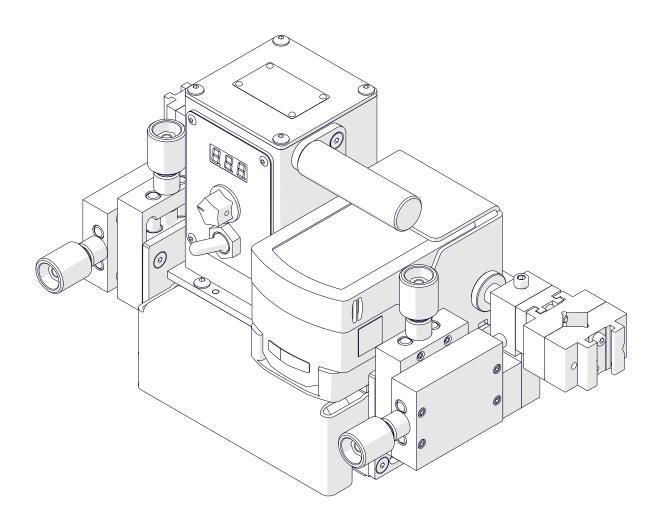


The tools of innovation.

OPERATOR'S MANUAL

Eco RunnerWELDING CARRIAGE



15335 E. Freemont Drive, Centennial, CO 80112 1–87STEELMAX, FAX 303–690–9172 www.steelmax.com sales@steelmax.com

Contents

| 1. GENERAL INFORMATION | 3 |
|----------------------------------|----|
| 1.1. Application | 3 |
| 1.2. Technical data | 3 |
| 1.3. Equipment included | 4 |
| 1.4. Dimensions | 5 |
| 1.5. Design | 6 |
| 2. SAFETY PRECAUTIONS | 7 |
| 3. STARTUP AND OPERATION | 9 |
| 3.1. Operating | 9 |
| 3.2. Troubleshooting | 11 |
| 4. MAINTENANCE | 12 |
| 5. ACCESSORIES | 13 |
| 5.1. Battery 5.2 Ah | 13 |
| 5.2. Battery charger | 13 |
| 5.3. Power supply and power cord | 14 |
| 5.4. Auxiliary magnet blocks | 15 |
| 5.5. Cable anchor | 16 |
| 6. WIRING DIAGRAM | 17 |
| 7. EXPLODED VIEWS AND PARTS LIST | 18 |
| 8. DECLARATION OF CONFORMITY | 24 |
| 9 WARRANTY CARD | 25 |



1. GENERAL INFORMATION

1.1. Application

The Eco Runner is a battery-powered welding carriage designed to make fillet welds. The carriage allows MIG/MAG torches and is clamped with permanent magnets.

Optional magnet blocks increase the clamping force. You can use an optional power supply to connect the carriage to a 110–240 V power source.

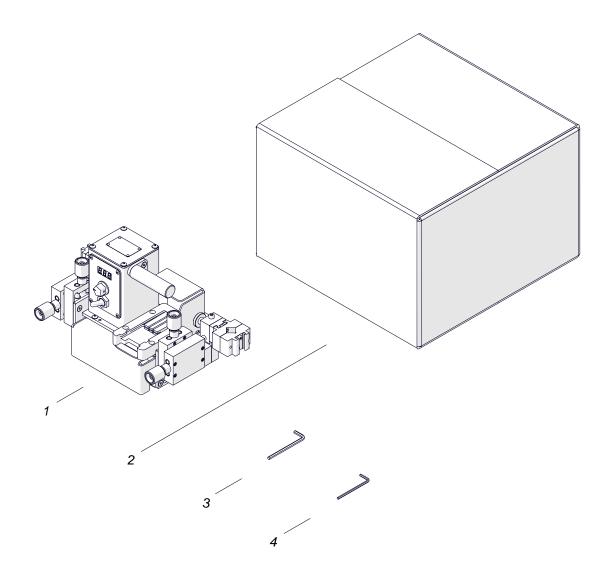
1.2. Technical data

| Voltage | 18 V DC, 5.2 Ah |
|--|-----------------------|
| Power | 25 W |
| Welding position (according to EN ISO 6947 and AWS/ASME) | PA / 1F |
| welding position (according to EN 130 6947 and AWS/ASIVIE) | PB / 2F |
| Torch type | MIG/MAG |
| Torch diameter | 16-22 mm (0.63-0.87") |
| Maximum allowed cable weight for horizontal work | 8 kg (18 lbs) |
| Minimum workpiece thickness | 4 mm (0.16") |
| Ground clearance | 4 mm (0.16") |
| Horizontal pulling force | 150 N (33 lbs) |
| Cross slides adjustment rongs | 0–21 mm (0–0.83") |
| Cross slides adjustment range | up-down, left-right |
| Horizontal speed* | 5–110 cm/min |
| rionzoniai speeu | (2-44 in/min) |
| Weight (without the battery) | 7.6 kg (16.8 lbs) |

^{*} When the battery is fully charged.



