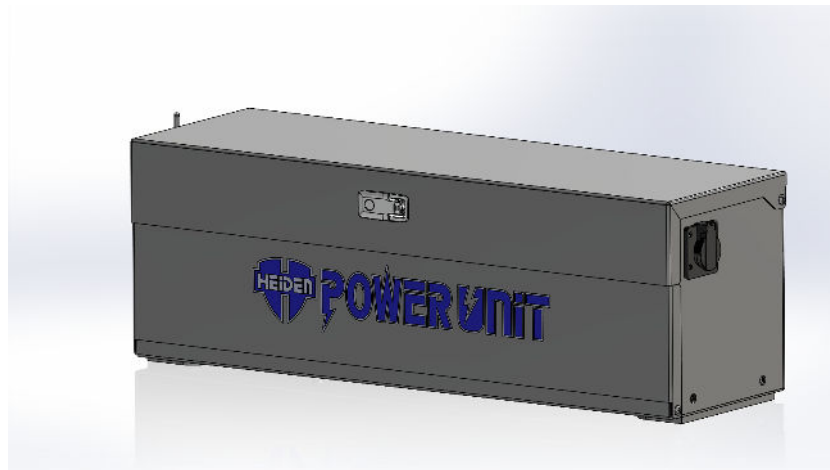




CRANE ATTACHMENTS

HEIDEN HYDRAULIC POWER UNIT

Operating and Maintenance Manual



WARNING

For safe operation, read these rules and instructions carefully to avoid accidents that could result in Death or Serious Injury.

Heiden, Inc.

4624 Expo Drive

Manitowoc, WI 54220

(888) 682-5779

heiden@heidenco.com

www.heidencrane.com



Proudly Made in USA

Thank You

Our sincere appreciation to you on the purchase of a quality Hydraulic Power Unit that has been designed and manufactured in the USA by Heiden, Inc. Product experience of over 60 years is the cornerstone of our company and our goal is to provide you with a Hydraulic Power Unit that will give you years of satisfaction and operation.

Our record of successful and satisfied customers is a testament of the concern for quality and designed strength that we place into each and every product we build.

This manual expresses the need for safe operation and maintenance of your Hydraulic Power Unit from Heiden, Inc. It is important that you and all of your operators of this Hydraulic Power Unit become familiar with the operation, maintenance and safety instructions found in this manual, as well as in the manual that came with the truck that will be lifting the attachment your Hydraulic Power Unit will power. Add some common sense to the items mentioned in these manuals as a recipe for safe operation.

We invite you to look at more of our innovative products on our website:

<https://www.heidencrane.com/> or contact your local dealer to find out more.

Sincerely,
Management and Employees
Heiden, Inc.

Important Information

Record your Hydraulic Power Unit and Dealer information here for future reference

MODEL #: _____

TYPE: _____

SERIAL #: _____

DEALER NAME: _____

DEALER PHONE:(____)-____-_____

Table of Contents

1	Introduction.....	5
1.1	General	5
1.2	Purpose of Heiden Hydraulic Power Unit.....	6
2	Warranty	6
3	Safety.....	7
3.1	General.....	7
3.2	Observe Safety Instructions.....	7
3.3	Before and During Work.....	7
3.4	After Work Day	8
3.5	Safe Maintenance.....	8
3.6	Working with Oils and Chemicals	8
3.7	Battery Safety	9
4	Hydraulic Power Unit Operation.....	10
4.1	General.....	10
4.2	Main Power	10
4.3	Transmitter Operation	11
4.4	2-Button Pendant Operation	14
4.5	Power Fuse Block / Fuse Block.....	16
5	Maintenance	17
5.1	General.....	17
5.2	Safe Maintenance.....	18
5.3	Regular Maintenance	19
5.3.1	Daily Maintenance or Maintenance Every 16 Hours	19
5.3.2	Weekly Maintenance or Maintenance Every 80 Hours	19
6	Storage and Decommissioning of the Hydraulic Power Unit	20
6.1	Storage.....	20
6.2	Dismantling and Decommissioning.....	20

Table of Contents (cont)

- 7 Technical Data..... 21
- 8 Hydraulic Power Unit Parts Breakdown 22
 - 8.1 Hydraulic Power Unit..... 22
 - 8.1 Hydraulic Power Unit..... 23



