# USER OPERATION MANUAL


QUICKSLIDE™ HEMAPRO | HARDY DIAGNOSTICS
A Culture of Service™

D6131EN

# Table of Contents

# Congratulations!

You have made an excellent choice for your Lab. Hardy Diagnostics thanks you for the trust you have placed in our products and services.

This operating manual has been designed to help you gain an understanding of the operation and application of our HemaPRO. For optimal utilization of all functions, we recommend that you thoroughly study this manual prior to beginning operation.

This manual has been prepared as an aid for all operations and maintenance, which can be carried out in your facility.

**The QuickSlide™ Quality Management System**

This product is supplied by Hardy Diagnostics in accordance with its quality management system, which complies with the U.S. Food and Drug Administration's (FDA's) Quality Systems Regulation (QSR) and current Good Manufacturing Practices (cGMP) contained in Title 21 Part 820 of the Code of Federal Regulations (CFR).The company's manufacturing establishments are registered, and its medical devices are listed with the FDA.

**Unpacking and Inspecting**

Carefully unpack the HemaPRO and accessories. Check for damage incurred during transit. Keep all packing material until you are sure the unit operates properly. Any damage to the shipping box should be reported to the responsible carrier. These instructions must be followed for us to guarantee our full support of your claim.

**Important:** Keep this operating manual for future use.


800-266-2222
www.HardyDiagnostics.com
www.QuickSlide.com
Sales@HardyDiagnostics.com

## SPECIFICATIONS

**Dimensions/Weight**
Width 30.48 cm (12 in.)
Height 26.67 cm (10.5 in.)
Depth 27.94 cm (11 in.)
Weight 4.5 kg (10.00 lbs.)

**Power Requirements**
Input 100-240V, 50-60 Hz, 0.8 A
Standard power cords are supplied to meet local standards.

**Temperature, Ambient Operation**
16-32 Degrees C (60-90 Degrees F)

**Humidity**
0 to 95%, without condensation

**Operator Adjustments**
Individual adjustable stain times on both blood and marrow stain cycles
Adjustable sound volume control

**Standards**
IEC-61010-1:2010 (Third Edition)
EN55022; CISPR 22 Ed. 6.0:2008 Class A
CFR 47, Part 15, Subpart B, Class A, 2011
ICES-003 Issue 4, 2004 CAN/CSA-CIE/IEC CISPR 22;02 Class A
EN61326-1: 2010

**Warranty**
One Year Standard (see page 21).

## 1.0 INTRODUCTION

This Operation Manual is provided to guide the user in all aspects of unit set-up, operational use, and user-level maintenance of the QuickSlide™ HemaPRO Automated Hematology stainer unit.

The HemaPRO microscope slide stainer is capable of automatically performing a hematology stain (Wright Giemsa) sequence on a slide containing a biological specimen for *in vitro* diagnostic use. This instrument accepts standard thickness 1”x3”x1mm glass slides that are frosted and pre-cleaned.

Two settings are programmed – a setting for blood smears and a setting for bone marrow smears – with specific stain durations that are customizable for each. A cuvette holds one slide at a time. The chamber is sequentially filled with stain, buffer, and rinse by use of peristaltic pumps under the front cover. After staining and rinsing have been completed, the slide quality is best when promptly removed from the cuvette and dried.

### Operator Responsibility – Safety Instructions

The HemaPRO ensures safe operation when installed, operated, and maintained according to common safety regulations. This section explains the potential dangers that may arise when operating the HemaPRO.

It is the operator’s responsibility to be properly qualified to operate the HemaPRO. The operator and laboratory personnel are advised to refer to this Operating Manual and the set-up letter that is packaged with the unit.

In addition, the operator must be familiar with good laboratory practices and safety precautions when processing specimens with potential blood borne pathogens.

#### Explanation of Symbols

| - Power On

O - Power Off

Caution – Refer to marked paragraphs in this manual for details.

## 2.0 WORK AREA REQUIREMENTS

**IMPORTANT!**

The HemaPRO unit requires a level counter top surface of 12 inches wide by 11 inches deep with a vertical height of 10.5 inches. The Reagent Supply Kit should be positioned at the same level as the instrument on the counter immediately beside or behind the instrument and is connected with tubing. **Do not place reagents above or below the instrument.**

The HemaPRO has one tube that drains all of the waste fluids. The HemaPRO drain tube should be placed into a waste container or in a drain according to your local city and county regulations.

