

CF-8 Motor Upgrade Procedure

PN 801-1-37

GPD Global® Documentation Department

GPD Global®, Inc.

611 Hollingsworth Street,

Grand Junction, CO 81505USA

+1.970.245-0408

request@gpd-global.com

www.gpd-global.com

May 29, 2019

Table of Contents

Chapter 1. Legal	1
1. Trademarks	1
2. Warranty	1
3. Disclaimers	1
4. Notices	2
Chapter 2. Overview of upgrade	3
Chapter 3. Requirements for upgrade	4
Chapter 4. Upgrading CF-8 motor	5
1. Preparing CF-8 machine	5
2. Removing old parts	5
3. Installing new parts	6
4. Connecting wires	7
5. Testing upgrade installation	8

Chapter 1. Legal

1. Trademarks

GPD Global® is a registered trademark of GPD Global, Incorporated.

Trademarks are used throughout this manual. Rather than put a trademark symbol in every occurrence of a trademarked name, we state that we are using the names in an editorial fashion only and to the benefit of the trademark owner with no intention of infringement on the trademark.

2. Warranty

General warranty

Subject to the remedy limitation and procedures set forth in the Section “Warranty Procedures and Remedy Limitations,” GPD Global warrants that the system will conform to the written description and specifications furnished to Buyer in GPD Global’s proposal and specified in the Buyer’s purchase order, and that it will be free from defects in materials and workmanship for a period of one (1) year. GPD Global will repair, or, at its option, replace any part which proves defective in the sole judgment of GPD Global within one (1) year of date of shipment/invoice. Separate manufacturers’ warranties may apply to components or subassemblies purchased from others and incorporated into the system. **THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Limitations

GPD Global reserves the right to refuse warranty replacement, where, in the sole opinion of GPD Global the defect is due to the use of incompatible materials or other damages from the result of improper use or neglect. This warranty does not apply if the GPD Global product has been damaged by accident, abuse, or has been modified without the written permission of GPD Global. Items considered replaceable or rendered unusable under normal wear and tear are not covered under the terms of this warranty. Such items include fuses, lights, filters, belts, etc.

Warranty procedures and remedy limitations

The sole and exclusive remedy of the buyer in the event that the system or any components of the system do not conform to the express warranties stated in the Section “Warranties” shall be the replacement of the component or part. If on-site labor of GPD Global personnel is required to replace the non-warranted defective component, GPD Global reserves the right to invoice the Buyer for component cost, personnel compensation, travel expenses and all subsistence costs. GPD Global’s liability for a software error will be limited to the cost of correcting the software error and the replacement of any system components damaged as a result of the software error. In no event and under no circumstances shall GPD Global be liable for any incidental or consequential damages; its liability is limited to the cost of the defective part or parts, regardless of the legal theory of any such claim. As to any part claimed to be defective within one (1) year of date of shipment/invoice, Buyer will order a replacement part which will be invoiced in ordinary fashion. If the replaced part is returned to GPD Global by Buyer and found by GPD Global in its sole judgment to be defective, GPD Global will issue to Buyer a credit in the amount of the price of the replacement part. GPD Global’s acceptance of any parts so shipped to it shall not be deemed an admission that such parts are defective.

3. Disclaimers

Disclaimer for GPD Global forming equipment.

GPD Global forming equipment is intended for the stated functions at the time of sale. GPD Global is not liable for other uses.

4. Notices

 **WARNING**

Do not operate a damaged machine/system/device.

Operation of a damaged machine/system/device may cause personal injury and invalidate the warranty.

Note

This document, including the information contained herein, is the property of GPD Global, Inc. and is considered confidential and proprietary information. It is supplied on the condition that it is not to be used, disclosed, or reproduced in whole or in part, for any reason without prior written consent of GPD Global, Inc.

Note

Specifications, descriptions, and all information contained in this manual are subject to change and/or correction without notice.

Note

Although reasonable care has been exercised in the preparation of this manual to make it complete and accurate, this manual does not purport to cover all conceivable problems or applications pertaining to this machine.

Chapter 2. Overview of upgrade

These are the basic steps required to replace a Baldor motor with a Bison motor in the CF-8.

Upgrading the CF-8 motor requires you to replace the original Baldor motor with a Bison motor. It also requires you to replace the input pulley and motor pulley, along with the timing belt. Provided shims can be used to increase belt tension as needed.

Chapter 3. Requirements for upgrade

Parts and tools required for this upgrade.