1 Introduction

1.1 General

- ⇒ This manual contains instructions for operating and servicing your Hydraulic Power Unit. The information contained in this manual is essential for proper use and maintenance of your Hydraulic Power Unit.
- ⇒ If more complex repairs and maintenance are required for your Hydraulic Power Unit, it is recommended that you contact your dealer to find a qualified technician that can execute the necessary work. Heiden, Inc recommends that only qualified technicians service and repair your Hydraulic Power Unit. Failure to do so could cause your Hydraulic Power Unit to not operate properly and cause serious injury or death.
- ⇒ This manual contains important information and instruction for operating your Hydraulic Power Unit safely and efficiently. This manual should be kept on hand and read by any individual that will operate your Hydraulic Power Unit. If your manual becomes lost or becomes dirty that it is impossible to read, please contact your dealer or Heiden, Inc for a replacement manual.
- ⇒ If you sell your Heiden Hydraulic Power Unit please pass this manual over to the new owner.
- ⇒ Heiden, Inc continually works to improve its products and this could result in changes to your Hydraulic Power Unit that are not covered in this manual. If you need the latest information about your Hydraulic Power Unit or have questions about this manual, please contact your dealer or Heiden, Inc.
- ⇒ Regular maintenance and proper operation of your Hydraulic Power Unit are the key to ensuring a long useful life of your Hydraulic Power Unit and safety of the operator. Therefore strictly observe the guidelines contained in this manual.
- ⇒ All rights reserved.



WARNING!

- **Designates possible dangerous situation.**
- **Instructions must be observed and followed.**
- **Disregarding this information may result in serious injury or death.**
- **Disregarding the operating instructions may result in accidents, downtime and may void the warranty.**

1.2 Purpose of Heiden Hydraulic Power Unit

- ⇒ Your Hydraulic Power Unit is intended to give you hydraulic power for your Heiden Super Dumper or your Heiden 2/3 Super Clam (HC30123). This would be if your boom truck or crane does not have onboard hydraulics to power an attachment.

2 Warranty

- ⇒ Your Hydraulic Power Unit has a 12 month warranty that starts from the date of delivery. The warranty applies to failure from manufacturer defect or failure when operated within normal operating conditions. The warranty **does not** cover failure from the following:
- Operator error.
 - Operating outside of normal operating conditions.
 - Failure caused by modifications not authorized by Heiden, Inc.
- ⇒ Your Hydraulic Power Unit has been checked at Heiden's facility before its delivery to your dealer. It can be taken into immediate use after complete installation on your rig and inspection of the installation. The warranty is only effective during the warranty period if all maintenance procedures have been carried out according to the schedule set out in this manual.

3 Safety

3.1 General

- ⇒ Make sure that both doors on the Hydraulic Power Unit are securely closed after the power is turned on to be used for the work day. Never operate the attachment with the Hydraulic Power Unit doors open.
- ⇒ If any of the information contained in this manual is contrary to your locally effective laws and standards, the local laws should be observed.
- ⇒ Your Hydraulic Power Unit should only be operated and serviced by individuals who have been properly trained for the purpose.

3.2 Observe Safety Instructions

- ⇒ Carefully read and make sure you understand all the safety instructions in this manual.
- ⇒ Learn how to properly operate your Heiden Hydraulic Power Unit and its controls. Never allow an untrained person to operate your Heiden Hydraulic Power Unit.
- ⇒ Keep your Hydraulic Power Unit in good working condition. Any unauthorized modifications of your Hydraulic Power Unit can impair its functionality and safe working.

3.3 Before and During Work

- ⇒ Always check before starting to work to make sure that nobody is standing in any location where there is a risk to bodily injury or life.
- ⇒ Observe and make sure you are operating at safe distances from power lines.
- ⇒ Note the density and the slant on the ground. Always observe the job site plan.
- ⇒ Never leave the base machine unsupervised when the Hydraulic Power Unit is energized.
- ⇒ Never stand or walk under any items being lifted.
- ⇒ Leave room for rotated, tilted and horizontally moved items.
- ⇒ Never exceed the base machine's approved tilting load.

3.4 After Work Day

- ⇒ When your work day is complete, make sure to plug battery charger in to recharge your battery for the next work day.
- ⇒ You can also use the Micro USB cord that came with your Hydraulic Power Unit to charge your Transmitter. This can be plugged into one of the USB ports that is above or below the voltage display. Lift up dust cover and plug into USB port.
- ⇒ If you will not be using your Hydraulic Power Unit for two days or longer, disconnect the battery cables from the battery. This will prevent your battery from possibly draining down too far.

3.5 Safe Maintenance



- ⇒ **NOTE: carrying out any maintenance on your Hydraulic Power Unit with the base machine's engine running or Hydraulic Power Unit turned on is absolutely prohibited!**
- ⇒ **Never touch any pressurized hydraulic hoses. Never tighten leaking couplings when the machine is running. Hydraulic oil flowing under high pressure is dangerous to life.**
- ⇒ Read more about Safe Maintenance procedures in Section 5.2 of the manual.

3.6 Working with Oils and Chemicals

- ⇒ **IMPORTANT: Always take notice of any environmental aspects. Close all couplings with plugs so that no oil can leak onto the ground to contaminate it.**
- ⇒ Skin exposure to oil can cause rashes. Avoid skin contact with oil. Use protective gloves. If any oil gets onto your skin, immediately wash it off. Avoid inhaling oil vapors.
- ⇒ Keep the hydraulic system clean.
- ⇒ Carefully clean the area surrounding the object being serviced before starting any maintenance procedures.

