

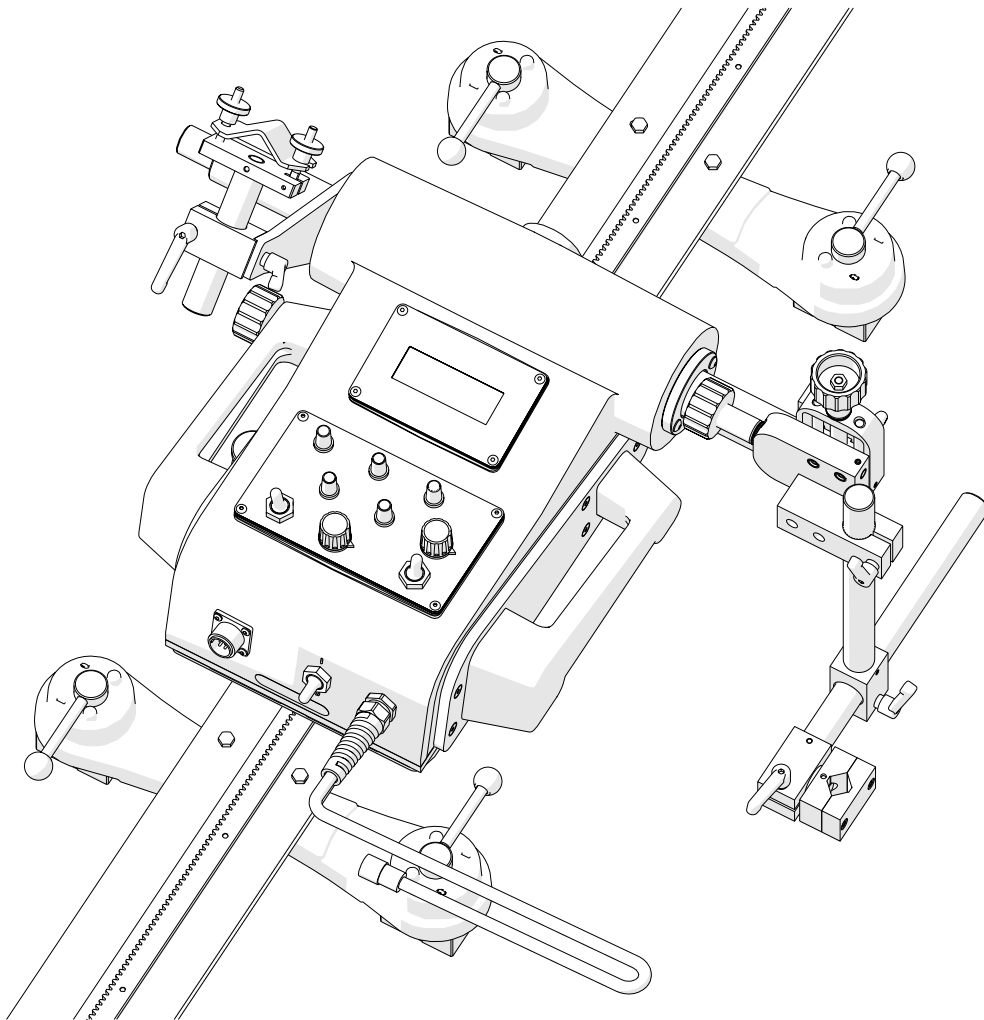


The tools of innovation.

OPERATOR'S MANUAL

Rail Runner

WELDING CARRIAGE



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1. GENERAL INFORMATION

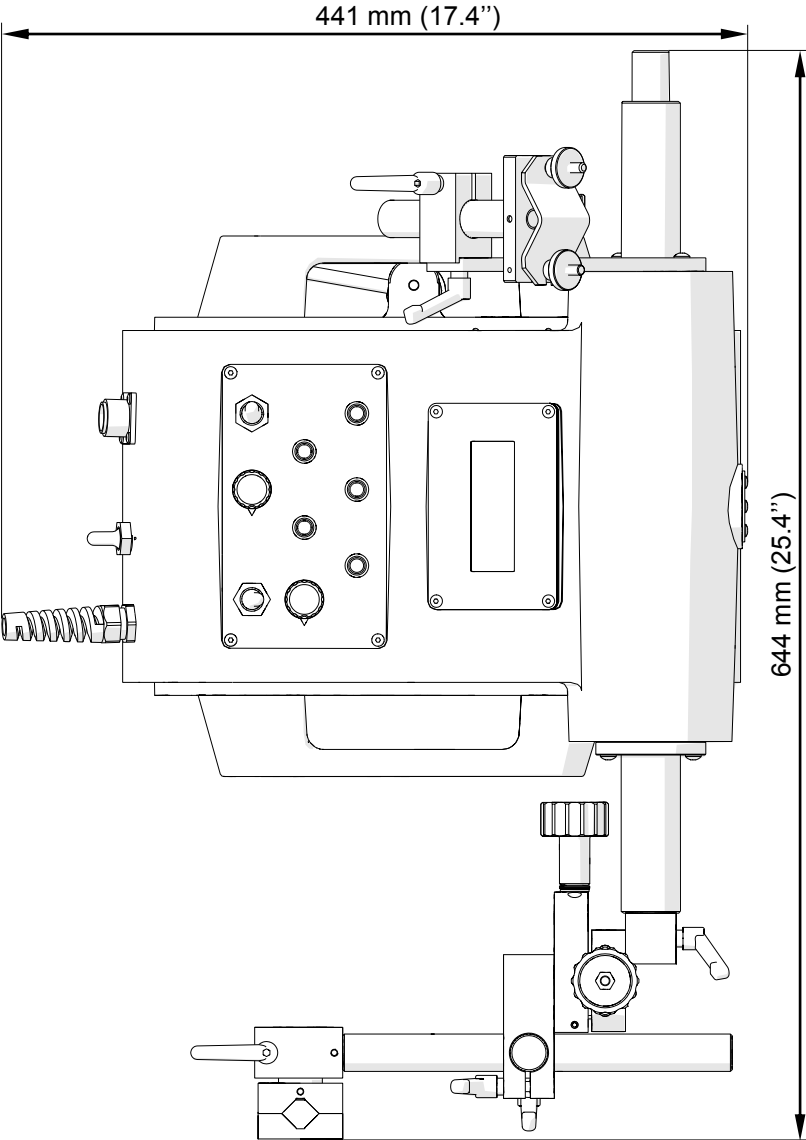
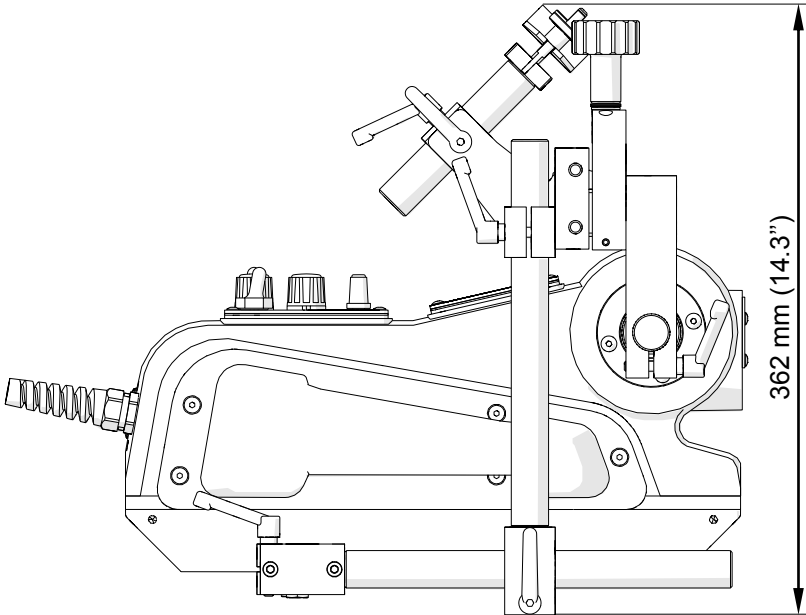
1.1. Application

The Rail Runner welding carriage is a track carriage designed to produce butt and fillet welds with or without oscillation using MIG/MAG torches with the handle diameter of 16–22 mm (0.63–0.87”). The carriage can work in the following welding positions: PA/1F/1G, PB/2F, PC/2G, PD/4F, PE/4G, PF/3G, and PG/3F/3G. It moves on a track fixed using dual magnetic units to ferromagnetic surfaces that are flat or curved with a radius of at least 5 m (16 ft).

Accessories allow, for instance, using a torch with the handle diameter larger than 22 mm (0.87”) and guiding the carriage on a semi-flexible or rigid track. Using a vacuum track fixing system allows the track to be fixed to surfaces that are non-ferromagnetic.

1.2. Technical data

Voltage		1~ 115–230 V, 50–60 Hz
Power		100 W
Welding position (according to EN ISO 6947 and AWS/ASME)	horizontal	PA / 1F / 1G PB / 2F PC / 2G PD / 4F PE / 4G
	vertical	PF / 3G PG / 3F (contact dealer) PG / 3G
Minimum curvature radius of a semi-flexible track		5 m (16 ft)
Torch type		MIG/MAG
Torch diameter		16–22 mm (0.63–0.87”)
Minimum workpiece thickness		5 mm (0.20”)
Horizontal pulling force		350 N (77 lbs)
Vertical pulling force		150 N (33 lbs)
Cross slide adjustment range		0–35 mm (0–1.38”, up-down, left-right)
Horizontal speed		0–120 cm/min (0–47.2 in/min)
Vertical speed		0–110 cm/min (0–43.3 in/min)
Oscillation type		linear
Oscillation path		trapezoid, triangle, straight line
Oscillator arm stroke		0–100 mm (0–3.9”)
Oscillation width		0–50 mm (0–1.9”)
Oscillation speed		0–1500 mm/min (0–59 in/min)
Oscillation delay at center and on ends		0–5 s
Maximum oscillator pulling force		100 N (22 lbs)
Maximum permitted ambient temperature		50°C (122°F)
Maximum permitted ambient humidity		85%
Weight		20 kg (44 lbs)



1.3. Design

The Rail Runner welding carriage consists of a chassis, a drive system, a controller, an oscillator, a cross slide, two clamping blocks, a long rod, a cable anchor, and a torch holder. A cam mechanism enables the carriage to be installed on a track, onto which dual magnetic units may be attached to allow the track to be fixed to the surface.

The drive system incorporates a gear-motor that drives a gear wheel cooperating with the gear rack of the track. The oscillator consisting of a gear-motor and an arm with a gear rack performs linear oscillation, and the cross slide allows precise control of the torch holder position in both the horizontal and vertical axis. Additionally, connecting the arc ignition cable will enable the carriage to ignite an arc when selecting a travel direction.

