

SERVICE AND OPERATION MANUAL



FOR VC6-500-BP
BATTERY POWERED
COMPRESSION TOOL



POWER SYSTEMS, INC.

ANDERSON

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NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

VC6-500-BP SPECIFICATIONS

Crimping Tool (VC6-500-BP)

| | |
|-------------|-----------------------|
| Drive Unit: | 14.4V DC motor |
| Dimensions: | 12"L x 3"W x 13"H |
| Weight: | 9 lbs. (with battery) |

Battery Cartridge (VCBP-SM)

| | |
|----------------|-----------------------|
| Battery Type: | Sealed nickel cadmium |
| Voltage: | 14.4V DC |
| Rated current: | 1.2Ah |
| Charge time: | 15 minutes |
| Dimensions: | 3.5"L x 2.7"W x 5.3"H |
| Weight: | 1.6 lbs. |

Battery Charger (VCACC-Q)

| | |
|------------------|-----------------------|
| Input voltage: | 120V AC single phase |
| Input Frequency: | 50/60 Hz |
| Output: | 14.4V DC @ 5.6A |
| Dimensions: | 7.9"L x 4.5"W x 3.8"H |
| Weight: | 4 lbs. |

Optional Accessories

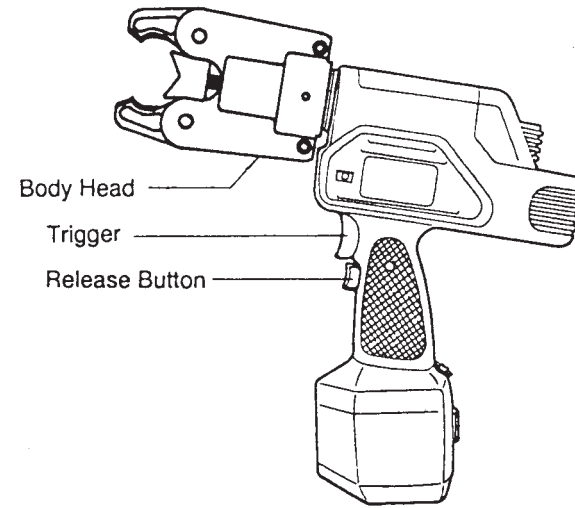
| | |
|--------------|---------|
| AC Adapter | VCAC |
| Battery Pack | VCBP-HD |
| DC Charger | VCDCC |

Features

- Fully automatic, self-contained power tool
- Removable battery cartridge - simply change the cartridge for continuous use
- One handed operation - control ram advancement and retraction with one hand
- Effortless crimping - manual crimping by the operator is eliminated

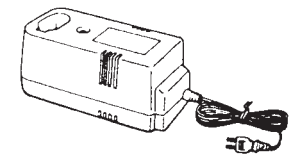
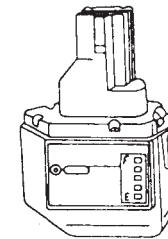
PARTS & ACCESSORIES

VC6-500-BP Battery Powered Crimper



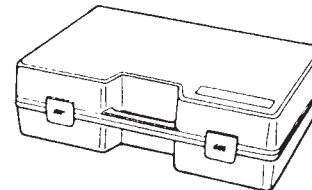
Battery Cartridge VCBP-SM

Charger VCACC-Q

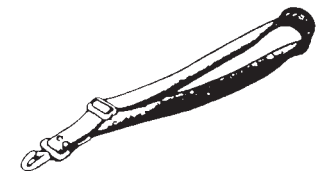


Carrying Case

Shoulder Strap

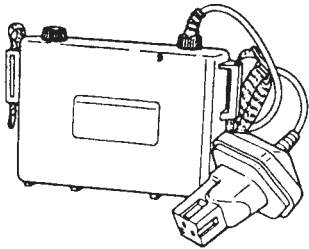


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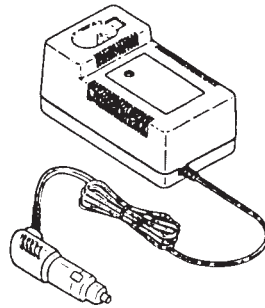


ADDITIONAL ACCESSORIES

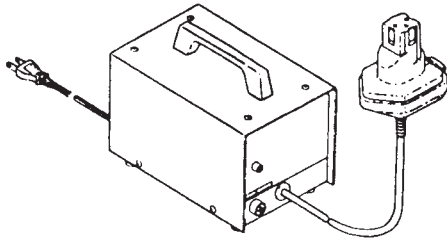
Battery Pack VCBP-HD



DC Charger VCDCC (input 12V DC)



AC Adapter VCAC



GUIDE TO CRIMPING CYCLES

This guide indicates the number of crimping cycles that the VC6-500-BP can be expected to perform when the battery is fully charged. These figures are approximate and will vary according to the charging and other operating conditions, such as temperature, humidity, and battery condition.