3.7 Battery Safety



- ⇒ **NOTE: Make sure to follow all of the battery manufacturers instructions for handling the battery being used in the Hydraulic Power Unit.**
- ⇒ **NOTE: Battery misuse can cause injury or death and could cause environmental pollution from battery leakage.**
- ⇒ Make sure that the battery hold down is securely holding battery in the Hydraulic Power Unit case.
- ⇒ Make sure to check your battery daily to make sure terminal connections are clean and are snugly attached to the battery terminals.
- ⇒ If there is corrosion on your terminals, clean with a solution of water and baking soda.

4 Hydraulic Power Unit Operation

4.1 General

- ⇒ Make sure you have direct line of sight when operating the Hydraulic Power Unit. Never operate without seeing the attachment the Hydraulic Power Unit is powering.
- ⇒ Operating distance for the transmitter is up to 300'.
- ⇒ Failure to follow the operating instructions that follow may cause damage to the Hydraulic Power Unit.
- ⇒ If one of the functions of the Hydraulic Power Unit is not working, make sure to check the 20 amp ATC fuses to see if it is blown. (See 4.5 for the fuse block index.)
- ⇒ If changing out a fuse does not solve your problem, have a qualified technician troubleshoot to fix the problem.
- ⇒ Misuse could cause erratic operation of unit and damage to the Hydraulic Power Unit. Which in turn can cause the attachment being powered by the Hydraulic Power Unit to operate erratically and possibly cause damage to your attachment.

4.2 Main Power

- ⇒ Turn the power switch from “OFF” to “ON” to power the unit up.
- ⇒ The meter below the power switch will show you the voltage of your battery when the battery is connected.
- ⇒ When you turn the switch to the “OFF” position, if you push the knob in you can turn the knob to the “OUT” position and actually pull the knob out. This is a way to lock out the unit so it cannot be used by unauthorized personnel. **NOTE:** BE CAREFUL TO NOT LOSE THE KNOB IF YOU PULL IT OUT.



4.3 Transmitter Operation

- ⇒ Your Hydraulic Power Unit is outfitted with a wireless transmitter to operate the unit. This transmitter will allow you to operate the Hydraulic Power Unit at a distance of up to 300'.
- ⇒ Press and hold the POWER button on the transmitter until both LEDs turn on, then release the POWER button. The GREEN LED will rapidly flash when communication has been established with the receiver. The GREEN LED flashed slow if the receiver is off or there is no communication between the transmitter and receiver.

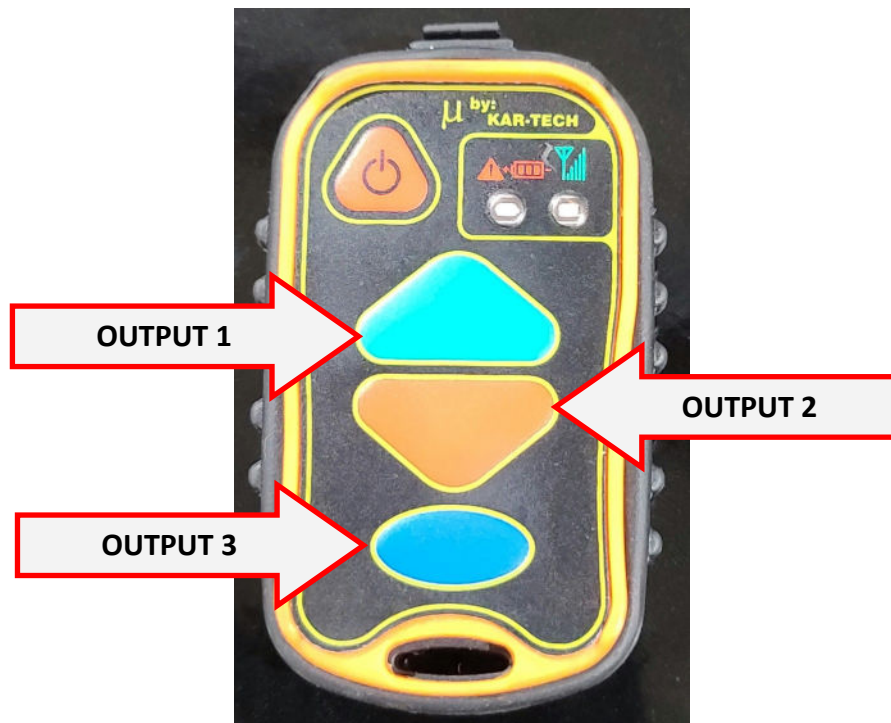


- ⇒ The RED LED on the transmitter will start blinking when the battery in the transmitter is low and needs to be recharged. The RED LED will also blink when there is a problem with the system in the form of an error code.

