SPIFE NEXUS

Quick Reference Guide

HELENA LABORATORIES



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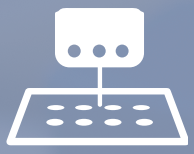
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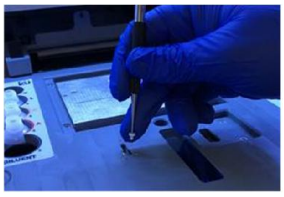
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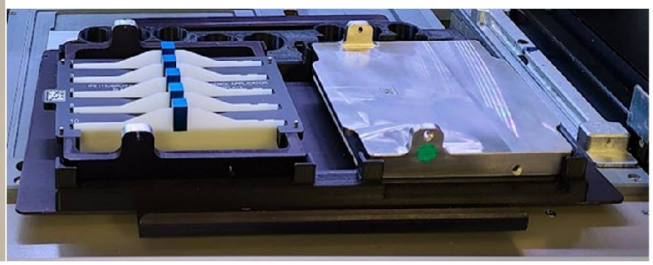
SPIFE Nexus Introduction

SPIFE Nexus-specific instrument components and consumables (note that not all components have a catalog number):

- **SPIFE Nexus Antisera Tip Tool**—tool that is used to assist the user in checking and replacing the Antisera Spreader Tip. This is included in the SPIFE Nexus accessory kit.

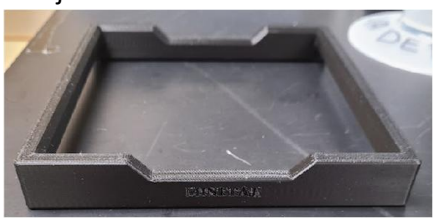
- **Applicator Holder**—component that holds the Applicator Blades that the instrument moves for sample loading and application of samples to the gel surface. Placed on the left side of the Consumables Tray for onboard storage/setup.

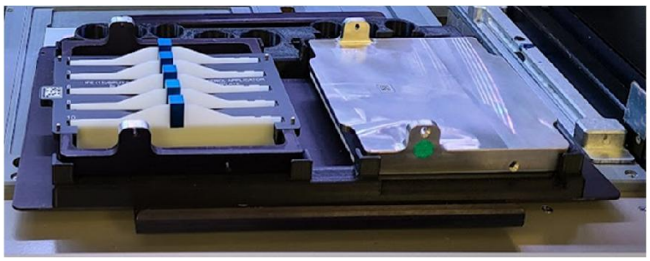
- **SPIFE Nexus Blotter D**— two blotter Ds that have been glued together; adhesive strips allow attachment to the Blotter Holder. Be sure to **firmly** press onto the Blotter Holder using the Blotter Guide for proper positioning.



- **Blotter Guide**—guide for placement of the SPIFE Nexus Blotter D onto the foam surface of the Blotter Holder. Also known as the "Mini Taj".

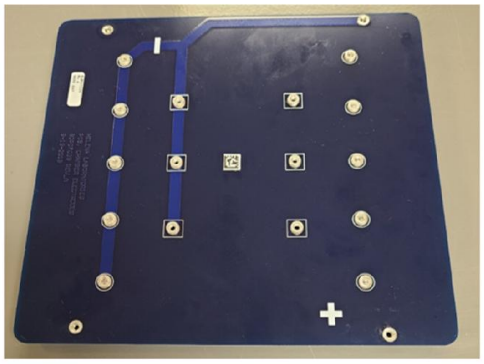



- **Blotter Holder**—heavy weight that the SPIFE Nexus Blotter D adheres to and is used for blotting the gel surface. A Blotter Guide is used align the blotter. The bottom surface of the Blotter Holder has a foam surface that allows the SPIFE Nexus Blotter D to be easily removed and cushions the weight. Placed on the left side of the Consumables Tray for onboard storage/setup. Be sure to orient the Blotter Holder with the green dot forward. Instrument verifies that the Blotter Holder is in place by scanning the 2D barcode.

