



The Mobile Robot Company

Knowledge Center — Normen und Vorschriften · 2026-08-04

<https://info.mobilerobot.com/de-de/category/standards-and-regulations>

Normen und Vorschriften

Die Richtlinien, Verordnungen sowie ISO- und ANSI-Normen in der Konformitätsliste des J1600 und ihr jeweiliger Geltungsbereich.



ISO 3691-4

What EN ISO 3691-4 covers, why it is the central safety standard for driverless industrial trucks, and how it applies to the J1600's autonomous mode.



ISO 13849-1

What EN ISO 13849-1 covers, how Performance Levels (PL) work, and the levels assigned to the J1600's nine safety functions.



ISO 12100

What EN ISO 12100 covers, the three-step risk-reduction method it defines, and its role in the J1600's design and site deployment.



ISO 3691-1

What EN ISO 3691-1 covers for self-propelled industrial trucks and why it applies to the J1600's manual, walk-behind operating mode.



ANSI/ITSDF B56.5

What ANSI/ITSDF B56.5 covers for driverless industrial vehicles in the United States and how it applies to the J1600's autonomous mode.



ANSI/ITSDF B56.1

What ANSI/ITSDF B56.1 covers for operator-controlled low lift and high lift trucks and how it applies to the J1600's manual mode.



EU Machinery Requirements

How the EU Machinery Directive 2006/42/EC applies to the J1600, what CE marking means, and which harmonized standards support conformity.



EMC, RED, RoHS and Battery Regulations

The EU directives and regulation in the J1600's compliance list beyond machinery safety — electromagnetic compatibility, radio equipment, hazardous substances, and batteries.

ISO 3691-4

EN ISO 3691-4:2023 is the central European safety standard for driverless industrial trucks and appears in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). This page explains what the standard covers and how it relates to the J1600.

What the standard covers

ISO 3691-4, *Industrial trucks — Safety requirements and verification — Part 4: Driverless industrial trucks and their systems*, sets safety requirements for industrial trucks that travel without an onboard or accompanying driver. It addresses, among other things:

- detection of persons in the truck's path and the protective devices used for it;
- [speed control](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/speed-monitoring/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/speed-monitoring/>) and braking in automatic operation;
- behaviour in operating zones shared with pedestrians;
- load handling and stability during automatic travel;
- warning devices and mode indication;
- verification of the safety requirements.

The EN edition is harmonized under the [EU machinery requirements](https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/>), so conformity with it supports the presumption of conformity with the Machinery Directive's essential health and safety requirements.

How it applies to the J1600

In autonomous mode the J1600 operates as a driverless industrial truck, and its compliance list includes EN ISO 3691-4:2023. The company summarizes its position as compliance with EU and US safety requirements, especially ISO 3691-4 and [ANSI/ITSDF B56.5](https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-5/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-5/>).

The requirements of the standard map directly onto the J1600's protective measures:

- a 360-degree protective field built on two 2D safety LiDAR scanners;
- [speed-dependent safety fields](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/>), that expand as travel speed increases;
- [person detection](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/>) and [braking](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/>), functions with assigned Performance Levels (see [ISO 13849-1](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/>));
- blue floor-light strips that display the current protected area;
- [operator confirmation before the vehicle enters automatic mode](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/manual-and-autonomous-mode-safety/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/manual-and-autonomous-mode-safety/>).

How these elements work together is described in [How J1600 safety works](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/>) and the [safety architecture](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/safety-architecture/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/safety-architecture/>).

Dual mode and the companion standard

ISO 3691-4 addresses driverless operation. The J1600 is a [dual-mode](https://info.mobilerobot.com/de-de/products/j1600/dual-mode/) (<https://info.mobilerobot.com/de-de/products/j1600/dual-mode/>), vehicle, so its manual, walk-behind operation falls under the companion standard [ISO 3691-1](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/>). Both parts appear in the compliance list.

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. No [certificates](https://info.mobilerobot.com/de-de/safety-compliance/certificates/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/>), test reports, declaration numbers, or notified-body information are published here; use current product documentation for deployment decisions.

ISO 13849-1

EN ISO 13849-1:2023 is the machinery standard behind the Performance Levels (PL) assigned to the J1600's safety functions. It appears in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>).

What the standard covers

ISO 13849-1, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*, defines how the parts of a control system that perform safety functions must be designed and evaluated. Its core concept is the **Performance Level**: a measure of how reliably a safety function can be expected to perform, running from PL a (lowest) to PL e (highest). The required level for each function follows from the severity of possible injury, the frequency of exposure, and the possibility of avoiding the hazard.

