

# K A I Z E N S P E E D<sup>®</sup>

PERFORMANCE DONE RIGHT

14 July 2022

**User Guide for KAI-5506 – Kai Yote CAN Boost Controller**

Kaizen Speed, LLC.

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Included:

- 1 - Kaizen Relay
  - 1 – Control Module
  - 1 – Trim Pot, harness and switch position label
  - 1 – CAN Harness
  - 1 – Power harness
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## **Installation:**

Mount the Kaizen Relay on the driver side of the engine compartment on the flat panel in front of the shock tower.

Unplug the connector on the electric power steering pump and install the breakout harness. (This is the harness that provides vehicle information to the Control Module.)

USB cable can be used for reprogramming the control module for custom functionality or updates which may be available at [kaizenspeed.com](http://kaizenspeed.com)

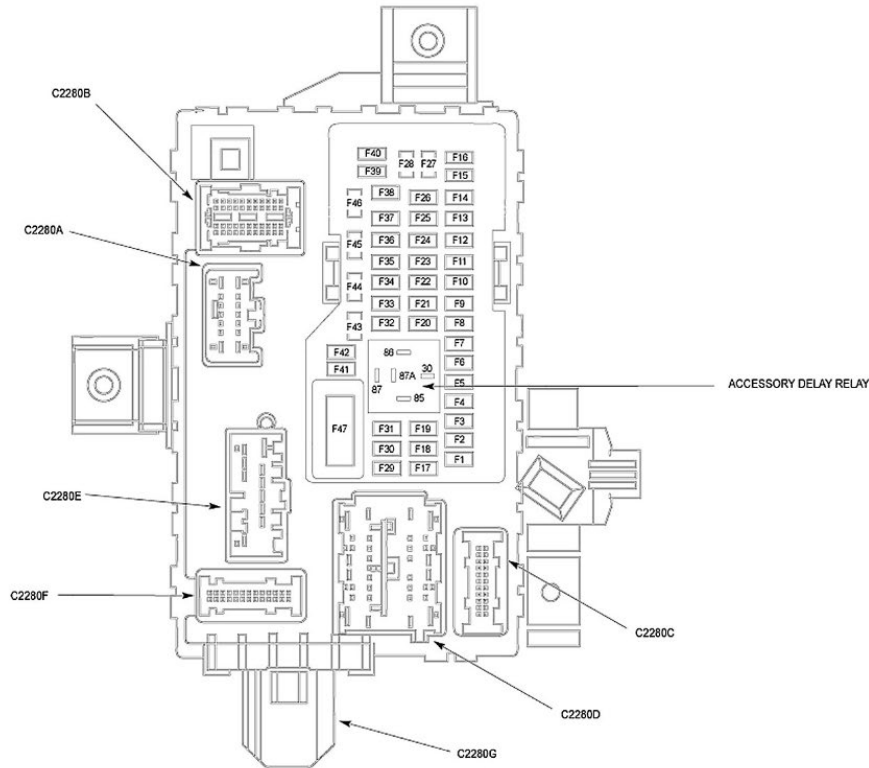
Details:

Control Module is Pre-programmed to activated an aux fuel pump and a MAC 3-port boost control solenoid above 70% throttle. Functionality can be verified any time with the key on by pressing the accelerator pedal to the floor you should see the two LED's illuminate on the Kaizen Relay and also hear solenoid clicking in all positions except 0. This verifies the vehicle CAN connection and the program loaded to the Control Module.

**2011-14:**

# Use Fuse F1 (power window)

## SMART JUNCTION BOX (SJB)



Fuse	Amps	Circuits protected
F1	30	Power window motor, left rear
F2	15	Not used
F3	15	Accessory Protocol Interface Module (APIM)
F4	30	Power window motor, right rear
F5	10	Transmission shift selector, Field Effect Transistor (FET)
F6	20	Front park/turn lamps
F7	10	Left low beam lamp
F8	10	Right low beam lamp
F9	15	Overhead console (overhead lamps)
F10	15	Backlighting
F11	10	Overhead console (ISM)
F12	7.5	Exterior rear view mirror switch
F13	5	Not used
F14	10	Front Display Interface Module (FDIM), Front Controls Interface Module (FCIM), Global Positioning System Module (GPSM)
F15	10	HVAC module
F16	15	Not used
F17	20	Door lock actuators, Luggage compartment lid release solenoid
F18	20	Not used
F19	25	Audio amplifier
F20	15	Data Link Connector (DLC)
F21	15	Headlamp switch, Fog lamps
F22	15	Front park/turn lamps, Front side lamps, Rear lamp assemblies, License plate lamps, Rear side lamps
F23	15	High beam lamps

Fuse	Amps	Circuits protected
F24	20	Horn
F25	10	Luggage compartment lamp, Overhead console, Vanity mirror lamps
F26	10	Instrument Panel Cluster (IPC)
F27	20	Ignition switch
F28	5	Audio Control Module (ACM)
F29	5	Video camera
F30	5	In-vehicle temperature sensor
F31	10	Restraints Control Module (RCM)
F32	10	Not used
F33	10	Not used
F34	5	Anti-lock Brake System (ABS) module
F35	10	Body control module B
F36	5	Passive anti-theft transceiver, Instrument Panel Cluster (IPC)
F37	10	Not used
F38	20	Not used
F39	20	Audio Control Module (ACM)
F40	20	Not used
F41	15	Door lock switches, Auto-dimming interior mirror unit, Power window motors, Window adjust switches
F42	10	Not used
F43	10	Driver heated seat relay, Passenger heated seat relay
F44	10	Not used
F45	5	Wiper relay, Blower motor relay, Windshield wiper motor
F46	7.5	Occupant Classification Sensor Module (OCSM), Overhead console
F47	30 c.b.	Not used

**2015-17: TBD**

**2018+: TBD**

**Output Function:**

<b>All Outputs = Only ON above 75% throttle</b>		
<b>Trim Pot Position</b>	<b>Output 2: Solenoid Duty Cycle (normal)</b>	<b>Output 3: Solenoid Duty Cycle (*for tuning/setup purposes)</b>
<b>0</b>	<b>0%</b>	<b>0% (wastegate spring pressure)</b>
<b>1</b>	<b>50%</b>	<b>30%</b>
<b>2</b>	<b>55%</b>	<b>40%</b>
<b>3</b>	<b>60%</b>	<b>45%</b>
<b>4</b>	<b>65%</b>	<b>50%</b>
<b>5</b>	<b>70%</b>	<b>55%</b>
<b>6</b>	<b>75%</b>	<b>60%</b>
<b>7</b>	<b>80%</b>	<b>65%</b>
<b>8</b>	<b>90%</b>	<b>70%</b>
<b>9</b>	<b>100%</b>	<b>75%</b>
<b>10</b>	<b>0% until 50mph then ramps to 60% by 80mph</b>	<b>80%</b>
<b>11</b>	<b>0% until 50mph then ramps to 65% by 80mph</b>	<b>85%</b>

\*(duty cycle will affect each vehicle differently - based on wastegate spring and atmospheric conditions)

\*\*Uses FRONT wheel speed

Note: Fuse takeoffs are intended to be used with a 25A max fuel pump in a non-continuous function. If you are using a fuel pump with a larger amp draw you will need to use a power supply rated for the appropriate current.

Note: You will need to supply your own power wire to drive your fuel pump. To do so, simply strip ½" from a wire, lift the lever and insert. Snap down the lever and you're done.

**Kaizen Relay instructions can be found here:**



**Control Module instructions can be found here:**