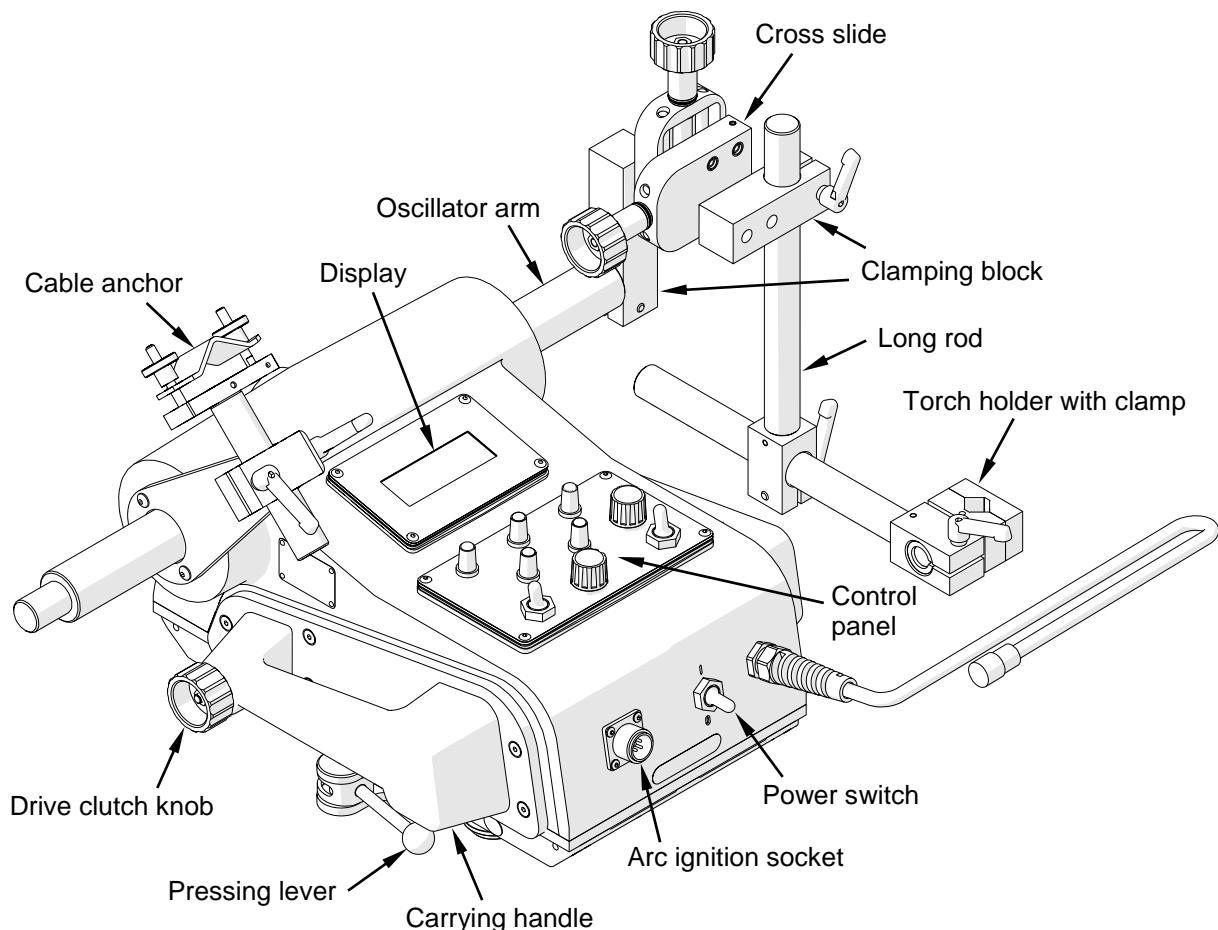


Fig. 1. View of the Rail Runner

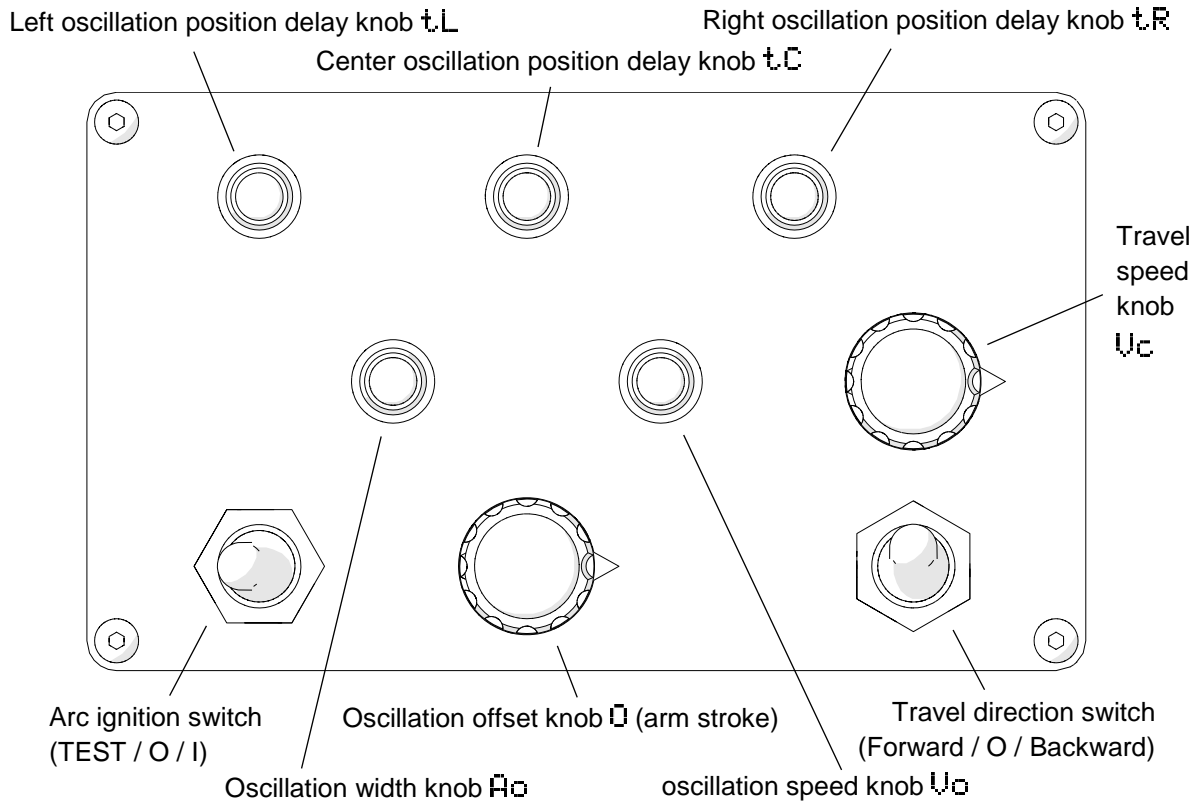


Fig. 2. View of the control panel

1.4. Equipment included

The Rail Runner is supplied including the following elements.

Carriage	1 unit
Metal box	1 unit
Cross slide	1 unit
Two clamping blocks with a set of screws	1 unit
Long rod	1 unit
Short rod torch holder with clip	1 unit
Cable anchor	1 unit
3 m (10 ft) power cord	1 unit
6.5 m (21 ft) arc ignition cable	1 unit
3 mm hex wrench	1 unit
4 mm hex wrench	1 unit
Operator's Manual	1 unit

2. SAFETY PRECAUTIONS

1. Before beginning, read this Operator's Manual and complete proper occupational safety and health training.
2. Use the carriage only in applications specified in this Operator's Manual.
3. The carriage must be complete and all parts must be genuine and fully operational.
4. The specifications of the power source must conform to those specified on the rating plate.
5. Connect the carriage into a properly grounded power source.
6. Never carry the carriage by the cords or arc ignition cable and never pull them as this may damage them and result in electric shock.
7. Untrained bystanders must not be present near the carriage.
8. Before beginning, make sure that the correct is the condition of the carriage, power source, cords, arc ignition cable, plugs, control panel, guiding rollers, and gear wheel.
9. Keep the carriage dry. Exposure to rain, snow, or frost is prohibited.
10. Keep the work area well lit, clean, and free of obstacles.
11. Never use near flammable liquids or gases, or in explosive environments.
12. Transport and position the carriage using the carrying handles.
13. Install the carriage only on the supplied track.
14. Make sure that the gear wheel and guiding rollers are clean and not damaged.
15. Plug the cords and arc ignition cable into sockets only when the power switch is set to the position 'O'.
16. Keep the sockets clean. Do not use compressed air for cleaning.
17. Install only MIG/MAG torches with the handle diameter corresponding to the torch holder in use.
18. Suspend cables to reduce the load of the carriage.
19. Do not bend the semi-flexible track to a radius less than 5 m (16 ft).
20. Use the rigid track only on flat surfaces.
21. When operating at heights, protect the carriage and the track from dropping. To do this, fasten the track to a fixed structure by using chains attached to the leftmost and rightmost dual magnetic units. Protect the carriage by attaching a chain to a carrying handle. The chains must not be loose.
22. Do not stay below the carriage or the track placed at heights.

23. Always use eye protection (helmet, shield, and screen), hearing protection, gloves, and protective clothing during operation. Do not wear loose clothing.
24. Before every use, inspect the carriage to ensure it is not damaged. Check whether any part is cracked or improperly fitted. Make sure to maintain proper conditions that may affect the operation of the carriage.
25. Never try to manually stop the motion of the carriage. To stop, set the travel direction switch to the position 'O'.
26. Maintain only when the carriage is unplugged from the power source.
27. Repair only in a service center appointed by the seller.
28. If the carriage falls from any height, is wet, or has any other damage that could affect the technical state of the carriage, stop the operation and immediately send the carriage to the service center for inspection and repair.
29. Never leave the carriage unattended during operation.
30. Remove from the worksite and store in a secure and dry location when not in use.

3. STARTUP AND OPERATION

3.1. Assembling the track

Position on the workpiece a rail with dual magnetic units. Attach additional rails using the 4 mm hex wrench (1, Fig. 3), and then switch the levers of the magnetic units to the position 'I', which will clamp the track to the surface.

When working in PC/2G welding position, place the track in such a way to direct the teeth of the gear rack downward.

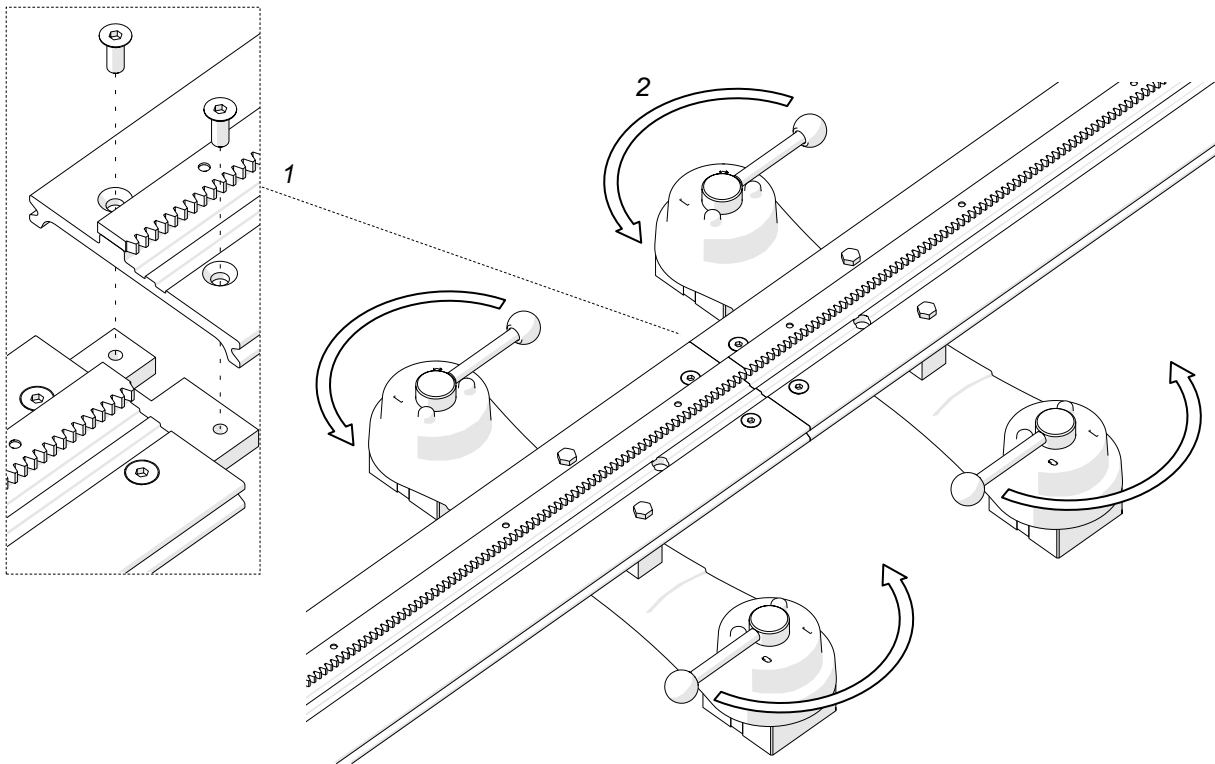


Fig. 3. Interconnecting the rails and clamping the magnetic units to the surface

Before attaching additional rails to a semi-flexible rail placed on a curvature, loosen the screws of the connecting plates (1, Fig. 4) and of the gear racks (2) using the 4 mm hex wrench. Next, attach the rails, clamp them using levers, and then tighten the connecting plates. Place the gear rack adjustment tool into the hole (3), rotate the tool to the left (4) to remove the gap (5) between the gear racks, and then tighten the leftmost screw and the rightmost screw of each gear rack (2).

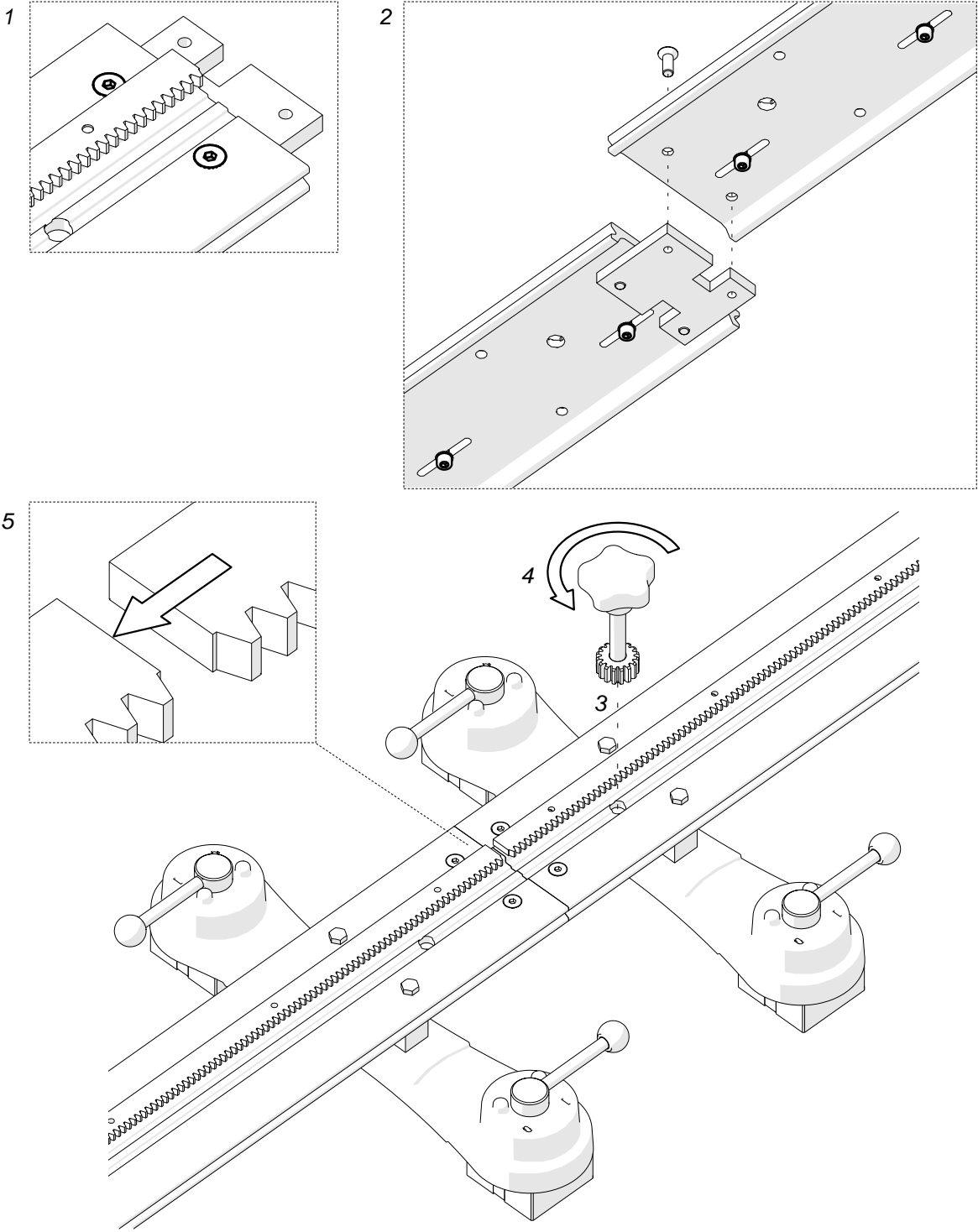


Fig. 4. Removing the gap between the gear racks of a semi-flexible track

3.2. Assembling the holder

Join the clamping blocks to the cross slide as shown in Fig. 5 with four M5x20 screws using the 4 mm hex wrench. The parts shown can be assembled in many ways to form different configurations. However, notice that the oscillator moves in and out during initialization, therefore never position the torch holder and the cross slide too close to the carriage side or to obstacles, to avoid oscillator collision and to allow the control system of the carriage to initialize properly.

