

# KEYTROLLER

An I.D. Systems® Company

CREATING A CULTURE OF SAFETY

ELECTRONIC SAFETY DEVICES FOR FORKLIFTS AND HEAVY EQUIPMENT

## Product Catalog

Keyless Ignition Systems

Access + Monitoring Systems

Speed & Abuse Prevention

Pedestrian Warning Systems

Anti-Theft Devices

Wireless Drive + View Cameras

High Accuracy Weighing + Overload Sensing



# KEYTROLLER LCD-601

Full Featured Access + Monitoring System for Large Fleets

## Access Control to Trained Drivers Only

- Enable device using RFID card or access code.
- Ensure drivers have access to ONLY forklifts they are trained on.
- Manage forklift operator certification and OSHA recurrent training.
- Warn operator on display the # of days until his/her access expires.
- Wirelessly adjust settings and operator access to use.
- Software warns management of impending driver expirations.
- Your company logo on opening screen in color.

## Programmable Electronic Checklists

- Pre-shift checklists are mandated for every forklift by OSHA.
- Electronic checklists eliminate paperwork.
- Programmable checklist for different items/machines.
- "Flagged" items shut down forklift when failed.
- Checklist items can be displayed in two separate languages.
- Maintenance personnel can track failure "trends".
- Failed items are automatically emailed to named recipients.
- Easily made variety of checklist reports for OSHA in event of an accident.
- "Finger whipping" report prevents operator from improper check procedure.

## Impact-Abuse Accountability

- Sensitivity settings in .01 G increments in each axis with time blanking.
- Device can set off 120Db flashing siren alarm after impact.
- Device can be sent to shut down in X# seconds after impact.
- Automatic emails sent showing driver/forklift ID/time/date/intensity.
- Abusive operators either change their ways, retrained or removed.
- Abuse accountability significantly reduces damage costs.
- Reports and graphs generated by: Fleet, Driver, Forklift, Time Period.

## Maintenance scheduling

- Maintenance scheduled by date to hour meter set points.
- Display shows date or hours until maintenance is due.
- When maintenance date/hour is exceeded - enters "grace period".
- When "grace period" is exceeded, vehicle only starts for mechanic or supervisor.
- Mechanic logging-in shows when maintenance started and completed.



**Request your FREE  
LCD + camera demo kit!**







## Equipment/Driver Efficiency + Utilization

- Utilization on display % of time ignition on since shift began.
- Efficiency % shown on display loaded vs. unloaded - moving vs. idle.

## Speeding Accountability

- Device displays forklift speed in .01 increments MPH or KPH.
- Device beeps and flashes when speed limit is exceeded.
- Flashing siren alarm sounds when 3 to 5 second grace period is exceeded.
- Continues to sound until driver slows below the speed limit set point.
- Automatic email of speeding event info sent to selected recipients.
- Reports and graphs generated by: Fleet, Driver, Forklift, Time Period.

## Installation

- Designed to fit to any make or model forklift—IC—Diesel—Electric.
- Color coded connections to power, ignition switch, seat/belt/oil/temp.
- Hydraulic sensor provides 2nd hour meter for tracking loaded/unloaded.
- NO interface to vehicle CANBUS or computer—NEVER a warranty issue.

## Keyless Ignition + Seat Belt Monitoring

- Device starts and stops engine directly from keypad—NO KEYS!
- Device “knows” when buckle fastened before operator sits down.

## Wireless Transmission of All Events

- Event transmitted immediately.
- Device holds up to 6000 events if out of wireless range.
- Standard embedded Wi-Fi holds most encryption schemes.
- Optional external radio has microprocessor for “certificate” type security.
- Optional cellular modules for remote applications.

## Text Messaging - Software to Device

- Managers can send brief message to individuals or broadcast to all.
- 4 preprogrammed short responses—replied by operator.
- All messages and responses logged in software.



The KEYTROLLER LCD 602 model is available with the same keypad design and functionality as our LCD 601 but with a simpler relay sensor module that has only one auxiliary input (typically seat switch or seat belt) and no impact or speed sensing. The lower cost LCD 602 is commonly used on equipment like ground support, cranes and personnel carriers who do not need impact and speed sensing features.



