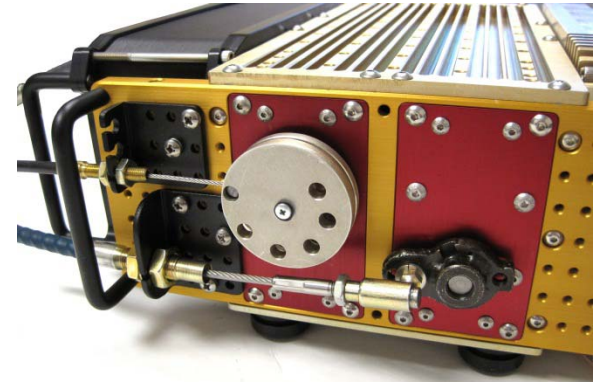




KAIROS AUTONOMI Pronto4 Installation Details

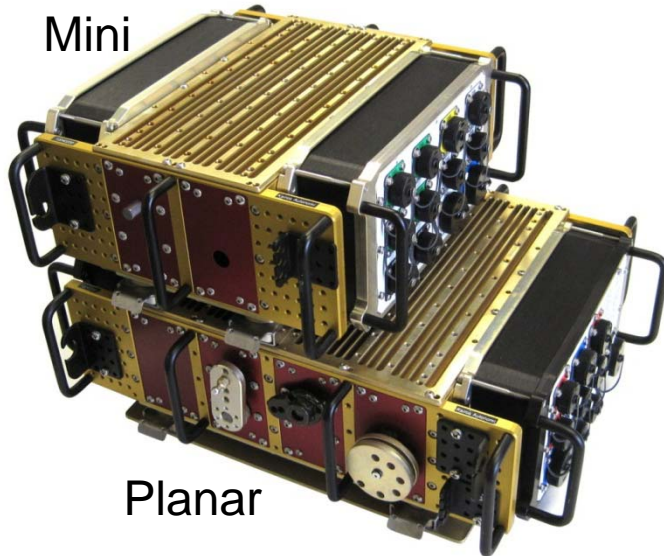


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Various technologies patent pending.

Mini



Planar

*Shown Stacked



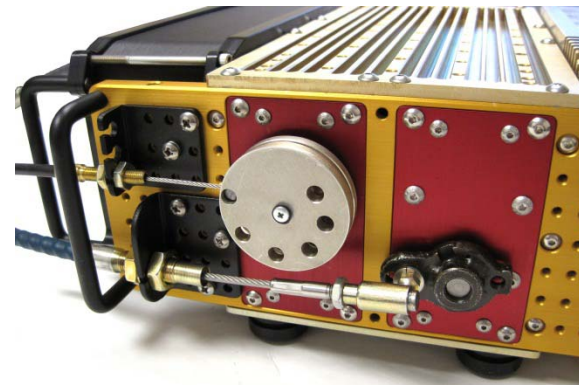
- Mini (4 Bays)
 - Up to 5 Axis including Steering
 - Recommended usage for 3-4 Axis
- Planar (8 Bays)
 - Up to 9 Axis including Steering
 - Recommended usage for 6-7 Axis
- Heavy (4 or 8 Bays)
 - For Heavy Equipment, larger actuators
 - Same capabilities and module as Mini
- Stacked (12 to 16 Bays)
 - Up to 18 Axis Including 2 Steering
 - Recommended usage for 8+ Axis
- Expansion
 - Ethernet, USB, Video, Power, Communications, Radios, Analog/Digital Signals, CAN, Stored Energy, Diagnostics

8 Installation Elements

- Throttle - Manual control of engine RPM
- Brake - Reduction vehicle motion
- Transmission - Direction of vehicle motion
- Steering - Control of vehicle direction
- Power - Vehicle voltage to P4S4
- Electrical - Control of engine operation
- Telemetry - Vehicle status information
- Safety - Termination of vehicle motion

