



**All-Bottle 703
Installation/Service and
User Manual**

May 2004

BERG COMPANY, LLC

FCC Information:

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) this device must accept any interference received including interference that may cause undesired operation.

Note: The user is cautioned that any changes or modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.

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SECTION

1

Getting Started

The general guidelines provided in this section can help you take the necessary steps to make each **All-Bottle 703** installation run as smoothly as possible.

System Components	1-2
Installation Game Plan	1-4
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System Components

The **All-Bottle 703** is a compact and affordable liquor dispensing system that is simple and easy to use. The system is composed of the following components.

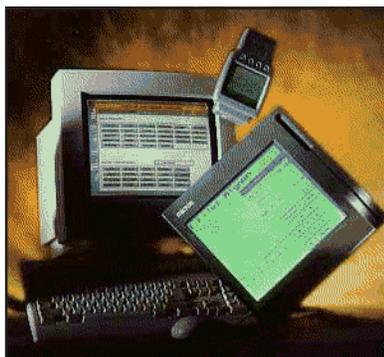
ECU (Electronic Control Unit)	The compact, lightweight console that controls pouring operations. One unit provides free-pouring style control for an unlimited number of brands using seven different pourer codes and three portion sizes. Lights on the front of the ECU indicate the portion size of each pour. Security is maintained through a keylock.
Activator Ring	A circular receiver attached to the ECU that reads the electronic price information on coded pourers. It sits in a holder when not in use and easily slips over the top of a bottle for pouring.
Coded Pourer	Specially designed pourers inserted and sealed into each liquor bottle. Metal coding bands in seven different combinations electronically identify price and portion information to the ECU.
POS Interface	A serial interface provided through a 9-pin D-sub connector on the back of the ECU. Several POS protocols are supported. The POS interface provides a unique, predefined PLU for each pourer code and size from a base PLU which you select.



All-Bottle 703 ECU



Coded Pourers



POS System Interface

Installation Game Plan

Berg offers the following checklist to expedite your installation of the **All-Bottle 703**. The sequence of steps follows the order tasks appear in this manual. To help you locate information quickly and easily, related tasks are grouped throughout the manual.

Getting Started 1. Gather the customer's setup information.

- 2. Submit order for **All-Bottle 703** (Berg PN9006406-North American, 9006407-European) to Berg. If the system will be interfaced with a POS sales terminal, make sure the sales terminal supports Berg LDS. Include the sales terminal interface cable with your order. *Often there are setup requirements for the sales terminal Berg knows nothing about. Berg strongly suggests you develop a good working relationship with a local representative of the sales terminal company. This will enable you to test the POS interface before quoting or installing at a customer site.*

For more information about interfacing with a sales terminal, Berg authorized dealers are invited to go to the dealer area of the Berg web site, www.berg-controls.com.

- 3. Set an installation date and assemble required tools and materials.

Installation 4. For a POS interface, attach a cable between the ECU and POS system.

- 5. Secure the ECU to the underside of the bar.
- 6. For a POS interface, set up your POS options and verify the correct PLUs are entered at the POS.
- 7. Install the All-Bottle coded pourers.
- 8. Set up your pouring options (Portion Size Reset, Reset Pour Delay, etc.).

Calibration 9. Align the activator ring.

- 10. Select portion sizes.
- 11. Calibrate portion sizes.

System Operation and 12. Demonstrate pouring procedure.

Maintenance

- 13. Demonstrate cleaning procedures.

Financial Controls 14. Go over recommended security and financial controls.

Gather Customer Setup Information

Determine exactly what is needed for the installation to save time and surprises later.

ECU Pour Settings Find out which features to enable at the ECU. See the *ECU Setup* section for a description of each option.

Portion Sizes Record the correct portion amounts for Size 1-3 for each Code on the **All-Bottle 703 Setup Worksheet**. Use these amounts when you calibrate the pourers.

Categories of Liquor One example of organizing liquor by price codes is the following:

Code 1 Well Liquor

Code 2 Call Liquor

Code 3 Premium Liquor

Code 4 Domestic Cordials

Code 5 Premium Cordials

Code 6 Sherry

Code 7 Cognac

Free Poured Brands Some brands will continue to be free-poured and should not be entered on the list. They include Bailey's Irish Cream (and substitutes), Triple Sec, Galliano, Sweet Vermouth, Dry Vermouth, Creme de Cassis and Creme de Noya.

These items are used like orange juice in a Screwdriver. They are mixers and have no retail value. However, if customers frequently order any of these brands on the rocks or up, you should plan to lock them up with the appropriate pourers and enter them on the list.

Number of Pourers Needed Use the **All-Bottle 703 Setup Worksheet** to determine the quantity of each pourer needed. List the number of bottles of each brand used in the racks and reserve cabinets (par stock).

Include enough pourers to avoid having the bar restocked in mid-shift. Typically, you should have enough liquor locked up with coded pourers for twenty-four hours of operation.

For example, if there are three speed racks with one bottle of bar vodka in each plus eight bottles in the par stock for backup, the quantity of pourers needed for bar vodka would be eleven.

All-Bottle 703 Setup Worksheet

Pour Settings

- Portion Size Reset
- Default Portion Size
 - S R L
- Restart Pour Delay
_____ seconds
- Disable Portion Sizes
 - S R L

POS Settings

Protocol

- Berg Generic
- Berg Basic
- Micros 8700
- Infogenesis

Base PLU

- 100
- 150
- 200
- 250
- 300
- 350
- 400
- User-Defined

Pour Function

- Wait for Release
- Pour Without Release

Portion Sizes

Code & Size	PLU	Name	oz/ml	Price
Code 1 Size 1				
Size 2				
Size 3				
Code 2 Size 1				
Size 2				
Size 3				
Code 3 Size 1				
Size 2				
Size 3				
Code 4 Size 1				
Size 2				
Size 3				
Code 5 Size 1				
Size 2				
Size 3				
Code 6 Size 1				
Size 2				
Size 3				
Code 7 Size 1				
Size 2				
Size 3				

All-Bottle 703 Setup Worksheet

Inserts Needed

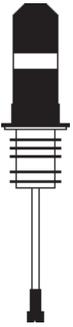
_____ Undersize inserts (PN 9007281)
 _____ Standard size inserts (PN 9007122)

_____ Oversize inserts (PN 9007282)
 _____ Extra large inserts (PN 9008799)

Pourers Needed

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

1

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

2

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

3

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

4

All-Bottle 703 Setup Worksheet

Pourers Needed (cont.)

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

5

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

6

Brand	Rack Bottles	Reserve Bottles	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____	<input type="checkbox"/>	<input type="checkbox"/>	
Total Pourers	<input type="checkbox"/>	+ <input type="checkbox"/>	= <input type="checkbox"/>

7

Tools and Materials Required

Berg offers the following list to help in your preparation for an **All-Bottle 703** installation.

Tools Required

- Phillips screwdriver
- Heat gun (if using heat shrinkable seals)
- Pressure release tool
- Graduated cylinder (for calibration)
- Software CD with support tools and manual

Equipment Preparation

Make sure the **All-Bottle 703** equipment arrives at your shop a few days before you plan to install the system. Open the boxes and check to see you have everything you need. Also, verify nothing was damaged during shipping.

2 Installation

It's best to install the system early in the week, giving the bartenders a few days to operate the system before a busy weekend. It's also best to install the system early in the morning before any bartenders arrive. Refer to this section for help with the following tasks:

Install the ECU	2-2
Install the All-Bottle Coded Pourers	2-4
Connect the ECU to a POS System	2-6
Set Up a PLU Base	2-8
PLU Table	2-9

Install the ECU

The **All-Bottle 703** ECU is designed for easy installation under the bar. It should be mounted 1/4 inch to 3/4 inch (.6 cm to 1.6 cm) back from the front edge of the bar to help protect it from liquid damage. Install the ECU as far away from sinks, dishwashers and other sources of water or steam as is practical.

■ To install the ECU:

1. Select a location for the ECU within 5 1/2 feet (1.7 meters) of a properly grounded 110 VAC (or 220 VAC) electrical outlet.
2. Attach any cables to the back of the ECU before mounting the ECU to insure ease of access. See *Connect the ECU to a POS System* in this section.
3. Secure the ECU under the bar with the four wood screws provided.
4. Mount the activator ring holder to the right of the ECU using 4 wood screws. Mount the holder to a secure surface where it will be within the bartender's convenient reach.
5. Attach the cable that connects the 12-volt DC power supply to the ECU.
6. Plug the power supply into the electrical outlet.
(Safe electrical practice is to always make all other connections before connecting to the electrical outlet.)



Power supply

Caution

Operating Environment

The components that comprise the **All-Bottle 703** system have been designed to perform well in a typical bar, restaurant, or stadium environment. However, as with all electronic equipment, certain guidelines should be followed in locating the components. For the ECU a protected, dry and clean location is required. The operating temperature range for this component is from 5° C to 40° C (41° F to 104° F).

All-Bottle 703 ECU



Activator ring holder



ECU back panel



Attach power cable

Attach POS cable

Install the All-Bottle Coded Pourers

To insure a perfect fit in each liquor bottle, Berg offers inserts (the part of the coded pourer that fits in the bottle) in four sizes. To complete an **All-Bottle 703** installation, be sure to have an ample supply of varying sizes of inserts, an appropriate number of each of the seven pourer coded pourers and a box of security seals.