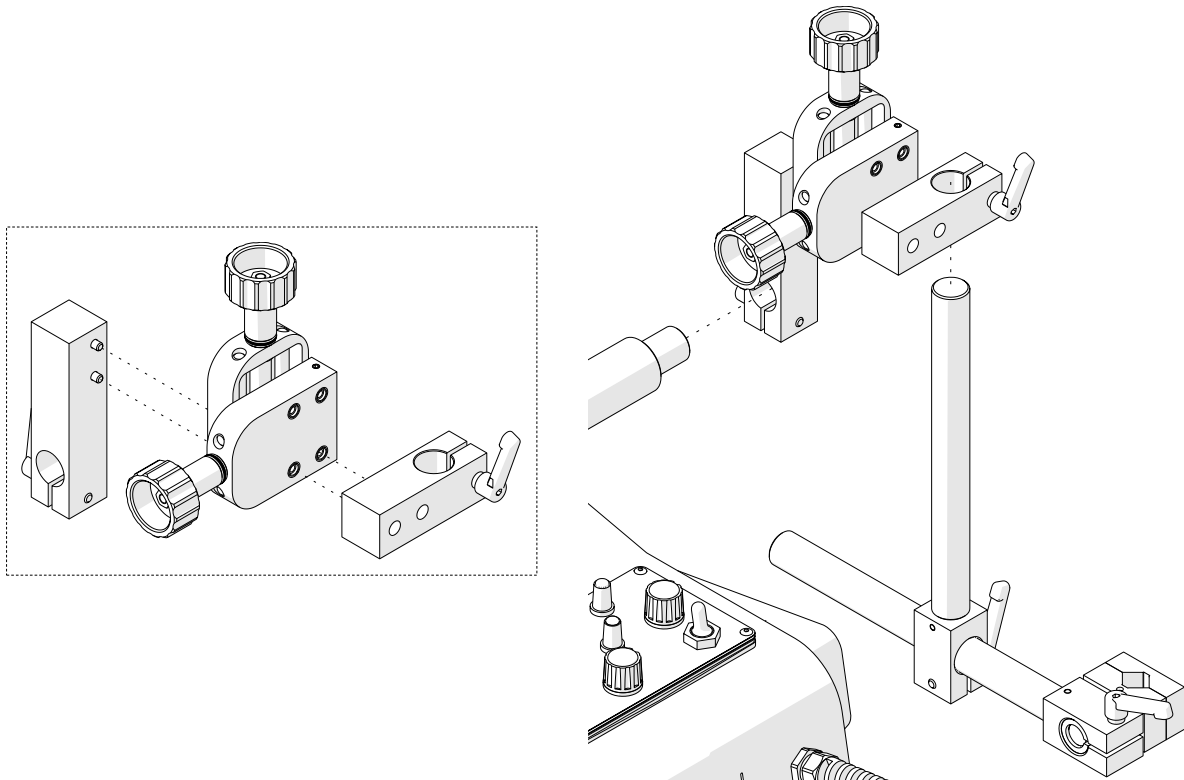


Fig. 5. Sample method of assembling the torch holder

3.3. Positioning

Set the power switch, arc ignition switch, and travel direction switch to the position 'O'. Next, with the pressing lever in the position OFF (1, Fig. 6) loosen the drive clutch knob fully (2), and then set the carriage on the track (3) in such a way to position the back rollers in the groove (4).

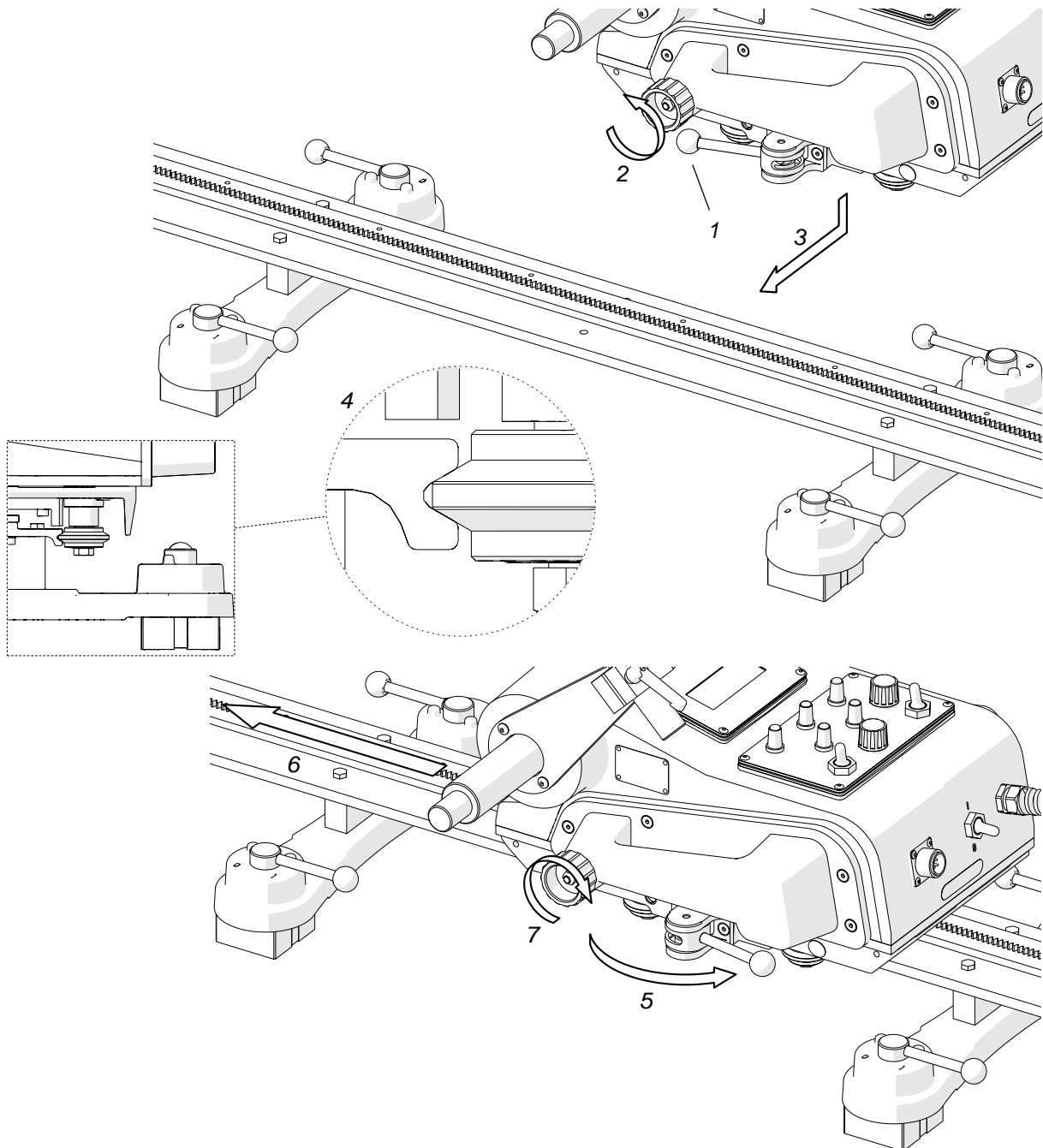


Fig. 6. Positioning the carriage on the track

Set the pressing lever to the position ON (5) to press the front rollers to the track. Slide the carriage to the required position (6), and fully tighten the drive clutch knob (7) to engage the gear wheel of the carriage with the gear rack of the track. Then, loosen the knob by 1/4 rotation.

When operating at heights, protect the carriage and the track from dropping. To do this, fasten the track to a fixed structure by using chains attached to the leftmost and rightmost dual magnetic units. Protect the carriage by attaching a chain to a carrying handle. The chains must not be loose (chains are not included).

Plug the power cord into the power source, and then insert the torch into the torch holder and secure with the knob. Next, insert the torch cable into the cable anchor, secure with knobs, and then fix the anchor in the required position using levers.

3.4. Connecting to welding circuits

The carriage can control two torches using the arc ignition cable plugged into the arc ignition socket. To do this, connect any blue-jacketed wire to any terminal of the welding circuit, and then connect the second blue-jacketed wire to the second terminal of the same circuit, according to the diagram shown in Fig. 7. To control the second torch, connect the green-jacketed wires to the terminals of the second welding circuit.

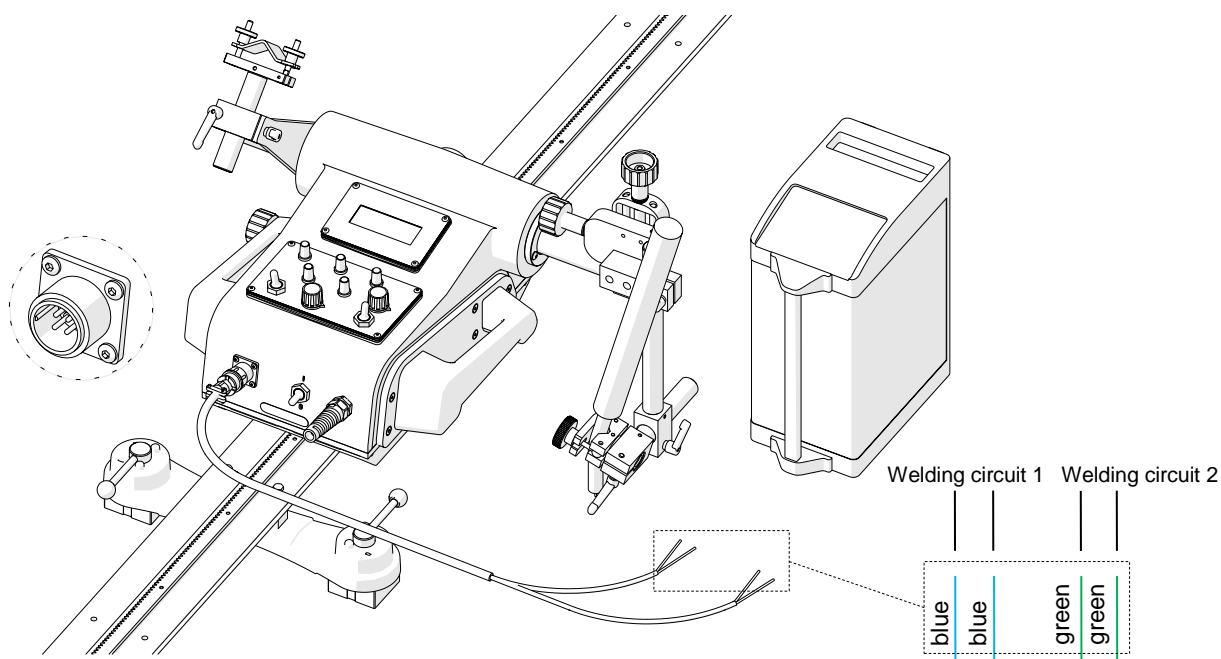



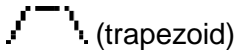

Fig. 7. Connecting the arc ignition cable to welding circuits

To make sure that the arc ignition cable is connected correctly, turn on the power of the carriage, and set the arc ignition switch to the position TEST, which should enable the arc for a while.