How it applies to the J1600

The J1600's product documentation assigns Performance Levels to nine safety functions:

Safety function	Performance Level
Braking system	PL d
Emergency-stop button	PL d
Person detection in safety field	PL d
Safety-field size adjustment	PL d
Speed monitoring and control	PL c
Automatic/manual mode selection	PL c
Tiller-position detection	PL c
Load detection	PL b
Charging-current relay	PL b

The functions that protect people directly — [braking](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/>), emergency stop, [person detection](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/>), and [safety-field adjustment](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/>) — carry the highest assigned level, PL d. Each function is described in detail under [Performance Levels](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/performance-levels/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/performance-levels/>) and the surrounding safety-function pages.

The levels apply to individual safety functions within the [safety architecture](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/safety-architecture/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/safety-architecture/>); they are not a statement that every subsystem shares the same PL.

Relationship to other standards

ISO 13849-1 defines *how reliable* a safety function must be; product standards such as [ISO 3691-4](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/>) define *which* safety functions a driverless industrial truck needs. The risk assessment that connects hazards to required Performance Levels follows the method of [ISO 12100](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-12100/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-12100/>).

PRELIMINARY COMPLIANCE LIST

The Performance Levels above come from the preliminary January 2026 product documentation and are subject to change. No [certificates](https://info.mobilerobot.com/de-de/safety-compliance/certificates/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/>) or test reports are published here; use current product documentation for deployment decisions.

ISO 12100

EN ISO 12100:2010 is the foundational machinery-safety standard in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). It defines the risk-assessment and risk-reduction method on which the other safety standards build.

What the standard covers

ISO 12100, *Safety of machinery — General principles for design — Risk assessment and risk reduction*, describes how a machine designer identifies hazards, estimates and evaluates risks, and reduces them. Its three-step method, applied in order, is:

1. **Inherently safe design** — remove the hazard or reduce it by design choices.
2. **Safeguarding and protective measures** — guard against risks that cannot be designed out.
3. **Information for use** — warn about and document residual risks that remain after the first two steps.

How it applies to the J1600

The J1600's [layered protection](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/>) follows this logic. Design measures such as operator-confirmed mode changes and floor-level autonomous delivery are complemented by safeguarding — the 360-degree protective field, two 2D safety LiDAR scanners, emergency stops, and safety functions with assigned Performance Levels under [ISO 13849-1](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/>) — and by documented operating limits and [residual risks](https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/residual-risks/) (<https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/residual-risks/>).

The same method reappears at deployment: the pre-installation phase of the commissioning package includes a risk assessment of the customer site and the selected tasks and loads. See [Site risk assessment](https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/site-risk-assessment/) (<https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/site-risk-assessment/>) and [Commissioning and validation](https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/commissioning-and-validation/) (<https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/commissioning-and-validation/>).

Relationship to other standards

ISO 12100 supplies the general method; the product-specific requirements for the J1600's two operating modes come from [ISO 3691-4](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/) (driverless operation) and [ISO 3691-1](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/) (manual operation). All three are harmonized under the [EU machinery requirements](https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. Use current product documentation for deployment decisions.

ISO 3691-1

EN ISO 3691-1:2015+A1:2020 appears in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). It is the safety standard for self-propelled industrial trucks operated by a person — the standard that covers the J1600 when it is used manually.

What the standard covers

ISO 3691-1, *Industrial trucks — Safety requirements and verification — Part 1: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks*, sets safety requirements for powered industrial trucks under operator control, including pedestrian-controlled (walk-behind) trucks such as electric pallet trucks. It addresses truck construction, controls, [braking](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/>), stability, load handling, and the verification of these requirements.

How it applies to the J1600

In manual mode the J1600 handles like a conventional walk-behind electric pallet jack: the operator controls travel and lift with the tiller, picks and drops pallets at up to 1,600 mm, and manoeuvres in situations that need judgment. That mode of operation is the domain of ISO 3691-1.

Because the J1600 is a [dual-mode](https://info.mobilerobot.com/de-de/products/j1600/dual-mode/) (<https://info.mobilerobot.com/de-de/products/j1600/dual-mode/>) vehicle, both parts of the standard family apply:

Operating mode	Applicable standard
Manual (tiller-controlled)	ISO 3691-1 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/) — self-propelled industrial trucks
Autonomous (driverless)	ISO 3691-4 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/) — driverless industrial trucks and their systems

The [transition between the two modes](https://info.mobilerobot.com/de-de/documentation/getting-started/manual-and-autonomous-modes/) (<https://info.mobilerobot.com/de-de/documentation/getting-started/manual-and-autonomous-modes/>) is itself safeguarded: [automatic/manual](#)

[mode selection](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/mode-selection/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/mode-selection/>) and [tiller-position detection](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/tiller-detection/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/tiller-detection/>), are safety functions with assigned Performance Levels under [ISO 13849-1](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/>), and the operator must confirm entry into automatic mode.