**No other access monitoring system comes close to the capabilities of the KEYTROLLER LCD access monitoring device and the SMARTIE wireless DVR camera system.**

#### **ROI when SMARTIE is paired with KEYTROLLER'S LCD access monitoring system:**

- Keyless ignition, trained and authorized operators only.
- Notification of card expiration (training due) on LCD display and software.
- Electronic pre-shift checklist.
- Monitoring hr/min usage, moving vs. idle time, loaded vs. unloaded time.
- Monitoring seat belt usage.
- Monitor low oil, high temp with auto shut down and recording of overload events (video if paired with SMARTIE).
- Instant wireless transmission of all event data.
- Automatic emails, reports and graphs.
- Work and utilization monitoring on LCD display by shift.
- Warning icon and recording of overload events (video if paired with SMARTIE).
- Trigger SMARTIE camera to record impacts/speeding event video.
- SMARTIE records GPS position in outdoor applications (view with video on Google Maps).
- View SMARTIE videos: emails (standard), PC (optional software).
- Records continuous video (100-200hr) by viewing SD card in PC.
- When wirelessly enabled using SMARTIE PC software, user can view camera view remotely (real-time).
- Video used as training aid for new and existing operators.
- Video used by management to evaluate trouble spots in the plant.
- Video accountability for proper completion of checklists.
- Video accountability for impacts and speeding events.
- Flexibility of NOT shutting down forklift after impact - incident is available on video for review.
- SMARTIE has 3 axis accelerometer - when paired with LCD601, the user can set different impact sensitivity levels in both units. SMARTIE records all impacts to video - even low ones not picked up by LCD unit, which is set for major impacts and triggers SMARTIE video. User can separate each.



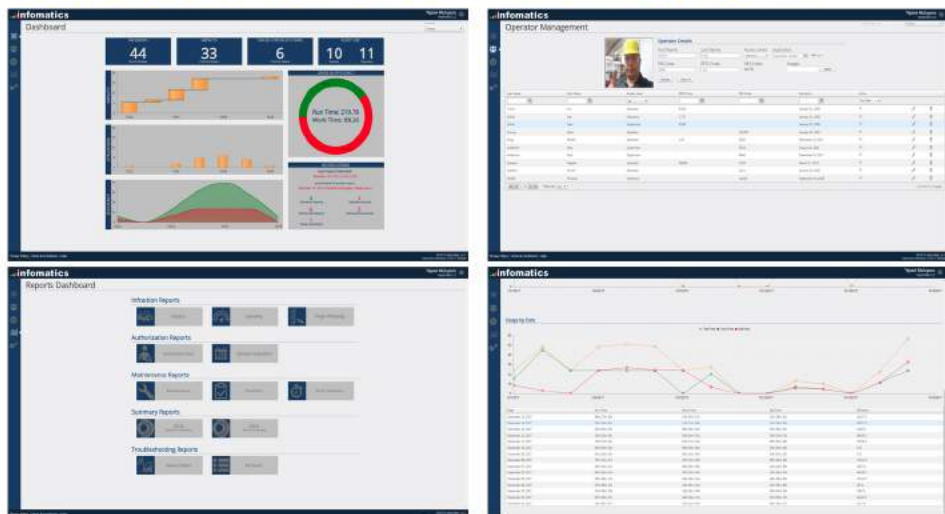
#### **Training advantages:**

- Training of new drivers with actual video (review close calls, accidents, high traffic areas, etc.).
- Training existing drivers while reviewing accidents, near misses, incidents, etc. on video.
- Management awareness of trouble spots (bottlenecks) in the plant that may need attention.
- Video proof of properly loaded products into trailers (proof product was NOT damaged at shipment point—done by external event trigger switch).
- Outdoor (and near outdoor) applications can view GPS track of forklift along with speed + 3 axis motion graphs.
- Conclusive evidence for insurance and security issues (OSHA or insurance inspectors).



# INFOMATICS

WEB, CLOUD or SERVER SOFTWARE for LCD Device



INFOMATICS web/cloud based software. 99% of the issues in industrial applications stem from errors in communication caused by the client's own network (changed settings, upgrades, database issues, etc.). Old generation FMS communication software is hosted on a client's network on a local PC or VM - requiring a significant amount of a company's IT support time for annual database management, firmware and software upgrades.

For the past 2.5 years, Keytroller has been developing our new INFOMATICS web/server-based software. This is a major advancement, especially with respect to communication issues - the client simply opens a port to the outbound TCP port to the internet directed to our IP address (in our case, on the highly secure and redundant AMAZON servers). The client has a web portal with granularity which they log into to view event logs, create reports or graphs and to, of course, make changes to operators or settings. Keytroller takes care of all the upgrades and the database maintenance. The client's IT department is now out of the picture and communication issues completely go away.

