

STANLEY®

EPX10 PIN BRAZING UNIT



USER MANUAL Safety, Operation and Maintenance



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New Britain, CT 06053
U.S.A.
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DECLARATION OF CONFORMITY

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ÜBEREINSTIMMUNGS-ERKLÄRUNG
DECLARATION DE CONFORMITE CEE
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STANLEY
Hydraulic Tools



I, the undersigned:
Ich, der Unterzeichnende:
Je soussigné:
El abajo firmante:
Io sottoscritto:

Weisbeck, Andy

Surname and First names/Familiennamen und Vornamen/Nom et prénom/Nombre y apellido/Cognome e nome

hereby declare that the equipment specified hereunder:
bestätige hiermit, daß erklaren Produkt genannten Werk oder Gerät:
déclare que l'équipement visé ci-dessous:
Por la presente declaro que el equipo se especifica a continuación:
Dichiaro che le apparecchiature specificate di seguito:

- Category: **Digital Pin Braze / ECONECT Unit (Product Group-Railroad)**
Kategorie:
Catégorie:
Categoria:
Categoria:
- Make/Marke/Marque/Marca/Marca **Stanley Hydraulic Tools**
- Type/Typ/Type/Tipo/Tipo: **EPX10 ECONECT (Digital Pin Braze unit)**
- Serial number of equipment:
Seriennummer des Geräts:
Numéro de série de l'équipement:
Numero de serie del equipo:
Matricola dell'attrezzatura:
All

Has been manufactured in conformity with
Wurde hergestellt in Übereinstimmung mit
Est fabriqué conformément
Ha sido fabricado de acuerdo con
E' stata costruita in conformità con

Directive/Standards Richtlinie/Standards Directives/Normes Directriz/Los Normas Direttiva/Norme	No. Nr Numéro No n.	Approved body Prüfung durch Organisme agréé Aprobado Collaudato
IEC EN EMC : EN EN IEC EN Low Voltage Directive EMC Directive	950: 1991 60950: 1988, 60204-1 50082-2: 1995 55022: 1988 Class B/CISPR 22: 1985 class B 801-2: 1991 55101-2: 1990, 8kV CD, 15kVAD 73/23/EEC 89/336/EEC, 89/392/EEG, 91/368/EEG	Safetrack Baavhammar AB L. Mölleberga 245 93 Staffanstorp Sweden

- Special Provisions: **None**
Spezielle Bestimmungen:
Dispositions particulières:
Provisiones especiales:
Disposizioni speciali:
- Representative in the Union: **Patrick Vervier, Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.**
Vertreter in der Union/Représentant dans l'union/Representante en la Union/Rappresentante presso l'Unione

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 2-12-2013

Signature/Unterschrift/Signature/Firma/Firma

Andy Weisbeck

Position/Position/Fonction/Cargo/Posizione Director of Product Development

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IMPORTANT

To fill out a product warranty validation form, and for information on your warranty, visit www.stanleyinfrastructure.com and select the Company tab > Warranty.

Note: The warranty validation record must be submitted to validate the warranty.

SERVICING: This manual contains safety, operation and routine maintenance instructions. STANLEY Infrastructure recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

⚠ WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

For the nearest certified dealer, call STANLEY Infrastructure at (503) 659-5660 and ask for a Customer Service Representative.

SAFETY SYMBOLS

Safety symbols and signal words, as shown below, are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



This safety alert and signal word indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



This safety alert and signal word indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



This safety alert and signal word indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.



This signal word indicates a situation which, if not avoided, will result in damage to the equipment.



This signal word indicates a situation which, if not avoided, may result in damage to the equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. Place the added precautions in the space provided in this manual.

This tool will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool before operation. Failure to do so could result in personal injury or equipment damage.

- Do not operate a damaged, improperly adjusted or incompletely assembled tools.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers, legible.
- Always replace parts with replacement parts recommended by STANLEY.
- Charging the battery can only be carried out between 0°C to +45°C (32°F to 113°F).



- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes, dangerous terrain conditions, and rail traffic.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear, head protection and respiratory protection at all times when operating the tool.
- Do not inspect or clean the tool while the battery power source is connected. Accidental arcing can cause serious injury.
- Do not load brazing pins or ceramic rings while the battery power source is connected. Accidental arcing can cause serious injury.
- Do not use the tool while it is connected to a battery charger.
- Ensure battery charging is only done in a dry environment. Charging batteries in the rain or near standing water presents an electrocution hazard. Read the safety and operation instructions provided with the battery charger before using the battery charger.

CHARGING THE BATTERY

Connect the charger to the “grinder / charging” outlet on the unit then plug in the power cord.
The battery is fully charged after about 1 - 1.5 hours and it is ok to leave the charger connected.

See battery charger operating instructions that comes with the battery charger for more information.

Econect battery charger.



1. Infrared-LED, For factory programming only.
2. Mains, indicating that mains are connected and the charger is on.
3. Red Error-LED, indicating different errors by flashing, see chart 1.
4. Yellow Charging-LED, indicating when the charger is charging the battery.
5. Green Full-LED, indicating when battery is fully charged.

NOTICE

CHARGING THE BATTERY CAN ONLY BE
CARRIED OUT BETWEEN 0°C to +45°C

CAUTION

If the batteries are left uncharged, they
may be damaged.

Chart 1.

Blinking signal*	Error description	Troubleshooting
1 x Blinking, 2 sec pause	No battery or defect battery	Please check charger cable and connector for damage and the 15A fuse on Econect.
2 x Blinking, 2 sec pause	Battery voltage is too high.	
3 x Blinking, 2 sec pause	Battery temperature is under 0°C or over 45°C.	Please let the unit cool or heat to the right temperature, charging will start automatically.
5 x Blinking, 2 sec pause	Device temperature is too high	Please turn off the charger and give it some time to cool down.