3.5. Operating

After setting the power switch to the position 'I' the carriage will turn on and the initialization of the control system will start. If the message ERROR #1 appears on the display, set the travel direction switch to the position 'O'. Then, use the knobs located on the control panel to set the required process parameters (Tab. 1). Right rotation increases the value of the parameter, and left rotation decreases the value.

tL:5.0	tC:5.0	tR:5.0
Ao: 2.9	Vo: 100	
O: -50	Uc: 12	
		CM

Parameter	Value	Description
tL	0–5 s [step: 0.1]	Delay in left position of the oscillation.
tC	0–5 s [step: 0.1]	Delay in center position of the oscillation.
tR	0–5 s [step: 0.1]	Delay in right position of the oscillation.
Ao	0–5 cm 0–2 in [step: 0.1 cm/0.02 in]	Oscillation width. Set 0 to weld without oscillation.
Vo	0–100% [step: 1%]	Relative oscillation speed.
O	–100% to 100% [step 1%]	Oscillation offset. If Ao exceeds the value of the parameter O, the parameter O will be recalculated automatically.
Uc	0 5–140 cm/min 2–55 in/min	Carriage speed. Setting to 0 during operation will stop the main motor, and the oscillator will enter into the test mode to allow for proper selection of the width and speed of the oscillation (Ao, Vo).
Welding path	 (trapezoid)  (straight line)	Trapezoid is default. To weld according to the triangular pattern, set all delay times (tL, tC, tR) to 0. To weld along a straight line, set Ao to 0.
Unit	CM in	Unit set by the jumper cap (Fig. 9).

Tab. 1. Configuration parameters

If the carriage is to control the torch, set the arc ignition switch to the position 'I'.



If the arc ignition switch is set to the position 'I', the torch will start welding immediately after selecting a travel direction.

Use the travel direction switch to select a direction of motion, which will start the movement of the carriage according to the parameters shown on the display. It is possible to adjust the parameters at any time by rotating the knobs.

The produced welds form a shape similar to that shown in Fig. 8.

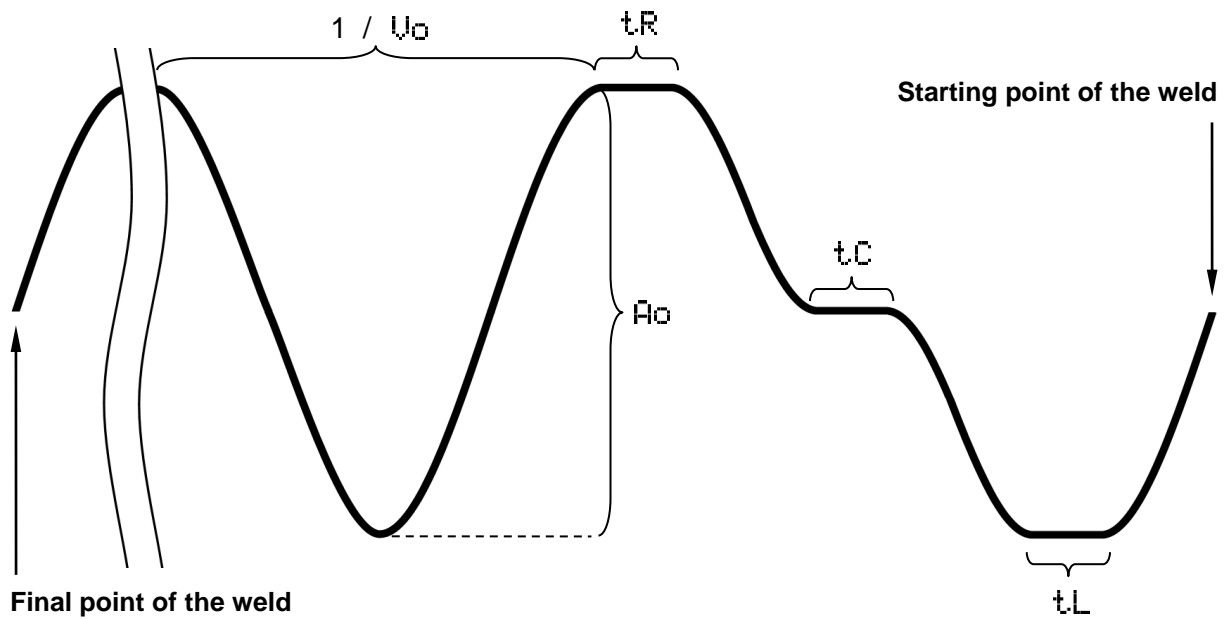


Fig. 8. Graphic description of the oscillation parameters from Tab. 1

To stop the motion, set the travel direction switch to the position 'O', which will also save the values shown on the display.

After the work is finished, turn off the power using the power switch and unplug the carriage from the power source.

3.6. Changing the unit of measure

To change the unit of measure from centimeters to inches, or vice versa, unplug the power cord from the power source and follow the steps shown in Fig. 9.

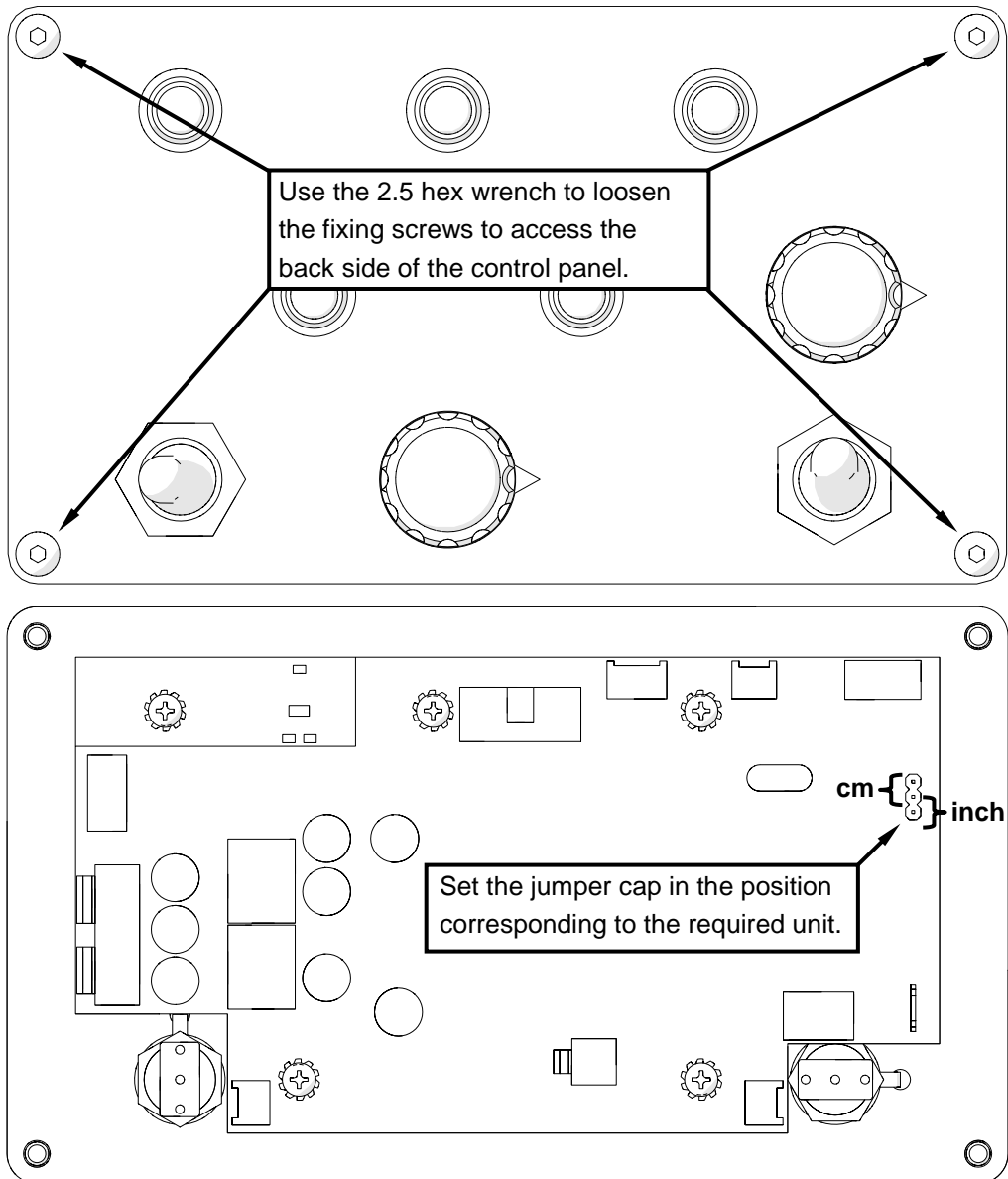


Fig. 9. Changing the unit of measure

With the jumper cap connecting the top and center pin, the measurement system will be metric after the carriage is restarted. With the jumper cap connecting the center and bottom pin, the system will be imperial.

The 2.5 mm hex wrench needed to unscrew the control panel is not included in standard equipment.

3.7. Troubleshooting

Problem	Cause	Solution
ERROR #1	Travel direction switch not in the position 'O' when powering.	Set the travel direction switch to the position 'O'.
ERROR #2	Malfunction of the travel direction switch wire set or the controller.	Contact service center for inspection and repair.
ERROR #3	Power not supplied to the main motor.	Contact service center for inspection and repair.
ERROR #4	Oscillator movement blocked or power not supplied to the oscillator motor.	Remove obstacles blocking the movement of the oscillator. If this message still appears, contact service center for inspection and repair.
ERROR #5	Malfunction of the oscillator motor encoder or the controller.	Contact service center for inspection and repair.
ERROR #6	Malfunction of the main motor encoder or the controller.	Contact service center for inspection and repair.
ERROR #7	Malfunction of the encoder board.	Contact service center for inspection and repair.

4. MAINTENANCE

Daily:

1. Clean the gear wheel of the carriage chassis and the gear rack of each rail.
2. Clean the guiding rollers and make sure that they rotate freely.
3. Clean the torch nozzle. Replace if damaged.

Monthly:

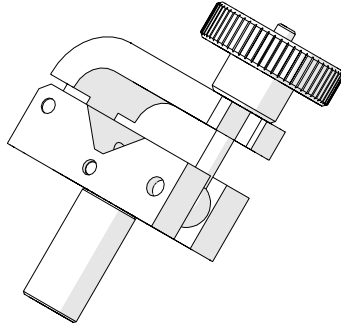
1. Check whether the knobs and the switches operate as intended. Replace if loose or damaged.
2. Inspect cables, cords, and hoses. Replace if damaged.
3. Tighten screws if loose.

5. ACCESSORIES

5.1. 16–22 mm torch clamp

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87”).

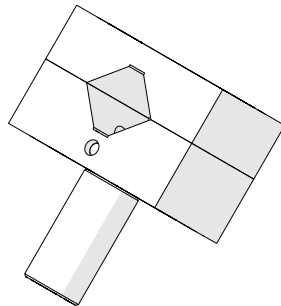
Part number:
ZRZ-0466-04-01-00-0



5.2. 16–22 mm torch clip

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87”). Tighten the torch in the clip using the 4 mm hex wrench.

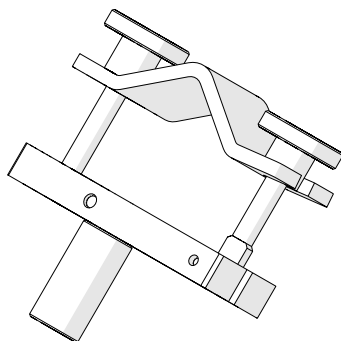
Part number:
ZCS-0476-06-01-00-0



5.3. 22–35 mm torch clamp

Allows using a torch with the handle diameter of 22–35 mm (0.87–1.38”).

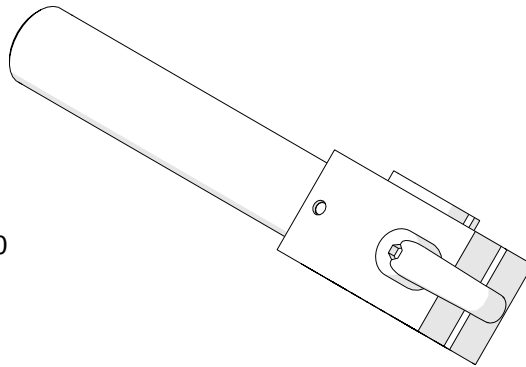
Part number:
ZRZ-0466-19-00-00-0



5.4. Short rod

Provides a 120 mm (4.72") reach.

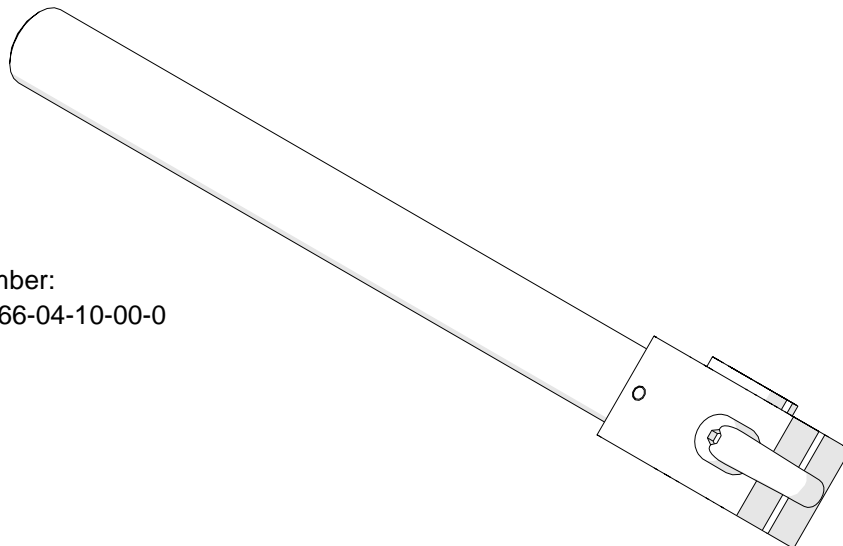
Part number:
WLK-0476-20-01-00-0



5.5. Long rod

Provides a 240 mm (9.45") reach.

