

JRZ PROlift

Installation instructions



Congratulations on your purchase of the PROlift system — a precision-engineered solution designed to offer adjustable ride height functionality for high-performance vehicles. Whether you're approaching a steep driveway, navigating speed bumps, or preparing for track use, PROlift provides enhanced ground clearance when needed and returns to your preferred setup at the push of a button.

Developed for tuning professionals and demanding drivers alike, PROlift combines advanced hardware and intelligent software control. The system features multiple ride height presets and can automatically adjust based on vehicle speed, offering both convenience and performance adaptability.

Important Safety Notice

Adjusting ride height while driving at higher speeds may significantly alter the vehicle's handling characteristics. Always ensure that any height adjustments are made in a safe and controlled manner. Misuse of the system can lead to loss of control or unsafe driving conditions.

This installation manual will guide you through:

- System components and wiring
- Mechanical and electrical installation steps
- Initial calibration and software setup
- Safety checks and functional testing

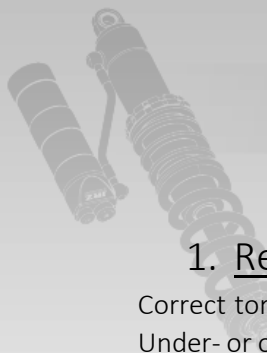
Please read all instructions carefully before beginning the installation. If in doubt, always consult with a certified technician.





Index

1. Recommended torque specifications.....	3
2. System components and wiring	7
2.1. System overview	7
2.2. Wiring diagram.....	9
2.3. Hardware dimensions	12
3. Mechanical and electrical installation steps	15
3.1. Mechanical installation	15
3.1.1. PROlift only.....	15
3.1.2. Complete system.....	18
3.2. Electrical installation	19
4. Safety checks and functional testing.....	20
5. Maintenance.....	22



1. Recommended torque specifications

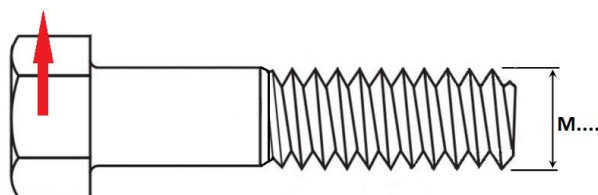
Correct torque application is essential for the safe and reliable installation of all PROlift components. Under- or over-tightening fasteners can lead to mechanical failure, system leaks, or damage to sensitive components.

This section lists the recommended torque values for all critical fasteners used in the PROlift system, including mounting brackets, hydraulic fittings, and sensor hardware. Always use a calibrated torque wrench and follow the specifications provided.

Unless otherwise specified, all values are given in Newton-meters (Nm) and apply to clean, dry threads without the use of threadlocker.

Guideline tightening torque *(NOT FOR JRZ TOPMOUNT)*

	Bolt grade		
Bolt diameter	8.8 [Nm (ft-lb)]	10.9 [Nm (ft-lb)]	12.9 [Nm (ft-lb)]
M6	10,3 (7,6)	14,7 (10,8)	17,6 (12,9)
M8	25,5 (18,8)	35,3 (26,0)	42,1 (31,0)
M10	50,0 (36,8)	70,6 (52,0)	85,3 (62,9)
M12	87,2 (64,3)	122,6 (90,4)	147,1 (108,5)
M14	138,3 (102,0)	194,2 (143,2)	235,4 (173,6)
M16	210,8 (155,4)	299,1 (220,6)	357,9 (263,9)



M=metric and the following number is the thread diameter in mm. Thus M5 has a 5mm diameter thread (not the diameter of spanner you need).

These tightening torques are guidelines for metric screws according to DIN ISO 261. A frictional torque of 0,14 has been used, when screws are lubricated with anti-seize grease the tightening torque should be lowered with 20%.



Tightening torques for the JRZ piston rod nut:



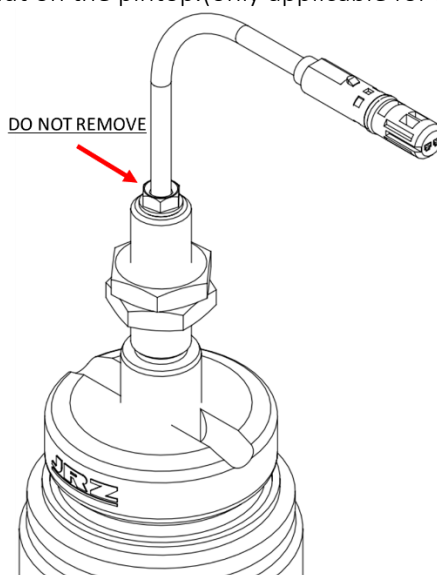
- Never use pliers on the piston rod.
- Using an impact wrench is on own risk.
- When using an impact wrench only use the lowest force level.
- Only torque the nut for a short period of time.
- Never torque two nuts at the same time.
- When these guidelines are not followed failure of the pintop may occur.

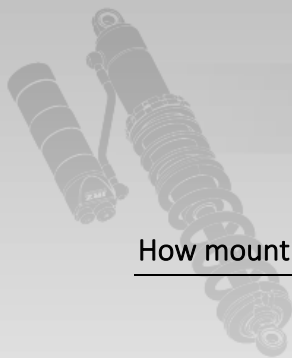
Nut	Torque (Nm)	Torque (ft-lb)
M10x1	20	15
M12x1,25	35	26
M14x1,5	50	37



Make sure to avoid these actions:

1. Do not use pliers of any sort on the piston rod.
2. Do not use an impact wrench on full force on the piston rod nut.
3. Do not dismount the bump adjustment knob of remote reservoir or RS TWO strut, otherwise the setting will be disturbed.
4. Do not use normal air pressure instead of nitrogen in the gas canister.
5. Do not disconnect quick disconnect fittings while there is still pressure in canister.
6. Do not disassemble the reservoirs while the pressure still exists in the reservoir.
7. Do not operate the shock absorber when the reservoir is disconnected.
8. Do not place the JRZ RS TWO, 11 33, 11 53, 12 33, 12 53, 14 33, 14 53 on the ground to mount the top mount and spring due to the bump adjustment on the bottom.
9. Do not remove the 7mm nut on the pintop.(only applicable for PROactive))





How mount a JRZ shock absorber in the bench vice.

