

# **TECHNOLOGY SOLUTIONS**





Enhance your business with machine technology



Guidance systems - System 150



Your finger on the pulse at all times. Introducing AGCOMMAND



ISOBUS - Total implement control



Machine technology from Massey Ferguson

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## Straightforward technology to enhance your business

Finding the right agricultural technology can often seem a daunting prospect. Searching for the right product and trying to decide on the best option to suit your needs without the complication and confusion of high-end systems is never easy.

That's why Massey Ferguson has been focusing on the development of systems designed to make farming easier and more effective. Our technology products will enable you to **enhance working practices**, **efficiency** and **profitability**; it's as straightforward as that.

We offer tailored solutions for a wide range of customers. Technology from Massey Ferguson.





(ISOBUS)

## System 110 and System 150

Both guidance systems are designed to increase productivity and reduce costs, offering sophisticated technology for simple operation and industry leading performance.

## AGCOMMAND - Your finger on the pulse at all times The AGCOMMAND telemetry system allows you to obtain

information about your machinery at all times. Whether it's one machine or a whole fleet. Data collection and machine monitoring are just some of the many features that give you enhanced productivity.

## ISOBUS - Tractor and implement synergy

ISOBUS is the international standard system which allows a single terminal in your tractor to control and monitor a range of implements.



## **Guidance systems**

System 110 is a low cost, manual guidance package offering easy-to-use, accurate technology to enhance and simplify day-to-day operations. Improve effiency and operating speeds whilst reducing overlap and extending hours of operation





System 110 delivers maximum operating simplicity in a light bar guidance product. With features such as a detachable light bar for optimum 'field of view' placement and a 5" high-visibility colour display that operates in separate 'day' and 'night' modes.

The screen shows vehicle speed, row numbers offset from guidance line and satellite information. The user can create field boundaries and record the covered area. System 110 allows a pass-to-pass accuracy.

Lightweight, rugged and portable, System 110 is easy to install and use right out of the box with minimal training or instruction.

System 110 is easily configured for all Massey Ferguson machines with simple setup. Implement configuration is easy and any implements attached to either the front or rear linkage can benefit.

It can easily be upgraded to an automatic steering system by adding an AGI-3 receiver. The hands-free system can be extremely beneficial when working on large areas of land. Suitable for all applications where high levels of in- field driving accuracy are required such as primary and secondary cultivation, seeding and planting, mowing and chemical/ fertiliser application. Operator fatigue is greatly reduced.



#### Guidance patterns

System 110 and 150 allow you to create and follow the most efficient and practical guidance patterns. It also provides three basic modes that can be used in a variety of combinations which allows you to work with any field shape.



Field views and guidance patterns

- Overhead view
- Perspective view
- North Up view
- AB lines
- Identical curves
- Adaptive curves
- Centre pivot



Detachable light bar on the GX-45 This light bar will keep the operator on-track in the field by monitoring the tractors position.



Hold exact lines, never lose your place, save money and time by eliminating overlap/ underlap



## Overlap/underlap

For complete accuracy in the field, a feature on System 110 and 150 ensures that the tractor and implement hold the line so the operator doesn't miss any parts of the field or go over the same part twice.



## **Guidance systems**

For a more advanced solution that works even harder in the field, choose System 150



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System 150 is a full featured, hands free steering system capable of delivering sub-metre, decimetre, and centimetre accuracy. It offers the same useful features as System 110 but has extended capabilities for even more potential.

Guidance systems are proven to offer an average of 12% in fuel savings, as well as time spent on resources, time spent in the field and much more.

The System 150 AGI-3 receiver comes factory-fitted as standard with decimetre accuracy. It can be easily upgraded to RTK (cm).

This allows you to select the EGNOS correction signal for a no subscription cost sub-metre guidance, or you can contact your Massey Ferguson dealer and purchase an OmniSTAR sub-metre signal (VBS) or a decimetre correction signal (HP) without having to purchase unlock codes or keys.

If centimetre (RTK) accuracy is required, a simple Snap-in module can be plugged into the bottom of the System 150 AGI-3 receiver. The Snap-in module contains an RTK radio as well as enhanced inertials for increased performance. Again, no unlock codes or keys are needed to run an RTK system, only a Snap-in module and an RTK base station are required.



Accuracy	30 cm	20 cm - 5 cm	2 cm	Our r GPS a satell
Correction signal	EGNOS* OmniSTAR VBS	OmniSTAR VBS/HP	RTK Base station NTrip	accur pass-
Receiver	SGR-1	AGI-3	AGI-3	using signa static
Cost	EGNOS*	Subscription	Subscription/licence/ Base station	corre
Applications	Spraying/spreading Harvesting Cultivation Mapping	Spraying/spreading Harvesting Cultivation Mapping	Seeding/planting Strip tillage Weeding	

Our receivers work with GPS and GLONASS satellites at all levels of accuracy. From -30 cm pass-to-pass accuracy using a free EGNOS signal down to 1-2 cm static accuracy using RTK correction signals.

