



**I-POWER FEATURES**

**LEADING THROUGH**

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**INNOVATION**

## WHAT IS IT?

**i-Power 2.0** is a revolutionary digital operating system that unites all functions through an intelligent processor fueled by Smart Technology. i-Power introduces new groundbreaking features for operators and unparalleled advantages for equipment owners, never before seen in the Access Industry. Incorporating i-Power smart technology results in the following:

New Safety Features

Better Performing

Fewest Parts

Exclusive Features

Better Duty Cycles

More Durable

Better ROI

Lower Ownership Cost

100% Adjustable Functions

## WHY DO I NEED IT?

### ELIMINATES OUTDATED COMPONENTS

100% Relay Free

Multiple Line Contactors  
Removed

No External Tilt Sensor

No External PCB in Lower  
Module

Limit Switches on Scissor  
Stack Removed

No Lead Acid Batteries  
[AGM Maintenance Free]

50% Less Wiring, Cables and  
Connections

**GMG equipment not only sets a new standard in the Access Industry, but its technology has received multiple awards for its exceptional Safety Features, Long-lasting & Superior Performance, and groundbreaking Smart Technology.**



## OEM Features or Essential Components

### i-Power Operating System

A GMG Exclusive Feature, i-Power is a digital operating system that utilizes digital technology to control the operation and function of the machine. i-Power is the building block that allows us to innovate and create, never before seen performance & safety features new to the industry. Many of these features are Exclusive to GMG.

01



## AERIAL LIFTS

### 1530 Micro Scissor Lift

Introducing the first Micro 1530 in the market, GMG won an award for this lightweight machine. The 1530 Micro is perfect for elevator and mezzanine applications and comes equipped with direct electric drive and the award-winning i-Power 2.0 control system. This model provides whisper-quiet operation, extended duty cycles, and fully proportional operation.

02



## Features and Components

### Ramp Control

A GMG award winning "Most Innovative" feature that controls the machine speed when descending an aggressive grade. The machine senses when it is going down an aggressive grade and automatically places the machine in Ramp Control mode, eliminating a dangerous "Machine Runaway" situation.

03



## Features and Components

### Tele-Power

Not your traditional Telematics system. Of course the Tele-Power records and reports as like any other Telematics system, it also identifies where the machine is and can set up a Geo-Fence around the parameter to warn the owner when the machine is moved outside the identified area. Unlike other brands, the GMG Tele-Power allows the owner of the machine to adjust predetermined parameters, such as Lift Speed, Drive Speed, Lift Height, Braking, all Motion Alarm, Lift Up, Shut down (if customer is late with payment), OWS on/off.

04

## WHAT IS IT?

GMG has incorporated regenerative power technology that uses the machine's motion to charge the batteries. When the machine is slowing down or going down a grade the electric drive motors become generators sending up to 50 amp's back to the batteries. Through the ReGen process, the drive motors dynamically slow down the machine to a halt and then apply the brakes, putting far less use on the brakes, while helping to extend the battery duty cycle.



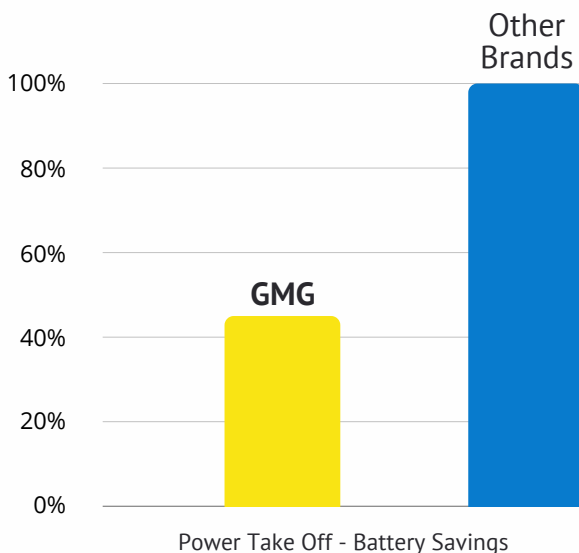
## WHY DO I NEED IT?

