

WIRELESS WEIGHING TECHNOLOGY FOR THE 21ST CENTURY



AC30-60TM

Aircraft Platform Weighing System

Intercomp[®]
advanced weighing technology . . . by any measure

AC30-60 Platform Scale

Intercomp's AC30-60 Platform Scale is the Industry's Most Technologically Advanced Wireless Weighing System.

Over twenty years of experience is engineered into every high capacity/high precision weighing system produced.



With Spread Spectrum Telemetry



The sophisticated technology will weigh virtually any aircraft due to the full range accuracy of $\pm 0.1\%$ of applied load or better. Whether you need to weigh the Space Shuttle, a commercial airliner or a military jet, the AC30-60 will provide the accuracy necessary to obtain reliable readings for all types of aircraft.



FEATURES

Intercomp's sophisticated software enables the AC30-60 to provide a wide array of automatic corrections to improve ease of use and accuracy.

- **Temperature Compensation**
eliminates the need for warm up time and corrects readings in varying temperatures/environments.
- **Auto Leveling**
digital inclinometer automatically levels the platform scale to eliminate the need for proper positioning, shimming, etc.
- **Latitude/Altitude Correction**
corrects the readings for effects of gravity. Enables the scale to be used anywhere in the world without recalibration or manual correction.
- **Auto Calibration Correction**
eliminates the need to cross reference calibration correction tables. Correction factors built into software after calibration cycle.
- **Graduation Variance**
graduation size can be changed throughout the range to offer smaller increments at the low end for finer readings when weighing light aircraft.
- **Display**
one inch high self contained display with auto back light automatically illuminates the display in low light conditions. Lexan covering for ultimate protection.
- **Keypad**
stainless steel recessed buttons for extended use and protection against damage.

Fully Electronic and Federally Certified Weighing Technology

The key to the AC30-60's performance is the fully electronic design.

Each AC30-60 utilizes four fully electronic shear beam load cells. This represents cutting edge technology over older hydraulically designed load cells (which often leak and are subject to inaccuracies due to temperature shifts). More importantly, Intercomp is the industry's only manufacturer to use load cells and indicators that are federally certified by the U.S. National Institute of Standards and Technologies to 10,000 divisions (1 part in 10,000). It is also OIML Approved as a Non-Automated Weighing Device by the European Union*. Such approval certifies accuracy over a wide temperature range, out of level condition, side load influence and permanence, etc.



AC30-60 Platform Scale Assembly
Pictured with Two Stage Ramp, Scale and Tire Stop

The AC30-60 features eliminate the need for manual corrections thereby providing a more accurate and faster weighing process. A B-747 can easily be weighed in under one hour - including the set up and take down of the system! This all translates into the ability to maximize payload and reduce man hours - all critical savings.

The four corner load cell design eliminates the need to center the aircraft's tire. The scale is also designed to enable the aircraft to approach from three directions - this enables the user to utilize both dimensions of the active weighing surface for weighing either single or dual tire configurations.

Power supplied from 12/120/220 VAC sources deliver enough flexible options to never be without power. The DC power source is derived from eight commercially available D size batteries - alkaline or Nicad rechargeable - for easy access and replacement - and supplies up to 50 full hours of continuous operation. Adjustable auto battery shut off cuts power to save battery life while a full charge on the Nicad batteries is obtained after just ten hours.

All components and surfaces are skydrol resistant and water tight. For applications in hazardous environments, users can be assured that the AC30-60 is Factory Mutual Approved; for use in explosive atmospheres (Class I, Div. 1, Groups A-D). Each scale and component is constructed from high strength aluminum to deliver a 150% safe overload protection, but more importantly, keeps everything light weight and easy to carry. The AC30-60 has a unit weight of only 140 lbs., and like the accessories, has hand holds for easy lifting and positioning.

Another key to the AC30-60's sophistication is its advanced calibration function. All calibration is performed via the keypad - no accessing of internal circuitry or use of any tuning potentiometer is required. Furthermore, by using algorithms, the AC30-60 requires only a three point span to lock in calibration throughout the entire range. These features enable each scale to be calibrated in less than half an hour each.