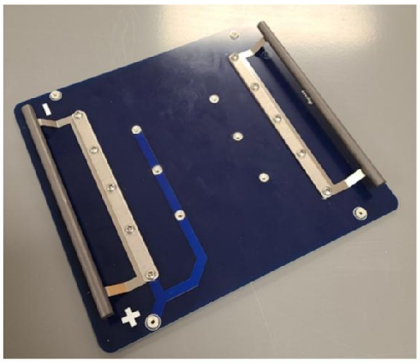



- **Carbon Electrode Insert**—this insert is attached to the Platen Cover and contains the electrodes. In the future there may be other electrode configurations. Instrument verifies that the correct insert is in place by scanning the 2D barcode.

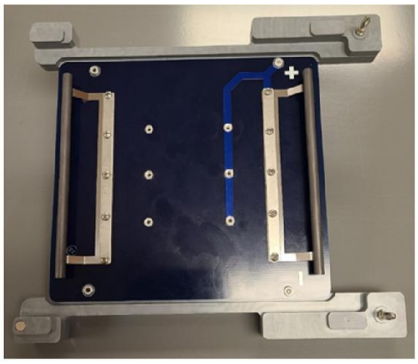
Top view



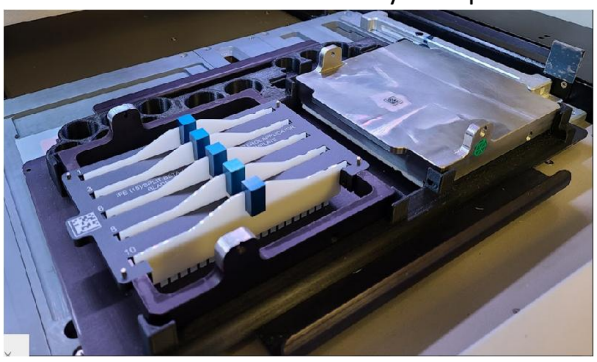
Bottom view—contacts the gel



Bottom view—attached to the Chamber Cover

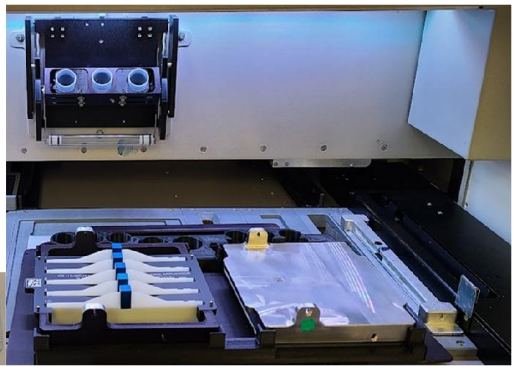


- **SPIFE Nexus Consumables Tray**—holds both the Applicator Holder (left side) and the Blotter Holder (right side). Allows the user to slide the items into place at the back of the instrument. Also has holes in the back portion to hold instrument consumables for easy transport to the instrument.



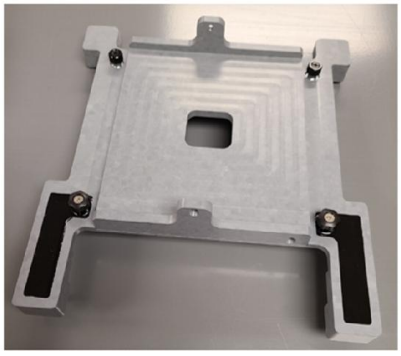
- **Dryer Cover**—this is moved by the instrument to cover the dryer unit during the drying process. The red dot goes toward the back of the instrument. Notice that the onboard storage position is to the right of the Dryer Unit opening.



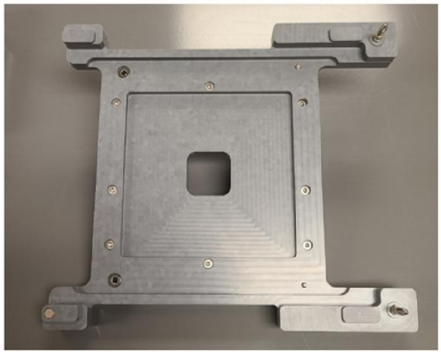


- **Platen Cover**—this is the cover that the Electrode Insert is attached to. The instrument places this cover over the gel during sample loading to prevent excess gel drying and is used to perform electrophoresis. Storage area is in the back left of the instrument—Platen Cover may be moved to the front of the instrument using a software function.