The US counterpart for operator-controlled trucks is [ANSI/ITSDF B56.1](https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-1/>).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. Use current product documentation for deployment decisions.

ANSI/ITSDF B56.5

ANSI/ITSDF B56.5-2024 appears in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). It is the United States safety standard for driverless industrial vehicles — the American counterpart to [ISO 3691-4](https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/>).

What the standard covers

ANSI/ITSDF B56.5, *Safety Standard for Driverless, Automatic Guided Industrial Vehicles and Automated Functions of Manned Industrial Vehicles*, is maintained by the Industrial Truck Standards Development Foundation (ITSDF) and accredited by the American National Standards Institute (ANSI). It sets safety requirements for vehicles that operate without a driver, covering areas such as object and personnel detection, braking, speed control, warning indication, and the responsibilities of manufacturers and users.

The 2024 edition is the version named in the J1600's compliance list.

How it applies to the J1600

In autonomous mode the J1600 operates as a driverless industrial vehicle, so B56.5 is the reference standard for its automatic operation in the US market. The company summarizes its compliance position as meeting EU and US safety requirements, especially ISO 3691-4 and ANSI/ITSDF B56.5.

The protective measures that address these requirements are the same layered system described in [How J1600 safety works](https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-overview/how-j1600-safety-works/>): a 360-degree protective field from two 2D safety LiDAR scanners, [speed-dependent field adjustment](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/safety-field-adjustment/>), [person detection](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/person-detection/>) and [braking](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/>) with assigned Performance Levels, emergency stops, and operator-confirmed entry into automatic mode.

For the J1600's manual mode, the corresponding US standard is [ANSI/ITSDF B56.1](https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-1/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-1/>).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. No [certificates](https://info.mobilerobot.com/de-de/safety-compliance/certificates/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/>), test reports, or country-specific approvals are published here; use current product documentation for deployment decisions.

ANSI/ITSDF B56.1

ANSI/ITSDF B56.1-2020 appears in the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). It is the United States safety standard for operator-controlled powered industrial trucks — the standard that covers the J1600 when a person drives it manually.

What the standard covers

ANSI/ITSDF B56.1, *Safety Standard for Low Lift and High Lift Trucks*, is maintained by the Industrial Truck Standards Development Foundation (ITSDF) and accredited by the American National Standards Institute (ANSI). It sets safety requirements for powered industrial trucks under operator control, including walk-behind (pedestrian-controlled) trucks, and addresses both manufacturer obligations (design, construction, controls, [braking](https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/) (<https://info.mobilerobot.com/de-de/safety-compliance/safety-functions/braking/>), stability) and user obligations (operation, maintenance, operator training).

The 2020 edition is the version named in the J1600's compliance list.

How it applies to the J1600

In manual mode the J1600 is a walk-behind electric pallet jack: the operator steers with the tiller and can pick and drop pallets at up to 1,600 mm. As a low lift truck under operator control, that use falls within the scope of B56.1.

The division of standards mirrors the vehicle's [dual mode](https://info.mobilerobot.com/de-de/products/j1600/dual-mode/) (<https://info.mobilerobot.com/de-de/products/j1600/dual-mode/>):

Operating mode	US standard	European standard
Manual (tiller-controlled)	ANSI/ITSDF B56.1-2020	EN ISO 3691-1 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/)
Autonomous (driverless)	ANSI/ITSDF B56.5-2024 (https://info.mobilerobot.com/de-de/safety-compliance/standards/ansi-itsdf-b56-5/)	EN ISO 3691-4 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/)

Operator responsibilities during manual operation — pallet pickup, judgment-heavy handling, and immediate takeover — are described in [Operator responsibilities](https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/operator-responsibilities/) (https://info.mobilerobot.com/de-de/safety-compliance/safe-deployment/operator-responsibilities/).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. Use current product documentation for deployment decisions.

EU Machinery Requirements

The J1600 is CE marked, and Directive 2006/42/EC — the Machinery Directive — heads its [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>). This page explains what the directive requires and how the J1600's standards list fits into it.

What the Machinery Directive requires

Directive 2006/42/EC sets the essential health and safety requirements that machinery must meet before it can be placed on the market in the European Union. For a manufacturer this means:

- performing a risk assessment and designing the machine to meet the essential requirements;
- compiling a technical file that documents conformity;
- issuing an EU Declaration of Conformity;
- affixing the CE marking.

Machinery designed to **harmonized standards** — European standards published in the Official Journal of the EU — benefits from a presumption of conformity with the requirements those standards cover.

