AUTOMINE® MULTI-LITE 2
MULTI-MACHINE AUTOMATION
FOR UG LOADERS AND TRUCKS

PRODUCT SHEET

AUTOMATION YOU ARE READY FOR

The AutoMine® product family offers advanced and reliable automation and teleoperation systems for Sandvik underground loaders and trucks. The continuously evolving and award-winning AutoMine® portfolio ranges from tele-remote or autonomous operation of single pieces of equipment to multi-machine control and full fleet automation with automatic mission and traffic control capabilities.

With AutoMine® solutions, system operators supervise and control driverless loaders or trucks from the comfort and safety of a remote control room. Sandvik systems provide a safe controlled environment, which increases mine productivity and profitability, as well as protects operators and other mine personnel in underground operations.

PRODUCTIVITY WITH COST EFFECTIVE MINING

AutoMine® Multi-Lite is an automation system, which enables system operators to remotely control and simultaneously supervise multiple automated Sandvik underground loaders and trucks. With AutoMine® Multi-Lite, each piece of equipment completes automated missions in its own dedicated production area. In addition, AutoMine® Multi-Lite includes intelligent tele-operation with operator-assisting automatic steering.

The solution provides a powerful way to take advantage of the full machine performance through automation while offering the substantial benefits of increased productivity, safety, and cost-efficiency in mining operations.

AutoMine® Multi-Lite is suitable for large mining operations in several production areas. It is an ideal package particularly for mining operations, which require repeatable and consistently high performance, as well as multi-machine control for equipment in different operational areas. Reporting capabilities of the system provide transparency to the loading and hauling process while enabling optimization of the operations.

AUTOMINE® MULTI-LITE CONSISTS OF:

- ✔ One or more ergonomically designed remote operator stations
- ✔ Server cabinet for connections management
- ✔ Full onboard automation packages
- ✔ Dedicated safety system
- ✔ Wireless communication system

AUTOMATED PRODUCTION CYCLES*

Loader or truck production cycles can be automated with autonomous tramming and dumping, as well as with loaders using Sandvik's automatic bucket loading assistant functionality. The core technology of AutoMine® Multi-Lite lies in its unique and advanced navigation system, which allows fast tramming of the equipment at maximum speed.

Automated routes are recorded by driving through the tunnels between the load and dump points. The system

includes capabilities to further optimize these routes. In automation mode, the machines accurately follow and repeat the routes – consistently maintaining the same high productivity, whilst avoiding wall collisions. Furthermore, smart assisted teleoperation enables automatic steering without pre-defined paths.

Besides high performance, AutoMine® Multi-Lite provides extra productive hours each day by allowing the continued operation of the loaders or trucks during blast clearance times. Additionally, equipment utilization is increased as operators can hand over between shifts much faster without the need to locate and travel to the equipment. Another advantage of AutoMine® Multi-Lite is that it extends equipment lifetime: optimally run machines reduce wear and tear and maintenance costs. With open interfaces, AutoMine® can also be integrated to other mining IT systems.

UNCOMPROMISED SAFETY
Sandvik's AutoMine® system takes the operator away from the hazardous underground environment while significantly improving the operator's working conditions and safety. With AutoMine® Multi-Lite, system operators manage the operation of automated loaders or trucks from the safety of a control room environment.

AutoMine® is designed to a high level of safety. With isolated production areas, the heavy automated equipment and mine personnel are separated. Sandvik loaders and trucks equipped with the full AutoMine® onboard package are capable of high-performance operation leading to increased productivity, safety, and efficiency.

KEY FEATURES – YOUR BENEFITS*
AutoMine® Multi-Lite is designed for maximum productivity and safety:

- ✔ Multiple machines controlled by each system operator

- ✔ Automated production missions with targets

- ✔ High-speed tramming with optimization capabilities, automatic dumping, and automatic bucket loading assistant

- ✔ Production area maps with real-time monitoring, area management, and playback tools

- ✔ High safety integrity with an integrated, easy-to-use safety barrier system

- ✔ Full onboard automation package

- ✔ Integrated into the intelligent control system of Sandvik loaders and trucks for full monitoring and control functionality

- ✔ Detailed mission-based production, condition and utilization reporting via the system display, and external interfaces

- ✔ User management with user-specific language selection

- ✔ Full functionality of AutoMine® Tele-Remote for smart teleoperation of the loader

- ✔ System components compatible with AutoMine® Fleet automation that includes fleet traffic and mission control

BACKED BY SANDVIK
The AutoMine® product family allows you to start your automation journey the way that best fits your needs. As a future-proof and upgradeable system, AutoMine® is an ideal solution for customers looking for a simple, yet powerful way to explore the potential of teleoperated or automated equipment – as well as for those who wish to automate the production cycle for loaders and trucks.

The flexibility and modularity of AutoMine® allow it to be successfully adapted to different mining methods and applications. Designed to decrease costs and increase productivity and safety of your mining operations, it will help your business grow both today and tomorrow.

AutoMine® Multi-Lite is available in three levels providing multi-machine mining operations with the functionality required to achieve the highest productivity, safety and cost efficiency possible.

AutoMine® MULTI-LITE	Basic features for multi-machine automated control	Basic package + Extended features for increased level of automation	Silver package + Adaptive features and access to the latest automation features
	BASIC	**SILVER**	**GOLD**

*Features vary depending on automation package (Basic, Silver, Gold) selected.