

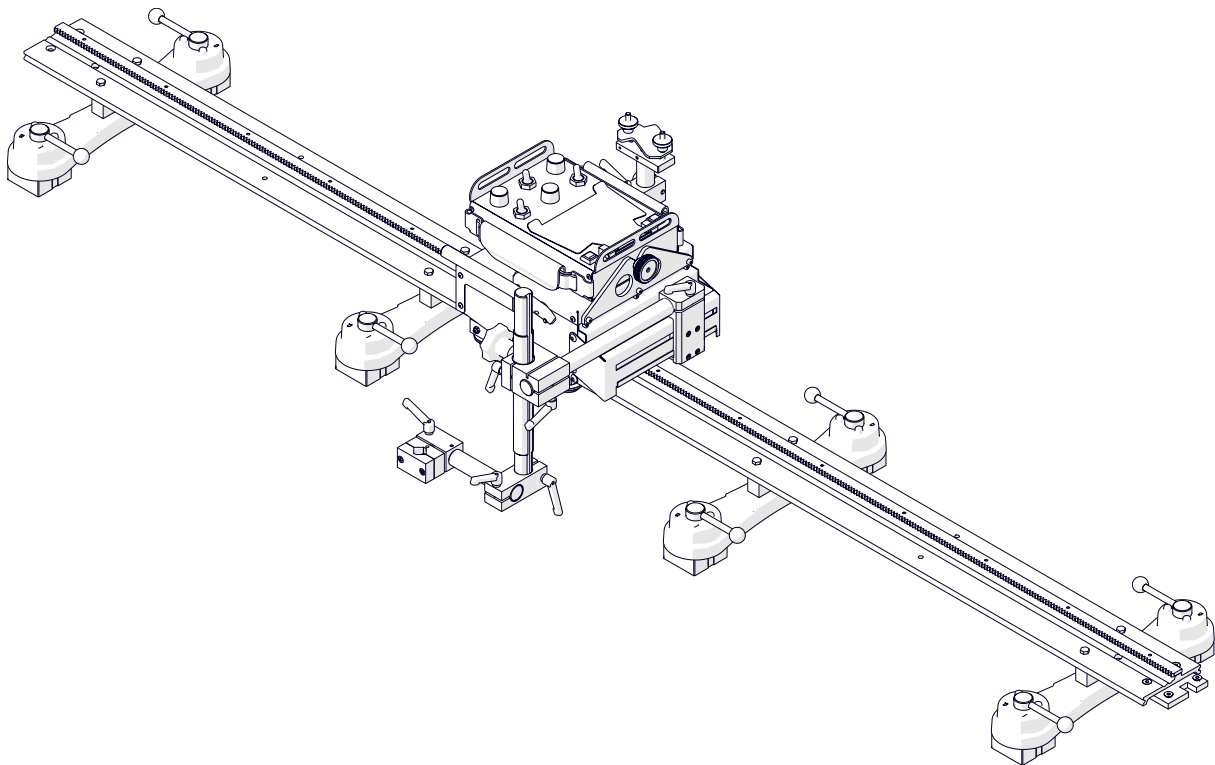


The tools of innovation.

OPERATOR'S MANUAL

Rail Runner 2

WELDING CARRIAGE



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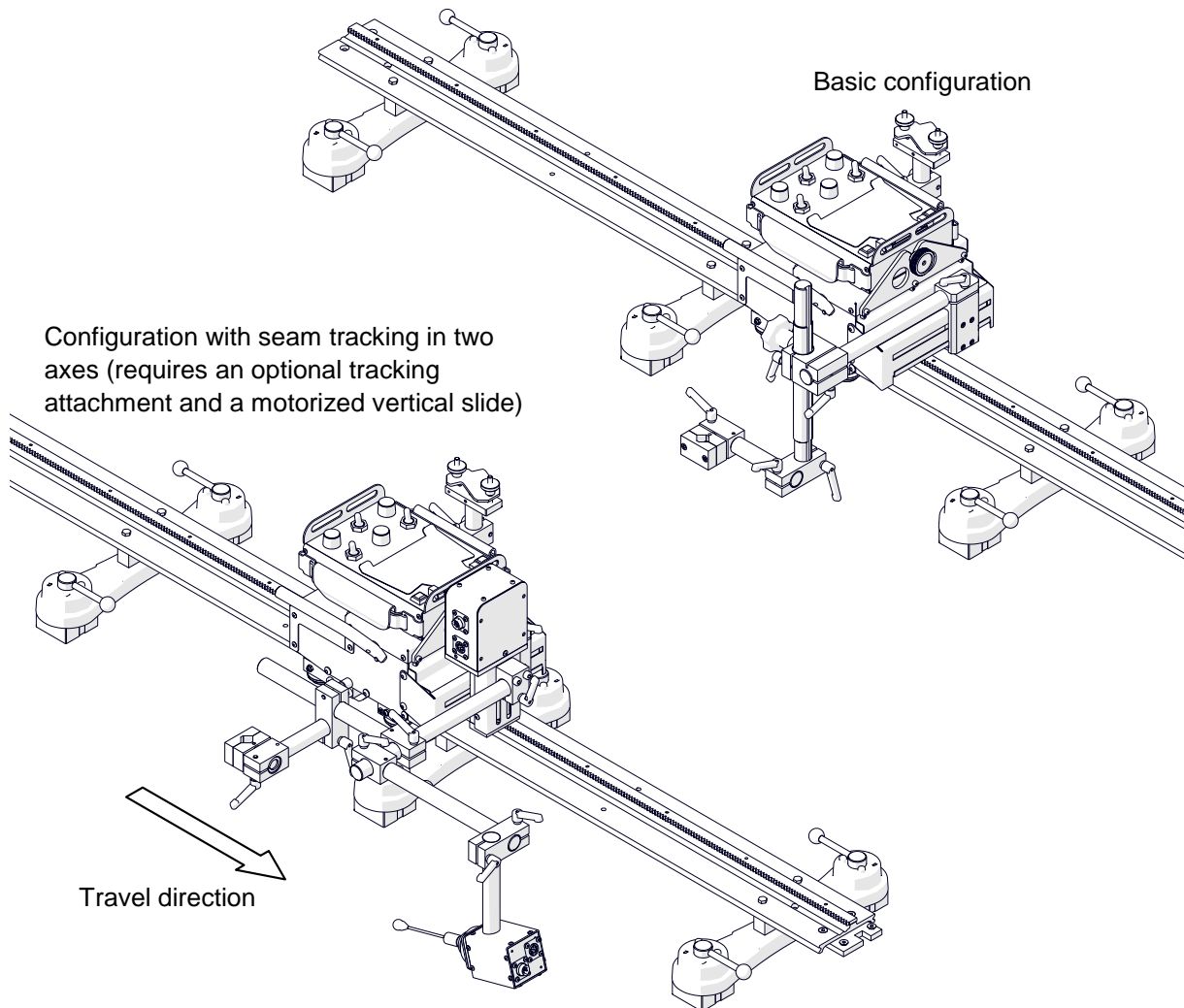
1. GENERAL INFORMATION

1.1. Application

The Rail Runner 2 is a track carriage designed to cut and to make butt and fillet welds with or without oscillation. The carriage allows MIG/MAG, oxy-fuel, or plasma torches. The track is clamped with magnetic units to ferromagnetic surfaces that are flat or curved.

Accessories allow, for example, using torches with a larger diameter, guiding the carriage on a semi-flexible, rigid, or ring track, and tracking the welding seam. Using a vacuum track system allows the track to be clamped to surfaces that are non-ferromagnetic.

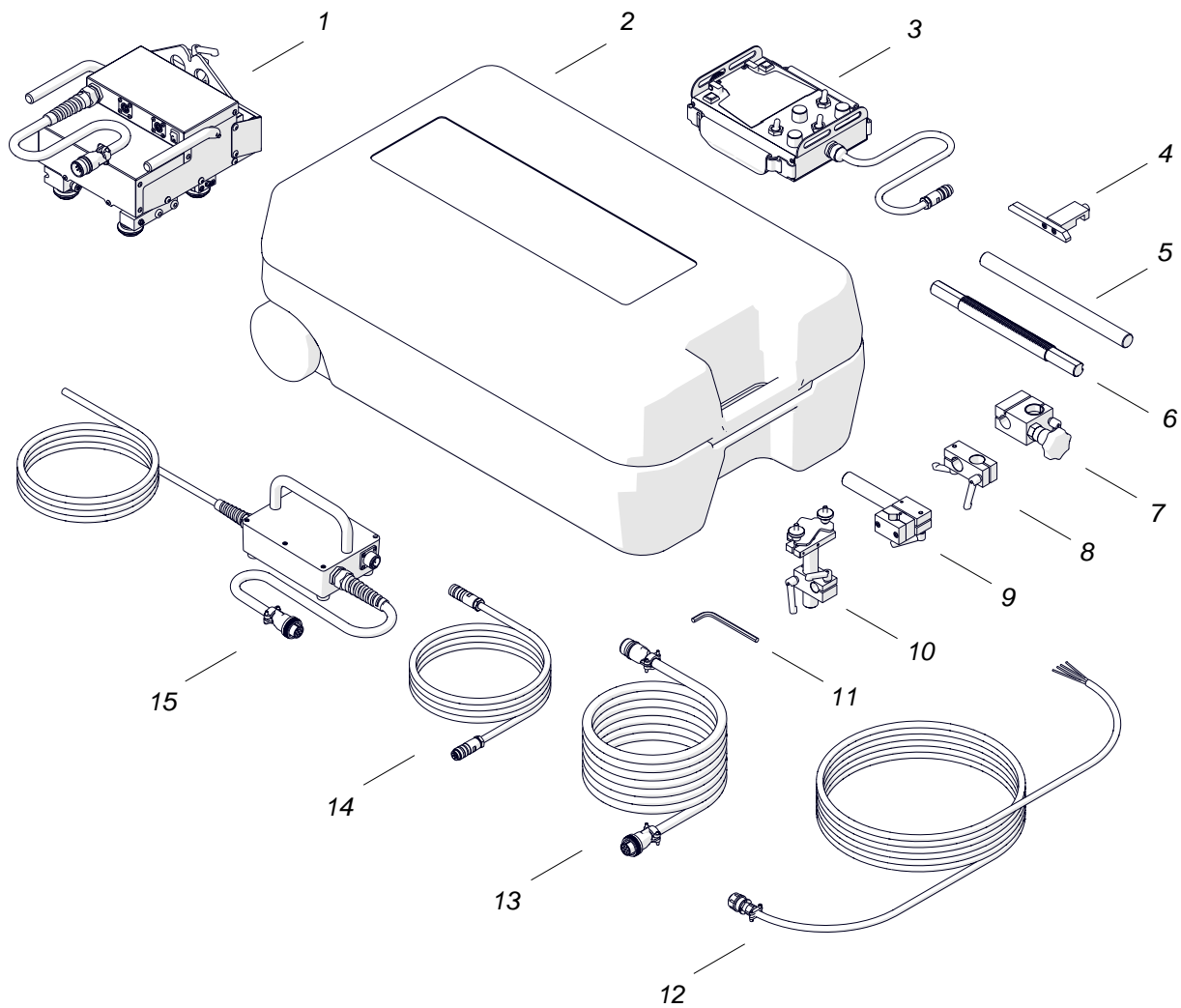
Two intended configurations are shown in the figure that follows.



1.2. Technical data

Voltage		1~ 230 V, 50–60 Hz 1~ 115 V, 50–60 Hz 1~ 42 V, 50–60 Hz (60 V DC)
Power		120 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 your dealer) PG / 3G
Outer diameter of round workpiece	Ring tracks	200 mm (8") – 3 m (10 ft)
	Custom rolled tracks	3 m (10 ft) – 10 m (32 ft) (contact your dealer)
	Semi-flexible tracks	Minimum 10 m (32 ft)
Torch type		MIG/MAG, oxy-fuel, plasma
MIG/MAG torch diameter		16–22 mm (0.63–0.87")
Minimum workpiece thickness for magnetic clamping		5 mm (0.2")
Horizontal pulling force		400 N (88 lbs)
Vertical pulling force		300 N (66 lbs)
Horizontal speed		0–300 cm/min (0–120 in/min)
Vertical speed		0–300 cm/min (0–120 in/min)
Oscillation type		Linear
Weld path		Straight, triangle, trapezoid, square
Oscillation width		0.2–11.8 cm (0.1–4.5")
Oscillation speed		10–300 cm/min (5–120 in/min)
Oscillation dwell time at center and on ends		0–5 s
Maximum oscillator pulling force		100 N (22 lbs)
Allowed ambient temperature		0–45°C (32–113°F)
Maximum allowed ambient humidity without condensation		80%
Protection level		IP 23
Weight		10 kg (22 lbs)

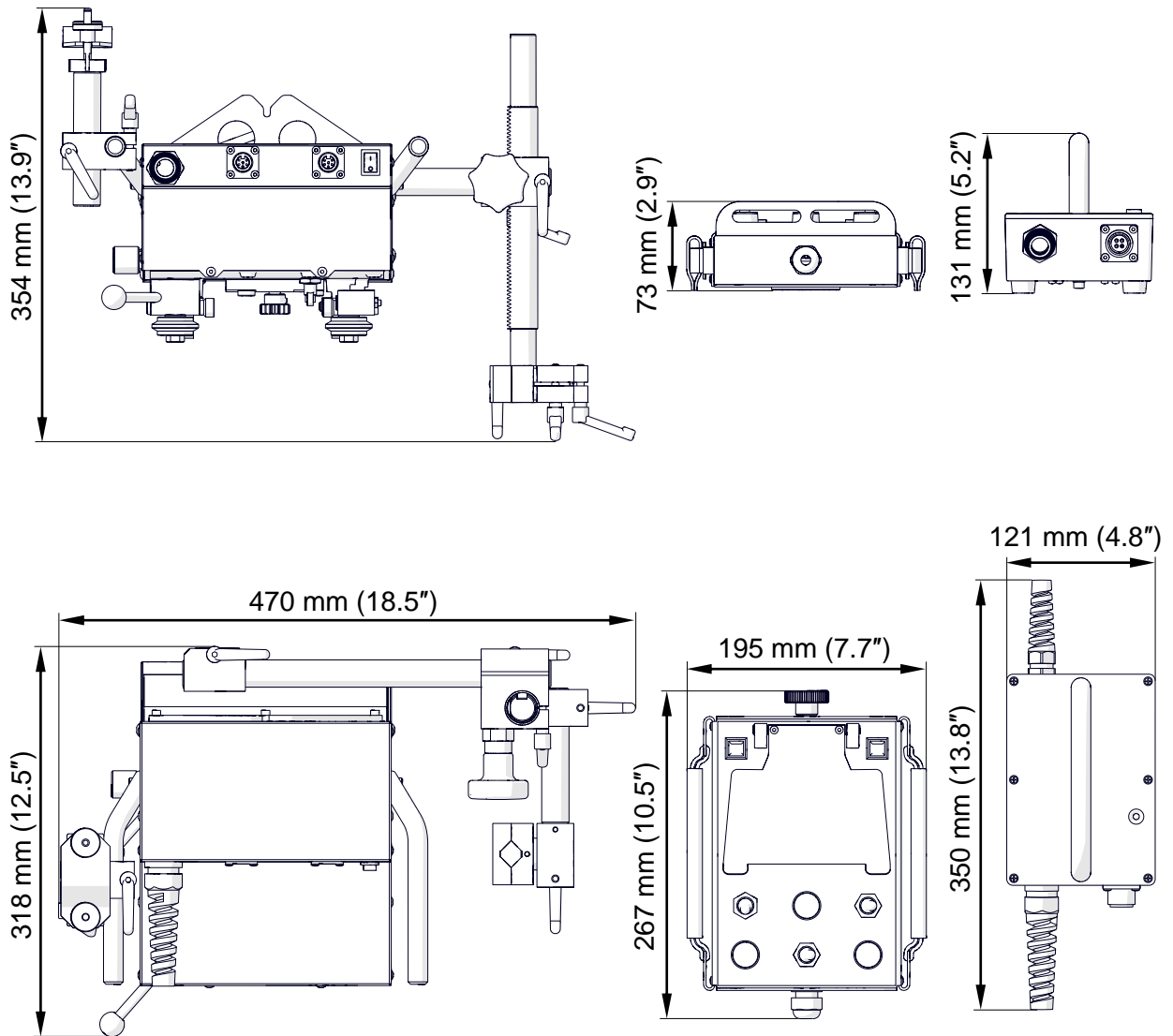
1.3. Equipment included



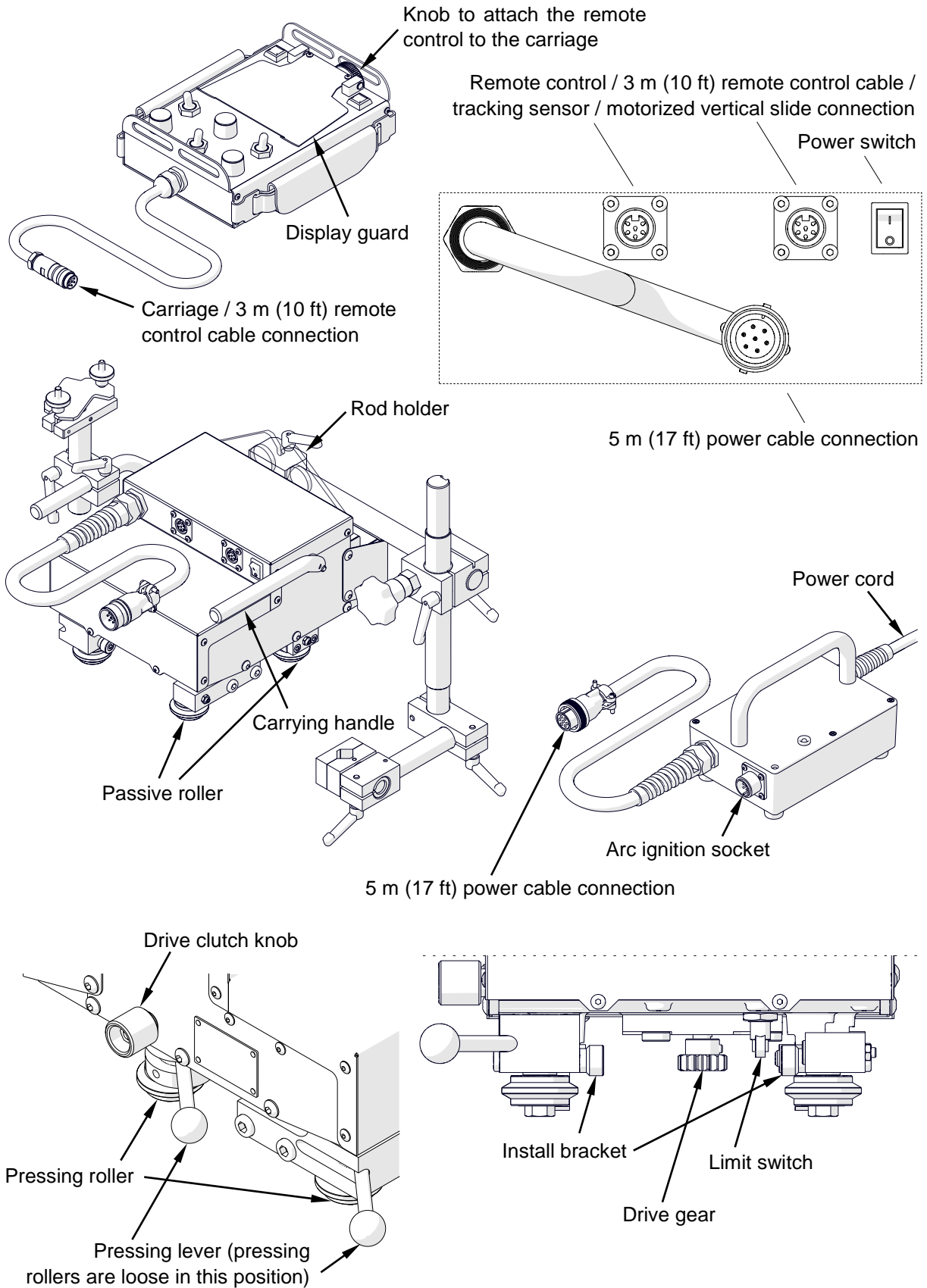
1	Carriage	1 unit
2	Plastic box	1 unit
3	Remote control	1 unit
4	Contact block	1 unit
5	300 mm (12") rod	1 unit
6	300 mm (12") rack with 180 mm (7") adjustment	1 unit
7	Rack holder	1 unit
8	Clamping block with levers	1 unit
9	Short rod torch holder with clip	1 unit
10	Cable anchor	1 unit
11	6 mm hex wrench	1 unit
12	6.5 m (21 ft) arc ignition cable	1 unit
13	5 m (17 ft) power cable	1 unit
14	3 m (10 ft) remote control cable	1 unit
15	Power supply*	1 unit
–	Operator's Manual	1 unit

* 230 V, 115 V, or 42 V depending on the order

1.4. Dimensions



1.5. Design



2. SAFETY PRECAUTIONS

1. Before you start, read this Operator's Manual and complete occupational safety and health training.
2. Use the carriage, power supply, remote control, and other equipment only in applications specified in this Operator's Manual.
3. Make sure that the carriage, power supply, remote control, and other equipment have all parts. Make sure that all parts are genuine and not damaged.
4. Make sure that the specifications of the power source are the same as those specified on the rating plate.
5. Connect the carriage to the power supply by using the power cable. Connect the power supply to a correctly grounded power source.
6. Do not carry the carriage, remote control, and other equipment by cords or cables. Do not pull the cords or cables. This can cause damage and electric shock.
7. Keep untrained bystanders away from the carriage.
8. Before you start, ensure the correct condition of the carriage, power supply, remote control, and other equipment, power source, cords and cables, connections, rollers, and gear.
9. Keep the carriage, power supply, remote control, and other equipment dry. Do not expose them to rain, snow, or frost.
10. Keep the work area well lit, clean, and free of obstacles.
11. Do not use near flammable materials, or in explosive environments.
12. Transport and position the carriage by using the carrying handles.
13. Install the carriage only on the supplied track.
14. Make sure that the gear and rollers are clean.
15. Plug the cords and cables into sockets only after you set the power switch to 'O'.
16. Keep the sockets clean. Do not use high pressure during cleaning.
17. Install only torches whose diameter matches the diameter of the torch holder.
18. Hang the cables to decrease 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. At heights, protect the carriage and the track from falling. To do this, use chains (not included) to attach the leftmost and rightmost magnetic units of the semi-

- flexible or rigid track to a stable structure. To protect the carriage, attach a chain to a carrying handle. Make sure that the chains are not loose.
22. Do not stay below the carriage or the track that is put at heights.
 23. Use eye protection (helmet, shield, and screen), hearing protection, gloves, and protective clothing during work. Do not use loose clothing.
 24. Before each use, make sure that the carriage is not damaged and no part is cracked or loose. Make sure to maintain correct conditions that can have an effect on the operation of the carriage.
 25. Do not try to stop the travel by hand. To stop, set the travel direction switch to 'O'.
 26. Maintain only after you unplug the carriage 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 damage, stop the work and promptly send the carriage to the service center for check and repair.
 29. Do not leave the carriage unattended during work.
 30. If you are not going to use the carriage, remove it from the worksite and keep in a safe and dry place.

3. STARTUP AND OPERATION

3.1. Assembling the semi-flexible or rigid track

Connect magnetic units to the rail, and put it on the workpiece. Use the 4 mm hex wrench to attach more rails (1, Fig. 1). Then, set the levers of the magnetic units to 'I' (2). This will clamp the track to the surface.

When working in PC/2G welding position, put the track so that the teeth of the racks point down.

