

## Recommended Spare Parts List

LD-60 & LD-90 Autonomous Mobile Robots

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Omron offers a variety of services to support your robot installation

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### Complete Care

Omron provides all the field support, maintenance, and parts you need to maintain your robot - in a single, comprehensive program. At a fixed annual price, the Complete Care Program eliminates your budget uncertainty while protecting your capital investment, prolonging its lifespan, and maximizing your productivity.

The program includes:

- 100% coverage for all labor and parts for repairs
- Priority dispatch for Field Service Support
- Premium Technical Support (24/7 access with priority status)
- Fixed travel costs for any on-site visit
- Discounts on additional training for your team

### Wellness Visit

Humans need check-ups, and so do robots. Omron offers Wellness Visits to thoroughly evaluate your robot's condition, schedule maintenance in advance and avoid costly surprises. Regular maintenance and inspection can significantly reduce the total cost of ownership for any equipment. Our annual Wellness Visit includes comprehensive evaluation ensures that all preventive maintenance is performed on schedule and to manufacturing specifications for your Omron robot.

With this service, you can:

- Maximize robot lifespan
- Identify potential problems before they result in unscheduled downtime
- Proactively schedule repairs and part substitutions based on your scheduled shutdowns

### Technical Support

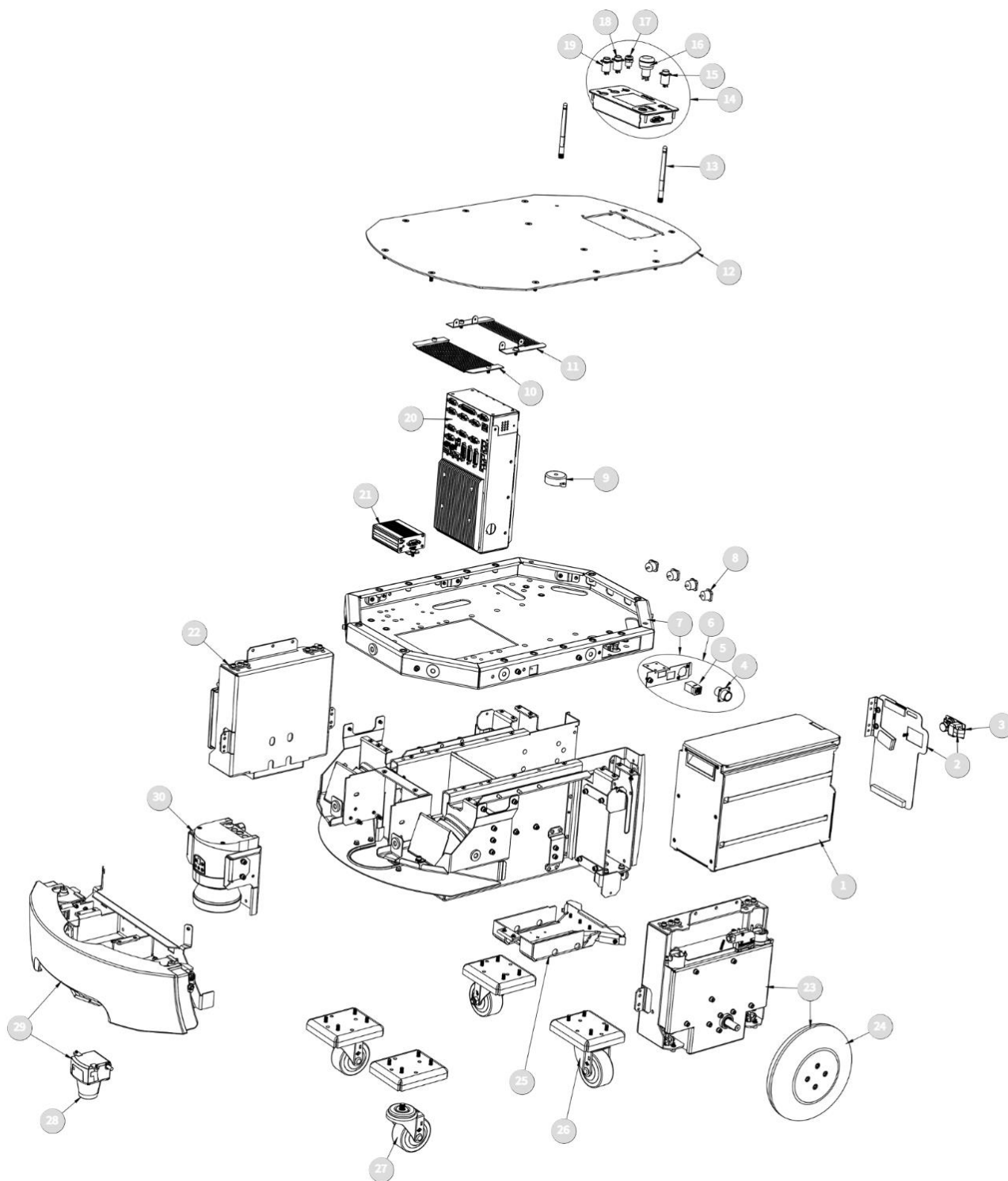
Technical support Omron's technical support engineers have over 20 years of experience diagnosing and fixing issues that plague robotic equipment. Leveraging the popular Help Lightning app for remote visualization, the support team resolves a wide variety of problems with excellent customer satisfaction.