ERROR CODE	POSSIBLE CAUSE
1	LOW BATTERY
2	FAULTY CIRCUIT OUTPUT 1
3	FAULTY CIRCUIT OUTPUT 2
4	FAULTY CIRCUIT OUTPUT 3
5	FAULTY CIRCUIT OUTPUT 4
ERROR CODE NUMBER IS THE NUMBER OF RED LED BLINKS BETWEEN EVERY PAUSE	

4.3 Transmitter Operation (cont)

- ⇒ Besides the POWER button, your transmitter has three buttons. OUTPUT 1 and OUTPUT 2 are the only ones used to control the Hydraulic Power Unit. OUTPUT 3 is not used in the Hydraulic Power Unit.
- ⇒ The following are the controls for the Heiden Super Dumper and Heiden 2/3 Clam that is outfitted with a Heiden Hydraulic Power Unit:
- **OUTPUT 1**—Close
 - **OUTPUT 2**—Open
 - **OUTPUT 3**—Not Used



- ⇒ The transmitter is set from the factory to turn off and sleep after 15 minutes. It is possible to change the time before the transmitter goes to sleep by using the following procedure:
- Press and hold OUTPUT 2, 3 buttons and POWER button simultaneously.
 - Release the buttons. Now both the RED LED and GREEN LED should both blink once per second.
 - Next, press one of the following buttons to adjust the sleep time:
 - * OUTPUT 1 Button = 15 minutes
 - * OUTPUT 2 Button = 30 minutes
 - * OUTPUT 3 Button = 1 hour
 - Sleep time programming is now complete.

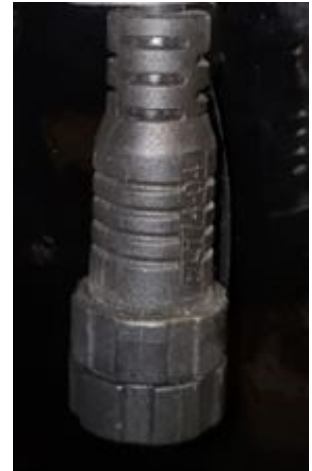
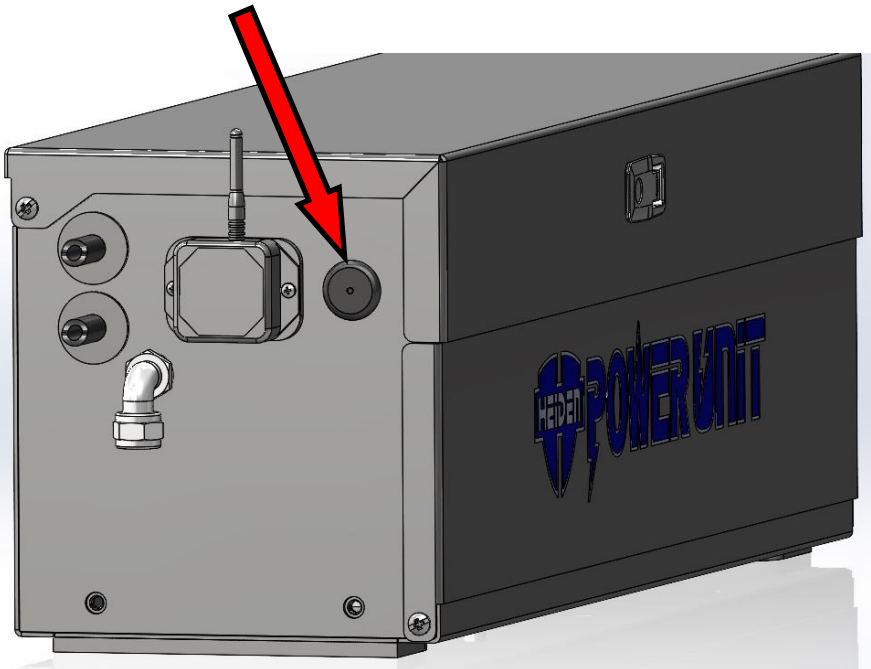
4.3 Transmitter Operation (cont)

- ⇒ At the end of the work day when you plug your Hydraulic Power Unit in to charge the battery, make sure to use the supplied Micro USB cord to charge your transmitter if the battery is low.
- ⇒ Lift the dust cover on the meter/USB ports. Plug the USB end of the cord into the USB port and the Micro USB end into the charger port on the top of the transmitter. Make sure to not use any more than 5 pounds of force to insert the Micro USB end of the charging cable into the Micro USB port on the transmitter. Trying to force the Micro USB end of the charging cable into the Micro USB port of the transmitter can damage the port and cause it to not charge properly or at all.
- ⇒ A solid RED LED light on the transmitter means that the transmitter battery is charging. Once the battery is fully charged , the GREEN LED will turn on. A fully discharged transmitter will take up to 3 hours to recharge..
- ⇒ **NOTE:** Use only approved chargers to charge transmitter.