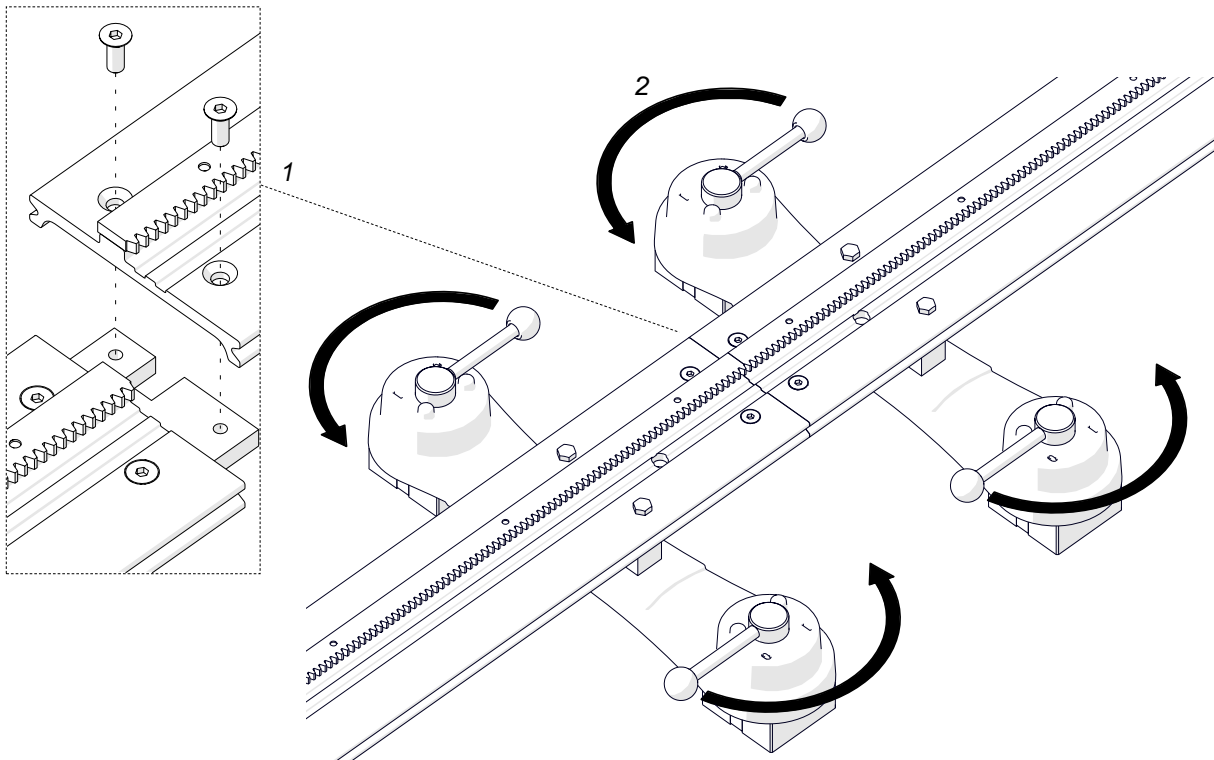


Fig. 1. Connecting the rails and clamping the magnetic units to the surface

If a semi-flexible rail is put on a curve, before you attach more rails use the 4 mm hex wrench to loosen the screws of the connecting plates (1, Fig. 2) and of the racks (2). Next, attach the rails, clamp them with levers, and then tighten the connecting plates. Put the rack adjustment tool (not included) into the hole (3), and rotate the tool to the left (4) to remove the gap (5) between the racks. Then, tighten the leftmost screw and the rightmost screw of each rack (2).

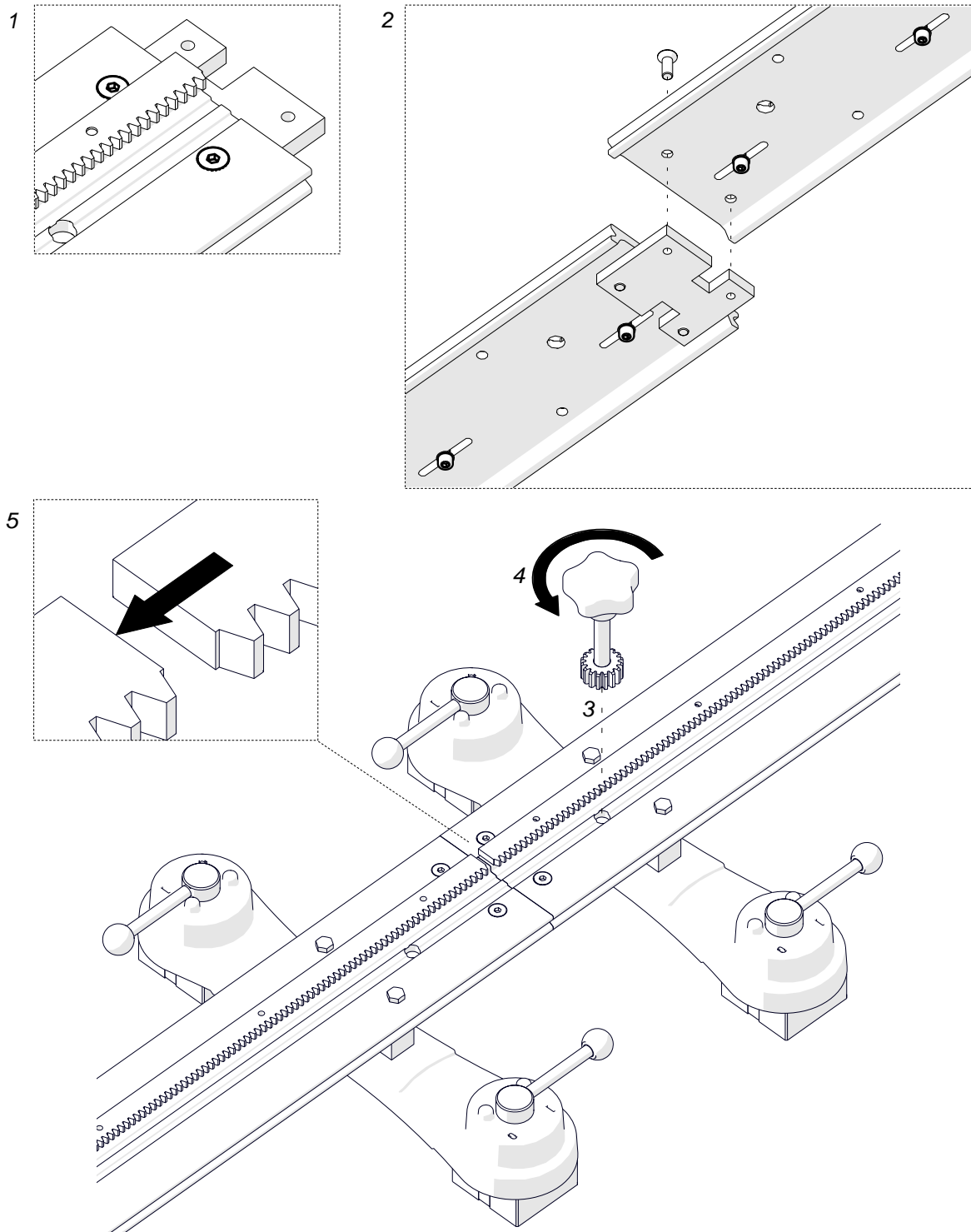


Fig. 2. Removing the gap between the racks of a semi-flexible track

3.2. Assembling the ring track

Select the track that matches the outer diameter of the round workpiece. Use the 4 mm hex wrench to attach the supports to the rails (1, Fig. 3). Next, on all supports, retract the bolts (2, or screws) as much as possible.

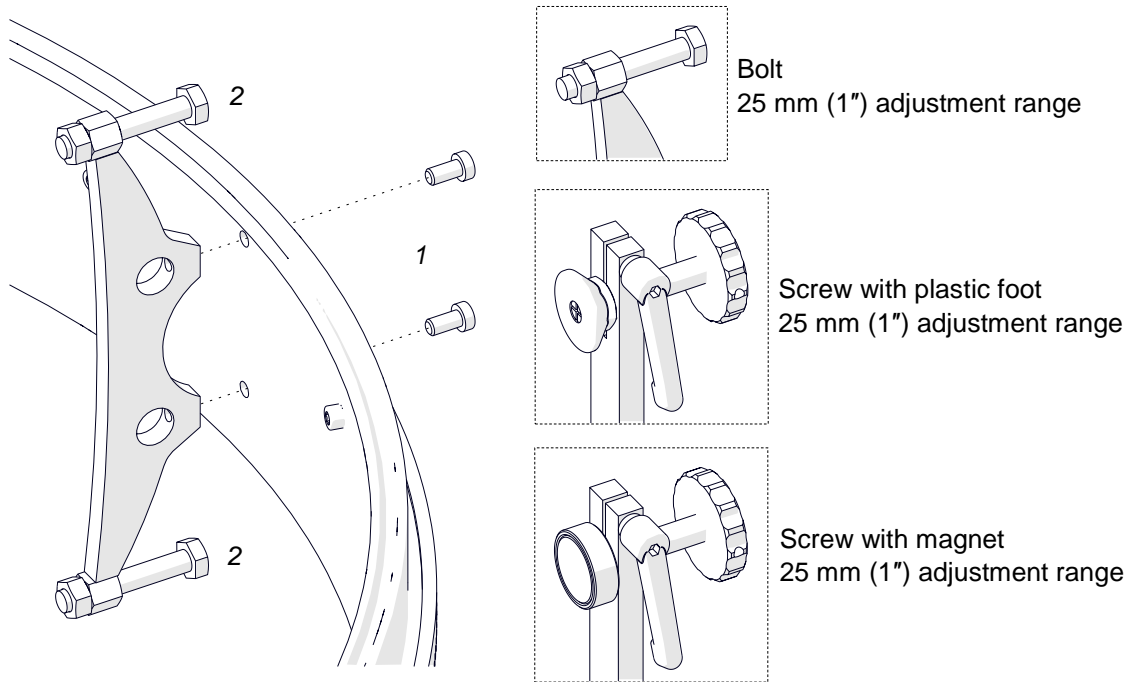


Fig. 3. Connecting the supports to the rails

Put the workpiece vertically, and then put the rails onto the workpiece so that the teeth of the racks point down. Next, for all rails, use the 12 mm hex wrench to set the hinge as shown in Fig. 4. Then, put the lock pin through the holes (1), and then rotate the wrench (2) to connect the rails.

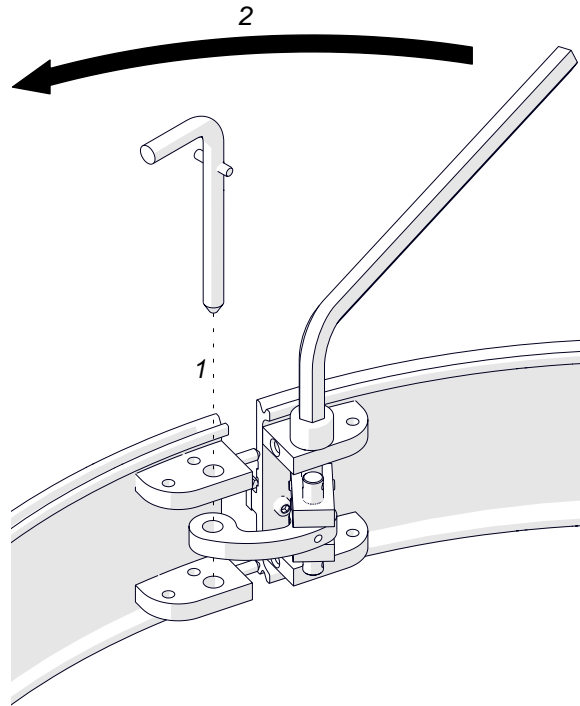


Fig. 4. Connecting the rails of the ring track

Use the 13 mm flat wrench to adjust the bolts (or the screws by hand) until they are in contact with the workpiece (1, Fig. 5). Adjust each support equally to make the track concentric to the workpiece. Lock the supports with the nuts (2) or levers.

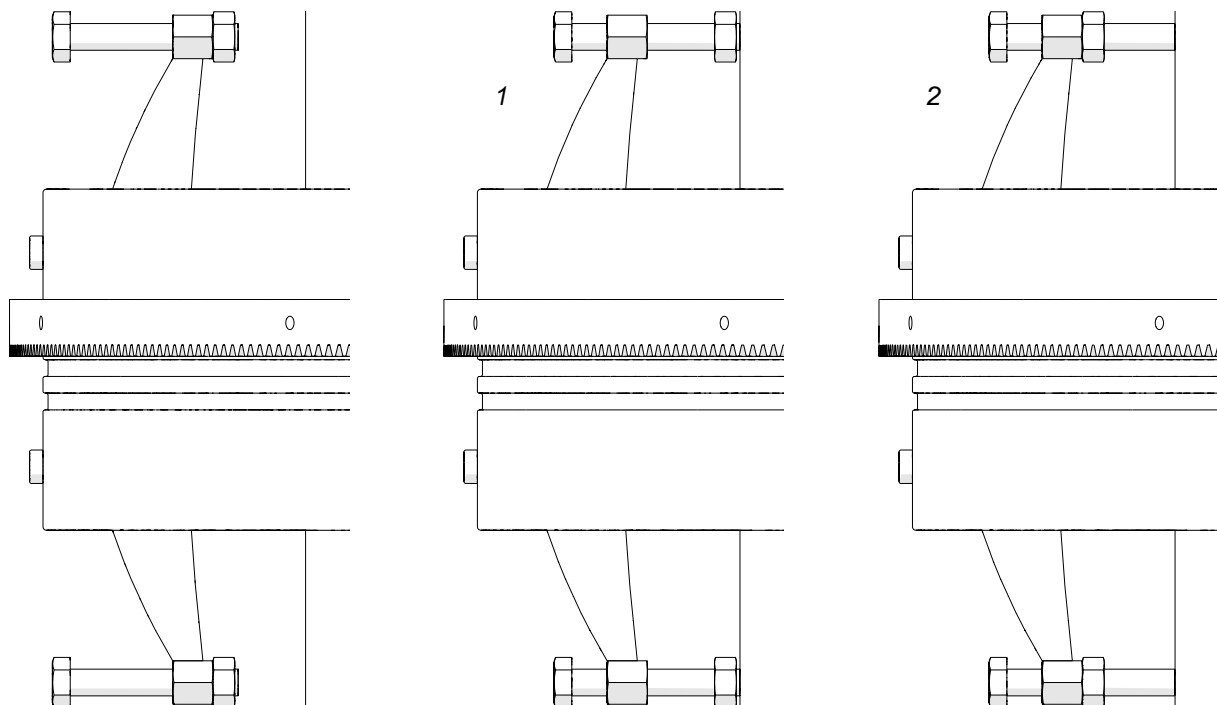


Fig. 5. Attaching the ring track to the workpiece

3.3. Positioning on a straight track

Set the power switch, arc ignition switch, oscillation switch, and travel direction switch to 'O'. Next, set the levers to OFF (1, Fig. 6), and then loosen the knob (2) fully to retract the gear (3). Then, put the carriage so that the install brackets are on the rail (4, 5).

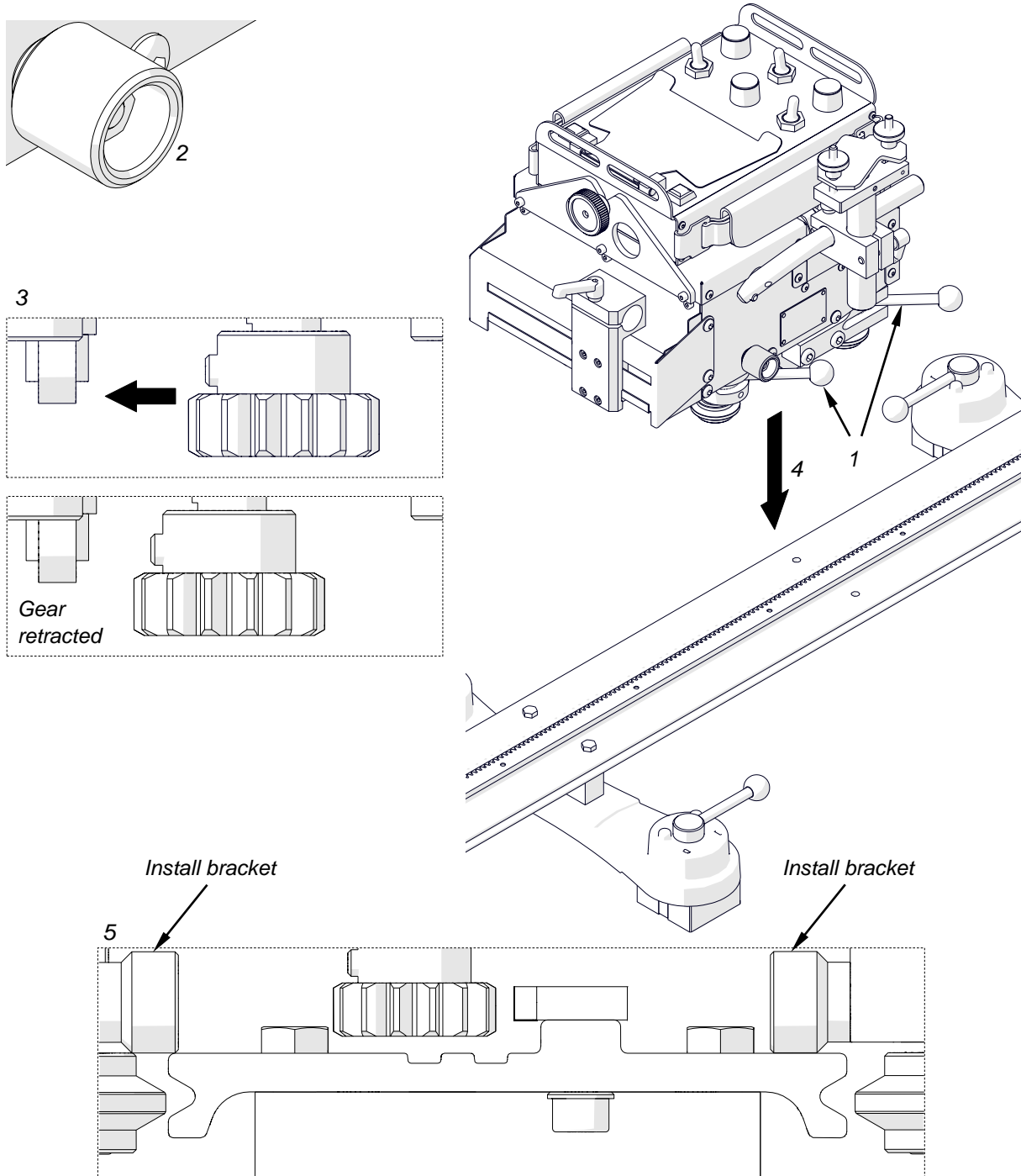


Fig. 6. Putting the carriage on a straight track

Set the levers to ON (1, Fig. 7) to put the rollers into the grooves (2). Then, while moving the carriage slightly left or right, tighten the knob (3) to engage the gear of the carriage with the rack of the rail (4). However, do not tighten the knob with too much force. Keep some backlash between the gear and rack.

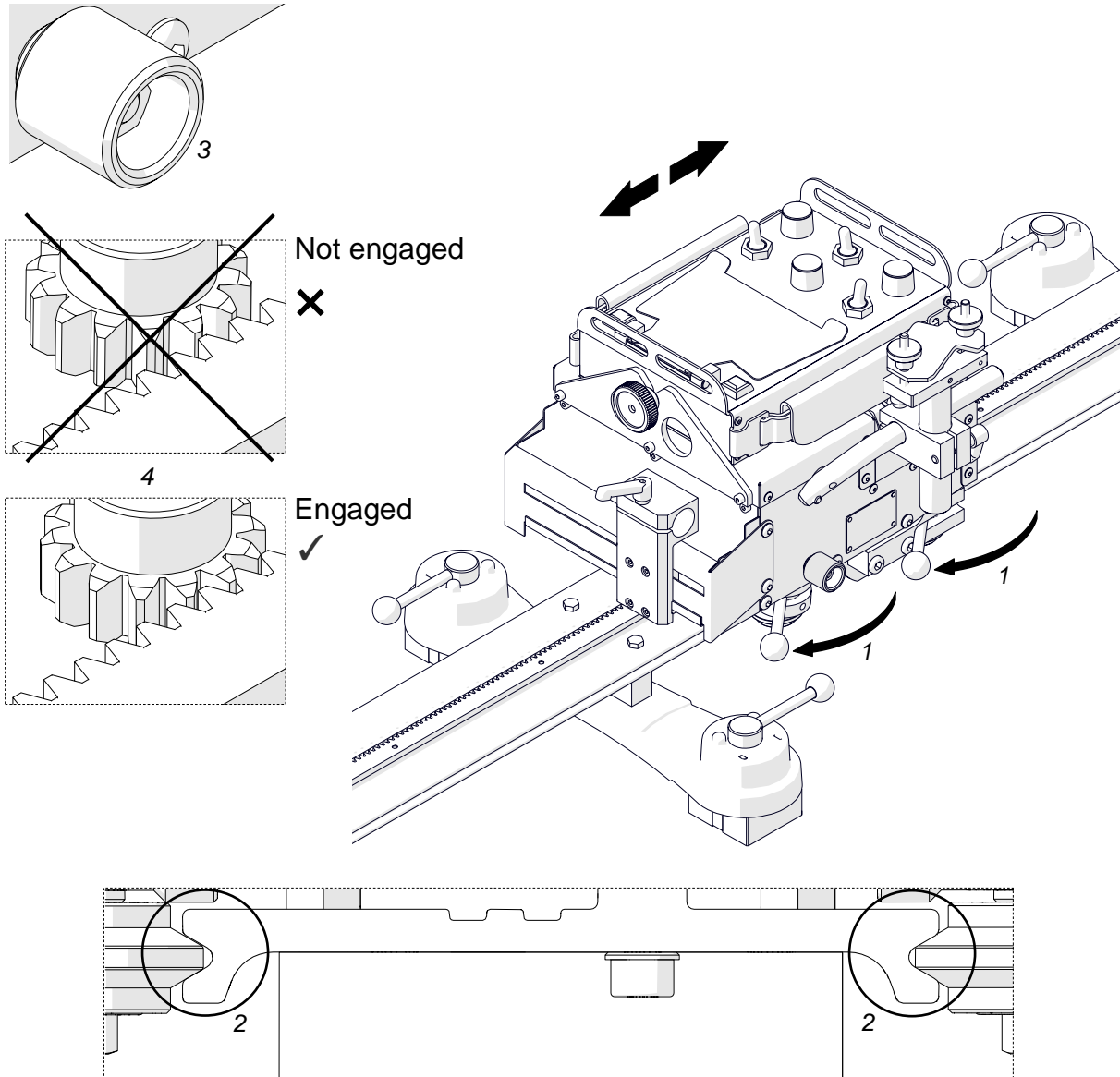


Fig. 7. Engaging the carriage with the track

3.4. Positioning on a curved track

Use the 6 mm hex wrench to loosen four screws (1, Fig. 8), and then put the carriage on the track. Rotate two roller brackets (2) to put the rollers into the grooves, and then set the levers to ON (3). Next, move the carriage left or right and make sure that it moves smoothly. Then, tighten the screws (1) and the knob (4).

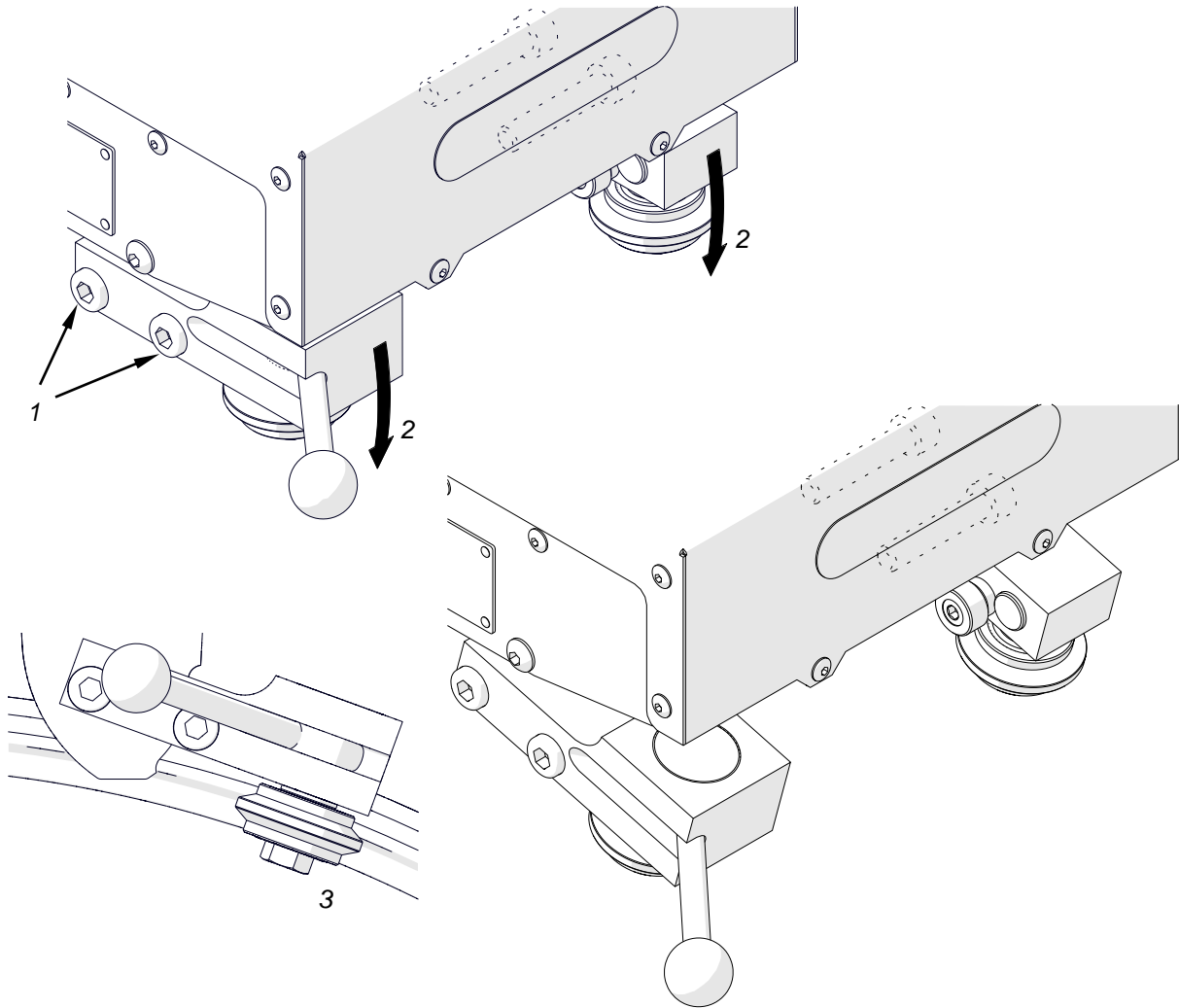


Fig. 8. Rotating the rollers for a curved track

3.5. Preparing and connecting

At heights, protect the carriage and the track from falling. To do this, use chains (not included) to attach the leftmost and rightmost magnetic units of the semi-flexible or rigid track to a stable structure. To protect the carriage, attach a chain to a carrying handle. Make sure that the chains are not loose.