The HemaPRO uses an external power supply module that is be supplied with 50-60 Hz, 100-240V, 0.8 A. This unit requires power from a grounded outlet.

The HemaPRO is assembled with tubing sets to connect the instrument to the reagents. Place the correct cannulas (opaque rigid tubes) into the corresponding reagent supply containers. Labels attached to the cannula lines indicate which reagent is to be used with each line.

In addition, the reagent module cord supplied with the reagent kit must to be plugged into the right side of the machine in order to use a new reagent kit.

## 3.0 RECEIVING AND UNPACKING

Unpacking and set-up assistance for the HemaPRO may be obtained by calling the Technical Service Department of QuickSlide™ at (800) 266-2222 (option 2) during the hours of 8 a.m.to 5 p.m. Pacific Standard Time, Monday through Friday.

The HemaPRO should only be used with the provided external power supply. The external power supply is a Class I supply that must be connected to an earthed (grounded) main power outlet. Failure to connect the HemaPRO as specified will prevent the electrical safety protection features to function as designed.

## 4.0 MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies are required, but not provided. If additional supplies are needed, reagents and tubing kits can be ordered through Hardy Diagnostics Customer Service. Call (800) 266-2222 (option 1), or go to www.HardyDiagnostics.com. Alternatively, you can contact your preferred distributor.

- Wright-Giemsa Stain Kit (HP1SK)
- HemaPRO Replacement Tubing Kit (HP1RT)
- ProSlide™ Frosted Microscope Slides (PF72P)
- Cuvette Cleaning Swabs (QS1001)
- Bibulous Paper (28511007)
- Methanol 32oz. (VMT032)
- Coplin Jars (VCJ001)
- Microscope Lens Cleaner (Z97)
- Lens Paper (52846001)
- Immersion Oil (Z95)
- Microscope (MRP5000)

## 4.1 General Information

The HemaPRO offers consistent results by systematically staining, buffering, and rinsing the provided biological specimen. It is critical for the success of this automated process that these unique reagents are obtained from QuickSlide™.

**NOTE:** For quality control purposes, Reagent Supply Kits are labeled with a Kit Number, Lot Number, and Expiration Date. These values are used to track and identify the Reagent Supply Kit used in the unit. The machine tracks the number of stain cycles that a reagent kit performs through the reagent kit module that is included with each reagent kit. **Be sure to plug the module into the right side of the machine with each new reagent kit.**