- Support during regular business hours
- After-hours support available for an additional fee
- English, French, Spanish and Portuguese supported
- 24/7 access also provided through a web-based self-service portal

# Recommended Spare Parts List

## LD-60 & LD-90 Autonomous Mobile Robots

### LD Chassis



# Recommended Spare Parts List

## LD-60 & LD-90 Autonomous Mobile Robots

LD Chassis						
#	Part Number	Name	Recommended Stocking Level		Omron Service Recommended	Notes
			1-5 Units	5+ Units		
1	20452-000	Assembly, Battery, CALB, UL				
2	12870-000	Assembly, Chassis, Battery Door		1+		
3	12168-000	Latch, Lockng, Flush, ABS	1			
4	12673-000	Cable, Lynx Core To Joystick				
5	12856-000L	Connector, Cat5e Coupler Shielded RJ45, Feed-thru Coupler				
6	12859-000	Assembly, Maintenance Panel, LD				
7	12860-000	Assembly, Frame, Top Deck				
8	11714-000	Sensor, Piezo Ultrasonic, 40KHz, with cable	1			
9	18234-000L	Assembly, LD Cart Transp, Buzzer				
10	12717-200	Sheet Metal, Chassis, Core Cover, LD				
11	12717-100	Sheet Metal, Chassis, Core Mount, LD				
12	12944-000	Assembly, Top Plate, LD				
13	10616-000	Antenna, Wireless, Reverse SMA	1			
14	12800-000	Assembly, LD HMI Panel		1+		Depends on model
14	12885-030	Kit, User Panel with 2.5ft Cable, LD		1+		Depends on model
15	12412-000	Push Button, Yellow, Panel Mount Round	1			
16	12414-000	ESTOP Push Button, Unibody, 2NC Contacts	1			
17	12805-000	Assembly, LD HMI Keyswitch	1			Includes 2 keys
18	12411-000	Push Button, Red, Panel Mount Round	1			
19	12410-000	Push Button, Green, Panel Mount Round	1			
20	22735-000	Tested i5 LD Core		1+	Yes	
21	11711-000	Assembly, Sonar Controller				
22	12745-000	Assembly, Right Drive Train, 30:1		1+		LD-60
22	12745-040	Assembly, Right Drive Train, 40:1		1+		LD-105CT, LD-90
22	12745-060	Assembly, Right Drive Train, 60:1		1+		LD-130CT, LD-90X
23	12746-000	Assembly, Left Drive Train, 30:1		1+		LD-60
23	12746-040	Assembly, Left Drive Train, 40:1		1+		LD-105CT, LD-90
23	12746-060	Assembly, Left Drive Train, 60:1		1+		LD-130CT, LD-90X
24	11210-000	Assembly, Tire & Wheel	2			
25	12872-160	Assembly, Frame, Docking Funnel, FRU	1			
26	14753-000	Assembly, Caster, LD, Hardened	4			
27	14783-000	Assembly, Bumper, LD w/ TiM Laser				
28	15004-000	Kit, Upgrade, Laser Bumper, LD				

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


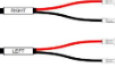







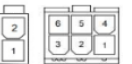










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LD Chassis						
#	Part Number	Name	Recommended Stocking Level		Omron Service Recommended	Notes
			1-5 Units	5+ Units		
30	12172-032F	Assembly, Laser OS32C FRU		1+		Omron version (Please check compatibility prior to ordering)
30	<u>12172-310</u>	Assembly, Laser, S300, Programmed		1+		SICK version (Please check compatibility prior to ordering)
N/A	12861-000F	Two speakers with LD60/90 mounts		1+		
N/A	13558-000	Joystick	1			
N/A	14925-000	Magnetic Tape, 25mm Wide for Track Following Sensor, 50m Length	1			Only for applications with HAPs
N/A	OS32C-WIN-KT	OS32C Window Replacement Kit	1			