Connect the remote control to the carriage directly (1, Fig. 9), if the remote control will be put onto the carriage, or use the remote control cable (2). Then, use the power cable to connect the carriage to the power supply (3). Next, connect the power supply to the power source and put the torch and torch cables into the holders.

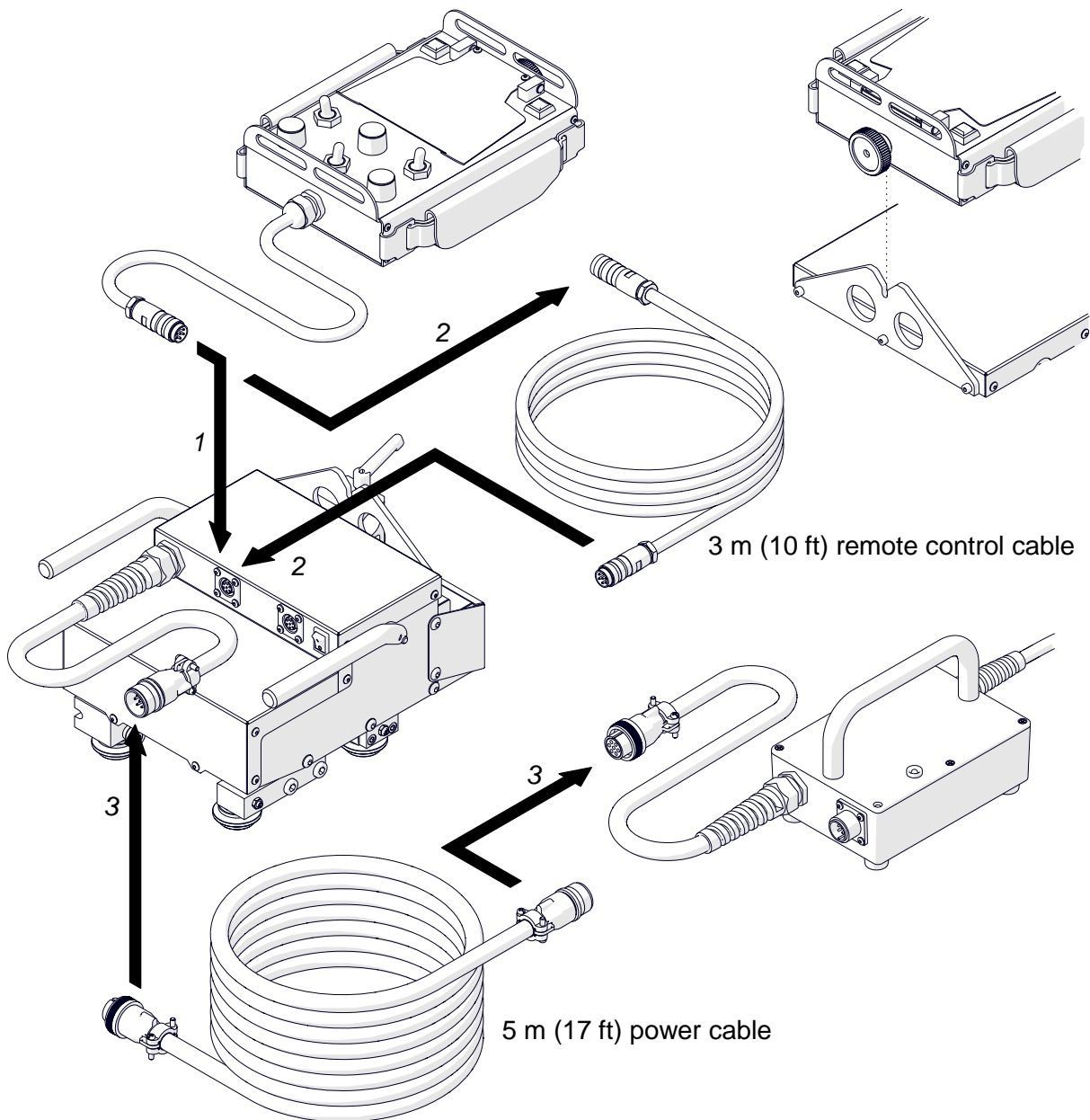


Fig. 9. Connecting the carriage

3.6. Connecting to the welding circuits

The carriage can control two torches by using the arc ignition cable plugged into the arc ignition socket. To do this, refer to the diagram from Fig. 10 and connect one blue-jacketed wire to one terminal of the welding / plasma cutting circuit. Then, connect the other blue-jacketed wire to the other terminal of the same circuit. To control the second torch, connect the green-jacketed wires to the terminals of the second welding circuit.

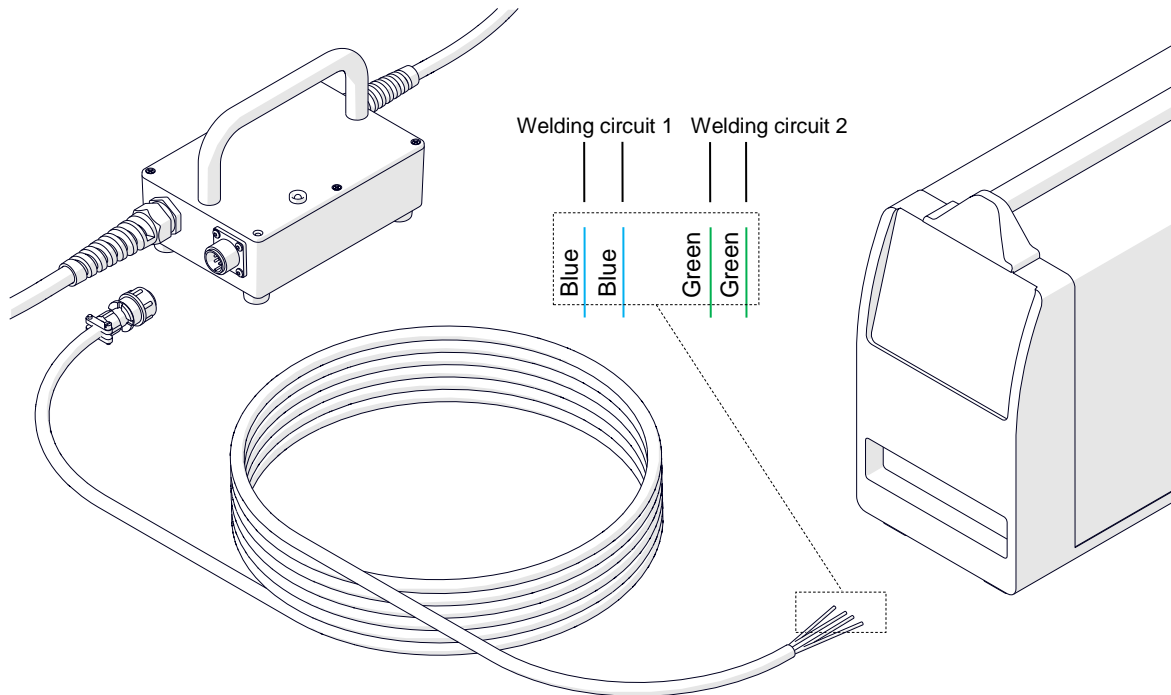


Fig. 10. Connecting the arc ignition cable to welding circuits

Make sure that the arc ignition cable is connected correctly. To do this, turn on the power of the carriage, and then set the arc ignition switch to TEST. This should enable the arc for a while.

3.7. Operating

Set the power switch to 'I' to turn on the carriage. To pause loading to check the firmware version, press and hold one of the navigation buttons. After you release the button, the control system loads and the main screen from Fig. 11 shows.

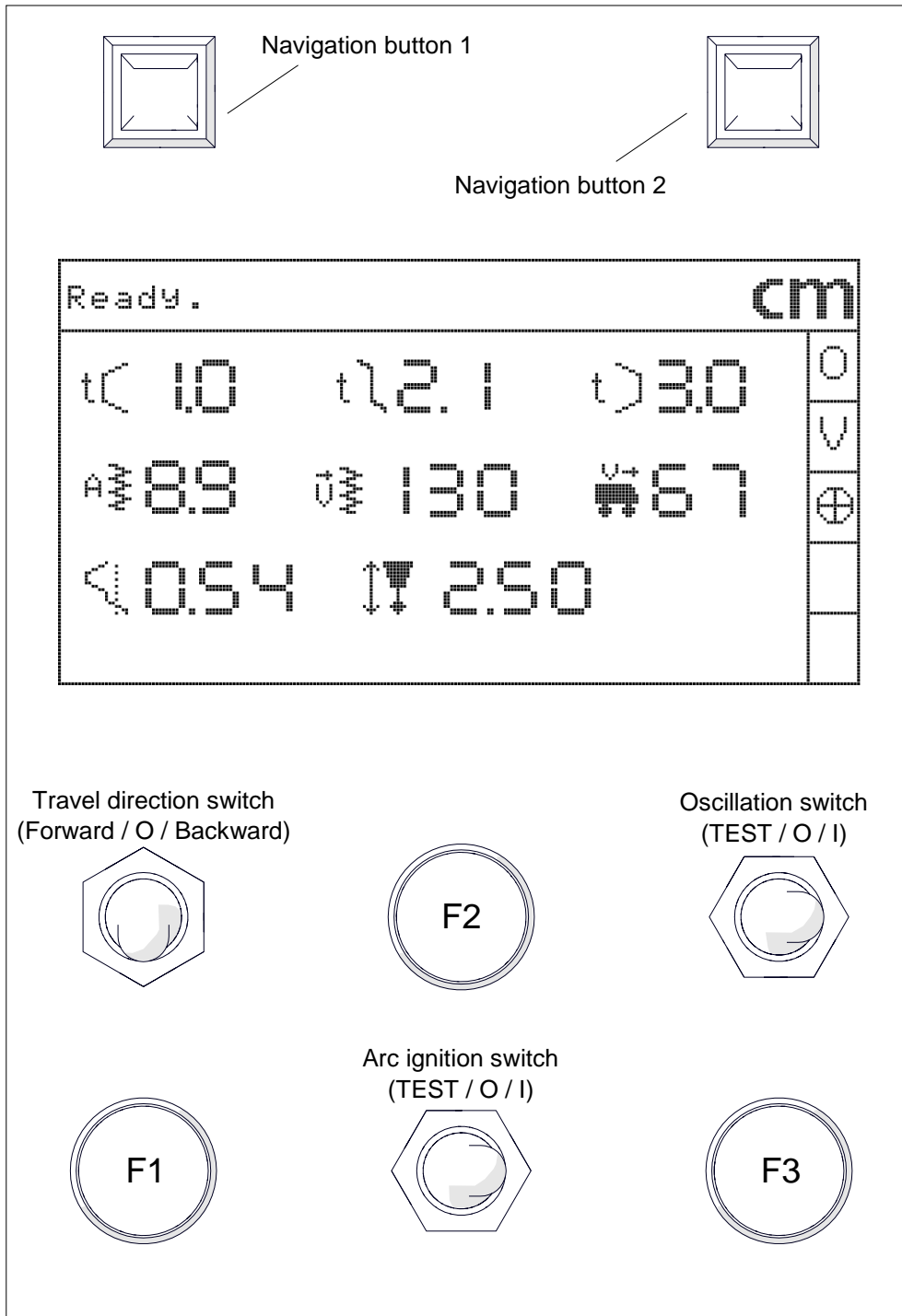


Fig. 11. Control panel with the main screen displayed

Tab. 1 explains the symbols shown on the right of the main screen.

Tab. 1. Symbols of connected modules

Symbol	Description
	Linear oscillator.
	Motorized vertical slide (option).
	Tracking sensor (option).

Use the knobs to set the required parameters (Tab. 2). Rotate to the right to increase the value of the parameter. Rotate to the left to decrease the value.

Tab. 2. Parameters shown on the main screen

Parameter	Value	Description	Method of control
	0–5 s [step: 0.1]	Oscillation dwell time in left position.	Press and hold and rotate
	0–5 s [step: 0.1]	Oscillation dwell time in center position.	Press and hold and rotate
	0–5 s [step: 0.1]	Oscillation dwell time in right position.	Press and hold and rotate
	0.2–11.8 cm [step: 0.1] 0.1–4.5 in [step: 0.01]	Oscillation width.	Press and release (activates) and rotate
	10–300 cm/min 5–120 in/min [step: 5/1]	Oscillation speed (when the vertical slide is not connected).	Rotate
		Oscillation speed (when the vertical slide is connected).	Press and release (activates) and rotate
	0–300 cm/min 0–120 in/min [step: 1/0.5]	Carriage speed.	Rotate
		Travel the carriage with the maximum speed in the direction set by the travel direction switch.	Press and hold when the arc ignition switch is set to 'O'
	From –9.9 to +9.9 cm From –3.9 to +3.9 in [step: 0.05/0.02]	Oscillation offset.	Rotate
	From –2.5 to +2.5 cm From –1 to +1 in [step: 0.02/0.01]	Torch height (when the vertical slide is connected).	Rotate
	cm inch	Unit of measure.	Rotate in the correct setup screen.

To set the rest of the parameters, make sure that the travel direction switch is set to 'O'. Next, press and hold the two navigation buttons for three seconds to show the first setup screen (Fig. 12).

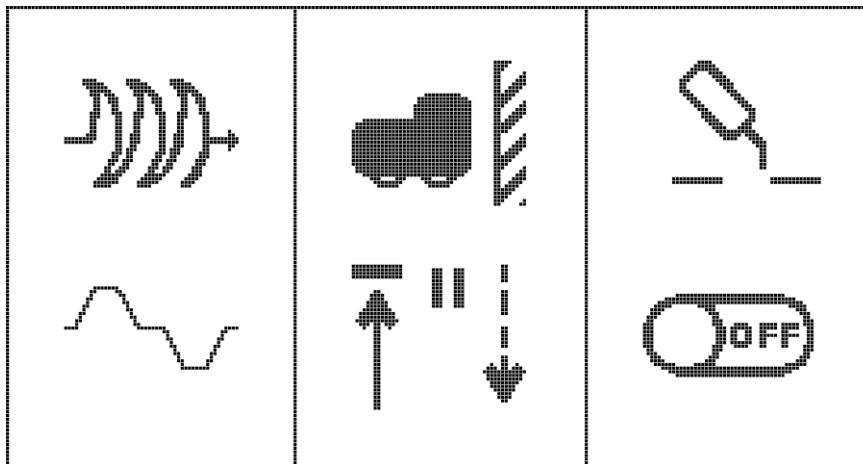





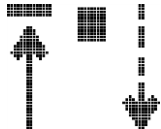



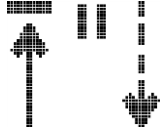





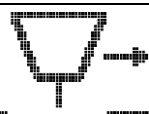
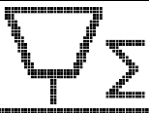




Fig. 12. First setup screen




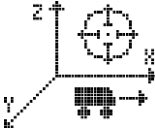




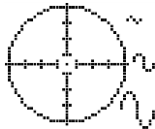





To go to the next setup screen, press the right navigation button. To go to the previous setup screen, press the left navigation button.

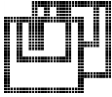




Use the knobs to set the required values of parameters (Tab. 3).

Tab. 3. Parameters shown on the setup screens

Parameter	Value	Description	Method of control
		Triangle. The carriage travels only during oscillation. During oscillation dwell time, the carriage stops to fill the crater.	Rotate (F1)
		Trapezoid. The carriage travels at all times, also during oscillation dwell time.	
		Square. The carriage travels only during oscillation dwell time in left and right position. During oscillation, the carriage stops. During oscillation dwell time in center position the carriage fills the crater.	
		Stops the carriage and arc. To continue, set the travel direction switch to 'O'. This travels the carriage back by 10 mm (0.5 in) and removes the information symbol.	Rotate (F2)
		Stops the arc and travels the carriage back to the initial position from where the move started. To continue after the carriage reaches the initial position, set the travel direction switch to 'O'. This removes the information symbol.	

Parameter	Value	Description	Method of control
		Stops the carriage and arc. To continue, do 1 or 2. 1) Press F1, F2, or F3 to travel the carriage back to the initial position from where the move started. 2) Set the travel direction switch to 'O' to travel the carriage back by 10 mm (0.5 in).	
		Stitch welding. Off. The carriage welds continuously.	Rotate (F3)
		On. Activates parameters of stitch welding. Do not set them to zero if you want to weld continuously. Instead, set stitch welding to OFF.	
	0–100 cm 0–40 in [step: 0.1]	Weld length (parameter available only when the stitch welding is set to ON).	Rotate (F1)
OR			
	0–100 cm 0–40 in [step: 0.1]	Space before welding.	Press, hold, and rotate (F1)
	0–100 cm 0–40 in [step: 0.1]	Space between welds (only for stitch welding).	Rotate (F2)
	0–999 cm 0–400 in ∞ [step: 1/0.5]	Total length. After reaching the total length the carriage acts as if the limit switch is activated.	Rotate or press (F3)
	0–10 cm 0–4 in [step: 0.1]	Backweld length (parameter available only when the stitch welding is set to ON).	Rotate (F1)
OR			
	0–5 s [step: 0.1]	Crater fill time before welding.	Press, hold, and rotate (F1)
	0–5 s [step: 0.1]	Crater fill time at weld end (parameter available only when the stitch welding is set to ON).	Rotate (F2)
OR			
	0–5 s [step: 0.1]	Crater fill time after welding.	Press, hold, and rotate (F2)

Parameter	Value	Description	Method of control	
		Off. Welding source decreases the current of the arc while filling the crater. Set the crater fill time higher or equal to the time of the current lowering that is set at the welding source.	Rotate (F3)	
		On. Welding source uses full current while filling the crater.		
		Off. The welding seam will not be tracked automatically. However, you can adjust the torch position in the Y axis from the main screen during welding (also in the Z axis when the motorized vertical slide is used).	Rotate (F1)	
		Automatic tracking in the Y axis only.		
		Automatic tracking in the Z axis only.		
		Automatic tracking in the Y and Z axis.		
	OR			
		Sensitivity of the tracking system.		
		Normal.	Press, hold, and rotate (F1)	
		Low. The torch adjusts slower to the welding seam.		
		High. The torch adjusts faster to the welding seam.		
	cm inch	Unit of measure. Metric or imperial.	Rotate (F3)	
	1–10	Loads the configuration saved under the chosen program number. No. 1 is factory default.	Rotate (F1)	
	Default, Filler, Linear, Root, Segment, Top	Sample name to describe the loaded configuration.	Press, hold, and rotate (F1)	

Parameter	Value	Description	Method of control
	1–10	New configuration.	Rotate 
		Copies the loaded configuration to the chosen number of the new configuration.	Press 
		Saves changes to the loaded configuration.	Press 

To go back to the main screen, press and hold the two navigation buttons for three seconds.

To control the torch through the carriage, set the arc ignition switch to 'I'.



If the arc ignition switch is set to 'I', the torch starts welding promptly after you select a travel direction.

Use the travel direction switch to select a direction of travel. This will start the travel according to the set parameters. Then, the status changes from **Ready** to **Running**. You can adjust the parameters from the main screen at any time with the knobs. You can adjust the parameters from the setup screens only when the carriage is stopped.

To stop the travel, set the travel direction switch to 'O'.

After the work is finished, use the power switch to turn off the power. Then, unplug the carriage from the power source.

3.8. Adjusting the pressure of rollers

If the resistance during the travel is too little or too much, loosen the knob (1, Fig. 13). At the opposite side of the carriage, use the 13 mm and 8 mm flat wrenches to loosen the bolts (2) and nuts (3). Next, use the 2.5 mm hex wrench to adjust the screws (4), and then tighten the bolts (2).

Travel the carriage along the track. If the resistance is still incorrect, repeat the above steps.

If the carriage travels smoothly, use the 2.5 mm hex wrench to prevent rotation of each screw (4). Then, use the 8 mm flat wrench to tighten the nuts (3).

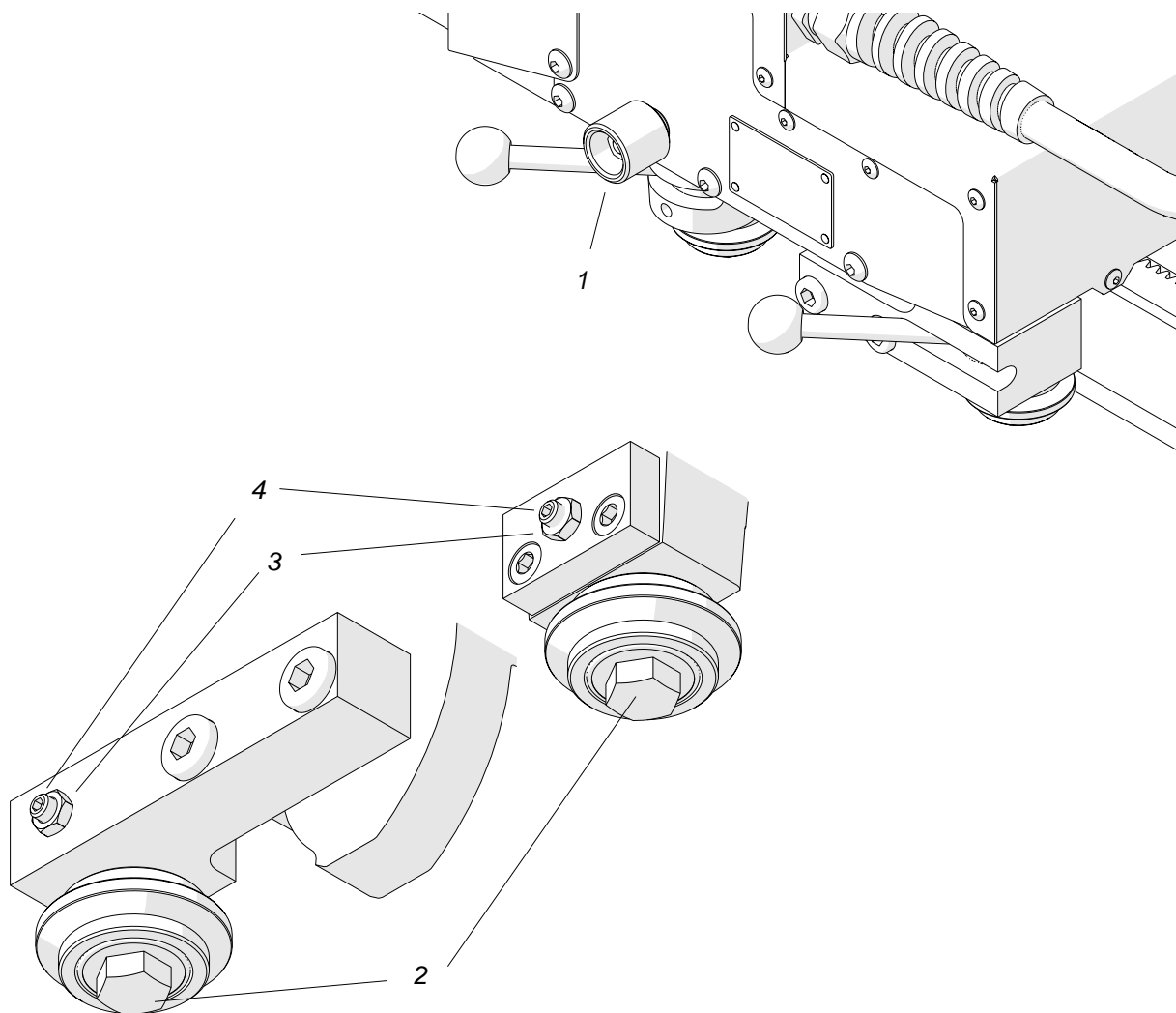


Fig. 13. Adjusting the pressure of rollers

3.9. Adapting for seam tracking (option)

Remove all parts from the rod holder (Fig. 14) and install the motorized vertical slide. Then, assemble the attachment as shown.

To use a different sensor tip, use the 2 mm hex wrench and remove the installed rod. Next, install a rod with fork tip. You can also use the 1.5 mm hex wrench to connect one of three tips to a separate rod, and then install the rod into the sensor.

Make sure that the carriage travels to the direction shown in Fig. 14 to be able to track the seam correctly.