* Blinking signals in continuous loop.

OPERATION

GENERAL PROTECTION

Store the Electronic Pin Brazing Unit in a place where it is protected from the elements, abrasive dust, and damage.

Use only recommended repair and replacement parts and materials specified in this manual.

Use only recommended accessories also specified in the this manual.

Do not use the Electronic Pin Brazer for applications it was not designed for.

Use the carrying handle to transport the unit from location to location.

CLEANING

Establish a routine to keep the unit as free from dirt as possible – daily, or at each shift change, for example.

Pin Brazers exposed to rain, sand, or grit-laden air should be cleaned prior to each use.

Keep tool labels and stickers legible.

PREPARATION PROCEDURES

Before putting a new ECONECT Pin Brazing unit into initial service, or after an extended period of being unused, perform a visual inspection for bent, broken, cracked, missing or worn components.

INITIAL SETUP AND BATTERY CHARGING

WARNING

Failure to follow the instructions in the battery charger operation manual can result in battery explosion and serious bodily injury. To reduce the risk of battery explosion, read and understand the safety and operation instructions in the battery charger operation manual, the instructions published by the battery manufacturer, and the instructions in this manual before attempting to charge the batteries.

OPERATION

PREPARE THE RAIL SURFACE

Select the type and length of bonding cable to use for the bond and use it as a guide to determine where brazing points on the rail will be required.

Before brazing, the rail must be cleaned of rust, corrosion, paint, pits, or other contamination at the points where the brazing is going to be done and on an area close to the brazing for placement of the grounding cable. Cleaning is accomplished with a grinder to ensure clean, bare metal.

CAUTION

Always use eye protection when grinding and brazing.

1. Grind the surface of the rail where brazing is going to be done, until the surface shows shiny metal, free of rust, corrosion, pits, or other contamination. When grinding, use the carbide burr and try to maintain a flat as possible surface.

2. Grind the surface of the rail where the grounding cable will be placed to ensure a good ground. The grounding cable should be placed in close proximity to the brazing area. A (vise grip) style clamp for grounding is provided, a magnet grounding style clamp is also available, if using the magnet style try to attach the magnet within 0.5m/20 in. of brazing area. Ground should be on same work piece where pin brazing is taking place.

PLACING THE GROUNDING CABLE

3. When finished grinding the rail for placement of the grounding cable, place the grounding cable on the cleaned surface and then insert the other end into the twist lock receptacle in the ECONECT unit marked "GROUND" and twist to lock.

SELECT PINS AND RINGS

4. Select brazing pins and ceramic rings to match the specifications of the bonding cable you selected.

CHANGING PIN AND RING HOLDER

5. Check that the pin holder and ring holder on the gun are the correct sizes for the brazing pins and ceramic rings you selected. If the sizes are incorrect, the pin holder and ring holder can be changed as follows:

a. The ring holder is a "push fit" to the gun. To remove it from the gun, simply pull it away from the gun.

b. The pin holder is threaded onto a threaded shaft in the gun and locked in place with a nut. Place an open end wrench over the nut and an open end wrench over the flats on the pin holder. While holding the nut in place, unscrew the pin holder counter clockwise.

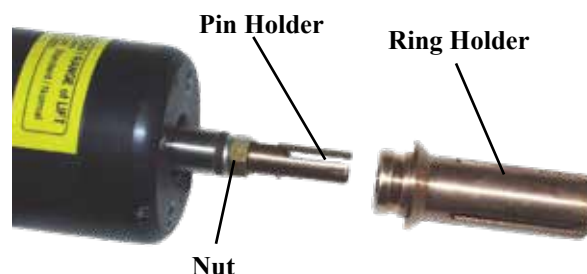


Figure 3. Pin and Ring Holder

c. Install the correct pin holder and tighten it securely against the nut.

IMPORTANT

Warning! Never rotate the shaft when mounting the pin holder, it can damage the gun.

d. Install the correct ring holder by placing it over the pin holder and into the circular groove in the gun, and finally, pushing on it to seat it in place.