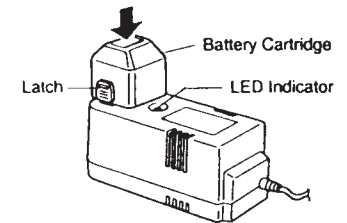
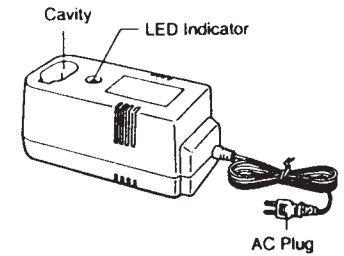
| Conductor Size | Average Crimps Per Charge |
|---------------------------|---|
| #8 AL/CU to 500 MCM | Crimp cycles will vary between 40-60 cycles with the VCBP-SM and 120-180 with the VCBP-HD. Conductor size is not a major factor in crimp cycles on these dieless tools. They perform approximately the same on all sizes. |

If the battery indicator LED remains on, charge the battery as soon as possible. Although the battery may still be used 5-10 times, this varies depending on the conductor size, ambient temperature and the condition of the battery. **Please note, however, that the battery indicator LED sometimes flashes briefly during operation.** If the indicator does not remain lit, it is not necessary to charge the battery.

OPERATING INSTRUCTIONS

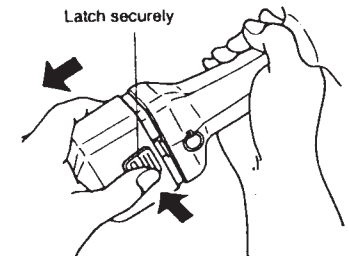
Charging:

1. Connect the AC plug of the charger to a wall outlet. **Note:** The rated charge voltage for this unit is 120V. Use of voltages greater than 120V will result in damage to the charger.
2. To start charging a battery, insert the battery cartridge firmly into the insertion slot of the charger. Make sure green LED light goes on. **Note:** Do not short circuit the charger by placing foreign materials in the slot, as this will damage the charger.
3. Charging takes approximately 15 minutes for the VCBP-SM and 45 minutes for the VCBP-HD. The LED indicator will be green while the battery is being charged. When the battery cartridge is fully charged, the LED will turn orange. **Note:** When the tool is used for the first time, or if it has not been used for a long time, the battery cartridge will need to be charged due to natural power drainage.



Attaching the Battery Cartridge:

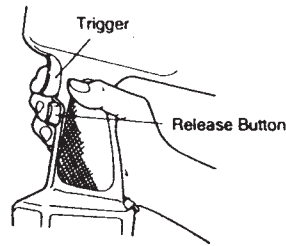
1. While pressing the latch, pull out the battery cartridge. To replace the battery cartridge, push the new cartridge firmly into place.
2. After inserting a battery cartridge, check that it is securely in place by pulling gently. Do not press the latch when pulling the cartridge.



OPERATING INSTRUCTIONS

Trigger and Release Button:

1. The ram advances when the trigger is pressed and stops when the trigger is released.
2. To retract the ram, press the release button. The ram continues to retract while the release button is pressed.



Compression:

1. Check your connector manufacturers recommendations on using a dieless compression tool with the connector and cable being used. Not all connectors are suitable for dieless tool applications.
2. Retract the indenting nibs by pressing the release button.
3. Position the connector and center it between the indenting nibs. Activate the trigger and advance the nibs so the connector is held in place. Check connector for correct positioning.
4. Insert the cable into the connector and activate the trigger until the compression is completed. A series of clicks will be heard while the compression is being made, followed by the tool running in a "free" mode. This indicates a completed cycle and a full compression.
5. Press release button to retract the indenting nibs and remove the connector from the tool.

IMPORTANT OPERATING PRECAUTIONS

Precautions for the tool:

1. Check your connector manufacturer recommendations on using a dieless compression tool with the connector and cable being used. Not all connectors are suitable for dieless tool applications.
2. Never operate the tool without a connector in place.
3. Always point the tool away from other people.
4. If the tool is stored for an extended period at a temperature of less than 25 degrees F (-5 degrees C), the tool should be allowed to return to room temperature to ensure smooth operation. Use the tool only after it has been at room temperature for 1 hour.
5. Do not drop the tool. Dropping the tool may damage the hydraulic circuit and result in the tool not functioning correctly.
6. Keep the head and ram clean and free of debris. Solvents can be used to clean the head, but should not be used on the plastic body. Use soap and water to clean the body.