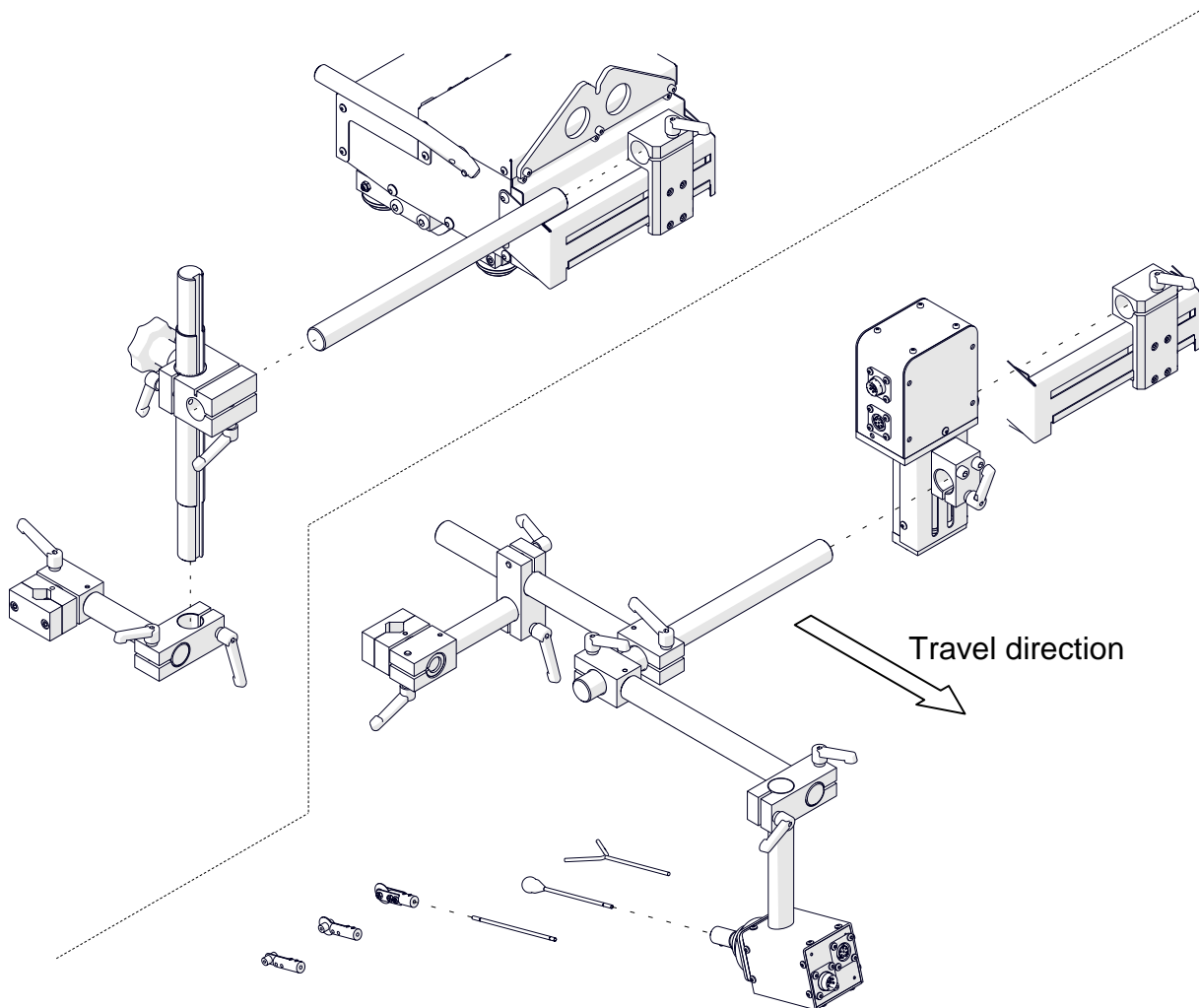


Fig. 14. Changing the basic configuration to seam tracking configuration

Use the 0.75 m (2.5 ft) signal cable to connect the motorized vertical slide to the carriage (Fig. 15). Then, use the 0.5 m (1.5 ft) signal cable to connect the sensor to the vertical slide. If the vertical slide is not used, connect the sensor to the carriage with the 1 m (3 ft) signal cable.

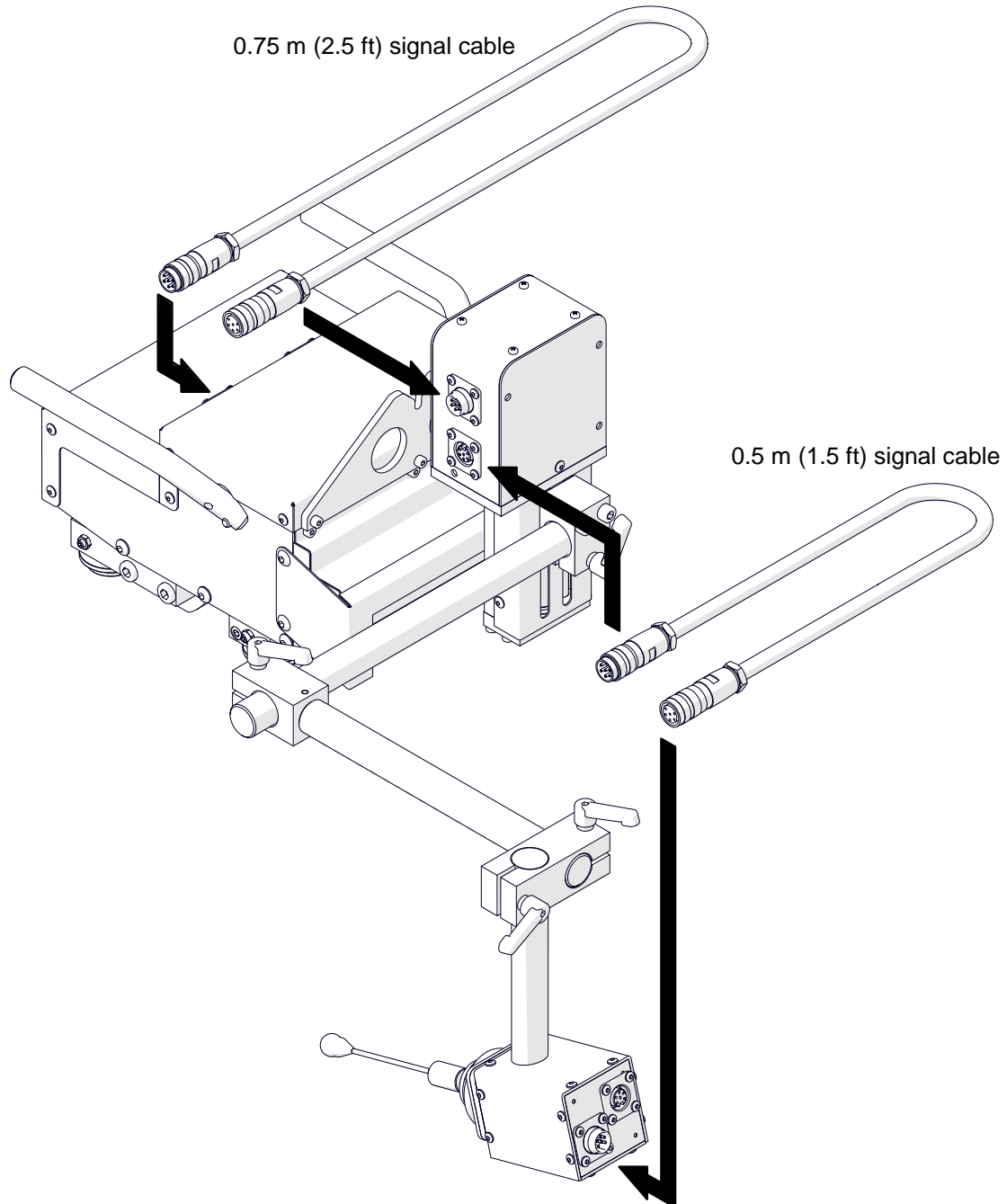


Fig. 15. Connecting the tracking sensor to the carriage

Install the torch into the torch holder. Then, tilt the rod of the sensor against the workpiece so that there is tension in the rod. Next, put the tip in the welding seam (Fig. 16).

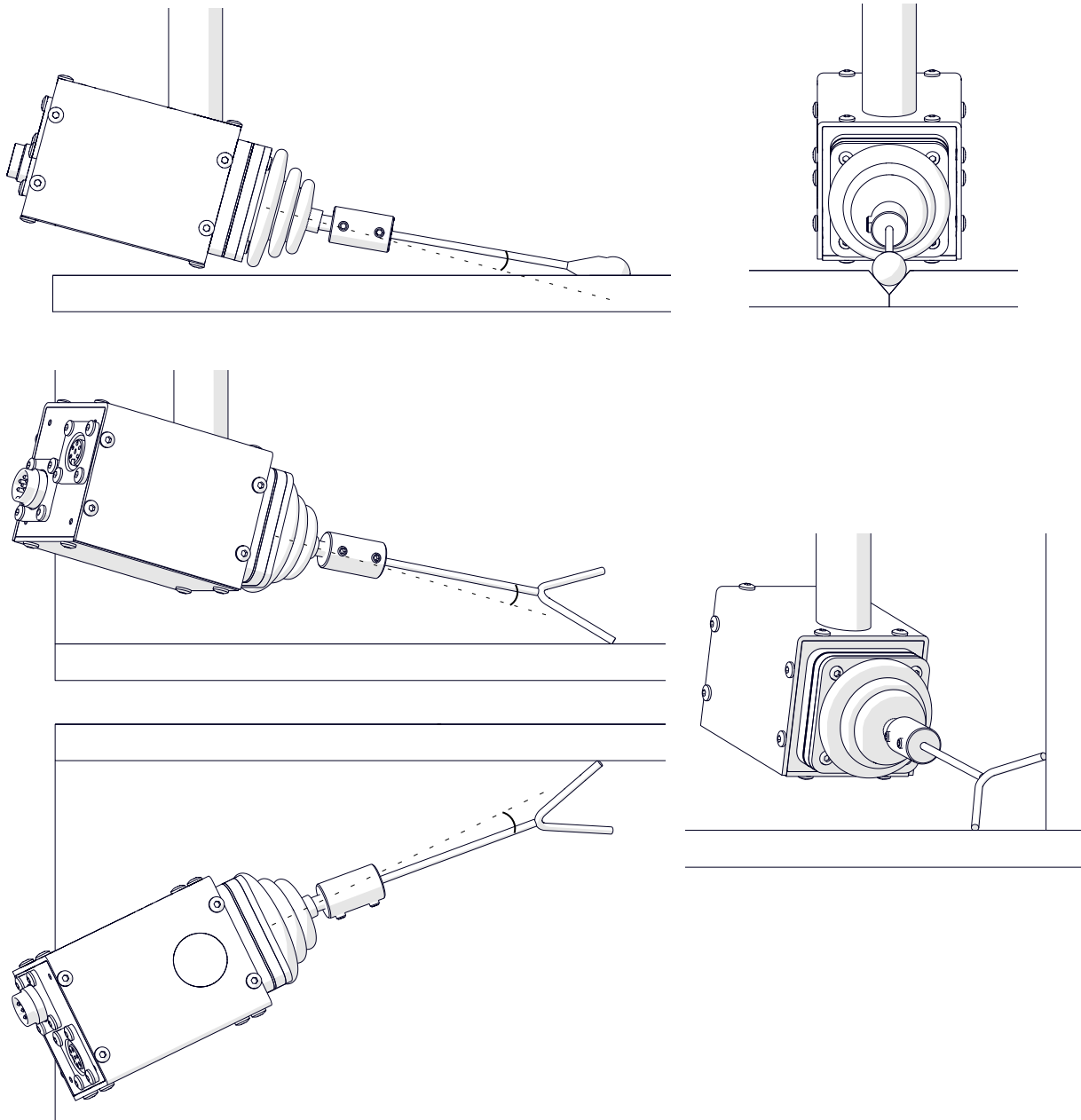


Fig. 16. Setting the tracking sensor correctly in the welding seam

Fig. 17 shows how the tracking system works. When the tip of the sensor moves in the seam, the system senses any small change in position of the seam. Then, the oscillator, the vertical slide, and the torch, are moved to maintain the correct position above the seam.

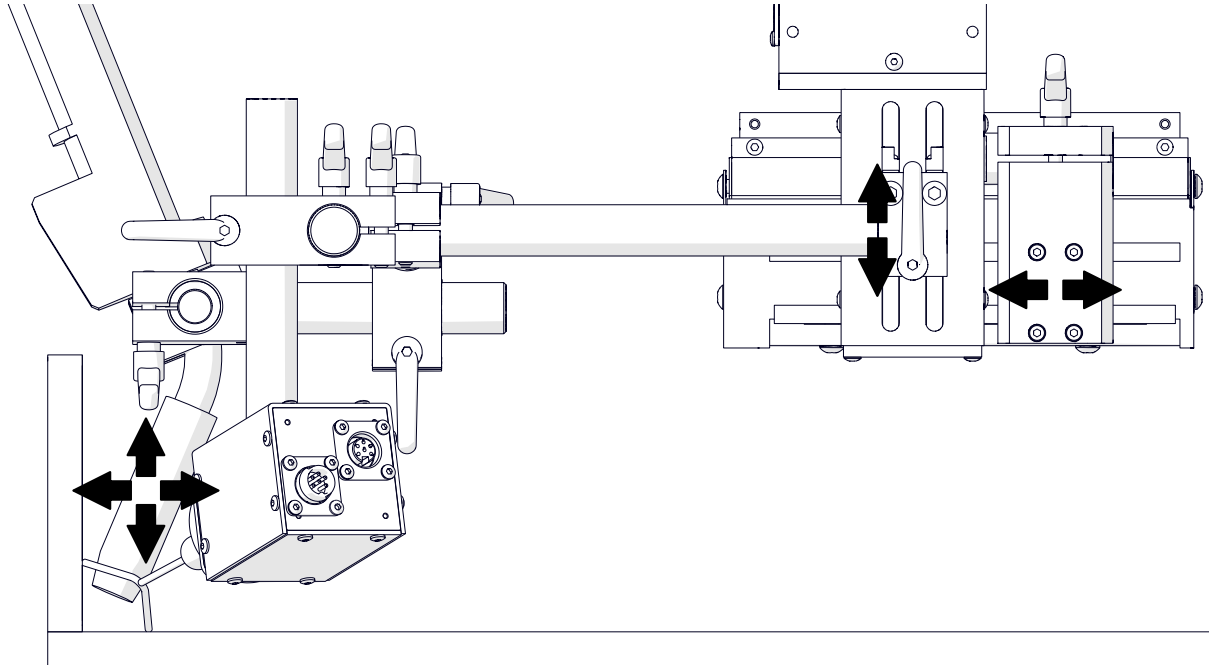


Fig. 17. Torch moves with small changes in position of the seam

3.10. Troubleshooting

Message	Cause	Solution
INFO #1	Limit switch activated during travel.	Set the travel direction switch to 'O'.
	Limit switch active when powering.	Loosen the drive clutch knob to disengage the gear. Then, move the carriage until the limit switch is released.
WARNING #1	Travel direction switch not set to 'O' when powering.	Set the travel direction switch to 'O'.
WARNING #3	Arc ignition switch set to TEST when powering.	Set the arc ignition switch to 'O'.
WARNING #4	Oscillation switch set to TEST when powering.	Set the oscillation switch to 'O'.
WARNING #5	Sensor tip fell out of the weld groove when tracking and arcing.	Set the travel direction switch to 'O'. Make sure that the tension in the rod of the sensor is correct. Use the correct tip for the application.
ERROR #1	Controller failure or no communication.	Contact service center for check and repair.
ERROR #2	Motor overload.	Adjust the position of the cables so that they do not block the travel. Remove other objects that block the carriage or the drive gear.

4. MAINTENANCE

Daily:

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

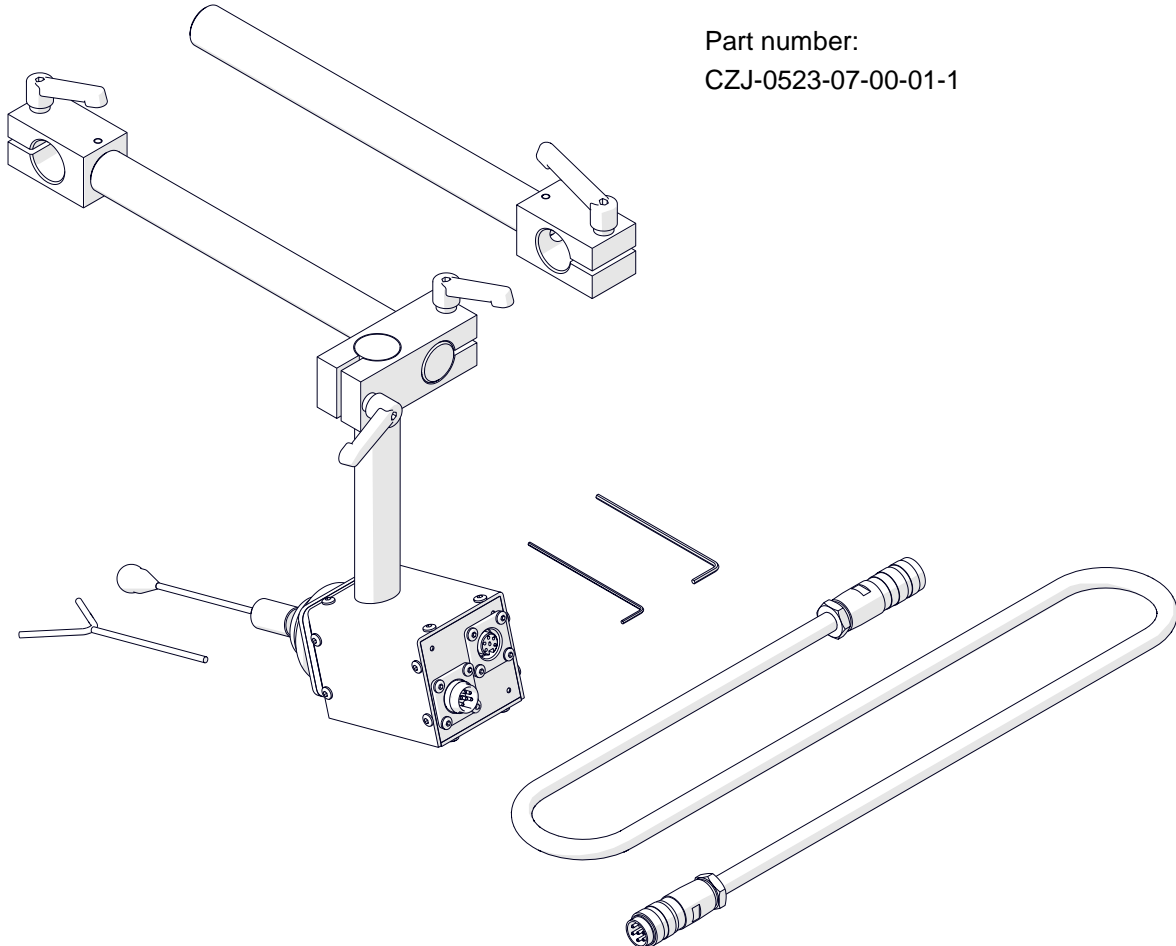
Monthly:

1. Make sure that the knobs and the switches work as intended. Replace if loose or damaged.
2. Examine cables, cords, and hoses. Replace if damaged.
3. Tighten screws if loose.

5. ACCESSORIES

5.1. Seam tracking attachment

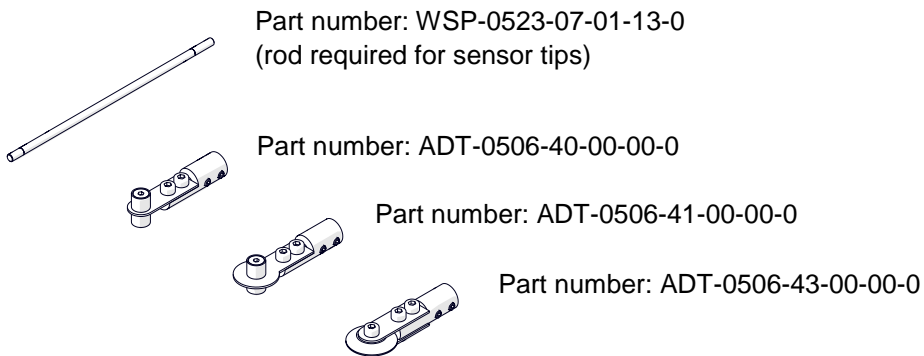
Allows the carriage to track the welding seam.



Part number:
CZJ-0523-07-00-01-1

5.2. Tracking sensor tips

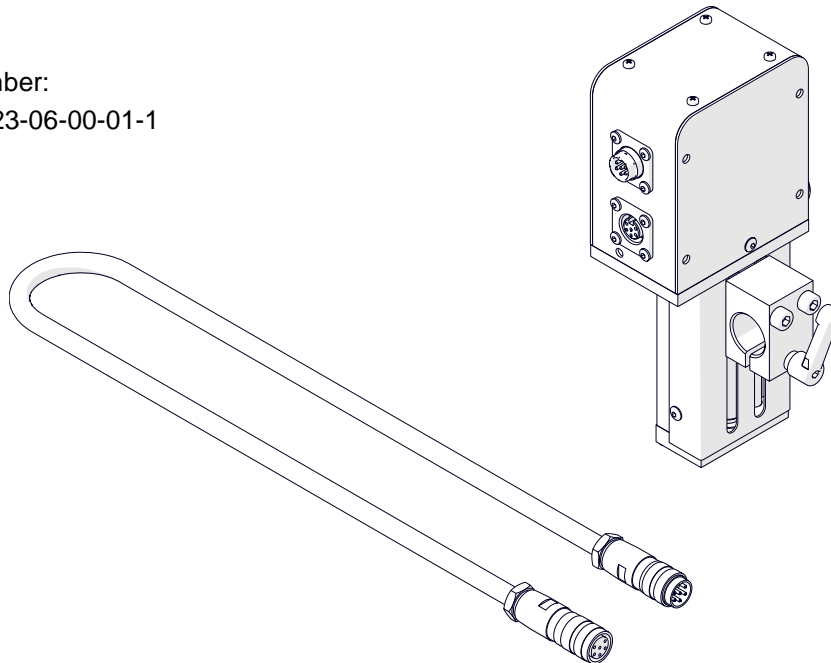
Allow seam tracking in various applications.



5.3. Motorized vertical slide

Allows the vertical position of the torch to be controlled.

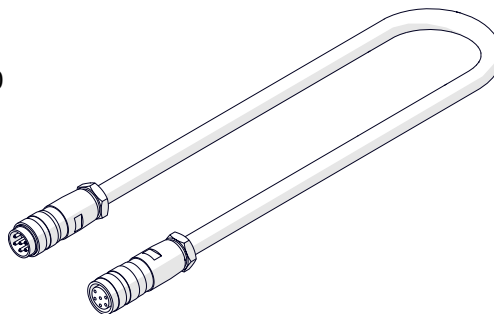
Part number:
OSK-0523-06-00-01-1



5.4. 0.5 m (1.5 ft) signal cable

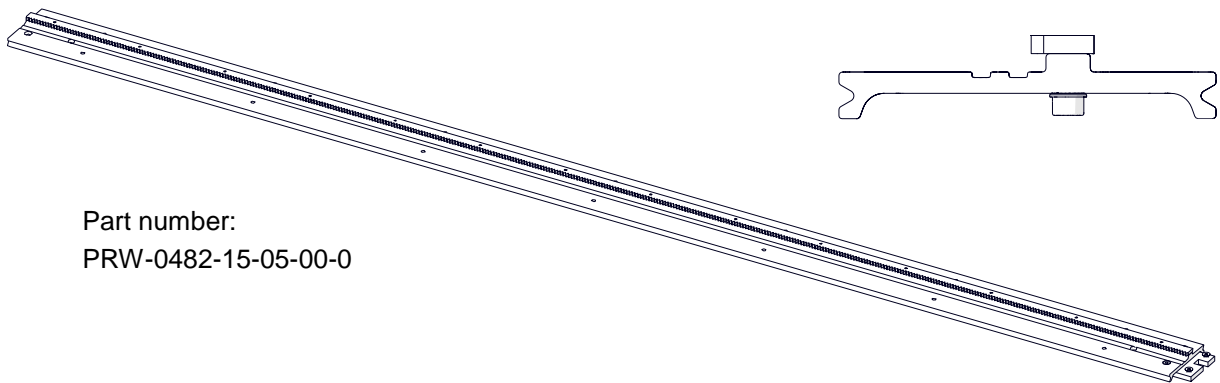
Required for connecting the motorized vertical slide to the tracking sensor.

Part number:
PWD-0523-07-01-09-0



5.5. Semi-flexible track

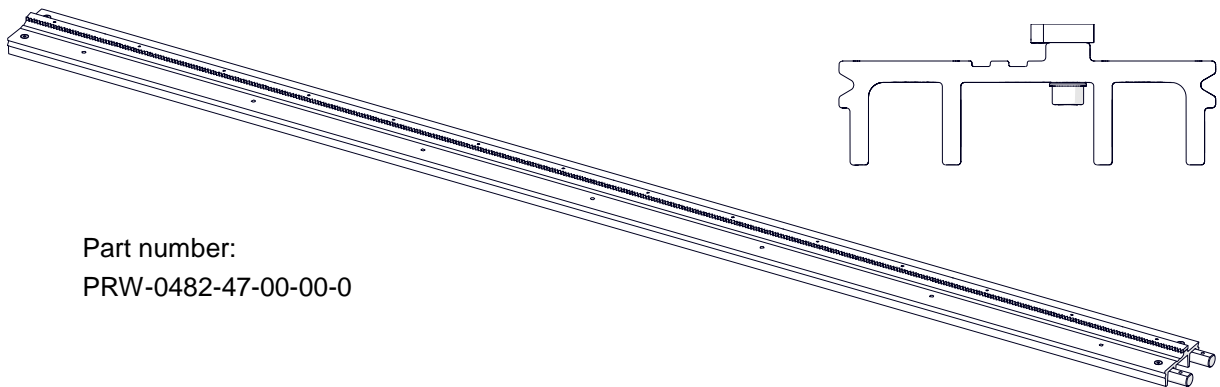
Allows guiding the carriage along a curve. The length of a single rail is 2 m (6.5 ft).