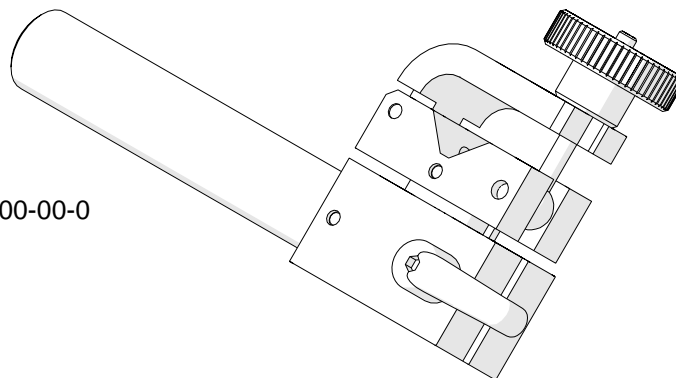
Part number:
WLK-0466-04-10-00-0



5.6. Short rod torch holder with clamp

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87").

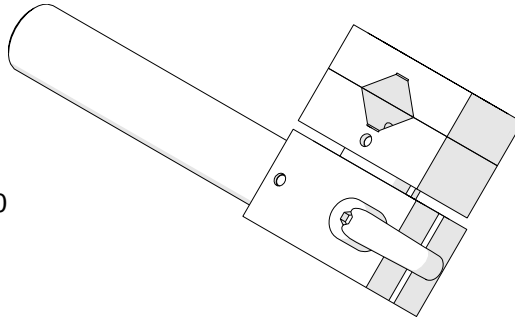
Part number:
UCW-0476-20-00-00-0



5.7. Short rod torch holder with clip

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87"). Tighten the torch in the clip using the 4 mm hex wrench.

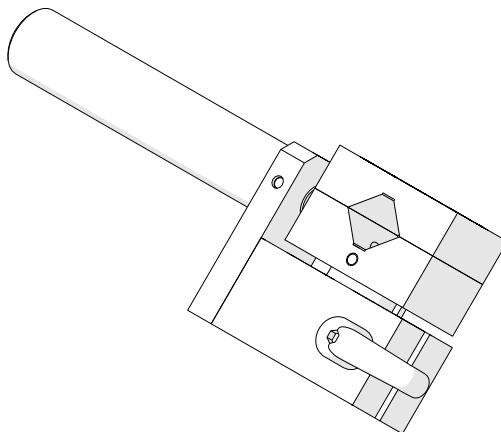
Part number:
UCW-0476-27-00-00-0



5.8. Short rod low torch holder with clip

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87"). Tighten the torch in the clip using the 4 mm hex wrench.

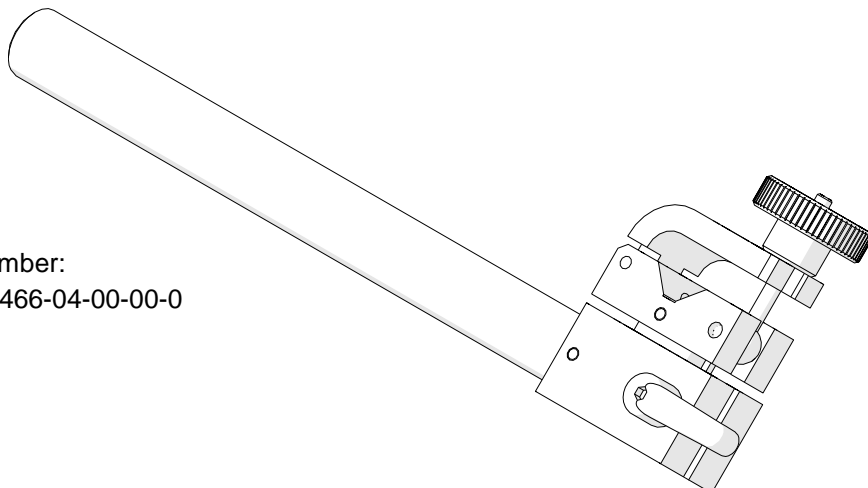
Part number:
UCW-0476-06-00-00-0



5.9. Long rod torch holder with clamp

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87").

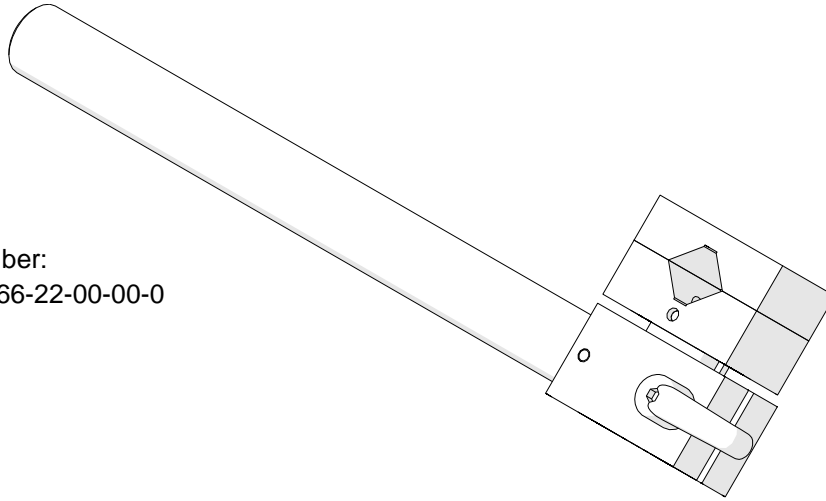
Part number:
UCW-0466-04-00-00-0



5.10. Long rod torch holder with clip

Allows using a torch with the handle diameter of 16–22 mm (0.63–0.87"). Tighten the torch in the clip using the 4 mm hex wrench.

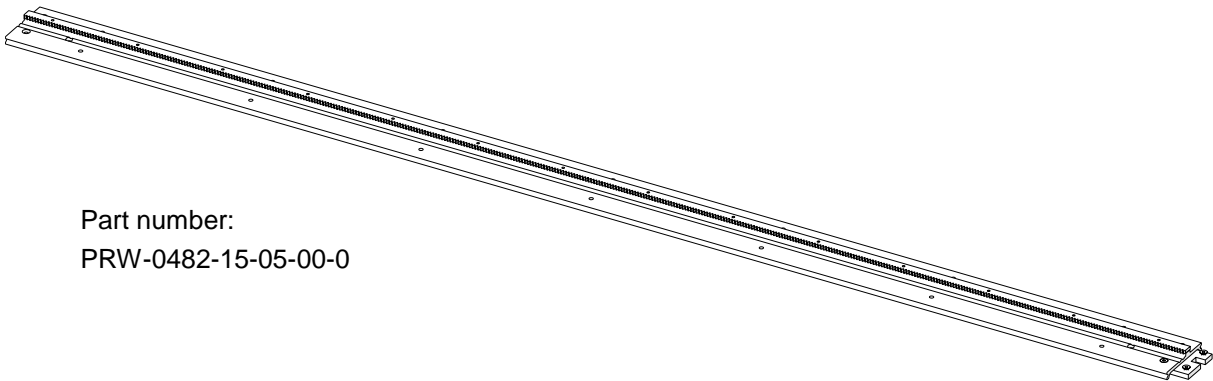
Part number:
UCW-0466-22-00-00-0



5.11. Semi-flexible track

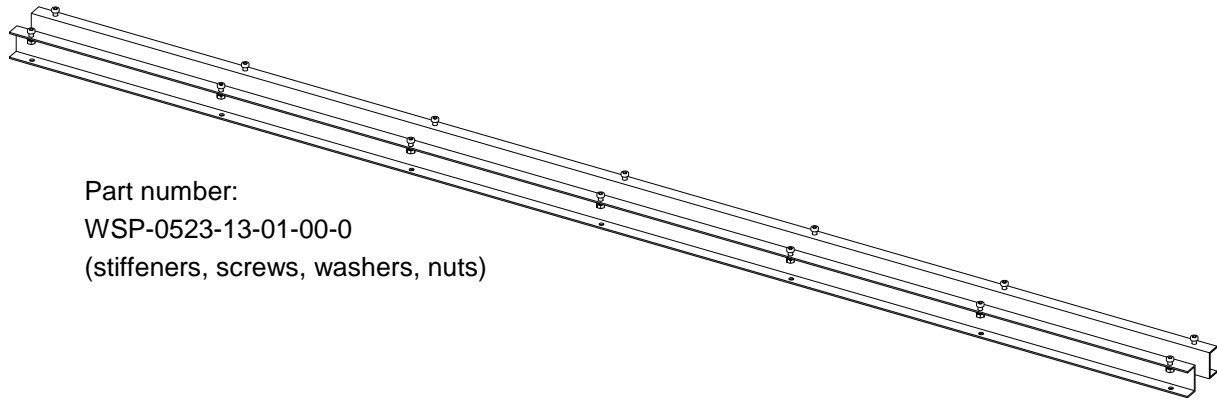
Allows guiding the carriage along a curvature. The length of a single rail is 2 m (6.5 ft).

Part number:
PRW-0482-15-05-00-0

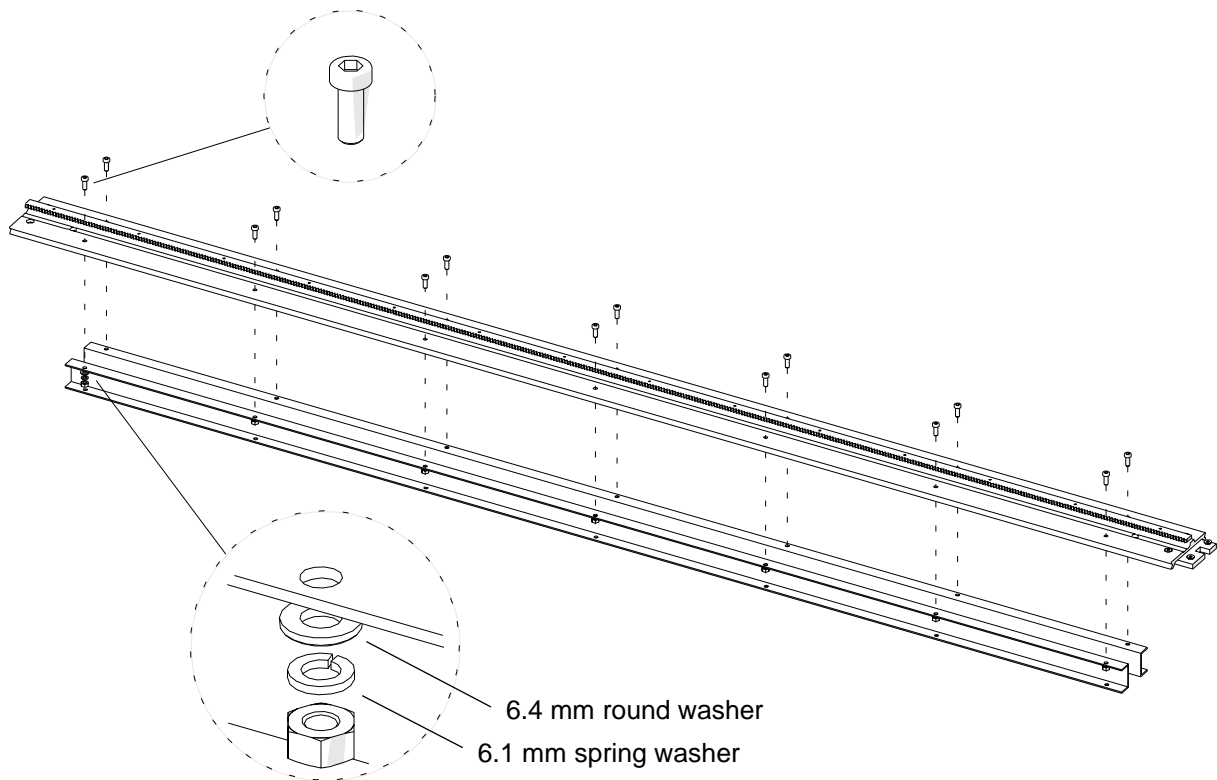


5.12. Rigid track

Allows guiding the carriage along a straight line. To assemble the rigid rail, attach stiffeners to a semi-flexible rail with M6x16 screws and M6 nuts using the 5 mm hex wrench and 10 mm flat wrench. Place the washers between the nuts and the stiffeners in the order shown in the figure below.