The weighing environment introduces an endless number of factors that can reduce accuracy beyond what can be detected and accounted for during calibration. After all, any manufacturer should be able to achieve $\pm 0.1\%$ accuracy in the calibration lab. But what happens when the environment changes and you have to weigh on a sloped hangar floor or the temperature changes drastically? Only the AC30-60 will give you the assurance you need to know these factors are accounted for - automatically. Simply set up the system, tow on the aircraft and take the readings - **no corrections, no wasted time, no errors, no headaches.**

Intercomp has accomplished something very few can ever do - combine precision and sophistication with ease of use and portability in one certified weighing system.

Our accomplishments enable you to maintain a safe, reliable and cost effective weighing program. The fully electronic design, certified technology, automatic corrections and technical characteristics will guarantee your satisfaction and provide the justification you need to invest in this state of the art technology.

Special Application Options

AC-HJS Hydraulic Jacking

For applications which prevent multiple weighings due to space restrictions or lengthy leveling procedures, Intercomp offers the option of its hydraulic jacking system within each AC30-60 Platform Scale. The AC-HJS lifts the active weighing surface off the load cells for zeroing of the scale without having to tow the aircraft off the entire platform.

A specially designed hydraulic system can be either connected to self contained pumps or your central servo system. The aircraft is lifted only slightly from the load cells in a matter of minutes. This provides significant time savings and eliminates the difficulty of towing the aircraft on and off the platforms. Such systems have been installed with some of the world's largest defense contractors, military branches and maintenance centers and has undergone significant quality assurance testing to meet the most rigorous standards.

FLA High Capacity Scale

As airframe manufacturers continue to consider and deliver aircraft of increased weight, Intercomp offers a system with increased capacity to meet the needs of future large aircraft.

The AC30-60 can be upgraded so that each platform has a capacity of 80,000 lbs/40,000 kgs. All of the other features remain the same. Airlines and manufacturers considering larger aircraft can be assured that the AC30-60 will meet their future needs. Such systems are already in place with manufacturers and have thus met the stringent testing criteria by these customers.



Hydraulic Jacking and High Capacity options used for Boeing and USAF C-17 Globemaster weighings.

Only Intercomp offers a field proven fully electronic weighing system of this capacity to meet the future needs of the aviation industry.



AC30-60 Platform Weighing System is used by NASA to weigh all Space Shuttle Orbiters.



Lightweight design easily enables two personnel to set up the entire system.



After set up, the aircraft is ready to be towed on to the platform scales.



B-747 easily rolls across AC-AS Axle Spacer and AC30-60 Platform Scales.

ACWeigh™ Wireless Technology



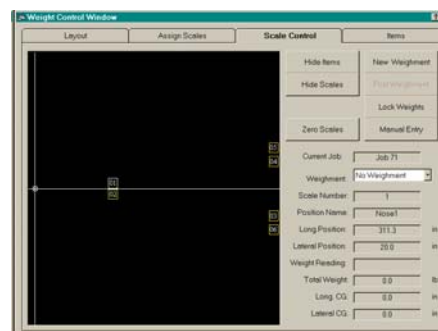
Aircraft comes to a stop.



Auto backlight illuminates large display.



Readings easily taken from a standing position.



AC2000-RF CPU Wireless Technology with ACWeigh Software

The AC2000-RF CPU is a user friendly and high performance method to centrally control and display all scale information. It utilizes Intercomp's renowned ACWeigh Software to provide a complete weight and balance report and serve as an inventory control manager of all weighing records.

The ACWeigh software uses step-by-step menus to weigh aircraft quickly and accurately. The program is optionally preprogrammed with the most common commercial configurations along with *arm lengths* and *out of level* correction tables. All data is capable of being automatically transferred to an MS Excel spreadsheet for use in any format.

The use of advanced frequency hopping spread spectrum (FHSS) telemetry eliminates the need for cables. No longer do you need to read the display at each scale. Set up your CPU at virtually any site within the hangar and you can simultaneously control and display up to 32 scales.