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

5.6. Rigid track

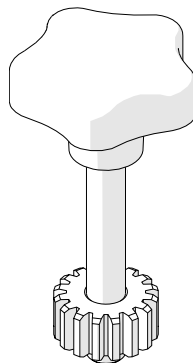
Allows guiding the carriage along a straight line. The length of a single rail is 2 m (6.5 ft).



Part number:
PRW-0482-47-00-00-0

5.7. Rack adjustment tool

Removes the clearance between the racks of two semi-flexible rails that are put on a curve.

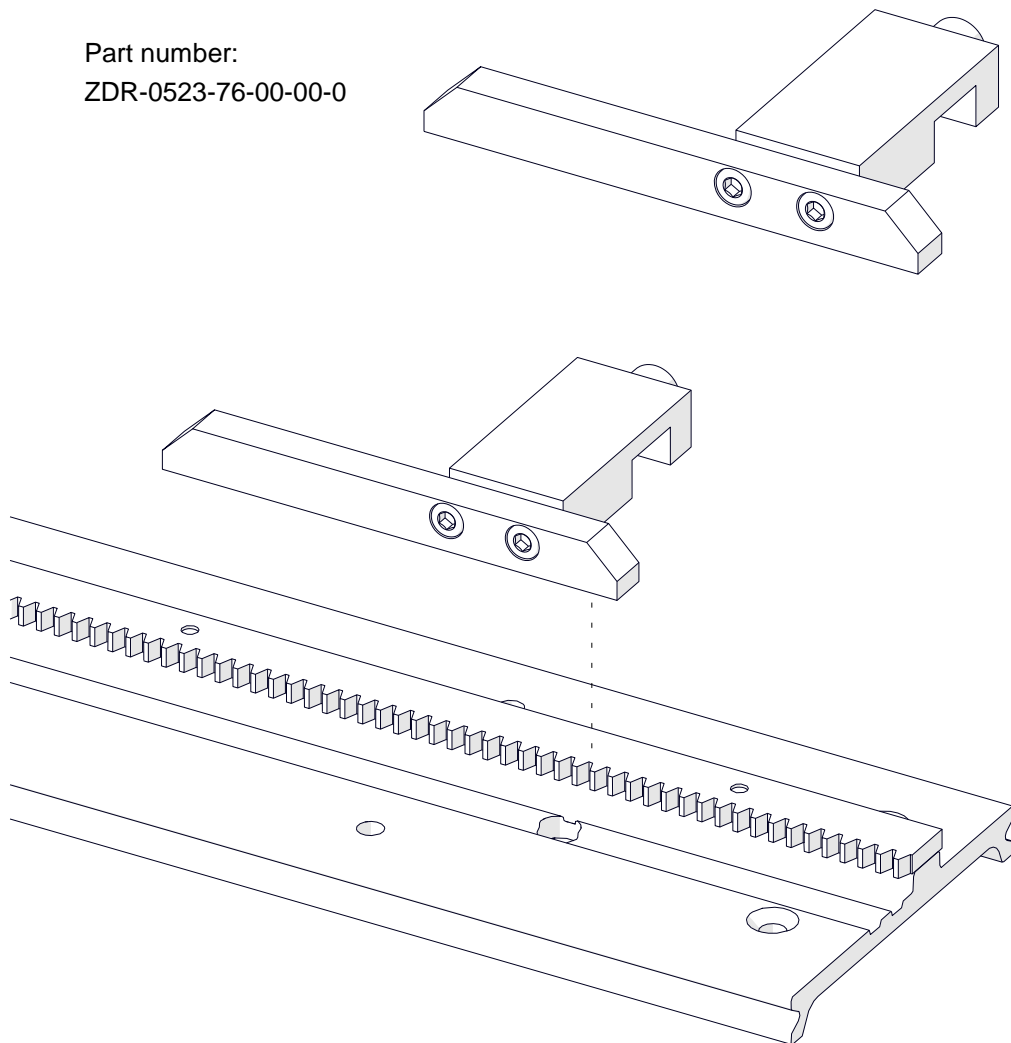


Part number:
PKT-0341-13-00-00-0

5.8. Contact block

Protects the carriage from falling off a track with open ends. When the carriage comes into contact with the block, the limit switch is activated. Use two blocks to close the track and limit the travel path to a section. To install the contact block on a semi-flexible or rigid track, use the 6 mm hex wrench.

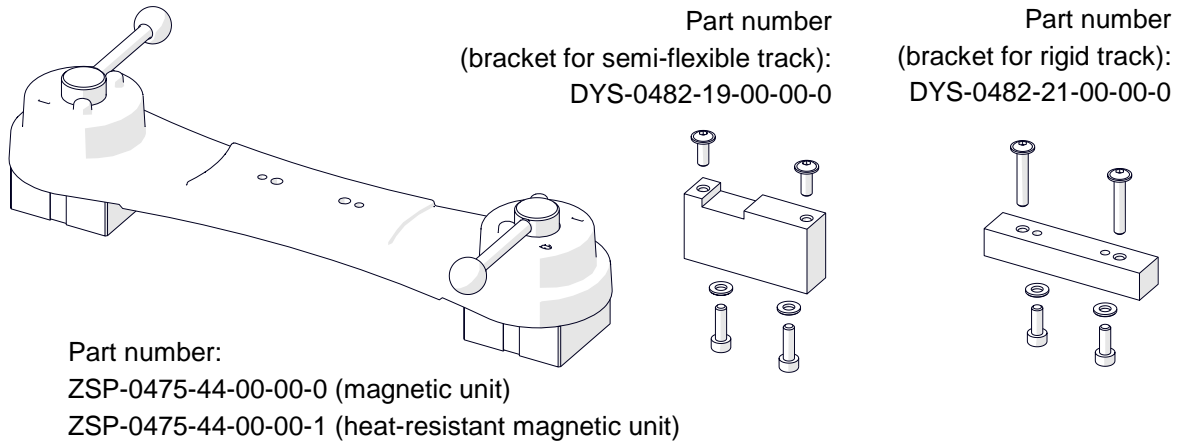
Part number:
ZDR-0523-76-00-00-0



5.9. Magnetic units

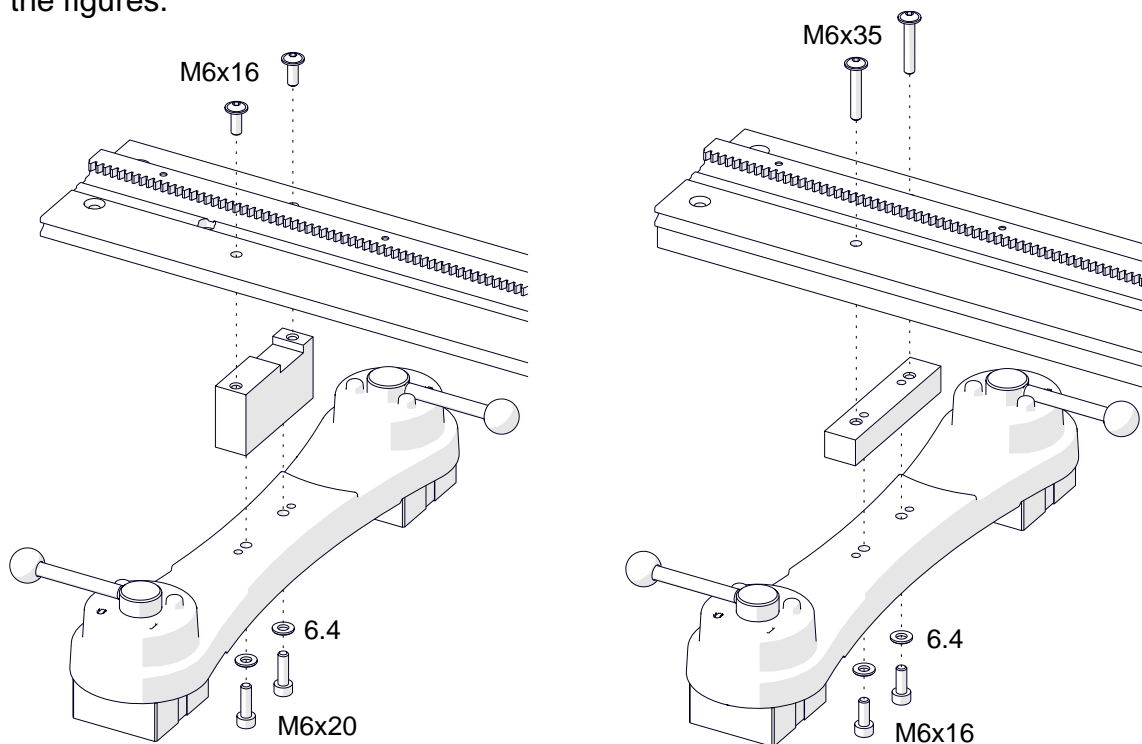
5.9.1. Magnetic unit

Allows clamping a semi-flexible or rigid track to ferromagnetic surfaces.



Holding force on a 5 mm (0.2") thick surface	Temperature	
	Magnetic unit	Heat-resistant magnetic unit
100% (1200 N, 265 lbs)	20°C (68°F)	20°C (68°F)
75% (900 N, 200 lbs)	80°C (176°F)	160°C (320°F)
50% (600 N, 130 lbs)	120°C (248°F)	200°C (392°F)

Use the 4 mm hex wrench to attach the unit to a semi-flexible or rigid track as shown in the figures.



5.9.1. Pivoting magnetic unit

Allows clamping a semi-flexible or rigid track to ferromagnetic surfaces that are concave or convex, to pipes with outer diameters of at least 800 mm (31.5"), and to surfaces that differ in height up to 80 mm (3.1").

Part number:

ZSP-0475-85-00-00-0

Part number

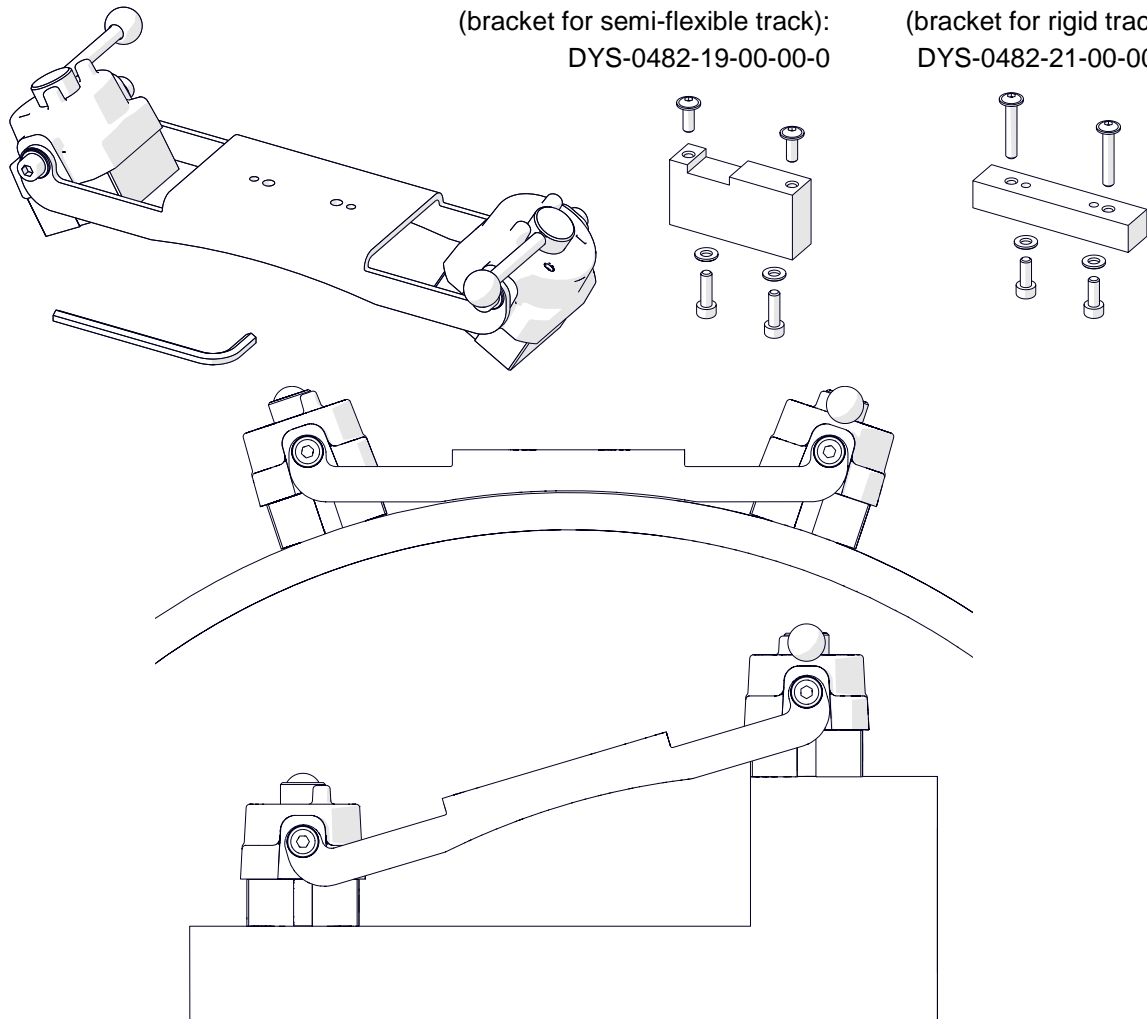
(bracket for semi-flexible track):

DYS-0482-19-00-00-0

Part number

(bracket for rigid track):

DYS-0482-21-00-00-0



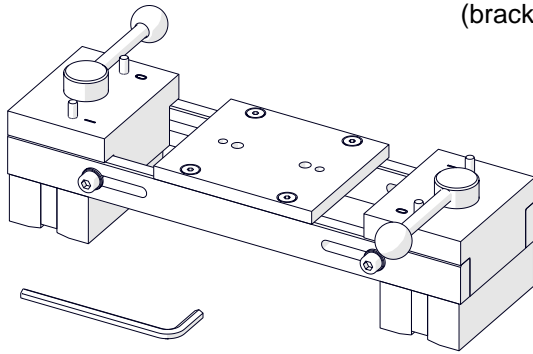
Holding force on a 5 mm (0.2") thick surface	Temperature
100% (1200 N, 265 lbs)	20°C (68°F)
75% (900 N, 200 lbs)	80°C (176°F)
50% (600 N, 130 lbs)	120°C (248°F)

Install the unit in the same way as the magnetic unit is installed. To adjust the angle, use the 6 mm hex wrench and loosen four side screws.

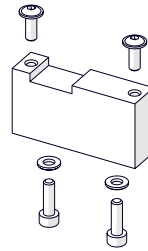
5.9.2. Spacing-adjustable magnetic unit

Allows clamping a semi-flexible track or rigid track to two ferromagnetic pipes with diameters of 25–230 mm (1–9") and the distance between pipe axes of 170–230 mm (6.7–9.1").

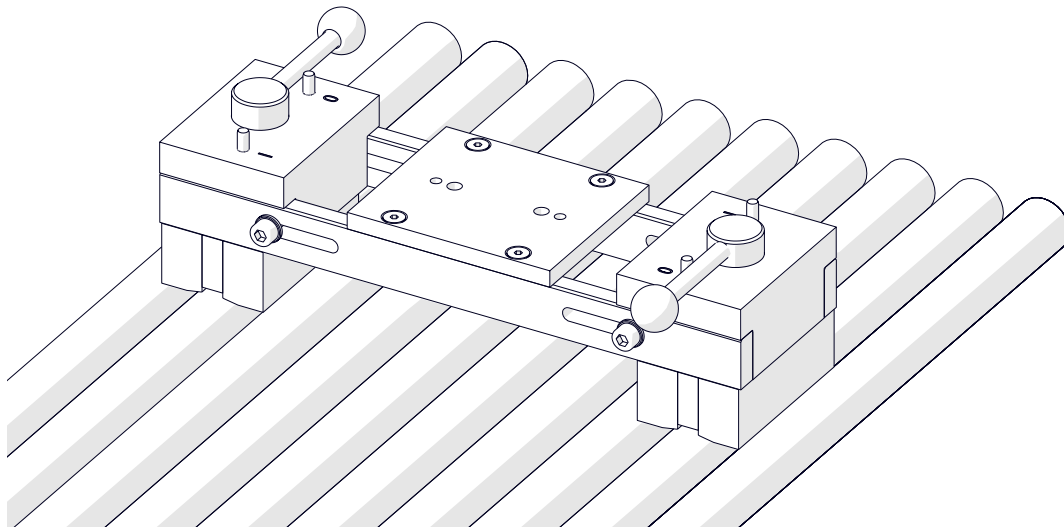
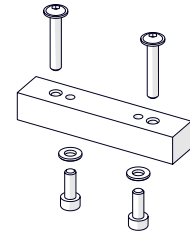
Part number:
ZSP-0523-19-00-00-0



Part number
(bracket for semi-flexible track):
DYS-0482-19-00-00-0



Part number
(bracket for rigid track):
DYS-0482-21-00-00-0



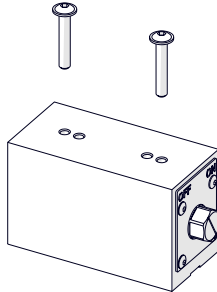
Holding force on a 5 mm (0.2") thick surface	Temperature
100% (1200 N, 265 lbs)	20°C (68°F)
75% (900 N, 200 lbs)	80°C (176°F)
50% (600 N, 130 lbs)	120°C (248°F)

Install the unit in the same way as the magnetic unit is installed. To adjust the spacing, use the 5 mm hex wrench and loosen four side screws.

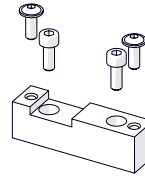
5.9.3. Narrow magnetic unit

Allows clamping a semi-flexible track or rigid track to ferromagnetic surfaces.

Part number:
PDS-0582-10-00-02-0

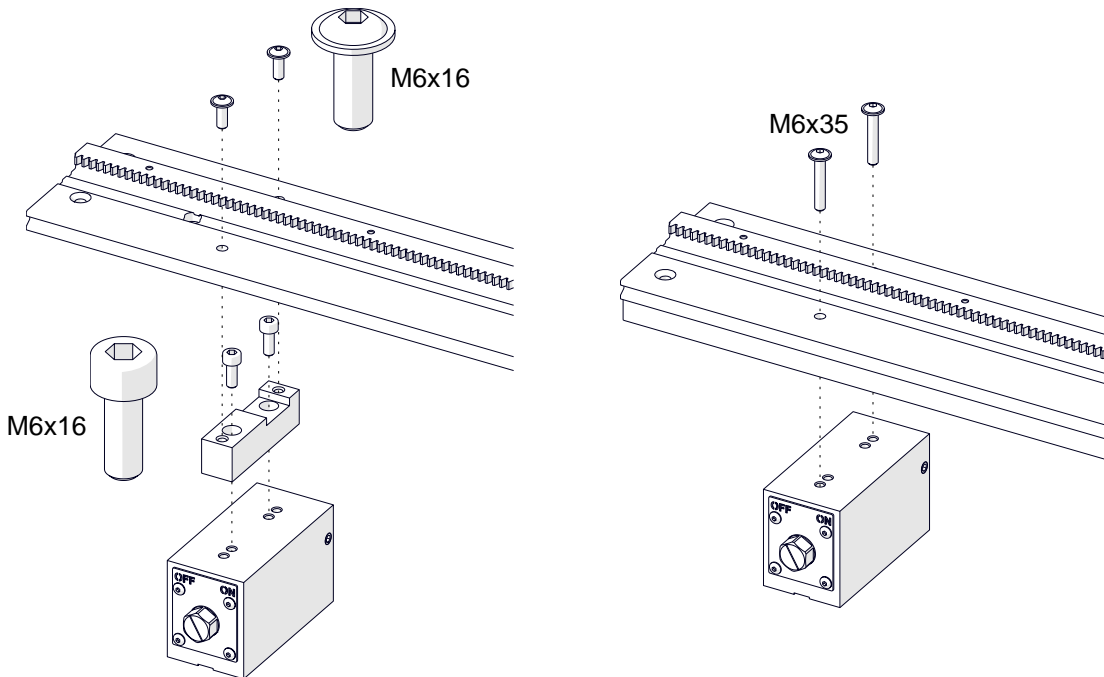


Part number
(bracket for semi-flexible track):
DYS-0582-10-00-00-0



Holding force on a 5 mm (0.2") thick surface	Temperature
100% (1000 N, 220 lbs)	20°C (68°F)
75% (750 N, 165 lbs)	80°C (176°F)
50% (500 N, 110 lbs)	120°C (248°F)

Use the 4 mm hex wrench to attach the unit to a semi-flexible or rigid track as shown in the figures.

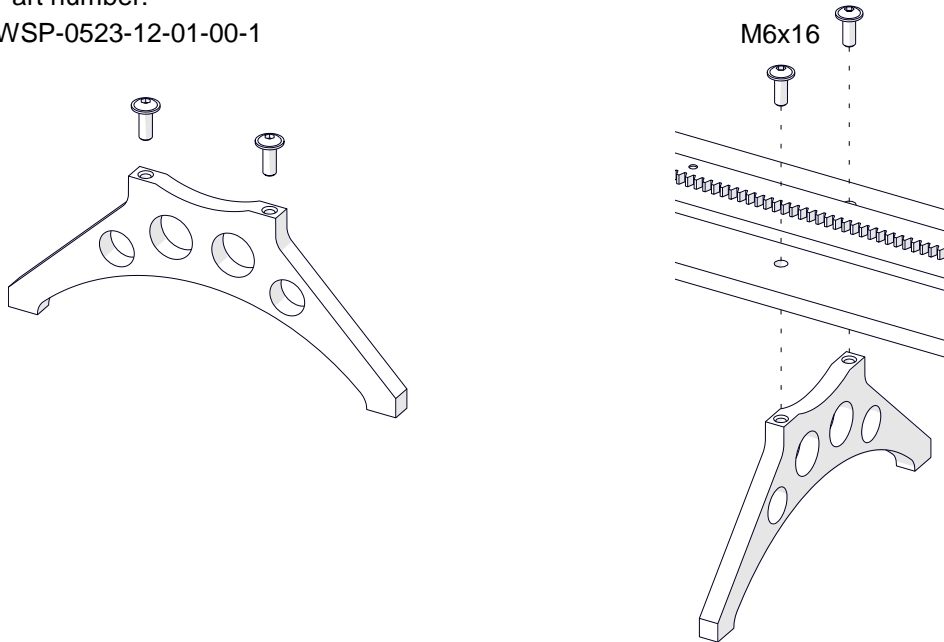


To clamp the unit to the surface, use the 17 mm flat wrench (not included) and set the side screw to ON.

5.10. Semi-flexible track support

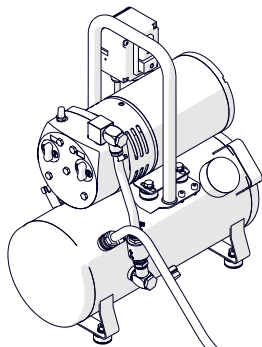
Allows supporting a semi-flexible track by using the support instead of a magnetic unit. Use the 4 mm hex wrench to attach the support to a semi-flexible track.

Part number:
WSP-0523-12-01-00-1



5.11. Vacuum track system

Dedicated to clamping the track to non-ferromagnetic surfaces.

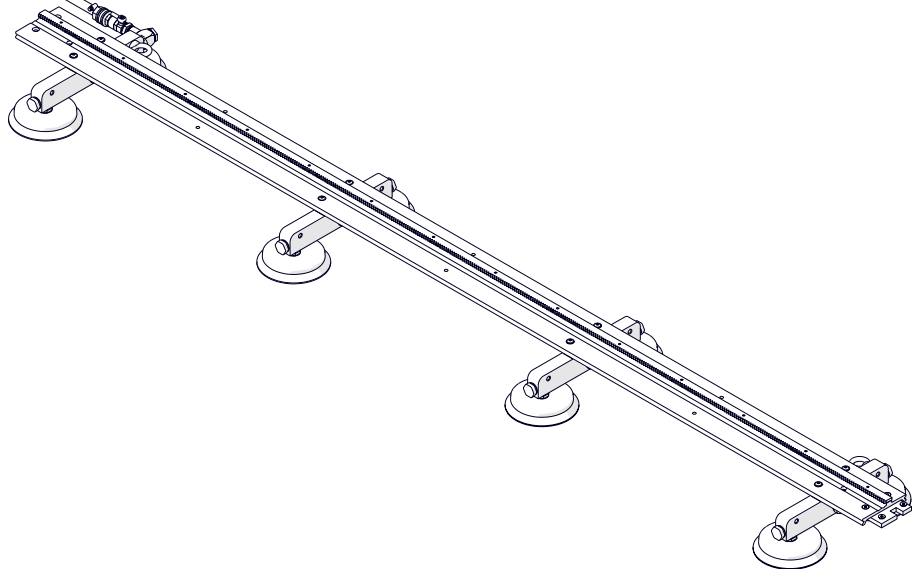


Part number (vacuum pump with safety reservoir):

AGR-0541-24-10-00-0 (115 V US)

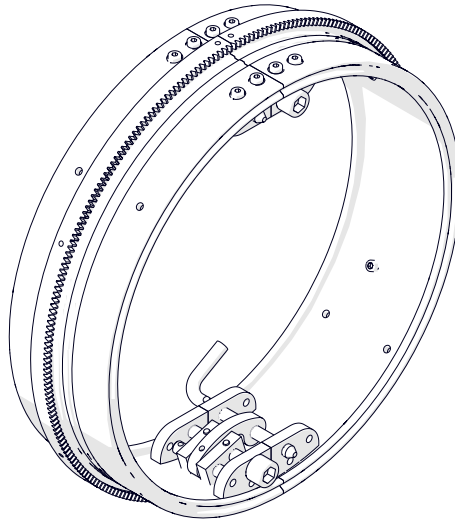
AGR-0541-24-20-00-0 (230 V CEE)

Other parts of the system are described in a related manual.