LOADING PIN AND RING

6. Insert the brazing pin into the pin holder. The rounded tip should be facing away from the gun.

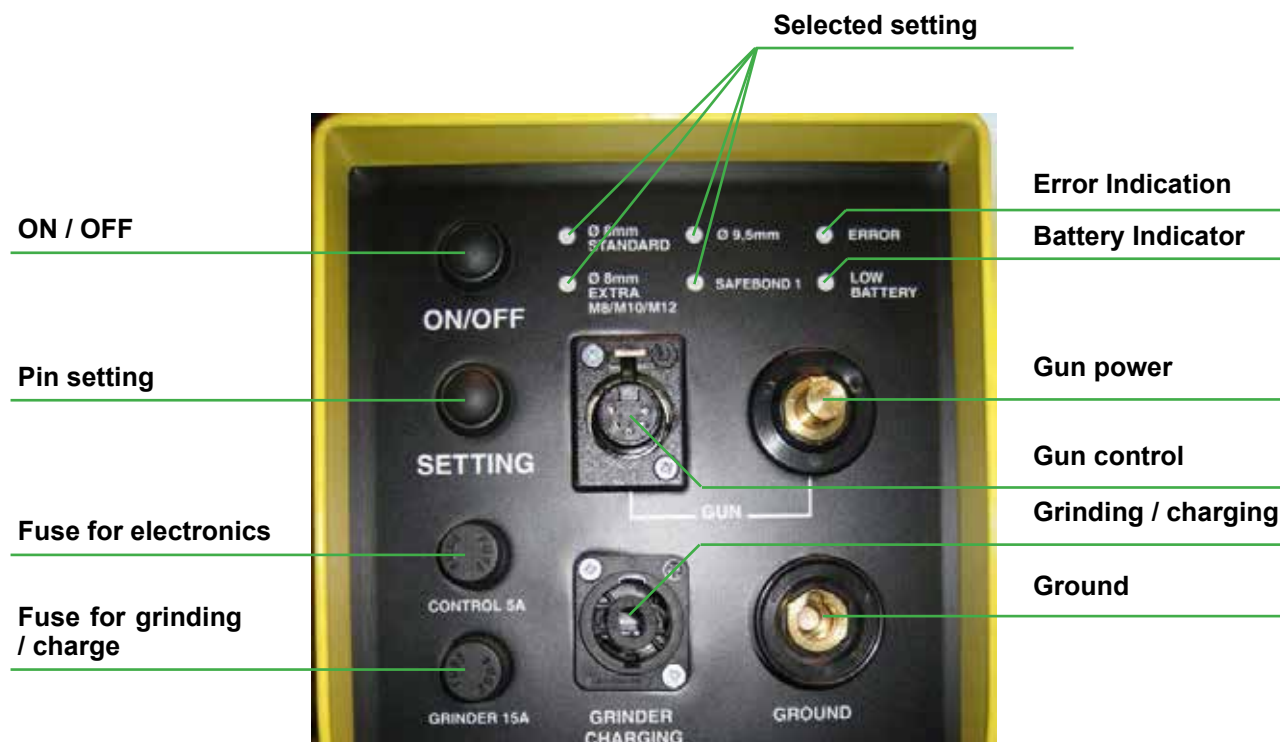
7. Insert the ceramic ring into the ring holder. The serrated edge should be facing away from the gun. See figure 4.



Figure 4. Loading pin and ring

OPERATION

- Connect the brazing gun, power and trigger cable to the unit.
- Connect the ground device to the unit, if not already connected.
- Press on/off button and select the right pin type by pressing the "setting" button. The unit will remember what setting was used last.
- Load the gun with brazing pin and ferrule, if not already loaded.



Make sure to braze in the top of the hole when brazing to a vertical surface.



PIN BRAZE

- Hold the gun firmly with both hands against the work piece and pull the trigger just once.
- The electronic unit will by itself finish the brazing process.
- Hold the gun in place for 3-4 seconds after the brazing is complete to allow for cooling.
- Remove the gun straight backwards without pulling the trigger!
- Knock off the shank of the brazing pin with a hammer.
- The brazing is completed.

NOTE:

If the brazing is aborted to early "ERROR" will turn on. The brazing should be redone for a good result. The error lamp will turn off after 8 seconds. Use a new ceramic ring for each new pin braze.

NOTICE

The battery indicator "LOW BATT" flashes when the batteries are almost discharged, when the "LOW BATT" is constantly lit the batteries are discharged and you can't do any more pin brazing. Charge the battery.

SPECIFICATIONS

SPECIFICATIONS

Voltage.....	36 V DC
Number of Brazes (Per Charge).....	50
Weight (incl. Battery)	9.8 kg / 21.6 lb
Width	5.9 inch / 150 mm
Height	11.0 inch / 280 mm
Length.....	12.5 inch / 320 mm
Temperature Range.....	-4° F - 130° F / -20° C - 55° C

EPX10 Econect Battery Kit (For Units S/N 1215091 and Higher)	73720
EPX10 Econect Battery Kit (For Units S/N 1215090 and Below)	73077

MAINTENANCE

EQUIPMENT

- Always make sure the batteries are fully charged.
- Check the cables from time to time for damage.
- Check the contact surface on the ground magnet from time to time to ensure a good connection.
- Make sure that the brazing pin with the ferule passes easily in the gun, centered.

BRAZING PINS AND FERRULES

- Keep them dry.

RAILBONDS AND CABLE LUGS

- Keep them free from oxidation.
- Keep them free from contamination like: Grease, oil.
- Make sure they are not damaged.

SETTING RIGHT LIFT HEIGHT

The S15 brazing gun self adjust to the same lift height every time.
See separate instructions in the maintenance section if adjustment for the gun is necessary.

PIN HOLDERS

Squeeze the fingers on the pin holder together each time you feel that the brazing pin goes in too easy when mounting them into the pin holder. This is important since all the current goes thru the pin holder to the brazing pin. If the fingers are too loose the pin holder will be damaged and must be replaced.

MAINTENANCE

Replace the fuses:

Push and unscrew counter-clockwise to remove fuse holder.
Replace fuse and re-install the fuse holder.



NOTE!

Control: 5A fuse. P/N-74643
Grinder: 15A fuse. P/N-56558

Special functions:



1. BATTERY INDICATOR:

Press and hold the “SETTING” button, while you push the “ON / OFF” button.
“LOW BATTERY” LED will light. Release the buttons.
The LEDs on the front panel show the charge status of battery.

2. LIFTING HEIGHT CONTROL:

First follow step 1 above.
Press “Settings” and the lights start flashing, at this point, you can check the lifting height of the gun.

3. Pressing “Settings” one more time and you go back to battery indicator.

MAINTENANCE

Periodic maintenance of S15 automatic gun

1. Check that all cables and lugs are not damaged and properly tighten in gun and unit.
2. Check that the right pin holder is installed in the gun.

See selection of pin holders in the accessories section of this manual.