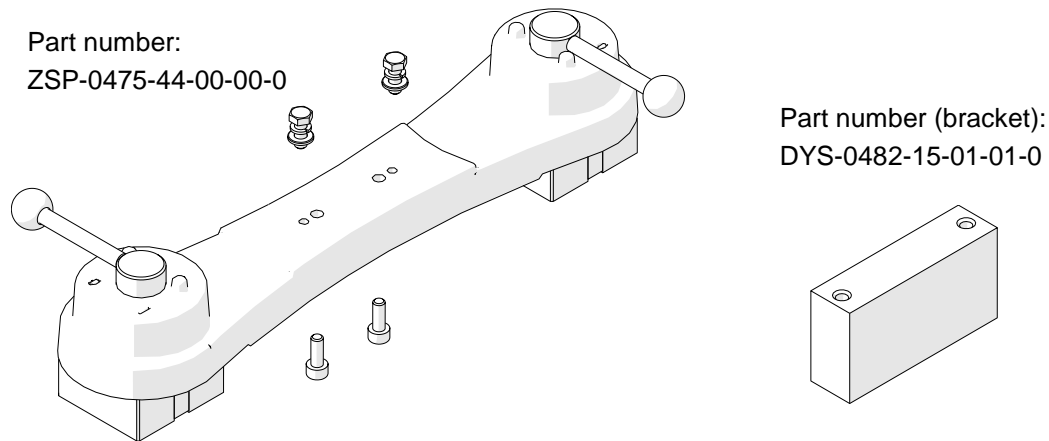


Part number:
WSP-0523-13-01-00-0
(stiffeners, screws, washers, nuts)



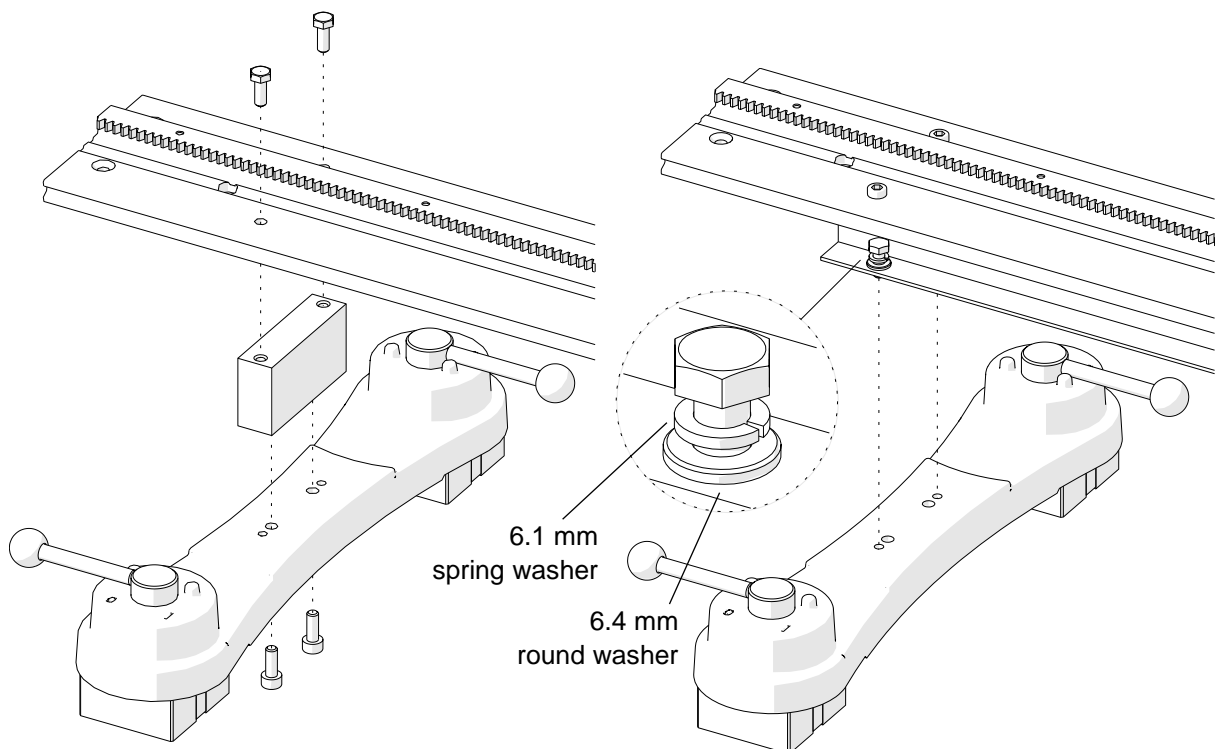
5.13. Dual magnetic unit

Allows clamping a semi-flexible track (using a bracket) or rigid track to ferromagnetic surfaces. The holding force on a 5 mm (0.2”) thick surface is 1200 N (260 lbs) up to a temperature of 100°C (212°F). At 180°C (356°F) the force decreases to 720 N (160 lbs).



To attach the dual magnetic unit to a semi-flexible rail, join the unit to the bracket with two M6x16 socket head cap screws using the 5 mm hex wrench. Then, attach the bracket to the rail with two M6x16 hex head cap screws using the 10 mm flat wrench (left figure).

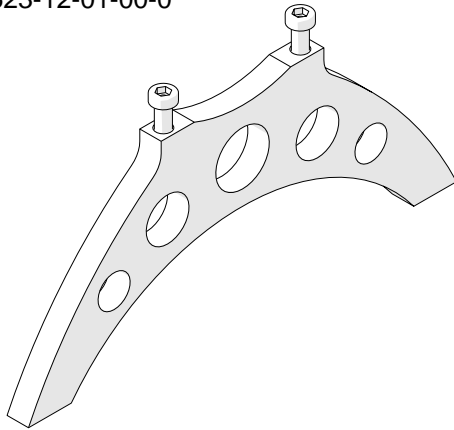
To attach the dual magnetic unit to a rigid rail, join the unit to the stiffeners with two M6x16 hex head cap screws using the 10 mm flat wrench. Place the washers under the screws in the order shown in the right figure.



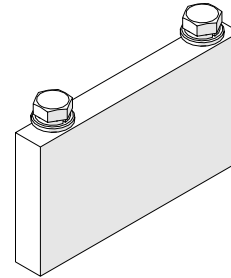
5.14. Track supports

Allow supporting a semi-flexible or rigid track and can be used instead of some dual magnetic units.

Part number (for semi-flexible track):
WSP-0523-12-01-00-0

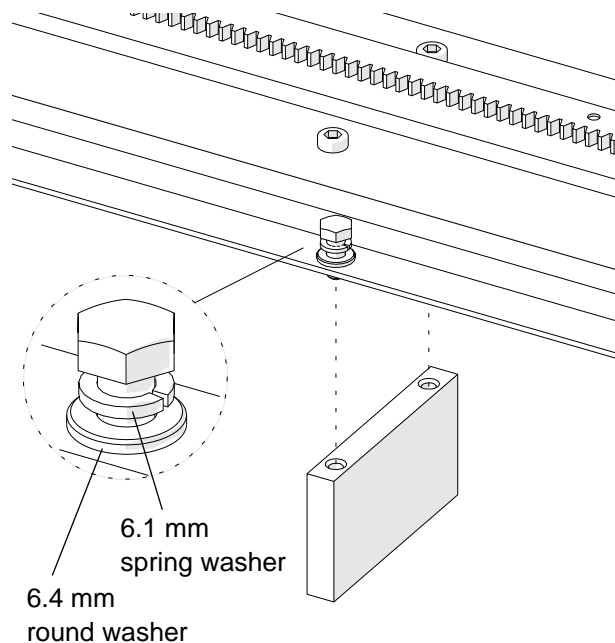
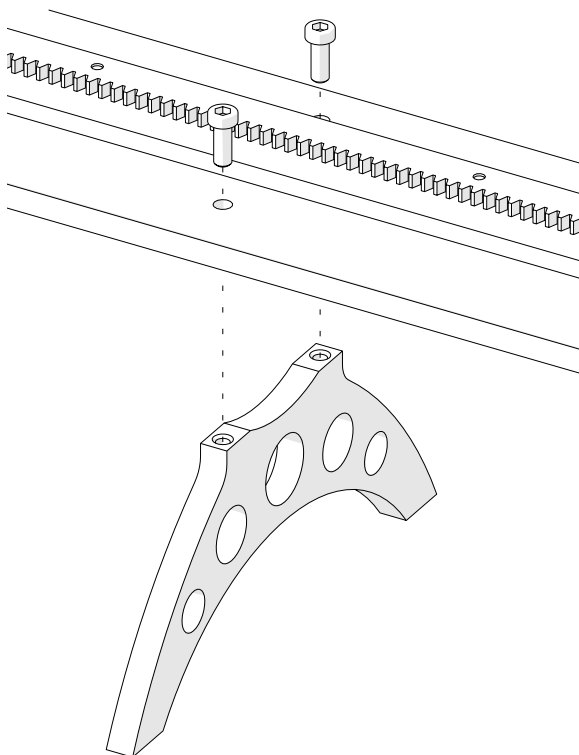


Part number (for rigid track):
WSP-0523-13-02-00-0



Attach the support for semi-flexible track with two M6x16 socket head cap screws using the 5 mm hex wrench (left figure).

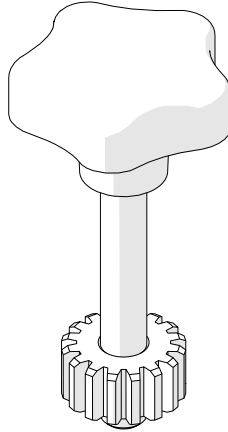
Attach the support for rigid track to the stiffeners with two M6x16 hex head cap screws using the 10 mm flat wrench. Place the washers under the screws in the order shown in the right figure.



5.15. Gear rack adjustment tool

Allows removing the clearance between the gear racks of two semi-flexible rails placed on a curvature.

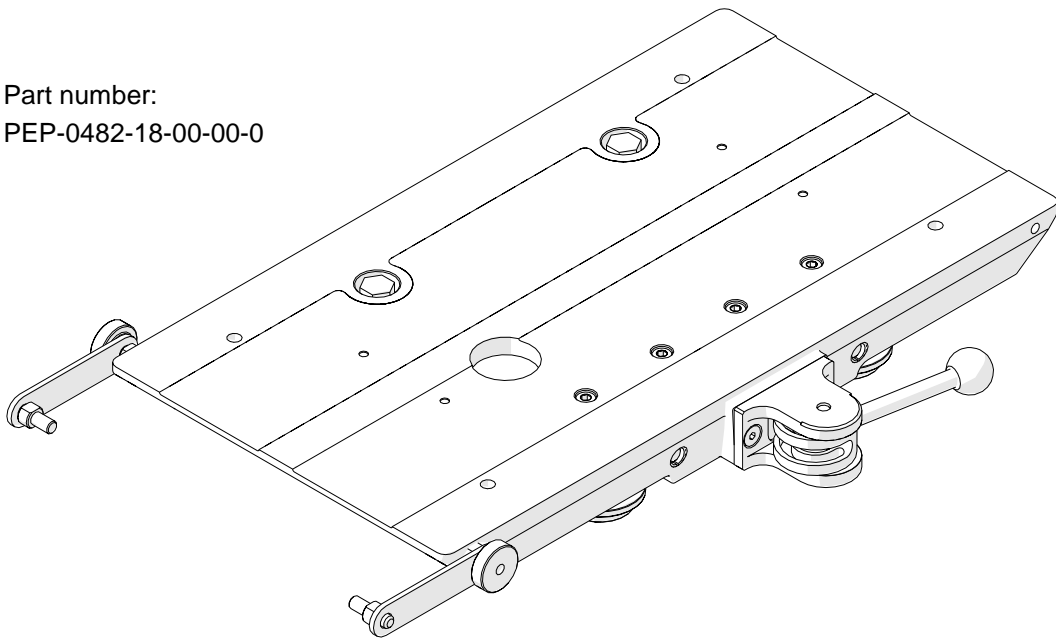
Part number:
PKT-0341-13-00-00-0



5.16. Transport attachment

Allows transporting the wire feeder.

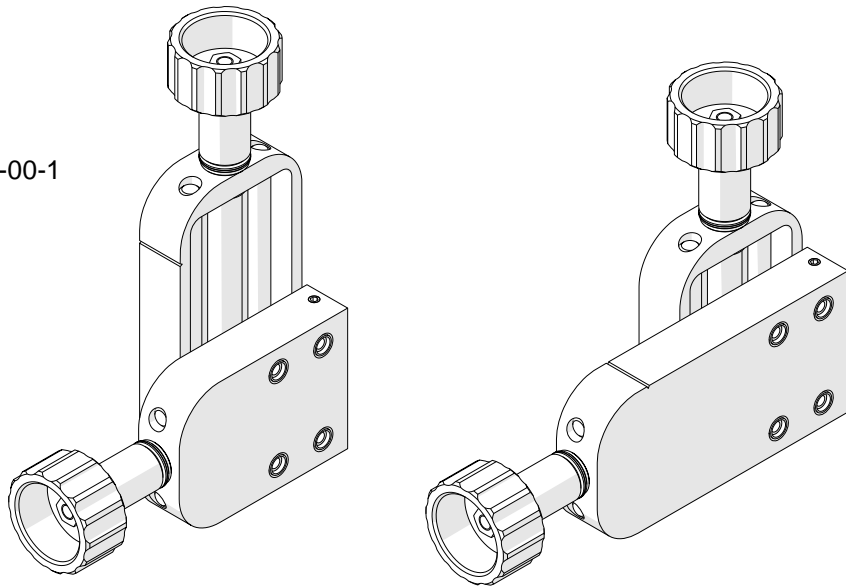
Part number:
PEP-0482-18-00-00-0



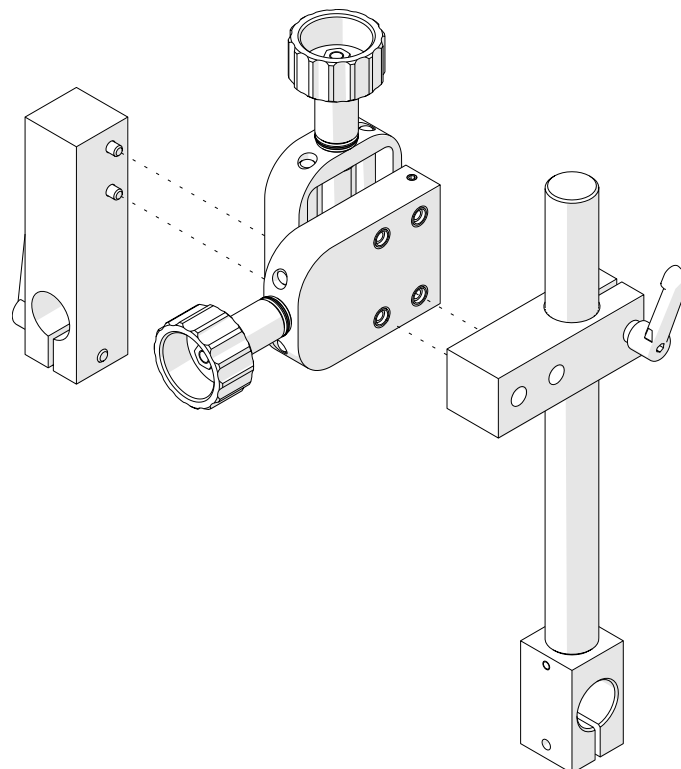
5.17. 76 mm cross slide

Extends either up-down or left-right adjustment range from 0–35 mm (0–1.38”) to 0–76 mm (0–3”).

