AUTOPOWER

Unit Rebuilding
HOW-TO WORKBOOK

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TRAINING OBJECTIVE

The purpose of this workbook is to help you the AutoPower end-user master the basic elements of Unit Rebuilding. It is designed as a self-help tool, consisting of step-by-step explanations and examples. Fill-in-the-blank and multiple-choice exercises will follow each topic. This will help emphasize the knowledge that is needed to get your job done accurately and quickly.

You are encouraged to use this training book in combination with your AutoPower application's database, or by using the examples in this workbook. However, all the examples may not be hands-on. I will let you know what these examples are when we get to them.

In combination with this workbook, you will have in class a PC or thin client to follow along with the exercises in this workbook.

When you have completed the exercises in this AutoPower Unit Rebuilding Workbook you will be able to complete all the modules below with 100% accuracy. You will be measured by completing short fill-in the blanks or multiple-choice questions at the end of each lesson with results provided to management upon completion of training.

Task List:

Understand the 2 types of Unit Rebuilds
Create the Unit File Maintenance Setup
Create/Print Build Sheets
Utilize Unit/Model Searches
Create a New Work Order
Add Parts and Labor to a Work order
Close a Work order

Section 1.1 SYSTEM OVERVIEW

Remember: There are only a few areas of the system that you can use the Escape key, Backspace key, Space Bar, Delete and arrow keys. You cannot use these keys to correct a spelling error in a field in the Inventory Maintenance screen. Please use the function keys located at the bottom of the screen for editing text.

Function Keys in Inventory Maintenance Screen Explained

1 -   Help for any given field.

If you need information about a field press the **F1** function key.

2 -   **FFWD** the cursor to the bottom of the screen.

If you have completed entering a part number and you would like to go to the bottom of the screen you can use the **F2** forward function key to go to the bottom of the screen.

3 -   **Backup** the cursor to a previous field

If you need to go back to a previous field you can press the **F3** function key and you will be taken back one field.

4 -   **Delete** a field entry

To delete data that you have typed in a field and you have saved the record, press the **F4** function key on that field. **You cannot use the arrow keys, backspace, spacebar, or delete key to clear data from a field.**

The Unit Rebuilding program will allow you to create a unique record for each unit that you are rebuilding in the shop for the customer or rebuilding to stock. Each unit will receive a unique work order number and a tracking method for each component and labor that is used to rebuild the unit/assembly.

There are several programs that must be set up in the system before you begin using the Unit Rebuilding and some of the file maintenance is in the Vehicle Shop programs. The information that you enter in these programs is used when you create vehicle shop records. The programs that must be set up are listed below. As you progress with the AutoPower system and better define how your company will use it, you will learn better ways to utilize these and other options. The items listed below will get you started, and you can add to them as needed.

1. Salesmen codes must be established for all personnel who will be recording time (labor) on work orders. To do this, from the AutoPower Main Menu, go to **Accounts Receivable>File Maintenance Menu>Salesperson File Maintenance** and enter mechanics as salespersons.

2. Labor or job codes must be established before labor can be recorded and posted against a work order. To do this, from the AutoPower Main Menu, go to **Work Order>Vehicle Service Menu>Labor/Job Code Table F/M.**

3. A minimum of one operation must be defined before a work order can be opened and released to the shop. To do this, from the AutoPower Main Menu, go to **Work Order>Vehicle Service Menu>Type of Operation Table File Maintenance.** You may begin with one or more basic operations and expand on the number of operations according to your needs.

4. Department codes must be established in order for you to process work orders and create accurate billing records. You need to create a department code for each department that processes work orders. To create department codes, from the AutoPower Main Menu, go to **Utilities>Department Table F/M.**

5. The file maintenance programs related to shop procedures must be created before Vehicle Service work orders can be recorded. To create these records, from the AutoPower Main Menu, go to **Work Order Menu>Vehicle Service Menu** and complete the following file maintenance records:

- WO Stage Table F/M,
- Type of Operation Table F/M,
- Labor/Job Code Table F/M, and
- WO Trailer Message F/M.

As you progress with the AutoPower system and better define how your company will use it, you will learn better ways to utilize these and other options. The items listed above will get you started, and you can add to them as needed.

LOGGING ON

Use your user name and password to logon to the AutoPower System. This logon name and password will be assigned by your manager. If you should forget your user name and password please see him so that he can reset it for you.
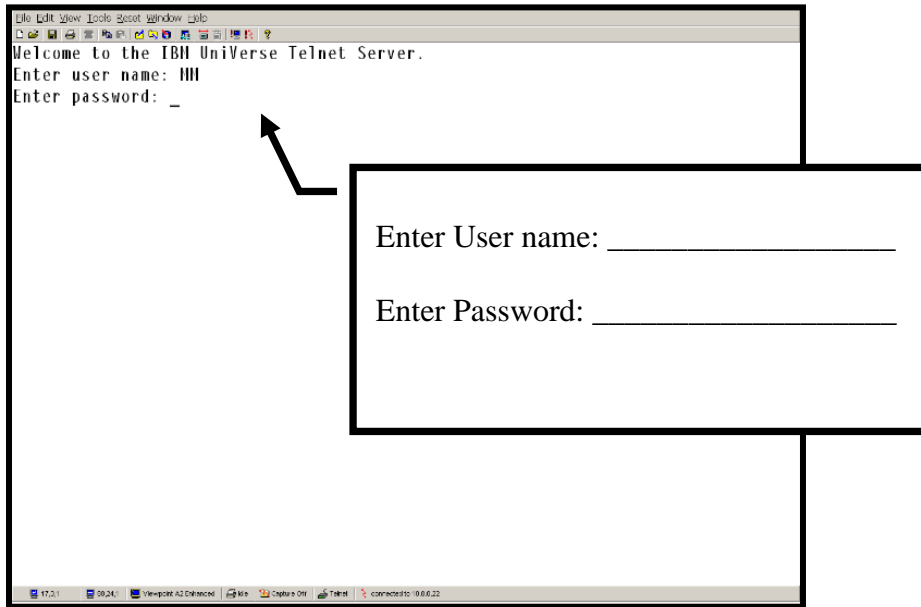

Figure 1 Logon Screen

MAIN MENU

You are now at the Main Menu. Your Main Menu could vary from what you see here. You may have customizations that only apply to your business. The cursor will be positioned at Enter Selection.

```
                    MAIN MENU

            1....Inventory MENU
            2....Order Entry MENU
            3....Work Order MENU
            4....Sales Analysis MENU
            5....Accounts Receivable MENU
            6....Utilities MENU

        Enter Selection:
```

Type in #3 and press **ENTER** to select the Work Order Management Menu.
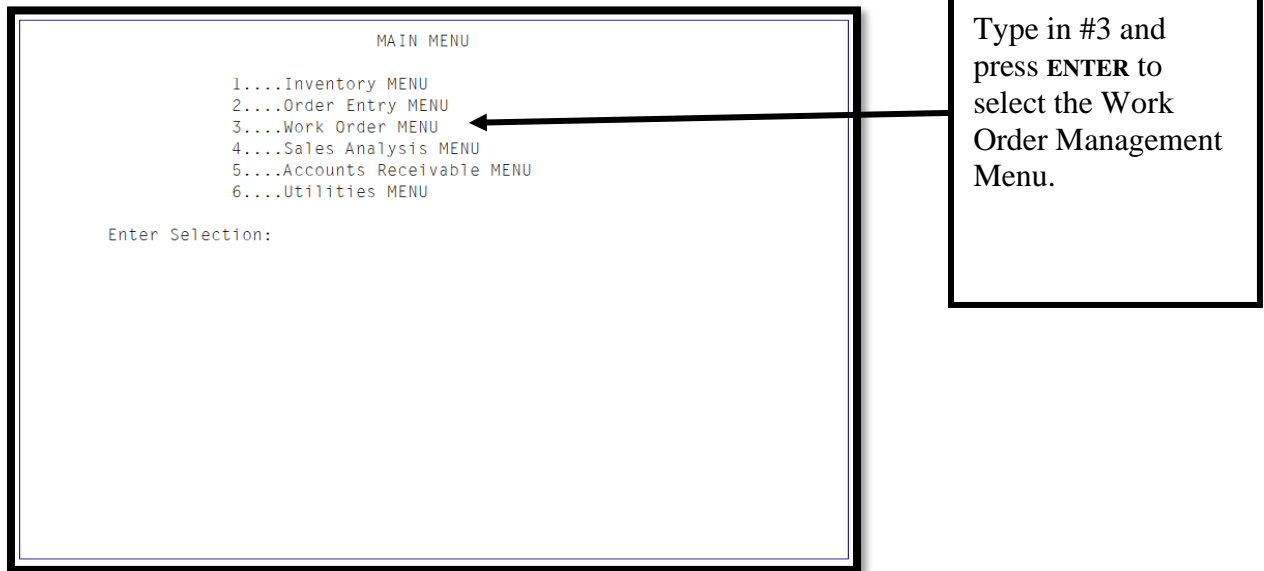
Figure 2 Main Menu

The Work Order Management Menu will display as shown below.

```
            WORK ORDER MANAGEMENT MENU

            1....Unit Rebuilding MENU
            2....Vehicle Service MENU
            3....Labor Scanning MENU

        Enter Selection:
```

Type in #1 and press **ENTER** to go to the Unit Rebuilding Menu.
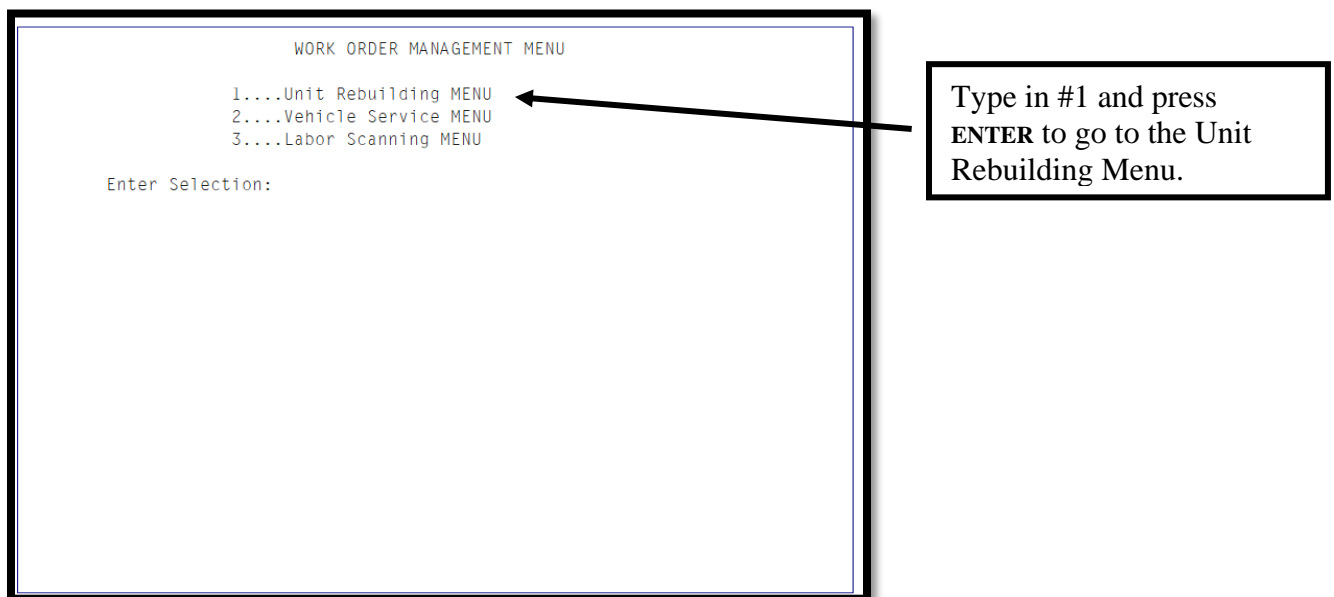
Figure 3 Work Order Management Menu

There are 3 instances where a Shop WO would be started.

1. A Customer Vehicle is in the service bay→ **OE → VSSR and a WO Request → Print WO → add rebuilt part to VSSR → WO Print Invoice.**
2. A Unit from the customer needs to be Rebuilt Unit → **OE and a WO → Print WO → Print Invoice**
3. A Unit is built for Stock → **Unit Rebuilding → WO → +1 QOH**

These three items can be happening at the same time.

In items 1 & 2, it may be determined to replace part with rebuilt unit from #3 instead of being repaired.

Some common Units/Assemblies that are built or repaired in Unit Rebuilding are:

Engines	Pumps
Axle Carriers	Transmissions
Differentials	PTO

There are 2 types of Rebuilds. You may use one or both.

- Rebuild of a unit/assembly for stock.
- Rebuild of a unit/assembly for a customer.

The rebuild of an assembly for stock or a unit brought in by the customer would be sold in Order Entry.
The rebuild of an assembly for a customer's vehicle would be sold via Vehicle Shop.

Notes:

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Section 1.2 FILE MAINTENANCE

We will start our Unit Rebuilding training by discussing the File Maintenance Menu setups.
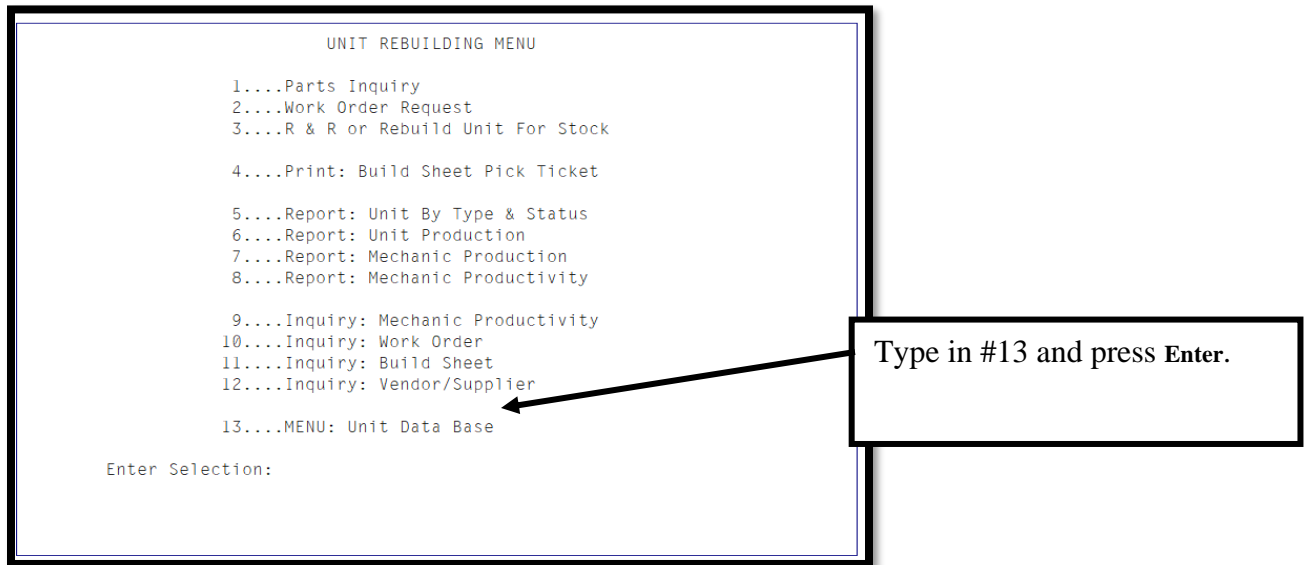
Figure 4 Unit Rebuilding Menu