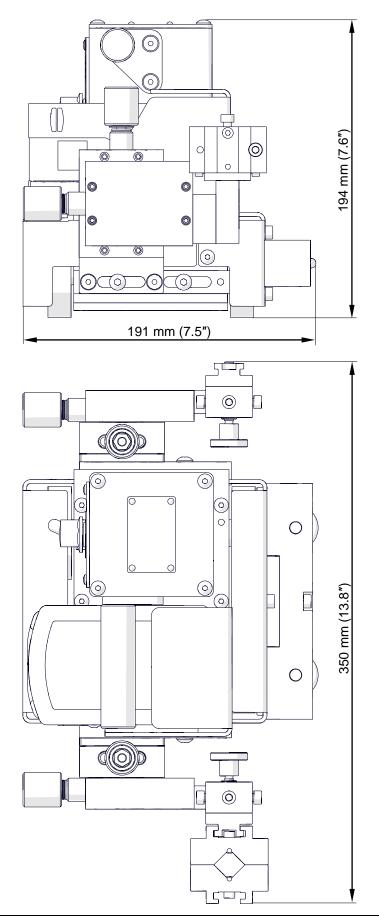
1.3. Equipment included



| 1 | Carriage | 1 unit |
|---|-------------------|--------|
| 2 | Cardboard box | 1 unit |
| 3 | 4 mm hex wrench | 1 unit |
| 4 | 3 mm hex wrench | 1 unit |
| _ | Operator's Manual | 1 unit |



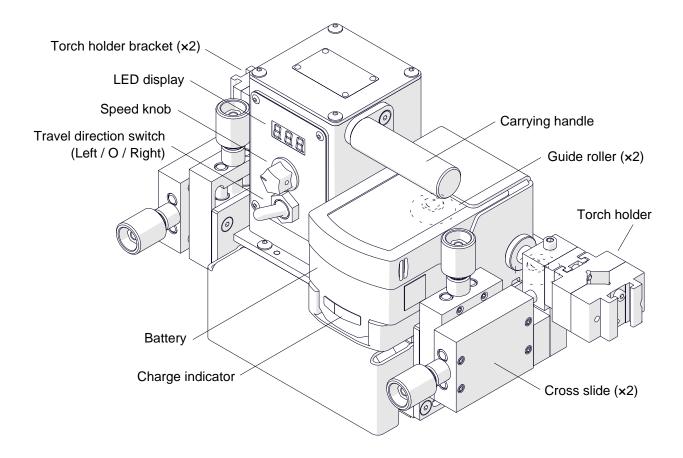
1.4. Dimensions



Eco Runner – Operator's Manual



1.5. Design





2. SAFETY PRECAUTIONS

- 1. Before use, read this Operator's Manual and complete a training in occupational safety and health.
- 2. Use only in applications specified in this Operator's Manual.
- 3. Make sure that the carriage has all parts and they 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. When you use a power supply, connect it to a correctly grounded power source.
- 6. Do not carry the carriage by the cords, and do not pull them. This can cause damage and electric shock.
- 7. Keep untrained bystanders away from the carriage.
- 8. Before each use, ensure the correct condition of the carriage, battery, power supply, power source, cords, control parts, rollers, and wheels.
- 9. Before each use, make sure that no part is cracked or loose. Make sure to maintain correct conditions that can have an effect on the operation of the carriage.
- 10. Keep the carriage dry. Do not expose the carriage to rain, snow, or frost.
- 11. Keep the work area well lit, clean, and free of obstacles.
- 12. Do not use near flammable materials, or in explosive environments.
- 13. Move and put the carriage by using the carrying handle.
- 14. Put the carriage so that all four wheels are on the surface. Make sure that no contact is between the surface and chassis.
- 15. Install the battery / power supply only after you set the travel direction switch to the middle position.
- 16. Install only torches whose diameter matches the diameter of the torch holder.
- 17. Keep the torch cables away from the surface. Hang them to decrease the load applied on the carriage. Use only cables whose weight is not more than 8 kg (18 lbs).
- 18. At heights, use a protection not to let the carriage fall.
- 19. Do not stay below the carriage that is put at heights.
- 20. Use eye protection (helmet, shield, and screen), ear protection, gloves, and protective clothing. Do not use loose clothing.
- 21. Do not stop the carriage by hand. To stop, set the travel direction switch to the middle position.