FHSS technology was developed by the U.S. military to prevent interference or interception of radio transmissions. Standard IR, RF and Direct Sequence wireless communication cannot match the distance, reliability and security of FHSS. *Most importantly, FHSS operates on a license free frequency band.*

Wireless technology expands the horizon for computing and transmitting data. Combined with the ACWeigh Software, this complete package enables you to simultaneously capture the results of a weighing, compute and verify required data and then transmit a complete report.

For customers whose local regulations prevent the use of any wireless radio communication, Intercomp offers infrared and hard wire alternatives to communicate directly with the ACWeigh software.



AC30-60 Platform System is used by the USAF to weigh the United States Executive fleet including Air Force One and Two.



AC30-60's are used by military branches as seen weighing USAF F-15.



AC30-60 Systems Available Via National Stock Numbers and GSA Contract.

Accessories

All weighing systems are accompanied by the proper number of ramps, axle spacers and tire stops to weigh the aircraft in your inventory. The AC30-60 weighing system can be added to at any time to increase the capacity and number of platforms to weigh larger aircraft.

All components, including the scales and *AC-Weigh Notebook* are shipped complete within the specially designed **AC-TC Transport Cart**. All carts have fitted compartments for each individual scale and accessories. These compartments store the items for easy access and guard against damage during transport.

Each AC30-60 scale shelf is hard wired with a charging port so that by simply plugging one 120/220 VAC line into the cart, all the scales can be charged simultaneously while in storage. The cart is framed for durability and covered by a tarp for weather-proof protection. Front swivel pneumatic wheels, brake, swivel tow bar and fork tubes ensure easy transportation and handling. The cart has been tested by the USAF to protect all items when towed repeatedly over one inch bumps at ten miles per hour.

This transportation cart is built from years worth of testing and customer input to enable you to store, transport, protect, set up and take down the weighing system in the most efficient manner.

Intercomp also offers the **AC-CSA Automatic Calibration System** to enable the customer to calibrate and service the entire weighing system, as well as other scale systems. Constructed from steel, the surface area is large enough to calibrate the entire scale and each corner. The load cell and indicator are certified directly by the *U.S. National Institute of Standards and Technologies* to provide the required 4:1 accuracy standard of $\pm 0.025\%$ (as per internationally recognized ASTM standards).

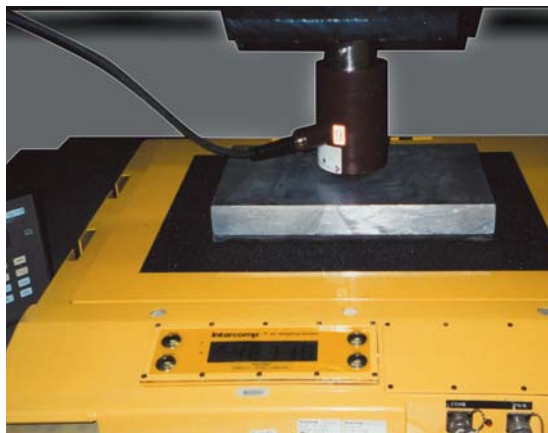
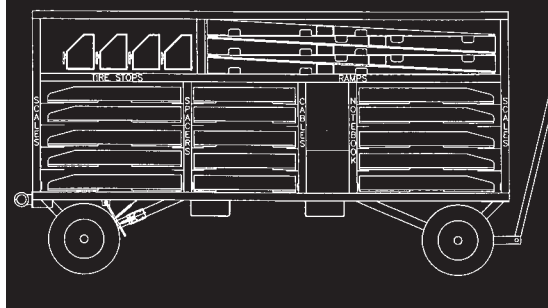
To guarantee you are satisfied with your purchase and capable of operating and maintaining the entire weighing system without support from the factory, Intercomp provides **System Commissioning**.