5.12. Ring tracks

Allow welding of round workpieces with the outer diameters from 200 mm (8") to 3000 mm (120"). The tracks consist of two, three, or four rails. Tracks not shown in the table are available on request.



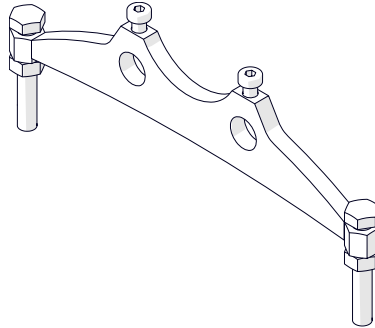
Pipe outer diameter		Part number	Rails	Ring track supports required
Min. [mm]	Max. [mm]			
200	250	TRO-0523-14-00-00-0	2	4
250	300	TRO-0523-78-00-00-0	2	4
300	350	TRO-0523-20-00-00-0	2	4
350	400	TRO-0523-21-00-00-0	2	4
400	450	TRO-0523-23-00-00-0	2	6
450	500	TRO-0523-24-00-00-0	2	6
500	550	TRO-0523-25-00-00-0	2	6
550	600	TRO-0523-26-00-00-0	2	6
600	650	TRO-0523-22-00-00-0	2	6
650	700	TRO-0523-28-00-00-0	2	6
700	750	TRO-0523-29-00-00-0	2	6
750	800	TRO-0523-30-00-00-0	2	6
800	850	TRO-0523-31-00-00-0	2	6
850	900	TRO-0523-32-00-00-0	2	6
900	950	TRO-0523-33-00-00-0	2	8
950	1000	TRO-0523-34-00-00-0	2	8
1000	1050	TRO-0523-35-00-00-0	2	8
1050	1100	TRO-0523-36-00-00-0	3	9
1100	1150	TRO-0523-37-00-00-0	3	9
1150	1200	TRO-0523-38-00-00-0	3	9
1200	1250	TRO-0523-39-00-00-0	3	9
1250	1300	TRO-0523-40-00-00-0	3	9

Pipe outer diameter		Part number	Rails	Ring track supports required
Min. [mm]	Max. [mm]			
1300	1350	TRO-0523-41-00-00-0	3	12
1350	1400	TRO-0523-42-00-00-0	3	12
1400	1450	TRO-0523-43-00-00-0	3	12
1450	1500	TRO-0523-44-00-00-0	3	12
1500	1550	TRO-0523-45-00-00-0	3	12
1550	1600	TRO-0523-46-00-00-0	3	12
1600	1650	TRO-0523-47-00-00-0	3	12
1650	1700	TRO-0523-48-00-00-0	3	12
1700	1750	TRO-0523-49-00-00-0	3	12
1750	1800	TRO-0523-50-00-00-0	3	12
1800	1850	TRO-0523-51-00-00-0	3	12
1850	1900	TRO-0523-52-00-00-0	3	15
1900	1950	TRO-0523-53-00-00-0	3	15
1950	2000	TRO-0523-54-00-00-0	3	15
2000	2050	TRO-0523-55-00-00-0	3	15
2050	2100	TRO-0523-56-00-00-0	4	16
2100	2150	TRO-0523-57-00-00-0	4	16
2150	2200	TRO-0523-58-00-00-0	4	16
2200	2250	TRO-0523-59-00-00-0	4	16
2250	2300	TRO-0523-60-00-00-0	4	20
2300	2350	TRO-0523-61-00-00-0	4	20
2350	2400	TRO-0523-62-00-00-0	4	20
2400	2450	TRO-0523-63-00-00-0	4	20
2450	2500	TRO-0523-64-00-00-0	4	20
2500	2550	TRO-0523-65-00-00-0	4	20
2550	2600	TRO-0523-66-00-00-0	4	20
2600	2650	TRO-0523-67-00-00-0	4	20
2650	2700	TRO-0523-68-00-00-0	4	20
2700	2750	TRO-0523-69-00-00-0	4	20
2750	2800	TRO-0523-70-00-00-0	4	20
2800	2850	TRO-0523-71-00-00-0	4	20
2850	2900	TRO-0523-72-00-00-0	4	20
2900	2950	TRO-0523-73-00-00-0	4	20
2950	3000	TRO-0523-74-00-00-0	4	20
3000	3050	TRO-0523-75-00-00-0	4	20

5.13. Ring track supports

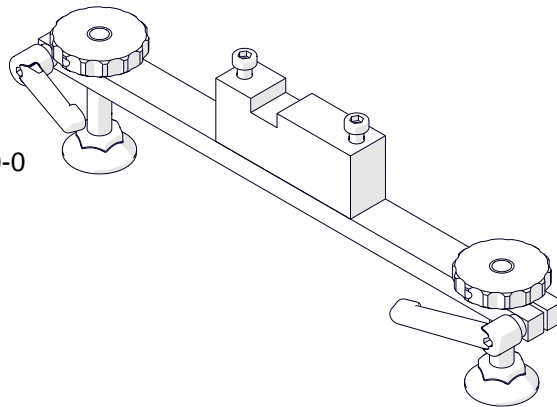
5.13.1. Ring track support with bolts

Part number:
WSP-0523-14-02-00-0



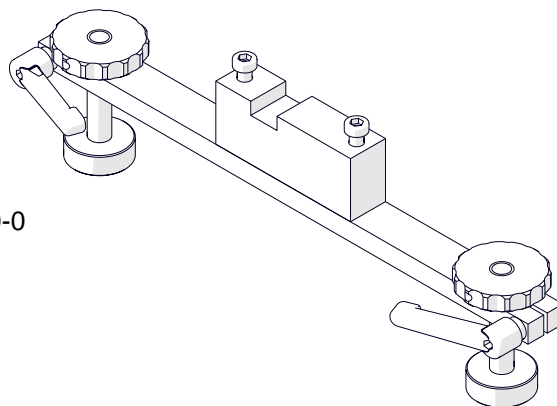
5.13.2. Ring track support with plastic feet

Part number:
WSP-0523-14-11-00-0



5.13.3. Ring track support with magnets

Part number:
WSP-0523-14-12-00-0

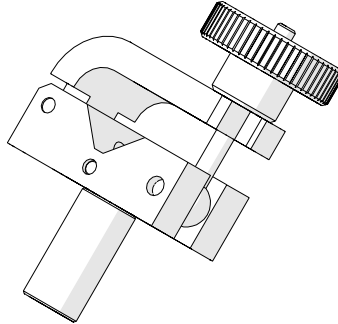


5.14. Torch clamps

5.14.1. 16–22 mm torch clamp

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

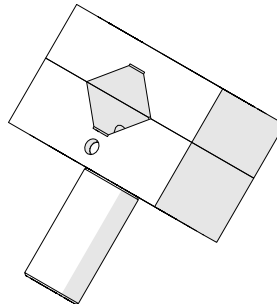
Part number:
ZRZ-0466-04-01-00-0



5.14.2. 16–22 mm torch clip

The clip allows using a torch with the diameter of 16–22 mm (0.63–0.87"). Use the 4 mm hex wrench to tighten the torch in the clip.

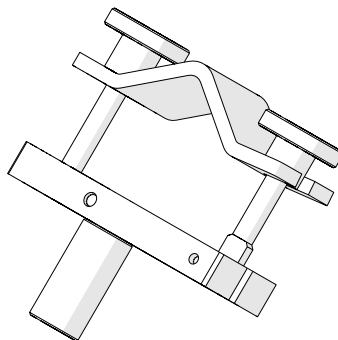
Part number:
ZCS-0476-06-01-00-0



5.14.3. 22–35 mm torch clamp

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

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

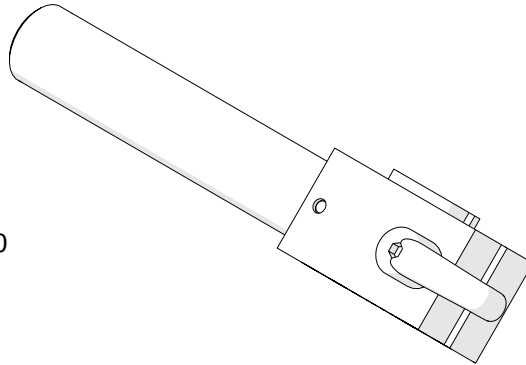


5.15. Rods

5.15.1. Short rod

Provides a 120 mm (4.7") reach.

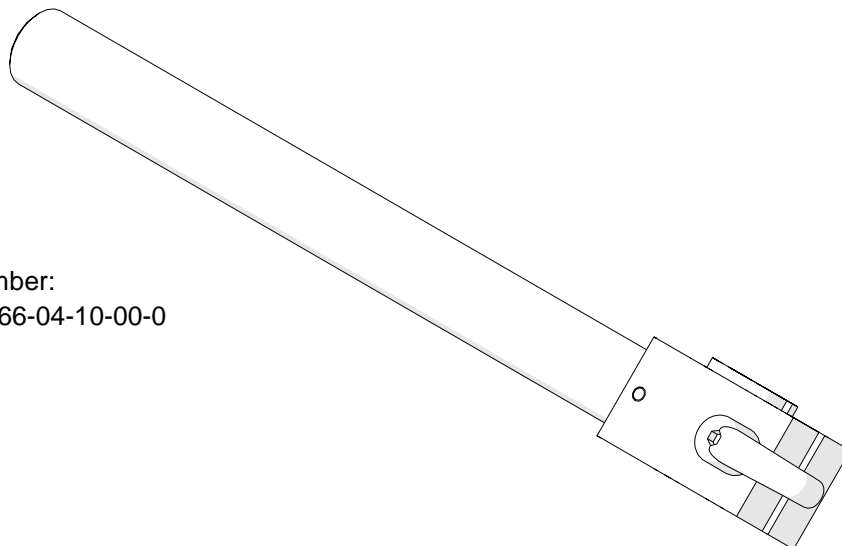
Part number:
WLK-0476-20-01-00-0



5.15.2. Long rod

Provides a 240 mm (9.4") reach.

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

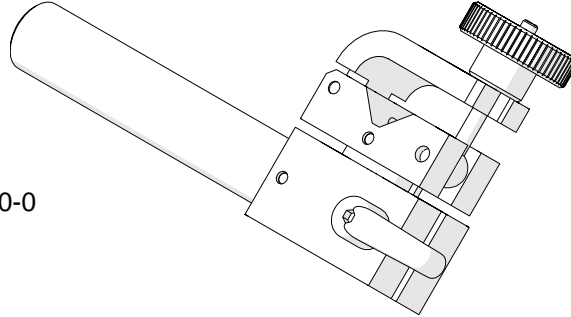


5.16. Torch holders

5.16.1. Short rod torch holder with clamp

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

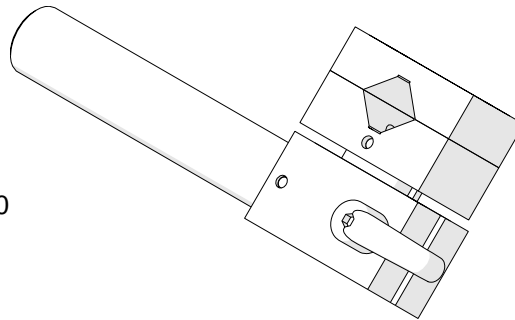
Part number:
UCW-0476-20-00-00-0



5.16.2. Short rod torch holder with clip

The holder allows using a torch with the diameter of 16–22 mm (0.63–0.87”). Use the 4 mm hex wrench to tighten the torch in the clip.

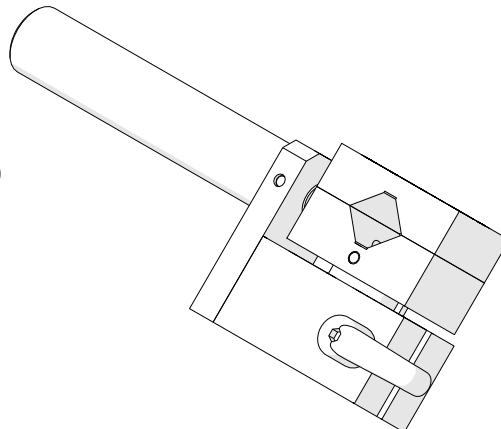
Part number:
UCW-0476-27-00-00-0



5.16.3. Short rod low torch holder with clip

The holder allows using a torch with the diameter of 16–22 mm (0.63–0.87”). Use the 4 mm hex wrench to tighten the torch in the clip.

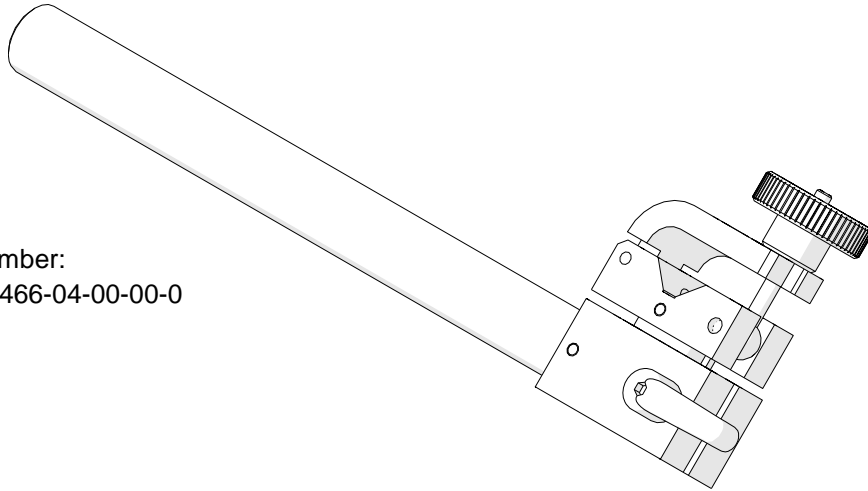
Part number:
UCW-0476-06-00-00-0



5.16.4. Long rod torch holder with clamp

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

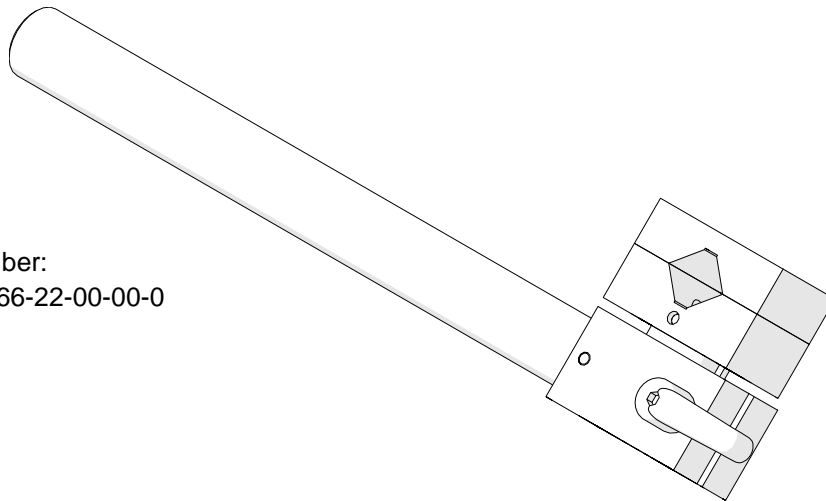
Part number:
UCW-0466-04-00-00-0



5.16.5. Long rod torch holder with clip

The holder allows using a torch with the diameter of 16–22 mm (0.63–0.87"). Use the 4 mm hex wrench to tighten the torch in the clip.

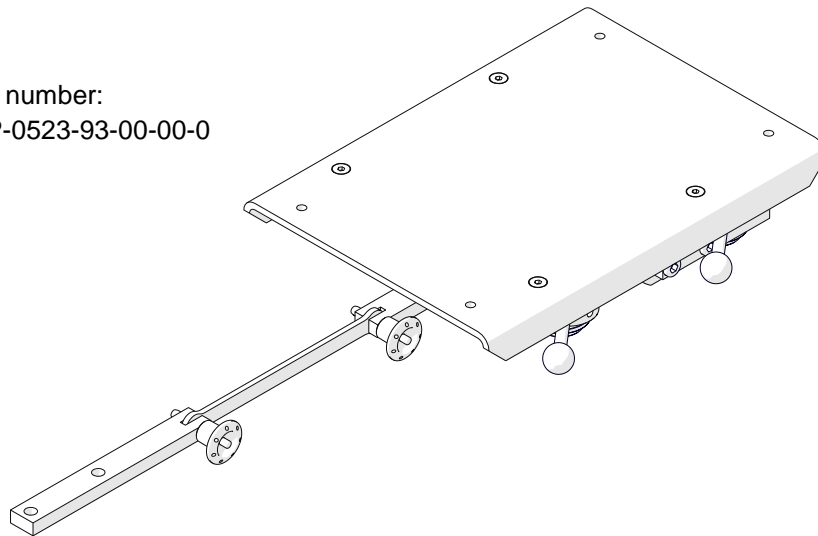
Part number:
UCW-0466-22-00-00-0



5.17. Transport attachment

Allows transporting the wire feeder.

Part number:
PEP-0523-93-00-00-0

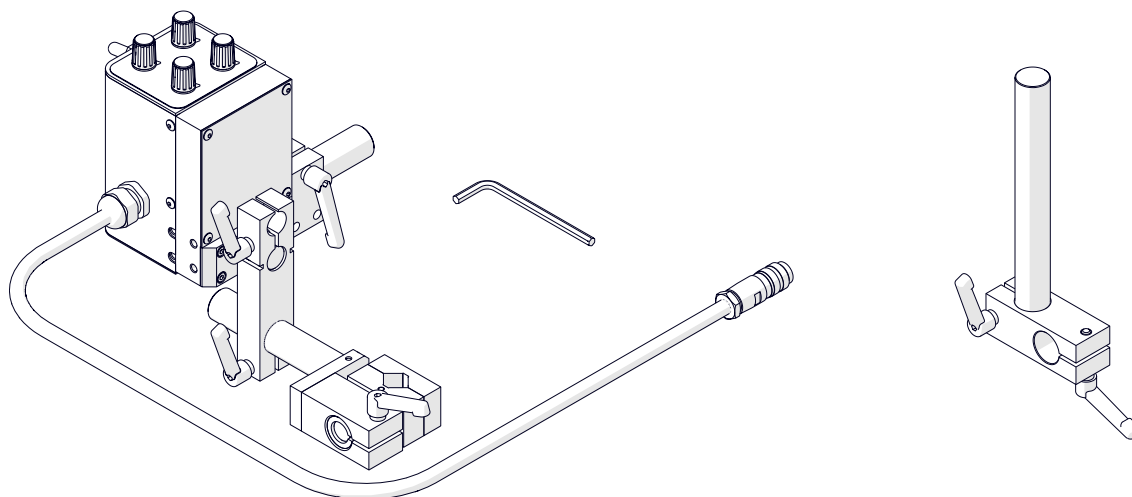


5.18. Pendulum oscillator

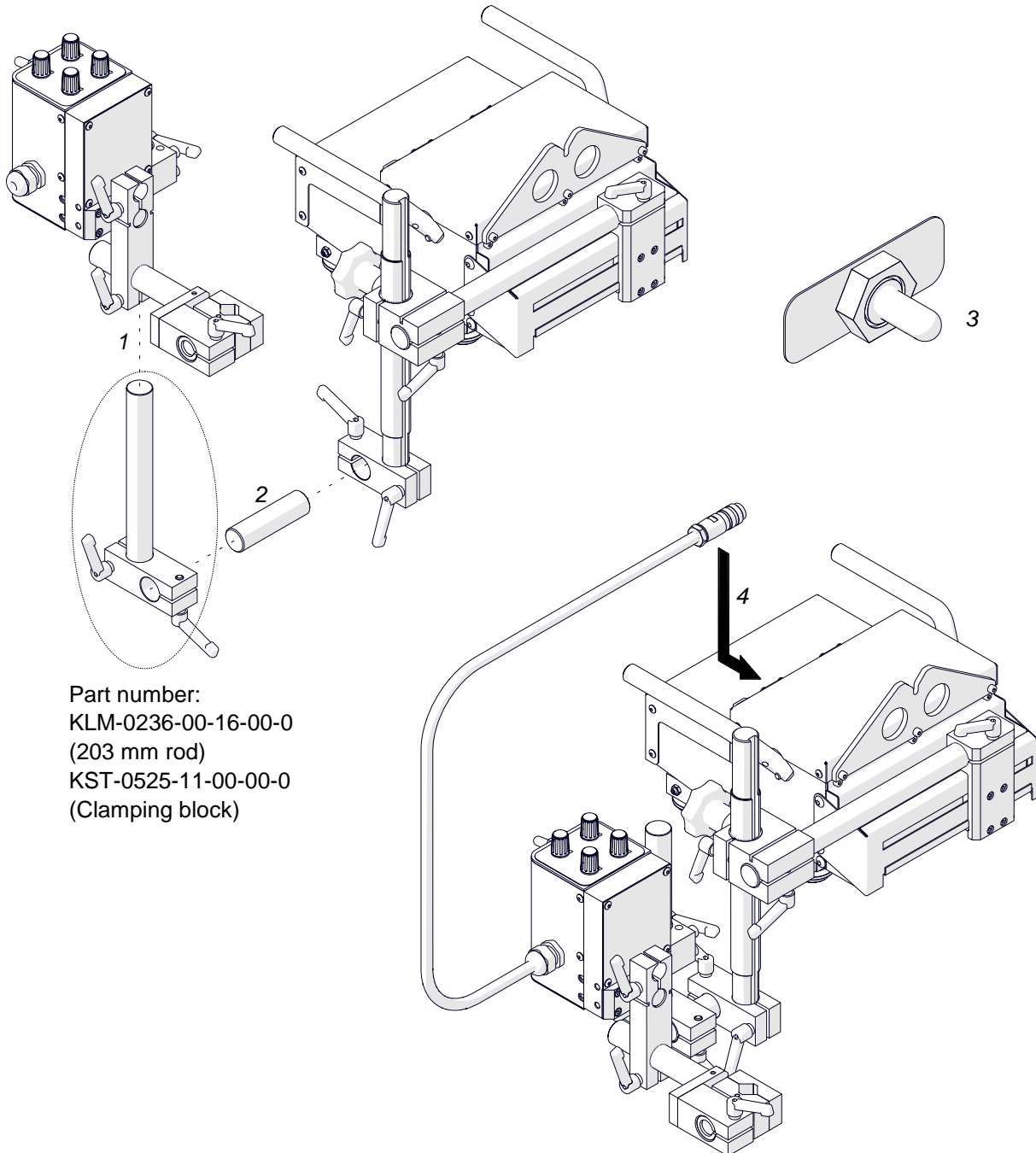
Allows pendulum oscillation of MIG/MAG torches with the diameter of 16–22 mm (5/8–7/8"). Can work with an optional seam tracking attachment. To work without the attachment, use a 203 mm rod and a clamping block.

