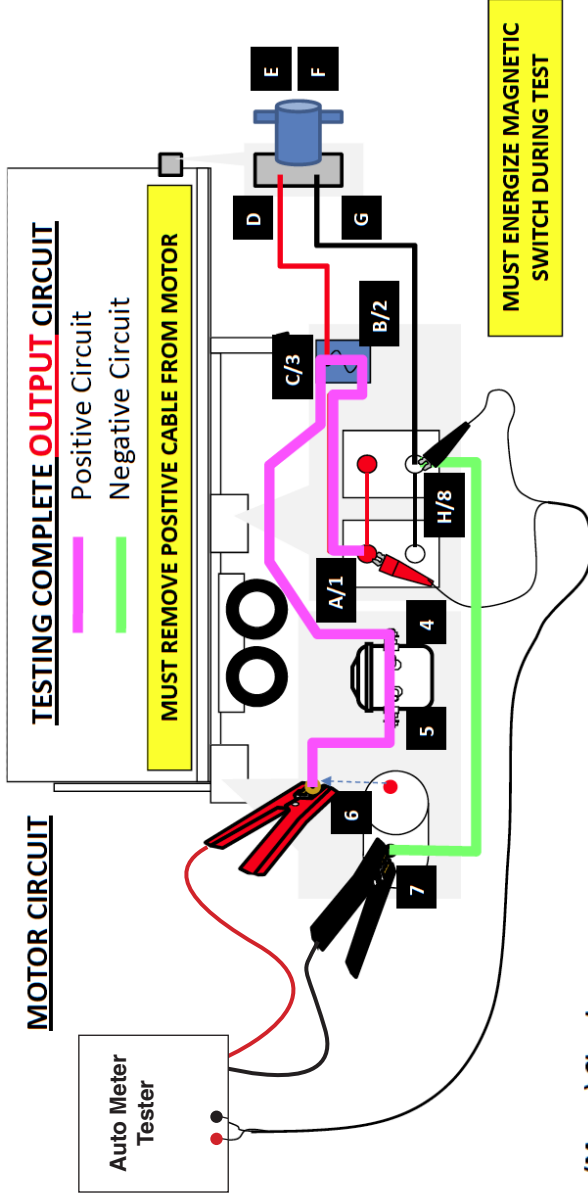
1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative







**MOTOR CIRCUIT**

**TESTING COMPLETE OUTPUT CIRCUIT**

- Positive Circuit
- Negative Circuit

MUST REMOVE POSITIVE CABLE FROM MOTOR

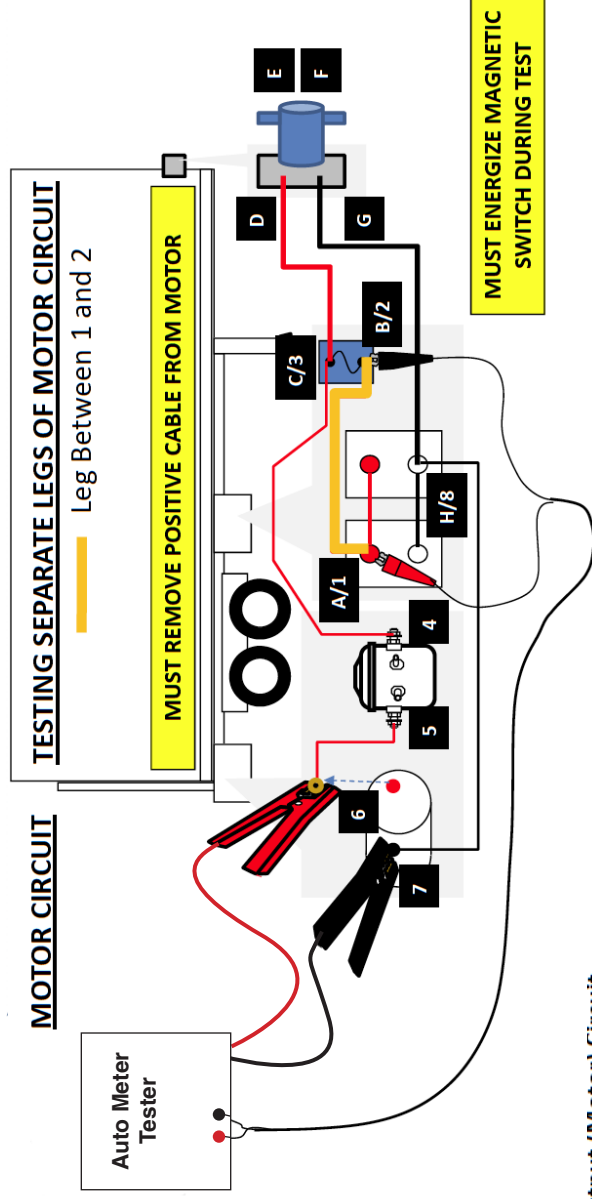
MUST ENERGIZE MAGNETIC SWITCH DURING TEST

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative



**MOTOR CIRCUIT**

**TESTING SEPARATE LEGS OF MOTOR CIRCUIT**

- Leg Between 1 and 2

MUST REMOVE POSITIVE CABLE FROM MOTOR

MUST ENERGIZE MAGNETIC SWITCH DURING TEST

**Output (Motor) Circuit**

1. Battery Positive
2. Circuit Breaker (Hot Side)
3. Circuit Breaker (Protected Side)
4. Magnetic Switch In
5. Magnetic Switch Out
6. Pump Motor Positive
7. Pump Motor Negative
8. Battery Negative

**Charging Circuit**

- A. Battery Positive
- B. Circuit Breaker (Hot Side)
- C. Circuit Breaker (Protected Side)
- D. Dual Pole Positive
- E. Dual Pole Testing Adapter Positive
- F. Dual Pole Testing Adapter Negative
- G. Dual Pole Negative
- H. Battery Negative