This is where all of the initial File Maintenance setup will be done to start utilizing the Unit Rebuild software.
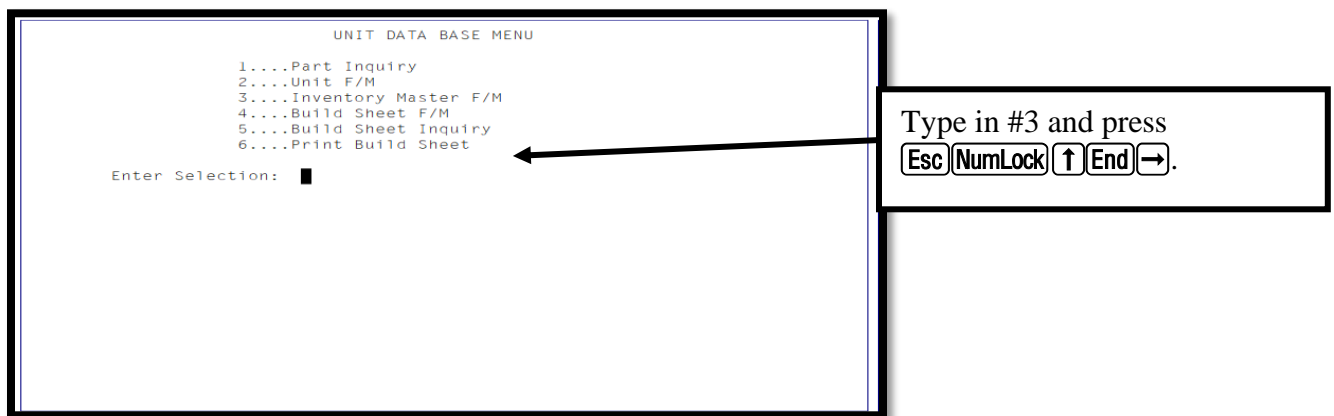

Figure 5 Unit Data Base Menu

We will start with the Inventory Master File Maintenance program to record detailed information about the part that you are rebuilding. To access the program, go to **Work Order Menu -->Unit Rebuilding Menu -->Unit Database Menu -->Inventory Master F/M**.

```
                    Inventory Maintenance                    IN-IFM

                                          18) Per Car Qty:
     PART NUMBER.: █                       19) Inv Msg No.:
 1) Description.:                          20) Serialized.:
 2) PO U-O-M....:                          21) Matrix Num.:
 3) PO Std Pack.:                          22) Supplier...:
 4) Unit Weight.:                          23) Crit'l Note:
 5) Sell U-O-M..:                          24) Rel Itm Grp:
 6) Sell Pck Sze:                          25) Buy OvrPack:
 7) Class/Group.:                          26) Buy UOM....:
 8) Sub-Cls/Type:                          27) MSDS Date..:
 9) Fac POP Code:                          28) VMRS Code..:
10) Lcl POP Code:                          29) VMRS Mfg ID:
11) UPC Code....:                          30) PrChang Y/N:
12) Supersede No:                          31) Department.:
13) Fact Ref No.:                          32) Reb/Rep Y/N:
14) OEM Number..:                          33) Mfr Website:
15) Entry Date..:                          34) Long Desc..:
16) Core Class..:
17) Codes.......:



              F1=Help   F2=FFwd   F3=Bkup   F4=Eras
```

Entering a New Part Number in Inventory File Maintenance

Type in the part number and **press Enter.** The part number will begin with the Vendor Code + the part number. Example = ABC1111

Begin by entering the Part number to be added or changed. If this part number exists in the system, the current information will display and the system will allow you to edit the record. The part number always consists of the Vendor Code plus the part number. (i.e.: Vendor Code ABC+ Part number 1111 = ABC1111)

NOTE: The vendor code must be setup in the Vendor/Supplier File Maintenance. The system will not allow new entries for a part number with a vendor that is not in the Vendor Master. The Vendor/Supplier File Maintenance is found in the General F/M Menu.

1) **Description**
Type in the description and press **Enter**.

Enter the description of the part that is being added. This will print on invoices and purchase orders.

2) **U-O-M**
Type in the Unit of Measure and press **Enter**.

UOM represents the Unit of Measure you buy this part in from the manufacturer such as Each, Box, or Case (EA, BX, CS respectively). By entering a **?** at this prompt, you will be able to view the listing that was part of the original setup in the U-O-M File maintenance. Purchase Orders use this Unit of Measure. The Unit of Measure file maintenance is located in the Inventory File Maintenance Menu.

3) **Std Pack**
Type in the Standard Pack and press **Enter**.

Standard pack is used to designate the quantity in the UOM of this product. Some parts come in packages that include more than one part and must be purchased in multiples. If this part comes from the manufacturer prepackaged in multiples, enter the number of parts that come in one pack. (Example: Standard pack of 12 would tell the purchasing system to round the purchase quantity to multiples of 12 when calculating a purchase order).

4) **Unit Weight**
Type in the Unit Weight and press **Enter**.

This field stores the weight of each unit as described in the unit of measure. If your unit of measure is "CS" (case), the weight entered should be entered as the weight of the case. The weight is stored with a two-digit decimal precision (hundredths of a pound).

This field is beneficial when shipping items out via UPS. The weight amount will total and default in the Summary screen on the Totals page of Order Entry and on the summary page of the compute a PO worksheet.

5) **Sell U-O-M**
Type in the Selling Unit of Measure and press **Enter**.

This field represents the code for the selling unit of measure. Examples of some codes are "EA", "BX", or "CS". The customer is then expected to buy in increments of this unit in order entry. If this field is left blank the system will default to EA.

NOTE: The Input here should be a 2-character code that was setup in the UOM file Maintenance. By Entering a '?' at the prompt, you can view the listing that was originally setup in the UOM File maintenance.

6) **Sell Pck Size**

Type in the Sell Pack Size and press **Enter**.

The sell pack size is the number of units per selling pack of measure. For example, if the selling unit of measure is "EA" and the selling pack size is 12, the order entry system will force the Salesperson/Counterman to sell the product in quantities of 12. The input here must be numeric.

7) **Class/Group**

Type in the Class/Group and press **ENTER.**

The Class/Group Code provides a link to the vendor code to categorize or group similar products (i.e.: product category). Customer pricing, sales reports and/or purchasing module can be based on line code and/or vendor class/group combinations. (i.e.: a group of Filters = FIL). The input here can be alphanumeric.

8) **Sub-Class/Type**

Type in the Sub-Class/Type and press Enter.

The Sub-Class code provides a means of further breaking down Class/Group codes (i.e.: product sub-category). The Class/Group codes are not used for customer pricing but it may be used for customer reports. (i.e.: FIL is a Class/Group Code, A Sub-Class/Type code of the Filter can be, Air filters = AIR and Oil Filters = OIL). The input here can be alphanumeric.

9) **Factory PopCode**

Type in the Factory PopCode and press **ENTER.**

The factory POP code reflects the demand for this product nationwide. This demand can vary from the local POP code based on geographical region.

The factory POP code is usually found on the manufacturer's price sheet. It can be loaded manually or from a price tape update. These are ranked from A - Z. 'A' being the most popular and 'Z' being the least popular.

If there is a letter "**I**" typed in the Factory Pop Code field for a stocked part number then the part has an OEM part number attached to it.

Some POP codes will not allow a part number to be on an order from the Compute a Purchase Order Program in Purchase Order File Maintenance. The following codes if they are located in the Factory Popcode field will not allow a Part number to be automatically generated via the Compute a PO Program.

S= Superseded Parts.
0= Obsolete Parts
X & **Z** = cannot be used.
K = A kit manufactured at your facility. Not purchased from a supplier.

10) **Local Pop Code**
Type in the Local Pop Code and press **ENTER.**

The local pop code is based on your company's sales of this product. This code can be set on a company-wide basis or per location.

The Product Ranking Report program found in the Inventory Reports Menu can also rank your inventory by local pop code.

11) **UPC Code**
This field will hold the numeric version of the part's UPC code.

12) **Supersede Number**
The **Supersede Number** will display. It is not entered in this field.

This field automatically displays the part number that supersedes the main part number and is for display purposes only.

NOTE: The supersede part number should **never** be typed in this field. The Superseded Number Maintenance program in the Inventory F/M Menu will update this field. Also, the Change Old Part to New Part program will also update this field.

13) **Factory Reference Number**
Type in the Factory Reference Number and press **ENTER.**

The Factory Reference number is used when your inventory part number is in a different format than what is required by your Supplier. When a purchase order is printed or an order is sent through Transnet, the factory reference number is what will be used if present.

14) **OEM Number**
Type in the OEM Number and **press ENTER.** This is not a required field.

The OEM Number is the Original Equipment Manufacturer Number. This is the Manufacture's Long Number.

If you have multiple OEM part numbers that you need to enter, it is easier to go into the Inter-brand Entry Program located in the Inventory File Maintenance Menu. You are allowed to enter more than just one part number at a time.

If there is a letter "**I**" typed in the Factory Pop Code field for a stocked part number then the part has an OEM part number attached to it.

Example of OEM part numbers are shown below.

```
E                         Inventory Maintenance              IN-IFM

                                            18) Per Car Qty.:
    PART NUMBER.: ABC 11111                 19) Inv Msg No.:
 1) Description.: SPARK PLUG                 20) Serialized.:U
 2) PO U-O-M....: EA                         21) Matrix Num.:
 3) PO Std Pack.: 1                          22) Supplier...:
 4) Unit Weight.:                            23) Crit'l Note:
 5) Sell U-O-M..: EA                         24) Rel Itm Grp:
 6) Sell Pck Sze: 1                          25) Buy OvrPack:
 7) Class/Group.:                            26) Buy UOM....:
 8) Sub-Cls/Type:                            27) MSDS Date..:
 9) Fac POP Code: I                          28) VMRS Code..:
10) Lcl POP Code:                            29) VMRS Mfg ID:
11) UPC Code....:                            30) PrChang Y/N:
12) Supersede No:                            31) Department.:
13) Fact Ref No.:                            32) Reb/Rep Y/N:Y
14) OEM Number..: ABC1111S                   33) Mfr Website:
15) Entry Date..: 11/05/19                   34) Long Desc..:
16) Core Class..:
17) Codes.......:

          Options: (U)pdate, (E)dit, (D)eletePart, (C)opy, E(X)it
      (A)pInfo,(V)endrs,(Q)tyBkts,(M)atrx,(S)tkSts,(B)ins,(P)ricing,Item#:
                  F1=Help    F2=FFwd    F3=Bkup    F4=Eras
```

Type in the OEM Interbrand Part Number and Press Enter.

Figure 6 Inventory Maintenance OEM Interbrand field

When you are in Inventory Inquiry viewing part number ABC11111 you will notice the Interbrand/OEM part number displaying on the screen.

```
CustNo: 199999 - CASH                                           IN-NINQ
Part Number: ABC11111        ABC1111S
Description: SPARK PLUG
List.......: 4.00        Repl/Avg Cost: 2.00/        Group.:
Fleet......: 5.00        Exp.Del.Date.:              SubGrp:
Dealer.....: 3.20        Superseded By:              Supplr:
Jobber.....: 2.50        Bin Location.:              Sel UM: EA
                         Core Class...:              SelPak: 1
Core.......:                                         Weight:
                                  M-T-D   Y-T-D   12-Mo
   Branch    Q-O-H  AVAIL  Q-O-O  Sales   Sales   Sales   Min   Max  POP

CHARLOTTE      4      4                      1       1
COLUMBIA            NOF
FAYETTEVILLE        NOF

Stocking Date....: 05/23/2019
Last Sale Date...: 05/29/2019
Last Receipt.....:
Last Price Change: 06/05/2019
Per Veh Qty......:

F1=Sales F2=Info F3=Alt F4=Sup F5=Lost F6=Act F7=Vnd F9=Cust$ F10=Hist
        Customer Price=0% off L   $4.00   LS: 08/02/2018   GM=100.00%
```

The OEM number will appear here on the Part Inquiry screen.

Figure 7 Inventory Inquiry OEM Interbrand Display

15) **Entry Date**

The entry date represents the original date that this part was entered into the Inventory Master File.

When creating a new part, the current date will automatically display, but it can be manually changed. The date format is **MM/DD/YY**. (This is useful when re-calculating stocking levels or calculating factory returns of non-moving inventory.)

16) **CORE CLASS** (for Core Parts only.)

The core class may be used to group like types of inventory items into a common class that a customer can make core returns against. i.e.: Core classes are commonly used for brake shoes.

17) **CODES**

This field is reserved for programmer use.

18) **PER CAR QTY**

Type in the quantity that is required per car for this part and press **ENTER.**

19) **INV MESSAGE NO**

Type in a message number previously established in the Line Item Message File Maintenance screen, found in the Inventory File Maintenance Menu. The message will automatically print on any invoice with this Part number.

20) **Serialized**

Enter "Y"es, "N"o or "U"nit. Entering a "Y" will define the part number to be a serialized (non-unit) item. When serialized, the serial number of the specific inventory item will be requested during Order Entry at the time of sale. **Entering a "U" will define the part number to be a serialized unit, where each unit's cost will be tracked separately.**

21) **MATRIX NUM**

Type in the pricing matrix number in this field and press **ENTER.** The pricing matrix referenced will then be used to calculate the selling prices of this part number. The matrix is setup in the Pricing Module.

22) **SUPPLIER**

Type in the supplier code for this part number and press **ENTER.** This field is very important in the purchasing module. The *supplier code must already exist in the vendor master file. A save-list of all parts purchased from this supplier will be created as part of the end of day procedure.

Supplier codes are set up in the Vendor Master File Maintenance. The 4-digit supplier number is the supplier you purchase the actual Parts from.

Vendor Code Record also has a supplier field. The supplier field on the Vendor Record represents the supplier you purchase all parts with this vendor code from. If you use the field on the Vendor Record, this field should be left blank.

If parts within the vendor code are purchased from different suppliers, then the supplier field on the vendor record is blank and you will use the supplier field on the Inventory Master Record.

23) **CRITICAL NOTE**

Type in a message number previously established in the Line Item Message File Maintenance screen, found in the Inventory File Maintenance Menu and press **ENTER.** This message will display in Order Entry and in Inventory Inquiry when this part number is keyed in.

24) **REL ITM GROUP**

Type in the related item group that this part number will be assigned and press **ENTER.** When this part number is entered in Order entry the group that this part number has been assigned will display in the lower left-hand corner.

25) **TAXABLE**

This field determines if this part is taxable regardless of the customer's tax status.   Valid responses are:

A   = Always Taxable - regardless of the customer's tax status
N   = Never Taxable
Blank = Taxed based upon the customer's tax status.

26) **Buy UOM**

These 2 fields would be used for printed PO's, faxed PO's, Truck Pride, VIPAR, Transnet and HDX.

An example of fields #26 & 27 would be if you wanted to buy a roll of hose. There are 4200 inches in a roll of this hose. You can't order the hose as 4200 inches, and you can't order it as 1 roll. You must order it as 350 feet (4200/12). You don't stock it in feet, so there is no way for the system to make the conversion from roll to feet. We could do roll to inches, but not feet while stocking in inches. The Buy Factor and Buy UOM allows you to set a Buy Factor of 12 and a Buy UOM of FT so that the PO's will show 350 feet while still stocking 4200 inches per roll.

27) **MSDS**

The entry in the MSDS Date field will be the date the last Material Safety Data Sheet was printed. The MSDS comes from the manufacturer. This sheet will list the poison or possible hazards a product has or may have. It is required by OSHA that you keep this information available to your employees if you are selling the product. MSDS documents must be handed out to the customer when certain products are sold as well as be in the delivery vehicle when they are on the road. The expiration date logic works such that if the customer's last sale date is less than the part number's current MSDS date, then the system will pop up a message in OE indicating that the counterman needs to deliver a new MSDS sheet with the parts. The message won't display again for that same part/customer combination until the part date is changed.

28) **VMRS Code**

VMRS codes are a structured coding system that provides a universal language to help fleets, original equipment manufacturers, maintenance personnel and repair shops communicate about, capture and report on maintenance activities.

29)**VMRS Mfg ID**
The code assigned by the NMRA Technical Department.

30)**PrChang Y/N**
Entering an N in this field will lock the sale price on this part, operators will be blocked from performing a price change option when selling this part.

31)**Department**
Type in the department code for this part.

32) **Reb/Rep Y/N**
This field is for future development, not in use at this time.

33)**Mfr Website**
This field can be used to retain the URL link for the manufacturer's website.

34) **Long Desc**
A longer part description can be entered into this field. Long descriptions are for use with WebPower website, this field is not used with AutoPower.