Make sure the pin holder is tight on the gun, otherwise a spark can destroy the axle. Use a wrench to hold the nut from turning and tighten the pin holder as shown in the picture. **Do not** allow the main shaft to turn, only turn the pin holder to tighten. Use one 8mm and one 10mm wrench for 8-9,5 mm and M8 pin holders. Two 10mm wrenches for M10 and M12 pin holders.

Make sure, never twist the main shaft when mounting the pin holder!

When loading the brazing pin, it should **not** go in loose into the pin holder, if it does push the pin holder together with your fingers to gain a tighter fit. Otherwise you can have a contact fault or a spark can arise if there is not a tight contact.

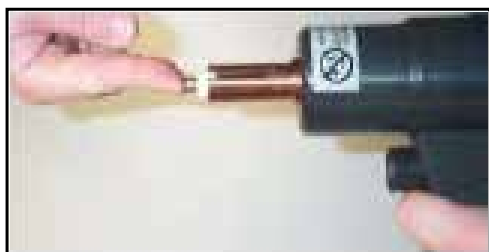
3. Check that the ring holder is the right type. You can remove it by hand and its ease of removing can be adjusted with the small screw on the side of the gun (see photo).



**Ring holder Adjustment
Screw**

4. Load the gun with the appropriate pin & ferrule. Check that the axle moves easily with the pin and ferrule installed by pushing back and forward on the pin with your finger (see photo).

If the pin does not move easily, change either pin holder or ring holder. If it still does not move easily the axle is damaged and must be sent for repair.



MAINTENANCE

Lift level tool

P/N-62394

IMPORTANT! The normal lift height is 2mm / 0.078 in.
This is very important for the arc and energy amount.
Too high lift height increase the risk of a “coldbrazing”,
too low lift height reduce the time and increase misfires.

1. Insert this end in to the gun.



2. Press and hold “SETTING” and press “ON/OFF”.
When “LOW BATTERY” is lit, release buttons.
Press “SETTING” and the LEDs will start to blink.
In this mode the unit is able to check the lift height.

**Important! Press the tool completely against the gun then pull the trigger.
Otherwise the gun may be damaged!**

Important! Hold the gun so the tool is horizontal.

3. The lift level is calibrated when the inner rod, made of brass, on the tool is in same level as the outer plastic sleeve. Tolerance $\pm 0,2$ mm / 0.007 in. If the gun is not calibrated see separate instruction for adjusting of the gun.

MAINTENANCE

Advanced maintenance work Adjusting the lift level.

1. Resetting correct lift height of a S15 gun.
Only reset a maladjusted gun.

Install the lift level tool (shown below) onto the gun.

2. Connect the cables to the pin brazing unit and switch on the power.

3. Take off the plastic plug with a pin in the upper small hole in the front of the gun (see photo).

IMPORTANT, never adjust in the hole where the big plug is!

4. When lift height is too low. Use the 3mm hexagon allen wrench and adjust the screw in the small hole counter-clockwise about 1/4 of a turn then check with the lift level tool.

5. When lift height is too high. Use the 3mm hexagon allen wrench and adjust the screw in the small hole clockwise about 1/4 of a turn then check with the lift level tool.

If height is ok, replace the plug in the hole.

If height is not ok, send for repair.

P/N-62394

Lift Level Tool



Remove plastic plug with a pin or sharp object.



TROUBLESHOOTING

Error indications on the unit:

“ERROR” led is lit.

- The temperature of the battery is over +55 °C/131°F

Action: Wait until the light goes out, when the temperature drops you will be able to braze again.

“ERROR” led flashes.

- The temperature of the battery is below +10 °C/50°F

Action: Leave the unit on, the built-in heating element will heat up the battery. Wait until light goes out and the temperature has risen, and you will be able to braze again.

“ERROR” and **”LOW BATTERY”** led flashes.

- The temperature of the battery is below +10 °C/50°F and the battery is almost discharged.

Action: Charge the batteries.

“ERROR” Led is lit after a braze.

- The pin brazing was not complete.

Action: The braze should be remade to achieve good results. The Led turns off after 8 seconds.

“ERROR” Led glows.

- Failure of a sensor in the unit.

Action: The unit should be sent for repair.

”LOW BATTERY” Led flashes.

- Battery is almost discharged

”LOW BATTERY” led is lit.

- Battery is discharged. Charge the batteries.

“NOTHING HAPPENS WHEN YOU PRESS THE BUTTONS”

- The electronics may have gotten stuck.


Action: Remove control 5A fuse for a short time, put it back again.

“THE BRAZING NEVER STOPS”


- The electronics may have gotten stuck.

Action: Remove the gun and the ground magnet from the rails and disconnect them from the unit as soon as possible. Remove the control 5A fuse, check that nothing has been damaged before the fuse is put back.



ACCESSORIES

Item No.	Part No.	Qty	Description	Brazing Pin Required	For use on rail only
1	35835	1	8mm	35832	
2	35836	1	8mm with extra silver	35832	
3	35837	1	9.5mm	35833	
4	35840	1	M8/12 threaded	35834	
5	35841	1	M10 threaded	35834	
6	35839	1	M12 threaded	35834	






CERAMIC RINGS

Item No.	Part No.	Qty	Description	
7	35832	1	8mm	
8	35833	1	9.5mm	
9	35834	1	12mm	

PIN & RING HOLDERS




Item No.	Part No.	Qty	Description	
10	35826	1	Pin Holder for Pin brazing, 8-9,5 mm brazing pins.	
11	35827	1	Pin Holder for Pin brazing, M8 Threaded pins.	
12	35828	1	Pin Holder for Pin brazing, M10 Threaded pins.	
13	35829	1	Pin Holder for Pin brazing, M12 Threaded pins.	
14	35825	1	Extended pin and ring holder set for 8-9,5 mm brazing pins.	
15	35830	1	Ring Holder, 8-9,5 mm ceramic rings.	
16	35831	1	Ring Holder, M8/M10/M12 mm ceramic rings.	