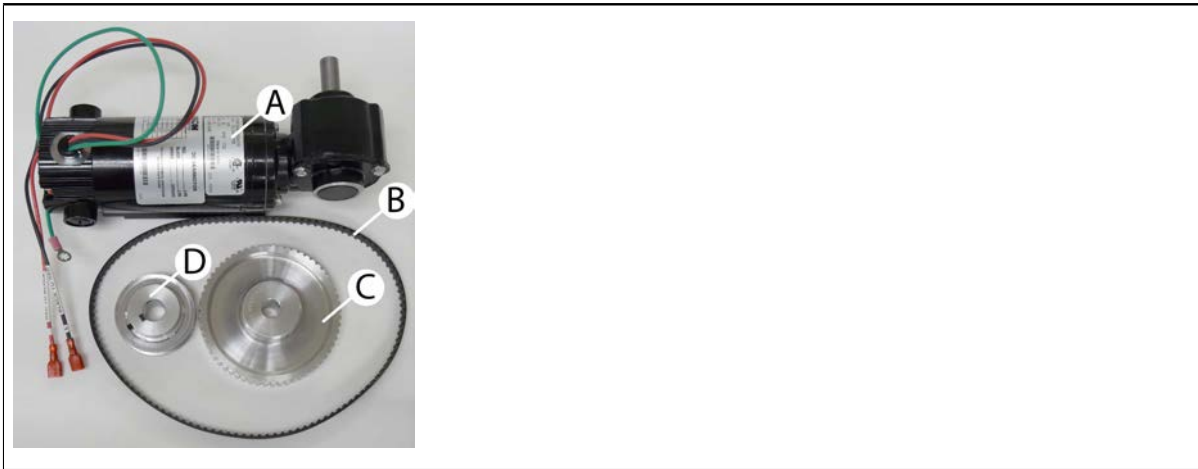
Tools required

- Hex wrench 5/32
- Hex wrench 3/32
- Hex wrench 7/64

Parts required

CF-8 Motor Upgrade Kit (PN 830-1-754)

Figure 3-1. Contents of CF-8 Motor Upgrade Kit



Item	Description	Part Number
A	CF-8 Motor Drive Unit Assembly Includes Bison motor with motor cradle mount (motor cradle mount not shown).	810-9-41
B	Timing Belt	D0090
C	CF-8 Motor Pulley	807-1-15
D	CF-8 Input Pulley	807-1-14
E	CF-8 Motor Shim Kit (not shown)	810-9-42

Chapter 4. Upgrading CF-8 motor

How to upgrade CF-8 motor by replacing the motor, pulleys, and timing belt.

1. Preparing CF-8 machine

How to prepare your CF-8 machine for motor upgrade.

Procedure

1. Unplug the CF-8 power cord from power source.
2. Remove the CF-8 cabinet:
 - a. Disconnect all wires connected to the cabinet at the wire connectors.
 - b. Remove the cabinet and set it aside.
 - c. You can add all the same elements allowed inside <step>
3. Disconnect the Red (#3) and Black (#4) motor wires at the connectors.

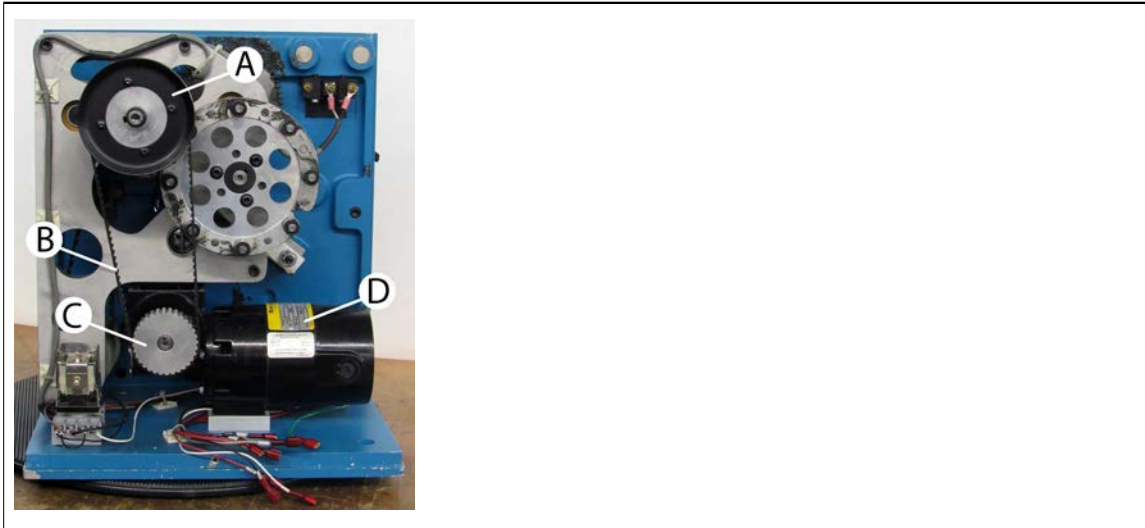
2. Removing old parts

How to remove the parts that will be replaced.

Procedure

1. Identify the parts to be replaced.

Figure 4-1. CF-8 prior to upgrade



A	Motor Pulley
B	Timing Belt
C	Input Pulley
D	Baldor Motor

2. Remove the existing timing belt and pulleys:
 - a. Remove and discard the timing belt.

- b. Remove the upper pulley and recycle or discard it.
3. Remove the Baldor motor and the motor-mounted input pulley:
 - a. Carefully lay CF-8 on its side to access the four (4) motor bolts beneath the base plate

Figure 4-2. CF-8 base plate



A	Base Plate
B	Motor Bolts

- b. Remove the motor bolts and set them aside for use during installing of the new motor.