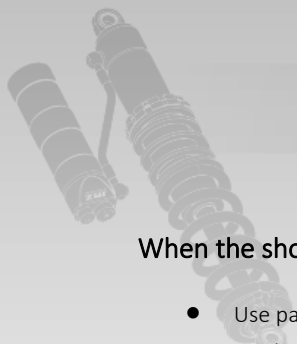
When the shock absorber has a eyelet or silent block:



When the shock absorber doesn't have a eyelet or silent block:

- Don't place direct in the bench vice
- Use a JRZ body clamp.

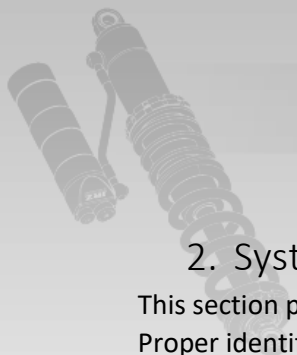




When the shock absorber has to be clamped on the tread:

- Use paper towel around the thread.
- Don't over tighten the bench vice.





2. System components and wiring

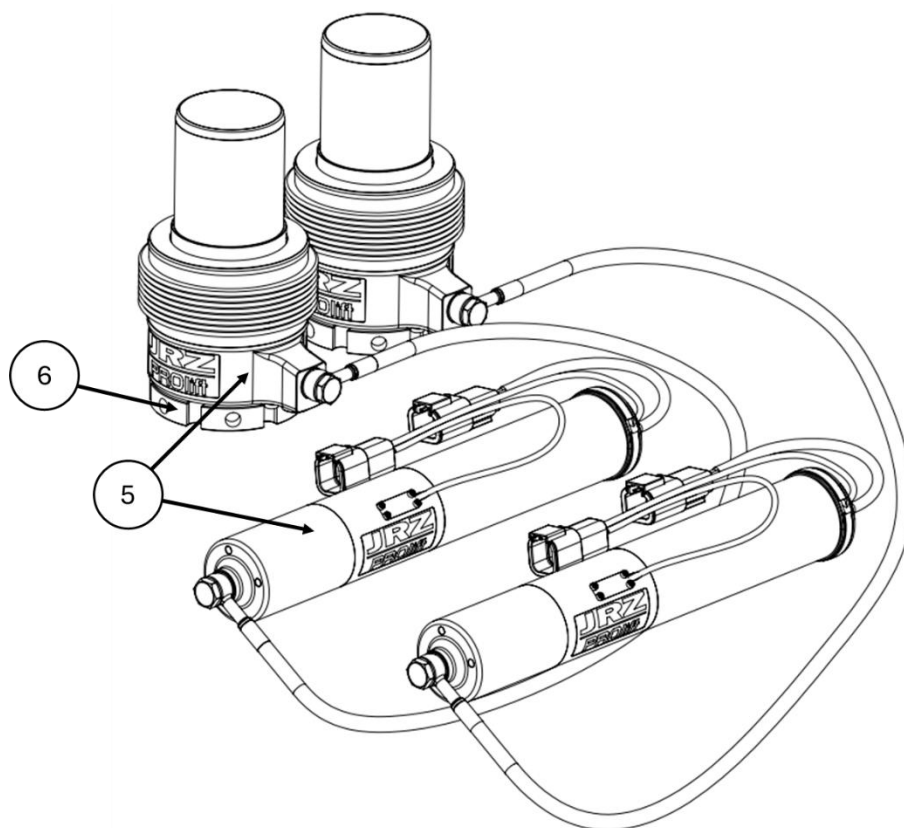
This section provides an overview of the PROlift system components and their electrical connections. Proper identification and correct installation of each part are critical to ensure reliable operation and long-term durability.

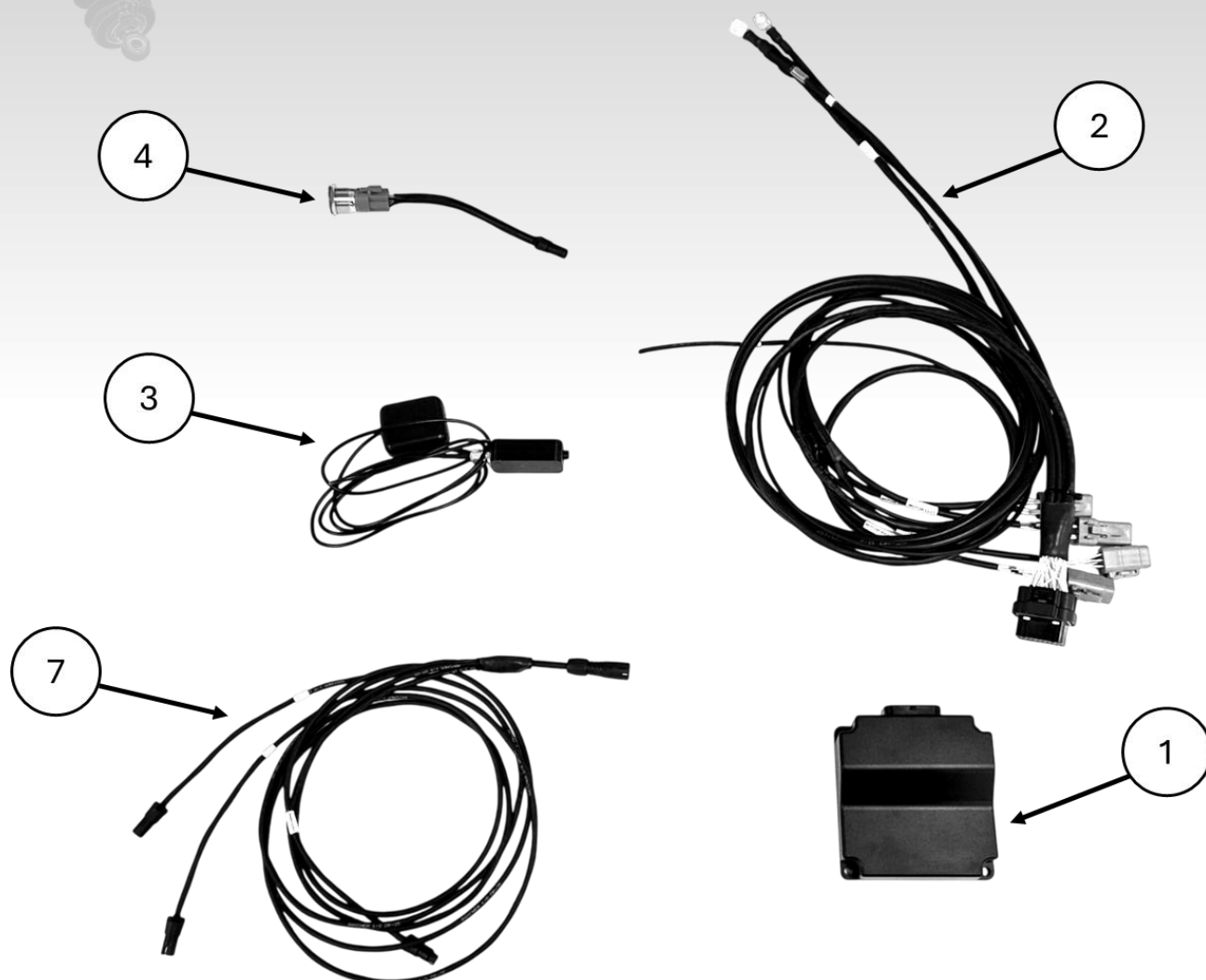
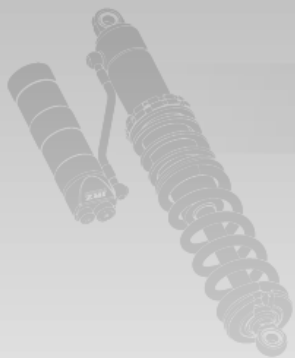
Before beginning installation, please verify that all components are present and undamaged. Refer to the wiring diagram provided further below to understand the electrical layout of the system.