## 4.2 Ordering Information

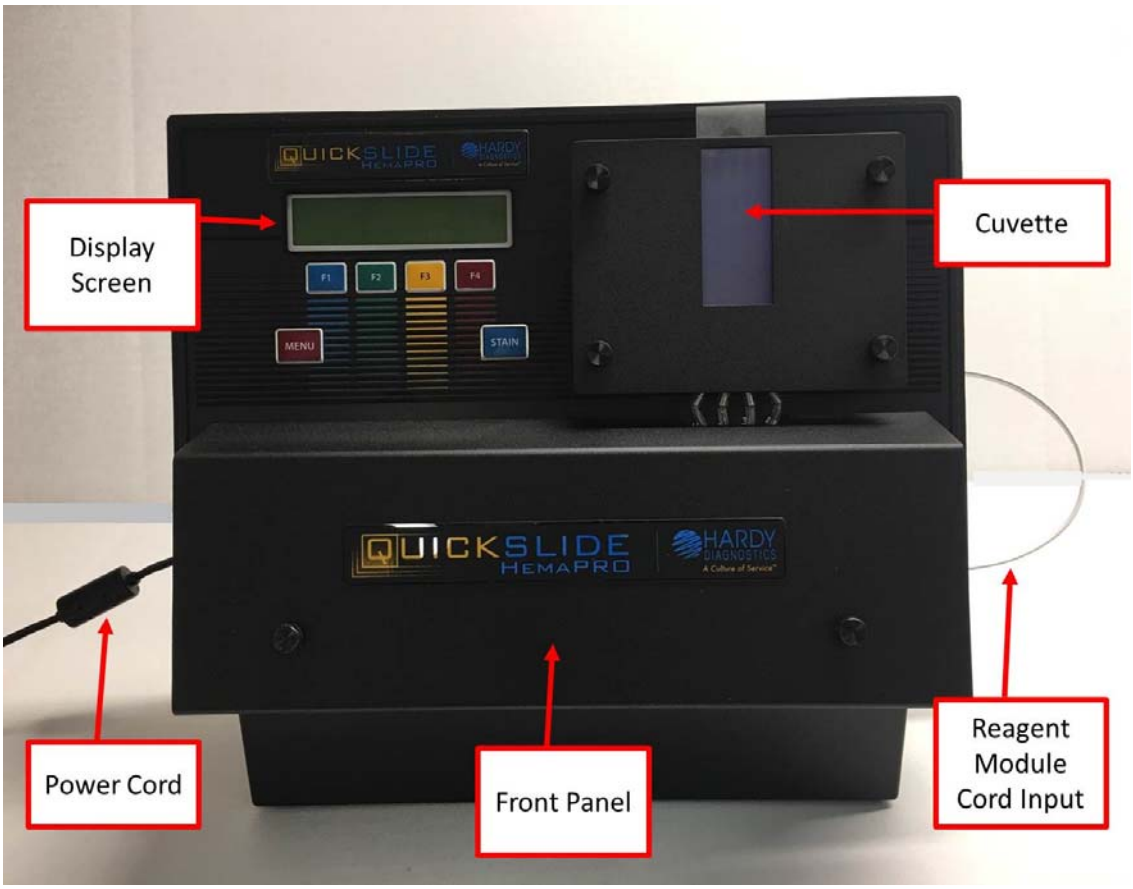
The HemaPRO reagent module regulates the consumption of the Reagent Supply Kit. When starting each stain cycle, the system displays a count of the remaining number of stain cycles available in the current kit. The remaining count should be carefully monitored so that fresh reagents may be ordered and available when needed. Call Hardy Diagnostics Customer Service at 800-266-2222 (option 1) to order supplies.

## 4.3 Reagent Kit Installation

The HemaPRO reagents are supplied to the unit through cannulas connected to the individual reagent containers. Each tube cannula is clearly labeled, and must be inserted into the correct reagent container. The waste tube should be placed in a waste container or in a drain according to your local city and county regulations. Use care to ensure each line is properly connected before powering on the HemaPRO unit.

## 5.0 OPERATIONS OVERVIEW / PREPARATION

5.1 Instrument Diagram




The basic anatomy of the HemaPRO is identified in the diagram above.

**Display screen** – The user interface that prompts which buttons to select for procedures. Buttons (F1-F4, Menu, and Stain) are color coded to more easily differentiate options.

**Cuvette** – Holds the slide during the staining process.

**Power Cord** – The Power Cord plugs into the left side of the machine.

**Front panel** – Covers the reagent supply and waste drain pump rollers and tubing.

**Reagent Module Cord Input** – Reagent Module Cord (included with the QuickSlide™ HemaPRO Stain kit) plugs into the right side of the machine.

## 5.2 Specimen Slide Preparation

### 5.2.1 Blood Specimen [1]

For a blood smear use a clean slide with a frosted end (Cat. no. PF72P). Fill a disposable pipette at least ¾ full with well-mixed blood. Place a drop of blood approximately 4 mm in diameter on the slide, approximately 0.5 cm from the frosted area.

Pick up a second clean slide; this will be used as the spreader slide. Do not touch the spreading edge (short, non-frosted edge) with your hands. Place the spreading end of the spreader slide at a 30-40 degree angle on the slide in front of the blood droplet. The entire short edge of the spreader slide should be in complete even contact with the lower slide. Using your other hand, pin the lower slide to the countertop to prevent it moving. In one smooth motion, draw the spreader slide back through the entire drop of blood. Once the blood spreads along the edge of the spreader slide, push the blood forward along the length of the lower slide. The blood should run out before reaching the end of the slide. This will produce the "feathered edge" and a mono-layer of blood cells on the slide. The smear should extend no more than ¾ along the length of the slide.