- 22. Maintain only after you remove the battery / power supply.
- 23. Repair only in a service center appointed by the seller.
- 24. If the carriage falls, is wet, or has any damage, stop the work and promptly send the carriage to the service center for check and repair.
- 25. Do not leave the carriage unattended during work.
- 26. 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

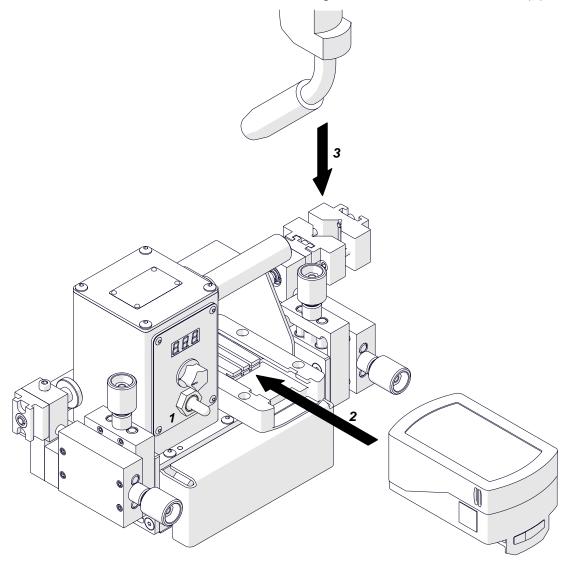
3.1. Operating

Put the battery into the charger. Let the battery charge until the light on the charger stops flashing and stays on.

Use the carrying handle to move the carriage to the worksite. Set the travel direction switch to the middle position (1) and put the battery into the carriage (2).

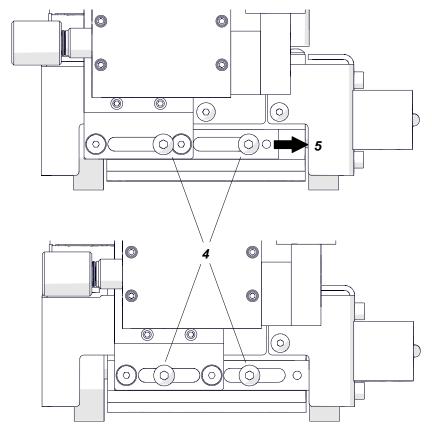
Then, the display comes on (B.B.B.). Next, if the unit of speed is set to centimeters per minute, E ur shows. If the unit is set to inches per minute, US shows.

Use the 3 mm and 4 mm hex wrenches to tighten the torch in the holder (3).

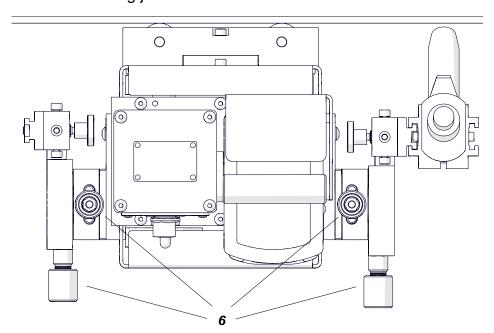




To work in narrow spaces, adjust the position of the cross slides. On the two sides, loosen the screws (4). Then, move the cross slides (5) and tighten the screws (4).



Put the carriage so that the rollers are on the workpiece. Then, use the knobs (6) to put the torch in the welding joint.





Use the speed knob to set the required speed. Use the travel direction switch to select a direction of travel. Then, the travel starts with the speed that is shown.

To stop the travel, set the travel direction switch to the middle position.

If you do not use the carriage for 2.5 minutes, it goes to the sleep mode. To go back from the sleep mode, use the travel direction switch. When the battery is discharged, the travel stops. Then, recharge the battery. To check the charge level, press the button on the charge indicator.

After the work is finished, remove the battery / power supply.

3.2. Troubleshooting

| Message | Problem | Solution |
|------------|---|---|
| 9.55. | Display not fully on after powering. | Contact service center for check and repair. |
| Eur | Speed shown in centimeters per minute instead of inches per minute. | Contact service center. |
| <i>U</i> 5 | Speed shown in inches per minute instead of centimeters per minute. | Contact service center. |
| Err | Travel direction switch not set to the middle position when powering. | Set the travel direction switch to the middle position. |
| 6AE | Battery discharged. The carriage stops. | Charge the battery or replace to a fully charged. |



4. MAINTENANCE

Each day:

- 1. Clean the chassis, rollers, and wheels.
- 2. Make sure that the rollers rotate freely.
- 3. Clean the torch nozzle and replace if damaged.
- 4. Examine the battery and replace if damaged.

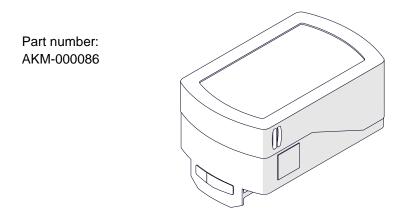
Each month:

- 1. Make sure that the knob and the switch work as intended. Replace if they are loose or damaged.
- 2. Examine cables and cords, and replace if damaged.
- 3. Tighten screws if loose.