Once all entries are keyed in on the inventory maintenance, the following prompt will display at the bottom of the screen:

**Options: (U)pdate, (E)dit, (D)eletePart, (C)opy, E(X)it
(A)pInfo,(V)endrs,(Q)tyBkts,(M)atrx,(S)tkSts,(B)ins,(P)ricing,Item#:**".

Enter **U** to exit and update record.
Enter **E** to begin editing screen at field 1.
Enter **DELETE** to delete the Part information.

NOTE: The word DELETE must be typed in. An inventory part cannot be deleted if there are outstanding Purchase Order(s) and/or if there is a Quantity on Hand (QOH).

Enter **C** for copy current part to a new part.
Enter **X** to exit without updating. Nothing will be saved.
Enter **A** for Part Application Information.
Enter **V** for Alternate Suppliers.
Enter **Q** for Quantity Volume Table File Maintenance.
Enter **M** for Price Matrix File Maintenance
Enter **S** for Stocking Level File Maintenance.
Enter **B** for Stocking Level File Maintenance.
Enter **P** for Pricing Levels.
Enter **#** (# being a line number) to edit a specific line.

NOTE: Options **A, V, Q,** and **S** will be described in detail in the following chapters.

Inventory Maintenance – Pricing Screen

```
06/06/2019                    Product Master Prices F/M                    IN-PRFM

       VND: ABC    ABC                              Price Matrix#....: ABC
Part Number: 11111                                 Last Price Change: 06/05/19
Description: SPARK PLUG                             Last Cost........:

    Item Price Field        Price    GM%    Prev Price   Date    Next Price   Date

       1) List..........:    4.00  50.00%         N/A
       2) Fleet.........:    5.00  60.00% M       N/A
       3) Dealer........:    3.20  37.50%         N/A
       4) Jobber........:    2.50  20.00%         N/A
 -->   5) Cost..........:    2.00                 N/A
       6) Average Cost..:                         N/A
       7) Core Price....:                         N/A
 -->   8) Core Cost.....:                         N/A




    Options:  (U)pdate, (E)dit, (M)atrix, (C)ancel, F11|F12, Item#: U
```

Figure 8 Replacement Cost field

List Price

1) **Type in the LIST PRICE and press ENTER.**

The List price for this part number in this field can be typed in or entered via a Manufacturers Price Update or a price matrix.

Fleet Price

2) Type in the FLEET PRICE and press ENTER.

The Fleet price for this part number in this field can be typed in or entered via a Manufacturers Price Update or a price matrix.

Dealer Price

3) Type in the DEALER PRICE and press ENTER.

The Dealer Price for this part number in this field can be typed in or entered via Manufacturers Price Update or a price matrix.

Jobber Price

4) Type in the JOBBER PRICE and press ENTER.

The Jobber price for this part number in this field can be typed in or entered via Manufacturers Price Update or a price matrix.

Cost

5) Type in the REPLACEMENT COST of this part and press **ENTER.**

The price sheet replacement cost is stored in the replacement cost field. It is updated either manually or via a Price Update supplied by the manufacturer. The actual cost represents the replacement cost of the Part. It is also the cost used to calculate a PO.

Average Cost

6) Type in the AVERAGE COST of this part and press **ENTER.**

The average cost is calculated and updated by the system based on the purchase order cost when the inventory is received and posted in the purchase order-receiving program or when a unit is completed. Profits can be calculated on a sales ticket based on either the replacement cost or the average cost.

NOTE: Price Matrices are setup in the Inventory Menu, Price F/M Menu, and Price Matrix File Maintenance Menu. Any price can be calculated using various pricing methods available in AutoPower.

Your Price Levels on your screen may differ from the examples shown. Your system may be customized to use your pricing levels and descriptions.

Core Price

7) Type in the CORE PRICE and press Enter (Core Parts only)
This is the selling price for all customers who are charged for cores. This field should only be used if the part number is a CORE Part.

If there is no core price in this field for a core part then in Order Entry the customer will not be charged for a core. Type in the CORE COST and press **ENTER.** (Core Parts only)

NOTE: It is very important to fill in a Core Cost and a Core Price for parts with cores. This is to ensure the accurate tracking of cores in order entry and the core cost in the core module.

Core Price

8) The Core Cost field stores the cost of a core from a supplier. This field should only be used if the part number is a CORE Part.

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Note: After setting up the inventory file maintenance screen for the unit that will be rebuilt, the flag in the Serial Y/N, field #20 must be "U".

Section 1.3 UNIT DATA BASE FILE MAINTENANCE

The Unit Data Base File Maintenance program stores the unit information needed to create the unit build sheet. The information that appears on this screen is also on the *Production Work Order* screen.

This record is updated as work orders are started. When the rebuilt unit is sold, you can see to whom.

To access the Unit Data Base File Maintenance screen, go to **Work Order Management Menu -->Unit Rebuilding -->Unit Database Menu -->Unit F/M.**


```
                    MAIN MENU

            1....Inventory MENU
            2....Order Entry MENU
            3....Work Order MENU
            4....Sales Analysis MENU
            5....Accounts Receivable MENU
            6....Utilities MENU

        Enter Selection:
```

Type in #3 and press **ENTER**

Figure 9 Main Menu


```
                WORK ORDER MANAGEMENT MENU

            1....Unit Rebuilding MENU
            2....Vehicle Service MENU
            3....Labor Scanning MENU
        Enter Selection:  █
```

Type in #1 and press **ENTER**
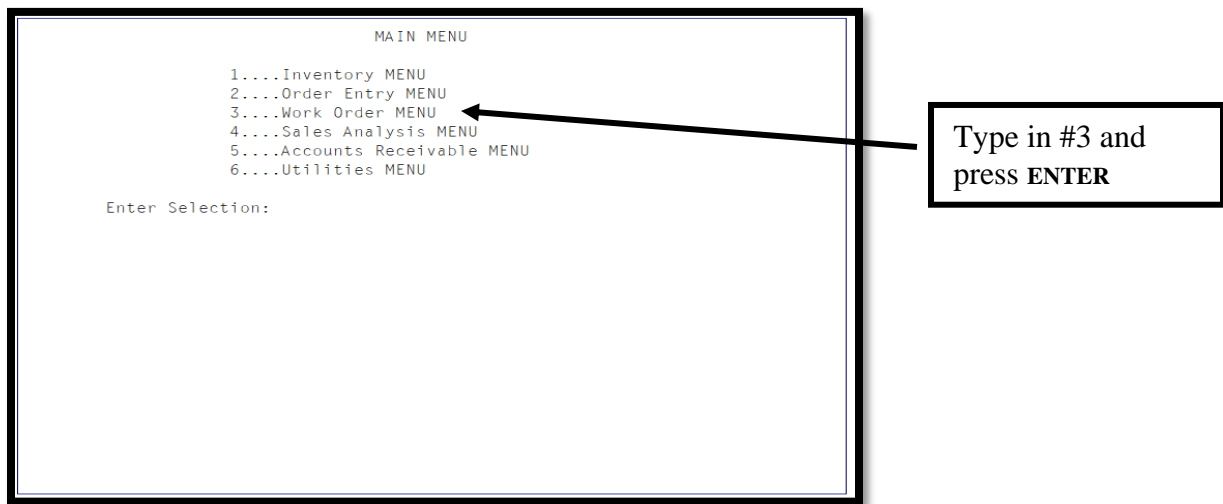
Figure 10 Work Order Management Menu

```
                        UNIT REBUILDING MENU

            1....Parts Inquiry
            2....Work Order Request
            3....R & R or Rebuild Unit For Stock

            4....Print: Build Sheet Pick Ticket

            5....Report: Unit By Type & Status
            6....Report: Unit Production
            7....Report: Mechanic Production
            8....Report: Mechanic Productivity

            9....Inquiry: Mechanic Productivity
           10....Inquiry: Work Order
           11....Inquiry: Build Sheet
           12....Inquiry: Vendor/Supplier

           13....MENU: Unit Data Base

     Enter Selection:  █
```

Type in #13 and press **ENTER**
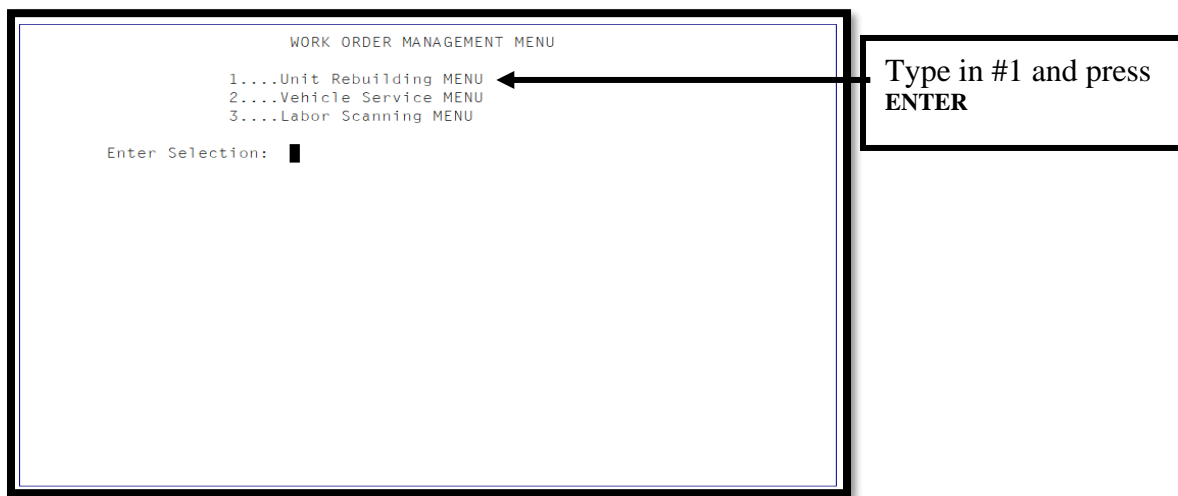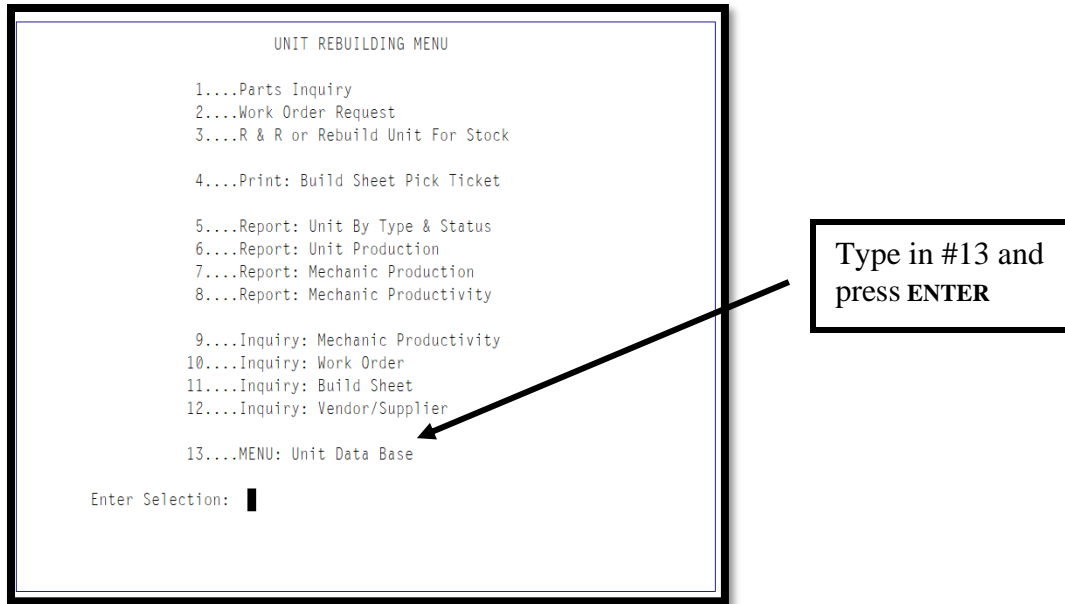
Figure 11 Unit Rebuilding Menu

The Purpose of the Unit Database Menu is to construct the background tables for utilizing the unit search options.

Unit Rebuilding for Stock

Purpose: The Database Menu is the starting point of your Unit Rebuilding Process. It is similar to any file maintenance function in AutoPower. How you set it up will determine how you use specific features of the software. It also determines what codes are available for your use and how these codes are to be billed or costed out. These are the codes we setup in the File Maintenance section of this workbook.

```
Thursday, 06/06/19          AUTOPOWER CORPORATION                  (P33)  1

                         UNIT DATA BASE MENU

                 1....Part Inquiry
                 2....Unit F/M
                 3....Inventory Master F/M
                 4....Build Sheet F/M
                 5....Build Sheet Inquiry
                 6....Print Build Sheet

         Enter Selection:  █
```

Figure 12 Unit Data Base Menu

Part Inquiry is the same as the Parts Inquiry function found in Order Entry.

Unit File Maintenance is updated as parts are rebuilt. It keeps track of whom the part was sold to and other detailed information. This feature is helpful in creating the Unit Build Sheet.

```
06/06/2019                    Unit Data Base F/M                 IN-THFM
   Work Order No:  █

    1. Unit/Part Number.....:              21. Cost Detail
    2. Bin Location.........:              22. Mech/Labor Detail
    3. Type (NU,FR,CR,DC,CC):
    4. Status (X,R,H,W,C,I).:
    5. Product Cost.........:
    6. Purchased From.......:
    7. Z Number.............:
    8. BT Number............:
    9. OEM Serial Number....:
   10. Description..........:
   11. Ratio...............:
   12. Miscellaneous Spec...:
   13. Work Order Date......:
   14. WO Completion Date...:
   15. Shop Department......:
   16. Invoice No...........:
   17. Invoice Date.........:
   18. Sold To.............:
   19. Sale Amount..........:
   20. Warranty Given.......:
                    Enter the unit serial number, or F10 to search
```

Inventory File Maintenance is the Inventory Master Record Screen

Build Sheet File Maintenance: **(Optional)** When rebuilding parts, you will need to know what are the specific components required to rebuild each type of unit. A Build Sheet allows you to create a checklist (so to speak) of all parts that MAY be necessary to rebuild a unit. The printed build sheet is used to check off what components are necessary for the workshop to rebuild this part. You can classify the parts on the Build Sheet into separate BOM categories. You can compare a Build Sheet to a Checklist

Build Sheet Inquiry: The Build Sheet inquiry screen will allow you the ability to view how a specific build sheet was designed.

Print Build Sheet: The Build Sheet option will allow you the opportunity to review a specific Build Sheet setup or have them handy for use by a mechanic.

```
                         MASTER BUILD SHEET F/M                    WO-BSFM
Part Number: APC0509-2000        Unit Type: 1*LDT
   Model No: 0509-2000           L.Form ID: APC*LDT        ---Last Change---
       Desc: USER CONFERENCE                               05-22-2000 by 201
                            B.O.M. GROUPS
1.  ALWAYS REPLACE                       6.
2.  CRANK                                7.
3.  BLOCK                                8.
4.  HEATING & COOLING                    9.
5.  FUEL                                10.

Item          Part Number                   Description              Qty
----      --------------------    --------------------------------  -----
1.        FUL1064                 SPRING                               6
2.        NAT39813                FFC FRONT SEAL                       1
3.        FPD157551               GASKET                               1
4.        FPD3029847              O RING                               1
5.
6.
7.
8.

                            Enter Item#: _
```

```
06/03/2010 (T3872)(P22)     AutoPower Corporation      (DEFAULT) 01:55PM

                         UNIT DATA BASE MENU

                    1....Part Inquiry
                    2....Unit F/M
                    3....Inventory Master F/M
                    4....Build Sheet F/M
                    5....Build Sheet Inquiry
                    6....Print Build Sheet

           Enter Selection:




 TC=Clock S=Spooler H=Help! R=ACCESS C=Catalog N=NoteCards A=AutoMail V=VSI-Fax
```

Type in #2 and press **ENTER.**

Figure 13 Unit Data Base Menu

The Unit File Maintenance Screen will display. **When the Unit Rebuilding module is first loaded onto your AutoPower system, the Units that you have presently in stock need to be added on this screen.**

Thereafter, the system will update this file for units you build in AutoPower.
This screen will be updated when the work order request has been released to the shop.