### 5.2.2 Bone Marrow Specimen [2]

Bone marrow smears should be prepared immediately following aspiration. The aspirate should be expelled into a small plastic or siliconized glass dish. Use a Pasteur pipette to pick up the spicules. Then place one drop 0.5cm from the frosted end of the slide. Place another glass microscope slide in front of the specimen at an angle of approximately 30 degrees. Pull the spreader slide back to make contact with the specimen, and then push the spreader forward in a smooth action, in contact with the slide as described in section 5.2.1 above.

### 5.2.3 Methanol Fixation (Highly Recommended for Bone Marrow Specimen)

Fixing the specimen causes the cells to adhere to the glass slide to make possible the subsequent rinsing of the smear with water without the significant loss of cells. This can be accomplished by methanol fixation. For best results, it is required that the methanol method be used, rather than heat, since it is superior in preventing lysis, distortion, or damage to the cells in clinical material. Red blood cells and white blood cells will not be harmed, whereas heat may distort or disrupt the cells.

**5.2.4 Methanol Fixation Procedure:** Air-dry the specimen. If the heat block must be for over an hour, it is extremely important that the specimen does not get damaged by excessive heat. Once fully dried, fix by submerging the slide in the Coplin jar filled with methanol for 30 seconds. Please ensure that the methanol covers the whole smear. Drain off remaining methanol without rinsing by tapping the bottom edge of the slide to a paper towel and allow the slide to air dry. Do not apply heat after the methanol dries.

**NOTE:** Because the slide preparation technique can vary from institution to institution and technique is not always controllable (i.e., differences in smear thickness, fixation techniques, drying time, specimen adherence to different types and brands of slides, etc.). Rare instances of carryover of specimen from slide to slide can occur. The chance of this can be minimized by carefully following the instructions in this manual.

## 5.3 **Instrument Preparation** (**First Time Set-up**)

**5.3.1** Remove the two thumb screws to open the front panel that is covering the pump tube rollers and attach all four orange pump tubes around their pump rollers. When installing a new pump tube kit, refer to section 8.1 for detailed instructions.

**5.3.2** Open the HemaPRO Reagent Kit (Cat. No. HP1SK) and remove the induction seal on the opening of each bottle.

**5.3.3** Separate all four of the clear lines and check the integrity of the lines, making sure there are no significant kinks or cracks in the tubing. Wipe the ends of the four color coded cannulas with an alcohol swab and insert them into the corresponding bottles of reagents.

**5.3.3a** Place the "**Stain**" line that has a **blue tag** into the Wright-Giemsa Stain bottle.

**5.3.3b** Place the "**Rinse**" line that has a **white tag** into the Wright-Giemsa Rinse bottle.

**5.3.3c** Place the "**Buffer**" line that has a **green tag** into the Wright-Giemsa Buffer bottle.

**5.3.3d** Place the "**Waste**" line that has a **red tag** into an established waste disposal container. Waste disposal regulations vary according to jurisdiction. Please dispose of waste according to your facility and local regulations.

**5.3.4** Remove the reagent pack module (the short cord that resembles a phone cord) from the reagent pack box. Connect the reagent pack module to the receptacle on the right-hand side of the instrument.

**NOTE:** If the Reagent Pack module is not plugged in when the unit is turned on, the message "**SELF-TEST FAILURE: Pack not connected**" will appear. Turn unit off, connect Reagent Pack module and turn unit on to continue.

The HemaPRO will only accept stain packs with an included module sold by Hardy Diagnostics QuickSlide™ to ensure optimal results. The instrument is calibrated only for these reagents. The use of other stain packs or solutions will produce unreliable results and void the warranty.

**5.3.5** Plug the power cord into the left-hand side of the instrument, directly above the on/off switch. Make sure the power is turned off and then plug the wall transformer into the wall.

**5.3.6** Power the instrument on. The instrument will perform a Self-Test. Once the Self-Test is finished, the cuvette will drain and the instrument will display an option to prime **<F1>**, or to continue **<F4>**.


**5.3.7** Before using the instrument, you will need to Prime the unit twice with each new tubing kit that has been installed. From this Home Screen, select the blue **<F1>** button to initiate the Priming process. This will need to be performed two separate times (Press **<F1>**, allow a prime to run; once the first run is complete, press **<F1>** again to proceed through the second round of priming).