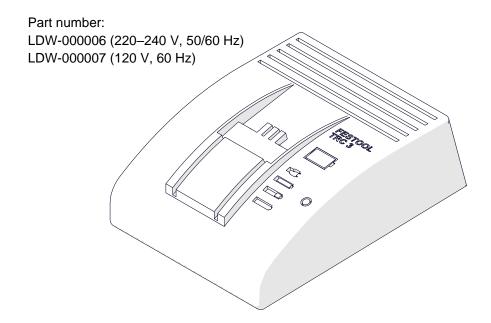
5. ACCESSORIES

5.1. Battery 5.2 Ah



5.2. Battery charger

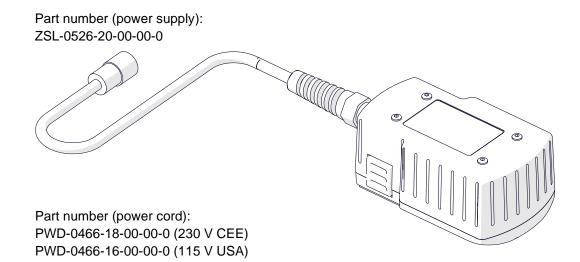
Recharges the battery from 220–240 V or 120 V power source.

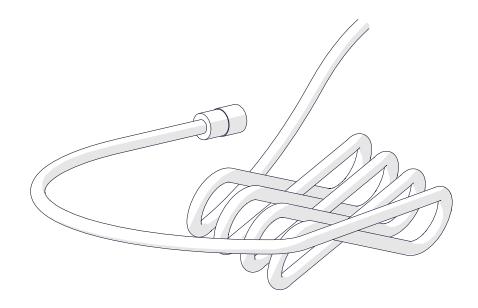




5.3. Power supply and power cord

Allows you to connect the carriage to a 110–240 V power source instead using the battery. The length of the power cord is 3 m (10 ft).

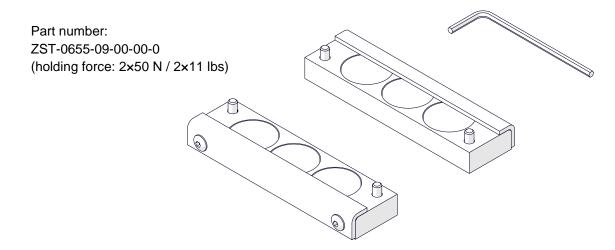




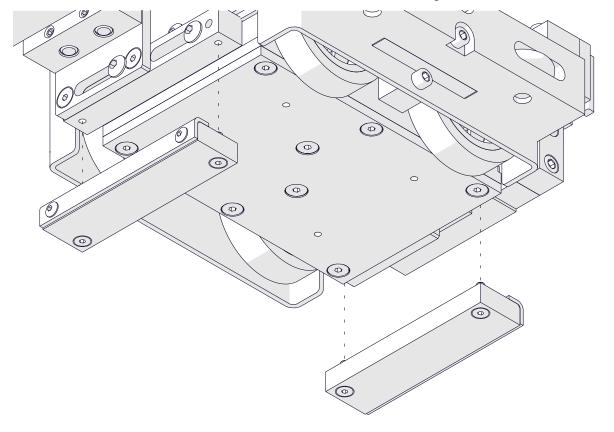


5.4. Auxiliary magnet blocks

The blocks increase the clamping force of the carriage.



Use the 2.5 mm hex wrench to attach the blocks to the carriage.

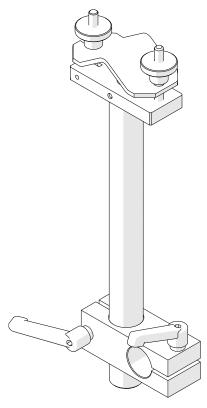




5.5. Cable anchor

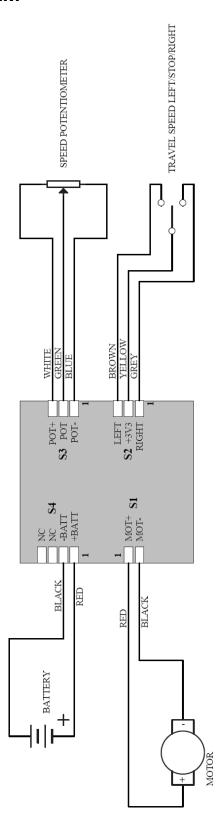
Attaches the gas cables and the power cord to decrease the load applied on the torch holder. Install the anchor on the carrying handle.