- Adds a significant amount of duty cycle to the machine, up to two days of use on a single charge for some models.
- Brakes are only used to HOLD the machine, resulting in a much longer brake life cycle.

# Power Take Off

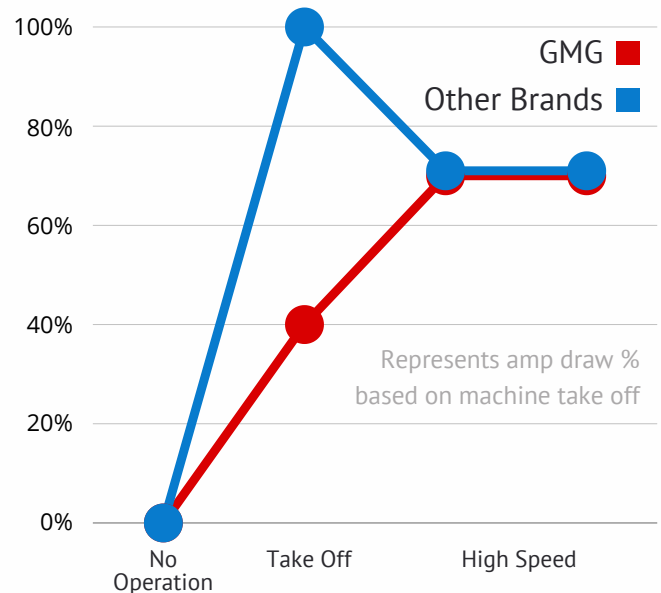
## WHAT IS IT?

In an effort to increase duty cycle and ensure a smooth take-off, GMG has incorporated Power Take Off which starts the machine in High Torque mode then automatically shifts to High Speed mode.



## WHY DO I NEED IT?

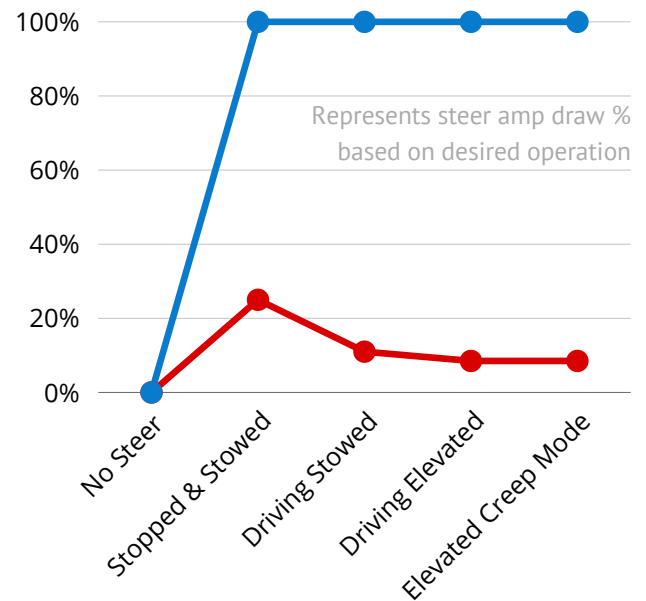
- Saves up to 60% battery power every time the machine is moved.
- Provides a smoother operation



# Variable Steer Speed

## WHAT IS IT?

Unlock unparalleled control and significant battery savings with GMG's exclusive Variable Steer Speeds smart technology. This innovative feature adjusts the steering speed with the machine's travel speed, ensuring seamless maneuverability.



## WHY DO I NEED IT?



### Saves Significant Battery Usage

Steering on GMG machines now require much less amperage draw from the batteries every time the steer button is hit. The reduction in amperage draw, combined with less over-correcting steering, generates a significant savings in battery usage, and extends duty cycle.



### Increases Machine Duty Cycle

Experience a remarkable 75% - 91% reduction in amperage pull compared to other brands, every time you steer a GMG machine. Each time you engage the joystick steer trigger, enjoy up to 91% more battery life—an unparalleled advantage over other brands, and GMG exclusive.



### Reduces The Amount Of Corrective Steering

No longer does the operator need to hit the steer button every two seconds in order to "Correct Steering" as required by other brands. This greatly reducing the spikes to the batteries, resulting in significant battery usage savings.