The work order number is the unit serial number.


```
06/06/2019                  Unit Data Base F/M                  IN-THFM
   Work Order No:  █

   1. Unit/Part Number.....:        21. Cost Detail
   2. Bin Location.........:        22. Mech/Labor Detail
   3. Type (NU,FR,CR,DC,CC):
   4. Status (X,R,H,W,C,I).:
   5. Product Cost.........:
   6. Purchased From.......:
   7. Z Number............:
   8. BT Number............:
   9. OEM Serial Number....:
  10. Description..........:
  11. Ratio................:
  12. Miscellaneous Spec...:
  13. Work Order Date......:
  14. WO Completion Date...:
  15. Shop Department......:
  16. Invoice No...........:
  17. Invoice Date.........:
  18. Sold To..............:
  19. Sale Amount..........:
  20. Warranty Given.......:
              Enter the unit serial number, or F10 to search
```

Figure 14 Unit Data Base F/M

NOTE: This screen is scheduled to be replaced in an upcoming release. Currently this screen will allow you to make changes to the Work Order, however, please refrain from editing any field using this screen. The proper way to edit a Unit is by recalling the work order and editing the values through Production Work Order Entry.

Work Order No:

If you know the **work order number (serial number)** for the unit you want to view, type it in the Work Order No. Field.

If you do not know the work order number for the unit you want to view, press **F10** to search for the unit. The screen below will display.

```
06/06/2019                    Unit Data Base F/M                    IN-THFM
   Work Order No:  F10

   1. Unit/Part Number.....:              21. Cost Detail
   2. Bin Location.........:              22. Mech/Labor Detail
   3. Type (NU,FR,CR,DC,CC):
   4. Status (X,R,H,W,C,I).:
   5. Product Cost.........:


                         ┌─────Enter Search Criteria─────┐
                         │ By:  1. Part Number           │
                         │      2. Description           │
                         │                               │
                         │ Select (1,2):                 │
                         │ Enter Text:                   │
                         │ Unit Status (C,W,H,ALL):      │
                         └───────────────────────────────┘
```

Figure 15 Unit Search Criteria

After pressing the **F10 Function key** you have 2 search methods.

1. Part number
2. Description

Select 1 or 2): Type in 1 and press **Enter** to search by part number. Type in 2 and press **Enter** to search for a unit by its description.

Enter Text: Based on the type of search:
Type a part # (or any portion of it) or the units description and press ENTER.

Unit Status: "C"omplete, "W"ork in Progress, "H"old, "A"ll.

1. Unit/Part Number

> The unit or part number associated with this work order will display.

2. Bin Location (Optional)

> The location of the bin in which this unit is stored will display. If this information is stored in the Part Master file maintenance (Inventory maintenance) it will display.

3. Type (DC, CC) The letter representing the type of unit:
- o **DC** = Company owned core.
- o **CR** = Customer owned core.

 Core type will be updated production work order entry.   You should NEVER change the core type from this screen.

4. Status (X, R, H, W, C, I)

The letter representing the status of the unit:

X = Scrapped

R = Returned to Manufacturer, more than likely for warranty

H = initiated a work order, but not released to shop

W = WIP/ After released to shop

C = Unit Work order has been closed, QOH has been updated

I = Invoiced, sold to customer

The status will be updated production work order entry. You should NEVER change status from this screen. If a work order has been completed and you wish to change the status to WIP, you may do this recalling the work order and adding an additional part to the work order. The code will update the status to W.

5. Product Cost

The cost of this unit will display. The cost comes from the total of used parts & labor used. When the unit is sold this is the cost that will be used in Order Entry.

6. Purchased From (optional)

The name of the company where the unit was purchased.

7. Z Number (optional)

The number of the unit as it appears on any associated paper documentation; this number is optional.

8. BT Number

The brass tag number for this unit, or type NEW and the system will automatically assign the next tag number. The re-builder assigns this number.

9. OEM Serial Number (optional)

The OEM Serial Number for this unit; the manufacturer assigns the OEM number.

10. Description

The part number description. If this field is left blank, the description from the inventory master will display.

11. Ratio

The ratio of this unit. Helps identify this unit.

12. Miscellaneous Spec

Any miscellaneous specifications for this unit.

13. Work Order Date

The work order date is automatically populated by the system with the current date. To override the date, type the new date in the field.

14. WO Completion Date

This is the date the work order was closed.

15. Shop Department

The shop department code that built the unit will display.

16. Invoice No

The sales invoice number is updated at the time of invoicing.

17. Invoice Date

The date the unit was invoiced. This is updated at the time of invoicing.

18. Sold To

The account number of the customer purchasing the unit will be updated at the time of invoicing.

19. Sale Amount

The unit sale amount will be updated at the time of invoicing.

20. Warranty Given

The warranty code assigned to this unit at the time of the work order request.

21. Cost Detail

A breakdown of the Product Costs will display and can be edited when initially setting up the system.

```
06/06/2019                    Unit Data Base F/M                    IN-THFM
   Work Order No:   400239                                      Editing Record
                                                                 F4-On F5-On
   1. Unit/Part Number.....: CORABCSERIAL          21. Cost Detail
   2. Bin Location.........:                        22. Mech/Labor Detail
   3. Type (NU,FR,CR,DC,CC): DC
   4. Status (X,R,H,W,C,I).: H
   5. Product Cost.........: 5.00
   6. Purchased From.......:
   7. Z Number.............:          ───Work Order Cost Detail───
   8. BT Number............:          1. Purchase Cost........:
   9. OEM Serial Number....:          2. Orig Unit Core Cost..: 5.00
  10. Description..........:          3. Component Parts Cost.: 0.00
  11. Ratio................:          4. Component Core Cost..: 0.00
  12. Miscellaneous Spec...:          5. Labor Cost...........: 0.00
  13. Work Order Date......: 05           Cost Field No (1-4):
  14. WO Completion Date...:
  15. Shop Department......:
  16. Invoice No...........:
  17. Invoice Date.........:
  18. Sold To..............:
  19. Sale Amount..........:
  20. Warranty Given.......:
```

Figure 16 Product Costing Screen

Work Order Cost Detail screen

Do not change the cost here. This window will be used only for inquiry!

1. Purchase Cost	The unit purchase cost.
2. Orig Unit Core Cost	The cost of the unit's core.
3. Component Parts Cost	The cost of new parts applied to this unit.
4. Component Core Cost	The core cost of any added components
5 Labor Cost	The cost of the labor needed to rebuild this unit.

22. Mech/Labor Detail

Displays the mechanic labor hours & rates. The accumulation of these labor transactions equals the total labor cost for this unit.

23. Warranty Detail

This option is only available if the Warranty module has been purchased for Unit Rebuilding.

24. Warranty

This option is only available if the Warranty module has been purchased for Unit Rebuilding.

Notes:

_____

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Section 1.4 OPERATOR/SALESPERSON F/M

The Operator/Salesperson File Maintenance must be completed in Vehicle Service F/M Menu for all mechanics.

The Salesperson F/M determines the cost of labor, which is part of the rebuilt unit.

From the Vehicle Service File Maintenance Menu, Type in #1 and press **ENTER**.

Figure 17 Vehicle Service File Maintenance Menu

The Salesperson File Maintenance screen will display.

Figure 18 Salesperson File Maintenance Menu

Salesman Number -. Type in the salesman number and press **ENTER.** The salesman/operator number can be the same as the employee number. If this is a new salesman/operator record, the cursor will advance to the next field. If this is an existing salesman record, the salesman operator information will display on the screen.

1. Name – Type in the first and last name of the salesperson/operator**.**

2. Status – (A)ctive or (I)nactive for an operator to show on operator selections and reports the status must be A. When an operator leaves employment, their status should be set to I.

3. Branch Location – Type in the Location for this Salesperson. An entry is required in the Location field. The system will not advance further until an entry is made. (i.e.: W1 = Location 1)

4. Delivery Driver (Y, N) - Y(es) will allow the assignment of delivery orders in the Delivery Driver module. If this operator will never be a delivery driver enter N.

5. Shop Mechanic (Y, N) – Y(es) will cause this operator to show on mechanic reports and in mechanic selections. N(o) if this operator is not a mechanic.

6. Shop Cost Per Hou*r* – Type in the shop cost per hour for this salesperson and press **ENTER.** The decimal points need to be entered. (Example: Ten dollars per hour enter 40.00. Remember to include the cost of this employee's insurance and benefits along with hourly wage.) This field is not necessary for Time Clock Operation.

   Bill Rate/Hr. – Type in the shop-billing rate per hour for this mechanic. The decimal points need to be entered.

7. Department No – Department that this operator's sales and cost should post to.

8. Employee Payroll No –Type in the employee's payroll number that was set up in the Payroll Employee Master File Maintenance if this salesman/operator will be using the time clock. The employee's payroll number must already be set up in order to enter the number here. **Only used if you have purchased the payroll module, otherwise leave blank.**

9. Employee Email Address – Type in the email address. This will be the default from address any time this operator emails a document out of AutoPower. Leave blank if the operator doesn't have a company associated email address.

10. Cell Phone No – For informational purposes only, not required.

11. Shift Start Time – For informational purposes only, not required.

---

12. Lunch Start Time – For information purposes only, not required.

13. Lunch Stop Time – For informational purposes only, not required.

14. Shift Stop Time – For informational purposes only, not required.

15. Medic Card Required – For informational purposes only, not required.

16. Medic Card Expiration Date – For informational purposes only, not required.

17. Driver's License Number – For informational purposes only, not required.

18. Driver's License Expiration Date – For informational purposes only, not required.

Options: (U)pdate, (E)dit, (DELETE), (S2), (P)rofile, E(X)it, Item#:

> **U** – Update operator record, exit and save changes.
> **E** – Edit operator record, this will take you to line 1 Name.
> **DELETE –** Only to be used if the Operator/Salesperson/Mechanic value was entered incorrectly. *Once an operator has begun to work, their operator record should never be deleted.*
> **S2** – to navigate to second screen of this operator record.
> **P –** to navigate to the User Profile record for this operator.
> **X –** Exit the operator record and discard all changes.
> **Item # -** to navigate to a particular line on this screen.

The F2 (jump to option selection line) and F3 keys (backup one field) keys are not available on this screen.

Below is the explanation of the Second Screen (S2) of the Operator/Salesman/Mechanic F/M screen. Once a password has been entered on any of the lines, a mask of # symbols will be displayed on the screen to ensure confidentiality. To reveal the value entered for the password, enter the item number and the password will be revealed. You can edit the value typed in for any of the passwords and Update the record to save the changes.

```
06/06/2019    Operator/Salesperson/Mechanic File Maintenance - #2      AR-NSFM


    Operator/Salesperson/Mechanic No...: 0 - AUTOPOWER
    !_____ Passwords _____!
 1) File Maintenance ...................: ###
 2) Price Change Authorization ........: ###
 3) O/E Credits Entry .................: ###
 4) Credit Hold Release ...............: ###
 5) Change O/E Salesman No ............: ###
 6) Sales Order Cancellation ..........: ###
 7) Special Order Cancellation ........: ###
 8) Edit/Remove Sales Tax .............: ###
 9) Warranty Returns ..................: ###
10) Void an Invoice ...................: ###
11) AutoMail ..........................: ###
12) Timeclock .........................: ###
13) EzWriter ..........................: ###
14) Transfer Parts for Inventory ......: ###
15) Edit Average or WD Cost............: ###
16) RMA Credit Memo Authorization .....: ###
17) Product Pricing F/M Access.........: ###
18) Delete a PO........................: ###
  Options: (U)pdate, (E)dit, (DELETE), (S1), (P)rofile, E(X)it, Item#: █
```

With the AutoMaster version of AutoPower, if the operator's User Profile has been set to grant them access to the functions, passwords are required for:
1. File Maintenance,
4. Credit Hold Releases
18. Deleting a PO.

If the Payroll module has been purchased, the **12. Timeclock** password must be entered.

Upon management's request, the AutoPower code can be modified to require a password for all other actions. You will be informed by your trainer if any of the other passwords are required.

When editing this screen, you will have to press the **Enter** key to navigate to the to the Options line at the bottom of the screen. The F2 (jump to option selection line) and F3 keys (backup one field) keys are not available on this screen.

The following prompt will display.

Options: (U)pdate, (E)dit, (DELETE), (S1), (P)rofile, E(X)it, Item#:

> U – Update operator record, exit and save changes.
> E – Edit operator record, this will take you to line 1 Name.
> DELETE – Only to be used if the Operator/Salesperson/Mechanic value was
> > entered incorrectly. Once an operator has begun to work, their operator
> > record should **never** be deleted.
> S1 – to navigate to the first screen of this operator record.
> P – to navigate to the User Profile record for this operator.
> X – Exit operator record and discard all changes.
> Item # - to navigate to a particular line on this screen.

Notes:

_____

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_____

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_____

_____

Section 1.5 LABOR/JOB CODE TABLE FILE MAINTENANCE

The Unit Rebuild system uses pre-established labor/job codes to record time against work orders. To access the Labor/Job Code Table File Maintenance program, from the AutoPower Main Menu, go to **Work Order →Vehicle Service Menu →Labor/Job Code File Maintenance → Vehicle Shop File Maintenance Menu.**

```
Friday, 06/07/19          AUTOPOWER CORPORATION               (P33)

                      VEHICLE SERVICE TABLE F/M MENU

              1....Operator/Mechanic/Salesperson F/M
              2....Labor/Job Code Table F/M
              3....Warranty Table F/M
              4....Type Of Operation Table F/M

              5....Shop Overhead Cost Table F/M
              6....WO Stage Table F/M (Optional)
              7....WO Trailer Message F/M for Estimates

       Enter Selection:  █


         TIMECLOCK   FIRST TOUCH   ARBY   NOTE CARDS   AUTOMAIL   FAX STATUS
```

Type in #2 and press **Enter**.

Figure 19 Vehicle Service File Maintenance Menu

The screen is divided into two parts: the top portion of the screen is where you can record and edit job/labor codes. The bottom portion of the screen displays all job/labor codes that have been recorded to date.

If you are entering a new labor code, follow the prompts and enter the labor code record.

```
06/07/2019              Labor/Job Code Table F/M              IN-LCTFM

      Labor/Job Code.........: █

      W.O. Description.......:
      Department.............:
      Billing Rate Per Hour..:


      Itm  Labor Code           Description           Rate/Hr
      ---  ----------    ------------------------      -------








              Enter the Labor Code, or ?|F1 to see all Codes
```

Figure 20 Labor/Job Code Table F/M

```
06/07/2019                 Labor/Job Code Table F/M              IN-LCTFM

     Labor/Job Code.........: 7500

     W.O. Description.......: BRAKE LABOR
     Department.............: 2        SHOP SALES
     Billing Rate Per Hour..: 75.00


          Itm  Labor Code           Description          Rate/Hr
          ---  ----------    ------------------------    -------














                    (E)dit or (D)elete this Labor Code:█
```

If you are editing an existing labor code you will be asked of your intentions.

E(dit) – will allow you to edit the labor code

D(elete) – will delete the labor code

Labor/Job Code

Type in the alphanumeric code you want to create and press **ENTER.**

WO Description

Type in the description that should appear on the work order for the type of labor and press **ENTER.**

Department

Type in the code representing the department to perform this work and press **ENTER.**

Billing Rate per hour

Type in the hourly rate at which this work will be charged to the customer if this is a Time & Materials operation and press **ENTER.** Leave this field blank if you would want the system to use the Mechanics billing rate.

If you are editing an existing labor code the option at the bottom of the screen will offer you the choice to Update this Labor Code? (Y, N).