Precautions for the battery cartridge:

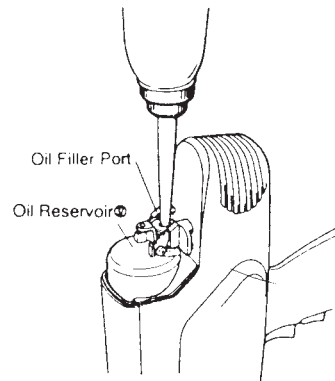
1. Do not short circuit the contacts or expose the cartridge to water, oil or solvents.
2. Do not disassemble or attempt to repair the battery cartridge or dispose of in a fire.
3. Do not drop or otherwise abuse the battery cartridge.
4. Do not leave the cartridge in locations where it will be exposed to a temperature greater than 140 degrees F (60 degrees C) for an extended period.
5. The battery has a limited life. When the crimping capacity becomes about 1/2 that of the original capacity, the battery should be replaced.
6. If the battery cartridge is stored without being charged, natural drainage will cause the power to be reduced. The battery should be charged every 3 months if not in use.

Precautions for the charger:

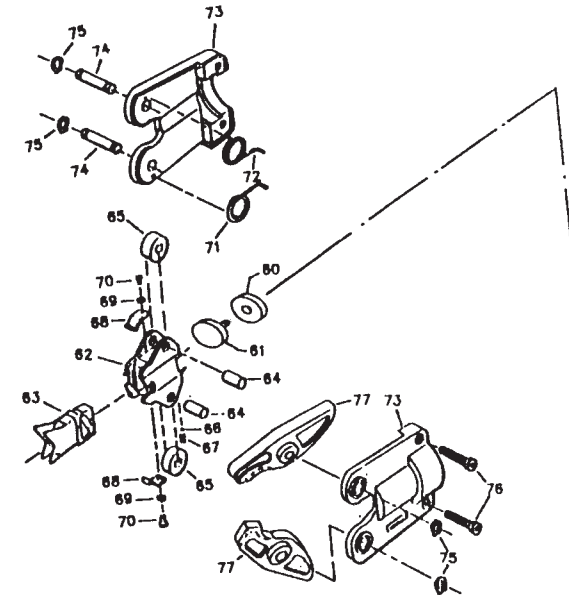
1. The LED indicator lights green and remains lit when the unit starts charging a battery cartridge. The indicator turns orange when charging is completed.
2. This unit is for charging battery cartridges VCBP-SM and VCBP-HD only. Do not use the charger for any other devices.
3. Allow battery cartridges to cool before charging. Allow at least 15 minutes between charges when charging several cartridges in succession.
4. Charge batteries at an ambient temperature of 50-95 degrees F (10-35 degrees C.) Charging time is approximately 15 minutes for the VCBP-SM and 45 minutes for the VCBP-HD.
5. Never short circuit the output terminals.
6. Do not expose the cartridge to water, oil or solvents.
7. Do not disassemble, attempt to modify, drop or otherwise abuse charger.