New communication protocol between LCD devices and INFOMATICS increases communication speed by 50X! This type of lightning quick speed improves overall performance in a lift truck application, as these mobile vehicles are constantly moved between access points - which can create major performance and reliability issues.

## Purchase Options for the Client:

### 1. PURCHASE SOFTWARE - INSTALLED ON CLIENT'S INTERNAL SERVER:

Annual Maintenance Costs will apply: For tech support, database maintenance assistance and firmware/software upgrades.

Additional site costs will apply: Multiple plant locations within your organization can communicate with one server.

### 2. SaaS SOFTWARE as a SERVICE Subscription Plan:

Simplest and most convenient for the client. Very little IT involvement. Client simply opens up TCP port 8080 outbound to a single IP address for data flow to Keytroller's Amazon Cloud Server. Keytroller takes care of the following for the length of the contract:

- o Database maintenance and upgrades.
- o Firmware upgrades (pushed from Cloud to your individual LCD devices).
- o Software upgrades (installed on Cloud by Keytroller personnel).
- o Free Keytroller tech support for the length of the contract.
- o SOC security insured by Amazon.
- o Amazon has a worldwide network of redundant secure servers, ensuring data is always safe and secure.



Keytroller's parent company, I.D. Systems, Inc. from Woodcliff Lakes, NJ (NASDAQ: IDSY) also produces access monitoring systems for enterprise applications. For more information, contact (201) 678-5565 or [sales@id-systems.com](mailto:sales@id-systems.com).



# FOREWARNER-MAXI

## 24 LED Overhead Crane Spot / Line Light

### How it works:

- Powerful **Blue** or **Red** 24 LED spotlight or linelight, comes standard with lens cover that turns spot into line on floor below.
- Installs to overhead crane pointing down on production floor below.
- Snap-on lens cover is standard - turns spot into line on floor below.
- Warns workers / pedestrians of crane hook / load movement.
- Whether controlling the hook/load from the top or wirelessly from the bottom, MAXI gives the operator another frame of reference BOTH horizontally and vertically for more stable, accurate control.

### Why you want one:

- Spot/line provides additional visual warning with respect to the proximity of the hazard above or coming this way.
- Additional control makes operators safer with loads.
- Many clients use 4 MAXI lights with lens cover (standard), creating a "box" or "danger zone" around the hook/load below.
- Workers can become immune to the sound of forklift or overhead crane siren warning alarms - especially in a loud manufacturing plant.
- Employees are sometimes focused on the immediate task at hand and can become oblivious to audible alarms - when a spot or line comes into their field of vision - they take notice.
- The movement of light from overhead crane provides actual and definitive warning to worker below.
- Moving lines/spot on the floor prevents pedestrians from walking under suspended load.
- MAXI is automatically on when the overhead crane is energized---reducing human error.
- Crane operators do NOT have to take their eyes off block/hook to know it is centered over the load.



### Kit includes:

- 24 LED light with heavy duty cast aluminum frame for heat dissipation
- Standard with snap-on lens cover (lens changes spot to line on floor)
- 10' (3.3M) cable
- U shaped adjustable bracket



### Specifications:

#### Blue or Red Spotlight Specifications:

- Power: 120 Watts 84 Watts White 84 Watts
- Voltage: 9-60V DC
- Lumens: 12000 lm 8400 lm White 8400 lm
- LEDs: 24 (Cree LED)
- LED color temperature: 8000K
- Beam Type: Pencil beam
- Size: 9" X 3.9" X 9.2" (229 X 98 X 234mm)
- Waterproof: IP67
- Working temperature: -40~85°C
- Material: Aluminum die-cast housing
- Approval: ISO9000-CE-RoHS
- Packaging: Individually boxed with foam
- Adjustable mounting bracket: 1
  - 50 degree up/down
- Lifetime hours:
  - up to 30,000 — 50,000 hours
- Cable Length: 3.3 meters (10')

### Models:

- FWNB: includes 1 MAXI, bracket, line lens, 10' cord
- FWNBP: includes same, w/ 1 power supply for 1 MAXI light
- 4FWNBP: includes 4 MAXI, w/ 1 large power supply to power 4 MAXI lights

### AC/DC Power Supplies:

- FWN-PS-150-24 - included in MAXI FWNBP: powers 1 MAXI light
- FWN-HLG-600H-48A - included in MAXI 4FWNBP: powers 4 MAXI lights