## 6.0 OPERATING INSTRUCTIONS

### 6.1 General Guidelines

**6.1.1** If using Bone Marrow Specimen, ensure the smear is methanol fixed and dried before placing into the cuvette. Do not place the slide in the cuvette unless the display instructs you to do so.

**6.1.2** Use high quality, clean slides (Cat. No. PF72P). Slides that have a different thickness may have variable staining results.

**6.1.3** Replace the Tubing Kit every 6 months. Refer to section 8.1 for step by step procedure for replacing the tube kit.

**6.1.4** Do not leave the stained slide in the cuvette for an extended period of time as this could result in an altered stain quality.

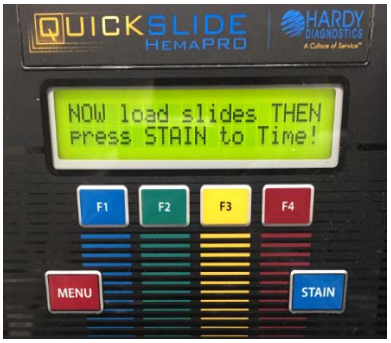
### 6.2 Stain Procedure

**6.2.1** To begin the staining process, press the red **<F4>** button to continue (Cont.). This will bring you to a menu where the desired stain type can be selected. Press **<F1>** for a **blood smear** or press **<F4>** for a **bone marrow smear**.



**6.2.2** Before placing the slide in the cuvette, press the red **<F4>** button to prepare the cuvette for staining.


**NOTE:** Do not place the slide into the cuvette until the display screen reads:
"**NOW load slides THEN press STAIN to Time!**"





**6.2.3** When prompted, load the slide into the cuvette with the specimen facing out towards the front (facing you). Once the slide is loaded, press the blue **<STAIN>** button.

**6.2.4** Once the staining process is complete, promptly remove the slide from the cuvette and press the red **<F4>** button to continue to the Home screen.


**NOTE: DO NOT** leave the slide in the cuvette after staining. The stain quality is best when the slide is promptly removed from the cuvette and dried.

**6.2.5** Wipe the back side of the slide and let it completely air dry before viewing the slide under the microscope.

**NOTE: DO NOT** subject the slide to heat.

## 7.0 SYSTEM SOFTWARE / MENU NAVIGATION

The HemaPRO has five (5) menu options from the Home screen, as explained below:
Upon first press of the Menu button, you will see our splash screen shown below. No further action can be taken from this screen.


### 7.1 Alter Stain / Buffer Timing

**7.1.1** A second press of the red Menu button will allow you to alter Stain times (pictured on the left) for either **<F1>** Blood or **<F4>** Bone Marrow.

**7.1.2** A third press of the red Menu button will allow you to alter the Buffer times (pictured on the right) for either **<F1>** Blood or **<F4>** Bone Marrow.



**IMPORTANT**

The default factory setting for **blood specimen** is a 30 second stain and a 30 second buffer.
The default factory setting for **bone marrow specimen** is a 180 second stain and a 180 second buffer.

**NOTE:** Times may be altered depending on your lab's visual preference of the smear. If the stain and buffer times are adjusted to anything other than the factory settings, you will have to reset those stain and buffer times with the installation of each new reagent kit.

**7.1.3** Stain and buffer times are changed in five second intervals. Press the blue **<F1>** to decrease staining times and press the green **<F2>** key to increase staining times. Press **<F4>** to save the custom stain and buffer times.



**7.1.4** After the setting has been saved, the screen will prompt you to **Choose Slide Type** to run a stain cycle. If you would like to proceed back to the Home Screen, you will need to cycle through the “Menu” screen until you arrive at the final Exit “Menu” screen (below).


## 7.2 Sound Settings

**7.2.1** A fourth press of the red “Menu” button will bring you to the sound setting options menu. Press the blue **<F1>** button to turn the alerts off or red **<F4>** button to turn the machine alerts on.

**NOTE:** It is not recommended that the sound be turned off, as these alerts are meant to inform the technician when the machine needs attention.

**7.2.2** After the sound setting has been saved, the screen will prompt you to **Choose Slide Type** to run a stain cycle. If you would like to proceed back to the Home Screen, you will need to cycle through the Menu screen until you arrive at the final Exit Menu screen (below).