\*Free of charge

## System 150 Equipment



### GX-45 console

- This console consists of rugged housing, built for durability. It has a 5-inch, full colour screen with quick action keys for simple operation.
- Visual indicators include: area applied, speed,row number and satellite information. There is a convenient USB port for data transfer.



### AGI-3 receiver and snap-in module

Multiple Constellation support for GPS, GLONASS and GALILEO Global Navigation Satellite Systems. The receiver supports the Real-Time Kinetic (RTK) Base Station and GSM corrections using optional snap-in RTK module.

Fully integrated technology within the receiver provides unmatched accuracy



## **RTK Base Station**

Precision down to +/- 2cm can be achieved in row crop work, such as where high value salad crops are being grown and when bed-forming for potatoes and other root vegetables. For this level of accuracy, an RTK base station is required. Growers often have a very tight window in which to plant these crops, so the higher work rates enabled by System 150, can make a huge difference.

## What will System 110 and 150 do...

With the world's population now reaching 7 billion, there is more and more emphasis on food production. Farm machinery and food production go hand in hand so the machinery we use needs to be more precise and more productive in order to meet the worlds demands









## ...for me?

- Less tedium, stress and fatigue through what can often be long working days and nights
- Gives the operator the time to optimise the performance of machine and implement, and to monitor screen settings and gauges
- Enables less experienced operators to achieve higher work rates and better productivity
- Allows the operator to work efficiently in poor visibility

## ...for my machine?

- By optimising the implement's full working width, System 110 and 150 increases the field area covered every hour
- Higher machine work-rates result in lower fixed costs
- Fewer hours needed to complete the job means reduced machine and implement wear, and so lower maintenance costs
- Fewer hours worked per season increases residual values of both machine and implement

## ...for my business?

Because Automatic Guidance virtually eliminates overlaps and misses, the most noticeable difference the system makes is in the farm's bottom line, through meaningful savings in diesel, fertiliser, sprays, time and labour. In addition, it helps minimise harvest losses

Subsequent benefits include reduced weed growth and disease, thanks to more precise spray applications. In addition, soil compaction is minimised as a result of vehicles being guided along exactly the same tramlines and through controlled traffic routes.





## Your finger on the pulse at all times Introducing AGCOMMAND.

The AGCOMMAND telemetry system from AGCO is ideal for large businesses, contractors or anyone who needs to maintain high visibility of their machinery at all times. If you need consistent, concise information concerning your fleet then AGCOMMAND is the perfect choice.

AGCOMMAND is a leading edge data recording and transmission tool that allows you to optimise fleet performance by monitoring and reporting vehicle position, history and status. Also, monitor operating costs and enhance productivity.

Every sixty seconds AGCOMMAND collects machine performance data and GPS location, this is then transmitted via the GSM network and is then viewable via your computer.





## In the field, inside the machine - in the office

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Get essential information sent directly to your computer or hand-held device - so you're in control, whether you're in the field or in the office



#### Vehicle history map

The vehicle history map shows you where the tractor has been during a selected period of time. You can view where the tractor stopped, where it was working and travelling from and to via a google plan or satellite view. AGCOMMAND advanced can show parameters collected with the CANBUS. For example, you can see engine load, slippage, fuel level and consumption.

The machine is traceable at all times.

## Efficiency report

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It is possible to create two types of report within this function: **Time efficiency** (percentage of the total engine hours of each status) and **Distance efficiency** (percentage of working/headland/transport of the total distance travelled by the machine).

The report will show the time the machine was working and/or in the headland, in transport mode and not moving. The fleet owner can analyse quickly the efficiency and driving ability of his driver. This report gives total time and distance and can be made for upto five machines at one time. This data can be exported into manageable pdf or excel files to be worked on via PC or laptop.

#### Text message alarm

It is also possible to set up alarms that go directly to your mobile phone. A **Geofence** alert tells you if the tractor is going in or out of a predefined area on the website. It can let you know when the operator is coming back to the farm or if the fuel level is very low and the tractor needs refuelling.

AGCOMMAND advanced allows you to set up alarms on CAN parameters.

## Dashboard

AGCOMMAND Advanced allows you to view machines up to 30 minutes a day in near real time. You can view the main parameters available through the tractor dashboard via a PC or laptop. For example you can alert the driver if the fuel consumption appears too high or even to adjust settings to achieve maximum output. If working with a combine harvester, you can view the sieve and concave position, rotor speed, vehicle speed, productivity, output and grain loss. For exceptional performance whilst combining, parameters can be set up in order to obtain the highest efficiency. AGCOMMAND Advanced is the perfect tool to help contractors and managers ensure that even less experienced combine drivers get the best out of their machine. This also works with several combines in the field at one time, enabling you to check parameters for continuous improvement.