Ensure that all wiring is routed safely, away from heat sources, sharp edges, and moving parts. Use proper grounding to prevent electrical interference or malfunction.

2.1. System overview

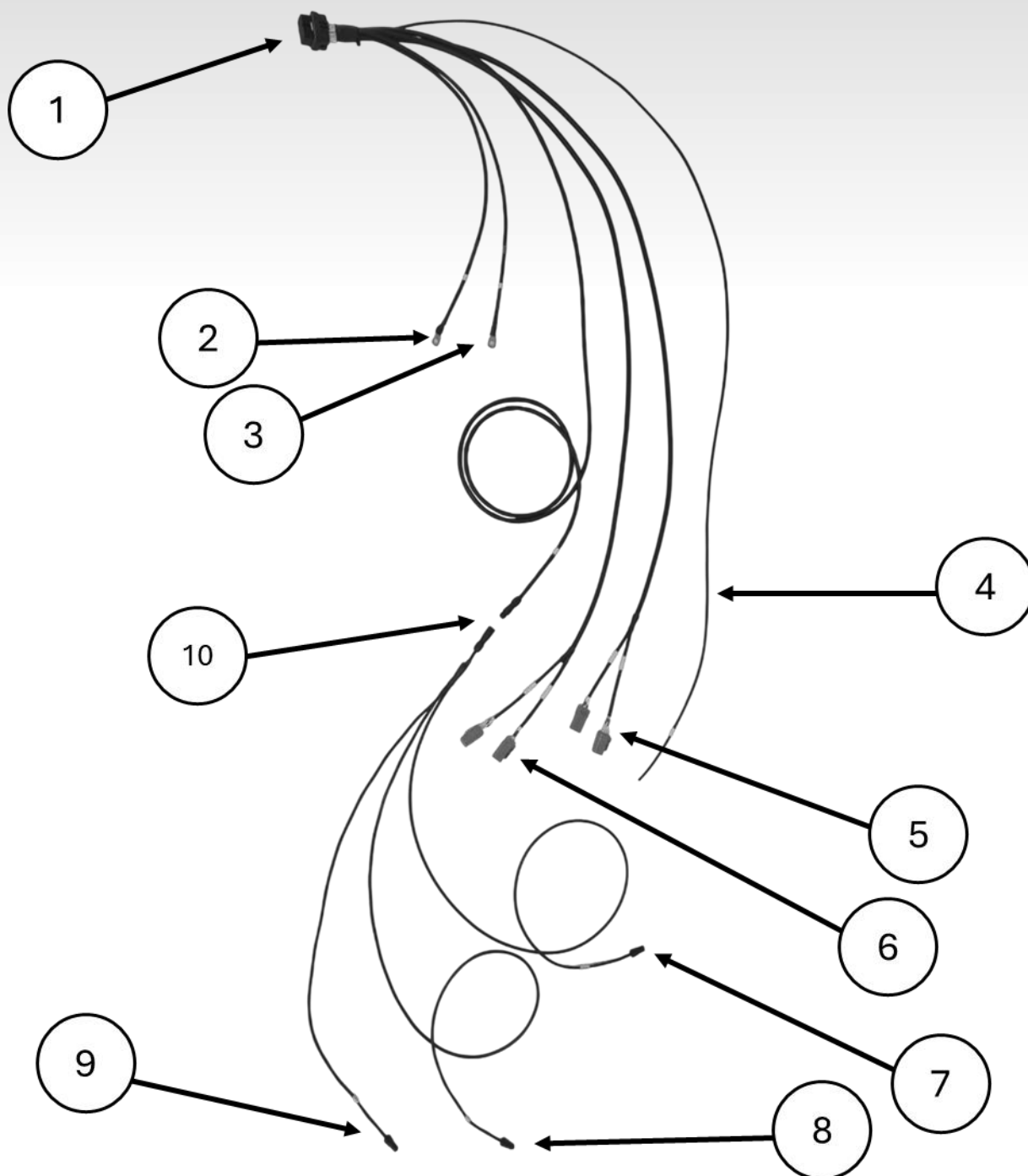
#	Part name	Qty	Part number
1	Control unit	1	64-01-01-01
2	Wiring harness	1	64-01-01-02
3	Speed module	1	64-01-01-03
4	Switch module	1	99-64-05-00-01
5	PROlift hydraulic unit	2	64-05-02-20
6	Threaded adjuster	2	64-05-02-16
7	Dash harness	1	64-01-01-04