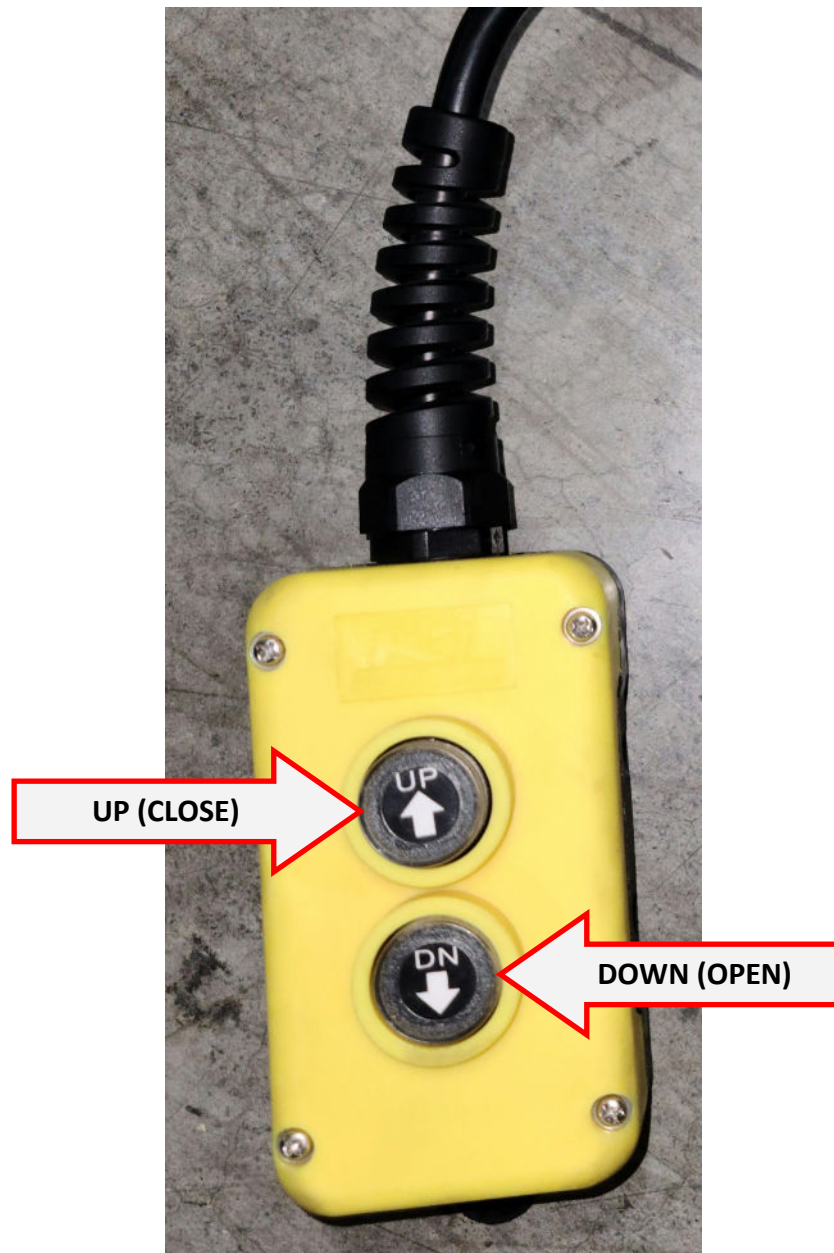
4.4 2-Button Pendant Operation

- ⇒ Your Hydraulic Power Unit also has the option of using a wired 2-Button Pendant to control the Hydraulic Power Unit.
- ⇒ Included is a 2-Button Pendant box that connects to a 25' cord, also included.
- ⇒ The cord connects to the connector on the inside of the Hydraulic Power Unit.
- ⇒ To connect the 25' cord, open the power unit and remove the watertight plug (red arrow). Store the water tight plug in a safe location. Remove the dust cap on the connector. Connect the 25' cord by inserting the cord through the hole and screwing the cord end into the connector.
- ⇒ Make sure the cord is securely connected before using. Close the power unit.
- ⇒ After you are finished using the 2-Button Pendant, open the power unit and unscrew and remove the 25' cord from the connector. Make sure to screw the dust cap back on the connector.
- ⇒ After removing the cord from the power unit, make sure to reinstall the watertight plug to keep it free from dirt and water.



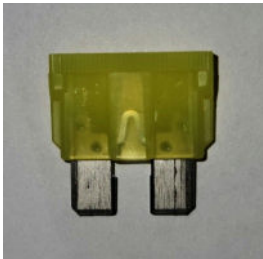
4.4 2-Button Pendant Operation (cont)

- ⇒ Make sure to stand a safe distance away from the attachment that is being controlled by the Hydraulic Power Unit. NEVER stand under an attachment when operating Hydraulic Power Unit.
- ⇒ The following are the controls for the Heiden Super Dumper and Heiden 2/3 Clam that is outfitted with a Heiden Hydraulic Power Unit:
 - **UP**—Close
 - **DOWN**—Open



4.5 Power Fuse Block / Fuse Block

⇒ Below are pictures showing the Power Fuse Block and the Fuse Block along with charts showing what each 20 amp fuse is for in each fuse block. Use this to find the correct fuse if you happen to have one blow out on you. Make sure to replace any fuses with the same type of fuse; a 20 amp ATC fuse. There are two spare fuses included with the Hydraulic Power Unit. One in the “Power Fuse Block” in spot “D” and one in the “FUSE BLOCK” in spot “6”.



