



Control System for Aerial Work Platforms and Fire Trucks

Full CAN-Bus Control of Aerial Work Platform and Firefighting Vehicle

GENERAL FEATURES

- The system keeps under control all hydraulic and electric components of the machine, taking care of both static and dynamic management.
- User friendly interface using colour display.
- Redundant out-reach control with AVIONI[®] exclusive real-time stability management based on “center of gravity + load” equations.
- J1939 diesel engine management.
- Auxiliary electric engine management.
- Hydraulic system Direct Drive with specific nodes for hydraulic management, compatible with all hydraulic systems.
- Water pump management.
- Water monitor management.
- Optional wireless diagnostic through GSM network.

MOTION CONTROL

- Outrigger-extension based working envelope.
- Load dependent speed control.
- Wind dependent speed control.
- Full 3D cage anticollision feature using both geometric and ultrasonic sensors.
- Automatic/robotised automatic machine closing.
- Robotised motion with “memo” function

GENERAL FEATURES

- Double CAN BUS link: CANOPEN/J1939.
- Dynamic graphic TFT color monitor.
- Data Logger & Preventive Maintenance.

SAFETY FEATURES

- Turret slewing limitation.



BOOM CONTROL

- Speed Reduction by hydraulic flows modulation of each element depending on machine geometrical limits.

- Start/stop movements with acceleration ramp.
- Ladder steps alignment control.
- Fiber optics data transmission to/from cage in option.

TRUCK CONTROL

- Automatic truck levelling on outriggers.
- Frame torsion compensation.
- 360° stability calculation.
- Ourigger separate control panel available in option.

CAGE CONTROL

- Automatic Cage levelling.
- Automatic warning at $\pm 10^\circ$ error.
- Direct control of proportional valves PWM or Voltage type.
- Load cells double extensometers measurement and amplification.
- Automatic/Manual selection of 1/2/3 persons in cage.
- Intercom analog communication to turret.
- Cage automatic centering.
- Cage extension valves control.

TURRET CONTROL

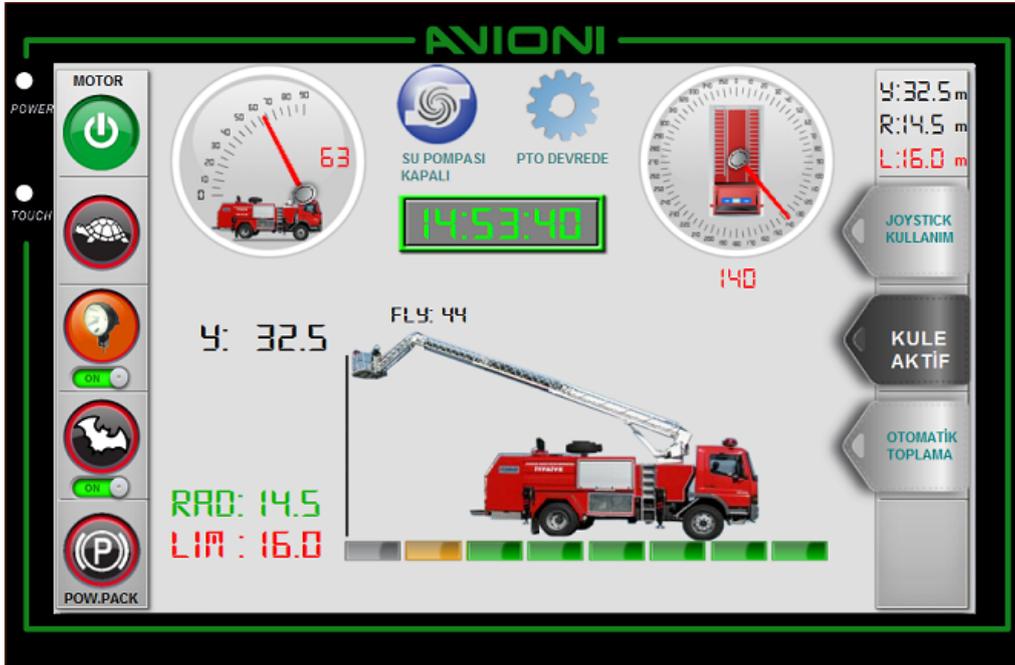
- Movements control through CAN BUS 2-3 proportional axis joysticks.
- Turret slewing measurement and automatic centering.
- Capability of turret dynamic levelling for machines provided with turret independent control.

ENGINE CONTROL

- Vehicle battery control.
- Hydraulic oil control.
- Engine/transmission diagnostic codes and messages on monitor.



IP65 Touchscreen 7" Display



IP65 w/Button 4.3" Display