■ To install the All-Bottle coded pourers:

1. Select the appropriately coded pourer for the liquor bottle and attach the right size insert. Remove a numbered seal and mylar tab or a heat shrinkable preformed seal from the box of security seals.
2. Firmly insert the pourer into the bottle. Use the pressure release tool (Berg PN 9008733) to prevent liquor being forced out of a full bottle. To use the tool, insert half the length of plastic cord in the bottle. Insert the pourer completely and pull out the tool with an upward motion while maintaining hold of the pourer and bottle.
3. Slide the opening in the mylar tab over the top of the pourer with the adhesive side down. Align the notch in the mylar tab with the notch in the pourer. Pull both tab ends down tight onto the neck of the bottle.

Wrap a numbered seal around the neck of the bottle and the mylar tab ends. Make sure you can still read the number on the seal. The lower edge of the seal should be even with the lower edge of the mylar tab ends.

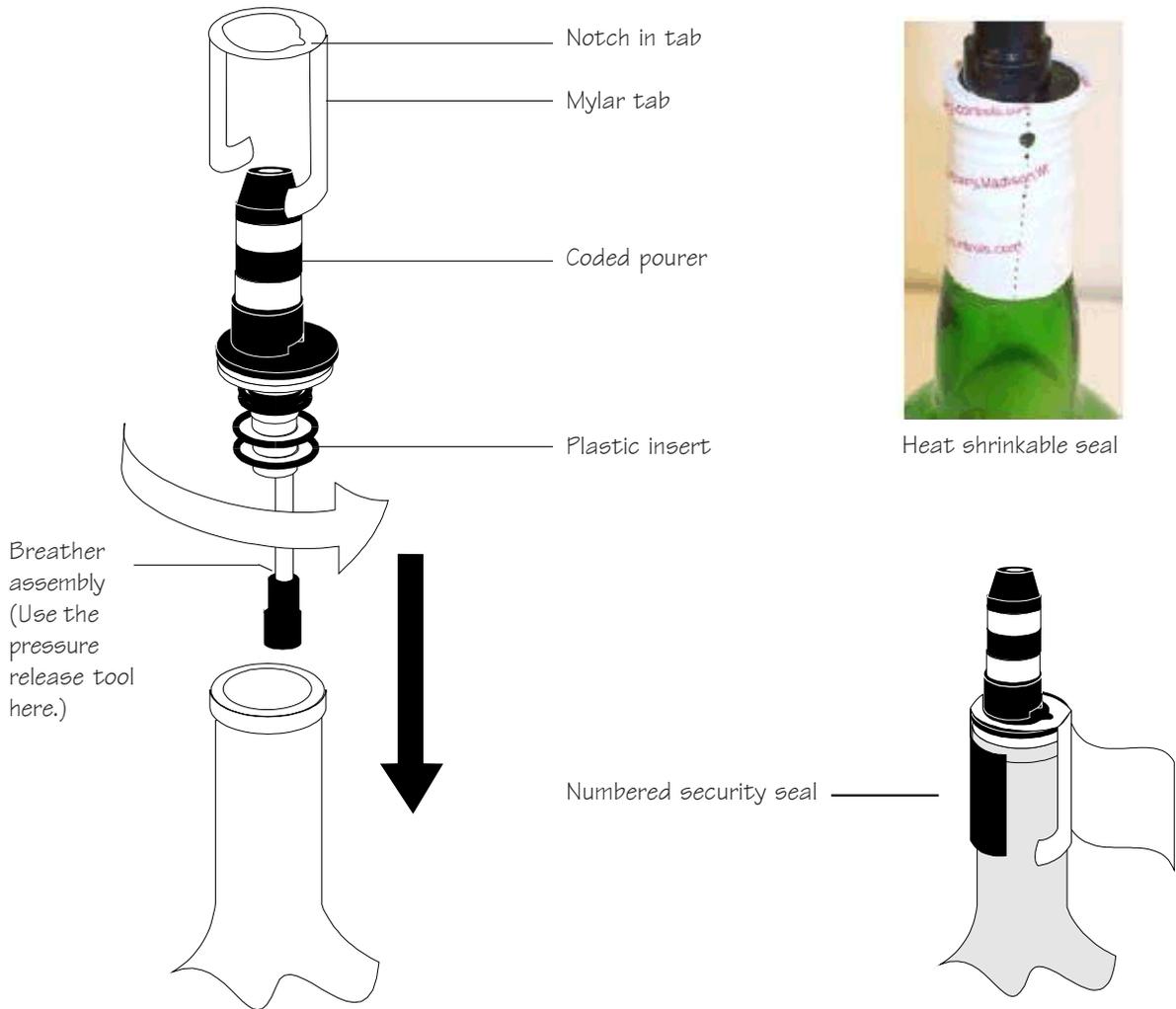
OR

Slide the heat shrinkable preformed seal over the pourer and apply heat evenly to shrink the seal to the bottle.

4. Repeat steps 1-3 for each liquor bottle.

■ To change an insert on the All-Bottle coded pourers:

1. Remove the current insert by pulling and twisting it from the coded pourer.
2. Select a new size insert. Choose from an undersize insert (Berg PN 9007281), a standard size insert (Berg PN 9007122), an oversize insert (Berg PN 9007282) or an extra large insert (Berg PN 9008799).
3. Push the new insert onto the coded pourer.

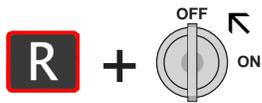


Note

- ❑ It's essential to clean coded pourers when they're removed from empty bottles. See *Clean the Coded Pourers* in the *Maintenance* section.

Connect the ECU to a POS System

In addition to making the necessary hardware connections for communication between the ECU and POS system, you need to select the appropriate POS communication protocol.



■ To connect the ECU to a POS system:

1. Connect the interface cable from the POS system to the back of the ECU using the 9-pin POS port. Tighten the connecting screws.

■ To set up the POS protocol:

1. Hold down **R** and turn the key from ON to OFF.

The "R" light blinks once to indicate you're in the POS Setup menu.

When the "R" light blinks off, the three lights indicate the current POS selection for approximately 1 second (see graphic).

The "R" light quickly blinks again and the POS selection relights for 1 second. This sequence of alternation continues until you exit POS Setup.

2. Select your POS protocol by scrolling through the list.

Press **L** to see the next selection in the list or press **S** to see the previous selection in the list (see graphic).

3. When you see the lights for the correct POS protocol, exit the POS Setup menu by turning the key to ON.

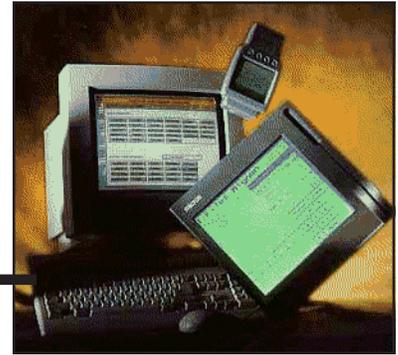
POS Protocol

- **Berg Basic**
9600 baud, no parity, 8 bits
- **Berg Generic**
2400 baud, no parity, 8 bits
- **Micros 8700, 9700, 3700**
9600 baud, even parity, 7 bits
- **Infogenesis**
2400 baud, even parity, 8 bits

ECU back panel



POS System



Attach POS cable



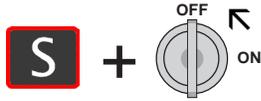
POS Setup light

The **POS Setup** light alternates with the current **POS Selection** light(s).

		POS Selections	
L ↓	●	●	● 0 None
	●	●	● 1 Berg Basic
	●	●	● 2 Berg Generic
	●	●	● 3 Micros 8700, 9700, 3700
S ↑	●	●	● 4 Infogenesis

Set Up a PLU Base

When the ECU sends pour information to a POS system, it uses a pre-defined PLU for the pourer code/size set up from a base PLU you select.



■ To set up a PLU base:

1. Hold down **S** and turn the key from ON to OFF.

The "S" light blinks once to indicate you're in the PLU Base menu.

When the "S" light blinks off, the three lights indicate the current PLU Base for approximately 1 second (see graphic).

The "S" light quickly blinks again and the PLU Base relights for 1 second. This sequence of alternation continues until you exit PLU Base.

PLU Base

- Verify the PLU Base you select is compatible with the POS system.
- **PLU-U** is a user-defined PLU Base. The maximum usable PLU in this base is 4,294,967,200. To set up PLUs for this base, see *Edit an ECU Setup File* in the *Files & Cloning* section.

2. Select your PLU Base by scrolling through the list.

Press **L** to see the next selection in the list or press **S** to see the previous selection in the list (see graphic).

3. When you see the correct light pattern, exit the PLU Base menu by turning the key to ON.



PLU Base light

The **PLU Base** light alternates with the current **PLU Base Selection** light(s).

	PLU Base Selections			
L ↓	●	●	●	100 (PLU-0)
	●	●	●	150 (PLU-1)
	●	●	●	200 (PLU-2)
	●	●	●	250 (PLU-3)
	●	●	●	300 (PLU-4)
	●	●	●	350 (PLU-5)
	●	●	●	400 (PLU-6)
S ↑	●	●	●	User (PLU-U)

PLU Table

Find the column for the base PLU you've selected to determine the specific PLU for each pourer/size. To set up your own PLUs (PLU-U column), see *Edit an ECU Setup File* in the *Files & Cloning* section.