# FOREWARNER SAFETY LIGHTS



Forklift LEDS in **Red** + **Blue** in Spot, Line or Arrow

## 9 LED Models:

**FWN-45W-LDS0041B** (45 Watt Blue)

**FWN-27W-LDS0041R** (27 Watt Red)

## 2 LED Models:

**FWN-10W-MINI-B** (10 Watt Blue)

**FWN-6W-MINI-R** (6 Watt Red)

## 2 LED - ARROW Models:

**FWN-10W-ARROW-B** (10 Watt Blue)

**FWN-6W-ARROW-R** (6 Watt Red)

### Why you want one:

- Reduce accidents!! 40+% of all fatal forklift accidents involve pedestrians.
- Pedestrian sees moving spot, line or arrow on floor — improves awareness of pedestrians significantly.
- Very effective for forklifts working in areas with many pedestrians.
- Most pedestrians don't understand the crushing force of a forklift tire or rear end swing.
- Creates highly visible warning spot, line or arrow — obvious to pedestrians to stand and walk clear.



# FOREWARNER SIDELINER



Laser + LED Pedestrian Warning Sidelights

### Models:

Laser Model: **FWN-LSRLSR-G**

LED Models:

**FWN-LSRLNR-R**

**FWN-LSRLNR-G**

### How it works:

- Creates a visible "SAFE ZONE" border — obvious to pedestrians to stand and walk clear.
- Mounted on each side of overhead guard or mast with magnetic "feet" and cable ties.
- Adjustable mounting bracket allows precise positioning of a thin green line beam on floor.





# KEYSHOCK

## Impact Abuse Alarm for Equipment



### How it works:

- Designed to act as stand-alone impact abuse module.
- Provides indication if equipment or machine has been subjected to abusive impacts.
- Three axis accelerometer X (front/back) Y (side/side) Z (up/down). Each can be enabled/disabled.
- Can be set to ignore very short (ms) duration forces to "soften" set-point and reduce false alarms.
- Two alarm outputs - alarms when impact deceleration is in excess of trigger threshold set-point.
- Alarm software settings can be set to "latch" (stay on), pulse, output for 6 seconds, pulse for 100ms.
- When set to "latch" (stay on), it can trigger flashing siren alarm - vehicle has been involved in impact!
- When set to "latch" (stay on) then a key reset from supervisor is required (optional key switch).
- "Latch" can also trigger low speed on SPEED-SAVER top speed controller or relay for shut down.
- Removing battery input power will NOT reset the device - when power is supplied, alarm sounds.
- Because it has 3 axis, module can be fitted horizontally or vertically (see vertical picture below).
- FREE programming software connects via USB to laptop.

### Why you want one:

- Inexpensive protection for your equipment.
- Simple to install---Simple to calibrate---Simple to use.
- Makes abusive operators accountable for damage.
- Changes operator attitudes in how they operate equipment.
- Fits easily to any make or model equipment (12—60VDC).

### Programmed via USB connection to laptop (FREE software)

1. Password protected log in for settings.
2. Enable/disable any of X—Y—Z axis.
3. Set sensitivity for each axis independently.
4. Set "ignore" time for each axis (ms).
5. Set style for each output independently.
6. View current output of each.



# START-SMART

## Code / RFID Keypad Ignition System

### Features:

- Designed to eliminate ignition keys (NO KEYS!).
- START + STOP directly from keypad.
- Small profile design fits easily to any dash - no exposed cables.
- Requires valid code or RFID card login to enable device (authorized operators only).
- Easy installation to any make or model vehicle (connection to power + ignition switch).
- Connects to any gas, LPG, diesel or electric vehicle (EL requires voltage converter).
- Keypad and relay sealed and potted for tough outdoor abusive applications.
- Program in/out user code/card from keypad or USB interface and PC software.
- Two auxiliary inputs for seat belt, seat switch, low oil, high temperature, etc.
- Programmer or supervisor can lock out all operators and then re-enable them.
- All events are time/date stamped and can be downloaded via USB port.
- Anti-theft wireless relay option prevents "hot wire" start / theft of equipment.

### Why you want one:

- Keep untrained and unauthorized user OFF of your equipment.
- Simple to install - simple to program - simple to use.
- No more keys to lose, forget or break.
- Proactive way to prevent theft of your machine (with wireless relay option).
- Heavy duty design, sealed and potted for tough outdoor weather extremes.



**Optional:** Anti-theft, anti-hotwire wireless relay installs in starter circuit, preventing power until wirelessly enabled by START-SMART keyless ignition.