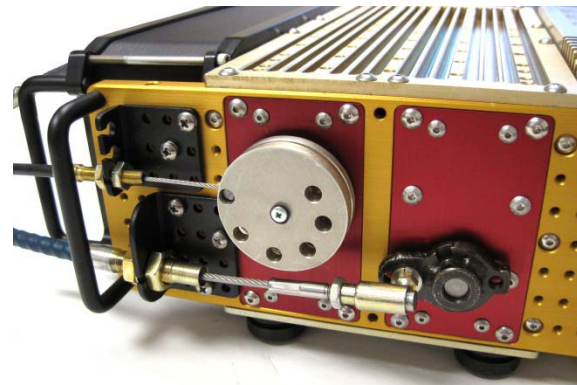


- Spring Return to Zero for Safety
- Pull Only Cable
- Right Angle Attachment on End
- Normally 1-1.5 Inch of Travel
- Standard to 50 lbs of Force
- Other Travel and Force configurations available



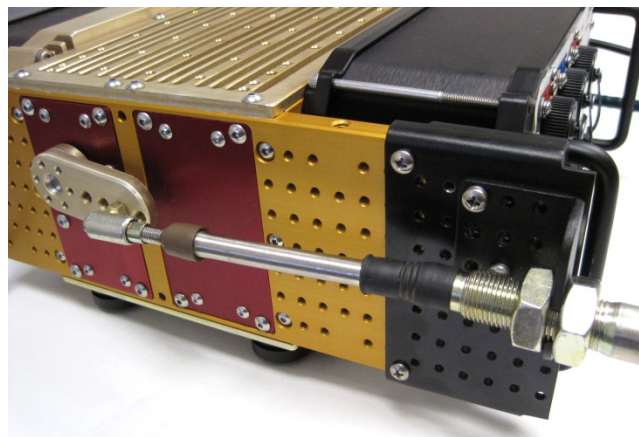
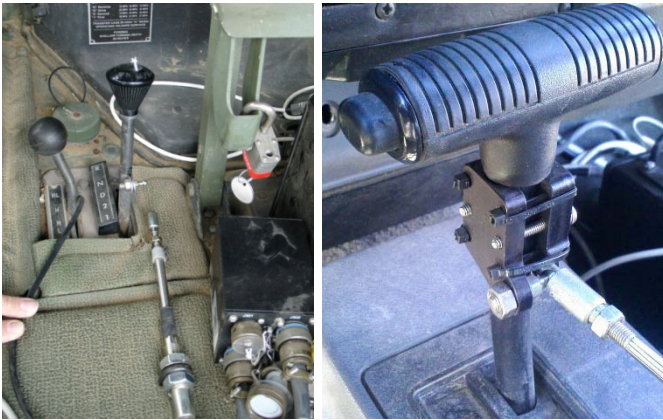


- Pull Brake Pedal Toward Firewall
- Pull Only Cable
- Brake Clamp Assembly
- Normally 1-2 inches of Travel
- Standard to 150 lbs of Force
- Other Travel and Force configurations available



TRANSMISSION

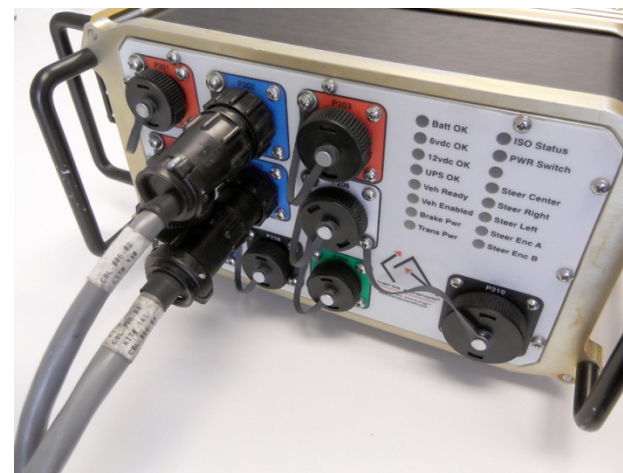
- Automatic Transmission
- Column or Floor Shift
- Direct Transmission Shift
- Push Pull Cable
- Quick Connect Attachment
- Up to 3 inches of Travel
- Up to 150lbs of Force