PLU Base	PLU-0 100	PLU-1 150	PLU-2 200	PLU-3 250	PLU-4 300	PLU-5 350	PLU-6 400	PLU-U User
Code 1, Size 1	101	151	201	251	301	351	401	base + 1
Code 2, Size 1	102	152	202	252	302	352	402	base + 2
Code 3, Size 1	103	153	203	253	303	353	403	base + 3
Code 4, Size 1	104	154	204	254	304	354	404	base + 4
Code 5, Size 1	105	155	205	255	305	355	405	base + 5
Code 6, Size 1	106	156	206	256	306	356	406	base + 6
Code 7, Size 1	107	157	207	257	307	357	407	base + 7
Code 1, Size 2	111	161	211	261	311	361	411	base + 11
Code 2, Size 2	112	162	212	262	312	362	412	base + 12
Code 3, Size 2	113	163	213	263	313	363	413	base + 13
Code 4, Size 2	114	164	214	264	314	364	414	base + 14
Code 5, Size 2	115	165	215	265	315	365	415	base + 15
Code 6, Size 2	116	166	216	266	316	366	416	base + 16
Code 7, Size 2	117	167	217	267	317	367	417	base + 17
Code 1, Size 3	121	171	221	271	321	371	421	base + 21
Code 2, Size 3	122	172	222	272	322	372	422	base + 22
Code 3, Size 3	123	173	223	273	323	373	423	base + 23
Code 4, Size 3	124	174	224	274	324	374	424	base + 24
Code 5, Size 3	125	175	225	275	325	375	425	base + 25
Code 6, Size 3	126	176	226	276	326	376	426	base + 26
Code 7, Size 3	127	177	227	277	327	377	427	base + 27

3 ECU Setup

Once you've installed the equipment, set up pouring options at the ECU. (For help copying setup values to another ECU or using an ECU setup file, see the *Files & Cloning* section.) Refer to this section for help with the following tasks:

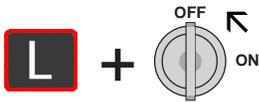
Set Up Pour Without Release	3-2
Set Up Portion Size Reset	3-3
Set Up a Default Portion Size	3-4
Set Up Restart Pour Delay	3-5
Disable a Portion Size	3-6

Set Up Pour Without Release

This option determines whether or not the ECU waits for the sales terminal's "okay" before pouring.

How it works

When you initiate a pour, the ECU sends a signal to the sales terminal. It then either waits for a response or it pours the drink without waiting. Pour Without Release means the ECU does *not* wait for the sales terminal's response. You may want to select Pour Without Release if the sales terminal slows down pouring. However, if you select this option and errors occur between the ECU and sales terminal, drinks may pour without being rung up at the sales terminal.



To set up pour without release:

1. Hold down **L** and turn the key from ON to OFF.

*The "L" light blinks **once** to indicate you're in the Pour Without Release section of the Setup menu.*

When the "L" light blinks off, the three lights indicate the current Pour Without Release selection for approximately 1 second (see graphic).

2. Press **S** to toggle between the two options (see graphic).
3. When you see the correct light pattern, exit the Setup menu by turning the key to ON

OR

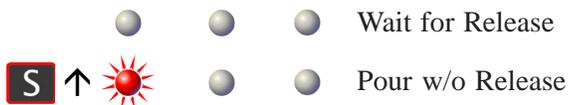
Press **L** to see the next Setup menu item (Portion Size Reset).



Pour Without Release light

The **Pour Without Release** light alternates with the current **Selection** light(s).

Selections

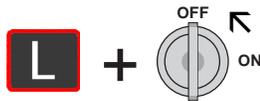


Set Up Portion Size Reset

This option determines whether or not the ECU resets the portion size to your default portion size after every pour. To set up a default portion size see *Set A Default Portion Size* in this section.

How it works

If you enable Portion Size Reset, the ECU resets the portion size to the default size (e.g., "R") about .75 second after every pour. (You can still press the other size buttons.) If you don't enable Portion Size Reset, the currently selected portion size continues until you select a new size.



To set up portion size reset:

1. Hold down **L** and turn the key from ON to OFF.
2. Press **L**.

The "L" light blinks *twice* to indicate you're in the Portion Size Reset section of the Setup menu.

When the "L" light blinks off the *second* time, the three lights indicate the current Portion Size Reset selection for approximately 1 second (see graphic).

3. Press **S** to toggle between the two options (see graphic).
4. When you see the correct light pattern, exit the Setup menu by turning the key to ON

OR

Press **L** to see the next Setup item (Default Portion Size).



Portion Size Reset light

The **Portion Size Reset** light alternates with the current **Selection** light(s).

Selections

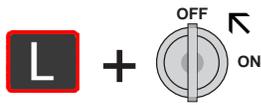
- | | | | |
|--|--|--|----------------------------|
| | | | No Size Reset |
| | | | Size Reset (after .75 sec) |

Set A Default Portion Size

You can specify any portion size (S, R, L) as your default size. The default size is only used if you've enabled Portion Size Reset. See *Set Up Portion Size Reset* in this section.

How it works

Your default size should be the portion size you use most often. Then if you enable Portion Size Reset, the ECU resets the portion size to your default size after every pour. This saves the extra step of pressing the portion size button for a default size pour. You can change your default size at any time.



■ To set a default portion size:

1. Hold down **L** and turn the key from ON to OFF.
2. Press **L** twice.

*The "L" light blinks **three** times to indicate you're in the Default Portion Size section of the Setup menu.*

*When the "L" light blinks off the **third** time, the three lights indicate the current Default Portion Size for approximately 1 second (see graphic).*

3. Press **S** to scroll through the options (see graphic).
4. When you see the correct light pattern, exit the Setup menu by turning the key to ON

OR

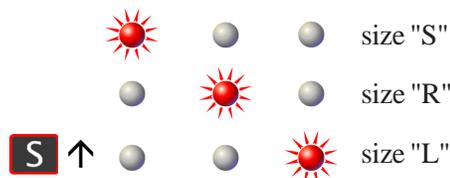
Press **L** to see the next Setup item (Restart Pour Delay).



Default Portion Size light

The **Default Portion Size** light alternates with the current **Selection** light(s).

Selections

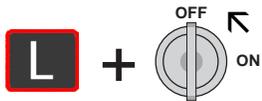


Set Up Restart Pour Delay

Restart Pour Delay is used for pouring multiple identical drinks. With this feature enabled, a coded pourer continues to pour identical drinks at a specified interval as long as the pourer is inverted.

How it works

If you enable Restart Pour Delay, you can pour a drink and then move the inverted pourer over another glass and a second pour begins after the number of seconds you specify. If you disable this feature, you must tip the bottle upright when you finish a pour and then invert it again to pour an identical drink.



To set up restart pour delay:

1. Hold down **L** and turn the key from ON to OFF.
2. Press **L** three times.

The "L" light blinks **four** times to indicate you're in the Restart Pour Delay section of the Setup menu.

When the "L" light blinks off the **fourth** time, the three lights indicate the current selection (see graphic).

Restart Pour Delay

- The delay is initially set for 1 second (whenever you toggle to Restart Delay).
- The maximum delay time is 5 seconds.

3. Press **R** to toggle between the options (see graphic).
4. To adjust the delay time, press **S** to decrease the delay by .2 seconds or press **L** to increase the delay by .2 seconds.

The duration of time you see the "S" light is the exact time of the delay.

5. When you see the correct light pattern, exit the Setup menu by turning the key to ON.



Restart Pour Delay light

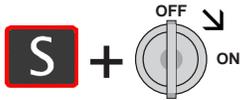
The **Restart Pour Delay** light alternates with the current **Selection** light(s).

Selections

- | | | | | | |
|---|---|---|---|---|--|
|  |  |  |  |  | No Pour Restart |
| | |  |  |  | Restart Delay
(delay = length of light flash) |

Disable a Portion Size

You can disable any portion sizes you don't need or don't want bartenders to use. To disable a portion size, simply set the portion amount to zero.



This disables "S" portion sizes.

■ To disable a portion size:

1. Hold down the portion size button to disable (**S**, **R** or **L**) and turn the key from OFF to ON.

The three lights blink, indicating a Pourer Code (see graphic). The ECU is now in calibration mode for that Pourer Code at the portion size you initially pressed.

2. Press **R** to disable the selected portion size for the selected pourer.

This sets the calibration number to zero.

3. Attempt to pour a drink (using the pourer indicated) to check the zero portion amount.

4. To advance to the next Pourer Code in the list (see graphic), tip the activator ring with NO pourer in the ring.

The three lights indicate which Pourer Code is now in calibration mode.

5. Repeat steps 2-4 for each pourer code you want disabled at the portion size selected.
6. Turn the key to OFF to exit calibration mode.
7. Repeat steps 1-6 for each portion button (**S**, **R**, **L**) you want disabled.

Note

- To enable a disabled portion size, follow the same steps above. Pressing **R** in step 2 toggles between Disable and Enable for the portion size. Enabling a portion size with this method sets the calibration value to 200.



Calibration lights

The current **Pourer Code** lights blink.

Pourer Codes

			1	
			2	
			3	
			4	
			5	
			6	
			7	

4 Files & Cloning

Using a null modem cable, you can quickly copy ECU setup values to additional ECUs (cloning). You can also set up ECUs with a setup file you edit at a computer. Refer to this section for help with the following tasks:

Copy Setup Values to Another ECU (Cloning)	4-2
Export ECU Setup Values to a File	4-4
Import ECU Setup Values from a File	4-6
Berg Terminal Software	4-8
Edit an ECU Setup File	4-10

Copy Setup Values to Another ECU (Cloning)

Use this feature after you've set up one ECU to "clone" its values to any other 703 ECU.

■ To copy ECU values to another ECU:

1. Connect a null modem cable (Berg PN 8007020) to the back of one ECU using the 9-pin POS port. Connect the other end to the back of the other ECU. Tighten all connecting screws.
2. On both ECUs, hold down **S** and **L** and turn the key from ON to OFF.



The "S" and "L" lights blink indicating "clone" mode.