MAINTENANCE AND INSPECTION

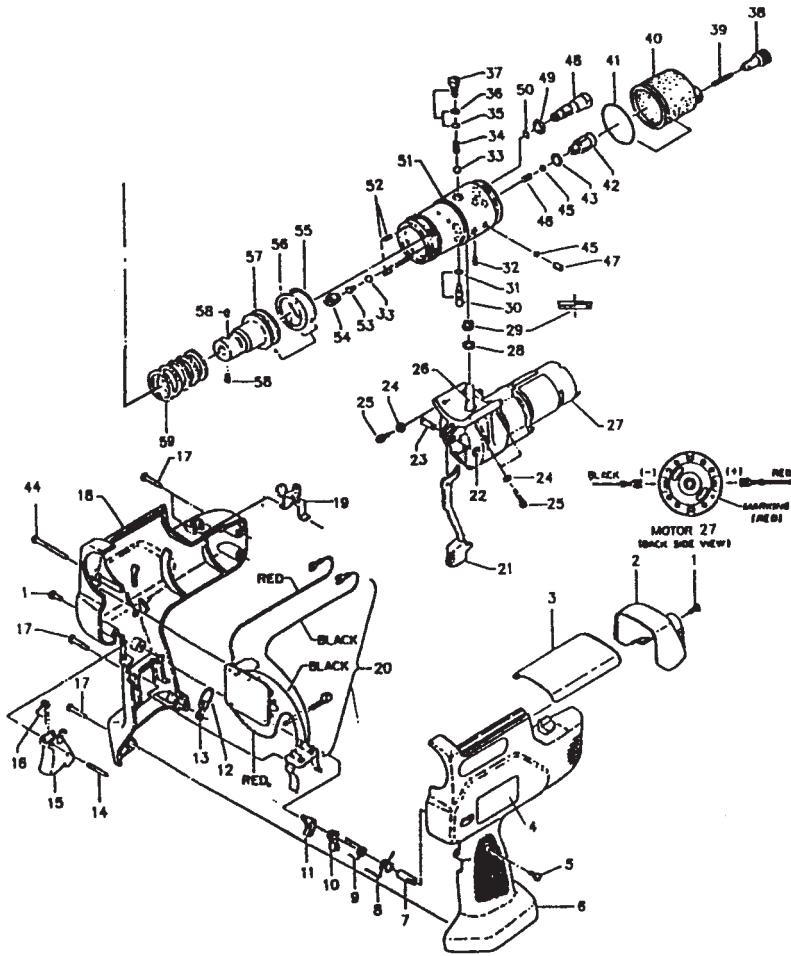
1. Daily maintenance is required to ensure that the tool is kept in good working condition.
2. Do not store the tool in a humid environment.
3. Replenish the oil as shown in the illustration. Use Shell Tellus T 15 or an equivalent oil when replenishing the oil. Keep the tool facing downward when replenishing the oil. **Note:** When air is trapped in the unit, the Ram (63) moves in an unstable fashion.
4. Change the hydraulic oil every 24 months. Approximately 50cc of oil is required. Do not allow air or dust to become mixed with the oil when changing the oil.
5. To replenish the oil, remove the Reservoir Cover (17) to access the Reservoir Cap (35). Carefully remove the Reservoir Cap (35), taking care not to splash any oil onto the housing.
6. Wipe away any excess oil with a soapy cloth.
7. Provided that maintenance of the tool is carried out regularly, the tool should provide many years of service.
8. Should you experience any difficulty with the operation and maintenance of this tool, contact Hubbell Power Systems.



MODEL VC6-500-BP PARTS DIAGRAM



MODEL VC6-500-BP PARTS DIAGRAM



MODEL VC6-500-BP PARTS LIST

| NO. | DESCRIPTION | CODE | QTY. |
|-----|-------------------------|------------|------|
| 1 | M4 x 10 Screw | ROB-159 | 2 |
| 2 | Reservoir Cover | ROB-117 | 1 |
| 3 | Top Cover | ROB-118 | 1 |
| 4 | Label L-485-3 | 1704000000 | 1 |
| 5 | M3 x 10 Screw | ROB-160 | 1 |
| 6 | Housing (Right) | ROB-111 | 1 |
| 7 | Bushing | ROB-161 | 1 |
| 8 | Spring (340) | ROB-112 | 1 |
| 9 | Spring (513) | ROB-113 | 1 |
| 10 | Switch Piece (A) | ROB-114 | 1 |
| 11 | Switch Piece (B) | ROB-115 | 1 |
| 12 | Hanging Ring | ROB-101 | 1 |
| 13 | Ring Support | ROB-120 | 1 |
| 14 | Parallel Pin 3 x 22 h7 | ROB-121 | 1 |
| 15 | Trigger | ROB-122 | 1 |
| 16 | Spring (504) | ROB-123 | 1 |
| 17 | M4 x 20 Screw (T.P.) | ROB-29 | 4 |
| 18 | Housing (Left) | ROB-124 | 1 |
| 19 | Bridge Assembly | ROB-125 | 1 |
| 20 | LED Unit (1) | ROB-119 | 1 |
| 21 | Release Lever | ROB-131 | 1 |
| 22 | E-37 Snap Ring | ROB-130 | 1 |
| 23 | Pin (185) | ROB-129 | 1 |
| 24 | M4 Flat Washer | 16-81 | 4 |
| 25 | M4 x 14 Screw | ROB-128 | 4 |
| 26 | Pump Piston (3) | ROB-137 | 1 |
| 27 | Power Unit (REC-60A) | ROB-127 | 1 |
| 28 | P-8 Back-Up Ring (B.C.) | 85-33 | 1 |
| 29 | PS-8 Pent Seal | 16-44 | 1 |
| 30 | Release Valve Stem | ROB-135 | 1 |
| 31 | P-3 O-Ring | 16-36 | 1 |
| 32 | 3 x 8 Dowel Pin (D) | 610F-11 | 1 |
| 33 | 7/32" Ball | 16-26 | 2 |
| 34 | Spring (341) | 51-20 | 1 |
| 35 | P-4 O-Ring | 410-48 | 1 |
| 36 | P-4 Back-Up Ring (B.C.) | 410-47 | 1 |
| 37 | Plug | 51-21 | 1 |
| 38 | Reservoir Cap | 410-55 | 1 |
| 39 | Magnet | ROB-25 | 1 |