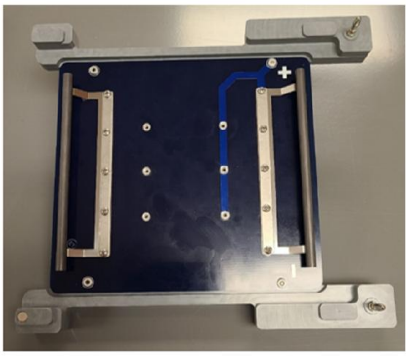
Top view—no electrode insert



Bottom view—no carbon electrode insert



Bottom view—with carbon electrode insert



- **Sample Trays**—note that the sample trays now have a QR code in the upper right hand corner to assist the user in accurate instrument setup. Instrument verifies that the correct sample tray is in place by scanning the 2D barcode.
- **Serrated Applicator Blades**—Notice the new colored labels and boxes. All serrated applicator blades will be packaged in blue boxes to assist in differentiation from standard plastic blades. White labels are for 20-tooth blades, pink labels are for 18-sample blades, and blue labels are for 12-sample blades.

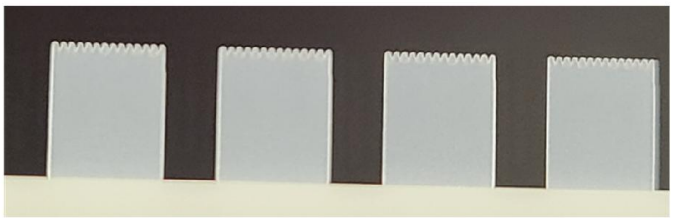




Standard Plastic Applicator Blades



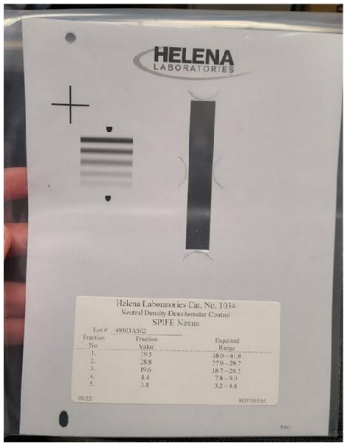
Serrated Plastic Applicator Blades



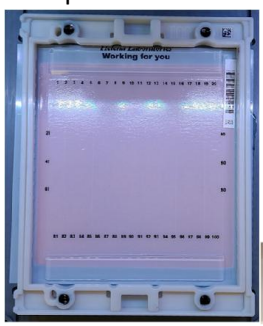
- **SPIFE Nexus Blue** and **SPIFE Nexus Violet**—liquid stain that is packaged ready to use. User pipettes the specified volume into the Stain Cups onboard the SPIFE Nexus.