3. On the receiving ECU, press **L**.

The "S", "R" and "L" lights remain steady, indicating the ECU is ready to receive the copy.

4. On the ECU sending the copy, press **S**.

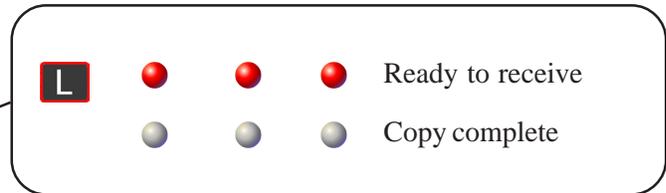
The "S", "R" and "L" lights remain steady, indicating the ECU is sending the copy. When the lights on both ECUs turn off, the copy is complete.

5. Disconnect the communication cable and adaptor from the ECUs.
6. Repeat steps 1-5 for any ECU that needs a copy of the original ECU values.

Receiving ECU



Clone Mode lights

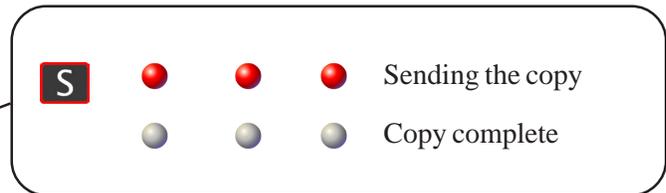


Make sure the receiving ECU is "ready to receive" before sending the copy.

Sending ECU



Clone Mode lights



Export ECU Setup Values to a File

Use this feature to copy an ECU's setup values to a computer text file. A computer file provides archive storage of setup values and/or permits further editing of setup values at the computer. See *Edit an ECU Setup File* in this section.

■ To export ECU values to a file:

1. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU. Tighten all connecting screws.
2. Run Berg Terminal software on the computer. Make sure the communication settings are correct. (See *Berg Terminal Software* in this section.)
3. At the computer, click **Receive**. Be sure the software is in "Receive Mode" before exporting from the ECU.



4. At the ECU, hold down **S** and **L** and turn the key from ON to OFF.

The "S" and "L" lights blink indicating "clone" mode.

5. Press **S**.

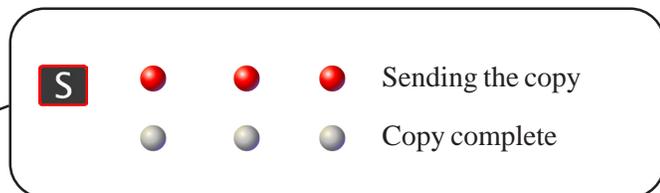
The "S", "R" and "L" lights remain steady, indicating the ECU is exporting the copy. When the lights turn off, the export is complete.

6. Click **End Receive** at the computer once you see the file.
7. Edit, save and/or print the text file received at the computer. See *Edit an ECU Setup File* in this section.
8. To send a file back to the ECU from the computer, see *Import ECU Setup Values from a File* in this section.
9. When you've finished all communications, disconnect the null modem cable from the ECU and computer.

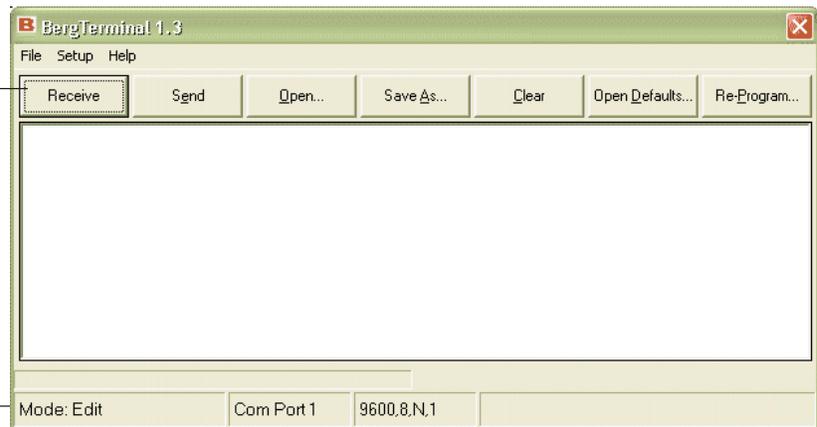
Sending ECU



Clone Mode lights



Click **Receive** to put the software in Receive Mode

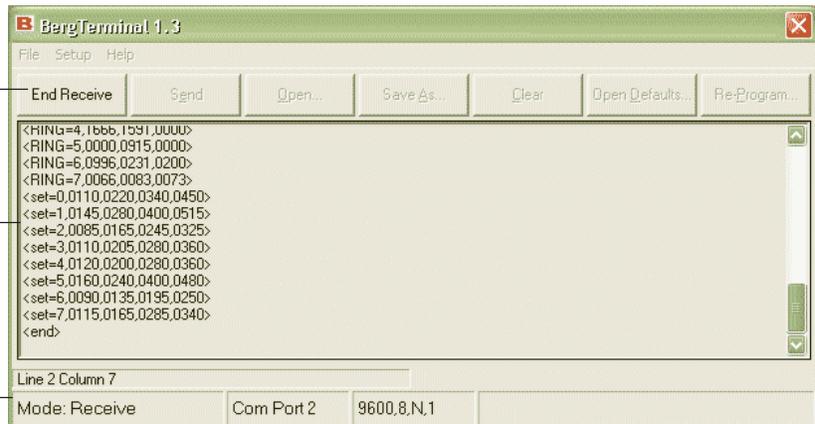


Berg Terminal starts up in Edit Mode

Click **End Receive** to return to Edit Mode

The file appears as soon as you send it from the ECU

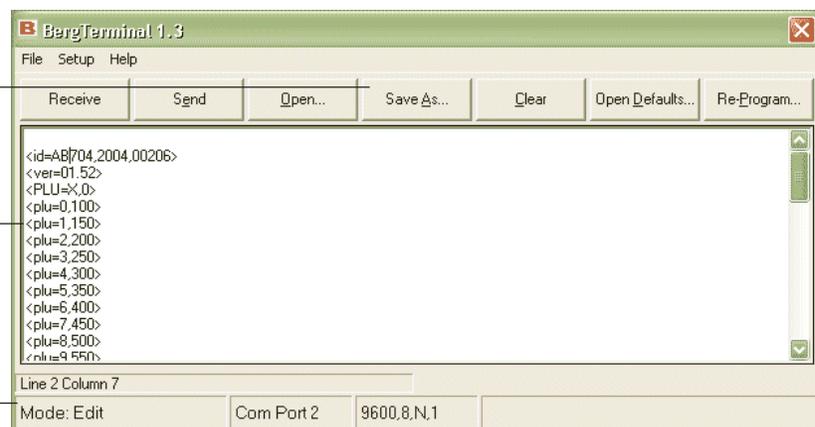
The darkened screen of Receive Mode indicates contents are uneditable



Click **Save As...** to save the file

See *Edit an ECU Setup File* for help with file changes

Make changes to the file in Edit Mode

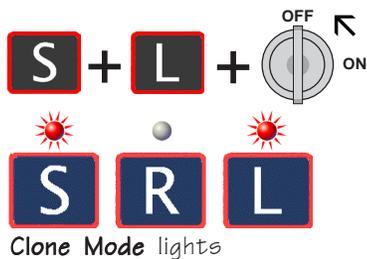


Import ECU Values from a File

Use this feature to set up an ECU by importing all setup values from a computer text file. To create or edit a setup file, see *Edit an ECU Setup File* in this section.

■ To import ECU values from a file:

1. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU. Tighten all connecting screws.
2. Run Berg Terminal software on the computer. Make sure the communication settings are correct. (See *Berg Terminal Software* in this section.)
3. Click **Open...** to find the setup file for the ECU (if it's not already on the screen).



4. At the ECU, hold down **S** and **L** and turn the key from ON to OFF.

The "S" and "L" lights blink indicating "clone" mode.

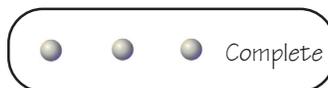
5. Press **L**.

The "S", "R" and "L" lights remain steady, indicating the ECU is ready to receive the copy. Be sure the ECU is in this mode before you send the file.



6. At the computer, click **Send**.

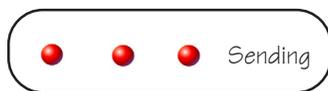
The ECU lights turn off when the import is complete.



7. At the computer, click **Yes** to verify the data sent to the ECU.

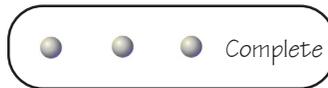
8. At the ECU, press **S**.

You're sending a copy of the file the ECU received back to the computer for verification.



9. At the computer, click **End Receive**.

Berg Terminal compares the file sent from the computer (left window) with the file received at the ECU (right window) and displays the result. Click **OK**.



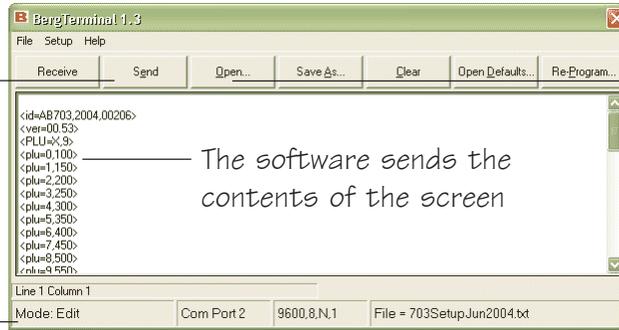
10. After reviewing the two files, click **End Verify**.

If the file was not received correctly, make any edits at the computer and repeat steps 5-10 to send and verify again.

