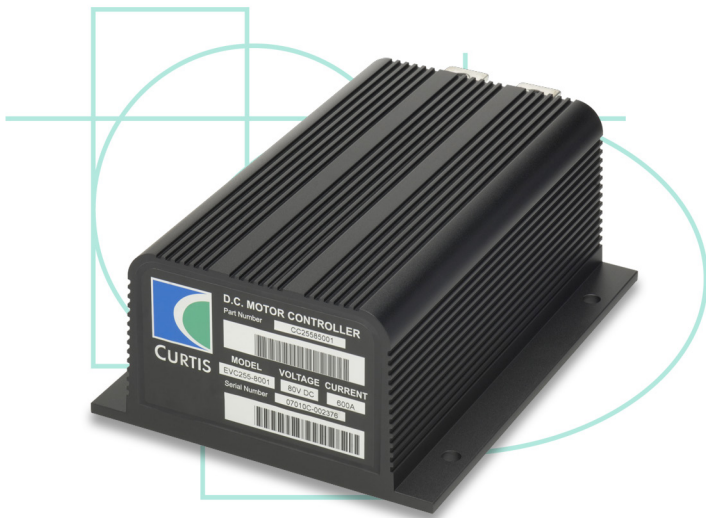




### MODEL 1253



### DESCRIPTION

Model 1253 is a high-power hydraulic pump controller which provides both digital input and analog throttle based control of DC series wound motors. It features microprocessor based logic with programmable parameters and offers maximum flexibility for minimum cost.

### APPLICATION

The Curtis 1253 Series Motor Speed Controller is designed as an affordable solution for solid-state control of DC motor driven hydraulic pumps. Systems integration features are designed primarily for Class I and Class II material handling vehicles.

### FEATURES

#### Smooth, Silent Control

- Pulse-Width-Modulation control with programmable acceleration rates provides smooth application and release of pump motor torque.
- 15.6 kHz PWM frequency for near silent operation.

#### Programmable and Flexible

- Easily programmable through the 1311 handheld programmer or 1314 PC Programming Station.
- External Status LED output for easy system troubleshooting.
- Four Speed Select inputs with individually programmable fixed speeds.
- Programmable analog throttle input for precise speed control with a variety of signal sources.
- Programmable turn-off delay allows SS4 input to be used for power steering.
- Adjustable minimum speed setting to maintain steering system pressure and pump lubrication.
- Lift lockout input to disable the controller at low battery state of charge.
- Seamlessly integrates with Curtis model 803, 906, 841, and enGage® IV displays for lift lockout functions.
- Separate Interlock input to disable the controller when the operator is not present.

#### Robust Safety and Reliability

- Programmable lockout feature on startup prevents inadvertent operation.
- Redundant Watchdog timer circuits ensure proper software operation.
- Contactor driver short circuit protection.
- Thermal cutback with warning and automatic shutdown faults provides protection to the controller.
- Pre-charge control prevents pitting of contactor tips at startup.
- Rugged housing meets IP54 environmental ratings.
- Full power operation over -40 °C to 80 °C Heatsink temperature range.