- **1034 NDDC for SPIFE Nexus**—the SPIFE Nexus has a unique NDDC

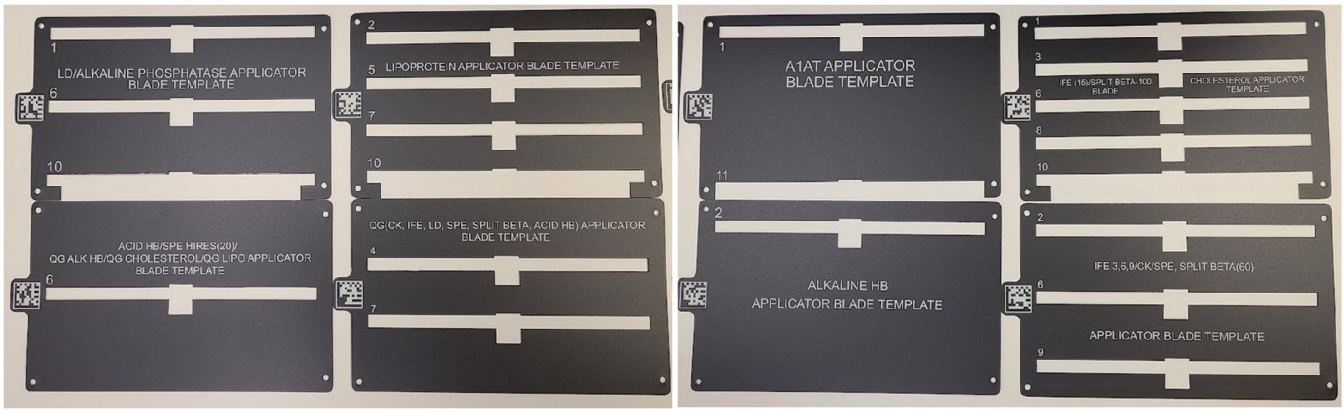


- **1696 Pos ID Barcode Labels for Touch and SPIFE Nexus Systems**—barcodes to be placed onto the upper right corner of the gel backing. Be sure to dry off the mylar surface with a Kimwipe prior to sticker placement as the sticker does not adhere well to a wet surface. Pro states to use the "G" barcode. The barcode is scanned into the software and links patient information with the specific gel for rescanning.





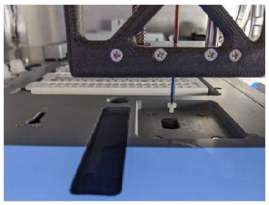
- **2570 SPIFE Nexus Applicator Blade Templates (set of 8)**—these are to be placed on the Applicator Holder to assist in correct Applicator Blade positioning. Instrument verifies that the correct template is in place by scanning the 2D barcode.

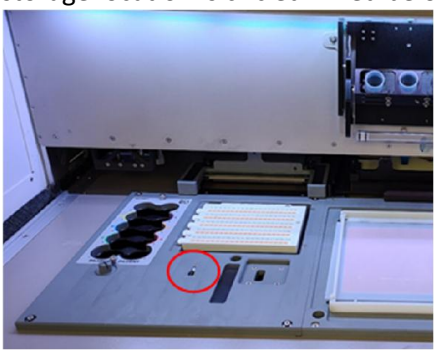


- **2572 SPIFE Nexus Applicator Blade Weights (5/pkg)**—blue in color. To be placed on the Applicator Blades with the thick side facing the front of the instrument.

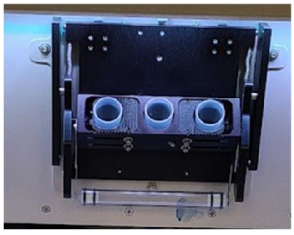


- **2574 SPIFE Nexus Antisera Spreader Tips (10/pkg)**—the tip that the instrument uses during antisera and fixative application. Onboard storage location is circled in red below.

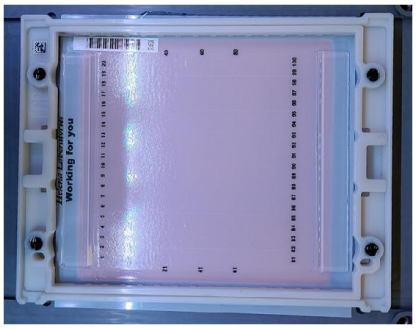




- **2575 SPIFE Nexus Dispo Stain Cups (100/pkg)**—stain cups to be placed in the Stain/Reagent dispenser for stain application. The procedure states how many Stain Cups are required for the test.

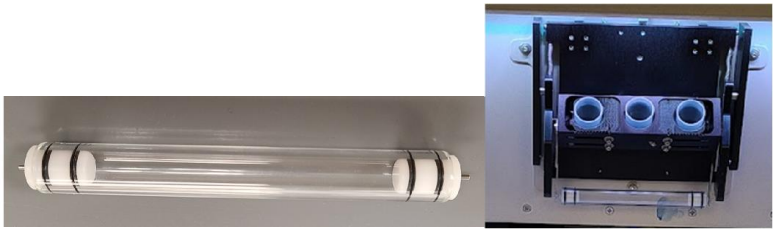


- **2580 SPIFE Nexus Gel Cassette**—a carrier for the gel that allows for transport of the gel from station to station. Constructed of two parts that magnetically connect together to hold the gel in place. When loaded on the instrument be sure to place the two pegs of the bottom cassette piece on the left side of the platen and the 2D barcode of the upper piece in the upper right corner of the platen.