CABLE LUGS

Item No	Part No.	Qty	Description	Brazing Pin Required	
17	47523	1	Braze Lug for 25 mm Cable	35836	
18	47524	1	Braze Lug for 35 mm Cable	35836	
19	47525	1	Braze Lug for 50 mm Cable	35836	
20	39241	1	Cable Shoe #6	35836 x2	
21	35847	1	Cable Shoe 10 mm	35835	
22	35855	1	Cable Shoe D=8 mm	35836	
23	47526	1	Cable Lug for 16 mm Cable	35835	
24	47527	1	Cable Lug for 25 mm Cable	35836	
25	47528	1	Cable Lug for 35 mm Cable	35836	
26	47529	1	Cable Lug for 50 mm Cable	35836	
27	47522	1	Cable Lug 5/8" ground rod to #2 cable	35836 x2	
28	47521	1	Braze Sleeve #6 to #6	35836	
29	41625	1	Multi-Wire Track Connection	35836 x2	
30	67122	1	Brazing Clip (Secures Wire to Rail)	35835	



ACCESSORIES

BONDING CABLE WITH LUGS (for pin brazing)


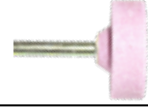

Item No.	Part No.	Qty	Description	Brazing Pin Required	
31	35845	1	Contact Bond / 50 mm ² , 185 mm long, copper	35837	 35844 Pictured
32	35844	1	Contact Bond / 25 mm ² , 145 mm long, copper	35835	
33	39243	1	3/16 Bond, 300 mm long	35835	
34	39244	1	Bond 25 mm ² , 200 mm long	35835	
35	37944	1	Rail Bond 50 mm ² , 185 mm long	35836	 39242 Pictured
36	39705	1	Bond Wire 16" OAL x 25 mm	35835	
37	39706	1	Bond Wire 24" OAL x 25 mm	35835	
38	39707	1	Bond Wire 36" OAL x 25 mm	35835	
39	39242	1	3/16 Bond Crimp-able Sleeve	35835	 40366 Pictured
40	40366	1	Signal Extension Bond 3/16" (170 mm)	35835	
41	40091	1	Signal Extension Bond 150 mm L=430	35837	
42	40090	1	Signal Extension Bond 2 x 35 mm - 2 x L=170	35836	
43	41635	1	3/16 Signal Bond Wire W/Eye & Crimp-able sleeve, 24" long.	35835	 41635 Pictured
44	41815	1	3/16 Bond 12' Long Eyelet one end, AL block for T.I.G. Weld Other End	35835	
45	43686	1	Extension Bond CU, 25 mm ² , x 330 mm Long	35835	
46	43519	1	3/16 Extension Bond 12"	35835	
47	41225	1	Bond Wire 34" Long C/L-C/L W/9 mm eyelets on both ends	35835	
48	41226	1	Bond Wire 46" Long C/L-C/L W/9 mm eyelets on both ends	35835	
49	66579	1	25mm ² x 500mm Extension Bond	35835	
50	66580	1	25mm ² x 900mm Extension Bond	35835	
51	66269	1	Signal Bond 3/16" x 6' Braze Lug Both Ends	35835	 67634 Pictured
52	67634	1	Railbond 300 mcm L=330 mm Uninsulated (4) 9.5 Pins Required	35837	
53	73652	1	Railbond 300 mcm L=430 mm Use with 4X Pins		
54	73016	1	Railbond 300 MCM		
55	72988	1	Railbond 3/16, 4 in. Reversed (50 pack)		
56	72989	1	Railbond 3/16, 6 in. Reversed (50 pack)		
57	67635	1	Extension Bond 300 mcm x 200 mm crimp, 2) 9.5 Pins Required	35837	 67635 Pictured
58	47530	1	Bungalow Grounding Bond 3/16"	35836	
59	80784	1	Railbond 95mm ² , L=155mm, bare copper	35837	
60	81167	1	Railbond 95mm ² , L=155mm 60°, bare copper	35837	
61	80785	1	Railbond 95mm ² , L=255mm, bare copper	35837	
62	81168	1	Railbond 95mm ² , L=255mm 60°, bare copper	35837	
63	80786	1	Railbond 95mm ² , L=355mm, bare copper	35837	
64	81169	1	Railbond 95mm ² , L=355mm 60°, bare copper	35837	

ACCESSORIES

"T" CONNECTIONS (for pin brazing)

Item No.	Part No.	Qty	Description	Brazing Pin Required	
65	35857	1	Type C Copper Plate with M8 x 18 Brass Threaded Stud T-Bolt	35835 x2	
66	35861	1	Type D Copper Plate with M16 x 32 Stainless Steel Threaded Stud T-Bolt	35837 x4	

GRINDER ABRASIVES

Item No.	Part No.	Qty	Description	
67	73358	1	Carbide Burr (1/4" Shank)	
68	35810	1	Grinding Wheel - NOT for SafeBonding!	
69	73052	1	Bull Nose Stone, 2" (1/4" Shank)	

GRINDER

Item No.	Part No.	Qty	Description
71	DCG426M2	1	Cordless Grinder Kit. Includes (2) Battery (1) Charger.