Part number: PDT-0526-21-00-00-0



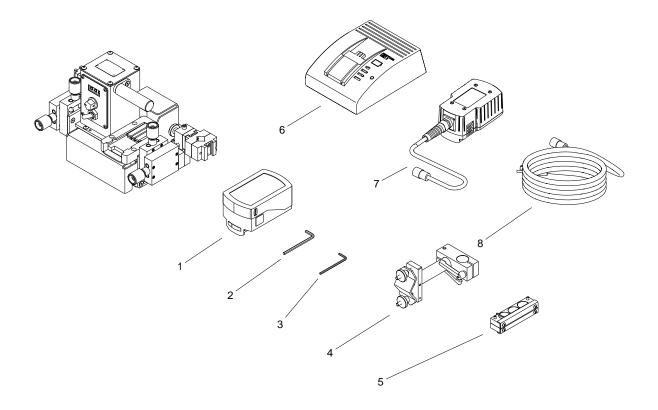


6. WIRING DIAGRAM





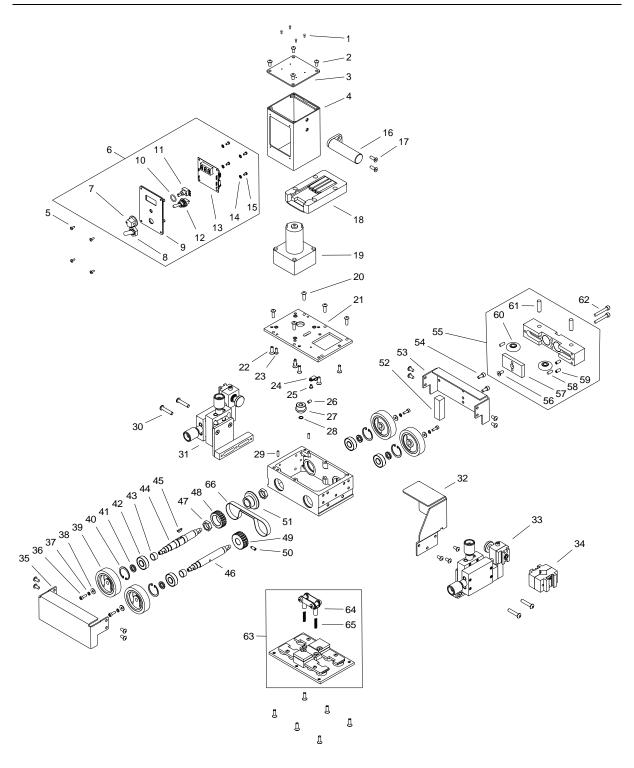
7. EXPLODED VIEWS AND PARTS LIST



| ITEM | PART NUMBER | DESCRIPTION | Q-TY |
|------|---------------------|-------------------------|------|
| 1* | AKM-000086 | BATTERY 5.2 Ah | 1 |
| 2 | KLC-000007 | 4 MM HEX WRENCH | 1 |
| 3 | KLC-000006 | 3 MM HEX WRENCH | 1 |
| 4** | UCW-0528-21-00-00-0 | CABLE ANCHOR | 1 |
| 5 | ZST-0655-09-00-00-0 | MAGNET SET ASSY | 1 |
| 6** | LDW-00006 | BATTERY CHARGER 230V | 1 |
| 6** | LDW-000007 | BATTERY CHARGER 120V | 1 |
| 7** | ZSL-0526-20-00-00-0 | POWER SUPPLY | 1 |
| 8** | PWD-0466-16-00-00-0 | POWER CORD 115V (US) | 1 |
| 8** | PWD-0466-18-00-00-0 | POWER CORD 230V (CEE) | 1 |
| 8** | PWD-0466-21-00-00-0 | POWER CORD 230V (AU) | 1 |
| 8** | PWD-0466-28-00-00-0 | POWER CORD 230V (UK) | 1 |
| 8** | PWD-0466-31-00-00-0 | POWER CORD 230V (INDIA) | 1 |