POWER FUSE BLOCK	
A	2-BUTTON PENDANT
B	CLOSE RELAY
C	OPEN RELAY
D	NOT USED - SPARE FUSE
E	RF RECEIVER
F	OPEN - NOT USED



FUSE BLOCK	
1	OPEN FROM RF REC.
2	CLOSE FROM RF REC
3	METER / USB
4	CLOSE FROM 2-BUTTON
5	OPEN FROM 2-BUTTON
6	NOT USED - SPARE FUSE

5 Maintenance

5.1 General

- ⇒ It is advisable to have any adjustments and repairs performed by a qualified specialist that is familiar with your Heiden Hydraulic Power Unit. Contact your local dealer to have adjustments and repairs done to your Hydraulic Power Unit.
- ⇒ Use only original spare parts when servicing your Hydraulic Power Unit. Contact your local dealer to order your parts and have them installed on your Hydraulic Power Unit.
- ⇒ Always keep the area and the device absolutely clean when servicing it.
- ⇒ Daily monitor the functioning of your Hydraulic Power Unit in order to find any loose or missing items, hydraulic leaks, hose wear, etc.
- ⇒ Make sure that there is enough hydraulic oil in the system that is powering your Hydraulic Power Unit. Too little oil can cause malfunctions, damage the pump and/or cylinders. Too little oil will also reduce the lubricating properties of the oil.
- ⇒ However, where the base machine is concerned, we advise that you consult the machine's own maintenance manual(s).
- ⇒ Heiden Inc. cannot assume any liability for modifications of the Hydraulic Power Unit structure or hydraulic systems, which do not conform to the original installation.
- ⇒ **IMPORTANT:** Note that when you perform e.g. the 80 Hour Maintenance, you also need to carry out all maintenance procedures scheduled to be performed Daily.

5.2 Safe Maintenance



- ⇒ **NOTE: Maintenance and repair work should be carried out only by qualified technicians or maintenance workshops, using the appropriate tools and lifting devices.**
- ⇒ **NOTE: Always turn off the machine before starting any maintenance work.**
- ⇒ **NOTE: Never touch any pressurized hoses and never stand around them.**
- ⇒ **NOTE: Never tighten leaking couplings when the machine is running. Hydraulic oil flowing, spurting out under high pressure is dangerous to life!**

- ⇒ When you perform any work around your Heiden Hydraulic Power Unit always stop the engine of the base machine and disconnect power with the main switch to avoid accidents.
- ⇒ If you leave the machine, lower attachment with the Hydraulic Power Unit firmly on the ground. It is prohibited to work under and unsupported attachment or boom with the Hydraulic Power Unit powered on.
- ⇒ Never let any inexperienced person enter the cabin of the base machine when the Hydraulic Power Unit is being inspected, serviced or repaired.
- ⇒ Never exceed the operating pressure of 3000 psi. Never adjust the hydraulic pressure without a pressure gauge.
- ⇒ Connect and disconnect the pressure gauge always when the system is not pressurized, if at all possible.

5.3 Regular Maintenance

⇒ **IMPORTANT:** Note that when you perform e.g. the 80 Hour Maintenance, you also need to carry out all maintenance procedures scheduled to be performed Daily.

5.3.1 Daily Maintenance or Maintenance Every 16 Hours

1. Check for any possible oil leaks.
2. Make sure battery cables are in good condition and not cracked.
3. Make sure the battery terminals are clean.
4. Make sure terminal connections are clean and fit snug on battery terminals.