Part number:
OSC-0497-24-00-00-0

Part number:
KLM-0236-00-16-00-0 (203 mm rod)
KST-0525-11-00-00-0 (Clamping block)

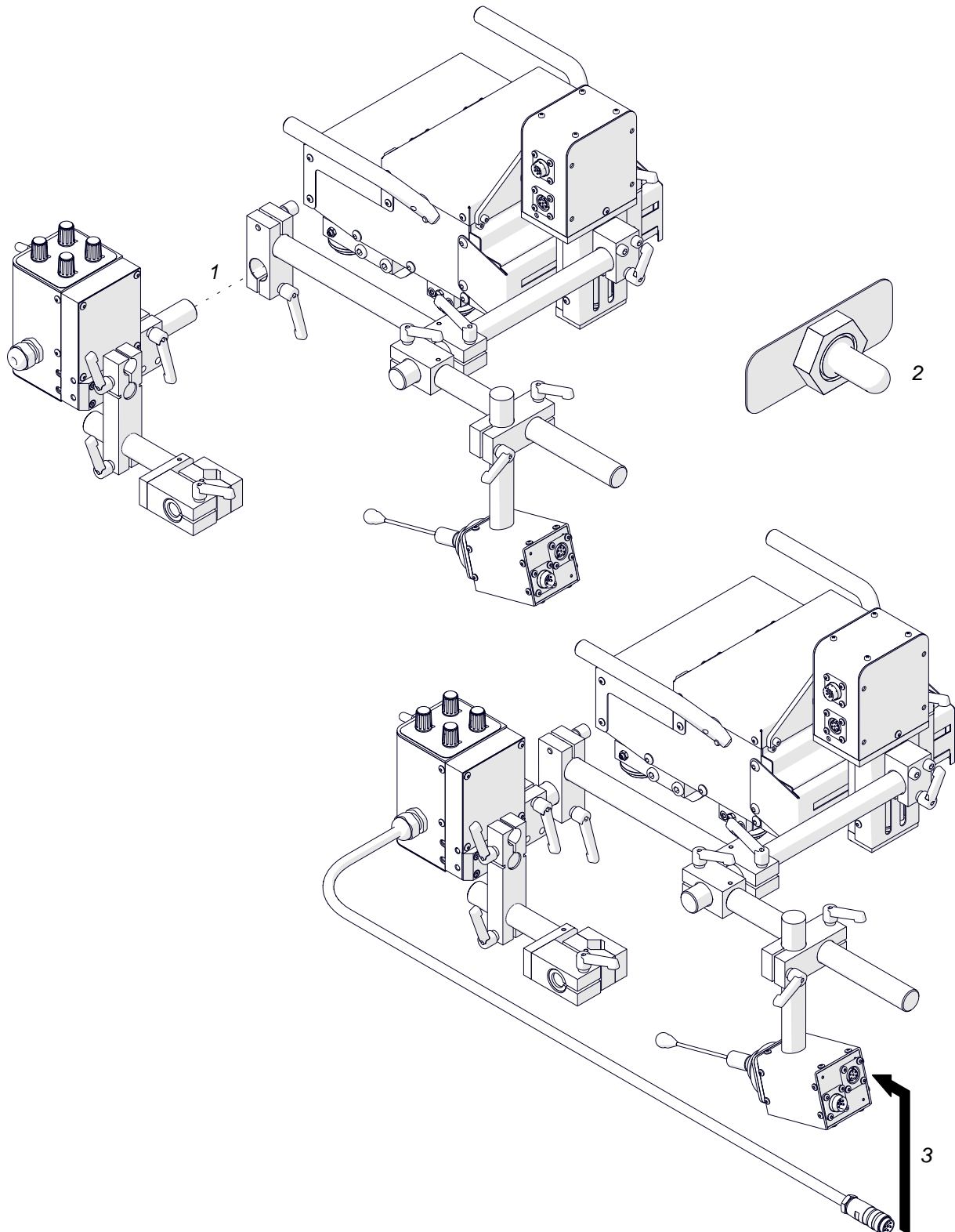


To use the oscillator without seam tracking, assemble the oscillator with a 203 mm (8") rod and a clamping block (1). Then, use the 80 mm (3") rod to put the oscillator onto the carriage (2). Next, set the switch to the center position (3) and connect the oscillator to the carriage (4).

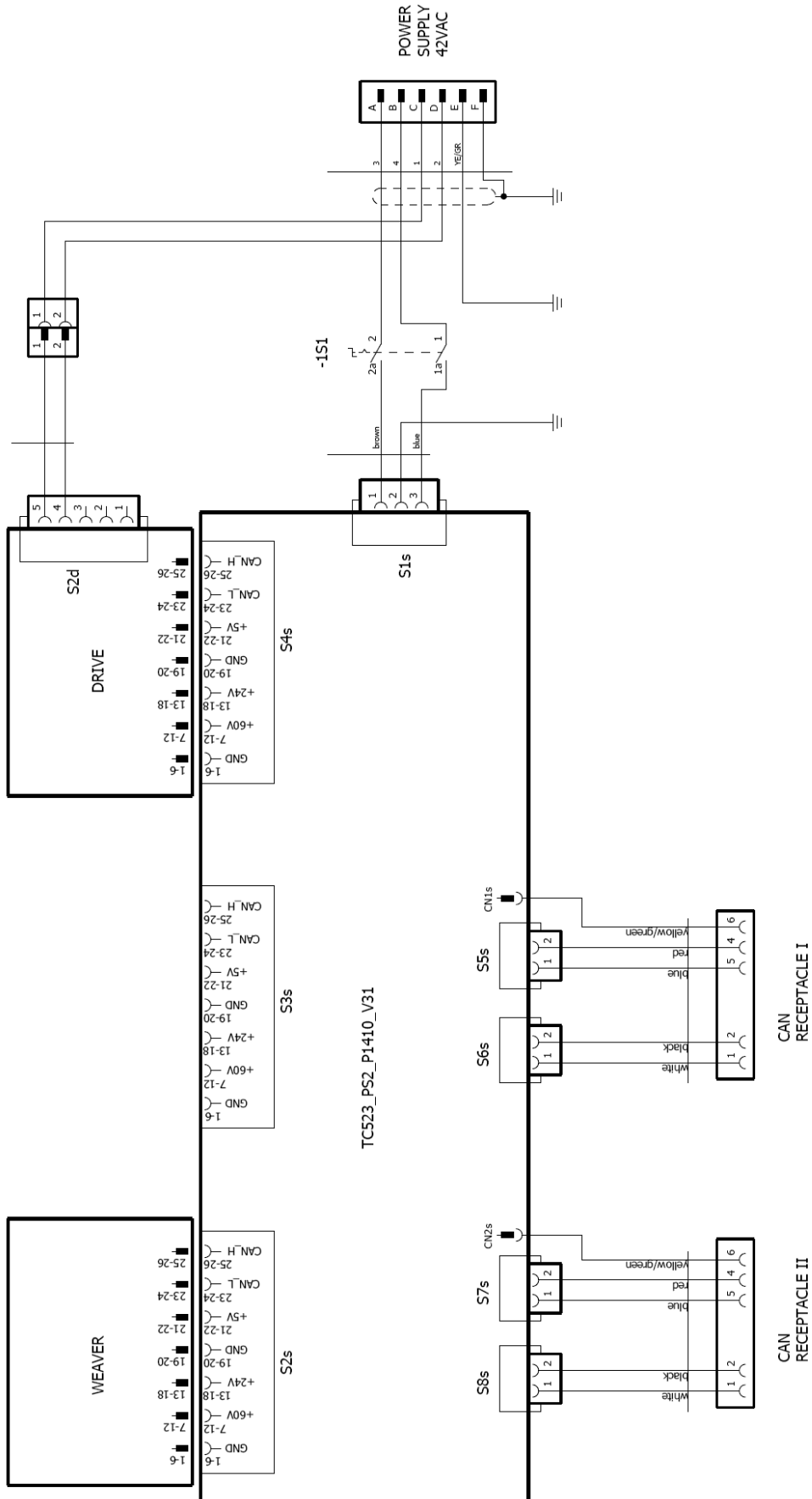


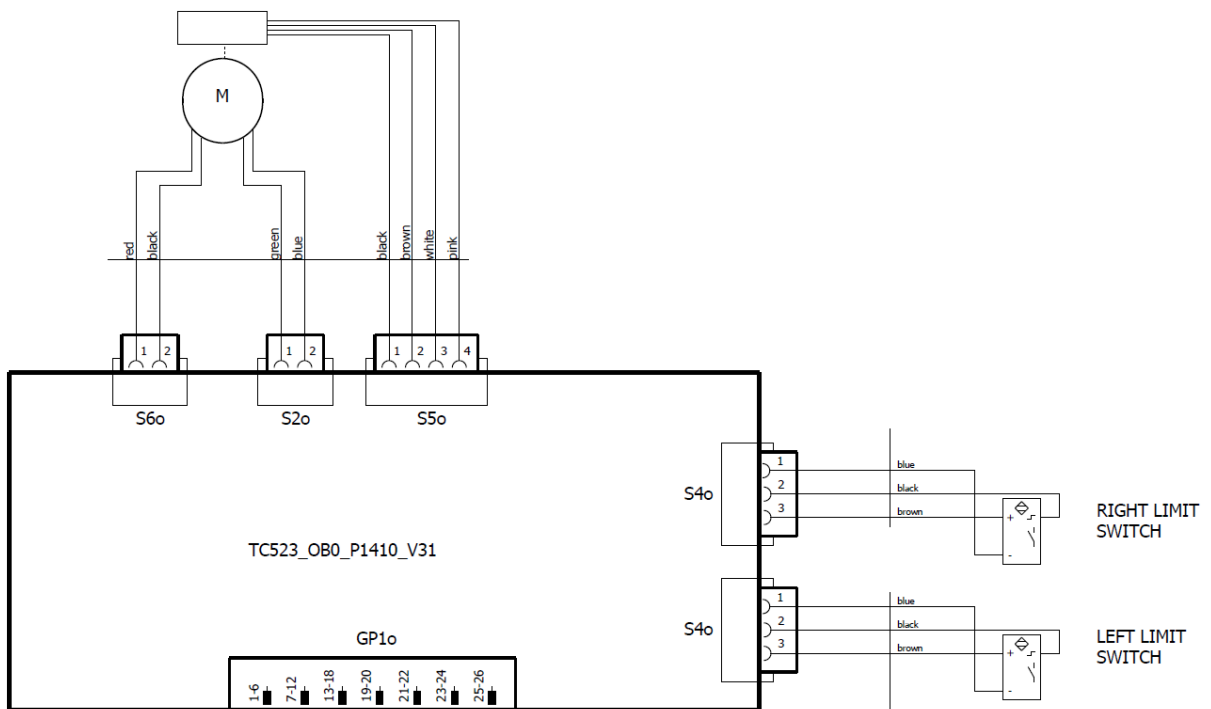
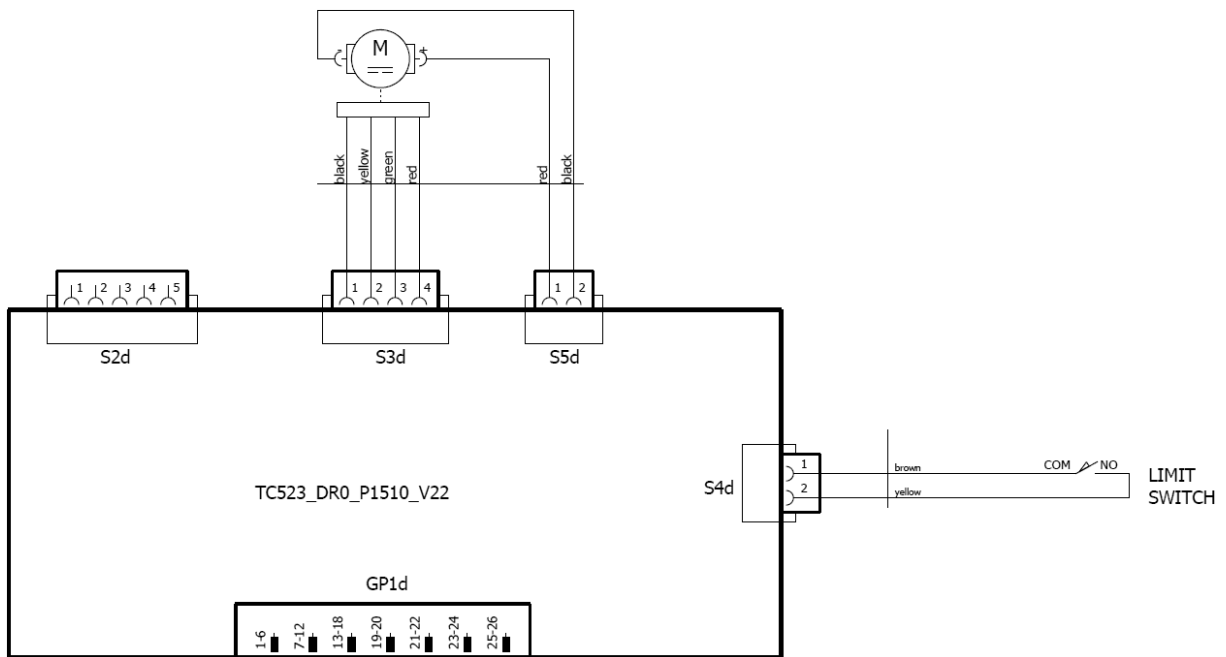
Part number:
KLM-0236-00-16-00-0
(203 mm rod)
KST-0525-11-00-00-0
(Clamping block)

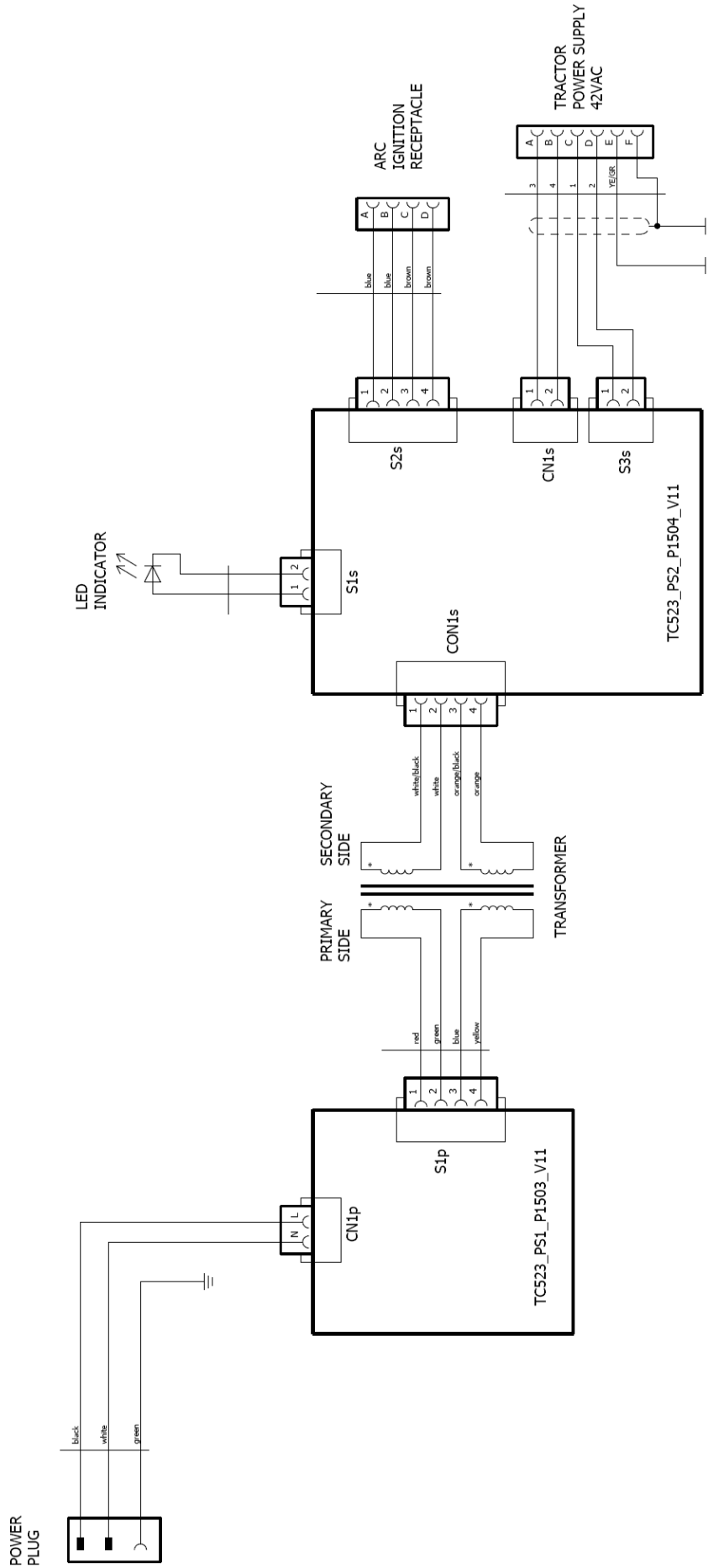
To use the oscillator with seam tracking, put the oscillator onto the carriage with the installed seam tracking attachment (1). Next, set the switch to the center position (2) and connect the oscillator to the tracking sensor (3).



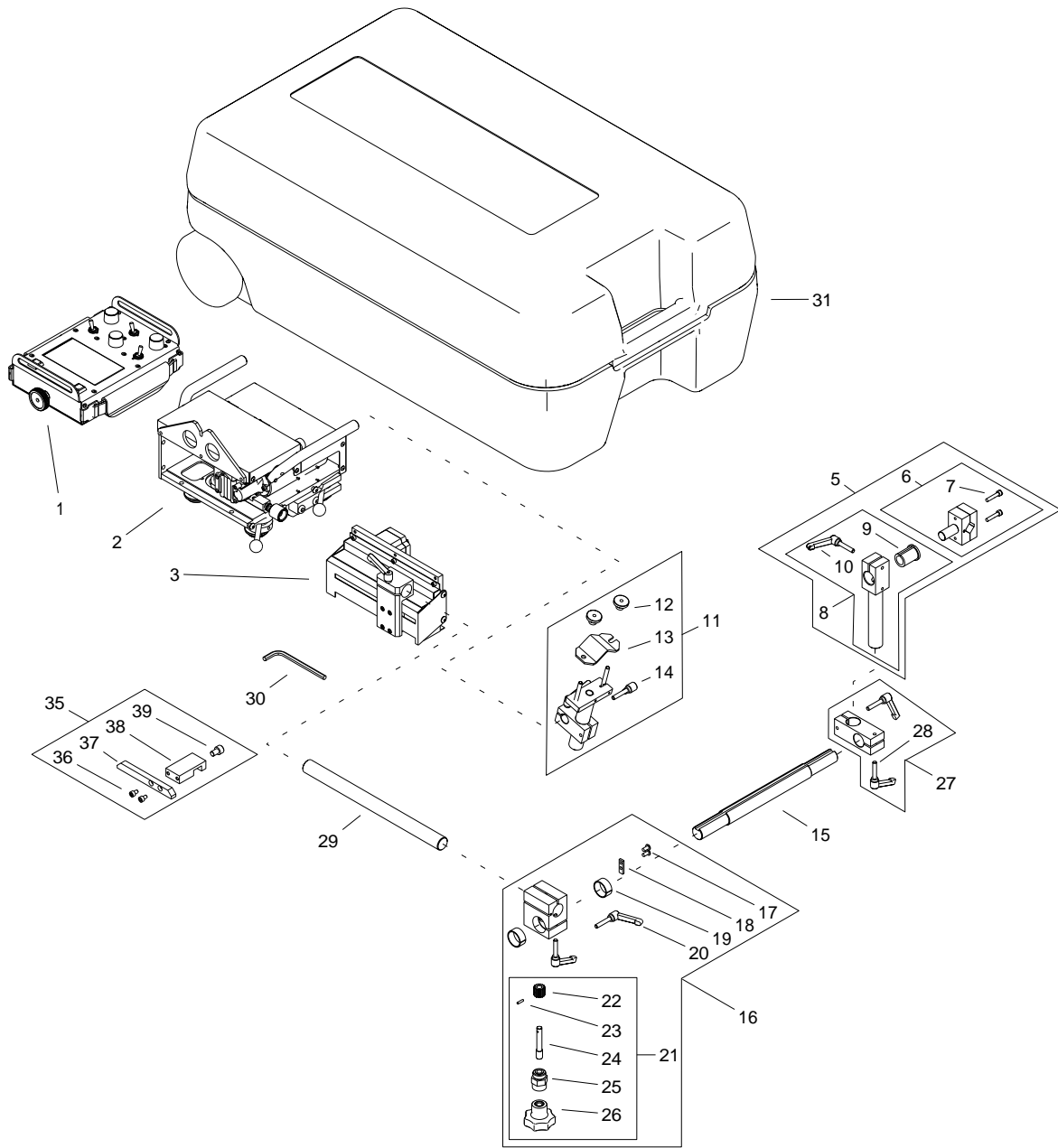
6. WIRING DIAGRAM







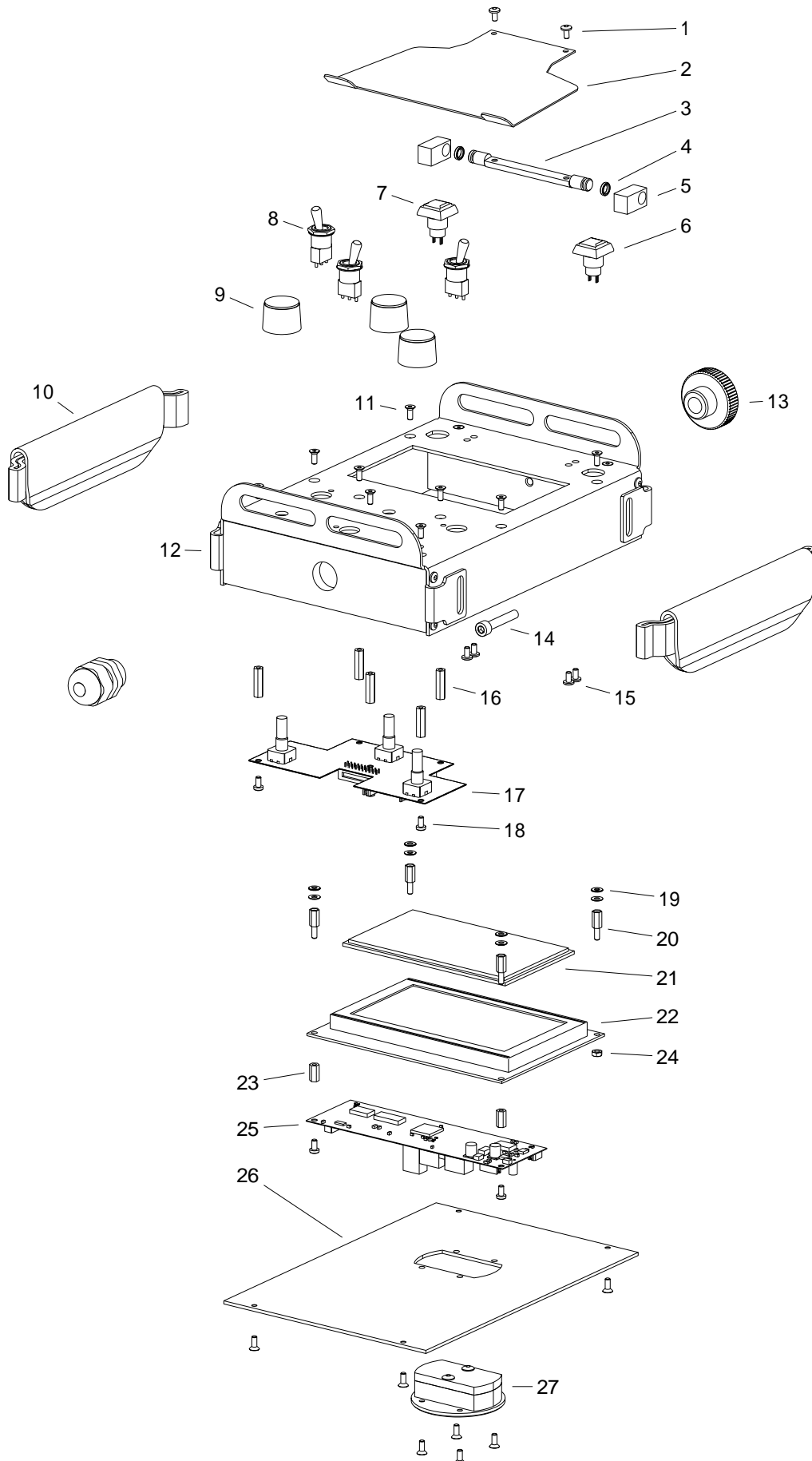
7. EXPLODED DRAWINGS AND PARTS LIST



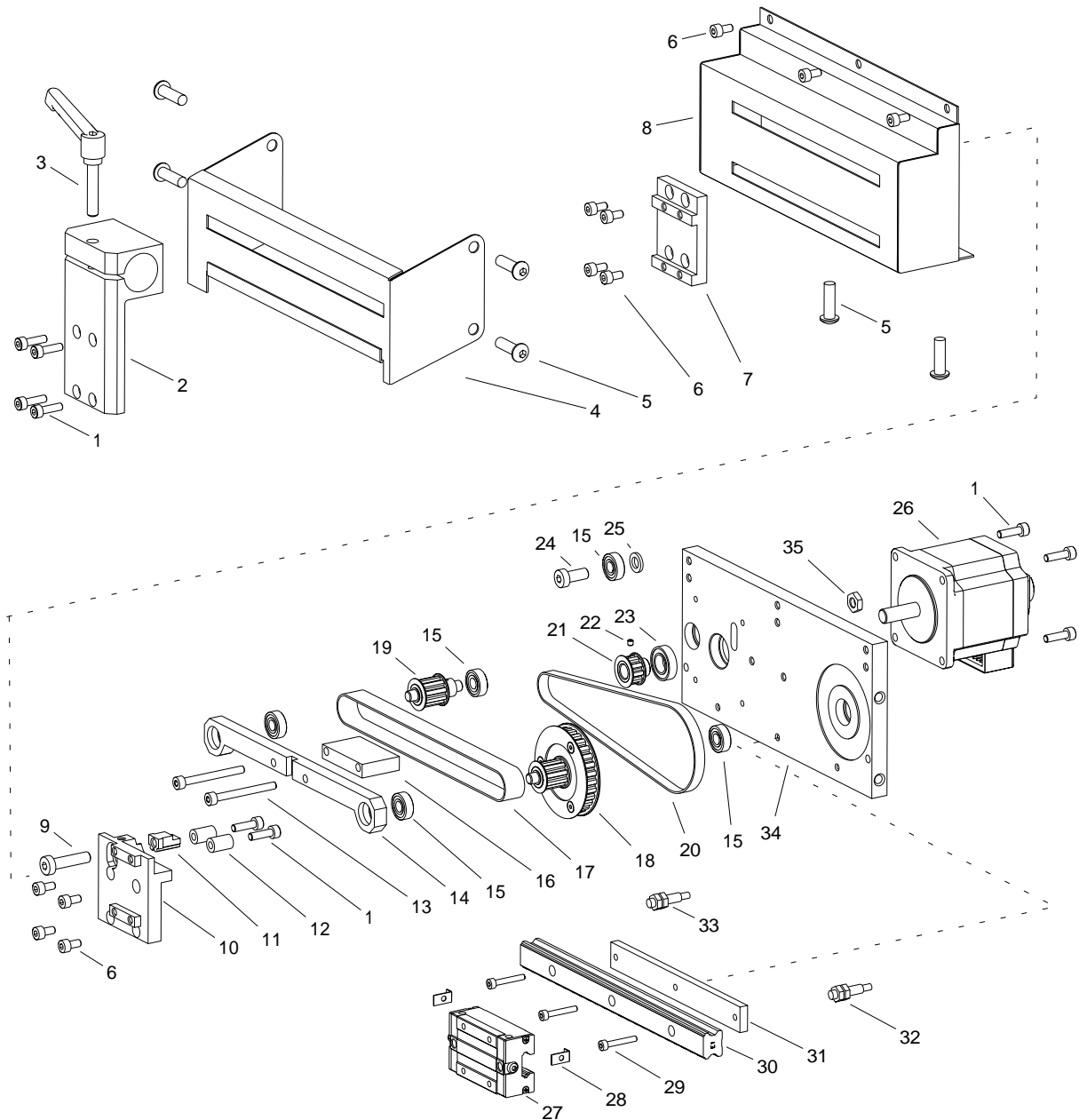
ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	PNL-0523-03-00-00-1	REMOTE CONTROL	1
2	ZSP-0523-01-00-00-0	DRIVE SYSTEM ASSY	1
3	OSC-0523-02-00-00-0	OSCILLATOR	1
4*	ZSL-0523-97-00-00-0	POWER SUPPLY – 230V	1
4*	ZSL-0523-97-00-01-0	POWER SUPPLY – 115V	1
4*	ZSL-0523-97-00-02-0	POWER SUPPLY – 42V	1
5	UCW-0476-27-00-00-0	SHORT ROD TORCH HOLDER WITH CLIP	1
6	ZCS-0476-06-01-00-0	TORCH HOLDER CLAMP ASSY	1
7	SRB-000087	HEX SOCKET HEAD CAP SCREW M5x25	2
8	WLK-0476-20-01-00-0	SHORT ROD ASSY	1
9	TLJ-0419-04-02-03-0	INSULATION TUBE	1