The J1600's conformity basis

The harmonized standards in the J1600's compliance list address the machinery requirements from complementary angles:

Standard	Role
EN ISO 12100:2010 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-12100/),	General risk-assessment and risk-reduction method
EN ISO 13849-1:2023 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-13849-1/),	Reliability of safety-related control functions (Performance Levels)
EN ISO 3691-1:2015+A1:2020 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-1/),	Safety of self-propelled industrial trucks — manual mode
EN ISO 3691-4:2023 (https://info.mobilerobot.com/de-de/safety-compliance/standards/iso-3691-4/),	Safety of driverless industrial trucks — autonomous mode

The Machinery Directive is one of several EU acts in the compliance list; the others cover electromagnetic compatibility, radio equipment, hazardous substances, and batteries. See [EMC, RED, RoHS and Battery Regulations](https://info.mobilerobot.com/de-de/safety-compliance/standards/emc-red-rohs-and-battery-regulations/) (https://info.mobilerobot.com/de-de/safety-compliance/standards/emc-red-rohs-and-battery-regulations/).

CE marking and documentation

The CE marking on the J1600 states conformity with the applicable EU legislation. The formal document behind it is the [CE Declaration of Conformity](https://info.mobilerobot.com/de-de/safety-compliance/certificates/ce-declaration-of-conformity/) (https://info.mobilerobot.com/de-de/safety-compliance/certificates/ce-declaration-of-conformity/).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. No declaration numbers or notified-body information are published here; use current product documentation for deployment decisions.

EMC, RED, RoHS and Battery Regulations

Beyond the [Machinery Directive](https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/) (<https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/>), the J1600's [compliance list](https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/compliance-statements/>) names three further EU directives and one EU regulation. Together they cover the vehicle's electronics, radio functions, materials, and battery.

EMC Directive 2014/30/EU

The Electromagnetic Compatibility (EMC) Directive requires that equipment neither generates electromagnetic disturbance that affects other equipment nor is unduly affected by such disturbance. It applies to the J1600's [electrical and electronic systems](https://info.mobilerobot.com/de-de/documentation/technical-reference/electrical-specifications/) (<https://info.mobilerobot.com/de-de/documentation/technical-reference/electrical-specifications/>), which include the drive electronics, the industrial NVIDIA Jetson AI computer, sensors, and the 15-inch touchscreen interface.

Radio Equipment Directive 2014/53/EU

The Radio Equipment Directive (RED) sets requirements for equipment that transmits or receives radio waves, covering safety, electromagnetic compatibility, and efficient spectrum use. It is relevant to the J1600's wireless connectivity: [Wi-Fi is optional for basic use](https://info.mobilerobot.com/de-de/documentation/installation/network-and-wi-fi-requirements/) (<https://info.mobilerobot.com/de-de/documentation/installation/network-and-wi-fi-requirements/>) but available for connected features and advanced integrations.

RoHS Directive 2011/65/EU

The RoHS Directive (Restriction of Hazardous Substances) limits the use of certain hazardous substances — such as lead, mercury, and cadmium — in electrical and electronic equipment placed on the EU market. It applies to the J1600's electronics and electrical components.

Batteries Regulation (EU) 2023/1542

The EU Batteries Regulation sets requirements for batteries placed on the EU market, covering safety, sustainability, and labelling across a battery's life cycle. It applies to the J1600's [24 V, 200 Ah lithium iron phosphate \(LiFePO4\) battery](https://info.mobilerobot.com/de-de/documentation/technical-reference/battery-specifications/) (<https://info.mobilerobot.com/de-de/documentation/technical-reference/battery-specifications/>).

Battery transport is addressed separately by the UN 38.3 test regime; see [Battery UN 38.3 Documentation](https://info.mobilerobot.com/de-de/safety-compliance/certificates/battery-un-38-3-documentation/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/battery-un-38-3-documentation/>).

Where these fit in the compliance list

EU act	Subject
Directive 2006/42/EC	Machinery safety (https://info.mobilerobot.com/de-de/safety-compliance/standards/eu-machinery-requirements/)
Directive 2014/30/EU	Electromagnetic compatibility
Directive 2014/53/EU	Radio equipment
Directive 2011/65/EU	Restriction of hazardous substances
Regulation (EU) 2023/1542	Batteries

All five underpin the J1600's CE marking, documented in the [CE Declaration of Conformity](https://info.mobilerobot.com/de-de/safety-compliance/certificates/ce-declaration-of-conformity/) (<https://info.mobilerobot.com/de-de/safety-compliance/certificates/ce-declaration-of-conformity/>).

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. Use current product documentation for deployment decisions.