# SLING-BELT

## "Always Used" Seat Belt System

**Model:** SBLT-IC/EL

**Features:**

- Unique patented design ensures seatbelt usage.
- Easily see when operators are not properly wearing their seat belt.
- Internal Switch: Connect to Keytroller's access monitoring systems for seatbelt enforcement.
- Retrofit to any make or model forklift or equipment.
- In-the-way and uncomfortable to sit-on if not used.



# COOLTROLLER

## Double-Headed Operator Cooling Fans

**Model:** CTLR-DF-12

**Features:**

- High output air flow - cool operators are productive operators!
- 12 VDC (24, 36, 48 VDC models also available).
- Each fan head is independently adjustable.
- 360 degree both horizontal and vertical.
- 100% pure copper motors.
- Ultra quiet - low noise design <45dB.
- ON/OFF - two speed switch on device.
- 8" H X 3.5" D X 5.5" H



# ENGINE-SAVER

## Low Oil Pressure - Hi Temp - Hi Idle Automatic Shut Down Device

**Two models available:**

**ES-661:** Detects over-heating or low oil level, and triggers an audible alarm / flashing beacon. After shut down, supervisor resets.

**ES-662:** Includes automatic truck shut-down for excessive engine idling after delay of 1 / 2 / 4 / 8 minutes.

**Why you want one:**

Protects engine from catastrophic failure due to loss of oil pressure or extremely high engine temperature - also prevents excessive idling.



# SPEED-SAVER

## Top Speed Control System for Cable Throttles

Model: SS-701

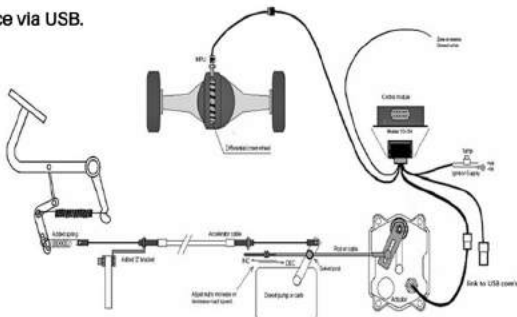


### How it works:

- When forklift reaches Idle speed - device's "arm" actuates a cable connected to the engine throttle lever - restricting its stroke.
- The throttle lever stroke is restricted - which controls top speed by restricting engine RPM.
- When the vehicle speed is reduced below "Idle" speed - the "arm" relaxes and the engine throttle again with full power.
- Two top speed set points can be triggered by:
  1. ZONETROLLER IR zone boundary system (high+ low speed at one side of boundary)
  2. Hyd sensor: Calibrated to a weight-low speed when calibration weight exceeded
  3. Mast switch: Low speed when forks are above mast switch, high speed below
  4. Directional control: Lower speed in reverse-higher speed in forward
  5. Key switch on dash: High or low speed turned on/off by supervisor
- Restricts top speed without effecting low speed engine RPM for heavy lifting.
- FREE PC software connects from laptop to device via USB.

### Why you want one:

- Controls safe speeds in your plant (ZONETROLLER speed control option available).
- Installation to any make or model forklift with cable type throttles.
- Even if you have an older forklift, this system will fit and control to safe top speed.



# SPEEDTROLLER

## Speedometer with Over-Speed Warning + Alarm

### Models:

ST-201-I (IC 12-24V)

ST-201-E (Electric)

### Features:

- Shows vehicle speed in MPH or KPH.
- Beeps and flashes during over-speed grace period.
- 120Db flashing alarm sounds when grace period is exceeded (typically 3-5 seconds).





# SPEED-SAVER EL

## Top Speed + Directional Inhibitor Control System for Electronic Throttles

### Models:

SS-EL-701

SS-EL-TS-701 (w/tire saver)



### How it works:

- Splices in line between accelerator pot and VCM. MV restriction to limit top speed settings.
- 5 systems built into one:
  1. SPEED-SAVER - top speed control (two top speed setpoints).
  2. TIRE-SAVER - directional inhibitor when above speed + RPM setpoints.
  3. IDLE-SAVER - auto shut down of engine if truck is not being used.
  4. FIRST GEAR TAKEOFF - shifts transmission into first gear if speed below setpoint.
  5. ACCELERATION-SAVER - user sets rate of acceleration or "take off" speed.
- Two top speed setpoints can be triggered by:
  1. ZONETROLLER= IR zone boundary system (high + low speed at one side of boundary).
  2. Hyd sensor: Calibrated to a weight - low speed when calibration weight exceeded.
  3. Mast switch: Low speed when forks are above mast switch, high speed below.
  4. Directional control: Lower speed in reverse - higher speed in forward.
  5. Key switch on dash: High or low speed turned on/off by supervisor.
- Restricts top speed WITHOUT effecting low speed engine RPM for heavy lifting.
- FREE PC software connects from laptop to device via USB.
- Set rate of acceleration or "take off" speed.