# MODEL 1253

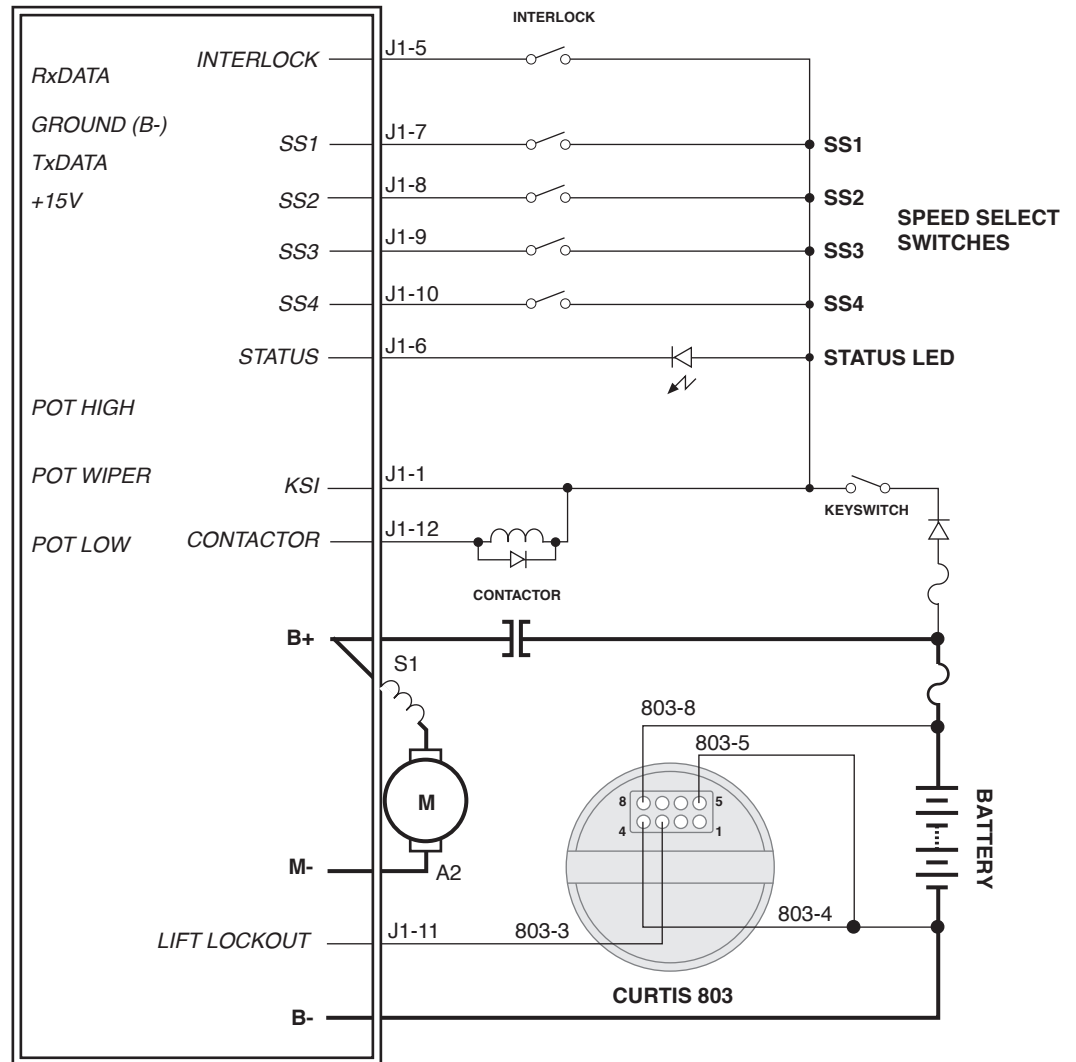
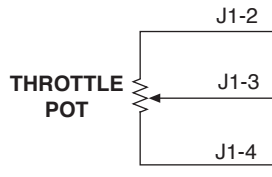
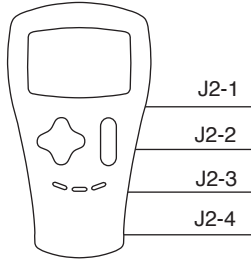
## Meets or complies with relevant US and International Regulations

- EMC: Designed to the requirements of EN12895
- Safety: Designed to the requirements of EN1175

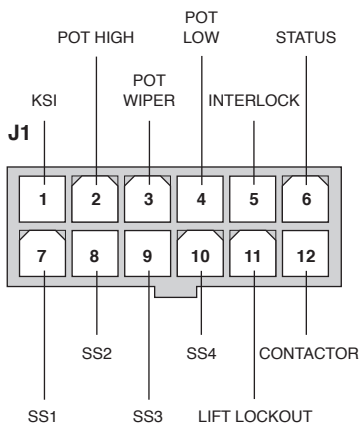
- IP54 Rated per IEC 529
- Regulatory compliance of the complete vehicle system with the controller installed is the responsibility of the vehicle OEM.