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#### Features and Benefits

- Near Real Time Access AGCOMMAND Standard Plus collects and transmits data providing accurate and precise information regarding machine performance and location optimising machine utilisation and efficiency
- Fully Automatic Data collecting and Transfer AGCOMMAND Standard Plus requires no operator input, the operator can concentrate on the task in hand maximising in field performance whilst the data is continuously transferred
- Universal Installation AGCOMMAND Standard Plus is not limited to AGCO branded machines and vehicles
- Alarms AGCOMMAND GEO-fences allow the customer to monitor machine position and check that the machine is working in the correct location. Service alarms allow routine maintenance to be planned and actioned with a minimum impact to machine productivity

• **Maintenance** – AGCOMMAND allows the requirements for machine maintenance to be directly monitored and managed by the customer or passed over to the dealer

- **Maps** AGCOMMAND provides maps showing a machines' working history - historic locations, area worked, travel patterns, etc., allowing productivity to be measured in specific fields or over a specific length of time
- **Comparisons** AGCOMMAND allows the direct comparison of the performance and efficiency of up to five machines in the same fleet working in any location or application
- **Reports** AGCOMMAND allows a number of reports to be generated, ranging from individual field reports up to a full season efficiency report allowing productivity to be studied and maximised
- AGCOMMAND Advanced For those customers wishing to receive updates every 10 seconds plus an abundance of extra information to assist their business with data capture







MASSEY FERGUSON



ISOBUS socket -Tractor to implement



ISOBUS screen

# Plug and play

Most combine and tractor consoles are fully ISOBUS compatible. This international standard brings an end to cluttered cabs by allowing a single terminal to control and monitor implements designed to the same standard.

ISOBUS 11783 allows an implement manufacturer's control system to be displayed on the console I screen. Time and money is saved as there is no need for additional terminals in the cab.

#### One Console for many machines

Massey Ferguson equipment is being designed to the ISOBUS 11783 standard.

The latest MF 2100 large square balers and the MF 555 planter can now both be controlled via the console.

These two completely different implements can use the same console as Datatronic 4. Simply plug the implement lead into the tractor's ISOBUS socket and the system automatically uploads the operating menus and displays them on the screen.

## Simple wiring

With the ISOBUS standard connection there is no need for additional wiring into the cab. Large amounts of information are sent around the network, and while all ECUs (Electronic Control Units) on the data 'bus' see the 'messages', they only read those relevant to their operation. This system greatly simplifies the wiring requirement by allowing a large number of ECUs to communicate with each other, without the need for a complicated network.

#### Standardised operation

The information for each implement shown on the console terminal, regardless of manufacturer, follows the same routine of scrolling through menus, selection buttons and activation.

#### CAN do it all

An implement connected into the ISOBUS socket utilises the tractor's CAN-BUS network and shares information. The CAN, or Controller Area Network, is a system that transfers information via a data 'bus'.

## **Essential extras**

Getting the best from well-designed features on to a day-to-day basis



## Remote camera

The optional remote video camera can be fitted anywhere on the tractor or on any front or rear-mounted implement. Used in conjunction with clear on-screen view on the Console when reversing enables faster, safer haulage work or, the operator to view any rear or side-mounted equipment.



Integrated Bale Weighing System for increased accuracy, profitability and information concerning every bale that leaves your machine.



The new Integrated Bale Weighing System (IBWS) is an option that operates through the C1000 baler monitor. This allows the operator to monitor individual bale weight, flake width, bale length and total bale weight, which provides the great benefit of enabling contractors to buy straw or sell forage by the precise tonnage, rather than on a per bale or area basis.

Another significant advantage of weighing the bales is it allows operators to reduce costs by achieving maximum truck payloads, without the risk of overloading.





System 110 and 150 Guidance		
GX-45 console		
Datatronic 4		
Headland management		
SpeedSteer		
Electronic Engine management		
ISOBUS		
Dual control		
Trailed Implement Control (TIC)		
Creed Value Management (CMC)		
Spool valve Management (SMS)		
e <sup>3</sup> Selective catalytic reduction en	gine technology	

## Total Support. There when you need it.



Massey Ferguson and its distributors and dealers are always prepared and ready to go the extra mile to support your purchase.

Agriculture can be a tough business, that's why we make sure that you can get support whenever you need it and at crucial times of the year. Our dealers are committed to finding the right product for you and then supporting you with the best service, parts provision and backup. You'll be part of a dedicated family of highly skilled specialists who make it their business to give you genuine, top quality service support.

We understand farming and are aware of the challenges each individual faces, therefore our dealers can help you to plan for a successful future. Ask your dealer about our finance plans, which can include leasing, hire purchase, contract hire and loan facilities.

You can also secure your assets with a manager Service and Extended Warranty Plan. manager Service and Extended Warranty Plan\* is a complete package aimed at providing total care for your machine including routine maintenance, repair cover and full AGCO backed warranty.



One of the key criteria for all of our customers is the availability of parts, we recognise this and invest resources in making sure the correct parts are available in the quickest time, our professional service constantly exceeds industry performance. We also spend time training dealers and technicians to really understand your parts requirements, especially during crucial times of the year. Our commitment is to keep your machines running.

## **MASSEY FERGUSON**

A world of experience. Working with you.



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