### Why you want one:

- Controls safe speeds in your plant (ZONETROLLER speed control option available).
- Directional control prevents transmission abuse, improved tire wear up to 400%.
- Idle time shutdown prevents excessive idling of engine.
- First gear takeoff prevents pull away in second or third gear and excessive wear on transmission.
- Quick installation to any make or model forklift (plug + play for many models).
- Allows user to set his own setpoints---avoids expensive dealer involvement.



Control Unit



Pre-made Harnesses



Gear Tooth Speed Sensor

# PRECISE

## High Accuracy Hydraulic Forklift Scale

### Models:

PCSE-1000

PCSE-1000-HC (for forklifts over 10,000#)

### How it works:

- Hydraulic bypass module with high accuracy sensor mounted in hyd line.
- Hydraulic fluid under pressure routed through bypass module past sensor.
- Hundreds of readings allows device to average for much higher accuracy.
- At end of 5 second weighing cycle, device displays gross, tare and net weight.
- External flashing alarm for overload.
- Less than 50% the cost of a load cell scale!

### Features:

- Waterproof touch screen displays Lbs or Kgs.
- High accuracy - nearly that of a load cell scale - at half the cost.
- Hydraulic - can NOT be damaged in tough, abusive applications - like load cell scales.
- Allows user to add reference for weighing events (PO#, invoice, customer, etc.).
- Allows user to name channels (customer, trailer, commodity name, etc.).
- Horizontal line is quick reference for % of full capacity - also overload warning.

### Communication and Printing:

1. USD or SD card removal of weighing event log (time and date stamped).
2. Two serial ports for connecting to laptop, Bluetooth radio or printer.
3. Receipt type 2" or label type 3" printers available - print event or sequence.

### Applications:

- FOR FORKLIFTS NEEDING HIGH DEGREE OF ACCURACY - within 10# in 5000# (4.5kg within 2268 kg).



# LIFT-N-WEIGH

## Economy Hydraulic Scale for Forklifts

### Model: MK4

### Features:

- Increase loading safety.
- Enable check-weighing of incoming and outgoing goods.
- Hydraulic scales won't be damaged in tough applications.
- Maintains accuracy - no periodic recalibration.
- Weatherproof - designed for outdoor use.
- Maintain lifting capacity and driver visibility.



**MOST ECONOMICAL FORKLIFT SCALE ON THE MARKET!**

Performs like scales 2 to 3 times more expensive!



# WEIGHTROLLER

## Hydraulic Scale with Status & Overload Warning

**Models:** WE-100, WA-10

### Advantages:

- Economical, reliable, waterproof weighing system.
- Increases loading safety in yard and/or warehouse.
- Allows correct and even loading of storage and vehicles.
- Enables check-weighing of incoming and outgoing goods.
- Fits to any make or model forklift: Electric, gas, LPG, Diesel.
- Maintains lifting capacity and driver visibility.
- Can be installed and calibrated on forklifts with handling attachments.
- Hydraulic scales can NOT be damaged in tough abusive applications.
- Maintains accuracy; requires no periodic re-calibration or servicing.
- Hydraulic scales create NO loss in load center or lifting capacity.



### Features:

- LCD indicates load as a calculated weight and bar graph of load status % of full lift capacity.
- Accuracy +/- 2% of truck capacity - displays in lbs or kgs - shows up to 99,990 lbs/kgs.
- Three button user control for easy operation (1 for Reset to Zero).
- Audible alarm at 90% full capacity with continuous audible alarm and flashing display at/in excess of 100%.
- Overload logging capability - instrument memorizes the number of times the forklift was overloaded.
- Optional external flashing siren strobe overload alarm.
- Proven technology in a robust waterproof enclosure sealed to IP67.
- Unique bracket enables installation of the instrument in any position.
- Switches on automatically whenever forklift is in operation.

### How they work - 2 models:

#### WEIGHTROLLER 100

- Hyd sensor measures pressure and displays weight on LCD display.
- Can also display % of full capacity and warn operator of impending overload.

#### WEIGH-ALERT

- % of full forklift lifting capacity is shown - warns operator if impending overload.