11. When you've finished all communications, disconnect the null modem cable from the ECU and computer.

Click **Send** only when the ECU is ready

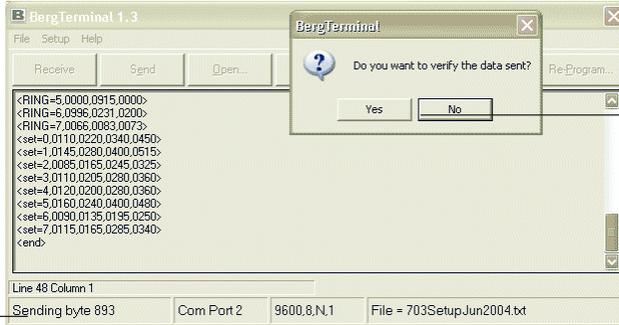
Berg Terminal starts up in Edit Mode



The software sends the contents of the screen

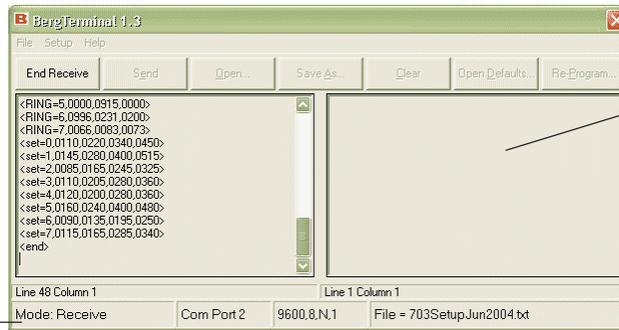
Click **Open...** to find a saved file

The darkened screen of Send Mode indicates contents are uneditable



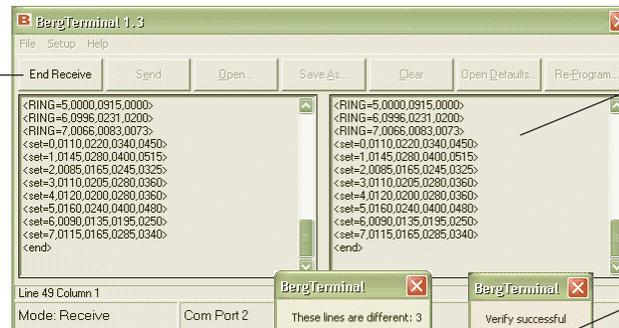
Click **Yes** to see what the ECU received

The software waits in Receive Mode for you to send a file from the ECU



Clicking **Yes** splits the screen (so you can compare what was sent and received)

Click **End Receive** after the file from the ECU appears



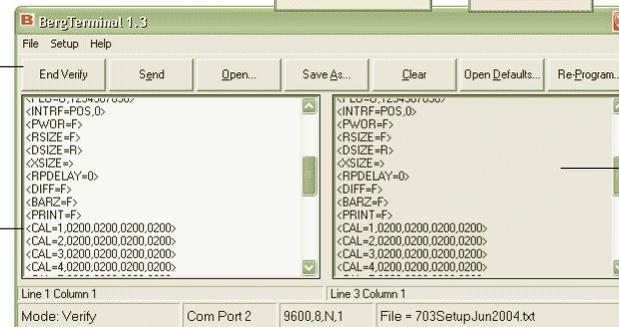
The file you send from the ECU appears on the right

Click **End Verify** after comparing the 2 files



The software compares the 2 files when you click **End Receive**

You can edit this file in Verify mode



If the 2 files are identical, you know the ECU received the values you sent

Berg Terminal Software

These steps illustrate installation and use of Berg's terminal emulation program, *Berg Terminal*.

Communication Settings

- Berg Terminal cannot send/receive data from the ECU if the communication settings are incorrect.
- Enter the correct settings every time you run Berg Terminal. They are not saved when you close the program.
- To check for a valid Com Port, click **Loopback Test...** and attach a loopback tester to the port in question.

■ To use the software:

1. Install the software from the CD following the prompts.
2. Run Berg Terminal (**Start | Programs | Berg Terminal**).
3. Click **Setup | Communications...**

Enter the computer **Com Port** number used for a cable connection to the ECU. Select **703** as the **Setup Mode**. Click **Save**.
4. To receive a setup file from the ECU, see *Export ECU Setup Values to a File* in this section.
5. To open a setup file already saved on the computer, click **Open...** and select the file.
6. To see a default setup file, click **Open Defaults...** Select **703** as the ECU type and click **Continue**.

Use this feature to create a new setup file, or to revert to defaults when you're editing a file. If you have a file on the screen, the default replaces it. If you don't want the screen contents deleted, save to a file before opening defaults.
7. To edit a setup file you've opened or received from the ECU, see *Edit an ECU Setup File* in this section.
8. To save a copy of a file to the computer, click **Save As...** and enter a file name.
9. To send a setup file to the ECU, see *Import ECU Setup Values from a File* in this section.
10. To send a firmware upgrade file to the ECU, see *Upgrade ECU Firmware* in the *ECU Firmware* section.

Follow the prompts to quickly install Berg Terminal



Enter communication settings

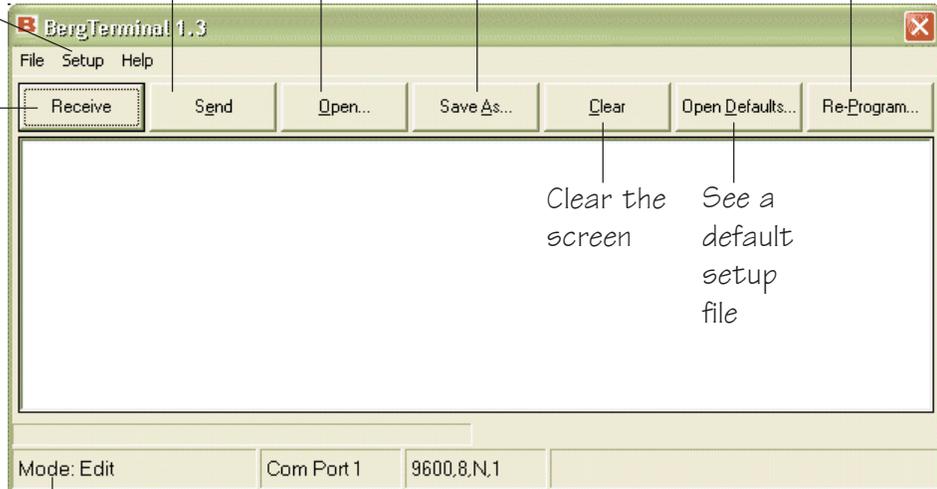
Send a file to the ECU

Open a file you've saved

Save screen contents to a file

Upgrade ECU firmware

Receive a file from the ECU



Clear the screen

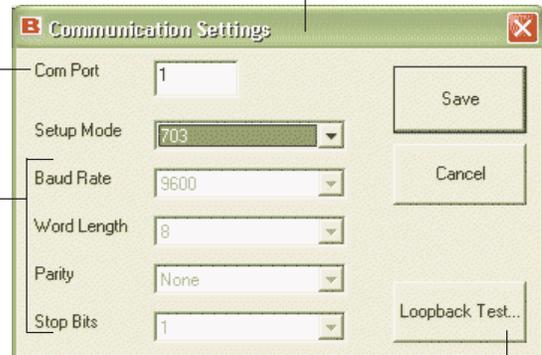
See a default setup file

Note which mode you're in

Enter correct Communication Settings each time you run Berg Terminal

The port where you've attached the ECU cable

These entries are automatically set when you select 703 Setup Mode



To check a com port (its number or validity) click here and attach a loopback tester to the port

Edit an ECU Setup File

To create a setup file, use any text editor to carefully enter the setup values in the proper format. Or export a setup file from an ECU and edit the values.

File Parameters

- Editable text is *italicized* in the Sample ECU Setup File.
- **Bold** text in the sample file is required to start and end the file.
- You can create a file with only the setup items you want changed.
- Example files:

```
<id=AB703>  
<pwor=T>  
<end>
```

This file changes only Pour Without Release.

```
<id=AB703>  
<plu=X,U>  
<plu=U, 2000>  
<end>
```

This file changes the selected PLU Base to PLU-U and sets the PLU base number to 2000.

Calibration Tables

• OZ	Standard	High
.25	055	045
.50	110	085
.75	160	125
1.00	220	165
1.25	280	205
1.50	340	245
1.75	400	280
2.00	460	320

• ML	Standard	High
15	120	090
20	160	115
25	200	135
30	240	165
35	280	195
40	320	225
45	360	255
50	400	285

• Pour Times

These numbers are pour times with seconds as the hundreds digit. For example, a calibration number of 360 means a 3.60 second pour.

■ To edit an ECU setup file:

1. Create or access the text file. Click **Open Defaults...** (in Berg Terminal) for a default AB703 setup file.
2. Edit the PLU Base by entering 0-6 or U for *n* in the **<PLU=X,*n*>** line. See the list of fixed PLU Bases in the *Sample ECU Setup File*.
3. If you selected "U" as a PLU Base (i.e., **<PLU=X,U>**), enter a PLU base number for *n* in the **<PLU=U,*n*>** line.