Part number:
ZSP-0466-46-00-00-1

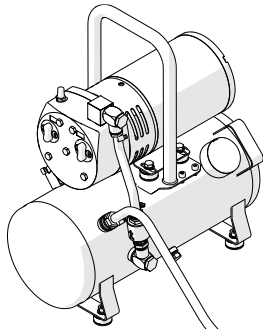


Install in place of the standard cross slide after unscrewing four screws using the 4 mm hex wrench.



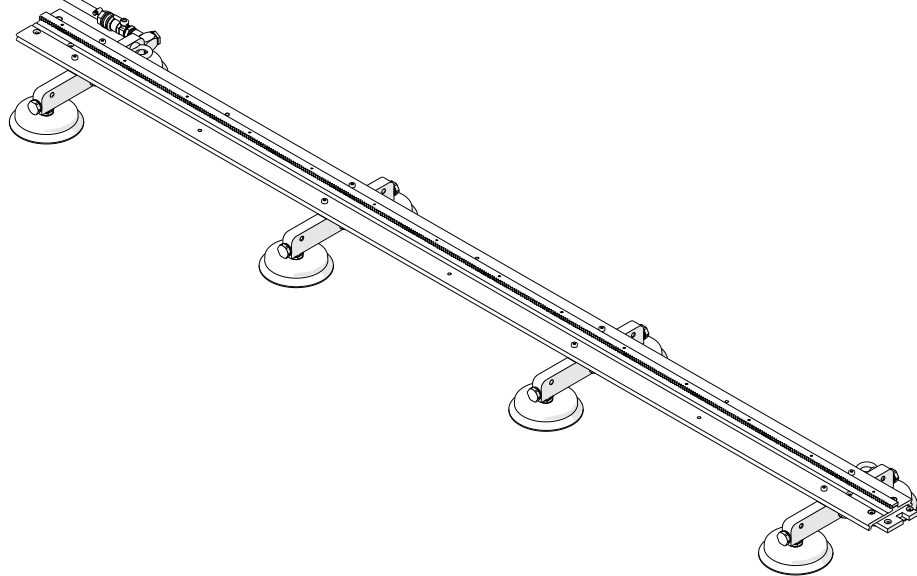
5.18. Vacuum track fixing system

Dedicated to fixing the track to non-ferromagnetic surfaces.

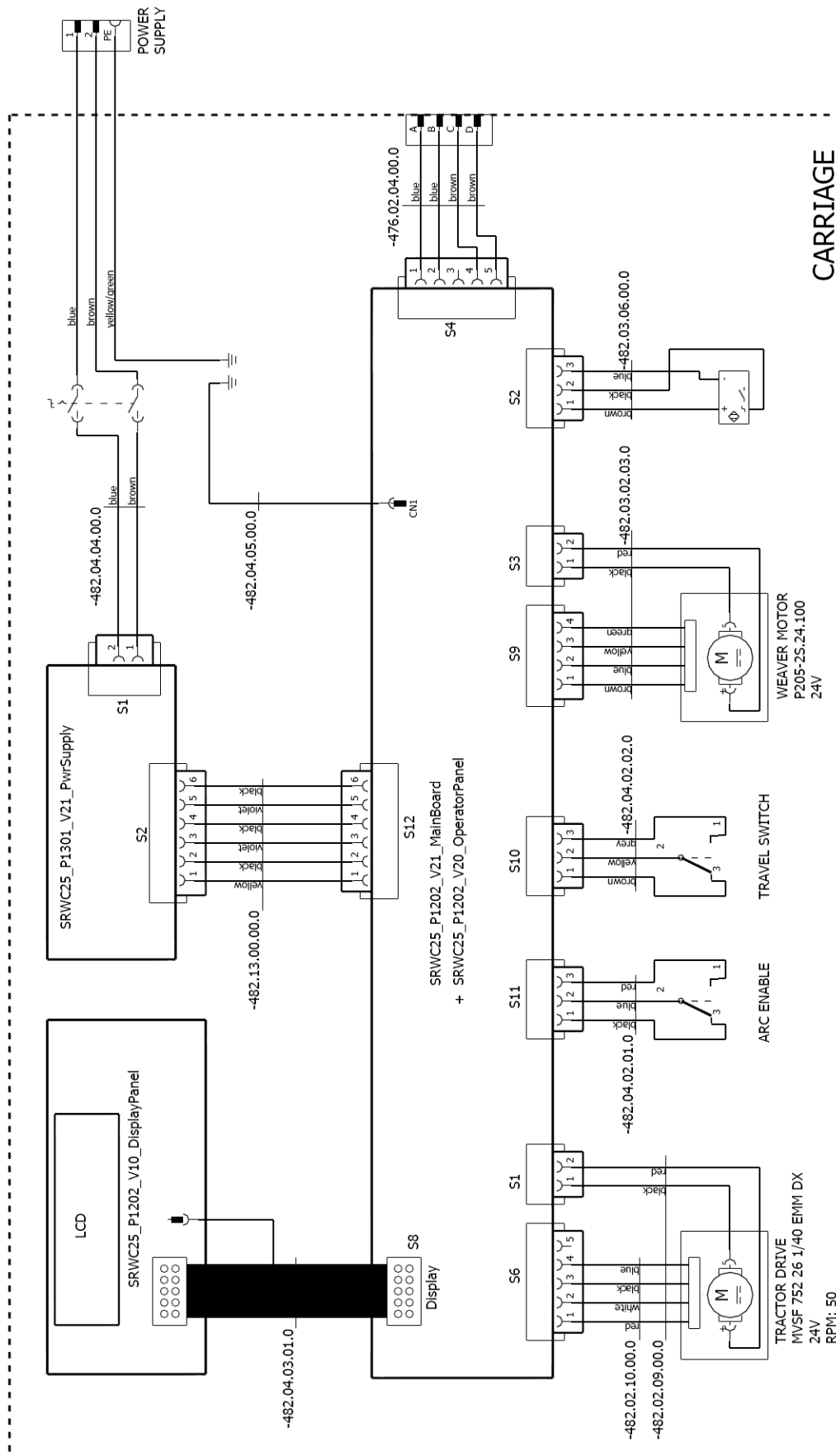


Part number (vacuum pump with safety reservoir):
AGR-0541-24-10-00-0 (115 V US)
AGR-0541-24-20-00-0 (230 V US)

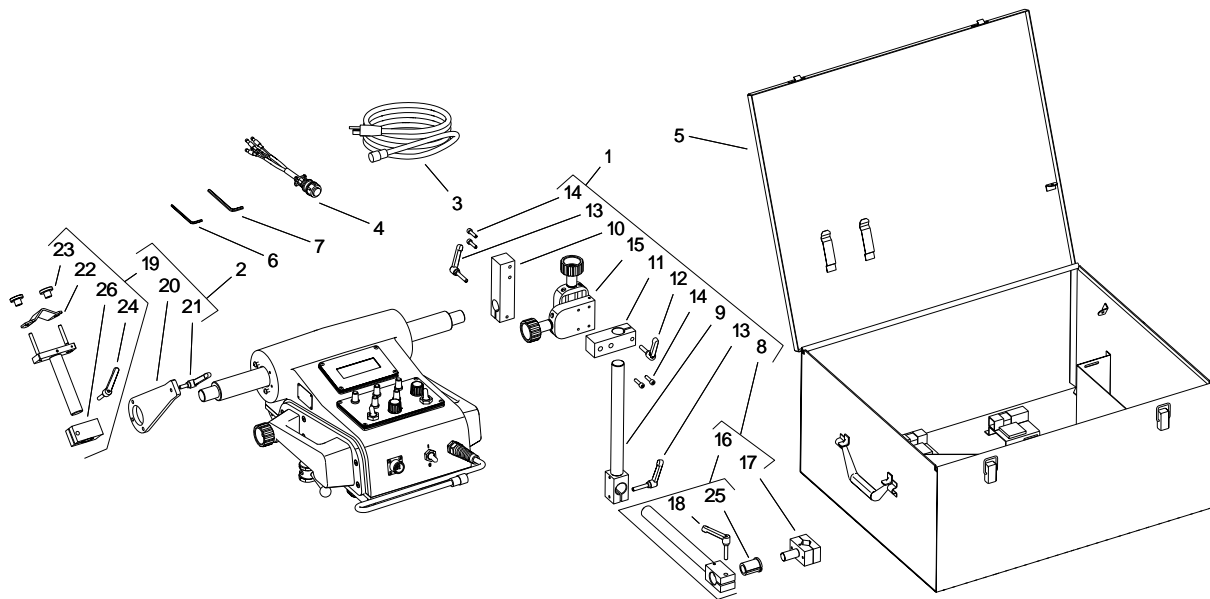
Information about the other elements of the system
are included in a separate manual.