ITEM	PART NUMBER	DESCRIPTION	Q-TY
10	RKJ-000036	HANDLEVER M6-32	1
11	UCW-0523-05-01-00-0	CABLE ANCHOR	1
12	NKR-000121	KNURLED NUT M6	2
13	TRM-0219-06-16-00-0	CLAMP PLATE	1
14	RKJ-000036	HANDLEVER M6-32	2
15	RAM-0523-17-00-00-0	300 MM (12") GEARED RACK	1
16	ZSP-0475-62-00-00-0	SLIDE	1
17	WKR-000096	HEX SOCKET BUTTON HEAD SCREW M5x10	2
18	WPS-0475-62-03-00-0	KEY	1
19	TLJ-0475-62-04-00-0	SELF-LUBRICATING SLEEVE 25x28x12	2
20	RKJ-000036	HANDLEVER M6-32	2
21	PKT-0475-62-02-00-0	KNOB	1
22	KOL-0475-62-02-03-0	GEAR z16	1
23	KLK-000004	SPRING PIN 3x12	1
24	OSK-0475-62-02-02-0	PIVOT PIN	1
25	ZLC-0475-62-02-01-0	THREAD JOINT	1
26	PKT-000039	KNOB D50xM10	1
27	KST-0525-11-00-00-0	DOUBLE CLAMPING BLOCK	1
28	RKJ-000036	HANDLEVER M6-32	2
29	WSP-0523-16-00-00-0	300 MM (12") ROD	1
30	KLC-000009	6 MM HEX WRENCH	1
31	SKR-0523-99-03-00-0	PLASTIC BOX ASSY	1
32*	PWD-0523-10-03-00-0	POWER CABLE L=5 M (16.5 ft)	1
33*	KBL-0466-17-00-00-0	ARC IGNITION WIRE SET L=6.5 M (21 ft)	1
34*	PWD-0523-10-01-00-0	REMOTE CONTROL CABLE L=3 M (10 ft)	1
35	ZDR-0523-76-00-00-0	CONTACT BLOCK ASSY	1
36	SRB-000098	HEX SOCKET HEAD CAP SCREW M5x8	2
37	ZDR-0523-76-02-00-0	CONTACT BLOCK	1
38	UCW-0523-76-01-00-0	CONTACT BLOCK HOLDER	1
39	SRB-000140	HEX SOCKET HEAD CAP SCREW M8x12	1

*not shown in the drawing

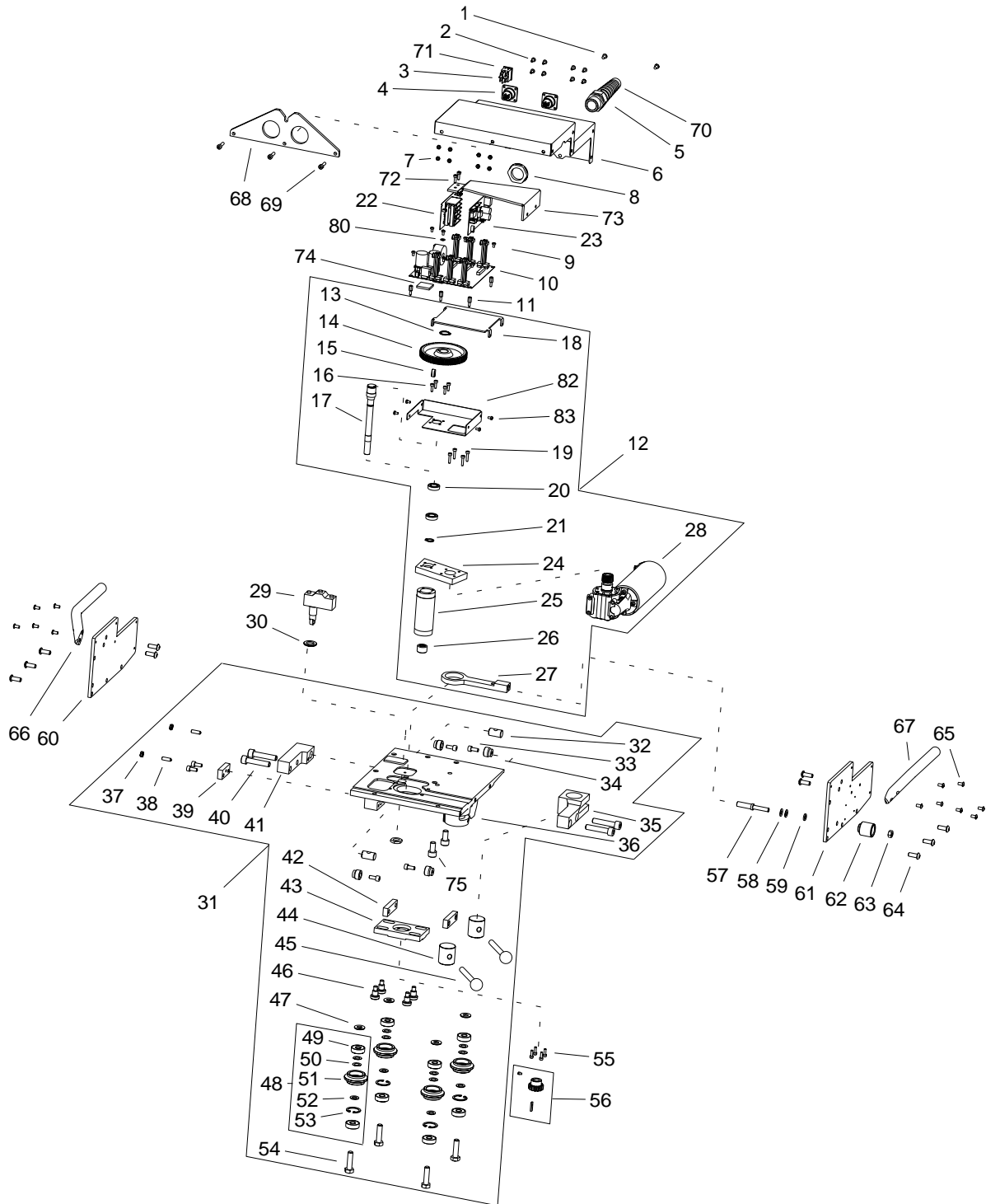


ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	WKR-000286	HEX SOCKET BUTTON HEAD SCREW M3x6	2
2	OSL-0523-03-14-00-0	PANEL COVER	1
3	OSK-0523-03-16-00-0	HINGE PIVOT	1
4	PRS-000111	O-RING 5x1.5	2
5	ZWS-0523-03-15-00-0	HINGE	2
6	WZK-0523-03-13-00-0	BUTTON WIRE SET	1
7	WZK-0523-03-13-00-0	BUTTON WIRE SET	1
8	WZK-0526-02-02-03-0	TRAVEL DIRECTION SWITCH WIRE SET	3
9	PKT-0496-99-07-00-0	KNOB ASSY	3
10	RKJ-0523-03-12-00-1	HANDLE	2
11	WKR-000398	HEX SOCKET COUNTERSUNK HEAD SCREW M3x8	17
12	KRP-0523-03-02-00-1	REMOTE CONTROL BODY ASSY	1
13	PKT-0466-04-01-11-0	TORCH CLAMP KNOB	1
14	SRB-000089	HEX SOCKET HEAD CAP SCREW M5x30	1
15	WKR-000286	HEX SOCKET BUTTON HEAD SCREW M3x6	4
16	TLJ-000090	SLEEVE L=18xM3	5
17	MDL-0523-03-10-00-0	ENCODER MODULE ASSY	1
18	WKR-000181	CROSS RECESSED PAN HEAD SCREW M3x6	7
19	PDK-000013	ROUND WASHER 3.2	8
20	TLJ-000051	HEX SLEEVE	4
21	OSL-0523-03-09-00-0	DISPLAY COVER	1
22	MDL-0523-03-03-00-0	PANEL MODULE	1
23	TLJ-000023	SLEEVE M3x10	2
24	NKR-000009	HEX NUT M3	2
25	MDL-0523-03-11-00-0	CONTROLLER MODULE	1
26	PLY-0523-03-01-00-0	BOTTOM PLATE	1
27	CHW-0523-03-07-00-0	PANEL MAGNET HOLDER	1



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	SRB-000063	HEX SOCKET HEAD CAP SCREW M4x14	10
2	UCW-0523-02-07-00-0	OSCILLATOR HOLDER	1
3	RKJ-000036	HANDLEVER M6-32	1
4	OSL-0523-02-10-00-1	SECONDARY COVER	1
5	WKR-000102	HEX SOCKET ROUND HEAD SCREW WITH FLANGE M6x20	6
6	SRB-000074	HEX SOCKET HEAD CAP SCREW M4x8	11
7	PLY-0523-02-17-00-0	INTERMEDIATE PLATE	1
8	OSL-0523-02-05-00-0	OSCILLATOR COVER ASSY	1
9	SRB-000174	HEX SOCKET LOW HEAD BOLT M5x16	1
10	PLY-0523-02-04-00-0	MOUNTING PLATE	1
11	DCS-0523-02-19-00-0	BELT TENSIONER	1
12	UCW-0523-02-09-00-0	BELT HOLDER	2
13	SRB-000067	HEX SOCKET HEAD CAP SCREW M4x40	2

ITEM	PART NUMBER	DESCRIPTION	Q-TY
14	WSP-0523-02-06-00-0	BEARING BRACKET	1
15	LOZ-000110	BALL BEARING 6x15x5	5
16	DYS-0523-02-08-00-0	SPACER I	1
17	PAS-000009	TOOTHED BELT 140 XL 050	1
18	KOL-0523-02-03-00-0	DRIVEN GEAR ASSY	1
19	WLK-0523-02-15-00-0	PINION ASSY	1
20	PAS-000012	TOOTHED BELT 140 XL 025	1
21	KOL-0523-02-02-00-0	MOTOR GEAR ASSY	1
22	WKR-000484	HEX SOCKET SET SCREW WITH FLAT POINT M3x3	1
23	LOZ-000123	BALL BEARING 10x19x5	1
24	SRB-000175	LOW HEAD SOCKET CAP SCREW M6x12	1
25	PDK-000155	SMALL ROUND WASHER 6.4	1
26	SLN-0523-02-12-00-0	MOTOR	1
27	PRW-000066	CARRIAGE	1
28	ZDR-0523-02-11-00-0	BUMPER	2
29	SRB-000377	HEX SOCKET HEAD CAP SCREW M3x20	3
30	PRW-000067	LINEAR GUIDE	1
31	DYS-0523-02-16-00-0	SPACER II	1
32	WZK-0523-02-13-00-0	LEFT LIMIT SWITCH WIRE SET	1
33	WZK-0523-02-14-00-0	RIGHT LIMIT SWITCH WIRE SET	1
34	PLY-0523-02-01-00-0	OSCILLATOR PLATE	1
35	NKR-000035	NUT SHORT M6	1

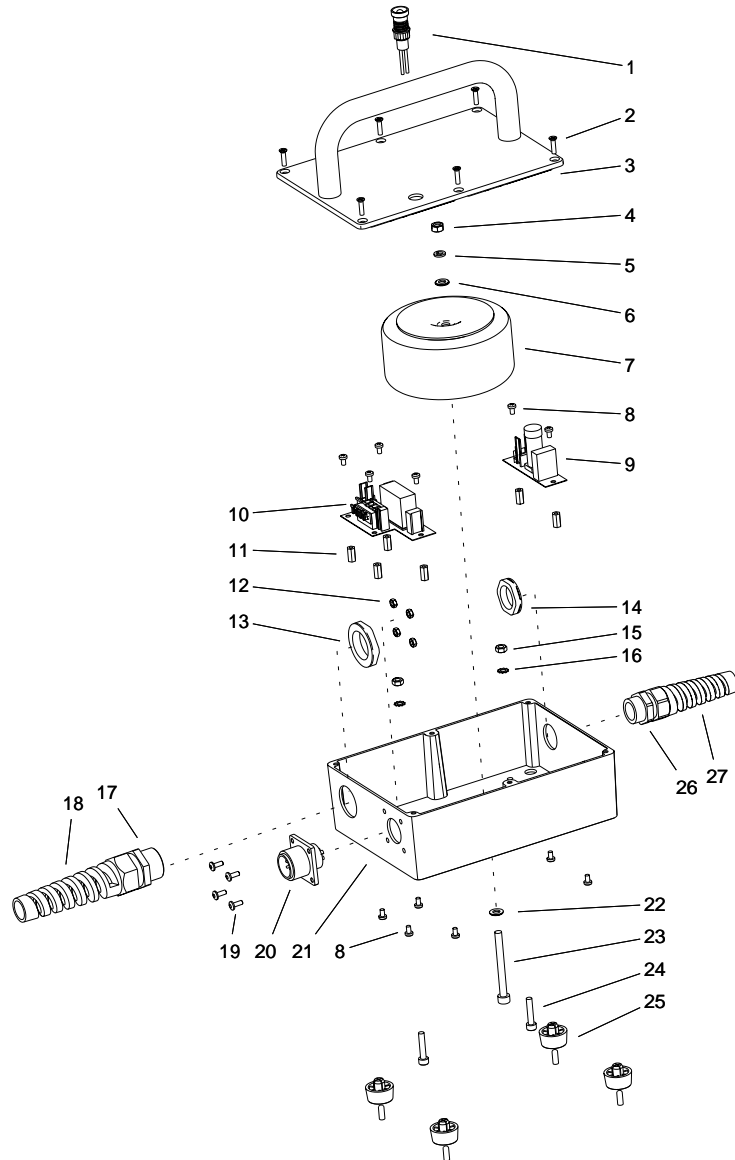


ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	WKR-000091	HEX SOCKET BUTTON HEAD SCREW M4x8	2
2	WKR-000313	HEX SOCKET BUTTON HEAD SCREW M3x8	8
3	PNK-000059	POWER SWITCH	1
4	GNZ-000053	FEMALE SOCKET 6-PIN	2
5	DLW-000042	CABLE GLAND WITH STRAIN RELIEF	1
6	OSL-0523-01-05-01-0	TOP COVER	1
7	NKR-000010	HEX NUT M3	8

ITEM	PART NUMBER	DESCRIPTION	Q-TY
8	NKR-000163	GLAND NUT PG16	1
9	WKR-000180	CROSS RECESSED PAN HEAD SCREW M3x5	7
10	MDL-0523-01-07-00-2	POWER SUPPLY MODULE	1
11	TLJ-000060	SLEEVE M3/8	6
12	ZSP-0523-01-02-00-0	DRIVE SYSTEM	1
13	PRS-000004	EXTERNAL RETAINING RING 14z	1
14	KOL-0523-01-02-03-0	LARGE GEAR	1
15	WPS-000009	KEY 5x5x12	1
16	SRB-000310	HEX SOCKET HEAD CAP SCREW M3x10	4
17	WLK-0523-01-02-04-0	DRIVE SHAFT	1
18	OSL-0523-01-02-09-0	TOP GEAR COVER	1
19	SRB-000336	HEX SOCKET HEAD CAP SCREW M3x14	4
20	LOZ-000123	BALL BEARING	2
21	PRS-000002	EXTERNAL RETAINING RING 10z	1
22	MDL-0523-01-09-00-1	LINEAR OSCILLATION MODULE	1
23	MDL-0523-01-08-00-0	DRIVE MODULE	1
24	PLY-0523-01-02-01-0	TOP PLATE	1
25	KRP-0523-01-02-02-0	SHAFT BODY	1
26	LOZ-000009	NEEDLE BEARING 10x16x10	1
27	WDZ-0523-01-02-05-0	PISTON ROD	1
28	MTR-0523-99-01-00-0	MOTOR ASSY	1
29	MKP-000003	LIMIT SWITCH WIRE SET	1
30	PDK-000104	SMALL ROUND WASHER 13	1
31	PDW-0523-01-01-00-0	CHASSIS	1
32	NKR-0523-01-01-09-0	NUT	2
33	SRB-000078	HEX SOCKET HEAD CAP SCREW M5x12	6
34	ZDR-0523-01-01-08-0	BUMPER	4
35	WSP-0523-01-01-04-0	RIGHT BRACKET	1
36	KRP-0523-01-01-01-0	CHASSIS BODY	1
37	NKR-000034	NUT M5 SHORT	2
38	WKR-000077	HEX SOCKET SET SCREW WITH FLAT POINT M5x16	2
39	PLY-0523-01-01-02-0	RESISTING PLATE	1
40	SRB-000158	HEX SOCKET HEAD CAP SCREW M8x40	4
41	WSP-0523-01-01-05-0	LEFT BRACKET	1
42	NKR-0523-01-01-06-0	SPECIAL NUT	2
43	PLY-0523-01-01-07-0	BOTTOM PLATE	1
44	MMS-0523-01-01-03-0	ECCENTRIC	2
45	DZW-0523-99-07-00-0	HANDLE	2
46	SRB-0341-02-10-00-0	MOUNTING SCREW	4
47	PDK-000022	ROUND WASHER 8.4	4
48	RLK-0341-01-02-00-0	PRESSURE ROLLER ASSY	1
49	LOZ-000053	BALL BEARING 8x22x7	8
50	PDK-000174	WASHER 8x14x0.1	8
51	RLK-0341-01-02-01-0	PRESSURE ROLLER	4
52	PDK-000173	SPACER WASHER 8x14x1	4
53	PRS-000014	INTERNAL RETAINING RING 22w	4
54	SRB-000030	FULL THREAD HEX HEAD BOLT M8x30	4
55	SRB-000310	HEX SOCKET HEAD CAP SCREW M3x10	4
56	ZST-0341-99-01-00-0	GEAR ASSY	1
57	SRB-0523-01-03-03-0	FEED SCREW	1
58	SPR-000010	DISC SPRING 6.2x12.5x0.6	2

ITEM	PART NUMBER	DESCRIPTION	Q-TY
59	PDK-000155	SMALL ROUND WASHER 6.4	1
60	PLY-0523-01-04-01-0	RIGHT SIDE PLATE	1
61	PLY-0523-01-03-01-0	LEFT SIDE PLATE	1
62	PKT-0341-02-08-00-0	KNOB	1
63	NKR-000017	HEX NUT M6	1
64	WKR-000101	HEX SOCKET BUTTON HEAD SCREW M6x16	10
65	WKR-000091	HEX SOCKET BUTTON HEAD SCREW M4x8	12
66	RKJ-0523-01-04-02-0	RIGHT HANDLE	1
67	RKJ-0523-01-03-02-0	LEFT HANDLE	1
68	UCW-0523-15-00-00-0	PANEL HOLDER	1
69	SRB-000064	HEX SOCKET HEAD CAP SCREW M4x16	3
70	WZK-0523-01-05-02-0	POWER WIRE SET	1
71	WZK-0523-01-05-05-0	POWER SWITCH WIRE SET	1
72	SRB-000310	HEX SOCKET HEAD CAP SCREW M3x10	2
73	RDT-0523-01-09-04-0	RADIATOR 2	1
74	PDK-0523-01-11-00-0	THERMAL WASHER	1
75	SRB-000142	HEX SOCKET HEAD CAP SCREW M8x16	2
76*	WZK-0523-01-05-03-0	SIGNAL WIRE SET CAN I	1
77*	WZK-0523-01-05-04-0	SIGNAL WIRE SET CAN II	1
78*	WZK-0523-01-06-00-0	LIMIT SWITCH WIRE SET	1
79*	BZP-000054	BLADE FUSE 7.5A	1
80	PDK-000013	ROUND WASHER 3.2	1
81*	WZK-0523-01-10-00-0	ARC IGNITION WIRE SET	1
82	OSL-0523-01-02-08-0	BOTTOM GEAR COVER	1
83	WKR-000180	CROSS RECESSED PAN HEAD SCREW M3x5	4

* not shown in the drawing



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	WZK-0523-09-10-00-0	LED WIRE	1
2	WKR-000147	CROSS RECESSED COUNTERSUNK HEAD SCREW M3x12	1
3	PKR-0523-09-02-00-0	LID	1
4	NKR-000015	HEX NUT M5	1
5	PDK-000044	SPRING WASHER 5.1	1
6	PDK-000017	ROUND WASHER 5.3	1
7	WZK-0523-09-09-00-0	TOROID TRANSFORMER WIRE SET	1
7	WZK-0523-09-11-00-0	TOROID TRANSFORMER WIRE SET – 42V	1
8	WKR-000180	CROSS RECESSED PAN HEAD SCREW M3x5	12
9	MDL-0523-09-04-01-0	PRIMARY SIDE MODULE – 230V	1
9	MDL-0523-09-04-02-0	PRIMARY SIDE MODULE – 115V	1
9	MDL-0523-09-04-03-0	PRIMARY SIDE MODULE – 42V	1
10	MDL-0523-09-05-00-0	SECONDARY SIDE MODULE	1
11	TLJ-000023	SLEEVE M3x10	6
12	NKR-000010	HEX NUT M3	4

ITEM	PART NUMBER	DESCRIPTION	Q-TY
13	NKR-000163	STRAIN RELIEF NUT PG16	1
14	NKR-000040	STRAIN RELIEF NUT PG11	1
15	NKR-000013	HEX NUT M4	2
16	PDK-000060	EXTERNAL TOOTH LOCK WASHER 4.3	2
17	WZK-0523-09-08-00-0	SECONDARY SIDE WIRE SET	1
18	DLW-000042	CABLE GLAND WITH STRAIN RELIEF PG16	1
19	WKR-000313	HEX SOCKET BUTTON HEAD SCREW M3x8	4
20	WZK-0523-09-07-00-1	ARC IGNITION WIRE SET	1
21	KRP-0523-09-01-00-0	BODY	1
22	PDK-000017	ROUND WASHER 5.3	1
23	SRB-000094	HEX SOCKET HEAD CAP SCREW M5x50	1
24	SRB-000323	HEX SOCKET HEAD CAP SCREW M4x20	2
25	STP-000005	BRACKET 20	4
26	PWD-0461-17-00-00-0	POWER CORD – 230V	1
26	PWD-0461-17-00-00-1	POWER CORD – 115V	1
26	WZK-0523-09-06-03-0	PRIMARY SIDE WIRE SET – 42V	1
26	PWD-0461-17-00-00-2	POWER CORD – 230V – AU	1
26	PWD-0461-17-00-00-3	POWER CORD – 230V – INDIA	1
26	PWD-0461-17-00-00-4	POWER CORD – 230V – TYPE G	1
27	DLW-000007	CABLE GLAND WITH STRAIN RELIEF PG11	1

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 2 Welding Carriage

is manufactured in accordance with the following standards:

- EN 12100
- EN 60745-1
- EN 60974-10

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

Person authorized to compile the technical file:

Marek Siergiej, ul. Elewatorska 23/1, 15-620 Białystok



Białystok, 17 December 2015

Marek Siergiej
CEO

9. WARRANTY CARD

WARRANTY CARD No.....

..... in the name of Manufacturer warrants the Rail Runner 2 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 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.....

1.13 / 21 January 2019

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