## 8.0 HEMAPRO USER MAINTENANCE

### 8.1 Tube Kit Replacement

The orange pump tubes and the clear lines with color coded cannulas must be replaced every six months to ensure the HemaPRO is operating under optimal conditions.

**8.1.1** Empty the waste container. Be sure the line labeled "**Waste**" remains in the waste container after it has been emptied.

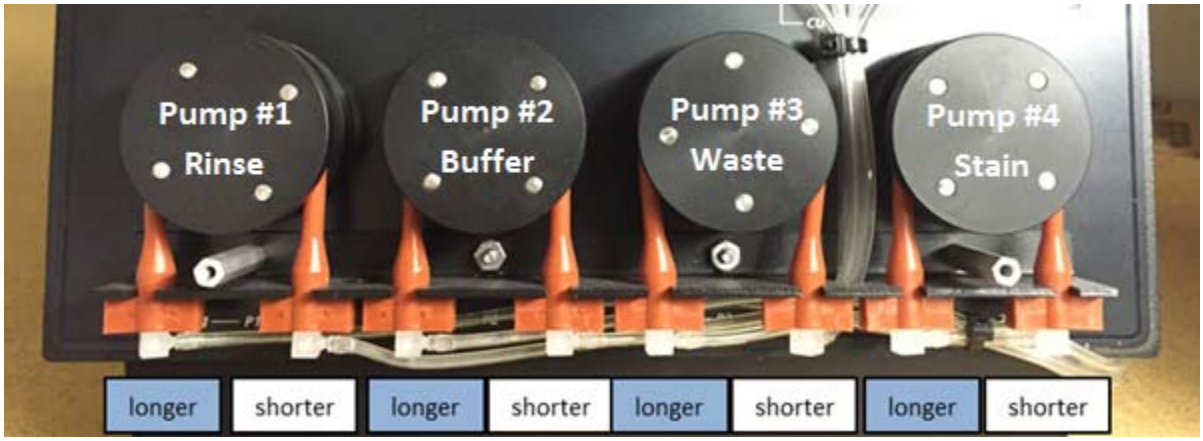
**8.1.2** Remove the three reagent cannulas labeled "**Stain**", "**Buffer**", and "**Rinse**" from the stain bottles and place them all into the empty waste container.

**8.1.3** Run two prime cycles while these cannulas are in an empty waste container in order to purge all of the fluid from the old cannulas.

**NOTE:** The three reagent cannulas should not touch the bottom of the container, as they may pull back in the fluid that was just expelled from the waste line.

**8.1.4** Power the instrument off.

**8.1.5** Unscrew the two thumbscrews holding the front panel pump cover in place. This will expose the four pump tube rollers, the orange pump tubes, and the reagent/waste lines.




**8.1.6** Remove the orange pump tubes off of each roller.

**8.1.7** Starting from the left ("**Rinse"** Pump #1 above) pull the bottom "T" of the orange pump tube so that it is free of the black rack that holds the pump tubes in place. You will need to cut any zip-ties that are holding the clear tubing together.

**8.1.8** Using a hemostat or forceps (tweezers), wiggle the clear lines down from where they connect to the base of the cuvette chamber to completely remove the tube kit from the machine.

Removal of the cannulas can be difficult. Pull the tubes off of the cuvette using a hemostat or forceps. DO NOT use a lubricant to remove or replace cannula tubing. This will cause a poor seal to occur and could cause leakage from the tubes during the staining process.

**8.1.9** Replace the tube sets **one at a time**, starting from left to right. The longest lines for each reagent are to be positioned on the left side of the orange pump tubes, and the shorter lines on the right side of the pump tubes. Pull the shorter tube of each line through the hole and connect to the correct metal connector at the base of the cuvette. Refer to the image above for clarification.

**8.1.10** After installation, you may use the provided zip ties to maintain good tubing/cable management, so the tubing does not get in the way of the pumps. Power the instrument on as explained in **Section 5.3.6 - 5.3.7** followed by **Section 8.2** below.

## 8.2 Setting Fill Levels

The fill levels for this machine are intended to be set for a standard 1"x3"x1mm glass slide. We recommend Cat. No. 6776214.The fill levels can be customized to fit the operator's preferences. We recommend a fill level reset after each new tubing kit installation.