| NO. | DESCRIPTION | CODE | QTY. |
|-----|-----------------------------|------------|------|
| 40 | Oil Reservoir (27) | ROB-132 | 1 |
| 41 | G-30 O-Ring | 75-26 | 1 |
| 42 | Filter Assembly | 51-28 | 1 |
| 43 | Copper Gasket (20) | 100W-17 | 1 |
| 44 | M4 x 40 Screw (T.P.) | ROB-126 | 1 |
| 45 | 3/16" Ball | 16-49 | 2 |
| 46 | Spring (340) | 51-27 | 1 |
| 47 | M6 x 6 Screw (F.P.) | 40U-14 | 1 |
| 48 | Valve Cartridge | ROB-133 | 1 |
| 49 | M10 Lock Nut | ROB-134 | 1 |
| 50 | P-5 O-Ring | 610F-18 | 1 |
| 51 | Body (REC-60A) | ROB-136 | 1 |
| 52 | 2 x 8 Dowel Pin | ROB-14 | 2 |
| 53 | Spring (2) | 16-25 | 1 |
| 54 | Valve Screw (3) | 16-24 | 1 |
| 55 | P-28 O-Ring | 300-21 | 1 |
| 56 | P-28 Back-Up Ring (B.C.) | 55D-03 | 1 |
| 57 | Ram (REC-258U) | ROB-149 | 1 |
| 58 | M5 x 6 Screw | ROB-58 | 2 |
| 59 | Spring (415) | ROB-12 | 1 |
| 60 | Spring Adaptor | 2761830000 | 1 |
| 61 | Yoke Adaptor | 2761840000 | 1 |
| 62 | Yoke | 2761850000 | 1 |
| 63 | Nib Assembly | VP8414 | 1 |
| 64 | Roller Pin | VP8019 | 2 |
| 65 | Roller | VP8076 | 2 |
| 66 | 1/8" Ball | 1500230000 | 1 |
| 67 | #10 - 32 x 1/4" Set Screw | VP8113 | 1 |
| 68 | Nib Retainer Spring | VP8074 | 2 |
| 69 | #4 Lock Washer | VP8098 | 2 |
| 70 | #4 - 40 x 3/16" Screw | 1108120000 | 2 |
| 71 | Side Jaw Spring (Left) | VP8083 | 1 |
| 72 | Side Jaw Spring (Right) | VP8025 | 1 |
| 73 | Cover Set | 2761860000 | 1 |
| 74 | Side Jaw Pin | VP8013 | 2 |
| 75 | Retainer Ring | VP8114 | 4 |
| 76 | 5/16" - 18 x 7/8" Cap Screw | 1054040000 | 2 |
| 77 | Side Jaw | 2761870000 | 2 |

TROUBLESHOOTING GUIDE

| Problem | Cause | Solution |
|---|---|---|
| Motor runs, but the tool jaws will not advance. | <ul style="list-style-type: none"> - Insufficient hydraulic oil - Air block in hydraulic system - Defective hydraulic circuit | <ul style="list-style-type: none"> - Replenish oil supply - Invert tool to allow air to rise towards the top of the oil bladder - Consult factory for repair service |
| Motor runs, tool jaws advance but will not build pressure. | <ul style="list-style-type: none"> - Insufficient hydraulic oil - Defective suction valve or bypass cartridge | <ul style="list-style-type: none"> - Replenish oil supply - Consult factory for repair service |
| Motor will not run at all. | <ul style="list-style-type: none"> - Defective battery - Bad contacts or loose battery connections - Misaligned switch - Defective motor - Low battery | <ul style="list-style-type: none"> - Charge or replace battery - Check all connections and wires - Check to make sure that switch is properly aligned with trigger - Consult factory for repair service - Recharge battery |
| Tool jaws will not release. | <ul style="list-style-type: none"> - Tool did not complete a full cycle and bypass - Connector is jammed in tool jaws - Release trigger is bent or mis-aligned | <ul style="list-style-type: none"> - Press trigger and allow tool to bypass. Then release tool jaws - Press and hold release trigger while prying tool jaws apart - Consult factory for repair service |