### All kits include:

1. Outdoor sealed LCD display - IP67 with mounting bracket.
2. Hyd pressure sensor 0-250 bar + 1/4" BSPF hose (4' long).
3. Junction box—for all electric connections.
4. Power supply connector kit with ties, clips, terminals, etc.
5. External "thumb enter" switch—standard on 100+ unit only.

### Optional:

- FSA External flashing siren strobe alarm (for overload).
- HVC High voltage converter for 36/48 VDC vehicles.

- Maintains accuracy - no periodic recalibration.
- Maintain lifting capacity & driver visibility.
- Most economical scale on the market .
- Weatherproof - designed for outdoor use.



# SEETROLLER ULTRA

Digital Wireless Camera Viewing System



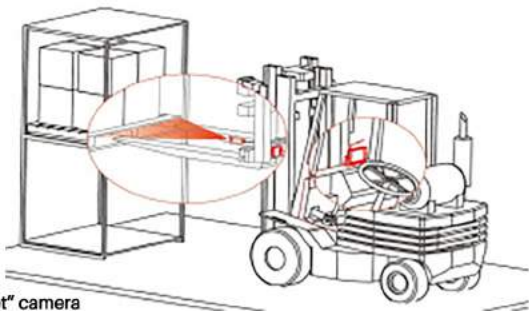
"M" Model

"O" Model

## Models:

### SEE-ULTRA-O

- IR weatherproof IP69 wireless camera
- 7" color LCD display
- Rechargeable lithium ion battery
- Timeout switchbox with settable auto off
- 2 wireless FOBs which turn on camera
- Battery charger



**SEE-ULTRA-M:** Same as above but "Metal Bullet" camera

## How it works:

- Simple installation - camera/switchbox is battery powered - mounts to carriage or backrest.
- No wires running up/down the forklift mast - vastly reducing installation time.
- 7" color LCD display connects to switched vehicle power (only on when ignition is on).
- When driver needs visibility, he/she turns on external wireless camera(s) with wireless FOB.
- Switchbox on wireless camera turns camera off automatically (default is 3 minutes, but can be changed).
- Alternatively, driver can turn wireless cameras off at any time with FOB.

## Why you want one:

- Digital transmission - NO interference - clarity on par with wired camera systems.
- No wires running up/down the forklift mast.
- Additional visibility makes operators safer with loads.
- Wireless cameras have IR LEDs that automatically illuminate in low light.
- Can support up to 4 external wireless cameras (1 camera is standard).
- Monitor has built-in switchable view function (1-2-3 or 4 views on display).
- Quick installation to any make or model forklift (36 - 48 VDC require converter).
- Industry leading 150 ms signal response time - very small time delay on LCD.



## Applications:

Forklifts, construction equipment, any vehicle requiring remote visibility.





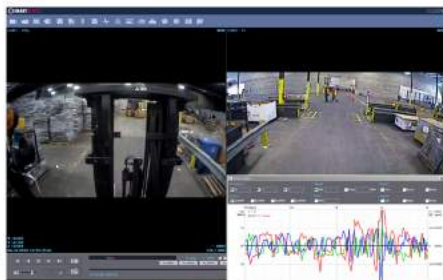
# SMARTIE KEY-CP4

## Wireless Video DVR Recorder with GPS

Accepts 1, 2, 3 or 4 external cameras (kits include 2 cameras)

**Simple, inexpensive, easy-to-install solution that potentially saves millions by protecting it from false claims and accusations. Video accountability can significantly improve material handling productivity and reduce accidents and product damage.**

Model KEY-CP4 1, 2, 3 or 4 Camera Video Drive Recorder w/ GPS is the world's smallest and most reliable 4 channel mobile DVR. Connect up to 4 cameras (2 are in standard kit models). Integrated GPS, 6-Axis G-shock Sensor, built-in mic, (3) 12V alarm input triggers, one 5V alarm output, SD card (128GB capacity), external video event record button, standard kits available for lift truck applications include Wi-Fi or cellular modem. Video-out for connecting to optional LCD display for rear view camera. CP4 doesn't require the web subscription service to operate as a stand alone system viewing via SD card video.



The SMARTIE KEY-CP4 is a powerful, compact and discreet recorder for recording up to 4 cameras with audio. The CP4 will record to video exactly what happened before, during and after an incident - triggered by SMARTIE's impact sensor or the KEYTROLLER LCD'S impact or speed sensor. Video of triggered event is viewed from various synchronized camera angles before, during and after the incident. Some clients use the external event record button to record video of received damaged goods or loading of high value product. Supervisors can use event video for operator accountability, equipment usage, equipment whereabouts, proper checklist completion, impact force of accident, product that is hit, false driver claim verification, texting and cell phone usage while driving, excessive lingering and accident near-miss events used for operator training. Event videos can be saved to the PC in operator's personal file for future reference. Time stamped video makes drivers accountable for shift start times, break times, lunch times and end day finish times.