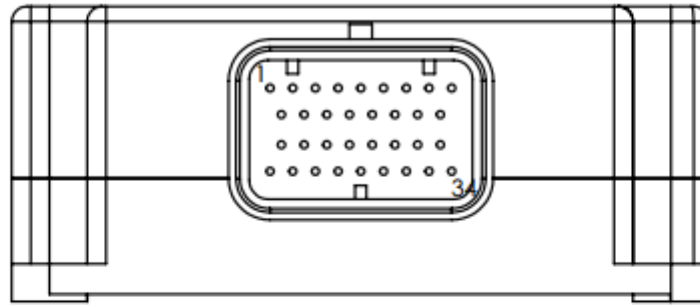
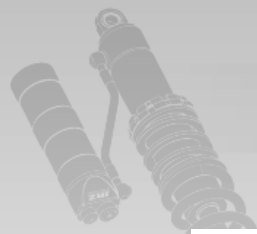


2.2. Wiring diagram

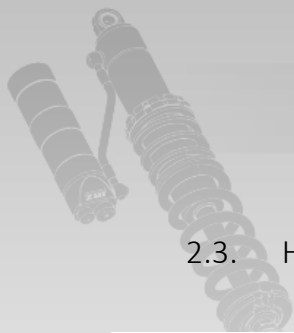




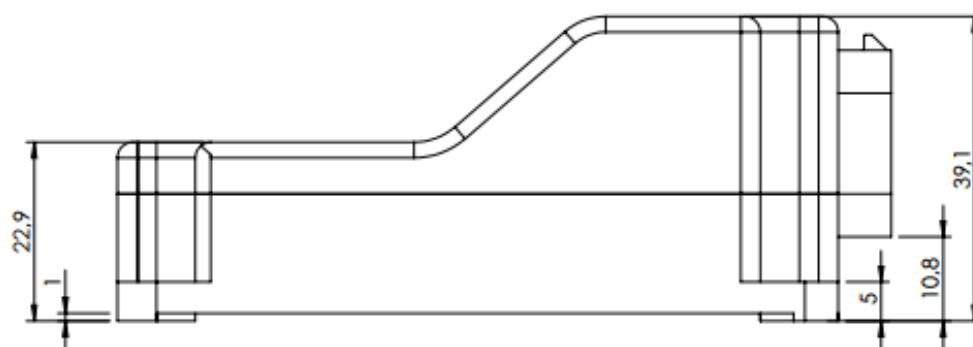
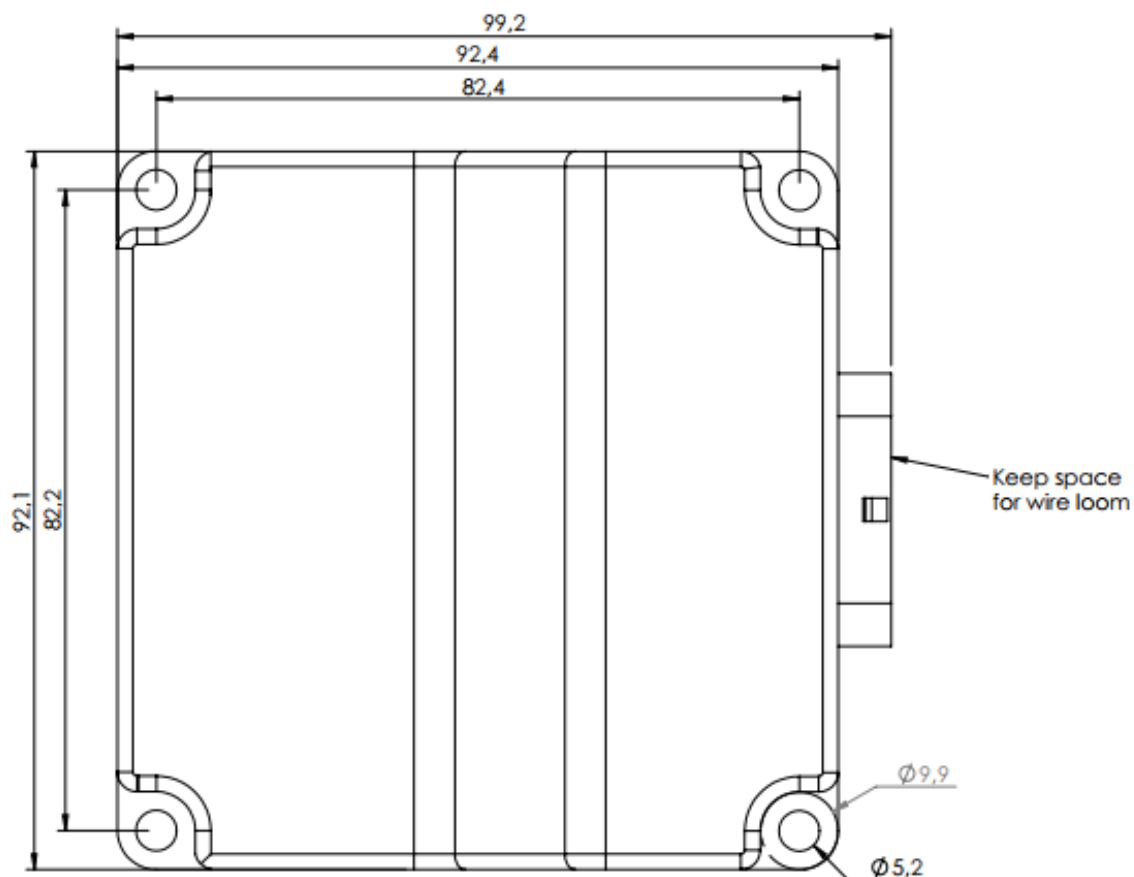
# in diagram	Label	# of contacts	Connects to
1	-	34	Control unit
2	GND (black)	1	Power ground
3	12V (red)	1	Power 12V
4	12V - K15	1	Switched 12V
5	SENSOR-RIGHT / MOTOR-RIGHT	6/2	Sensor & motor right
6	SENSOR-LEFT / MOTOR-LEFT	6/2	Sensor & motor left
7	SWITCH	4	Switch module
8	CAN1	4	Speed module
9	CAN2	4	Not connected
10	DASH	8	Dash loom