3. Installing new parts

How to install the upgrade parts.

Procedure

1. Install the new/Bison motor:
 - a. Using the motor bolts previously set aside, attach the Bison motor with a single 0.020 shim (from the CF-8 Motor Shim Kit) between the motor cradle mount and the base of the motor. Tighten the motor bolts.
 - b. Carefully return the CF-8 to upright position.
2. Attach the large pulley to the motor shaft. Tighten the set screws.
3. Attach the small pulley to the upper shaft. Align the small pulley with key way. Tighten the set screws.
4. Install the new belt onto the pulleys.

5. **Note**

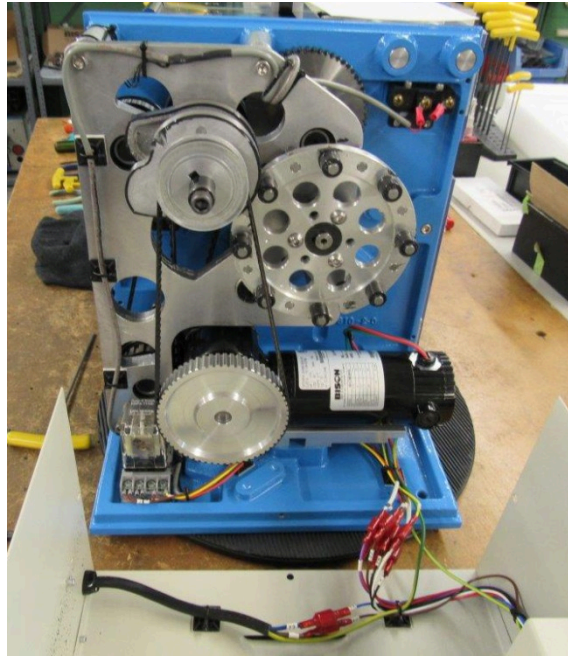
The belt should deflect approximately 1/4" (6.35 mm).

Inspect timing belt tension. If belt tension needs to be increased:

- a. Install additional shims (from the CF-8 Motor Shim Kit) between the motor cradle mount and the base of the motor.
- b. Tighten the motor bolts.
- c. Carefully return the CF-8 to upright position.

Example

Figure 4-3. New motor, pulleys, and belt installed.




4. Connecting wires

How to identify and reconnect wires.

Procedure

1.

 **Important**

Mate Wires by Number not Color
 Carefully follow all wire mating instructions. Do **not** mate wires by wire color as this will cause the motor to rotate backwards.

Mate the red and black wires using this connection guide:

Connect: Motor Wire	To: Control Panel Wire
Red(#4)	Black (#4)
Black (#3)	Red (#3)

2. Attach the green ground wire to the base of the machine where the control panel ground is connected.

Results

Figure 4-4. Motor wires - top view

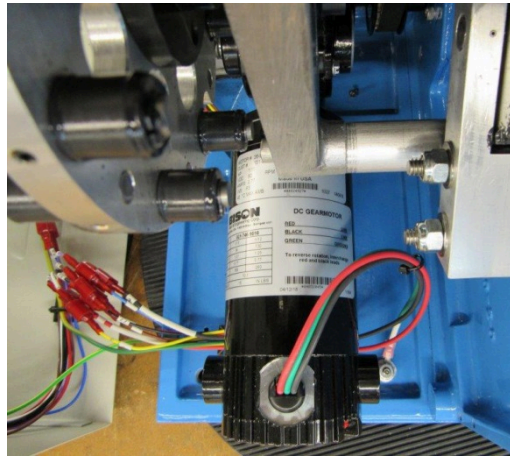
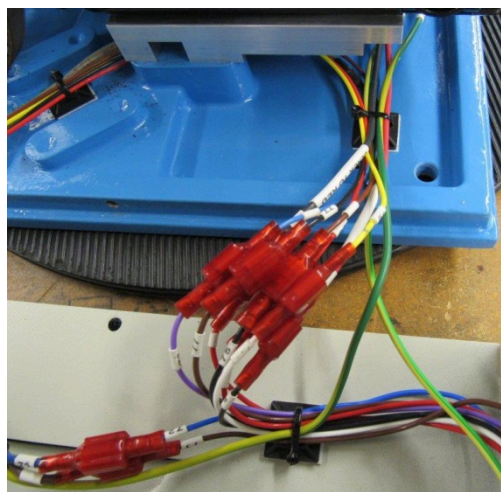


Figure 4-5. Motor and cabinet wiring - close up



5. Testing upgrade installation

How to test the upgrade has been installed properly.

Procedure

1. Install cabinet.
2. Verify the machine operates as expected:
 - a. Plug in machine power cord.
 - b. Turn on power.
 - c. Run several sample components and inspect results.
3. Return the machine to normal operations.