5.3.2 Weekly Maintenance or Maintenance Every 80 Hours

1. Check the hydraulic hoses for any damage.
2. Check the condition of hydraulic unit and check for any oil leaks.

6 Storage and Decommissioning

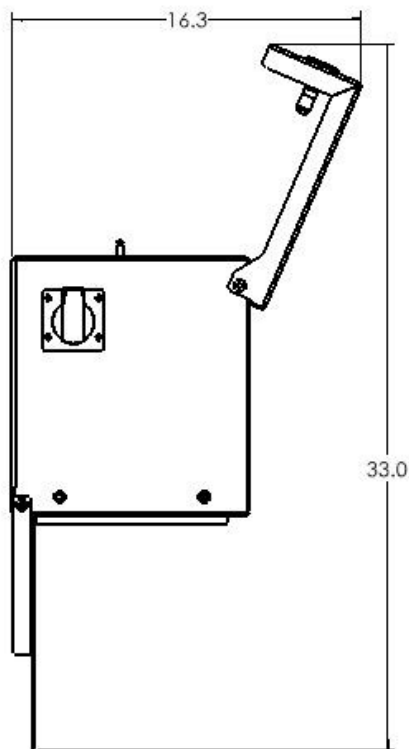
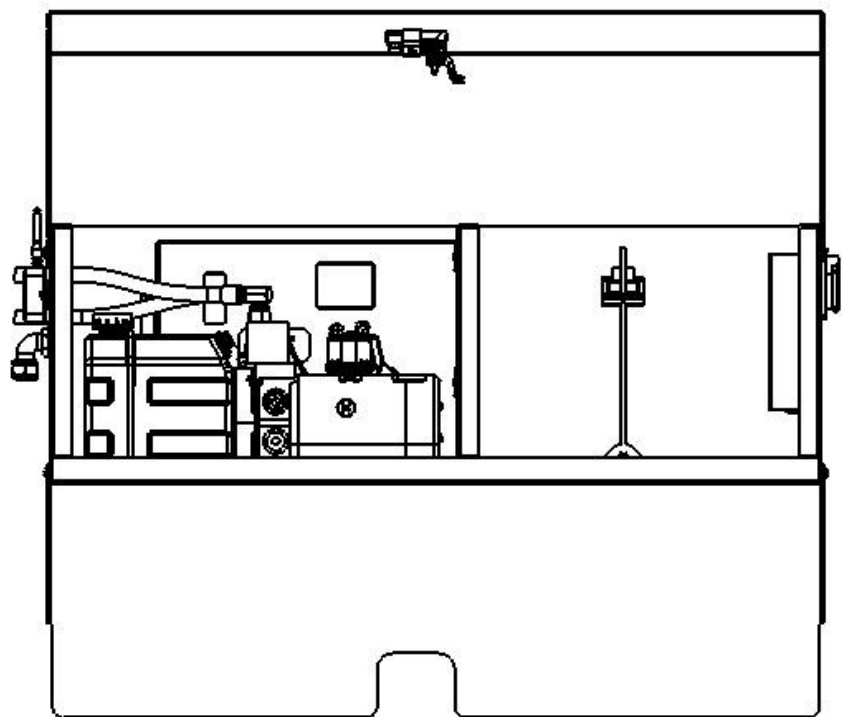
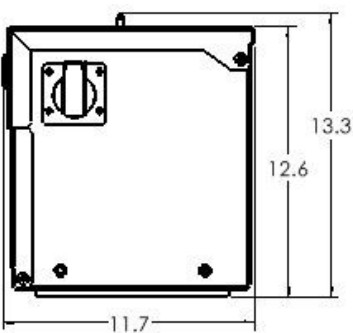
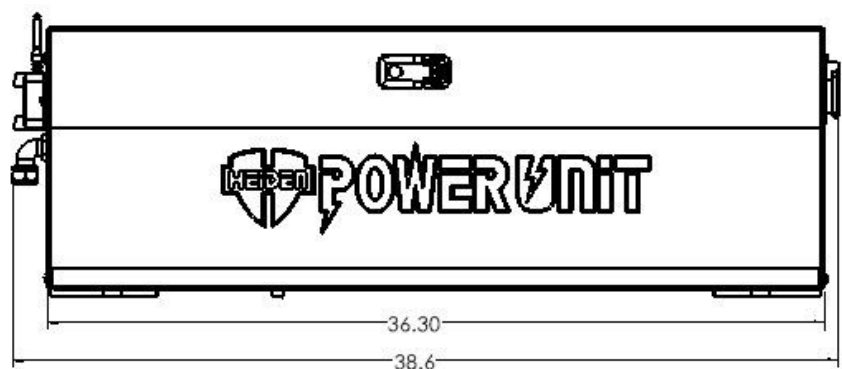
6.1 Storage

- ⇒ **IMPORTANT:** Always protect the environment. Collect any waste oil drained from the system and make sure that it is disposed of properly.
- ⇒ Have any worn or damaged parts repaired or replaced by a qualified technician.
- ⇒ Make sure to disconnect both battery cables from the battery if hydraulic power Unit will be stored for two days or more to prevent battery drainage.
- ⇒ Store the Hydraulic Power Unit in a dry protected area.