COLD WEATHER ACCESSORIES

Item No.	Part No.	Qty	Description
71	82788	1	Instant Hot Packs, 5" x 9", 24 Pack
72	82789	1	Heat Pack, Body Warmer, 240 ct.
73	DHX165	1	Electric Heater, 120V





REPLACEMENT PARTS

Item No.	Part No.	Qty	Description
74	88916	1	Front Piece for SB4 & SB15 Brazing Guns

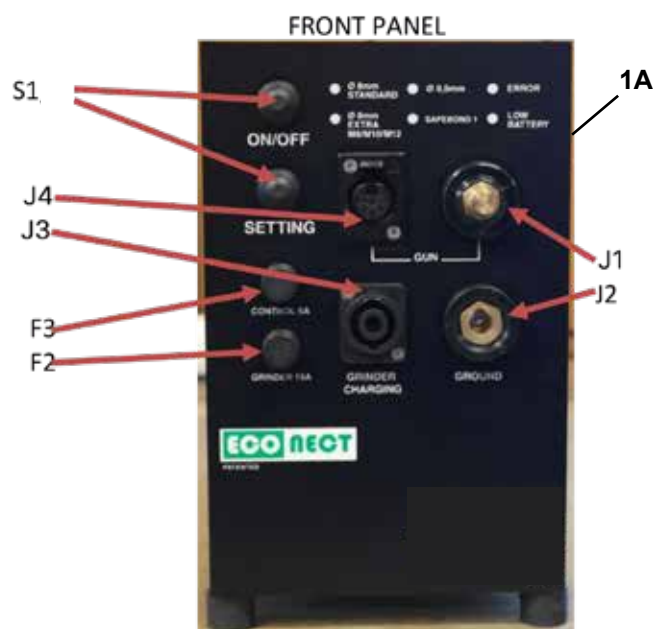
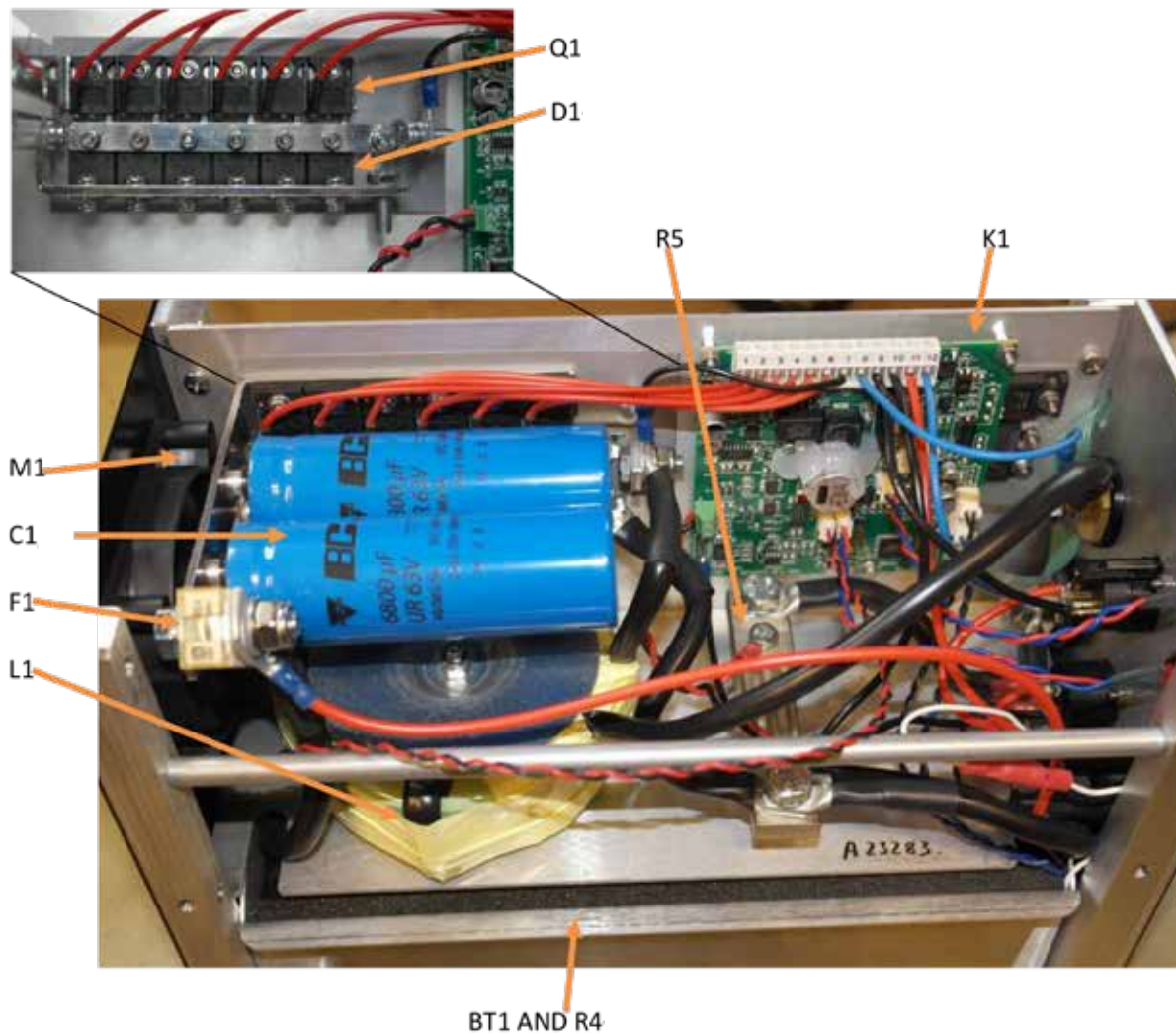
ACCESSORIES