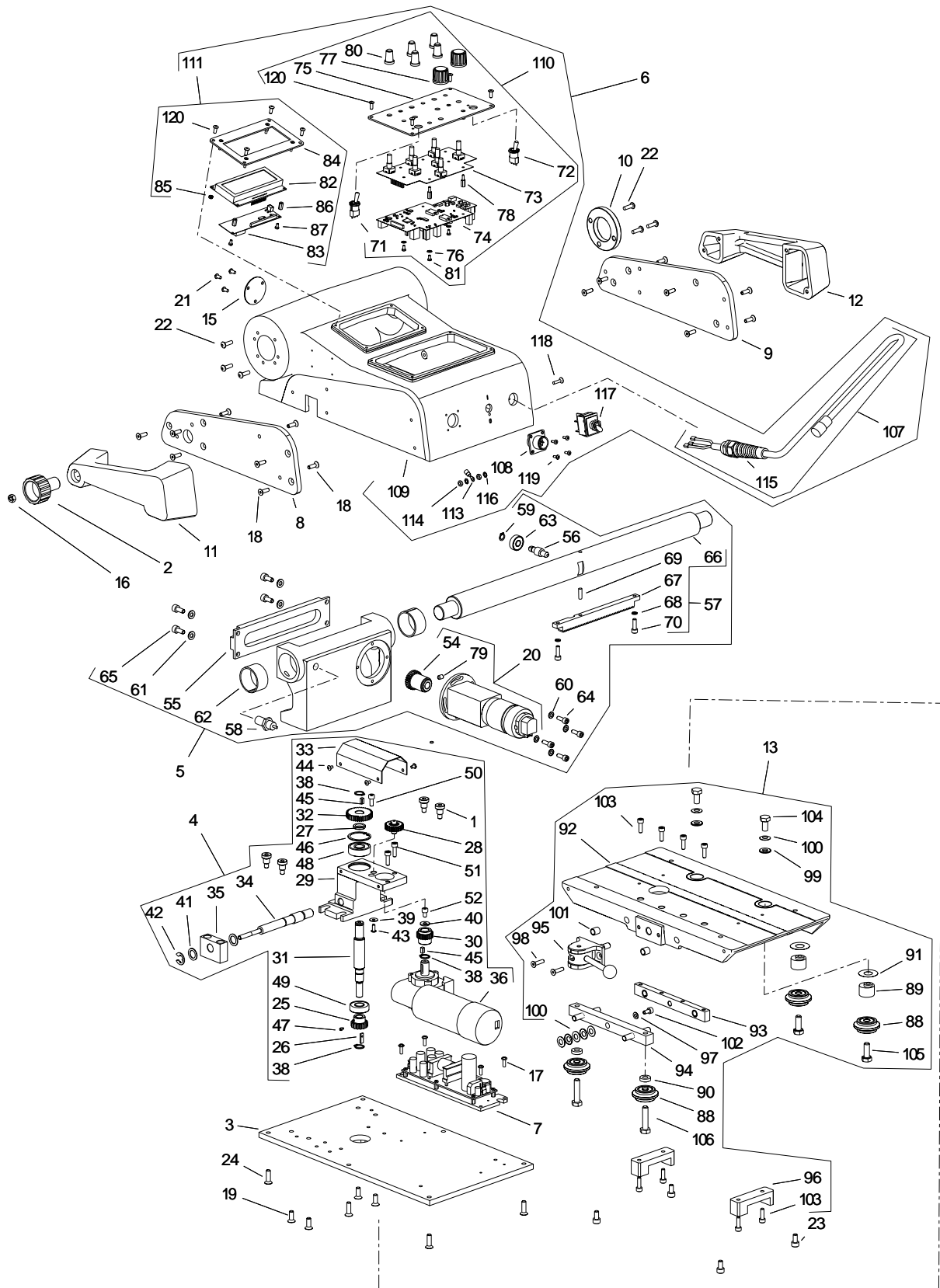
6. WIRING DIAGRAM



7. EXPLODED DRAWINGS AND PARTS LIST



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	PRW-0482-11-00-00-0	TORCH GUIDE ASSY	1
2	UCW-0482-17-00-00-0	CABLE ANCHOR ASSY WITH ARM	1
3	PWD-0466-18-00-00-0	POWER CORD 230V (CEE)	1
3	PWD-0466-16-00-00-0	POWER CORD 120V (USA)	1
4	KBL-0466-17-00-00-0	START-STOP ARC IGNITION CABLE 6.5 M (20 FT)	1
5	SKR-0482-20-00-00-0	METAL BOX	1
6	KLC-000006	3 MM HEX WRENCH	1
7	KLC-000007	4 MM HEX WRENCH	1
8	UCW-0466-22-00-00-0	LONG ROD TORCH HOLDER WITH CLIP ASSY	1
9	WLK-0482-04-10-00-0	LONG ROD WITHOUT SLEEVE ASSY	1
10	KST-0482-11-01-00-0	CLAMPING BLOCK I	1
11	KST-0482-11-02-00-0	CLAMPING BLOCK II	1
12	RKJ-000043	HANDLEVER M6-25	1
13	RKJ-000036	HANDLEVER M6-32	2
14	SRB-000086	HEX SOCKET HEAD CAP SCREW M5x20	4
15	ZSP-0466-03-00-00-1	CROSS SLIDE ASSY	1
16	WLK-0466-04-10-00-0	LONG ROD ASSY	1
17	ZCS-0476-06-01-00-0	TORCH CLIP ASSY	1
18	RKJ-000036	HANDLEVER M6-32	1
19	UCW-0476-07-00-00-0	CABLE ANCHOR ASSY	1
20	RAM-0482-17-01-00-0	CABLE ANCHOR ARM	1
21	RKJ-000006	HANDLEVER M6-16	1
22	TRM-0219-06-16-00-0	CLAMP PLATE I	1
23	NKR-000121	KNURLED NUT M6	2
24	RKJ-000036	HANDLEVER M6-32	1
25	TLJ-0419-04-02-03-0	INSULATION SLEEVE	1
26	KST-0476-07-01-00-0	ANCHOR CLAMPING BLOCK	1



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	SRB-0341-02-10-00-0	MOUNTING SCREW	4
2	PKT-0466-03-01-03-0	KNOB	1
3	PLY-0482-01-00-00-0	CARRIAGE PLATE	1
4	ZSP-0482-02-00-00-0	MOTOR ASSY	1
5	ZSP-0482-03-00-00-0	OSCILLATOR	1
6	KRP-0482-04-00-00-2	BODY ASSY	1
7	ZSP-0482-05-00-00-0	DRIVE POWER SUPPLY 120-230V	1
8	PLY-0482-06-00-00-0	LEFT SIDE PLATE	1
9	PLY-0482-07-00-00-0	RIGHT SIDE PLATE	1
10	PRS-0482-08-00-00-0	MASKING RING	1
11	RKJ-0482-09-00-00-1	LEFT HANDLE	1
12	RKJ-0482-10-00-00-1	RIGHT HANDLE	1
13	PRW-0482-12-00-00-0	CHASSIS ASSY	1
14*	WZK-0482-13-00-00-0	POWER SUPPLY-CONTROL PANEL WIRE SET	1
15	ZLP-0482-16-00-00-0	PLUG	1
16	NKR-000017	HEX NUT M6	1
17	WKR-000185	CROSS RECESSED PAN HEAD SCREW M4x12	4
18	WKR-000136	HEX SOCKET COUNTERSUNK HEAD SCREW M5x16	18
19	WKR-000142	HEX SOCKET COUNTERSUNK HEAD SCREW M6x16	4
20	MTR-0482-03-02-00-0	GEAR MOTOR ASSY	1
21	WKR-000091	HEX SOCKET BUTTON HEAD SCREW M4x8	3
22	WKR-000098	HEX SOCKET BUTTON HEAD SCREW M5x16	7
23	SRB-000103	HEX SOCKET HEAD CAP SCREW M6x12	4
24	WKR-000143	HEX SOCKET COUNTERSUNK HEAD SCREW M6x20	6
25	KOL-0341-02-01-09-0	DRIVE GEAR z14	1
26	WPS-0341-02-01-10-0	KEY	1
27	PDK-0233-01-21-00-0	DISTANCE WASHER 12.1x19x3	1
28	KOL-0456-01-05-00-0	IDLE GEAR WHEEL ASSY z25	1
29	KRP-0482-02-01-00-1	MOTOR BODY	1
30	KOL-0482-02-02-00-0	GEAR z22	1
31	WLK-0482-02-03-00-0	DRIVE GEAR SHAFT	1
32	KOL-0482-02-04-00-0	GEAR z36	1
33	OSL-0482-02-05-00-0	GEAR COVER	1
34	SRB-0482-02-07-00-0	FEED SCREW	1
35	WSP-0482-02-08-00-0	SCREW BRACKET	1
36	MTR-0482-02-09-00-0	DRIVE GEAR MOTOR WITH WIRE SET	1
37*	WZK-0482-02-10-00-0	DRIVE MOTOR ENCODER WIRE SET	1
38	PRS-000003	EXTERNAL RETAINING RING 12z	3
39	PDK-000108	ROUND WASHER 4.3	1
40	PDK-000036	ROUND WASHER 5.5	1
41	PDK-000164	SPACER WASHER 12x18x1	2
42	PLY-000060	STOPPER PLATE 9	1
43	WKR-000092	HEX SOCKET BUTTON HEAD SCREW M4x10	1
44	WKR-000292	HEX SOCKET BUTTON HEAD SCREW M4x6	4
45	WPS-000082	KEY 4x4x8	2
46	PRS-000022	INTERNAL RETAINING RING 32w	1
47	WKR-000012	HEX SOCKET SET SCREW WITH DOG POINT M4x6	1
48	LOZ-000062	BALL BEARING 12x32x10	1
49	LOZ-000038	BALL BEARING 12x28x8	1
50	SRB-000078	HEX SOCKET HEAD CAP SCREW M5x12	1
51	SRB-000083	HEX SOCKET HEAD CAP SCREW M5x16	2

ITEM	PART NUMBER	DESCRIPTION	Q-TY
52	SRB-000098	HEX SOCKET HEAD CAP SCREW M5x8	1
53	KRP-0482-03-01-00-1	OSCILLATOR BODY	1
54	KOL-0482-03-02-02-0	GEAR z26	1
55	LST-0482-03-03-00-0	GUIDING BAR	1
56	WLK-0482-03-04-00-0	BEARING SHAFT	1
57	WLK-0482-03-05-00-0	OSCILLATOR SHAFT ASSY	1
58	WZK-0482-03-06-00-0	INDUCTION SENSOR WIRE SET	1
59	PRS-000041	EXTERNAL RETAINING RING 8z	1
60	PDK-000017	ROUND WASHER 5.3	4
61	PDK-000021	ROUND WASHER 6.4	4
62	TLJ-000109	SLEEVE	2
63	LOZ-000053	BALL BEARING 8x22x7	1
64	SRB-000082	HEX SOCKET HEAD CAP SCREW M5x14	4
65	SRB-000105	HEX SOCKET HEAD CAP SCREW M6x14	4
66	WLK-0482-03-05-01-0	OSCILLATOR SHAFT	1
67	LST-0482-03-05-02-0	GEAR RACK	1
68	PDK-000045	SPRING WASHER 5.1	2
69	KLK-000047	DOWEL PIN 5n6x16	1
70	SRB-000083	HEX SOCKET HEAD CAP SCREW M5x16	2
71	WZK-0482-04-02-01-0	ARC IGNITION SWITCH WIRE SET	1
72	WZK-0482-04-02-02-0	TRAVEL DIRECTION SWITCH WIRE SET	1
73	MDL-0482-04-02-03-0	ENCODER MODULE	1
74	MDL-0482-04-02-04-0	MAIN MODULE	1
75	MSK-0482-04-02-10-1	PANEL MASKING COVER WITH OSCILLATION ASSY	1
76	PDK-000058	EXTERNAL TOOTH LOCK WASHER 3	4
77	PKT-000028	POTENTIOMETER KNOB 23	2
78	TLJ-000051	HEX SLEEVE	4
79	WKR-000058	HEX SOCKET SET SCREW WITH FLAT POINT M6x8	1
80	PKT-000015	POTENTIOMETER KNOB K85/6D	5
81	WKR-000181	CROSS RECESSED PAN HEAD SCREW M3x6	4
82	MDL-0476-02-02-22-2	DISPLAY	1
83	MDL-0482-04-03-02-1	DISPLAY MODULE	1
84	MSK-0482-04-03-10-1	DISPLAY MASKING COVER ASSY	1
85	NKR-000146	HEX NUT M3	2
86	TLJ-000111	DISTANCE SLEEVE M3x10	2
87	WKR-000339	SELF-TAPPING SCREW M3x6	2
88	RLK-0341-01-02-00-0	PRESSURE ROLLER ASSY	4
89	WLK-0341-01-04-00-0	ECCENTRIC SHAFT	2
90	TLJ-0341-01-05-00-0	DISTANCE SLEEVE I	2
91	PDK-0341-01-07-00-0	SLIDE WASHER	2
92	PLY-0482-12-01-00-1	CHASSIS PLATE	1
93	LST-0482-12-02-00-0	RESISTIVE BAR ASSY	1
94	LST-0482-12-03-00-0	PRESSURE BAR ASSY	1
95	ZCS-0482-12-04-00-0	CAM CLAMP ASSY	1
96	ZDR-0482-12-05-00-0	BUMPER	2
97	PDK-000017	ROUND WASHER 5.3	1
98	WKR-000137	HEX SOCKET COUNTERSUNK HEAD SCREW M5x20	2
99	PDK-000022	ROUND WASHER 8.4	2
100	SPR-000012	DISC SPRING 8.2x16x0.6	7
101	TLJ-000048	SLIDE SLEEVE 8x10x12	2
102	SRB-000075	HEX SOCKET HEAD CAP SCREW M5x10	1

ITEM	PART NUMBER	DESCRIPTION	Q-TY
103	SRB-000083	HEX SOCKET HEAD CAP SCREW M5x16	8
104	SRB-000361	FULL THREAD HEX HEAD SCREW M8x16	2
105	SRB-000202	FULL THREAD HEX HEAD SCREW M8x22	2
106	SRB-000351	FULL THREAD HEX HEAD SCREW M8x35	2
107	WZK-0466-02-09-00-0	POWER WIRE SET ASSY	1
108	WZK-0476-02-04-00-0	ARC IGNITION SOCKET WIRE SET	1
109	KRP-0482-04-01-00-1	BODY	1
110	PNL-0482-04-02-00-1	CONTROL PANEL WITH OSCILLATION ASSY	1
111	WYS-0482-04-03-00-1	DISPLAY ASSY	1
112*	WZK-0482-04-04-00-0	POWER SWITCH WIRE SET	1
113	PWD-0482-04-05-00-0	CONTROL PANEL GROUNDING WIRE ASSY	1
114	NKR-000013	HEX NUT M4	2
115	DLW-000007	CABLE GLAND WITH STRAIN RELIEF PG11	1
116	PDK-000060	EXTERNAL TOOTH LOCK WASHER 4.3	2
117	PNK-000026	LEVER SWITCH 641 H3	1
118	WKR-000152	CROSS RECESSED COUNTERSUNK HEAD SCREW M4x16	1
119	WKR-000385	HEX SOCKET BUTTON HEAD SCREW M3x8	4
120	WKR-000092	HEX SOCKET BUTTON HEAD SCREW M4x10	8

* not shown in the drawing

8. DECLARATION OF CONFORMITY

EC Declaration of Conformity

We

***PROMOTECH sp. z o.o.
ul. Elewatorska 23/1
15-620 Białystok
Poland***

declare with full responsibility that:

Rail Runner Welding Carriage

is manufactured in accordance with the following standards:

- EN 50144-1
- EN 60974-10

and satisfies safety regulations of the guidelines: 2004/108/EC, 2006/95/EC, 2006/42/EC.

Białystok, 22 February 2013



Marek Siergiej
CEO

9. QUALITY CERTIFICATE

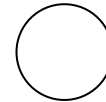
**Machine control card
Rail Runner Welding Carriage**

Serial number.....

Electric test

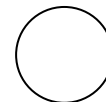
Type of test	Result	Name of tester
Test with sinusoidal voltage (voltage 1000 V, frequency 50 Hz)	 Date
Resistance of the protective circuit Ω Signature

Quality control



Adjustments, inspections

Quality control



10. WARRANTY CARD

WARRANTY CARD No.....

..... in the name of Manufacturer warrants the Rail Runner Welding Carriage to be free of defects in material and workmanship under normal use for a period of 12 months from the date of sale.

This warranty does not cover guiding rollers as well as damage or wear that arise from misuse, accident, tempering or any other causes not related to defects in workmanship or material.

Date of production

Serial number

Date of sale

Signature of seller.....

2.08 / 19 January 2016

WE RESERVE THE RIGHT TO MAKE CHANGES IN THIS MANUAL WITHOUT NOTICE