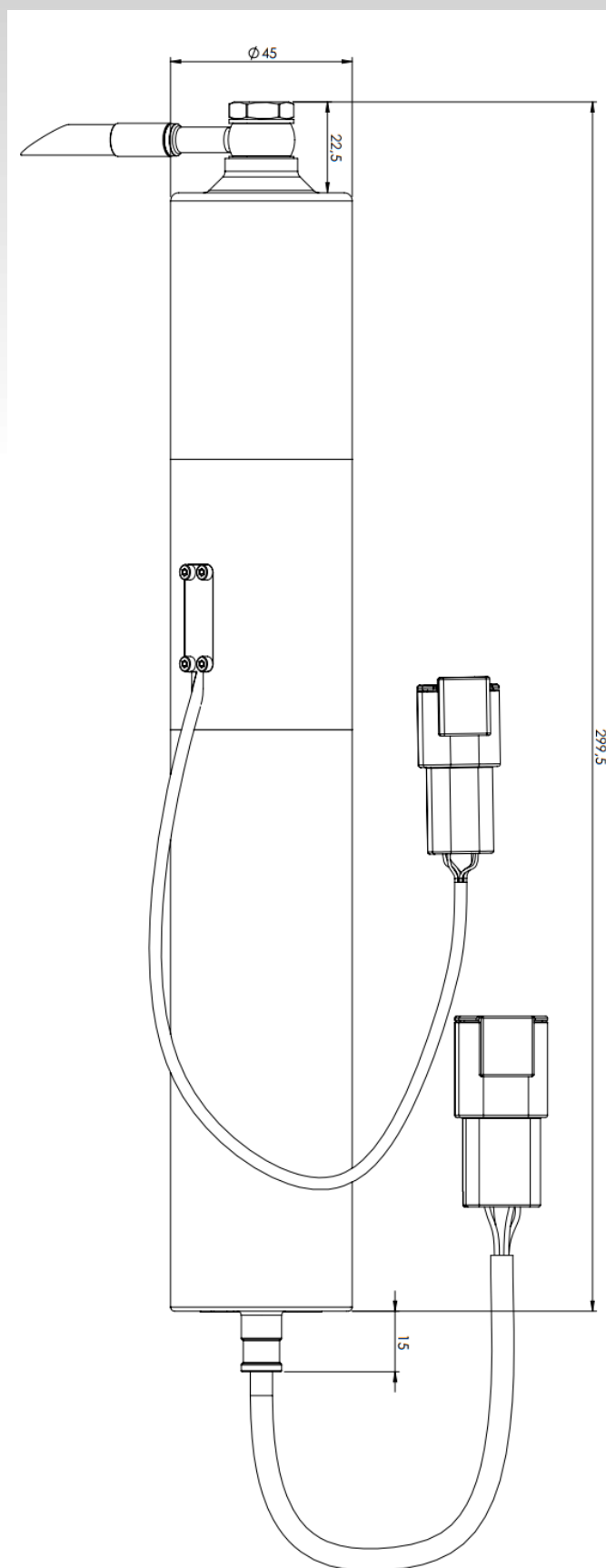
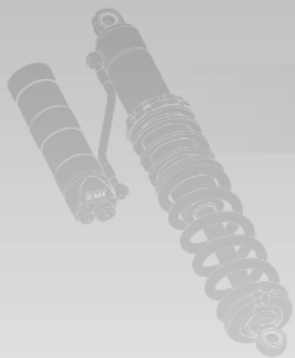