### Reduces The Risk Of A Downhill Tip-Over Hazard

When a machine is driving on decline slope, and automatically switched to "Ramp Control Mode", steering is significantly slowed. This GMG feature greatly reduces the risk of a tip-over hazard when compared to other brands that have full system pressure steer, and the risk of over-correcting is much higher.

## WHAT IS IT?

A GMG award-winning feature that automatically controls the machine drive and steer speed when descending an aggressive grade. In an effort to avoid and eliminate a dangerous **machine runaway** or **tip-over** situation, the machine will automatically engage slow speed and variable steer speeds, so the machine will not abruptly turn or runaway.

## WHY DO I NEED IT?

This is a key feature to boost operator safety and helps to avoid a dangerous, yet common situation. This GMG exclusive feature is a good fit for safety-first job applications.

### RUNAWAY SITUATION

#### Machine Detects Aggressive Grade

Machine begins initial decent on aggressive slope and starts to build up speed potentially entering a dangerous situation.



### RAMP CONTROL ENGAGES

#### Operator has 1.5 Seconds To Make Decision

Machine senses the aggressive slope and automatically engages **ReGen** mode which slows the machine to a safe travel and steer speed, avoiding the chance of abrupt turning and a potential runaway situation.



### RE-ENGAGE HIGH SPEED

#### Enable High Speed Mode When Safe

Once the machine has safely reached the bottom of the slope, the operator can easily switch back to high speed mode with the push of a button from the upper control box.



# Elevated Creep Mode

## WHAT IS IT?

When the machine is elevated, operators can now select an alternate drive speed to further slow down the machine beyond the industry standard Elevated Drive speed, with a simple push of a button.

## WHY DO I NEED IT?

Elevated Creep Mode allows the operator to position the machine precisely around delicate stationary items, provides a safer way to position the machine, while saving up to 91% of battery consumption.



### HIGH SPEED

**3 mph (4.8 km/h)**

High speed up to 3 mph (4.8 km/h) is available while driving in the stowed position. Steering is algorithmically slower, reducing battery consumption up to 89%.



### ELEVATED SPEED

**0.5 mph (0.8 km/h)**

When the machine is elevated, drive speed is slowed to 0.5 mph (0.8 km/h). Steering is slowed, yet again, reducing battery consumption up to 91%.



### ELEVATED CREEP SPEED

**0.125 mph (0.16 km/h)**

While the machine is elevated, the operator can now choose an alternate drive speed to further slow down the machine drive speed to 0.15 mph (0.25 km/h). Steering remains slowed, reducing battery consumption up to 91%.



## OTHER BRANDS

### HIGH SPEED

**3 mph (4.8 km/h)**

High speed is available while driving in the stowed position. Steering is full system pressure



### ELEVATED SPEED

**0.5 mph (0.8 km/h)**

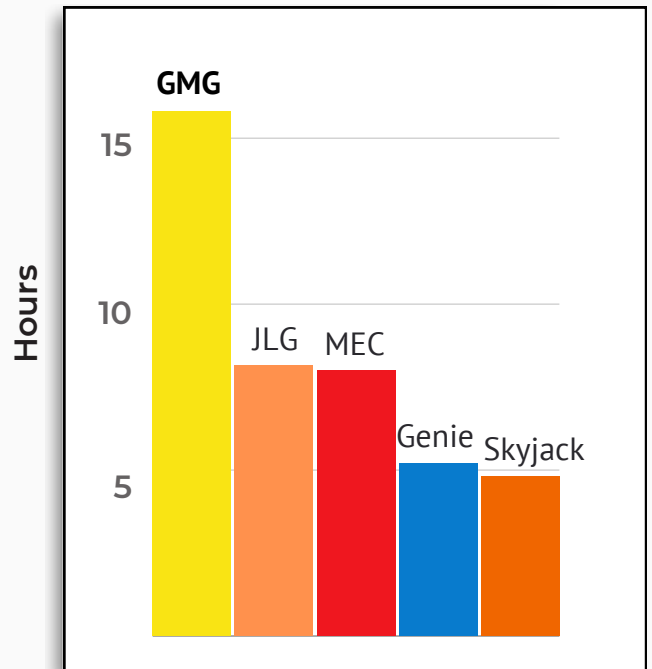
When the machine is elevated, drive speed is slowed to 0.5 mph (0.8 km/h). Steering is full system pressure