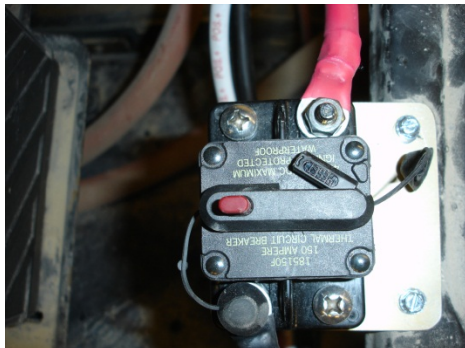
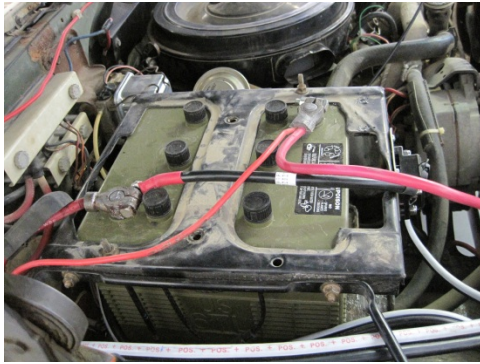


STEERING



- Normally +/- 450 Degrees
- Motor/Encoder Contained on Steering Ring
- Electrical Cables to Pronto4 of Various Length



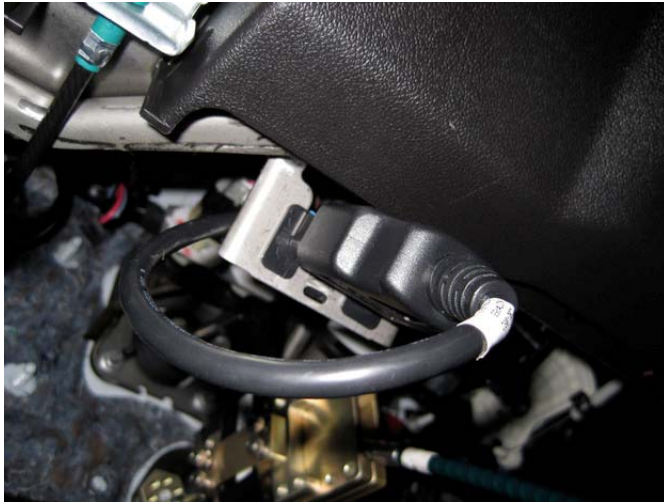


- Directly from Battery
- 150 amp Safety Fuse Disconnect
- Nominal 100 watts

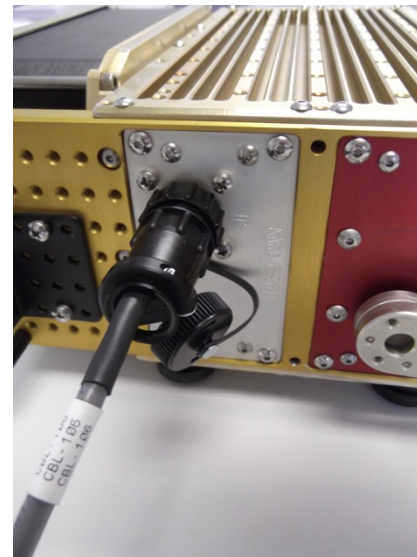




- Key On
 - 12-24vdc signal when Key Is On
- Starting
 - Dry Contact, Form A, 5 amp
- Engine Enable / Kill
 - Switch Key On Input to Vehicle
- Lights
 - Two Spare Dry Form A Contacts, 5 amp
- Brake Signal
 - 12-24vdc Input When Brake Pedal Is Pressed
 - Usually from Tail Lights
 - Safety Rider Signal to software



- OBD-II
 - Read Only
 - Limited Engine Parameters
- J1939
 - Read Only
 - Large Vehicle Parameters





- Internal E-Stop
 - Controlled by Safety Rider
- External E-Stop
 - Front and Rear mounted
 - Magnetically Mounted
- Radio E-Stop
 - Independent Radio Channel
 - E-Stop and Pause
- Network E-Stop
 - Command and Control
 - OCU
- Sensory Notifications
 - Flashing Light
 - Audible Alarm

E-stop
Connections

Light & Alarm
Connection



Contact Information



Joshua Appleman
Sales Engineer
330-245-6911 mobile

joshua_appleman@kairosautonomi.com

Troy Takach
President and CEO
801-870-8470 mobile

troy_takach@kairosautonomi.com

801-255-2950 office
801-907-7870 fax

www.kairosautonomi.com