# Recommended Spare Parts List

## LD-60 & LD-90 Autonomous Mobile Robots

### Wiring

	Description	From	To
1	Cable, LD Battery Control	Core, BATT COMM 	Battery 
2	Cable, Lynx Battery Power	Core, BATTERY POWER 	Battery 
3	Cable, LD Safety Bumper	Core, BUMPER 	Bumper 
4	Cable, LD Wheel Lights	Core, WHEEL LIGHTS 	Side Skins 
5	Cable, LYNX CORE TO JOYSTICK	Core, JOYSTICK 	Joystick 
6	Cable, Lynx SICK LIDAR	Core, LIDAR 	S300
7	Cable, Lynx Speakers	Core, SPKRS 	Speakers 
8	Cable, RIGHT LD MOTOR DRIVE	Core, RIGHT MOTOR 	Right Drive Train 
9	Cable, LEFT LD MOTOR DRIVE	Core, LEFT MOTOR 	Left Drive Train 
10	Cable, Aux Power Splitter, LD	Core, AUX POWER 	2 Aux Ports 
11	Cable, Auxillary Light Splitter, LD	Core, AUX POWER 	Buzzer & Aux Port 
12	Cable, Camera Power, Acuity	Core, AUX POWER 	Camera 
13	CABLE, ETHERNET, CAT5E, 1FT	Core, MAINT LAN 	Maintenance Panel 
14	Cable, RP-SMA Plug to RP-SMA Jack, Bulkhead, Pigtail 19"	Core, ANT1 or ANT2 	Antenna 
15	Cable, Safety Bumper, Extension, Lynx	Core, BUMPER 	Bumper Cable 
16	Sonar Controller Cable, DB9 Male/Female, Shielded, 1ft	Core, SONAR 1 	Sonar Controller 

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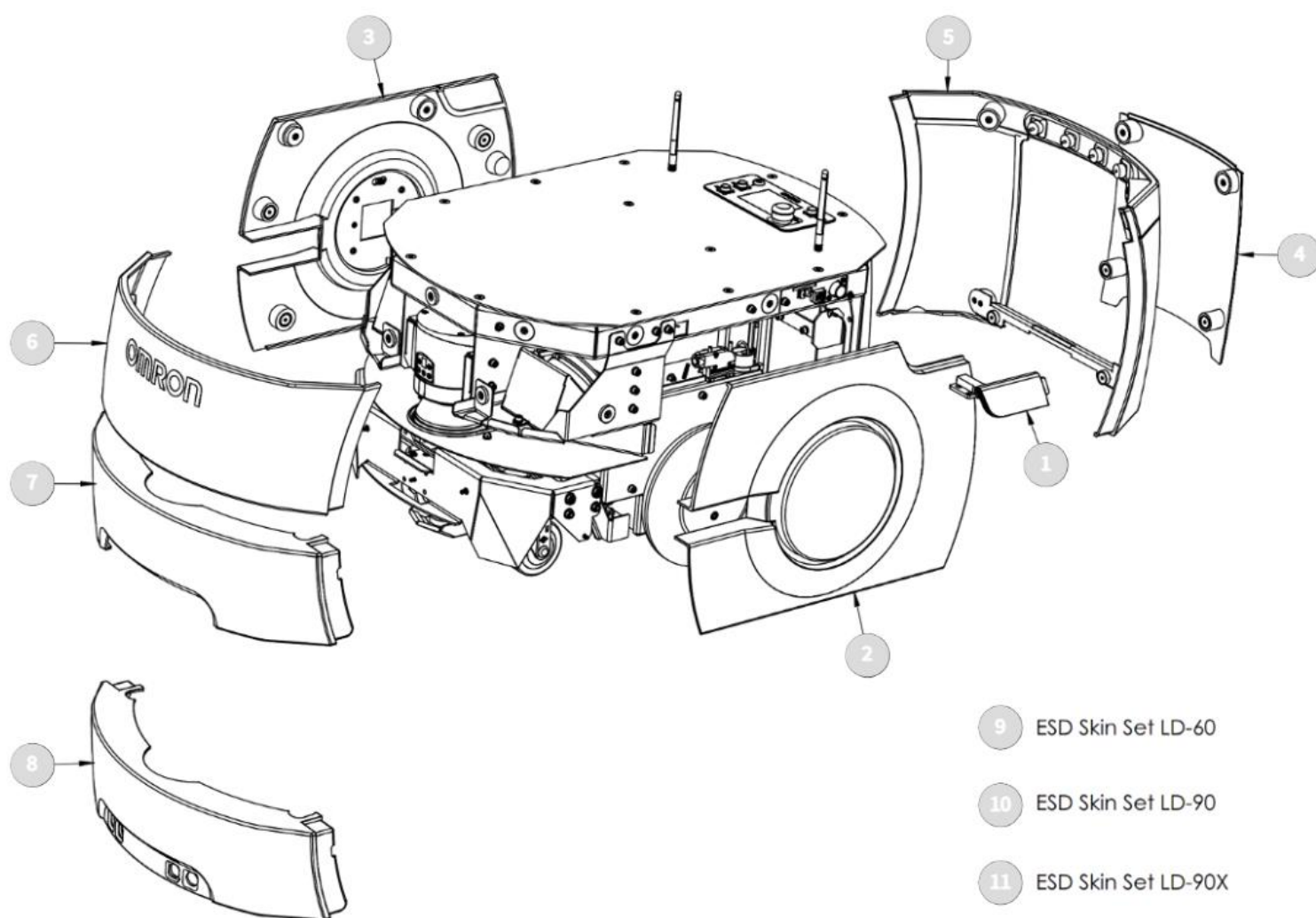
Wiring						
#	Part Number	Name	Recommended Stocking Level		Omron Service Recommended	Notes
			1-5 Units	5+ Units		
1	12689-100L	Cable, LD Battery Control				
2	12676-000L	Cable, Lynx Battery Power	2			
3	12723-000L	Cable, LD Safety Bumper				
4	12694-000L	Cable, LD Wheel Lights	1			
5	12673-000	Cable, Lynx Core To Joystick				
6	12718-000L	Cable, LD Sick Lidar				Compatible with Omron lasers
7	12724-000L	Cable, LD Speakers				
8	12712-100L	Cable, Right LD Motor Drive		1+		
9	12712-200L	Cable, Left LD Motor Drive		1+		
10	13717-000L	Cable, Aux Power Splitter, LD				
11	18234-100L	Cable, Auxiliary Light Splitter, LD				
12	13718-000L	Cable, Camera Power, Acuity				
13	11619-000	Cable, Ethernet, Cat5E, 1FT				
14	12943-000	Cable, RP-SMA Plug to RP-SMA Jack, Bulkhead, Pigtail 19"				
15	13408-000L	Cable, Safety Bumper, Extension, LD				
16	12662-000	Sonar Controller Cable, DB9 Male/Female, Shielded, 1ft				