A factory trained engineer inspects the system upon delivery to ensure no damage has occurred during shipment and then administers a complete training program covering all aspects of operation, service and calibration. Upon completion, the customer will be able to support themselves in house as opposed to relying on the factory or outside sources for assistance. Intercomp then issues certificates of training indicating compliance with operational, maintenance and calibration guidelines.



AC-TC Transport Cart

Individual shelves and compartments for protection during stowage and transportation. Side panel opens to connect internal charger to scales.



Quality / Customer Support / Service

Any claims of offering the industry's highest level of technology and quality cannot be complete without the guarantee that you are backed by unparalleled customer support.

The AC30-60 is designed with trouble free maintenance in mind. It is basic by design and therefore easy to maintain. A weighing system includes a basic spare parts kit, while advanced spare parts kits are available so that all levels of service are performed with a minimal amount of effort and expense.

Aside from our twenty plus years of experience, Intercomp maintains varying degrees of certification for quality and inspection as well as complying with regulations set forth in ANSI standards. Furthermore, we supply systems to the USAF, US Army, US Navy, NASA and airframe manufacturers and have therefore gone through extensive inspections by their QA departments.

The AC30-60 has also undergone substantial testing for accuracy, repeatability, drift and overload protection under hydraulic force calibration and dead loads - across the entire range - by the State of Minnesota Weights and Measurements Division and under the scrutiny of U.S. Government Inspectors. This, combined with our NIST certification, demonstrates the AC30-60 Platform Weighing System is unparalleled within our industry in terms of testing and certification. This is the final assurance you need to guarantee you are purchasing the most reliable and highest quality technology.

But what would all of this technology mean without customer support? At Intercomp we realize the pressure and financial burdens a weighing can place on either preliminary design, production phases or maintenance/airline weighing. We therefore offer service and spare parts in both the UK and Singapore as well as our factory in Minneapolis, MN so that our customers are always within a moments reach of technical assistance.

Additionally, Intercomp's **Contract Weighing Service** can dispatch equipment and trained personnel to complete a weighing should your equipment be damaged, limited by capacity or configured for a certain type of aircraft.

The entire weighing system is backed by a full one year parts and labor warranty. Extended warranty and service contracts are also available upon request.



Basic internal design enhances ease of support and maintenance. Fully electronic, Federally certified load cells maximize accuracy and performance.

Any manufacturer can make claims of quality, service or technical superiority, but only Intercomp can back such statements by our experience in providing the industry with these attributes.

No other manufacturer supplies this fully electronic technology to more airlines, airframe manufacturers, maintenance centers or military branches than Intercomp.

We invite you to review our broad customer list which will give you the comfort and reassurance that you are following the well scrutinized decisions of the industry's most experienced, prestigious and satisfied users.

Our customer base indicates that when the world looks for a weighing system, one that is built with quality, reliability and performance - they look to Intercomp.

OPTIONS:

- Transport Cart
- Transport Case
- AC2000-RF CPU Computer
- ACWeigh Software
- Telemetry
- Infrared
- Remote Battery Charger
- Factory Mutual - Intrinsically Safe
- Hydraulic Jacking System
- Super High Capacity Scale

AC30-60 PLATFORM SCALE SPECIFICATIONS

PLATFORM

Capacity: 10,000, 30,000, 60,000 (standard), 80,000 lbs/ 5,000, 15,000, 30,000 (standard), 40,000 kg
Overall Dimensions: • With Readout Assembly: (standard)
 34 L x 33.5 W x 4 H in/864 L x 851 W x 102 H mm
 • Without Readout Assembly:
 34 L x 28 W x 4 H in/864 L x 711 W x 102 H mm
Active Weighing Surface: 30 L x 24 W in/762 L x 610 W mm
Weight: 140 lbs/64 kg
Construction: Aluminum
Overload: 150%

TWO STAGE RAMPS

Assembled: 78 L x 24 W in/1,981 L x 610 W mm
Weight: 70 lbs/32 kg
Entry Ramp: 46 L x 24 W in/1,168 L x 610 W mm
Weight: 32 lbs/14.5 kg
Secondary Ramp: 32 L x 24 W in/813 L x 610 W mm
Weight: 38 lbs/17 kg
Slope: 3°