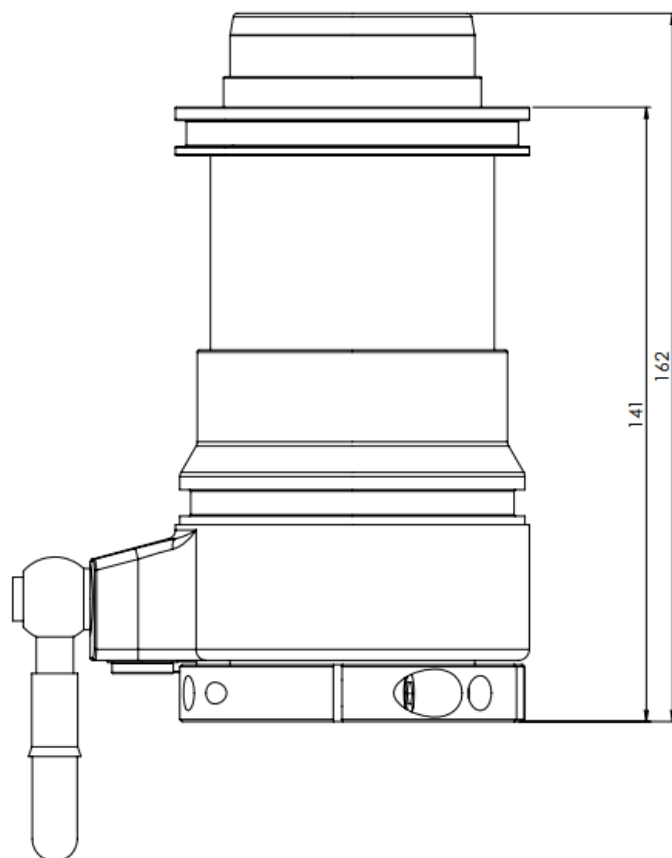
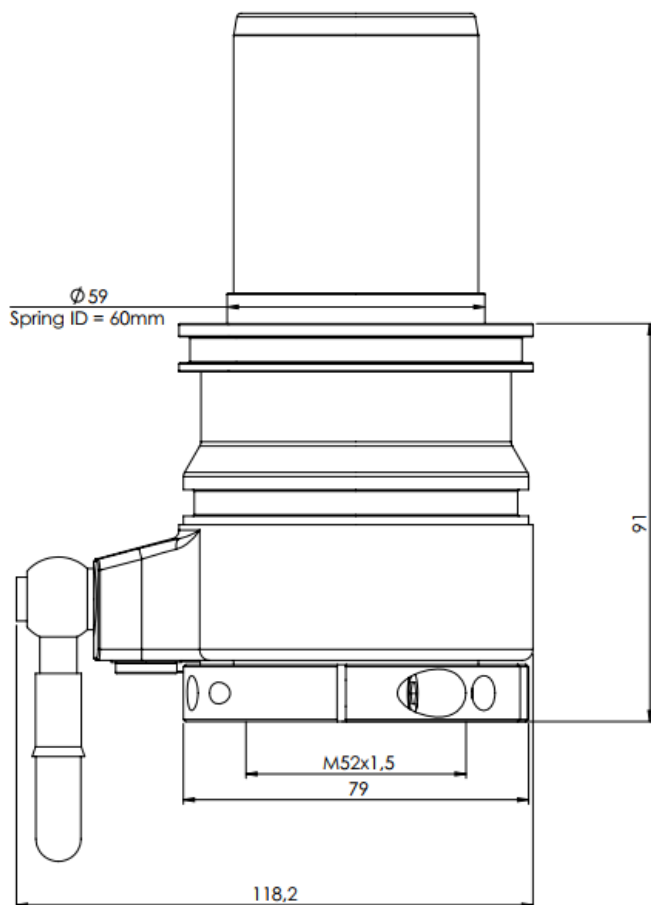
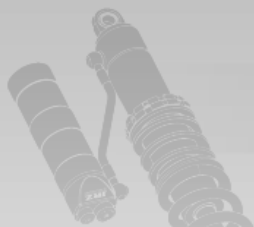
Cav.	Wire	Ident Tag	Colour	Gauge	Dest.	Signal
1	WIRE003	GN	WH	24	DASH-FEM/3	CAN1 High
2	WIRE004	PU	GN	24	DASH-FEM/4	CAN1 Low
3	WIRE005	WH	WH	24	DASH-FEM/5	CAN2 High
4	WIRE006	BL	GN	24	DASH-FEM/6	CAN2 Low
5	WIRE001	YE	WH	22	DASH-FEM/1	12V supply
6	WIRE008	BR	WH	22	12V_K15/1	12V K15
7						
8	WIRE007	BK	WH	22	DASH-FEM/7	Switch signal
9	WIRE009	YE/YE	WH	22	DASH-FEM/8	LED signal
10	WIRE012	YE/PU	WH	22	MOTOR-RIGHT-SEN-IN-FEM/3	Motor-right position
11	WIRE013	YE/WH	WH	22	MOTOR-RIGHT-SEN-IN-FEM/2	Motor-right reference
12	WIRE014	YE/BL	WH	22	MOTOR-RIGHT-SEN-IN-FEM/1	5V supply
	WIRE015	YE/BK	WH	22	MOTOR-RIGHT-SEN-IN-FEM/5	5V supply
13	WIRE002	RD	WH	22	DASH-FEM/2	Ground
14	WIRE020	RD/PU	WH	22	MOTOR-LEFT-SEN-IN-FEM/4	Sensor ground
	WIRE021	RD/WH	WH	22	MOTOR-RIGHT-SEN-IN-FEM/4	Sensor ground
15	WIRE024	RD/BR	WH	22	MOTOR-LEFT-SEN-IN-FEM/1	5V supply
	WIRE025	GN/YE	WH	22	MOTOR-LEFT-SEN-IN-FEM/5	5V supply
16	WIRE028	GN/PU	WH	22	MOTOR-LEFT-SEN-IN-FEM/2	Motor-left reference
17	WIRE029	GN/WH	WH	22	MOTOR-LEFT-SEN-IN-FEM/3	Motor-left position
18	WIRE030	GN/BL	WH	16	MOTOR-RIGHT-IN-FEM/1	Motor-right 1
19	WIRE031	GN/BK	WH	16	MOTOR-RIGHT-IN-FEM/1	Motor-right 1
20	WIRE016	YE/BR	WH	22	MOTOR-RIGHT-SEN-IN-FEM/6	Hall sensor signal
21	WIRE033	PU/YE	WH	16	GND-001/1	Ground
22	WIRE034	PU/RD	WH	16	GND-001/1	Ground
23	WIRE027	GN/GN	WH	22	MOTOR-LEFT-SEN-IN-FEM/6	Hall sensor signal
24	WIRE036	PU/PU	WH	16	MOTOR-LEFT-IN-FEM/1	Motor-left 1
25	WIRE037	PU/WH	WH	16	MOTOR-LEFT-IN-FEM/1	Motor-left 1
26	WIRE038	PU/BL	WH	16	MOTOR-RIGHT-IN-FEM/2	Motor-right 2
27	WIRE039	PU/BK	WH	16	MOTOR-RIGHT-IN-FEM/2	Motor-right 2
28	WIRE040	PU/BR	WH	16	GND-001/1	Ground
29	WIRE041	WH/YE	WH	16	12V/1	12V
30	WIRE042	WH/RD	WH	16	12V/1	12V
31	WIRE043	WH/GN	WH	16	12V/1	12V
32	WIRE044	WH/PU	WH	16	GND-001/1	Ground
33	WIRE045	WH/WH	WH	16	MOTOR-LEFT-IN-FEM/2	Motor-left 2
34	WIRE046	WH/BL	WH	16	MOTOR-LEFT-IN-FEM/2	Motor-left 2

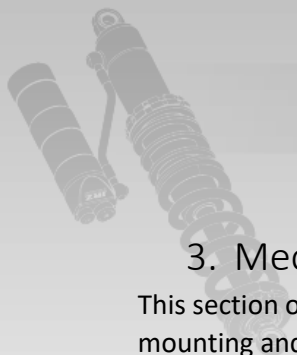


2.3. Hardware dimensions









3. Mechanical and electrical installation steps

This section outlines the procedures required to install the PROlift system, covering both mechanical mounting and electrical integration.