FUSES, CHARGERS & BATTERIES				
Item No.	Part No.	Qty	Description	
75	74643	1	Control Fuse, 5A	
76	56558	1	Grinder Fuse, 15A	
77	66847	1	Fuse Holder	
78	72972	1	Charger - 36V / 110V ECONECT	
79	73077	1	ECONNECT Battery Kit (For Units S/N 1215090 & Below)	
80	73720	1	EPX10 Battery Kit (For S/N 1215091 and Higher)	
81	EPX10KP36110	1	EConec Kit 36V/110VAC. Kit includes DCG426M2 DeWalt grinder kit, 100x 35832 8mm ceramic ring, 100x 35835 8mm brazing pin, 100x 39242 3/16 bond crimpable sleeve, 72970 EConec Unit, S15 brazing gun, charger, carrying strap, carrying case, 73358 carbide burr.	
82	EPX10K36110	1	EConec Kit 36V/110VAC. Kit includes DCG426M2 DeWalt grinder kit, 72970 EConec Unit, S15 brazing gun, charger, carrying strap, carrying case, 73358 carbide burr.	
83	EPX10KP4	1	EConec Kit 36V/110VAC. Kit includes 72970 EConec Unit, 72971 S15 Automatic Brazing Gun, 72972 36V/100V Econect Charger, 100x 35832 8mm ceramic ring, 100x 35835 8mm brazing pin, carrying strap, carrying case.	

ACCESSORIES

CABLES				
Item No.	Part No.	Qty	Description	
84	72999	1	ECONNECT Ground Magnet	
85	72973	1	Carrying Strap	
86	66266	1	Ground Clamp Assembly (Vise Grip Style)	
87	72974	1	Carrying Case	
88	81322	1	Insulated Bag	
89	72970	1	ECONNECT Unit	
90	72971	1	S15 Automatic Brazing Gun	
91	73078	1	ECONNECT S15 Gun Cable	
92	BG20600	1	Brazing Gun ECONNECT Safebond	
93	62394	1	Lift Level Tool	
94	73653	1	Brazing Gun Cable for S15 / SB15	

EPX10 PARTS ILLUSTRATION



EPX10 PARTS LIST

Qty	References	Description	Part number
1	K1	Econect circuit board	74590
1	BT1	Battery Kit	73720 FOR UNITS SERIAL # 1215091 & HIGHER ONLY
1	R4	Heat pad complete.	74592
1	R5	Shunt 150A	74593
6	Q1	Mosfet	74594
6	D1	Diode	74595
1	L1	Triode	74596
2	C1	Capacitor	74597
1	M1	Fan	74598
1	1A	Front panel	74599
1	J3	Wall socket 4-pin	74611
1	J4	Wall socket 5-pin	74612
1	J2	Wall socket for ground, female	74613
1	J1	Wall socket for gun, male	74614
2	S1	Pushbutton	74640
1	F1	Fuse 300A 58V	74641
1	F2	Fuse 15AF 5x20mm	56558
1	F3	Fuse 5AT 5x20mm	74643

NOTE: Reference BT1 Battery Kit shown above is for units with serial number 1215091 and higher, **Units with serial number 1215090 and below must be returned to the factory for battery replacement.**

Econect battery kit P/N-73720 for serial number 1215091 and Higher only.

Including:

Econect battery.

2 x 13mm spanner.

3mm hexagon key.

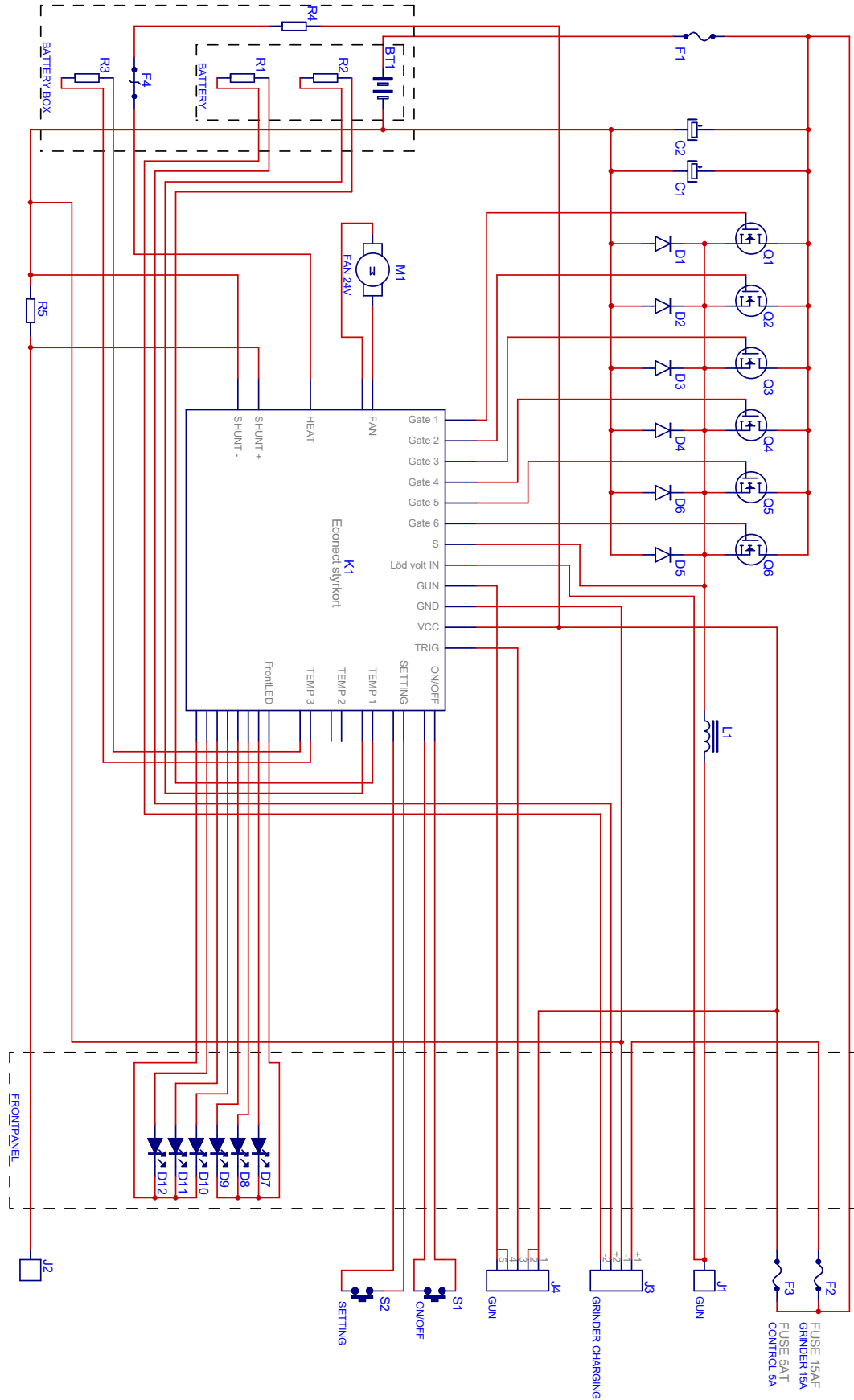
Side cutters.