^{*} recommended to store
** option





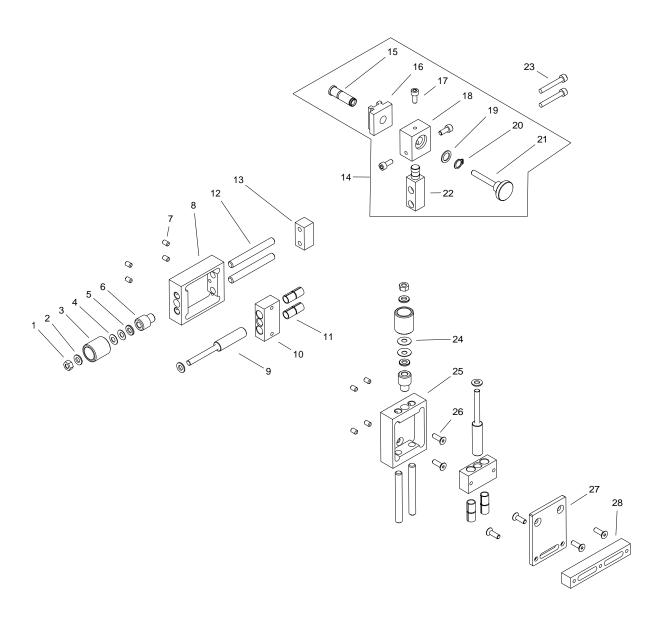


| ITEM | PART NUMBER | DESCRIPTION | Q-TY |
|------|---------------------|---|------|
| 1 | NIT-000014 | RIVET 2x6 | 4 |
| 2 | WKR-000096 | HEX SOCKET BUTTON HEAD SCREW M5x10 | 15 |
| 3 | PKR-0655-02-02-01-0 | COVER | 1 |
| 4 | KRP-0655-02-02-10-0 | MODULE BODY ASSY | 1 |
| 5 | WKR-000313 | HEX SOCKET BUTTON HEAD SCREW M3x8 | 4 |
| 6 | PNL-0655-02-02-20-0 | CONTROL PANEL ASSY | 1 |
| 7* | PKT-000028 | POTENTIOMETER KNOB | 1 |
| 8* | OSL-000036 | LEVER SWITCH COVER | 1 |
| 9 | MSK-0655-02-02-21-0 | PANEL PLATE ASSY | 1 |
| 10 | PRS-000095 | O-RING 12x2 | 1 |
| 11* | WZK-0655-02-02-40-0 | POTENTIOMETER WIRE SET | 1 |
| 12* | WZK-0270-17-00-00-0 | LEVER SWITCH ASSY | 1 |
| 13* | MDL-0655-80-01-00-0 | ELECTRONIC MODULE | 1 |
| 14 | PDK-000058 | EXTERNAL TOOTH LOCK WASHER 3.2 | 4 |
| 15 | WKR-000181 | CROSS RECESSED PAN HEAD SCREW M3x6 | 4 |
| 16 | RKJ-0655-02-02-30-0 | HANDLE ASSY | 1 |
| 17 | WKR-000136 | HEX SOCKET COUNTERSUNK HEAD SCREW M5x16 | 2 |
| 18 | GNZ-0655-02-03-00-0 | BATTERY SOCKET ASSY | 1 |
| 19* | SLN-0466-01-06-10-0 | MOTOR ASSY | 1 |
| 20 | WKR-000098 | HEX SOCKET BUTTON HEAD SCREW M5x16 | 5 |
| 21 | PLY-0655-02-01-00-0 | MOTOR PLATE | 1 |
| 22 | WKR-000136 | HEX SOCKET COUNTERSUNK HEAD SCREW M5x16 | 14 |
| 23 | WKR-000131 | HEX SOCKET COUNTERSUNK HEAD SCREW M4x12 | 4 |
| 24 | OBJ-000002 | WIRE CLAMP FI 4 MM | 1 |
| 25 | WKR-000292 | HEX SOCKET BUTTON HEAD SCREW M4x6 | 1 |
| 26 | WKR-000232 | HEX SOCKET SET SCREW WITH FLAT POINT M5x8 | 1 |
| 27 | KOL-0270-02-02-00-1 | BEVEL GEAR z=17 | 1 |
| 28 | PRS-000040 | INTERNAL RETAINING RING 8w | 1 |
| 29 | KLK-000033 | DOWEL PIN 4n6x12 | 2 |
| 30 | WKR-000104 | HEX SOCKET BUTTON HEAD SCREW M6x30 | 4 |
| 31 | PRW-0655-04-00-00-0 | LEFT GUIDE ASSY | 1 |
| 32 | OSL-0655-05-00-00-0 | BATTERY COVER | 1 |
| 33 | PRW-0655-03-00-00-0 | RIGHT GUIDE ASSY | 1 |
| 34* | ZCS-0270-42-00-00-0 | CLAMPING BLOCKS | 1 |
| 35 | OSL-0655-06-00-00-0 | LEFT COVER | 1 |
| 36 | SRB-000062 | HEX SOCKET HEAD CAP SCREW M4x12 | 4 |
| 37 | PDK-000042 | SPRING WASHER 4.1 | 4 |
| 38 | PDK-000108 | ROUND WASHER 4.3 | 4 |
| 39* | KOL-0466-01-07-00-0 | DRIVE WHEEL ASSY | 4 |
| 40 | PRS-000018 | INTERNAL RETAINING RING 28w | 4 |
| 41 | PDK-0655-01-05-00-0 | WASHER | 4 |
| 42 | LOZ-000038 | BALL BEARING 12x28x8 | 4 |
| 43 | TLJ-0655-01-04-00-0 | SLEEVE | 2 |
| 43 | WLK-0655-01-02-00-0 | FRONT SHAFT | 1 |
| 45 | WPS-0170-00-22-00-1 | KEY 3x5x13 | 1 |
| 46 | | REAR SHAFT | 1 |
| | WLK-0655-01-03-00-0 | | 2 |
| 47 | NKR-0270-01-08-00-1 | ADJUST NUT | 1 |
| 48 | KOL 0270-01-13-00-0 | PULLEY I | 1 |
| 49 | KOL-0270-01-14-00-0 | PULLEY II | 1 |
| 50 | WKR-000014 | HEX SOCKET SET SCREW WITH DOG POINT M5x12 | |
| 51 | KOL-0270-01-06-00-1 | BEVEL GEAR z=32 | 1 |