# Recommended Spare Parts List

## LD-60 & LD-90 Autonomous Mobile Robots

### LD Skins

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LD Skins						
#	Part Number	Name	Recommended Stocking Level		Omron Service Recommended	Notes
			1-5 Units	5+ Units		
1	12804-600	Skin, Left Hatch		1+		
1	21452-600F	Skin, Left Hatch, LD, ESD		1+		ESD Version
2	<u>12804-450</u>	Assembly, Skin, Left		1+		
2	21452-450F	Assembly, Skin Left, LD, ESD		1+		ESD Version
3	<u>12804-350</u>	Assembly, Skin, Right		1+		
3	21452-350F	Assembly, Skin Right, LD, ESD		1+		ESD Version
4	<u>12804-801</u>	Skin, Battery Door		1+		
4	21452-801F	Skin, Battery Door, ESD, FRU		1+		ESD Version
5	12804-701	Skin, Rear Panel, LD-60				
5	12804-702	Skin, Rear Panel, LD-90				
5	12804-703	Skin, Rear Panel, LD-105CT				
5	12804-704	Skin, Rear Panel, LD-130CT				
5	12804-705	Skin, Rear Panel, LD-90x				
5	21452-701F	Skin, Rear Panel, ESD, LD-60, FRU				
5	21452-702F	Skin, Rear Panel, ESD, LD-90, FRU				
5	21452-705F	Skin, Rear Panel, ESD, LD-90x, 60:1, FRU				
6	12804-200	Skin, Front Top Panel				
6	21452-201F	Skin, Front Top Panel, ESD, FRU				ESD Version
7	<u>12804-101</u>	Skin, Front Bumper Panel, LD, Modified for Tim Sensor		1+		
7	21452-151F	Skin, Front Bumper, ESD, FRU		1+		ESD Version
8	<u>12804-100</u>	Skin, Front Bumper Panel (Legacy)		1+		
9	21452-995F	Assembly, Skin Set, ESD, LD-60				ESD Version
10	21452-996F	Assembly, Skin Set, ESD, LD-90				ESD Version
11	21452-997F	Assembly, Skin Set, ESD, LD-90x, 60:1				ESD Version