You will then be asked if existing Work Order Estimates containing this labor code should be updated with the new labor cost and if you want to print a Labor/Job Code table.

```
Do you wish to re-calc Estimated Labor of WO Job Operations..?  Y
Do you wish to print the Labor/Job Code Table................?  N
```

Notes:

_____

_____

_____

_____

_____

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_____

_____

Section 1.6 BUILD SHEET FILE MAINTENANCE (OPTIONAL)

A Build Sheet allows you to create a checklist of all parts that MAY be necessary to rebuild a unit/assembly. The printed build sheet is used to check off what components would be necessary for the shop to rebuild this part. You can classify the parts on the Build Sheet into separate BOM Groups.
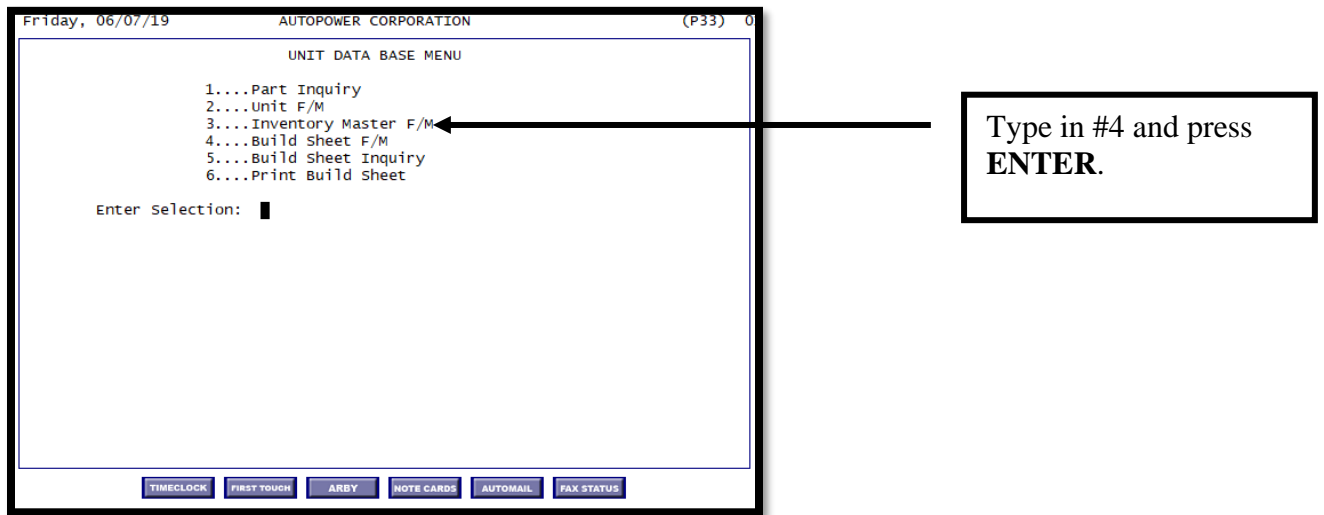

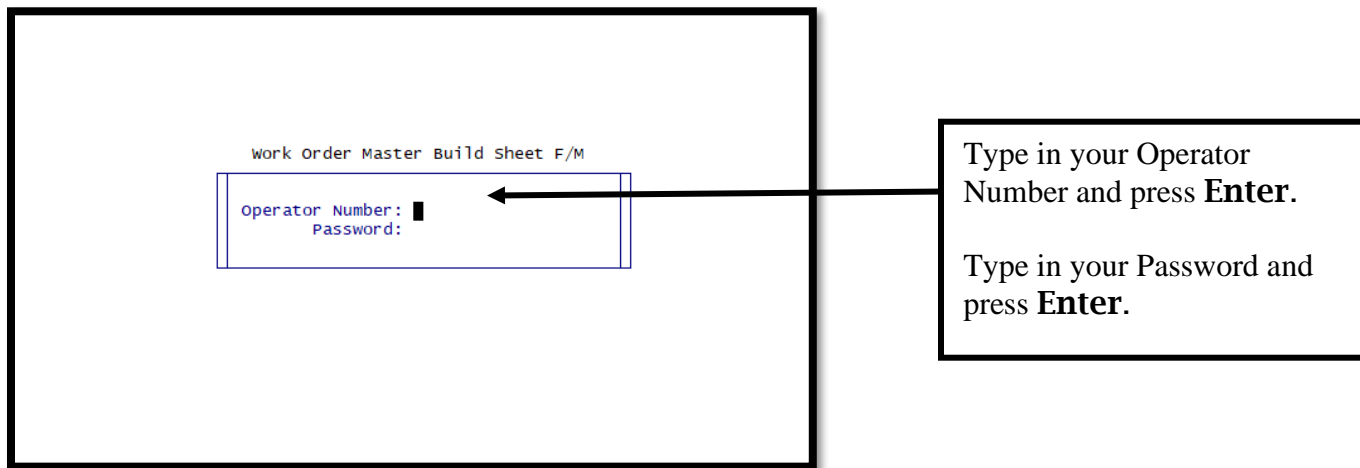
Figure 21 Build Sheet F/M

Figure 22 Build Sheet Password

If your operator record is set up with F/M privileges, enter your Operator Number and your File Maintenance password.

```
                    Master Build Sheet F/M              WO-BSFM
Part Number: ?▇                Unit Type:
   Model No:                   L.Form ID:              ---Last Change---
      Desc:
                          ─── B.O.M. GROUPS ───
1.                                6.
2.                                7.
3.                                8.
4.                                9.
5.                               10.




     Enter Part Number for WO Build Sheet, or ?|F1 to see all Build Sheets
```

Type in a **?** to list all part numbers/UNITS that a build sheet has been created for.

Figure 23 Build Sheet F/M Screen

Model No: Typically, the unit # without the vendor code.

Desc: Defaults from Inventory Master File.

Unit Type: Unit Types have to be pre-defined)

L.Form Type:


```
                    MASTER BUILD SHEET F/M              WO-BSFM
Part Number: BDX1188032        Unit Type:
   Model No: 1188032           L.Form ID:              ---Last Change---
      Desc: CRANKSHAFT                                 07-11-2005 by 0
                          ─── B.O.M. GROUPS ───
1. REQUIRED PARTS                 6.
2. OPTIONAL PARTS                 7.
3. SPECIAL WORK ORDER INSTRUCTION 8.
4.                                9.
5.                               10.


              ─── Add/Change B.O.M. Group ───
        B.O.M.                                    Type
        Group Code        Group Description       P/T
        ---------    -----------------------------  ----
          ...        .............................    .




        Enter a 3 character code representing the B.O.M. Group
```

When creating the BOM groups, type in the group code, which could be the #1 and then the description.

If this group will be part numbers and not text, type in the letter "**P**". If this group will be text, type in the letter "**T**". This text will print on the Build Sheet.

Figure 24 Build Sheet F/M Group

```
                        MASTER BUILD SHEET F/M                  WO-BSFM
   Part Number: BDX1188032          Unit Type:
      Model No: 1188032             L.Form ID:              ---Last Change---
         Desc: CRANKSHAFT                                   07-11-2005 by 0
                              B.O.M. GROUPS
  1. REQUIRED PARTS                        6.
  2. OPTIONAL PARTS                        7.
  3. SPECIAL WORK ORDER INSTRUCTION        8.
  4.                                       9.
  5. _____                   10.




           Options: (C)hange, (D)elete, (P)rint, (E)xit, Line#:
```

Examples of Groups could be Required Parts, Optional Parts, Main Shaft Group, Main Counter Shaft Group, or Auxiliary Section Group.

Figure 25 Build Sheet Groups

The Options at the bottom of the page are:

(**C)hange** = Change the name of the Group
(D)elete = Type in the word **Delete** to delete a group.
(P)rint   = Type in **P** to print a Master Build Sheet for the part number displayed.
(E)xit   = Type in **E** to exit out of the Master Build Sheet F/M screen.
Line #   = Type in the **Line #** for a group to add the part numbers that are related to the
group.

```
                        MASTER BUILD SHEET F/M                  WO-BSFM
   Part Number: BDX1188032          Unit Type:
      Model No: 1188032             L.Form ID:              ---Last Change---
         Desc: CRANKSHAFT                                   07-11-2005 by 0
                              B.O.M. GROUPS
  1. REQUIRED PARTS                        6.
  2. OPTIONAL PARTS                        7.
  3. SPECIAL WORK ORDER INSTRUCTION        8.
  4.                                       9.
  5. _____                   10.

  Item       Part Number                Description              Qty
  ----    ----------------------    ----------------------------  -----
  1.
  2.      BDX293034                 ROD BRG INS+040                  1
  3.      BDX202926                 CRANKSHAFT NUT                   1
  4.      BDX246439                 THRUST WASHER                    2
  5.
  6.
  7.
  8.


                          Enter Item#: _
```
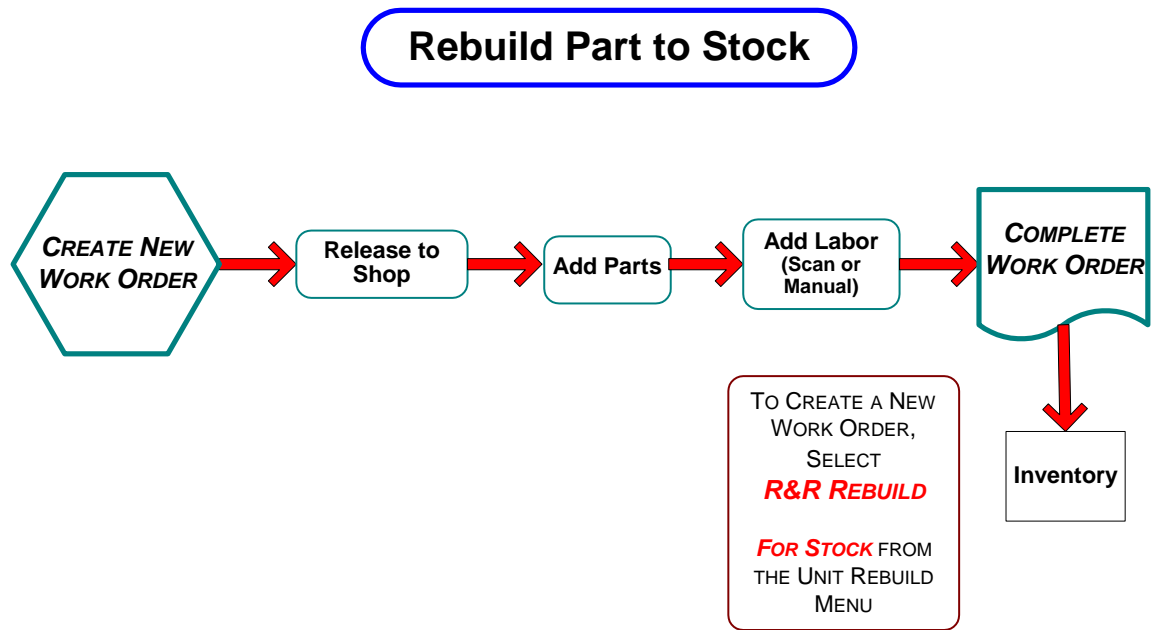
Type in line #1 for the Required Parts Group.

Type in the Part numbers (components) that will be required to rebuild this specific Unit.

Type in the quantity of this part number that is required for this assembly and press Enter.

Figure 26 Build Sheet Adding Parts

Quick Overview from the beginning of Unit Rebuilding.

Rebuild Part to Stock

CREATE NEW WORK ORDER → Release to Shop → Add Parts → Add Labor (Scan or Manual) → COMPLETE WORK ORDER → Inventory

TO CREATE A NEW WORK ORDER, SELECT **R&R REBUILD**

FOR STOCK FROM THE UNIT REBUILD MENU

SAMPLE Build Sheet

Light Duty Transmission Build Sheet

Part Number: **APC0509-2000**   Work Order: 46048

Key	Part Number	Description	Qty	Key	Part Number	Description	Qty

ALWAYS REPLACE

- -

[1] FUL1064   SPRING   6   [3] FPD157551   GASKET   1
[2] NAT39813   FRONT SEAL   1   [4] FPD3029847   O RING   1

CRANK

- -- - - - - - - - - - - - - - - -

[5] NAT99362   REDI SLEEVES   1   [7] FPD190397   WEAR SLEEVE   1
[6] FPD3801260   MAIN BRG SET   1

BLOCK

- -

[8] FPD3013591   COOLING NOZZLE   1   [10] CUM3027287   DATA PLATE   1
[9] FPD3803219   LINER 20/40   1

HEATING & COOLING

- -

[11] FPD3000521   SEAL   1   [13] CUMAR45189   W/P IDLER   1
[12] CUM3045943   WATER PUMP   1

FUEL

- -

[14] CUM14440   HT3 TURBO   1   [15] CUM196006   BEARING KIT   1

OTHER SETUP ITEMS THAT MUST BE PERFORMED PRIOR TO UNIT REBULDING (We covered these in the previous section) (Reminder)

Labor Code Setup: This allows you to setup various labor codes, which describe the tasks that must be done. You can add a cost to each labor code.
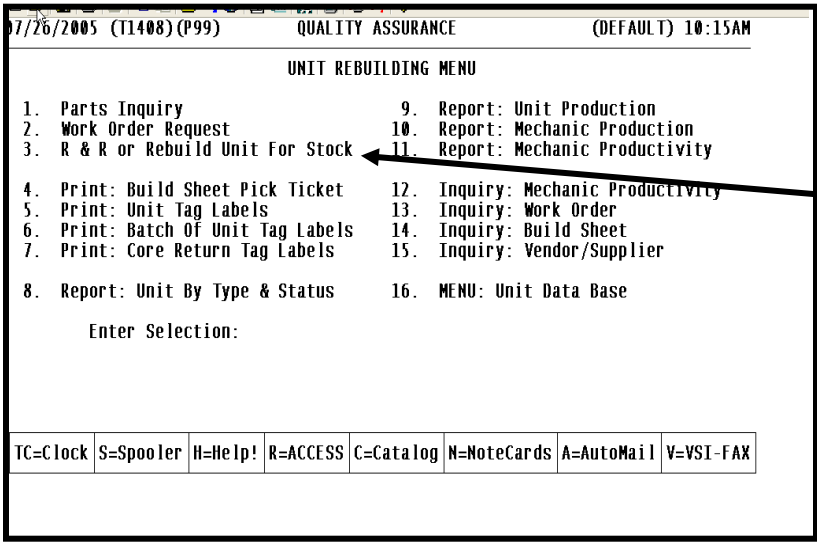
Mechanic Setup: The mechanics must be setup as operators. You have the ability to add a Labor cost to each mechanic in this setup.

---

2 Ways to initiate a Unit Rebuild Work Order

Method #1

To Create a New
Work Order, Select
R&R Rebuild
For Stock From the
Unit Rebuild Menu

****************REBUILDING A UNIT ****************

```
07/26/2005 (T1408)(P99)        QUALITY ASSURANCE           (DEFAULT) 10:15AM

                        UNIT REBUILDING MENU

  1.  Parts Inquiry                  9.   Report: Unit Production
  2.  Work Order Request            10.   Report: Mechanic Production
  3.  R & R or Rebuild Unit For Stock 11.  Report: Mechanic Productivity

  4.  Print: Build Sheet Pick Ticket 12.  Inquiry: Mechanic Productivity
  5.  Print: Unit Tag Labels        13.   Inquiry: Work Order
  6.  Print: Batch Of Unit Tag Labels 14.  Inquiry: Build Sheet
  7.  Print: Core Return Tag Labels  15.   Inquiry: Vendor/Supplier

  8.  Report: Unit By Type & Status  16.   MENU: Unit Data Base

          Enter Selection:



  TC=Clock  S=Spooler  H=Help!  R=ACCESS  C=Catalog  N=NoteCards  A=AutoMail  V=VSI-FAX
```

From the Unit Rebuilding Menu,
Type in #3 and press
[Esc][NumLock][↑][End][→].

Figure 27 Rebuilding Unit for Stock Menu

The Production Work Order Entry screen will display as shown below.

Type in the word "NEW" to start a new work order.