### **"Standard" Kits includes (up to 4 cameras are optional):**

1. 4 channel mobile DVR
2. 128GB SD memory card with built-in software (about 300 hours continuous video before overwritten)
3. Remote control/event record button with LED status indicators for push button saving of video event
4. GPS receiver
5. Power cable
6. 2 IR weatherproof cameras
7. 2 camera cables
8. Wi-Fi or Cellular modem (depending on kit model)
9. Lockable vented DVR enclosure (includes 2 keys)



Note: DVR can accept up to 4 different cameras (of any model combination). Also has AV cable connection to optional 7" LCD display to be used as back-up camera.

### **TABLETOP DEMO:**

CP4 can be evaluated using our tabletop demo kit which will allow the user to create videos, assess "real-time" video and our online web portal.



## **2 Recording Modes - active at same time:**

### **1. Continuous**

Front and interior views continuously recorded while power is on. When the capacity of the SD card is reached, the oldest files are overwritten.

### **2. Event Generated**

Events are triggered by either a G-force exceeding the preset limit or emergency external record button or external input connection. Time can be set: up to 30 seconds before, 30 seconds after. Stored triggered events on the SD card will NOT be erased unless user erases the event on the PC.



## **Video Playback and Analysis:**

- PC Analysis Software included on 128 GB SD card (standard in each DVR).
- Software downloaded from SD card to PC, which is used to view video from SD.
- Filter Data Search by Time/Date, Event, Vehicle Speed, or G-Force level.
- MP4 Conversion Tool - data remains watermarked.
- Google Maps Integration for route tracking.
- Google Earth Export Tool for advanced route tracking and archiving.
- Privacy masking feature for blurring out faces or license plate numbers.
- Save/print event reports.
- OTA Software & Firmware updates.
- With optional LCD monitor connected, view all four cameras at once or playback recorded videos in vehicle.



## **Infrared LEDs for Night Vision:**

- IR LEDs automatically illuminate in low light conditions - allowing for recording at night or in poorly lit areas.

## **Email and Review Video Events:**

- SMARTIE KEY-CP4 can send up to 5 emails alerting supervisors about triggered video events.

The receiver of the email can:

1. Go to the offending forklift and unlock the DVR enclosure and remove the SD card. He/she can then view the saved time-stamped video from the SD card.
2. Subscription service based web portal allows management to:
  - a: View video event on web portal by clicking event.
  - b: Real-time view of cameras on forklifts.
  - c: Review available continuous video saved on SD card.

## **Vented Lock Box:**

- DVR box fits into lockable box which comes with 2 keys. This prevents unauthorized access to SD card and stored video information.

## **Using Optional LCD Display as Back-up Camera:**

- By adding the optional 7" color LCD display, you can use one camera as a real-time view of the camera you choose (typically back-up camera, but can also be used to view garbage clamp, crane, etc.).

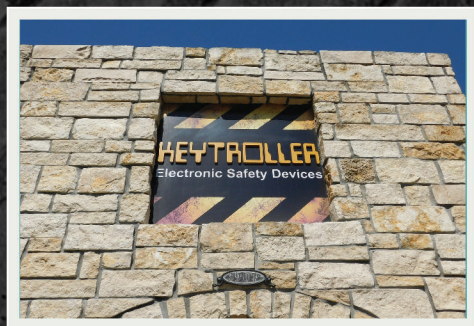




## The Company

Keytroller, an I.D. Systems, Inc. (NASDAQ:IDSY) company, is committed to the design, manufacture and supply of proprietary safety devices designed for forklifts, construction equipment, aerial lifts, personnel carriers and transport trucks. Originally established in 1988, Keytroller is headquartered in Tampa, FL and enjoys relationships with over 500 North American equipment dealers (aftermarket) many OEM vehicle manufacturers (installed as original equipment). Importers of our products are in England, Japan, Australia, Singapore, Middle East, Brazil, Mexico, Canada, Chile and Colombia. In 2017, Keytroller was acquired by NASDAQ listed I.D. Systems, Inc. (IDSY) and operates as a fully owned subsidiary.

**CALL US TODAY  
TO REQUEST A  
FREE DEMO KIT**



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