The base number generates a PLU for every pourer/size:

S portion=base + 00 + (1--7) pourer code

R portion=base + 10 + (1--7) pourer code

L portion=base + 20 + (1--7) pourer code

4. Edit the POS protocol by entering 0-4 for *n* in the **<POS=*n*>** line. See the list of protocols in *Connect the ECU to a POS System* in the *Installation* section.
5. Edit Pour Without Release by entering T or F for *n* in the **<PWOR=*n*>** line. See *Set Up Pour Without Release* in the *ECU Setup* section.
6. Edit Portion Size Reset by entering T or F for *n* in the **<RSIZE=*n*>** line. See *Set Up Portion Size Reset* in the *ECU Setup* section.
7. Edit Default Size by entering S, R or L for *n* in the **<DSIZE=*n*>** line. See *Set a Default Portion Size* in the *ECU Setup* section.
8. Edit Reset Pour Delay by entering 0-500 for *n* in the **<RPDELAY=*n*>** line. See *Set Up Restart Pour Delay* in the *ECU Setup* section.
9. Edit Portion Calibration by entering new numbers for any pourer code/portion size in the **<CAL=1-7,*n*,*n*,*n*>** line. See the *Calibration Tables* sidebar.
10. Edit Activator Ring Alignment by entering new numbers for any pourer code/portion size in the **<RING=1,*n*,*n*,*n*>** line.
11. Make sure the file starts with the required first line and ends with the required last line. Other lines can be in any order.
12. Save the file with a unique name. You can create multiple files with unique names each changing specific setup items.

Sample ECU Setup File

```

<id=AB703,2004,00283>
<ver=00.53>
<PLU=X,6>
<plu=0,100>
<plu=1,150>
<plu=2,200>
<plu=3,250>
<plu=4,300>
<plu=5,350>
<plu=6,400>
<PLU=U,1234567>
<POS=0>
<PWOR=T>
<RSIZE=T>
<DSIZE=R>
<RPDELAY=100>
<CAL=1,0085,0165,0245>
<CAL=2,0085,0165,0245>
<CAL=3,0085,0165,0245>
<CAL=4,0085,0165,0245>
<CAL=5,0085,0165,0245>
<CAL=6,0085,0165,0245>
<CAL=7,0085,0165,0245>
<RING=0,2424,2995,2654>
<RING=1,0000,1710,1857>
<RING=2,1165,0000,1269>
<RING=3,0000,0000,1251>
<RING=4,1743,1538,0000>
<RING=5,0000,1006,0000>
<RING=6,1050,0000,0000>
<RING=7,0000,0000,0000>
<set=0,0110,0220,0340>
<set=1,0145,0280,0400>
<set=2,0085,0165,0245>
<set=3,0110,0205,0280>
<set=4,0120,0200,0280>
<set=5,0160,0240,0400>
<set=6,0090,0135,0195>
<set=7,0115,0165,0285>
<end>

```

List of
PLU
Bases

Portion
Calibration
Numbers
for S, R, L

Pourer/
Portion
Sets
(showing
cal
numbers
for S, R, L)

ECU type, model year, serial number

ECU firmware version

PLU Base (0-7, U)

- Note that editable setup entries are listed in CAPITAL letters.
- If you change other entries, the changes are ignored by the ECU.
- You cannot damage an ECU by sending a file with improper data.

User-defined PLU base (set <plu=x,U>)

POS protocol (0-4)

Pour Without Release (T or F)

Portion Size Reset (T or F)

Default Portion Size (S, R or L)

Restart Pour Delay (0-500) 100=1 sec

See Calibration Tables sidebar.

Activator Ring
Alignment Numbers
(coil 0, coil 1, coil 2)
for each pourer

The currently selected Pourer/Portion Set is reflected in the Portion Calibration Numbers above. (The ECU in this file uses set 2.) See Select Portion Sizes in the Calibration and Pouring section for a description of each set.

SECTION

5

Calibration & Pouring

Once your **All-Bottle 703** system is installed, you're ready to begin pouring. This section provides help with the following tasks:

Select Portion Sizes	5-2
Calibrate Portion Sizes	5-4
Pour a Drink	5-6

Select Portion Sizes

Perform this task to specify a pourer type and to define your portion sizes for "S", "R" and "L".



■ To select portion sizes:

1. Hold down **R** and **L** and turn the key from ON to OFF.

The "R" and "L" lights blink once to indicate you're in the Portion Size menu.

When the "R" and "L" lights blink off, the three lights indicate the current Pourer/Portion selection for approximately 1 second (see graphic).

The "R" and "L" lights quickly blink again and the current selection relights for 1 second. This sequence of alternation continues until you exit.

2. Select your Pourer Type/Portion Size by scrolling through the list.

Press **L** to see the next selection in the list or press **S** to see the previous selection in the list (see graphic).

3. When you see the correct light pattern, press **R** to overwrite the current portion sizes.

All lights go off as the ECU exits the Portion Size menu. The ECU is now OFF.

Custom Portion Sizes

- To set up portion sizes other than those listed in any portion size set, see *Edit an ECU Setup File* in the *Files & Cloning* section.



Select Portion Size lights

The Select Portion Size lights alternate with the current Pourer Type/Portion Size light(s).

Pourer Type/Portion Size Sets

<div style="border: 1px solid black; padding: 2px; display: inline-block;">L</div> ↓	●	●	●	1 English, Standard-flow, Base set
	☀	●	●	2 English, Standard-flow, Alternate set
	●	☀	●	3 English, High-flow, Base set
	☀	☀	●	4 English, High-flow, Alternate set
	●	●	☀	5 Metric, Standard-flow, Base set
	☀	●	☀	6 Metric, Standard-flow, Alternate set
	●	☀	☀	7 Metric, High-flow, Base set
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">S</div> ↑	☀	☀	☀

0 English/Standard/Base		
Size	Oz	Calibration #
S	.5 oz	110
R	1.0 oz	220
L	1.5 oz	340

1 English/Standard/Alt		
Size	Oz	Calibration #
S	.65 oz	145
R	1.25 oz	280
L	1.75 oz	400

2 English/High/Base		
Size	Oz	Calibration #
S	.5 oz	085
R	1.0 oz	165
L	1.5 oz	245

3 English/High/Alt		
Size	Oz	Calibration #
S	.65 oz	110
R	1.25 oz	205
L	1.75 oz	280

4 Metric/Standard/Base		
Size	ml	Calibration #
S	15 ml	120
R	25 ml	200
L	35 ml	280

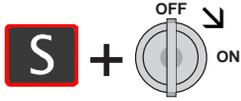
5 Metric/Standard/Alt		
Size	Oz	Calibration #
S	20 ml	160
R	30 ml	240
L	50 ml	400

6 Metric/High/Base		
Size	Oz	Calibration #
S	15 ml	090
R	25 ml	135
L	35 ml	195

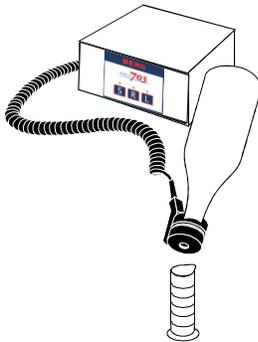
7 Metric/High/Alt		
Size	Oz	Calibration #
S	20 ml	115
R	30 ml	165
L	50 ml	285

Calibrate Portion Sizes

Perform calibration to make sure each portion size pours accurately. You should calibrate each portion size for all seven pourer codes.



This calibrates "S" portion sizes.



■ To calibrate portion sizes:

1. Hold down a portion size button to calibrate (**S**, **R** or **L**) and turn the key from OFF to ON.

The three lights blink, indicating a Pourer Code (see graphic). The ECU is now in calibration mode for that Pourer Code at the portion size you initially pressed.

2. Pour a drink (using the pourer indicated) into a graduated cylinder. Carefully measure the volume of drink poured.
3. Press **L** to increase the volume of the pour or press **S** to decrease the volume.

You can push "S" or "L" multiple times. Each push changes the pour amount by about .022 oz (.625 ml).

4. Pour another drink (using the same pourer) to check the new portion amount.
5. Repeat steps 3 and 4 as many times as needed to achieve an accurate portion size for the selected pourer.
6. To advance to the next Pourer Code in the list (see graphic), tip the activator ring with NO pourer in the ring.

The three lights indicate which Pourer Code is now in calibration mode.

7. Repeat steps 2-6 to calibrate each pourer code at the portion size selected.
8. Turn the key to OFF to exit calibration mode.
9. Repeat steps 1-8 for each portion button (**S**, **R**, **L**).

Notes

- All other pourers are temporarily disabled once you are in calibration mode for a selected pourer.
- To disable a pourer code/portion size combination, press **R** to set the calibration number to zero. To re-enable a disabled portion size, press **R** to set the calibration number to 200. (**R** toggles between Disable and Enable.)



Calibration lights

The current **Pourer Code** lights blink.

			Pourer Codes	
			1	
			2	
			3	
			4	
			5	
			6	
			7	

Pouring Operations

The key switch must be in the ON position to pour a drink.

■ To pour a drink:

1. Select a portion size by pressing **S** or **R** or **L**.

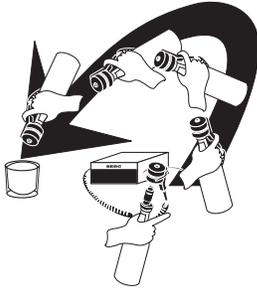
A light indicates the currently selected size.

2. Insert a bottle with a coded pourer into the activator ring. Using the finger grip on the activator ring, quickly invert the bottle to a near vertical position over a glass to start the pour.

If the pour doesn't begin, quickly tip the bottle upright and then back to a vertical position over the glass. If the pour splashes sideways, you may not have tipped to a vertical position quickly enough.

3. When the pour ends, tip the bottle upright.

If you've enabled Portion Size Reset, the portion size reverts to your default size after every pour.