The mechanical installation is divided into two categories:

- **PROlift Only** – For installations where the system is added to an existing setup and certain components are already in place.
- **Complete System** – For installations where PROlift is supplied as a full kit, including all hydraulic and control components.

Following the correct procedure for your installation type is essential to ensure optimal performance and safety.

The electrical installation section applies to all configurations and must be completed after the mechanical components have been securely mounted.

Before beginning:

- Ensure the vehicle is safely supported according to manufacturer guidelines.
- Verify that all required tools and components are available.
- Read through the entire installation procedure before starting to avoid mistakes.

3.1. Mechanical installation

The mechanical installation of the PROlift system involves securely mounting all hardware components to ensure reliable operation under all driving conditions. Proper alignment, clearance, and fastening are essential to maintain both performance and safety.

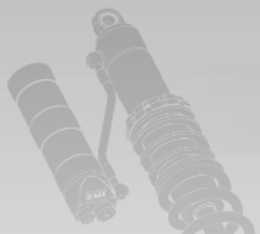
3.1.1. PROlift only

If you have bought a complete system you can skip these steps.

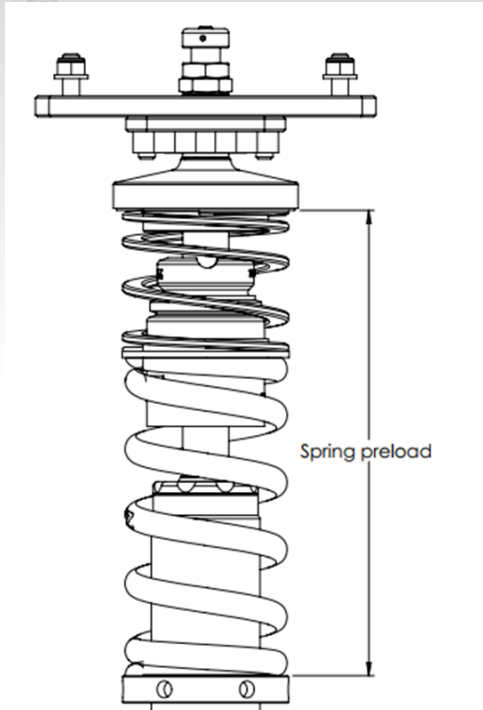
1. Measure the ride height before putting the car in the lift. Write down these values, you will need those later

Front left	Front right
Rear left	Rear right

Only needed if 4-wheel PROlift is installed



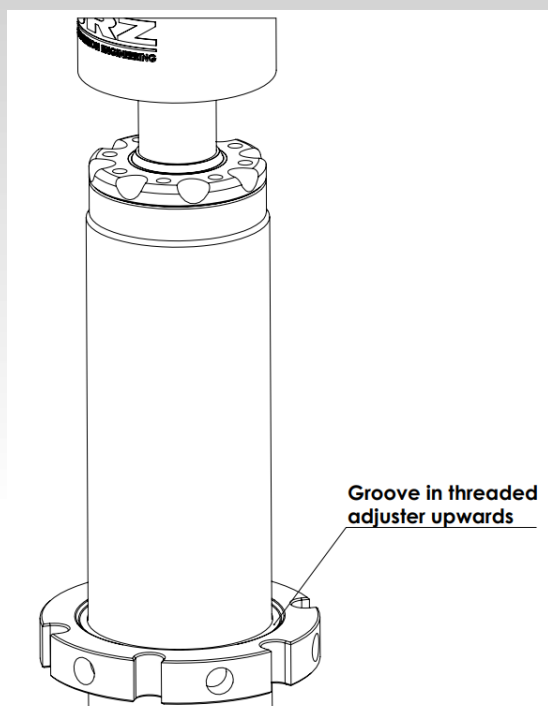
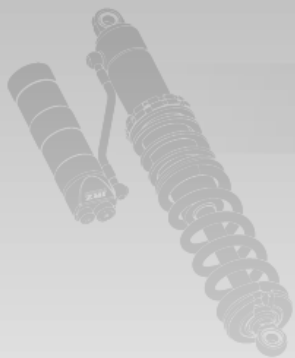
2. Remove the existing JRZ damper from the car
3. Measure the spring preload on all dampers, write down the measured values, you will need those later



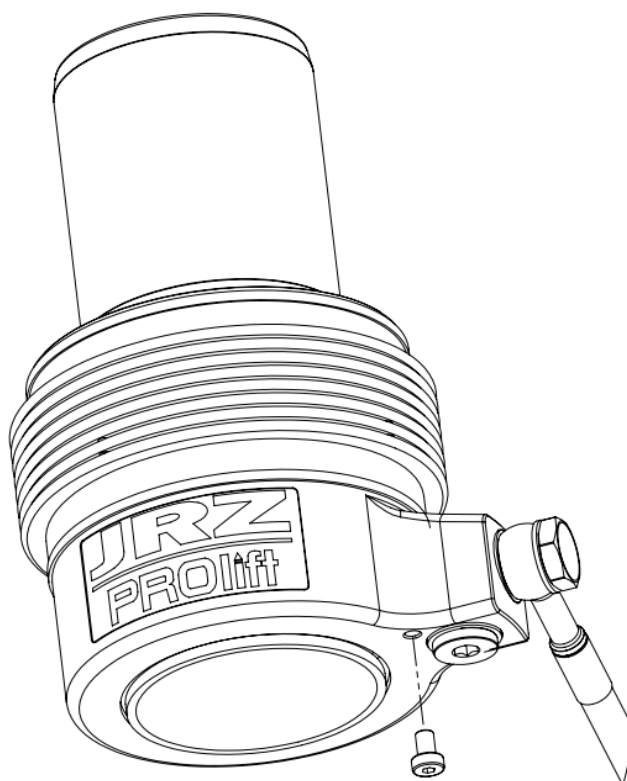
Front left	Front right
Rear left	Rear right

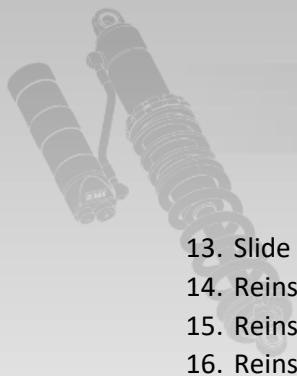
Only needed if 4-wheel PROlift is installed

4. Remove the preload on the springs so it is safe to remove them
5. Remove the rebound adjuster by unscrewing the two 1,5mm allen key screws
6. Remove the top mount nuts
7. Remove the top mount and its bushings
8. Remove the top spring seat/thrust bearing and the springs
9. Clean the threads of the damper body
10. Remove the lower spring seat by unscrewing it from the damper body
11. Install the PROlift threaded adjuster by screwing it onto the strut body.
To accommodate the adjuster height, set the spring seat 77 mm lower than its original position prior to installation.