**IMPORTANT**

Fill levels set without a 1"x3"x2mm slide inserted in the cuvette during programing will result in incorrect fill levels. This will lead to overflow of the reagents onto the operating area. This can lead to possible damage of the unit's surroundings.

**8.2.1** Ensure the unit has been primed twice, as explained in **Section 5.3.7** before resetting fill levels.

**8.2.2** Once the unit is primed, power the instrument off.

**8.2.3 Place a blank 1”x3”x1mm slide into the cuvette. A slide must be loaded before fill levels can be adjusted.**

**8.2.4** While the machine is off, hold down the red **<F4>** button. While still holding the **<F4>** button, power the instrument back on and release the red **<F4>** button.

**8.2.5** Once the instrument is powered back on, you will see the following **Set Fill Volume** screen below. Select the red **<F4>** button to proceed.

**8.2.6** You will now see the following screen, instructing to either **<F1>** Drain or **<F4>** Fill the cuvette. If the cuvette has any residual fluid remaining, press and hold the blue **<F1>** button until it has emptied completely. When cuvette is completely empty, press the red **<F4>** button, this will set the "empty" level for the cuvette.


**8.2.7** The Fill level is set individually for the Stain, and together for the Rinse/Buffer.


**IMPORTANT**

When setting the Stain and Rinse/Buffer levels, you must **press and hold** the button down rather than a press-and-release.

**8.2.7a** With the slide still in cuvette, **press and hold** the green **<F2>** button until the cuvette fills up to the desired level with Stain. **Release** the **<F2>** button when the desired Stain fill level has been met. The screen will then revert back to the **<F1>** Drain or **<F4>** Fill screen below after release.

**8.2.7b Press and hold** the blue **<F1>** button to drain the cuvette until it is empty, and you can see the Stain drain from the waste line underneath the cuvette. Press the red **<F4>** Fill button when the cuvette is completely empty to continue to set the Rinse/Buffer level.

**8.2.7c** With the slide still in cuvette, **press and hold** the red **<F4>** button until the cuvette fills up to the desired level with Rinse. Release the **<F4>** button when the desired Rinse fill level has been met. The screen will revert back to the **<F1>** Drain or **<F4>** Fill screen once more.

**NOTE:** Only the rinse is pulled into the cuvette when setting the Rinse/Buffer levels, however this setting syncs across both reagents simultaneously.


**8.2.7d Press and hold** the blue **<F1>** button to drain the cuvette until it is empty, and you can see the Rinse drain from the waste drain underneath the cuvette.

**8.2.8** Once the Stain and Rinse/Buffer levels are set, you can save the new fill levels by pressing the **MENU** button. The unit will automatically save the fill levels and cycle back to the Main Menu.

### 8.3 Hardy Diagnostics QuickSlide™ Service Request

8.3.1 If a problem is encountered that is beyond the scope of this manual or additional assistance is required, contact our QuickSlide™ Technical Support Team at (800) 266-2222 (option 2).

## 9.0 SAFETY DATA SHEETS

Safety Data Sheets (SDS) for any associated reagents kits can be found at www.HardyDiagnostics.com/SDS/.

## 10.0 REFERENCES

1. *Samples for Hematology*. 2014. Cornell University College of Veterinary Medicine, Ithaca, NY.

2. Lee, S.H., et al. 2008. ICSH Guidelines for the standardization of bone marrow specimens and reports. *International Journal of Laboratory Hematology*.

## HemaPRO Warranty

Hardy Diagnostics will repair or replace the instrument under the terms and conditions of this warranty. The liability of Hardy Diagnostics under this warranty, whether in contract, tort, or otherwise, shall not, except as expressly provided herein, exceed Buyer's purchase price on which such liability is based. Please note that:

- Repaired units will be given the latest software upgrades.
- Shipping charged to and from the buyer will be provided by Hardy Diagnostics.
- Travel costs are not included as part of warranty.
- Extended warranties do not include the routine replacement of the tube sets.

Hardy Diagnostics shall not be obligated under this warranty if the need for repairs or replacements results from Buyer's or end users' failure to operate and maintain the system as specified in the operating manual. Hardy Diagnostics shall not be responsible for results generated from or damage caused by Buyer's or end users' use of third party reagents or use of third party maintenance services.