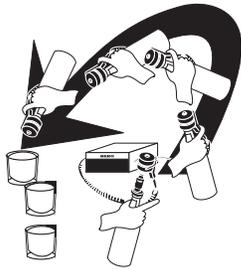


■ To pour two or more identical drinks:

1. When the first pour ends, quickly position the bottle over a new glass (still holding the bottle in a vertical pouring position).

If you've enabled Restart Pour Delay, a new pour commences (at your specified time interval) as long as you keep the bottle inverted. To start a new pour in less than 2 seconds, give the inverted bottle a quick shake.

If you haven't enabled Restart Pour Delay, you must give the inverted bottle a quick shake to begin a repeat pour.

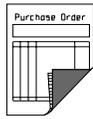


6 Financial Controls

The suggestions in this section can help you manage your bar using the **All-Bottle 703** system.

Purchasing and Receiving	6-2
Storeroom Instructions (Form)	6-3
Bottle Storage	6-4
Inventory Card (Form)	6-5
Stocking the Bar	6-6
Bar Requisition (Form)	6-7
Physical Inventory	6-8
Beverage Inventory (Form)	6-9
Monthly Profitability	6-10

Purchasing and Receiving

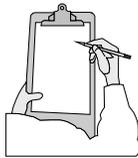


1. Prepare a written purchase order even when the order has been placed by phone. It is a safeguard against unauthorized substitutions in brands or bottle sizes.
2. When liquor deliveries are made, have one individual check the shipment into stock.
3. The person ordering should not have the responsibility for receiving.
4. Prepare a written receiving record from the actual merchandise rather than using the delivery slip from the supplier.
5. Have an additional staff member record the shipment.
6. As soon as the shipment is checked in and recorded, place the merchandise in a **LOCKED** liquor storeroom **IMMEDIATELY**.



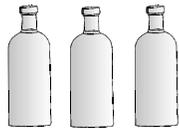
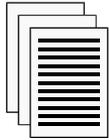
A large part of loss in liquor is due to theft of unattended goods at the time of receiving. Don't let a shipment sit around waiting to be checked in.

Bottle Storage



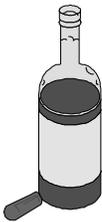
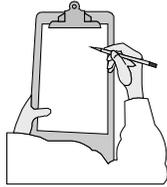
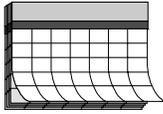
1. Keep your liquor storeroom locked at all times.
2. Keep keys **ONLY** in the hands of the responsible person and the manager/owner.
3. Keep only liquor, wine and beer in the storage area. Storing grocery items, syrup tanks or inventory leaves too many people accessible to the storage area.
4. Have adequate shelving in the storeroom for the placement of all bottle stock by type of liquor, e.g., all gins together, all vodkas together, all scotches together, etc.
5. Place bottles on shelves in the same order as they are placed on the back bar and speed rail--it speeds up taking physical inventory.
6. Keep a perpetual inventory system. Use an appropriate software package or a 5" x 8" index card for each size of each brand in the storeroom with receipts posted on one side of the card. Make a second column in the middle of the card showing issues to the bar and make a third column showing the balance. Posting of this perpetual inventory card should be done on a daily basis and can be done by a bookkeeper, manager or other responsible individual. Each inventory card should reflect the number of bottles on hand in the storeroom of any brand, at any time. See the next page for sample inventory cards.
7. Management should periodically and at irregular intervals check the bottles on hand against the card balance for specific brands. Such a spot check of three or four brands can be very revealing.

Stocking the Bar



1. Except under unusual circumstances, re-stock the bar only once every 24 hours.
2. Keep a par stock available which provides enough bottles of each brand to last through a busy 24 hour cycle plus a modest reserve for each brand. A reserve may contain a bottle of each brand.
3. Many successful and profitable operators provide for the closing bartender to fill out a 3-part requisition form for the liquor, beer, wine and other items needed to re-stock the bar for the coming day.
4. Have your closing bartender's 3-part requisition accompany the empty bottles from the day. By exchanging the empty bottles for full bottles, the par stock is easily maintained with minimum paperwork. The requisition will be filled the following morning.
5. Have the closing bartender keep a copy of the requisition, the storeroom keep a copy and a return a copy with the restocking order. Have the opening bartender sign this last copy as a receipt.
6. Give the signed third copy of the requisition to the bookkeeper to be used for reducing the quantities on hand as shown on the inventory cards.

Physical Inventory and Inventory Extension



1. Two people are required to quickly and accurately take a physical inventory.
2. A physical inventory should be taken on the last day of every month after the close of business. This inventory can be taken more often if the need arises, but a monthly inventory should be considered as the minimal frequency for a well-run bar.
3. Have one person call the brand, size and number of bottles both in stock and in use. The second person should write the figures on an inventory sheet. These same two people should perform their respective tasks at every inventory. Inventory should start in the storeroom and after all stock is recorded, the team should move to each successive station until the whole bar operation has been covered.
4. The inventory taken from each station can be recorded on the same inventory sheet used in the storeroom or on a separate sheet. If two sheets are used, two separate teams can work the inventory--one in the storeroom and one on the stations (reducing the time it takes to do the inventory)
5. Partial bottles should be visually inspected and recorded as a decimal fraction. For example, if a bottle is slightly more than half full, record as ".6".
6. When the physical inventory is completed, enter the bottle cost next to each item. Multiply the number of bottles of each brand and size (including fractional bottles) by the bottle cost. Add all these multiplied figures to arrive at a grand total. The grand total is the total dollar amount in inventory.

Monthly Profitability



1. The total cost of inventory consumed for a period is equal to the dollar total of inventory at the beginning of the month (or period) plus the dollar value of inventory added (taken from the daily requisition) minus the dollar value of the ending inventory. All dollar values are cost values.
2. The corresponding period cash register receipts will provide the actual sales achieved for that inventory used.
3. Divide the total inventory cost by the actual sales. This figure is your cost of goods and is expressed as a percentage of sales.
4. If these records are properly kept, there should be minimum fluctuation of the percentage from month-to-month, especially with the installation of the **All-Bottle 703** system.

SECTION

7 Maintenance

Proper cleaning and maintenance of the **All-Bottle 703** system is essential. Refer to information in this section for the following tasks:

Clean the All-Bottle 703 ECU	7-2
Clean the All-Bottle Coded Pourers	7-3
Align the Activator Ring	7-4

Clean the ECU

Clean the ECU and activator ring about once a week. The ECU is designed to protect the electronics inside from moisture, but bartenders should still be cautioned to avoid splashing water or drinks on the ECU.

■ To clean the ECU:

1. Wipe the front of the ECU with a damp (not dripping) cloth or sponge.
2. Wipe the activator ring and activator ring holder with a damp (not dripping) cloth or sponge.

Note

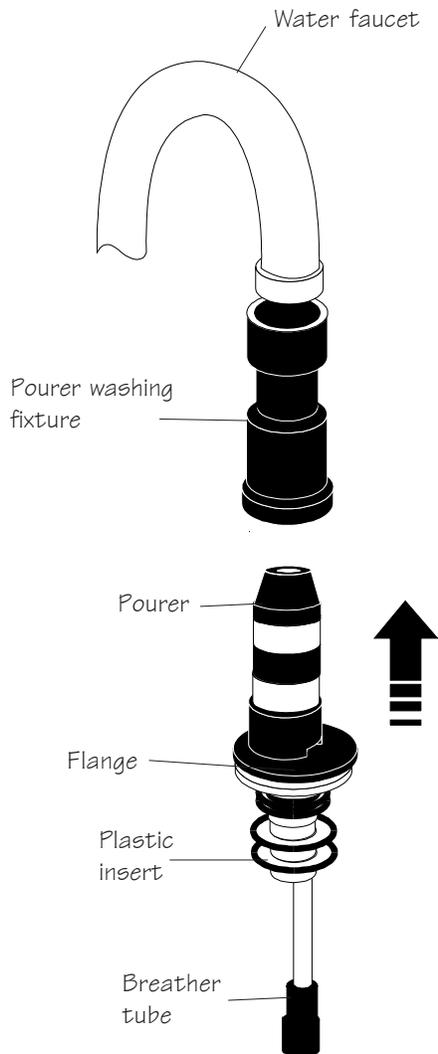
- Do not attempt any more thorough cleaning of an ECU, and absolutely do not attempt to clean any internal circuit boards or surfaces.



All-Bottle 703 ECU

Clean the Coded Pourers

The All-Bottle coded pourers are carefully designed for liquor dispensing applications. They impart no taste or odor to liquor and should only be cleaned with clear water. Each pourer should be cleaned every time it is removed from a bottle. Berg provides a pourer washing fixture for this purpose.



■ To clean an All-Bottle coded pourer:

1. Attach the smaller end of the pourer washing fixture (Berg PN 9007191) to your faucet. Turn on a gentle flow of warm water.
2. Insert a coded pourer into the pourer washing fixture with the tip of the pourer pointed slightly away from you.
3. Snap the flange of the coded pourer into the washing fixture and hold it there for a few seconds.

Two streams of water (one from the end of the breather tube and the other from inside the plastic insert) flow from the coded pourer when all passages are clear. Especially gummy pourers may need to be held in the washing fixture a little longer until both streams of water are running freely.

Notes

- Never clean your pourers in a dishwasher.
- Never use soap to clean a pourer. Unless removed completely, soap can get into your liquor. It can also react chemically with the specially formulated plastics and make them brittle, shortening the useful life of your pourers.
- If a pourer is removed from a bottle and allowed to dry without being cleaned, soak it for several minutes in clear, warm water to loosen the dried liquor before inserting the pourer in the washing fixture. Repeat the soaking and rinsing if necessary.
- Check the plastic insert of a pourer when cleaning. Liquor drying on the plastic may remove some of the plastic's elasticity. If the plastic insert remains stiff after cleaning, replace it.