Resistor 220hm/4W.

2 x Plastic washer.

3 x Cable ties.

EPX10 ELECTRICAL DIAGRAM



REPLACING THE BATTERY

NOTICE

The Battery kit (P/N-73720) and steps 1 thru 19 listed below applies only to units with S/N 1215091 and Higher. For Units with serial number 1215090 & below, these units must be returned to the factory for battery replacement.

Econect battery kit P/N-73720 for serial number 1215091 and Higher.

Including:

Econect battery.

2 x 13mm spanner.

3mm hexagon key.

Side cutters.

Resistor 220hm/4W.

2 x Plastic washer.

3 x Cable ties.

1. Remove all screws on the sides of the unit with a 3mm hexagon key.



2. Cut the cable ties for the positive and fan cable.



3. Pull out the connector for the fan.



REPLACING THE BATTERY

4. Remove all screws on the backside of the unit with a 3mm hexagon key and remove the back.

⚠ WARNING

5. **WARNING: RISK FOR SHORT CIRCUIT.**

With two 13mm spanners remove the batteries positive cable, also remove the bolt and fuse. **Be careful so the cables don't come in contact with any other parts in the unit.**

6. Directly after disconnecting the positive cable, it must be insulated.

IMPORTANT

7. Hold the cable for the electronics on to the copper rail and press ON and hold it for at least 30 seconds, to discharged the capacitors.

8. Cut the cable tie, pull out the cable.



REPLACING THE BATTERY

9. Remove the batteries negative cable from the current shunt.



10. Pull out the cable.



11. Pull out the black cables connector form the top socket (TEMP1) and the blue cables connector form the bottom socket (TEMP3).



12. Remove the two connectors on the charger outlet, that aren't soldered.



REPLACING THE BATTERY

13. Make sure that all cables are free then pull out the battery box.



⚠️ WARNING

14. Replace the battery, make sure that the battery is placed in the same way as the old.

WARNING: Connecting the battery in the wrong way will cause damage to the electronics.



15. Slide in the new battery and start connecting the cables in the reversed order, start from step 12 up to step 8.

⚠️ WARNING

16. **WARNING: RISK FOR SHORT CIRCUIT.**

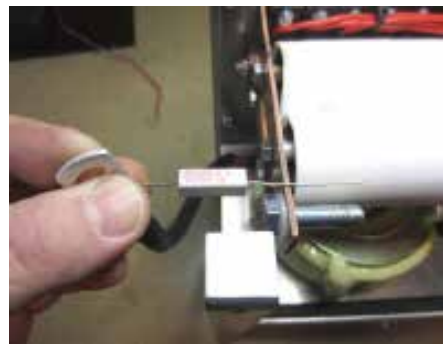
Mount the M8 bolt with a plastic washer on the copper rail.

IMPORTANT

Before the battery is connected, the capacitors must be charged. Hold the resistors that came in the kit in contact with the positive lead of the battery and connect the other lead to the copper rail, hold for 15 to 20 seconds.

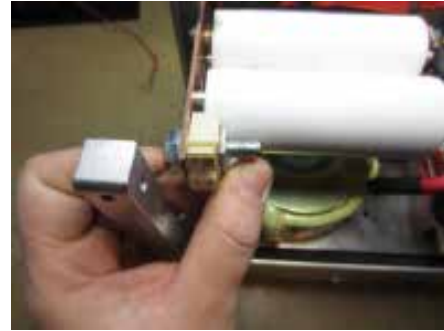
Continue with the next step immediately, if not charging must be redone.

After charging set the resistor aside for future use if needed.



REPLACING THE BATTERY

17. Mount the fuse and batteries positive cable on the bolt.



18. Mount the positive cable for the electronics and a plastic washer.



19. Mount the washer and lock nut and tighten.
Don't tighten too hard, the plastic washers may get damaged.
Continue with step 4 to 1, to complete.



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