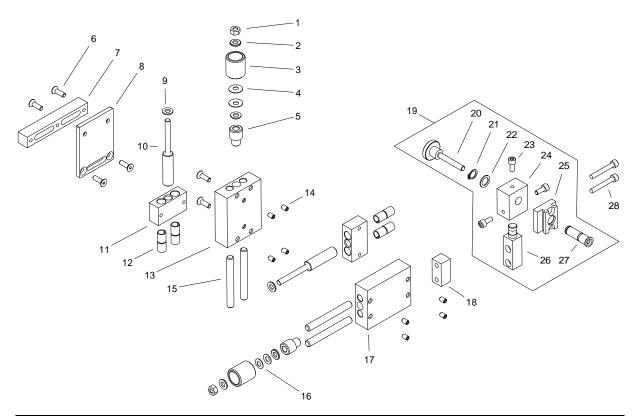
| ITEM | PART NUMBER | DESCRIPTION | Q-TY |
|------|---------------------|--|------|
| 52 | SLP-0270-00-06-00-0 | BAR | 1 |
| 53 | OSL-0655-07-00-00-0 | RIGHT COVER | 1 |
| 54 | SRB-000078 | HEX SOCKET HEAD CAP SCREW M5x12 | 2 |
| 55* | ZSP-0270-07-00-00-1 | FOLLOWER ASSY | 1 |
| 56 | WKR-000134 | HEX SOCKET COUNTERSUNK HEAD SCREW M5x12 | 1 |
| 57 | MGT-0270-07-02-00-1 | MAGNET PLATE | 1 |
| 58 | KLK-000045 | DOWEL PIN 5n6x12 | 2 |
| 59 | WKR-000044 | HEX SOCKET SET SCREW WITH FLAT POINT M5x12 | 2 |
| 60 | RLK-0270-07-03-00-1 | GUIDE ROLLER | 2 |
| 61 | KLK-000071 | DOWEL PIN 8n6x26 | 2 |
| 62 | SRB-000091 | HEX SOCKET HEAD CAP SCREW M5x35 | 2 |
| 63 | ZSP-0270-11-00-00-0 | PLATE ASSY | 1 |
| 64 | NPR-0270-14-00-00-0 | TIGHTENER | 1 |
| 65 | SPR-0270-11-05-00-0 | SPRING | 2 |
| 66 | PAS-000003 | TOOTHED BELT | 1 |

^{*} recommended to store





| ITEM | PART NUMBER | DESCRIPTION | Q-TY |
|------|---------------------|---|------|
| 1 | NKR-000017 | HEX NUT M6 | 2 |
| 2 | PDK-000021 | ROUND WASHER 6.4 | 2 |
| 3 | PKT-0247-01-05-00-0 | HANDWHEEL | 2 |
| 4 | SPR-000010 | DISC SPRING 6.2x12.5x0.6 | 2 |
| 5 | PDK-000020 | ROUND WASHER 6.4 | 4 |
| 6 | TLJ-0247-01-04-00-0 | SLEEVE | 2 |
| 7 | WKR-000026 | HEX SOCKET SET SCREW WITH FLAT POINT M5x8 | 8 |
| 8 | KRP-0340-02-01-11-0 | TORCH GUIDE FRAME I | 1 |
| 9 | SRB-0340-02-01-20-0 | BOLT ASSY | 2 |
| 10 | KST-0340-02-01-13-0 | FEED BLOCK | 2 |
| 11 | TLJ-000048 | SLIDE BUSHING 8x10x12 | 8 |
| 12 | KLK-000075 | DOWEL PIN 8n6x70 | 4 |
| 13 | SLP-0270-05-03-00-0 | DISTANCE BAR | 1 |
| 14 | UCW-0655-03-02-00-0 | TORCH HOLDER ASSY | 1 |
| 15 | TLJ-0246-05-04-00-0 | SLEEVE | 1 |
| 16 | KST-0246-05-03-00-1 | ROTATE BLOCK | 1 |
| 17 | SRB-000078 | HEX SOCKET HEAD CAP SCREW M5x12 | 3 |
| 18 | KST-0340-02-02-02-0 | CLAMP BLOCK | 1 |
| 19 | PDK-0211-00-15-00-0 | WASHER 10.1x15x1 | 1 |
| 20 | PRS-000002 | EXTERNAL RETAINING RING 10z | 1 |
| 21 | SRB-000187 | SPECIAL BOLT M6x40 | 1 |
| 22 | SLP-0655-03-02-01-0 | BAR | 1 |
| 23 | SRB-000091 | HEX SOCKET HEAD CAP SCREW M5x35 | 2 |
| 24 | SPR-000012 | DISC SPRING 8.2x16x0.6 | 2 |
| 25 | KRP-0340-02-01-01-0 | TORCH GUIDE FRAME II | 1 |
| 26 | WKR-000136 | HEX SOCKET COUNTERSUNK HEAD SCREW M5x16 | 6 |
| 27 | PLY-0655-03-01-00-0 | GUIDE PLATE | 1 |
| 28 | SLP-0270-05-02-00-0 | HORIZONTAL BAR | 1 |