## WIRING DIAGRAM

1311 PROGRAMMER

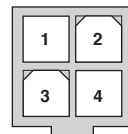


PIN DETAIL



1253 CONTROLLER

J2 - 1311 PROGRAMMER PORT



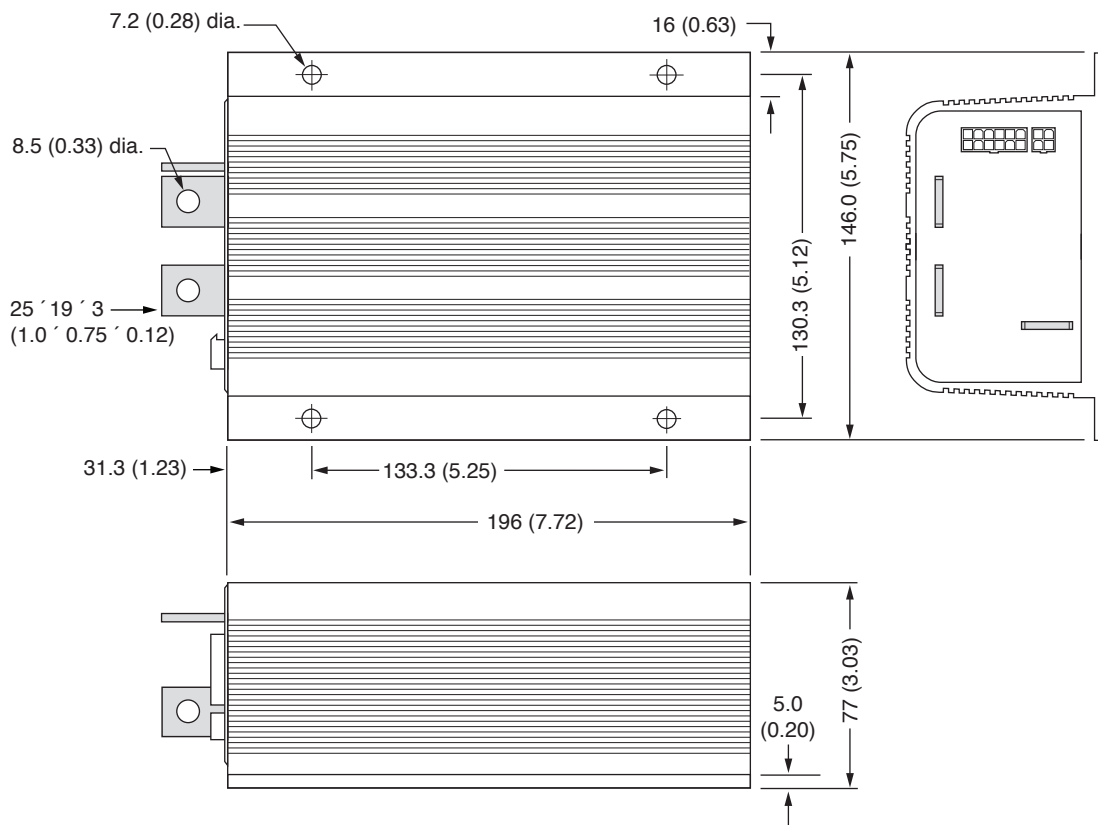
Lift lockout is activated when the Model 803 Battery Discharge Indicator's internal relay between pins 3 and 4 are opened at 80% battery discharge.  
 LOCKOUT TYPE should be programmed to 1.

# MODEL 1253

## MODEL CHART

Model	Nominal Voltage (V)	Current Rating 2 Minutes (Amperes)
1253-48XX	48	600
1253-80XX	80	600

## MOUNTING



Dimensions in millimeters and (inches)

**WARRANTY** Two year limited warranty from time of delivery.