6.2 Dismantling and Decommissioning

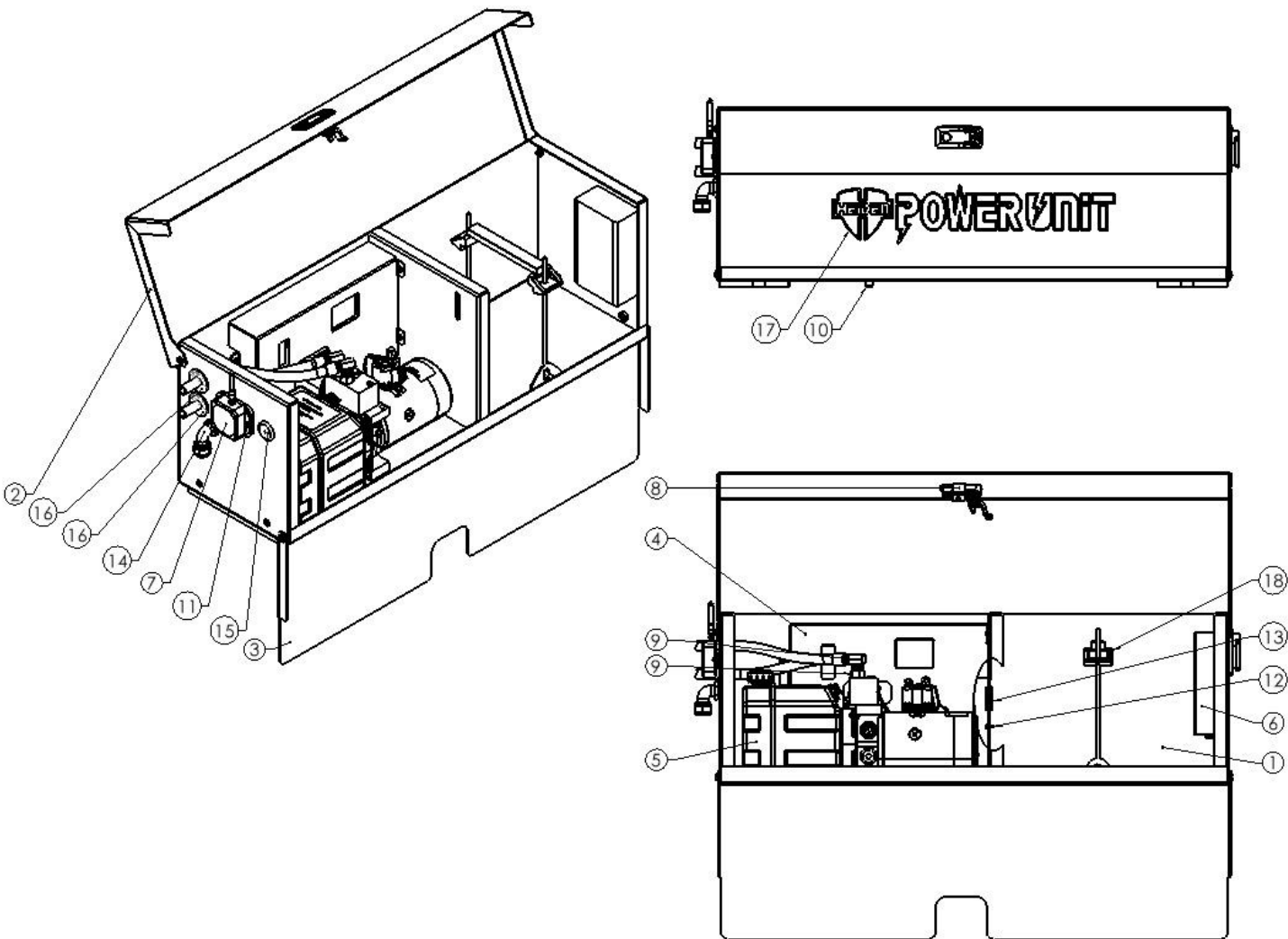
- ⇒ After the Hydraulic Power Unit has reached the end of its useful life, its parts can be mostly recycled.
- ⇒ The steel and aluminum parts are fully recyclable. The copper wiring is fully recyclable also. Contact your local steel recycling facility to do this.
- ⇒ The hydraulic unit contains oil that needs to be drained and disposed of appropriately.
- ⇒ Hydraulic hoses should be disposed of in accordance to your local rules and regulations.
- ⇒ The battery should be appropriately recycled.

7 Technical Data



8 Hydraulic Power Unit Parts Breakdown

8.1 Hydraulic Power Unit



8 Hydraulic Power Unit Parts Breakdown

ITEM #	QTY	DESCRIPTION	MODEL #
1	1	HYD POWER UNIT CASE	HYD POWER UNIT
2	1	HYD POWER UNIT COVER	HYD POWER UNIT
3	1	HYD POWER UNIT DOOR	HYD POWER UNIT
4	1	ELECTRICAL PANEL COVER	HYD POWER UNIT
5	1	HYD POWER UNIT (12VDC)	HYD POWER UNIT
6	1	BATTERY CHARGER (8 AMP)	HYD POWER UNIT
7	1	RF UNIT	HYD POWER UNIT
8	1	COMPRESSION LATCH	HYD POWER UNIT
9	2	HYDRAULIC HOSE W/FITTINGS	HYD POWER UNIT
10	2	3/8-16 X .50" LONG SHCS	HYD POWER UNIT
11	12	10-32 X 3/8" LONG PAN HEAD SCREW	HYD POWER UNIT
12	1	10-32 X 3/8" GROUNDING SCREW	HYD POWER UNIT
13	1	RUBBER GROMMET	HYD POWER UNIT
14	1	90° ELBOW CORD GRIP	HYD POWER UNIT
15	1	WATERTIGHT PLUG	HYD POWER UNIT
16	2	SNAP-IN TUBING GROMMET	HYD POWER UNIT
17	1	HEIDEN DECAL	HYD POWER UNIT
18	1	BATTERY HOLD DOWN	HYD POWER UNIT

[illegible]

[illegible]

[illegible]