Figure 28 Rebuild Unit for Stock Screen

This program will allow you to initiate a work order to rebuild a unit for stock or a customer's unit. You will first assign it a work order number. **Enter the word "NEW" at the work order # field.** This allows you to have a unique tracking number for the rebuilding work. A work order number will never be reused, it becomes that unit's serial number.
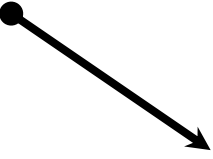
The first thing you will determine is, "Whose Core?" Is it the company's core or your customer's core? This will indicate what the end result will be of the work order. Your selections are:

Select CustCore or Comp Core, then click OK.

```
ADDING NEW WO            Production Work Order Entry            IN-PROPE

Work Order#:  31469                          Parts Cost:
Rebuilt Part:                                Labor Cost:
QTY:      Status:       Dept:      Z#:       BT#:        BIN:        T:
```

If you are trying to recall an existing work order the screen displayed above also has a lookup feature to access existing work orders. You may press the **[F10] function** key to search for work orders using the part number or the part description. (Or you have the option to enter the serial number or OEM number.) You can look up a work order by:

- Typing in the letter B followed by the brass tag number
- Typing in the letter O followed by the OEM number
- Typing in the letter Z followed by the Z number.

The Serial Number will print on the invoice the customer receives.

The Unit Rebuilding Software allows you to serialize the part numbers you rebuild and put them into stock. This process will automatically assign the serial number associated with this part. The serial number is the same as the work order. The cost of this part is based on the serial number, which makes it easier to track a unit through the entire process. A Brass Tag Number will also indicate the serial number.

```
ENTER REBUILD#            Production Work Order Entry            IN-PROPE

Work Order#.: 400320                          Core+Parts:
Rebuilt Part:                                 Labor:
QTY:      Status:       Dept:      BT#:                    BIN:        T:

Itm Vnd PartNumber        Description       AVL    QTY      Cost   Extended


    Type of Unit............: CustCore
    Target Part Number......: ABC741852 - UNIT REBUILD
    Bin Location............:
    Shop Department Code....: 2 - SHOP SALES
    Quantity to Rebuild.....: 1
    Brass Tag Number........:
    OEM Serial Number.......:
    Miscellaneous Spec......:
    Core Cost...............: 0.00
    Alternate Description...: F3
    Job Description.........: ........................................
                             ........................................
                             ........................................

                    Accept? (Y,N): Y
```

Type in the Target Part Number, (which is the unit being built) this number must exist in the Inventory master and press **ENTER.**

Type in the Bin Location for the Unit and press **ENTER.** (Optional)

Type in the quantity to be rebuilt and press **ENTER.** Should be 1. If you are rebuilding more than 1 unit at a time, the system adds the total costs and divides it evenly among the units.

Type in the Brass Tag number for this unit and press **ENTER.** If you do not the system will assign the unit # as the Brass Tag #.

Type in the OEM serial number and press **ENTER.** (Optional)

Type in any miscellaneous specifications and press **ENTER.** (Optional)

Type in the core cost and press **ENTER.** (Core) If this field is left blank the system uses the core cost in the Inventory Master file for company cores. When rebuilding a customer's core this field remains blank.

Type in the alternate description and press **ENTER.** (Optional) If this field is left blank the system will use the description in the Inventory Master file.

Type in a job description, this will print on the work order and press **ENTER.** (Optional)

The items mentioned above are preliminary items that are done before the actual work is started on the rebuilding of the part.

```
ENTER REBUILD#            Production Work Order Entry              IN-PROPE

Work Order#.: 400320     [CustCore] W1           Core+Parts:  0.00
Rebuilt Part: ABC741852  UNIT REBUILD                Labor:  0.00
QTY:1    Status: H    Dept: 2    BT#:                  BIN:       T:CC

Itm Vnd PartNumber       Description          AVL   QTY       Cost  Extended










        F1=EnterLabor  F2=ListParts  F4=ListLabor  F6=Rebuild#
     Opt: (A)dd, (S)ummary, (T)ag, (P)rint, (R)elease, or (E)xit: ▌
```
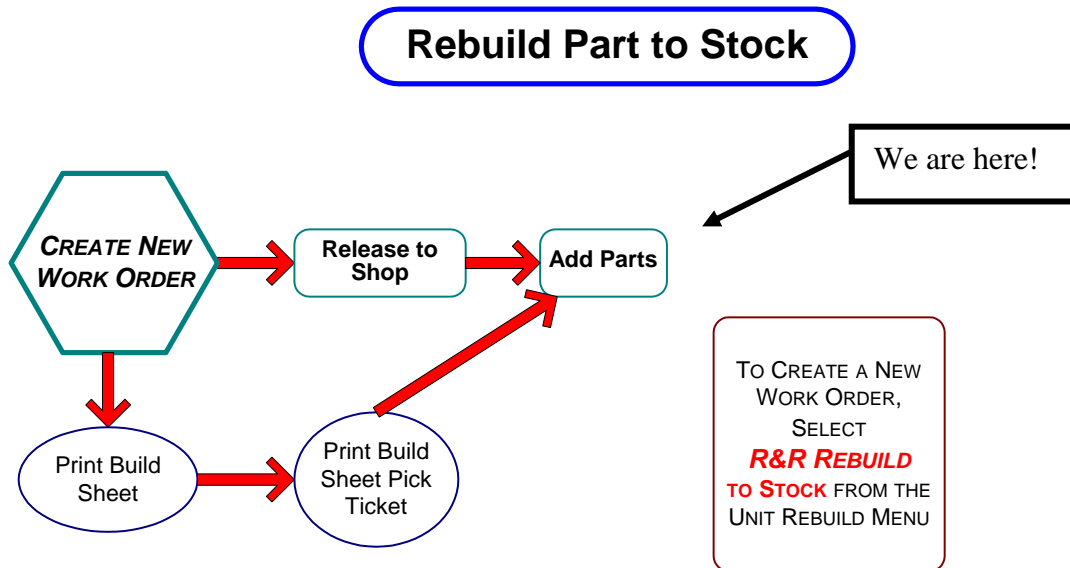
Figure 29 Production Work Order Entry Screen

When you are ready to release this Work Order to a WIP (work in progress) status, type in "**R**" and press **Enter.**

When you **Release the Work Order to the shop**, a work order release will print with the details of what is to be done to this part. The Work Order Status will change from **[H]** to **[W]** for Work in Progress.

At this point, the part is in the process of being rebuilt in the shop.

If a Build Sheet has been created for this part it will print. This informs the rebuilder about what parts may be required to rebuild this unit. The Rebuilder can use this to select and add any additional parts that are needed.

Rebuild Part to Stock

```
CREATE NEW                Release to              Add Parts        ◄── We are here!
WORK ORDER                Shop
      │
      │           Print Build Sheet Pick Ticket
      ▼
Print Build Sheet ──────►
```

To Create a New Work Order, Select **R&R REBUILD TO STOCK** FROM THE UNIT REBUILD MENU

****************ADDING PARTS*****************

Type in the letter "**A**" to add the parts to the work order.

As you add parts to the work order just like you would in order entry, the system will keep track of the cost of the parts.

```
DISPLAY PARTS            Production Work Order Entry            IN-PROPE

Work Order#.: 400320     [CustCore] W1        Core+Parts:  31.22  ◄──
Rebuilt Part: ABC741852  UNIT REBUILD              Labor:  0.00
QTY:1    Status: W    Dept: 2    BT#:                      BIN:       T:CC

Itm Vnd PartNumber       Description        AVL    QTY      Cost   Extended

  1 EUC E-573            LOCK WASHER          8      7      2.43     17.01
  2 EUC E-572            SPINDLE NUT         19      7      2.03     14.21
  3 █
```

At the top of the screen, the field titled "Parts Cost" will track this information. This contributes to the overall cost of the part as it is being prepared to be put into inventory.

Figure 30 Production Work Order Entry

This pulls the actual cost for that unit to accurately calculate the profit on the sale of the part. When you sell this part, you will specify a serial number.

Another way to add parts to a work order would be using the Build Sheets.

You will find that the initial setup of the Build Sheet comes in handy. The Build Sheet will indicate all of the part numbers that are required to rebuild the unit. You will use the Build Sheet as a checklist to indicate the parts that will be used on this work order. Then only those parts/components will be added to the work order for an accurate cost.

The Rebuilder will then select the parts that will be needed and print a Build Sheet Pick Ticket.

A Build Sheet Pick Ticket will print so that the parts that are need to rebuild the unit can be picked.

Parts added to a Unit Rebuild Work Order may not have sufficient quantity on hand, when this happens a purchase order will need to be issued to order the part. During the process of editing the purchase order, the buyer can allocate the quantity needed you're your work order. When that purchase order is received the allocation will be noted on the purchase order receiving journal. See example below.

```
DISPLAY PARTS              Production Work Order Entry            IN-PROPE

Work Order#.: 400420     [CompCore] W1        Core+Parts:  65.00
Rebuilt Part: ABCSERIAL  REBUILT UNIT FOR STO      Labor:  0.00
QTY:1    Status: H    Dept: 1    BT#:               BIN:        T:DC

Itm Vnd PartNumber      Description       AVL   QTY       Cost  Extended

  1 AXL 070DA100-1X     DIFF CASE ASSY     0 2          258.99


              For this work order 2 of part AXL070DA100-1X, but
              there are zero parts available.  A purchase order will
                    need to be issued to order this part.
```

A purchase order is built and the part line for part AXL070DA100-1X is edited and option 7) WO Allocation is edited.

```
ON HOLD             Manual Purchase Order - Part Entry         PO-NMAN

PO Number.....: 12885        Supplier: AXLE PRODUCTS
Total Value...: 0.00         MANUAL BUILD
Total Weight..: 0.00 lbs

                    Add/Change/Delete a PO Line
                              ┌──────Work Order Allocation─┐
     Part Number....: AXL070DA10  Work Order   Unit/Part Number   Qty
01) Order Qty......: 2           ----------   ----------------   ----
02) Core Cost......:         1.  400420       ABCSERIAL          2■..
03) Part Cost......: 258.99  2.  ..........   ................   ....
                             3.  ..........   ................   ....
04) Order Desc.....: DIFF CASE 4.  ..........   ................   ....
05) Message........:         5.  ..........   ................   ....
06) Release Dates..:         6.  ..........   ................   ....
07) WO Allocation..:         7.  ..........   ................   ....
                             8.  ..........   ................   ....
QOO: 0     QOH: 0     IFM Des 9.  ..........   ................   ....
SPK: 0     CBO: 2     Superse 10.  ..........   ................   ....
UOM:       AVL: -2    POP:                                         0─┘

          Enter the Work Orders and the quantity to allocate to each
```

When the purchase order is received, the allocation will be flagged by the presence of color in the column labeled W.

The gold color in the W column, indicates that this part has a quantity allocated for a work order.

The work order allocation will also be noted on the purchase order receiving report will be noted.

The receiving report will show that there is a work order allocation.

Notes:

AutoPower Corporation   Copyright 2019
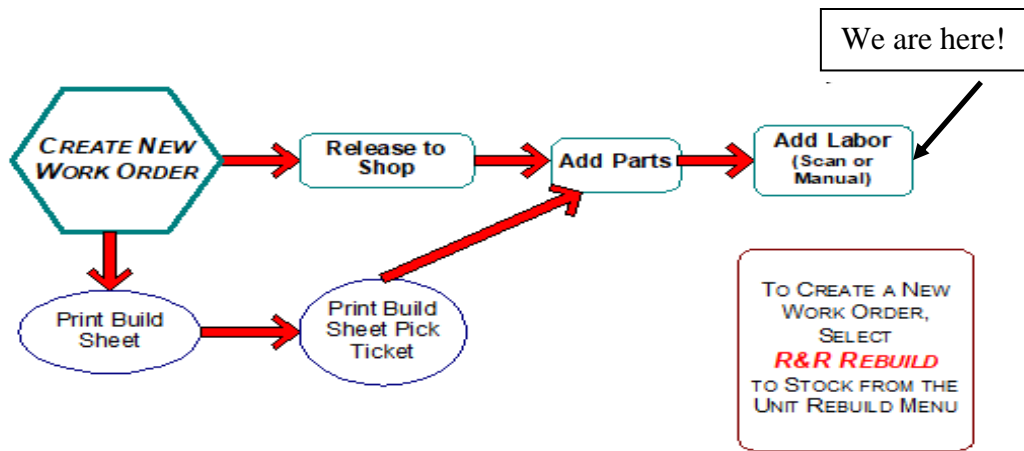
*****************ADDING LABOR*****************

The labor required to rebuild a unit should also be added to the cost of rebuilding the part. This is indicated at the top of the screen in the "**Labor Cost**" field. This figure in this field will change when you add labor to the work order.

Enter the elapsed labor time, type in the mechanic's number, the actual hours worked and the Labor Code for the work that was performed. This is where the Shop Cost for the operator/mechanic comes into play. As mechanic hours are added to the work order, the cost of the labor is being calculated. Type in "Y" at the prompt Post? (Y, N, E): to post the labor to the work order.

If your company has purchased the Labor Scanning module, you can also scan labor time onto a Unit Rebuild work order.

Rebuild Part to Stock

CREATE NEW WORK ORDER → **Release to Shop** → **Add Parts** → **Add Labor (Scan or Manual)** → **COMPLETE WORK ORDER**

Print Build Sheet → Print Build Sheet Pick Ticket → Release to Shop

TO CREATE A NEW WORK ORDER, SELECT **R&R REBUILD** FOR STOCK FROM THE UNIT REBUILD MENU
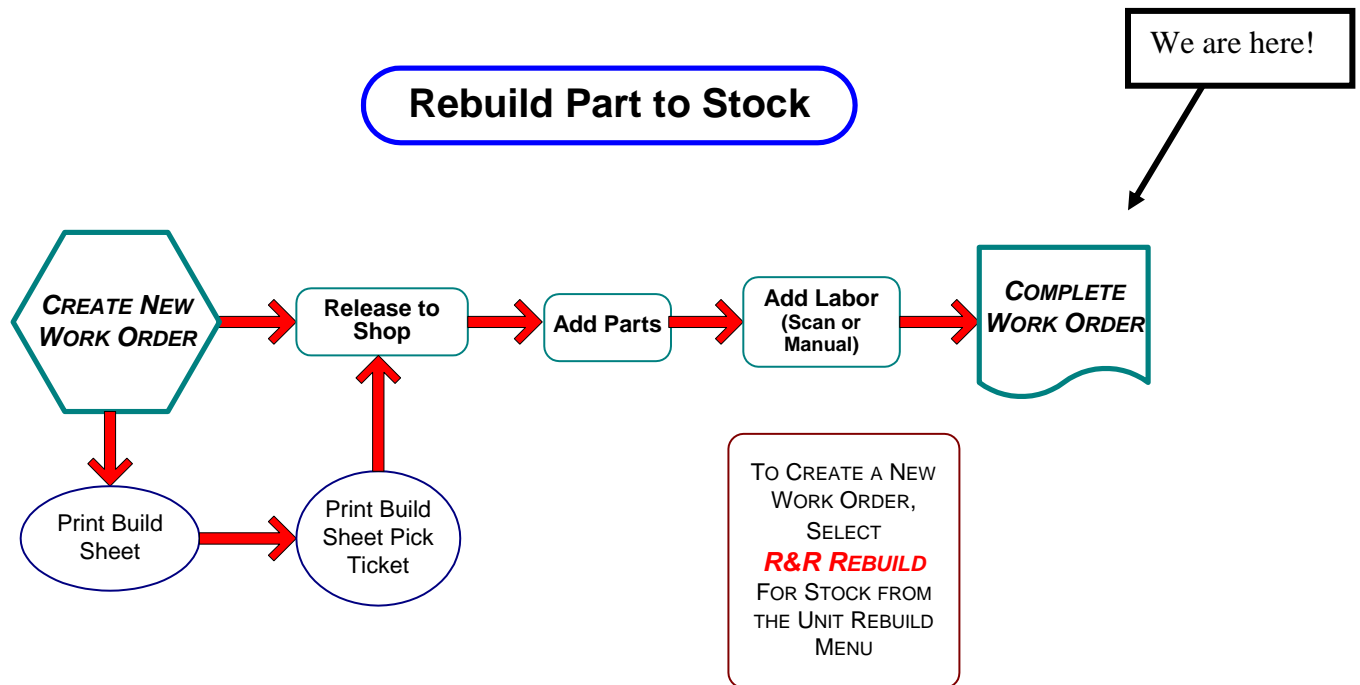
***************** **UNIT COMPLETION** ****************

Type (C)lose and press **ENTER.**

This completion process puts the rebuilt unit into stock and available to be sold.