## TEST CRITERIA

- Machine fully charged
- Drive (100 ft) stowed at FULL SPEED while steering: FULL LEFT / FULL RIGHT
- Raise platform to FULL HEIGHT
- Drive (20 ft) while steering: FULL LEFT / FULL RIGHT
- Lower to stowed position
- Drive (100 ft) stowed at FULL SPEED while steering: FULL LEFT / FULL RIGHT
- Machine rest 15 minutes
- Repeat until inoperable

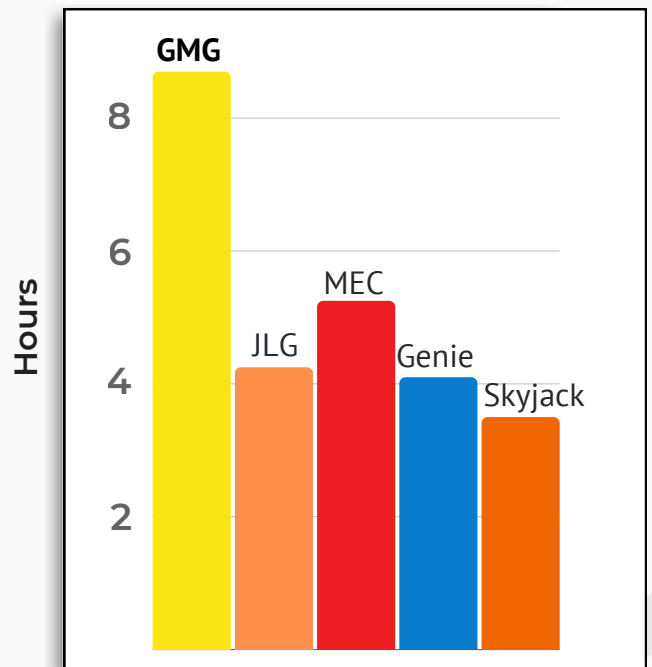
## TEST RESULTS



**26' (8m) Slab Narrow**

## HOW DID WE GET HERE?

- Power Take Off (GMG exclusive feature)
- Variable Steering (GMG exclusive feature)
- Elevated Creep Mode (GMG exclusive feature)
- ReGen Power (Industry first feature)
- On-board Battery Managements System
- AGM Batteries
- Digital Operating System (GMG exclusive)



**40' (12m) Slab Narrow**

## I-POWER COMPONENTS



A single digital device replaces many analog devices



Digital devices have no mechanical movement therefore last much longer



Much easier to troubleshoot:

- Highly talented technicians are nearly impossible to find. Today's machines must be easy to service & maintain and the machine must inform the technician of the issue to troubleshoot. This can only be accomplished through technology.



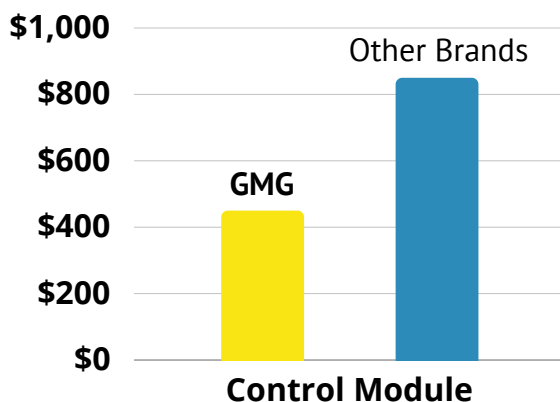
## COMMONALITY

GMG machines use the same components throughout the model series, a few examples:

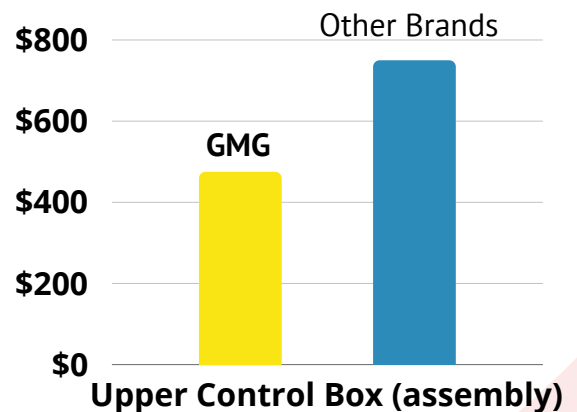
- Upper control box
- Control Module
- Transducers
- Drive motors
- Brakes
- Planetary Hubs
- Battery & Battery Charger
- Many more

## PRICING

Equipment breaks, this is a fact of life. Equipment manufacturers see this as an opportunity to recognize insane margins, not at GMG. The examples below are indicators as to how GMG prices its aftersales parts:



Competitors: \$850.00 & Up  
GMG: \$450



Competitors: \$750.00 & Up  
GMG: \$475.20

## WHAT IS IT?

The GMG battery management system is engineered to safeguard your asset against the hard-use operator. It's designed to extend the lifespan of your batteries, ensuring they reach their full lifecycle potential without premature replacement.

## WHY DO I NEED IT?

» In most cases, the equipment operator is not concerned with maximizing the lifespan of the batteries in your machine. They are going to use the machine until the batteries are flat and the machine is inoperable. When using batteries in this state, especially when they are nearly flat, high current demands can lead to significant heating and irreversible damage, or reduced battery lifespan.

» **The GMG battery management system prevents this from happening.**

- GMG electric slab scissor lifts run on a 24V system.
- At 17V, the Lift function becomes inoperable and the battery gauge reads zero (0). The machine can be lowered and driven only. This allows the operator to drive to a nearby charging station to charge the machine.
- At 16V, Lift, Drive, and Steer functions are shutdown. If the voltage drops down to 15V-15.5V, this is the irreversible damage zone.

# Safe Down

## WHAT IS IT?

With the adoption of new industry ANSI standards, it is required that all machines have overload protection. Most all other manufacturers use Limit Switches on their scissor linkage to communicate to the machine when it has reached an elevated state. Here lies the problem with a limit switch setup, the machine is either in an elevated state, or it is not.

Competitors machines cannot identify if the machine is overloaded until it is well elevated, which is too late. The machine cannot be lowered at all creating a difficult scenario that requires outside personnel to use the emergency down system to lower the platform.

## WHY DO I NEED IT?

If the platform on a GMG machine is overloaded in the stowed position, the machine will lift until it reaches elevated height. At this time, the alarm will sound and the lift function will be disabled. The dashboard will inform the operator of the overload situation and the operator can lower the machine from inside the platform, without assistance from outside personnel. Once lowered, the operator can remove the excessive material.

**A feature only offered by GMG**

## WHAT IS IT?

Never has a manufacturer addressed machine torque issues while elevated, until now. GMG's On-Demand Torque allows the machine to have enough power to climb over electrical cords / cables.



## WHY DO I NEED IT?

- » Before GMG's On-Demand Torque, the operator must lower the platform in order to drive over various obstacles on the jobsite floor.
- » With *I-Power 2.0*, the machine will automatically supply just enough torque to allow the machine to drive over an obstacle.
- » The operator remains safe by utilizing the on-board instant tilt indicator, shutting down the drive if the machine goes into a tilt situation.
- » **This feature greatly increases jobsite efficiency and productivity.**

# Positive Traction Drive

## WHAT IS IT?

This feature allows GMG machines to easily drive through loose surfaces such as gravel, snow, mud, and slippery surfaces. Each drive wheel on GMG machines operate independently, providing a significant advantage in challenging conditions. If one wheel experiences limited contact or is under stress, the other wheel continues to operate to ensure the machine remains mobile.

Without Positive Traction Drive, other machine brands often get stuck because both wheels react the same way under pressure, if one drive wheel stops, the other drive wheel stops. They lack the independent action needed to move out of tough spots effectively.

## WHY DO I NEED IT

### Increases Machine Gradeability & Terrainability

GMG's On-Demand Torque, machine detects the grade and places the drive system in an "Extreme Torque" mode that provides an industry best gradeability, up to 45% while others barely climb 25%.