This warranty does not cover any claims, actions, losses, damages, demands, liabilities, costs or expenses, including attorney's fees or expenses, whether a suit or other proceeding is initiated or not, which may arise from, but not limited to, the following events: (i) misrepresentations made by Buyer, (ii) any neglect by Buyer or end-users, (iii) Buyer's or end-users' use of products not in compliance with published specifications which are not for their intended purposes, (iv) Buyer's or end-users' modifications or alterations of products, (v) damage from Buyer or end-user misuse, or operation outside of the environmental specifications for the products, (vi) any other act, or failure to act, not in accordance with the terms and conditions of this warranty by Buyer or end user, and (vii) any condition listed below which would invalidate this warranty.

Any of the following conditions shall invalidate the warranty:

i. Buyer's or end users' failure to properly perform the maintenance required in the operator's manual.
ii. Repairs by persons other than Hardy Diagnostics service personnel, unless authorized in writing by Hardy Diagnostics personnel.
iii. Replacements with other than genuine QuickSlide™ parts.
iv. Buyer's or end users' negligence or negligent operation of the System.
v. Unauthorized alterations or modifications to the System or software.
vi. Removal of the protective case without service authorization.
vii. Use of reagents other than those provided by Hardy Diagnostics.
viii Use of specimen fixation methods other than methanol fixation.

ix. Broken glass slides in tubing, cuvettes, or the waste ports as an outcome of buyer or end user negligence.

Buyer waives their Implied Warranty if Buyer fails to use the slides, reagents, and other accessories, as directed by Hardy Diagnostics, with our staining instruments, or fails to follow the defined operating procedures. Use of any unauthorized slides, reagents, or accessories in our staining instruments or failure to follow the defined operating procedures, could produce erroneous results. Hardy Diagnostics is not liable for any damages, financial or otherwise, caused by the use of unauthorized slides, reagents, or accessories, or as a result of not following the defined operating procedures. HARDY DIAGNOSTICS HEREBY EXCLUDES AND IN NO EVENT SHALL BE LIABLE TO BUYER OR END USER FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS.

All other components are covered, granted the user follows the operating instructions. Refer to our Domestic Terms and Conditions at www.HardyDiagnostics.com/terms-conditions and our International Terms and Conditions at www.HardyDiagnostics.com/international-terms-conditions for additional information.

Hardy Diagnostics represents and warrants to Buyer that all products shipped by Hardy Diagnostics to Buyer, as of the date of such shipment, shall conform in all material respect to the specifications last published at www.HardyDiagnostics.com before the time of shipment of the products. HARDY DAIGNOSTICS MAKES NO OTHER WARRANTIES TO BUYER, EXPRESS OR IMPLIED, AND HEREBY EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**How Long Coverage Lasts**: This warranty lasts for a period of twelve (12) months from the time of original instrument shipment, except for products that have an expiration date, in which case the warranty lasts until the expiration date. When an instrument warranty expires or is close to expiration, buyers may purchase up to four (4) successive extended warranty renewals each covering a period of twelve (12) months from the date of purchase of the extended warranty.

**How to Get Service**: In order to be eligible for service under this warranty, the problem must be reported to Hardy Diagnostics in writing within five business days after it becomes apparent while the warranty is in effect, provided an opportunity is afforded for examination by Hardy Diagnostics.

**Governing Law**: This warranty shall be governed by the Uniform Commercial Code as adopted in the State of Wyoming.

**Training Checklist**

Trainee Name: _____

# HemaPRO Training Checklist

Refer to the user manual for each item on this checklist. Enter trainee's initials for each item trained.

Trainee's Initials

_____ Instrument Preparation: Section 5.3

_____ Registering Reagent Kits with Module: Section 5.3.3 - 5.3.4

_____ Specimen Slide Preparation: Section 5.2

_____ Explanation of Stain Processing: Section 6.2

_____ Loading Slides: Section 6.2.3

_____ Explanation of Display and Menu Navigation: Section 7.0

_____ General User Maintenance: Section 8.0

_____ Tubing Kit Change: Section 8.1

_____ Setting Fill Levels: Section 8.2

Trainee Signature: _____ Date: _____

Trainer Signature: _____ Date: _____