Quick Review of the Options on the bottom of the Production Work Order Entry Screen:

F1=EnterLabor F2=ListParts F4=ListLabor F6=Rebuild#
Opt: (U)pdt, (A)dd, (S)ummry, (P)rt, (R)el, (C)lose (E)xt, (D)el, ##:

F1 = Enter Labor (Remember, this is the only way to add labor to the work order)
F2 = List only the Parts that were added to this work order
F4 = List only the Labor that were added to this work order
F6 = Rebuild #, This function key will display the Unit # being built, bin, desc, etc.

U = Update this work order but remain in the Production Work Order screen to create or add another work order.

A = Allows you to add more line items to this work order.

S = Summarizes the Work Order Cost Breakdown by Unit Core Cost, New Parts, Used Parts, Aftermarket and Labor Cost. Your system may be modified to not show all of these options.

P = Print the work order. Type in the letter "**P**" to print the Build Sheet. The screen below will display. Your options are, Print the Unit Build Sheet, Yes, No, or Quit. You can type in how many copies you need to print. Also, you can indicate what printer the Unit Build Sheet should print to.

```
Print Unit Build Sheet? (Y,N,Q): Y
Number of Copies...............: 1
Shop Printer Number, or ?......: 0
```

Figure 30 Print Build Sheet

R = Release, this option will release this work order to the shop so that they may start rebuilding the unit. This option changes the status of this work order from an **H** to a **W**.

C = Close This option will allow you to close the work order. After all parts and labor has been added to the work order and the unit has been completely rebuilt then work order the will be closed.

E = Exit This option will allow you to exit the work order taking you back to the menu.

D = You must type in the word **DELETE** to delete the work order that is on the screen.

Now that we have completed the options at the bottom of the Production Work Order Entry Screen, let's carry on with completing the process of the work order.

S = Before you close the work order, it might be helpful to review the Summary of the work order. This is the Work Order Cost Breakdown display shown below. The cost will be separated into 3 categories:

```
───────Work Order Cost Breakdown───────
Unit Core Cost:            0.00      0.00%
New Parts:               412.75     86.85%
Labor Cost:               62.50     13.15%
                       _____  _____
Total Cost:              475.25    100.00%



            Press any key..._

        Summarizing Work Order Costs
```

Figure 31 Unit Cost

The cost breakdown helps you determine where the majority of your cost was accumulated in putting this rebuilt unit on the shelf or rebuilding the unit for your customer. The Unit Core Cost will display if applicable, New parts and Labor Cost will display. If rebuilding a customer's core, no core cost will be added.

As you complete the work order, a process will search for outstanding POs attached to this work order. If there are no POs found, you will receive a message:

"NO PURCHASE ORDERS FOUND"

You will need to receive these POs before you can close the work order.

The purchase orders will be the items that were ordered using the "Q" option in work order entry. "Special Orders" that pertain directly to this work order.

As the system walks you through the completion process, you have the opportunity to review the cost of the rebuilt unit and finalize the completion.

```
DISPLAY THE WO           Production Work Order Entry              IN-PROPE

Work Order#:  31475    [New]                  Parts Cost:  65.00
Rebuilt Part: EUCE-536  BUSHING              Labor Cost:  20.00
QTY:1    Status: H    Dept: CS1    Z#:       BT#: 10005   BIN: A2      T:NU

Itm Vnd PartNumber       Description        AVL    QTY       UnitPr  Extended




                     Work Order Completion Update
                     ---------------------------

                Rebuild cost based on Parts & Labor cost: 85.00
                Average per unit cost is: 85.00






                Do you wish to complete this work order? (Y,N):
```

Figure 32 Work Order Completion

The prompt **"Do you wish to complete this work order?" (Y/N):** will display.

Type in **Y** to complete the work order, or type in **N** to stop the completion of the work order so that you may make changes.

You are also given the opportunity to print Unit Tag Labels. Unit Tag Labels are tags that have a unique bar code printed for each unit in stock. The tag may then be stuck to a manila card and wired to the unit for identification and scanning purposes. There is also a menu option to print Tag Labels.

Figure 33 Unit Tag Bar Code Label

Figure 34 Bar Code Label Example

Once the work order is complete, the inventory is increased for the rebuilt part number, and the components are decreased by the quantities used to rebuild this part.

The Reference number is the Unit Rebuild Work Order Number.
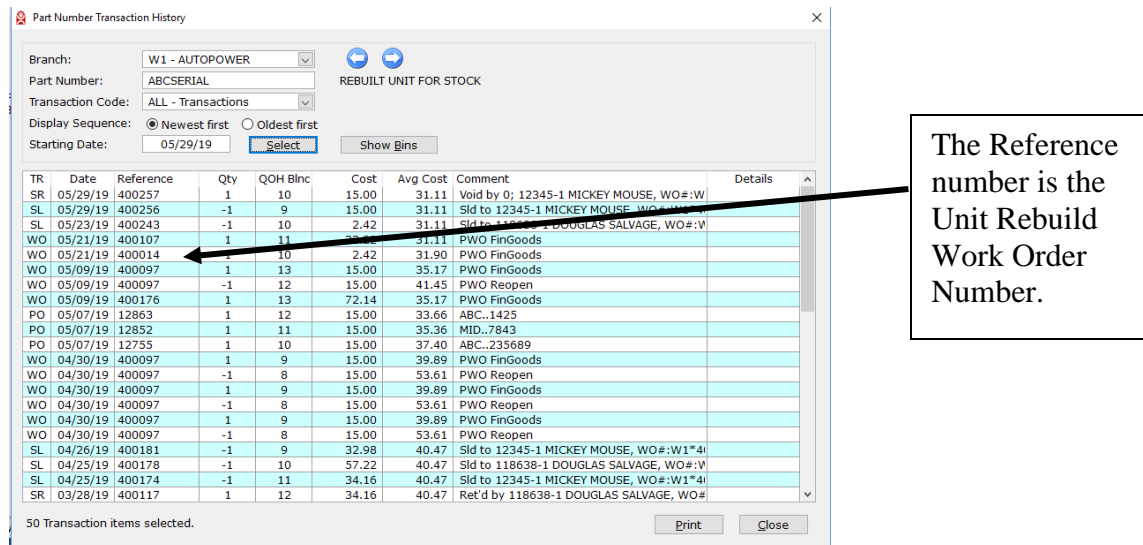
Figure 35 F6 Activity in Inventory Inquiry

As indicated on the Inventory Inquiry Screen, the completion of the Unit Rebuilding Work Order will increase the quantity of the target part number. You will know this part was added to inventory from your Rebuilding Software by the Comment of "**PWO FinGoods**" when using Inventory Inquiries **F6** - Activity option.

Method #2

**********<u>SELLING/REBUILDING UNIT FOR A CUSTOMER</u>*************

There is a portion of the Unit Rebuilding Software that you can use in tandem with the Vehicle Shop & Service Module. This is beneficial if you have two different shops that you operate. You may have a rebuilding department and a vehicle repair department.

You can initiate a work order from the Vehicle Service Module. Let's say as a part of your analysis, you determine that the customer's unit needs to be totally rebuilt.

```
06/10/19                       Order No: W1*400323

Ship To: AUTOPOWER QO CUSTOMER #5   Bill To: AUTOPOWER QO CUSTOMER #5
         400 TECHNOLOGY PARK                  400 TECHNOLOGY PARK
100      LAKE MARY, FL 32746        100       LAKE MARY, FL 32746


Terms: A-NET 30 DAYS  TAXABLE  B/O OK  Ctr:0              PO:


ITM    Part Number    OPT  AVL  ORD  SHP  B/O   Core      Price     Extension

1    █






   f1=HoldOrd    f2=Refresh    f3=List%    f4=Comment    f5=Note      f6=VehSvc
   f7=ShowOpt    f8=UnitSrch   f9=NoteCard                           f12=Contcs
```

Figure 36 Work Order Request

At this point, you can open up a Customer Work Order Request. A "Work Order Request" will print as part of this process. The Request is attached to the unit and then moved to the Unit Rebuilding department. The Unit Rebuilding department can use this as a checklist of what needs to be done to rebuild this part.

```
06/10/2019                Create Work Order Request              IN-CWO

  Work Order No:   400326

  1. Customer No....................: 100 - AUTOPOWER QO CUSTOMER #5
  2. Contact Name...................: TED SMITH
  3. Contact Phone..................: 407-585-0419
  4. Service Writer.................: 0 - AUTOPOWER

  5. Year/Make/Model................:
  6. Rebuild Part No................: ABCSERIAL - REBUILT UNIT FOR STOCK
  7. (R)ebuild, or Re(P)air? (R,P)..: R - Rebuild Unit
  8. Customer Core? (Y,N)...........: Y
  9. Return Old Parts? (Y,N)........: N

 10. Customer Complaint, or
       rebuild work desired.........:
 11. PO Number......................:
 12. Amount Quoted Customer.........:
```

Figure 37 Work Order Request

As you update this Work Order Request, you will be prompted to release the work order to the Shop. When you release the work order to the shop, the "Customer Work Order Release" will print and this will apply the status of "W" to the work order for "Work In Progress". This work order can then be edited in the R&R or Rebuild Unit for Stock screen.

Key prompts on this screen are:

- **(R)ebuild or (R)epair? (R,P):** Are you going to repair the customer's unit or rebuild the unit?
- **Customer Core (Y,N):** Are you using the customer's core? This determines if the customer will be assessed a core charge.
- **Customer Complaint, or Rebuild Work Desired:** This will print on the Customer Work Order Release so the Rebuild department will know what kind of work needs to be performed on the unit.

To recall an existing Customer Work Order Request, you can enter **[?] in the work order number field.** This will display all customer work orders. There will be a column that will indicate the customer for whom the work order was requested.
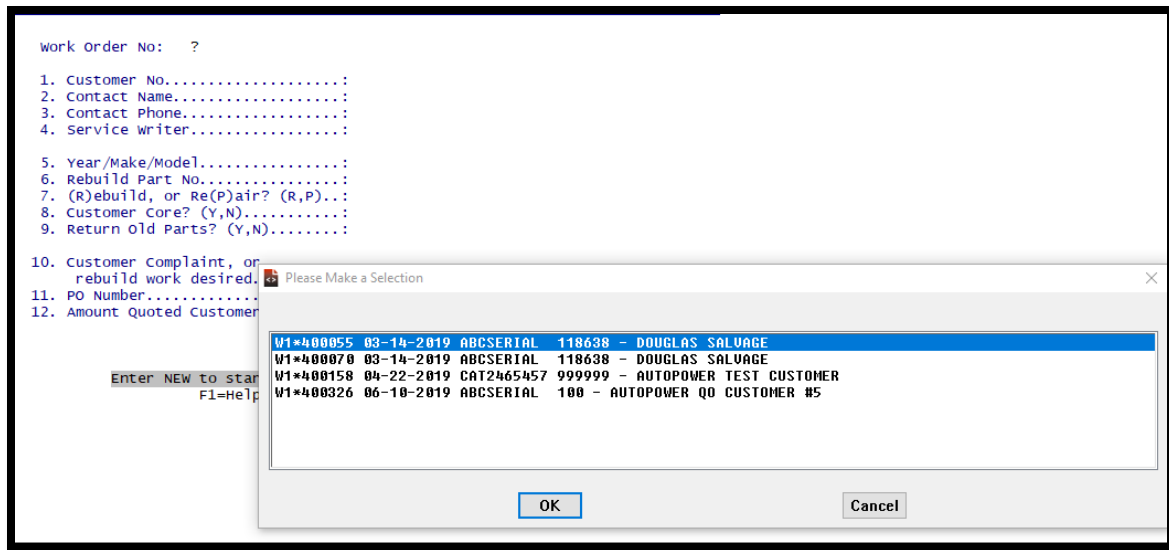
Figure 38 Work Order Request Work Order Number Field

Select the correct work order by using your arrow keys to highlight the work order to select, then press *TAB* and press *ENTER* or click on the OK button. The Customer's Work Order Request will display on the screen.

Once the unit arrives to the rebuilding area, the work order can be called up from the Work Order Number that is on the Unit Tag Label. Or, they have the ability to search for this work order by using the *F10* key on the Rebuild to Stock Screen.

Parts and labor will be added to the work order as if it was going to be added to inventory. The process is the same as explained in our previous section adding the rebuilt unit to inventory in this workbook. When the work order is completed, the rebuilt unit will affect your inventory by a QOH of 1. At this time the rebuilt unit can be shipped back to the Vehicle Service area.

In the Vehicle Service area, the unit that was rebuilt will be added to the operation as a part number. If the part was setup as a serialized part in the Inventory Master Record, you will be prompted for a serial number. The serial number is the work order number.

```
W1*400323                   BODIES AND VESSELS GROUP              Quote #1 (TM)

100 - AUTOPOWER QO CUSTOME E.Parts:           E.Labor:          E.Hrs:
                           A.Parts:           A.Labor:          A.Hrs:

Itm     Part Number     DPT  AVL  ORD  SHP  B/O   Core      Price    Extension

1    ABC SERIAL               10    1              7.50       30.00



                    ┌──── PLEASE MAKE A SELECTION ────┐
                    │   W1*400176                     │
                    │   W1*400194                     │
                    │   W1*400197                     │
                    │   W1*400326                     │
                    │                                 │
                    │        Arrow Up or <Esc>        │
                    └─────────────────────────────────┘


REBUILT UNIT FOR STOCK... L=30.00  GM=-111.47%
Core Part: CORABCSERIAL   Qty Banked: 0   Eligible for Return: 0
```

Figure 39 Serial Number

When installing the rebuilt unit in the Vehicle Service area, you will probably add only the labor charges for removal and installation of the part.

```
W1*400323                   BODIES AND VESSELS GROUP              Quote #1 (TM)

100 - AUTOPOWER QO CUSTOME E.Parts:           E.Labor:          E.Hrs:
                           A.Parts:           A.Labor:  112.50  A.Hrs:   1.50

Itm     Part Number     DPT  AVL  ORD  SHP  B/O   Core      Price    Extension

1    ABC SERIAL REBUILT UNIT FO   1    1          0.00     475.00      475.00
2    SERVICE-SERVICE LABO/AUTOPOW    1.50                   75.00      112.50
3



 f1=EnterLabor  f2=ListAll  f3=List%  f4=ListLabor  f5=ListCost  f7=TfrLI
```

Figure 40 Labor Charge

Once all parts and labor have been added, the Vehicle Shop and Service Repair work order can be closed so you can invoice the customer.

*****************REPORTS*****************

There are several different reports available to help you evaluate the productivity of your Unit Rebuilding Operation.

Figure 41 Unit Rebuilding Report Menu

Unit By Type and Status: This procedure will produce a report that will list all of the units in the Unit Database. You have the option to run the report several different ways.

Figure 42 Unit/Parts Inventory Report

Field Descriptions

- **Location:** You may run this report for a specific location or for all locations.

- **Type:** You can run the report for specific types of units or ALL Units.
  - Company Rebuilt
  - Customer Core

- **Status:** The status refers to where in the rebuilding process is a work order. For purposes of this report, do you want to review rebuilt units with a specific status or ALL.
  - **X-** Cancelled
  - **R-** Request
  - **H-** Hold
  - **W-** Work in Progress
  - **C-** Completed
  - **I-** Customer Invoiced

- **Print or Display:** Do you want to print the report to a printer or display it to the screen?

A sample of the Unit Inventory Report is displayed below.

The Unit by Type & Status Report will list:

Location
Work Order number
Type
Status of Work Order
Part Number
Part Description
Bin Location
Brass Tag Number
Serial Number
Quantity
Total Cost

Figure 43 Unit/Parts Inventory Report Example

A total cost will print at the end of the report.