12. At the bottom of the hydraulic unit there is a small Allen key bolt. Remove this during installation. Keep aside until setting ride height and corner weights.





13. Slide the hydraulic PROlift adjuster over the body
14. Reinstall the springs, top spring seat/thrust bearing and the top mount
15. Reinstall the top mount nuts and torque to the listed torque values on page 4
16. Reinstall the rebound knob, position does not matter
17. Continue with *Step 3* in section 3.1.2 – Complete System

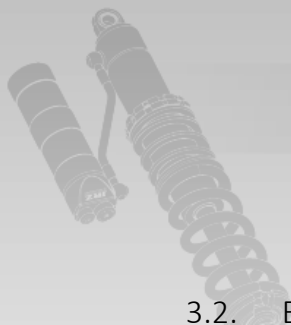
3.1.2. Complete system

1. Measure the ride height before putting the car in the lift. Write down these values, you will need those later

Front left	Front right
Rear left	Rear right

Only needed if 4-wheel PROlift is installed

2. Remove the existing dampers from the car
3. Install the JRZ kit
4. Mount the hydraulic pump unit somewhere secure. The orientation of the hydraulic pump unit is not important
 - Make sure that the hoses and electrical cables are not under tension through the entire range of the suspension(damper travel and also steering angle). And keep them free from any rotating parts and brake components
 - Ensure that the hose connected to the hydraulic adjuster is routed without tension or strain that could cause loosening or damage during the full suspension travel. Handle and install the system with the same care and safety standards as a brake system
 - The engine bay is a preferred location for the hydraulic pump units, provided they are positioned away from the exhaust
 - It is not recommended to hard-mount the unit to the chassis, as this may transmit operational noise into the cabin. A small isolating layer of rubber or foam is sufficient to eliminate the noise
5. Check if the preload is equal to the values written down. If different, adjust accordingly.
6. Put the car on its wheels and check if the base ride height is equal to the values written down. If different, adjust accordingly.
7. Once ride height is satisfactory, install the small allen key bolt back into the hydraulic unit. Pay attention that the screw aligns with one of the slots in the preload adjuster.



3.2. Electrical installation

1. Plan the routes for the cables. This will make the assembly of the wiring a lot easier. Make sure that all cables are clear of rotating, sharp and or hot parts such as wheels, axles, brake or exhausts.
2. Mount the control unit(#1 in system overview table) at your preferred location.
3. Connect the 34 pin connector(#1 in wiring diagram) to the control unit.
4. Route the cables for the left motor(#6 in wiring diagram) and connect to the correct connectors of the left motor(#5 in system overview table).
5. Route the cables for the right motor(#5 in wiring diagram) and connect to the correct connectors of the right motor(#5 in system overview table).
6. Route the dash connector(#10 in wiring diagram) through a suitable hole to the cabin
7. Connect the dash harness(#7 in system overview table) to the main harness in the cabin
8. Route the cable for the knob and connect.(#7 in diagram)(knob is #4 in system overview table)
9. Connect the GPS module(#3 in system overview table) to CAN1(#8 in diagram) and mount in a convenient location. Somewhere under the dashboard is a preferred location.
10. Connect 12V(#3 in wiring diagram) to a permanent 12V source such as the battery.
11. Connect GND(#2 in wiring diagram) to a good GND point
12. Connect 12V_k15(#4 in wiring diagram) to a switched 12V source. Make sure that this source is switched and 12V
13. After the first power on the system will self-calibrate.



4. Safety checks and functional testing

After installation of the PROlift system, the following safety checks and functional tests **must be carried out before the vehicle or system is put into service**. Failure to perform these checks may result in personal injury, component damage, or malfunction of the system.

1. General Safety

- Ensure the system is securely installed and properly supported.
- Keep hands, tools, and loose clothing away from moving parts during testing.
- Do not stand near loaded or pressurized components during initial operation.
- Stop testing immediately if abnormal behavior is observed.

2. Mechanical Installation Check

- Verify that all mechanical connections are correctly installed and fully tightened.
- Check that all fasteners are tightened to the specified torque values.
- Confirm that hoses are correctly routed, not twisted, and free from interference with moving or hot components.
- Ensure the pump, adjuster, and mounting points are securely fixed.

3. Electrical Installation Check

- Verify correct connector placement and pin orientation.
- Check that all electrical connectors are fully locked.
- Ensure wiring is routed without tension, chafing, or risk of damage.
- Confirm correct polarity and power supply before powering the system.

4. Functional Testing

- Power the system and operate the PROlift through its full range of motion.
- Verify smooth and controlled movement without jerking or abnormal noise.
- Confirm correct operation of the position sensor and control unit.
- Check that the system stops correctly at both end positions. It is very important that the motors stop being powered at both the lower and upper position. If the motor stays powered (noticed by a continuous sound of the motor) shut down the system as soon as possible and check all wiring.
- Monitor the system for leaks, unusual vibrations, or excessive motor noises during operation.



5. Final Safety Verification

- Re-check all fasteners and hydraulic connections after functional testing.
- Remove any spilled oil, grease, or tools from the installation area.
- Ensure the system is safe for normal operation.
- The PROlift system may only be released for use after all checks have been successfully completed.

6. Align vehicle at base ride height

- Be sure to do a proper alignment at the base ride height to prevent any inconsistency in tire wear and or driving characteristics.



5. Maintenance

It is recommended that the PROlift system is checked yearly on leaks, cracks or electrical failures. A general service at a JRZ approved service center is recommended every two years or 20 000 km or 12 500 miles