Eco Runner – Operator's Manual



| ITEM | PART NUMBER | DESCRIPTION | Q-TY |
|------|---------------------|---|------|
| 1 | NKR-000017 | HEX NUT M6 | 2 |
| 2 | PDK-000021 | ROUND WASHER 6.4 | 2 |
| 3 | PKT-0247-01-05-00-0 | HANDWHEEL | 2 |
| 4 | SPR-000012 | DISC SPRING 8.2x16x0.6 | 2 |
| 5 | TLJ-0247-01-04-00-0 | SLEEVE | 2 |
| 6 | WKR-000136 | HEX SOCKET COUNTERSUNK HEAD SCREW M5x16 | 6 |
| 7 | SLP-0270-05-02-00-0 | HORIZONTAL BAR | 1 |
| 8 | PLY-0655-03-01-00-0 | GUIDE PLATE | 1 |
| 9 | PDK-000020 | ROUND WASHER 6.4 | 4 |
| 10 | SRB-0340-02-01-20-0 | BOLT ASSY | 2 |
| 11 | KST-0340-02-01-13-0 | FEED BLOCK | 2 |
| 12 | TLJ-000048 | SLIDE BUSHING 8x10x12 | 8 |
| 13 | KRP-0340-02-01-01-0 | TORCH GUIDE FRAME II | 1 |
| 14 | WKR-000026 | HEX SOCKET SET SCREW WITH FLAT POINT M5x8 | 8 |
| 15 | KLK-000075 | DOWEL PIN 8n6x70 | 4 |
| 16 | SPR-000010 | DISC SPRING 6.2x12.5x0.6 | 2 |
| 17 | KRP-0340-02-01-11-0 | TORCH GUIDE FRAME I | 1 |
| 18 | SLP-0270-05-03-00-0 | DISTANCE BAR | 1 |
| 19 | UCW-0655-03-02-00-0 | TORCH HOLDER ASSY | 1 |
| 20 | SRB-000187 | SPECIAL BOLT M6x40 | 1 |
| 21 | PRS-000002 | EXTERNAL RETAINING RING 10z | 1 |
| 22 | PDK-0211-00-15-00-0 | WASHER 10.1x15x1 | 1 |
| 23 | SRB-000078 | HEX SOCKET HEAD CAP SCREW M5x12 | 3 |
| 24 | KST-0340-02-02-02-0 | CLAMP BLOCK | 1 |
| 25 | KST-0246-05-03-00-1 | ROTATE BLOCK | 1 |
| 26 | SLP-0655-03-02-01-0 | BAR | 1 |
| 27 | TLJ-0246-05-04-00-0 | SLEEVE | 1 |
| 28 | SRB-000091 | HEX SOCKET HEAD CAP SCREW M5x35 | 2 |



8. DECLARATION OF CONFORMITY

Declaration of Conformity

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

We declare with full responsibility that:

Eco Runner Welding Carriage

is manufactured in accordance with the following standards:

- EN 12100
- EN 60204-1
- EN 60974-10

and satisfies regulations of the guidelines: 2014/30/EC, 2014/35/EC, 2006/42/EC.

Person authorized to compile the technical file:

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

Białystok, 11 October 2018

Marek Siergiej CEO



9. WARRANTY CARD

| WARRANTY CARD No |
|--|
| the Eco 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 wheels as well as damage or wear that arise from misuse, accident, tempering, or any other causes not related to defects in workmanship or material. |
| Serial number |
| Date of sale |
| Signature and stamp of the seller |
| |
| 4.04 / 04 Falaman wa 0040 |
| 1.01 / 21 February 2019 |

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