Align the Activator Ring

All-Bottle activator rings "read" the subtle electronic signals on each coded pourer to assign the correct price and portion information to a pour. Aligning the activator ring is an important procedure that ensures the ring can recognize each pourer's code. You should perform the alignment if directed to do so by Berg personnel. Use a complete set of coded pourers when you perform the activator ring alignment.



■ To align the activator ring:

1. Place a set of pourers in sequence within convenient reach.
2. Hold down **S** and **R** and turn the key from ON to OFF.

The "S" and "R" lights blink once to indicate you're in the Align Activator Ring menu.

When the "S" and "R" lights blink off, the three lights indicate the Pourer Code for approximately 1 second (see graphic).

The "S" and "R" lights quickly blink again and the Pourer Code relights for 1 second. This sequence of alternation continues until you exit.

3. With the lights displaying "Code 0", turn the empty activator ring over (as if to pour a drink) and hold in this position.

This transmits the "no-bottle" state of the ring to the ECU. When the ECU is finished, the lights indicate the next Pourer Code and resume blinking.

4. When the lights blink, return the activator ring to the upright position and insert the next pourer code as indicated by the lights.
5. Tip the activator ring and the pourer upside down and hold in this position.

The current Pourer Code lights remain steady (no blinking) while the ECU reads the pourer code. When the ECU is finished, the lights indicate the next Pourer Code and resume blinking.

6. Repeat steps 4 and 5 for each of the other coded pourers.
7. When you've completed the alignment using all coded pourers, exit the Align Activator Ring menu by turning the key to ON.

Pourer Codes

- If you use a wrong pourer for any part of the alignment, press **S** or **L** to scroll to the correct pourer code and perform the alignment again using the correct pourer.



Align Activator Ring lights

The **Align Activator Ring** lights alternate with the current **Pourer Code** light(s).

Pourer Codes

L ↓	●	●	●	0	None
	☀	●	●	1	
	●	☀	●	2	
	☀	☀	●	3	
	●	●	☀	4	
	☀	●	☀	5	
	●	☀	☀	6	
S ↑	☀	☀	☀	7	

SECTION

8 ECU Firmware

Work with Berg personnel to receive new firmware versions for the ECU. Refer to this section for help with the following tasks:

Upgrade ECU Firmware	8-2
View the ECU Serial Number and Firmware Version	8-4

Upgrade ECU Firmware

Perform this task when you receive an ECU upgrade file from Berg.

■ To upgrade ECU firmware:

1. Remove power to the ECU. Press and hold the "L" button while re-applying power.

The "L" light blinks (very briefly) to indicate you're in Firmware Update mode.

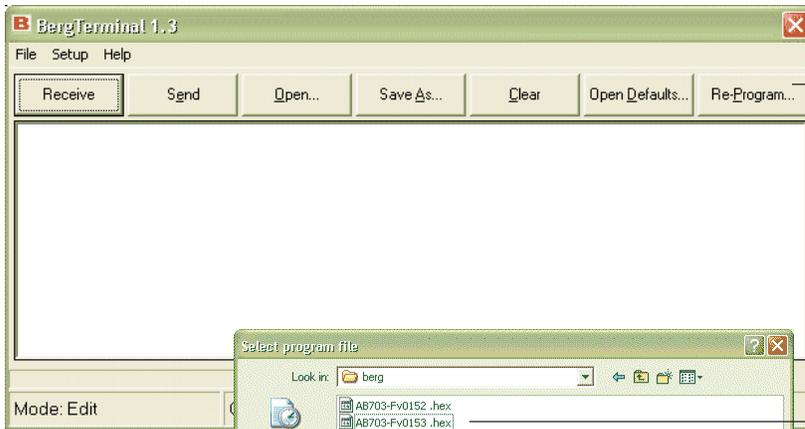
2. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU. Tighten all connecting screws.
3. Make sure the upgrade file is accessible at the computer (in a CD drive, copied to a folder, etc.).
4. Run Berg Terminal software. Make sure the communication settings are correct. (See *Berg Terminal Software* in the *Files & Cloning* section.)
5. Click **Re-Program...**
6. Select the *AB703-Fvxxx.hex* upgrade file from the appropriate folder.
7. Click **Open** to send the file to the ECU.

When the file transfer is complete, the ECU powers up.

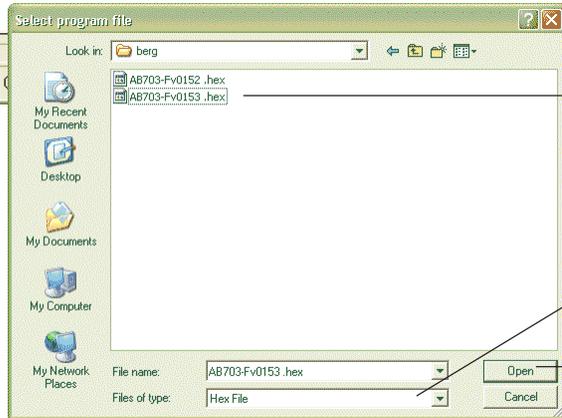
8. When you've finished all communications, disconnect the null modem cable from the ECU and computer.



Firmware Update light



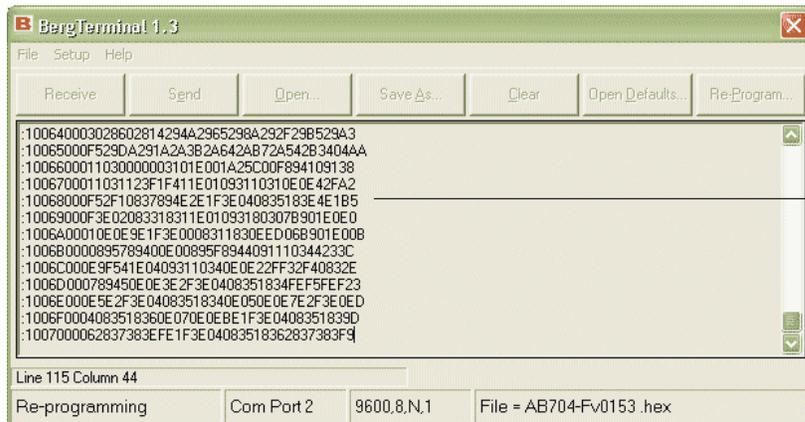
Click here to select the upgrade file



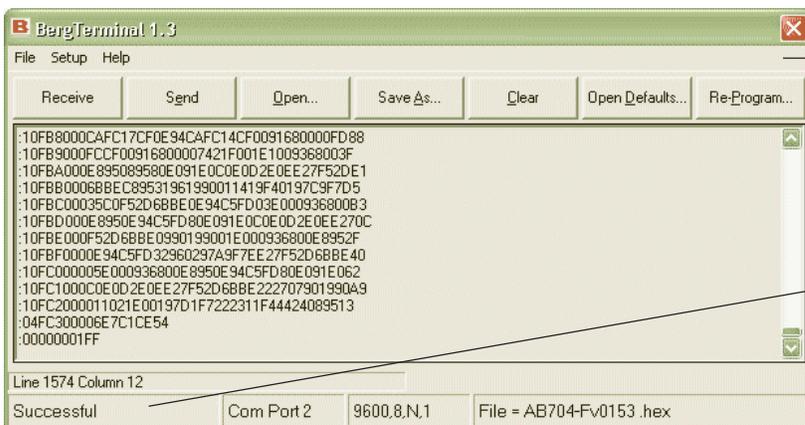
Find the upgrade file from Berg

Upgrade files end with .hex

As soon as you click **Open**, the file is sent to the ECU



Lines in the file scroll as the transfer to the ECU takes place



Click any button when the transfer is complete to perform another operation

When the transfer is complete, you'll see this message

View the ECU Firmware Version

If you have an ECU setup file, you can quickly determine the firmware version number.

■ **To view the serial number and firmware version:**

1. Access the ECU's setup file.
2. Find the `<ver=00.nn>` line.

The firmware version is the number after "=".



SECTION

9

**All-Bottle 703
Specifications**

All-Bottle 703 Specifications

Basic System

Electronic Control Unit size :	3.25 in (82 mm) H 8.25 in (210 mm) W 4.5 in (114 mm) D 3.2 lbs (1.5 kg)
ECU Mounting Plate size :	9.5 in (242 mm) W 5.5 in (142 mm) D
Dispenser type:	Patented bottle pourers and activator ring
Number of brands:	Unlimited
Number of price codes:	Seven
Portion size:	1/8 to 10 ounces (3.7 to 295.7 ml)
Number of portion sizes:	Three per price code
Calibration:	By portion
Other Features:	Restart Pour Delay, Portion Size Reset
Security:	Keylock
Interface Capability:	POS

Power Supply Requirements

Input voltage, connector and frequency:	As required by your locality
DC output:	12VDC @ 1.25A
Output power:	15VAMAX
Mating connector:	2.1 mm female, center positive

Any power supply you purchase for use with Berg's All-Bottle 703 ECU must at a minimum be a Class II supply meeting these specifications and must carry one or more of the following certifications, as required by your locality.

Certifications: UL 1950, TUV EN60950, CSA 22.2 950, IEC 950.

Technical

Electrical Requirements:	12VDC @ 1.25A
Emissions:	FCC Class A, EN55022:1994 Class B
Susceptibility:	EN50082-1:1992
Safety:	CENELEC EN61010.1 (IEC 1010-1:1990=A1:1992, Modified) First Edition UL 3101-1, CSA C22.2 No. 1010.1-92



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