AXLE SPACER

Dimensions: 25.5 L x 24 W x 4 H in/648 L x 610 W x 102 H mm
 (length may vary due to different landing gear dimensions)
Weight: 40 lbs/18 kg

TIRE STOP

Dimensions: 8 L x 24 W x 10 H in/203 L x 610 W x 254 H mm
Weight: 20 lbs/9 kg

TRANSPORT CART

Dimensions: 121 L x 40 W in/307 L x 101 W cm surface area
Construction: Mild Steel
Wheels: Urethane or Pneumatic (standard) with front swivels
Features: Tow bar with eyelet, forklift tubes, brake and canopy cover
Power: 12 VDC, 120/220 VAC

CONTROLS (Available with self-contained readout assembly)

General: All controls stainless steel, located on waterproof and oil tight keypad with large contact surfaces for protection
On/Off: Two separate switches for unambiguous operation
Zero: Push button zero checks for motion as per NIST/OIML requirements
lb/kg: Sets units of measure
Indicators: Low battery, lb/kg and error messages

FEATURES

Latitude/Altitude Correction: To correct values (Default 45°)
Calibration: Keypad calibration corrects any out of tolerance condition
Motion Detection: Adjusts for motion or movement on scale to prevent error in weight reading
Auto Shut Off: Shuts off automatically when not in use to conserve battery life (variable)

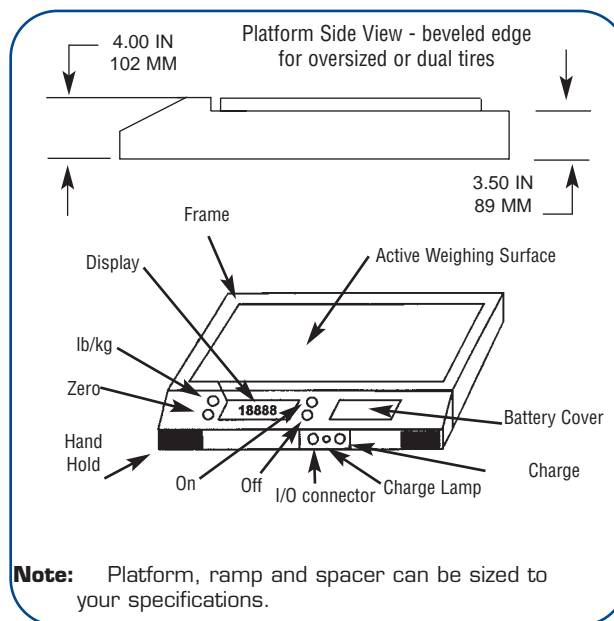
Memory Backup: Retains displayed weight if there is a power loss
Backlight: Automatic sensor illuminates display in low light conditions

ELECTRONICS

Accuracy: ±0.1% of applied load or ± 1 graduation; whichever is greater
Circuit Board: CMOS 20 bit ultra high precision A/D converter with high efficiency microcontroller
 NTEP approved 10,000 Division
Transducer Type: NTEP/OIML approved 10,000 Division Shear Beam Load Cell
Input/Output: RS232 or RS485
Display: 1" in/25 mm L.C.D.
Graduations: 1, 2, 5 and 10 lb/0.5, 1, 2 and 5 kg (10 lb/5 kg standard)
Power Source Required: 12 VDC, 120/220 VAC
Batteries: 6 "D" size NiCads (standard) or Alkaline
EMI/RFI: Meets Mil-Spec 461 and Euro EMC Directives

ENVIRONMENTAL

Humidity: 5 to 99% Non-condensing
Temperature: Operating: -10° C to 50° C [14° F to 122° F]
Storage: -40° C to 75° C [-40° F to 170° F]



*Pending

AC30-60™ and AC-Weigh™ are registered trademarks of Intercomp®
 Specifications subject to change without notice.



Intercomp®

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