Unit Production Report

This program will print a report of the units rebuilt in the shop showing the parts and labor cost. It will calculate the average parts cost, average labor cost; average labor hours to rebuild the specific part number. Various report entries by the operator will specify the Department, Part Number, Mechanic Number, starting and ending dates.

The Unit Production Analysis Report screen will display.

```
06-10-2019              Unit Production Analysis Report              IN-UPR
_____

    This procedure will produce a report of the rebuilt units showing
    their parts and labor costs. The average parts and labor cost is
    computed for each unique rebuilt part number. Various selection
    criteria defines the report output.


    Branch Location, or ALL....:  ALL - All branch locations
    Department No, or ALL......:  ALL - All Departments
    Part Number, or ALL........:  ABCSERIAL
    Mechanic Number, or ALL....:  ALL - All Mechanics
    Starting Date..............:  06/01/2019
    Ending Date................:  06/10/2019
    (D)etail, or (S)ummary.....:  D



              Enter D for Detail Report, or S for Summary Report
```

Figure 44 Unit Production Analysis Report Screen

Type in the Department or the word "**ALL**".

Type in the Part number or the word "**ALL**" for all part numbers.

Type in the Mechanic Number or the word "**ALL**" for all part numbers.

Type in the Starting Date.

Type in the Ending Date.

Type in the letter "**D**" for a detailed report or "**S**" for a summary report.

Select the method of output Display, Print or Export.

An Example of the Report is shown below.

```
                                 AUTOPOWER CORPORATION
 10 Jun 2019                UNIT PRODUCTION AVERAGE COST ANALYSIS REPORT                    PAGE:    1
                Shop Production from 06/01/19 to 06/10/19 for All Departments for ABCSERIAL
=======================================================================================================
BT-Nbr  Part Number        Description          Comp.Date  Mech-1    Mech-2    PartsCost  LabHrs  LabCost  ProdCost
=======================================================================================================

400326  ABC SERIAL         REBUILT UNIT FOR STOCK   06-10-2019 AUTOPOWER          278.07    8.00    80.00    358.07
        1 Unit       Avg Rebuild Cost: 358.07      High Cost: 358.07     Low Cost: 358.07
                     Avg Parts Cost:   278.07      High Cost: 278.07     Low Cost: 278.07
                     Avg Labor Cost:   80.00       High Cost: 80.00      Low Cost: 80.00
                     Avg Labor Hrs:    8.00        High Cost: 8.00       Low Cost: 8.00
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Report Totals:
==============
        1 Unit       Avg Rebuild Cost: 358.07      High Cost: 358.07     Low Cost: 358.07
                     Avg Parts Cost:   278.07      High Cost: 278.07     Low Cost: 278.07
                     Avg Labor Cost:   80.00       High Cost: 80.00      Low Cost: 80.00
                     Avg Labor Hrs:    8.00        High Cost: 8.00       Low Cost: 8.00
=======================================================================================================
                                  Last Page... Press ENTER
```

Figure 45 Unit Production Analysis Report Example

Mechanic Production Report

This report will print a report of one or more mechanics showing the units and work orders they work on during a range of dates. This will report will print a subtotal of the mechanic's labor hours by day to illustrate the amount of time and what units were produced each day.

The Mechanic Production Report Screen will display as shown.

Figure 46 Mechanic Production Report Screen

This Report will be sorted by the Mechanic's number.

Type in the Department or the word "**ALL**" and press **ENTER**.

Type in the Part number or the word "**ALL**" for all part numbers and press **ENTER**.

Type in the Mechanic Number or the word "**ALL**" and press **ENTER**.

Type in the Starting Date and press **ENTER**.

Type in the Ending Date and press **ENTER**.

Type in the letter "**D**" for a detailed report or "**S**" for a summary report and press **ENTER**.

Type in the letter "**P**" to print the report to a printer or type in the letter "**D**" to display the report to the screen and press **ENTER**.

The Mechanic Production Report will sort by Mechanic and Completion Date.

Work Order Number
Brass Tag Number
Completion Date
Part Number
Description
Labor Hours
Labor Cost

Mechanic Productivity Report

This report will allow printing a detailed or summarized report of the productivity levels of your mechanics. This report will show a specific work order compared to a mechanic's time.

This report uses Time Clock punches.

Figure 47 Mechanic Production Report Screen

Type in the Branch Location for a specific branch or type in the word "ALL" for all branches and press Enter.
Type in the Department Code or the word "ALL" and press **Enter**.

Type in the Mechanic/Operator No., or the word "**ALL**" and press **Ente**r.

Type in the Start Date of the report and press **Enter**.

Type in the End Date of the report and press **Enter**.

Type in **S** if you would like only a summarized report or type in the letter **D** to print a detailed report and press **Enter**.

Type in **P** to print the report to a printer or type in **D** to display the report to the screen and press **Enter**.

Type in the printer number and press Enter.

```
                              AUTOPOWER CORPORATION
10 Jun 2019                   MECHANIC EFFICIENCY ANALYSIS REPORT                          PAGE:    1
              Shop Efficiency from 04/01/16 to 06/10/19 for All Departments for All Mechanics
=====================================================================================================
Mechanic                 Date      TClockHrs    WOHours  WOHrs-%    MiscHours  MscHrs-%    UnkHours  UnkHrs-%
=====================================================================================================

0 - AUTOPOWER            12-28-2017            10.00      %                        %                  %
                         WO No.    Date    ShopHrs BillRate  Lab.Sell  Lab.Cost  Shop Activity
                         ...............................................
                         365455  12-28-17  10.00    50.00   250.00    250.00  AIR BRAKE SYSTEM
                         ...............................................
                                            10.00            250.00    250.00
                         01-10-2018             4.00      %                        %                  %
                         WO No.    Date    ShopHrs BillRate  Lab.Sell  Lab.Cost  Shop Activity
                         ...............................................
                         365487  01-10-18   4.00    50.00   300.00    300.00  WHEEL AND COMPONENTS
                         ...............................................
                                             4.00            300.00    300.00
                         01-30-2018             1.00      %                        %                  %
                         WO No.    Date    ShopHrs BillRate  Lab.Sell  Lab.Cost  Shop Activity
                         ...............................................
                         365575  01-30-18   1.00    50.00    85.00     85.00  2006 VOLVO
                         ...............................................
                                             1.00             85.00     85.00
                         03-05-2018             2.00      %                        %                  %
                         WO No.    Date    ShopHrs BillRate  Lab.Sell  Lab.Cost  Shop Activity
                         ...............................................
                         365710  03-05-18   2.00    50.00   170.00    170.00  REPLACE BRAKES
                         ...............................................
                                             2.00            170.00    170.00
                         03-13-2018             2.00      %                        %                  %
                         WO No.    Date    ShopHrs BillRate  Lab.Sell  Lab.Cost  Shop Activity
                         ...............................................
                         365741  03-13-18   0.02    50.00     1.70      1.70  2009 INT'L PREVENTATI
                         365576  03-13-18   0.02    50.00     1.70      1.70  2006 VOLVO
                         365741  03-13-18   0.02    50.00     1.70      1.70  2009 INT'L PREVENTATI
                         365576  03-13-18   0.02    50.00     1.70      1.70  2006 VOLVO
                         365710  03-13-18   1.75    50.00   148.75    148.75  REPLACE BRAKES
                         365741  03-13-18   0.02    50.00     1.70      1.70  2009 INT'L PREVENTATI
                  Options: Page (F)orward, (L)ast, (S)earchText, (Q)uit:
```

Figure 48 Mechanic Production Report Example

INQUIRIES

Let's move onto the Inquiries Screens.


```
Monday, 06/10/19            AUTOPOWER CORPORATION                    (P33)   0

                            UNIT REBUILDING MENU

                    1....Parts Inquiry
                    2....Work Order Request
                    3....R & R or Rebuild Unit For Stock

                    4....Print: Build Sheet Pick Ticket

                    5....Report: Unit By Type & Status
                    6....Report: Unit Production
                    7....Report: Mechanic Production
                    8....Report: Mechanic Productivity

                    9....Inquiry: Mechanic Productivity
                   10....Inquiry: Work Order
                   11....Inquiry: Build Sheet
                   12....Inquiry: Vendor/Supplier

                   13....MENU: Unit Data Base

            Enter Selection:
```

Figure 49 Unit Rebuild Menu Screen

Mechanic Productivity Inquiry Screen

The Mechanic Productivity Inquiry Screen will display the detail labor transactions for a specific mechanic's postings for a specific date. The Mechanic Productivity Analysis is the same program as the Mechanic Productivity Report.

This Inquiry screen will only display if you are presently using the Time Clock Module.

```
06/11/2019              Mechanic Productivity Inquiry              IN-EPAINQ

Mechanic No:  0   AUTOPOWER                                     Dept: ?
Start Date.:  06/03/2019     Labor Sell: 0.00
Ending Date:  06/17/2019     Labor Cost: 104.00                2 records found.

Itm    Date        TC.Hrs   WO.Hrs    %-WO    Msc.Hrs  %-Msc    Unk-Hrs  %-Unk

1.   06/10/2019             8.00      %                %                 %
2.   06/07/2019             2.40      %                %                 %




SubTotal:                  10.40      %       0.00    0.00%     0.00    0.00%
                        Enter Item#, (R)edisplay
```

Figure 50 Mechanic Productivity Inquiry Screen

Type in the Mechanic Number and press **Enter**.

Type in the Start Date and press **Enter**.

Type in the Ending Date and press **Enter**.

The Mechanic Productivity Analysis screen will display a mechanic's productivity from the starting date that is entered until the ending date that is entered.

This inquiry screen will display what labor sells were made for this mechanic and what his labor cost was for these sells.

This report will also list the Mechanic's number, date of the job, time clock hours, work order hours, percentage of work order hours, miscellaneous hours, miscellaneous work hours%, Unknown hours, Unknown hours percentage.

Work Order Inquiry

The Work Order Inquiry screen can be utilized to view all work orders that have been entered into the system. No editing can be done from this screen.

The Production Work Order Inquiry screen will display.

```
06/11/2019              Production Work Order Inquiry              IN-RINQ

Work Order#:  400320      [Customer Core] W1      Parts Cost:  31.22
Rebuilt Part: ABC741852   UNIT REBUILD            Labor Cost:  24.00
QTY:1      Status: W    Dept: 2    BT#:                        BIN:        T:CC

Itm Vnd PartNumber          Description          AVL    QTY      UnitPr  Extended

1    EUC E-573              LOCK WASHER            8      7        2.43     17.01
2    EUC E-572              SPINDLE NUT           19      7        2.03     14.21




                        F2=ListParts   F4=ListLabor
                   Opt: (S)ummary, (P)rint, (E)xit:  ▮
```

Figure 51 Work Order Inquiry Screen Example

Type in the Work Order # that you would like to view and press Enter. The detailed information for the work order will display. To recall an existing work, order the screen displayed above also has a lookup feature to access existing work orders. You may press the **[F10] function** key to search for work orders using the part number or the part description. (Or you have the option to enter the serial number or OEM number.) You can look up a work order by:

- Typing in the letter **B** followed by the brass tag number
- Typing in the letter **O** followed by the OEM number
- Typing in the letter **Z** followed by the Z number.
- Typing in the actual work order number.

Function Keys

F2 – List Parts – To view the Parts line items that were entered on the work order.
F4 – List Labor – To view the Labor line items that were entered on the work order.

Options:

S = To view a Summary of the work order cost press S. The screen below will display.

```
06/11/2019              Production Work Order Inquiry                IN-RINQ

Work Order#:  400320     [Customer Core] W1      Parts Cost:  31.22
Rebuilt Part: ABC741852  UNIT REBUILD            Labor Cost:  24.00
QTY:1    Status: W    Dept: 2    BT#:                         BIN:        T:CC

Itm Vnd PartNumber        Description          AVL    QTY       UnitPr  Extended



                    ─────Work Order Cost Breakdown─────
                    Orig Purchase Price:              0.00%
                    Orig Unit Core Cost:      0.00    0.00%
                    Component Part Cost:     31.22   56.54%
                    Labor Cost:              24.00   43.46%
                                            ───────  ───────
                    Total Cost:              55.22  100.00%

                            Press any key...
```

Figure 52 Work Order Cost Breakdown Screen

P = To Print the work order with the option to also print the build sheet.

```
06/11/2019              Production Work Order Inquiry                IN-RINQ

Work Order#:  400320     [Customer Core] W1      Parts Cost:  31.22
Rebuilt Part: ABC741852  UNIT REBUILD            Labor Cost:  24.00
QTY:1    Status: W    Dept: 2    BT#:                         BIN:        T:CC

Itm Vnd PartNumber        Description          AVL    QTY       UnitPr  Extended




                    Print Unit Build Sheet? (Y,N,Q):  Y
                    Number of Copies...............:  1
                    Shop Printer Number, or ?......:  33
```

Figure 53 Work Order Inquiry Build Sheets

E = Exit out of this inquiry screen.

Build Sheet Inquiry

The Build Sheet Inquiry option will allow you to view a Build Sheet for a particular Unit/Part.

The Master Build Sheet Inquiry screen will display.

```
                      Master Build Sheet Inquiry              WO-BSINQ
Part Number: ?               Unit Type:
   Model No:                 L.Form ID:              ---Last Change---
       Desc:
                         ─── B.O.M. GROUPS ───
1.                               6.
2.                               7.
3.                               8.
4.                               9.
5.                              10.



       Enter Part Number for WO Build Sheet, or ? to see all Build Sheets
```

Figure 54 Unit Rebuilding Build Sheet Inquiry Screen

This is the same screen as Master Build Sheet File Maintenance with the exception that this option is for inquiry only.

Enter Part Number for WO Build Sheet, or ? to see all Build Sheets

Type in the part number for the Build Sheet that you would like to inquire about. If you would like to view all Build Sheets that are in the system type in **?** and press Enter.

That's the end of our Unit Rebuilding Workbook. Let's see if you have retained some of what the trainer has been harping about.

Now, Let's see what you learned.

1.   When your customer brings in his unit to be rebuilt your _____ is not affected.

    a. Inventory
    b. Core Inventory
    c. Paycheck

2.   The Work Order number is also the serial number.

    a.   True
    b.   False

3.   When the Unit has been rebuilt it has to be sold via order entry only.
    a.   True
    b.   False

4.   The Dirty Core is added to the Dirty Core Inventory when the order is invoiced and the core tag is generated.

    a.   True
    b.   False

5.   In the Inventory File Maintenance screen, you will "Y" in the Serial Y/N field since the part that you are adding has a serial number.

    a.   True
    b.   False

6.   The Cost of the Unit is calculated based on the labor and parts used to rebuild the unit.

    a.   True
    b.   False

7.   The work order number and the serial number have to be the same.

    a.   True
    b.   False

8.   Where do you view the Cost of the Unit?

    a.   Inventory File Maintenance
    b.   Unit Data Base F/M

9.   The Operator/Salesperson File Maintenance does not need to be completed in the Vehicle Service File Maintenance for all mechanics. Just for those who actually log into the AutoPower system.?

        a.   True
        b.   False

10.   The shop cost per hour and the shop billing rate per hour should be the same figure.

        a.   True
        b.   False

11.   The first thing you need to determine is Whose Core when you start to initiate a work order to rebuild a unit.

        a.   True
        b.   False

12.   After you have created the work order you will type in the letter "R" to release it to the Shop to rebuild.

        a.   True
        b.   False

13.   To add parts to a work order you will type in the letter "Q".

        a.   True
        b.   False

14.   To add Labor to a work order in Unit Rebuilding you must use the F1 –Enter Labor Function Key.

        a.   True
        b.   False

15.   Creating a build sheet for a Unit will cause the code to automatically add the parts and notes from the build sheet onto the Unit Rebuild work order?

        a.   True
        b.   False

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16.   Type in C to close the work order will put the rebuilt unit into stock and then will be available to be sold.

    a.   True
    b.   False

17.   When a serialized rebuilt unit is being sold on either a VSSR order or an Order Entry order, the operator will be prompted to select the serial number of the unit being sold.

    a.   True
    b.   False

Notes:

_____

_____

_____

_____

_____

_____

_____

_____