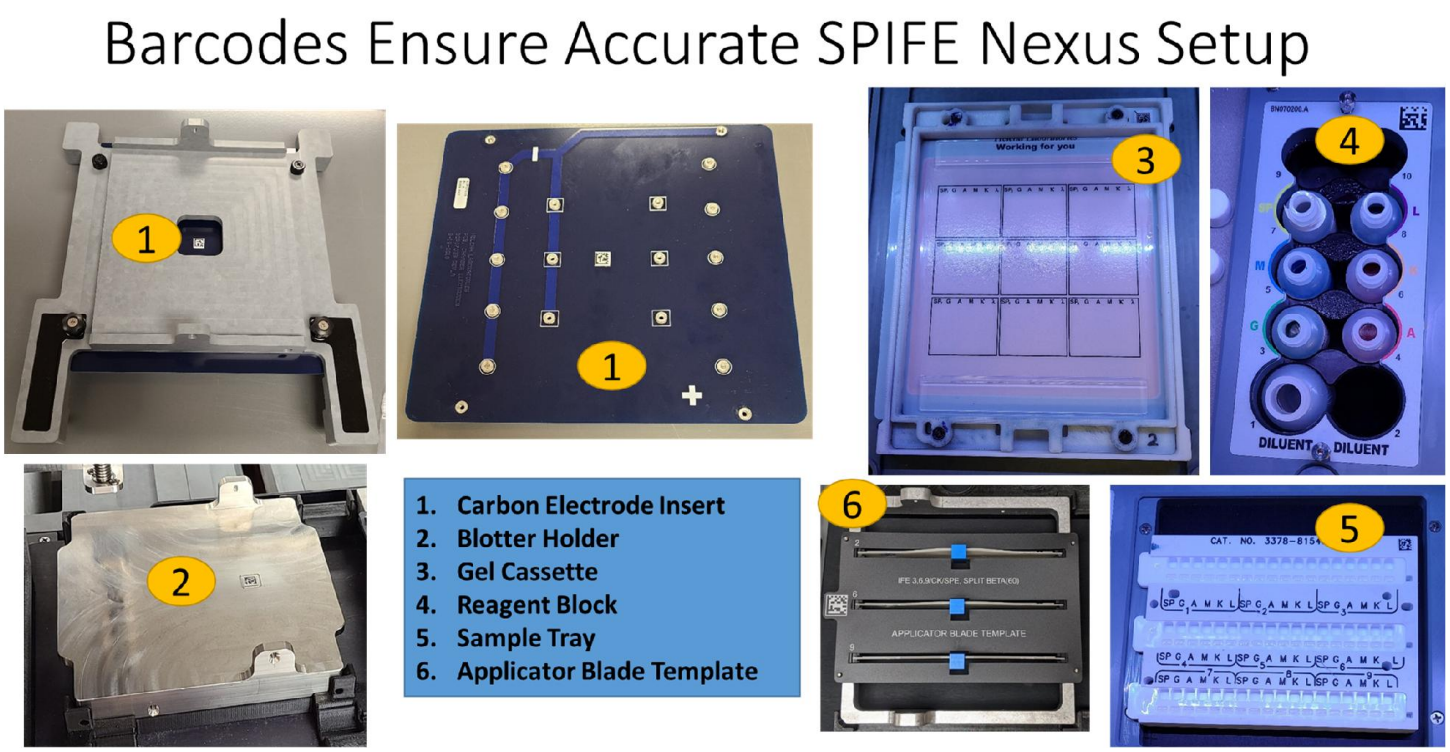
- **2582 SPIFE Nexus Ready Run Kit**—includes all of the items that are required to prep the instrument for the next run. Consumables Tray, SPIFE Nexus Reagent Roller, SPIFE Nexus Applicator Holder, SPIFE Nexus Blotter Holder, SPIFE Nexus Applicator Blade Templates (set of 8), SPIFE Nexus Applicator Blade Weights (5/pkg), and small bottle (for diluent well 1 of the Reagent Chiller—filled by user with 0.85% Saline for sample dilutions).

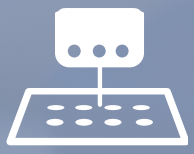
- **2583 SPIFE Nexus Reagent Roller**—to be placed onto the Stain/Reagent Dispenser. Rolls the stain/reagent across the surface of the gel.



- **2584 SPIFE Nexus Contact Sheets (5/pkg)**—same material but different cut. No holes are required.

2D Barcode Summary:





SPIFE Nexus
IFE-6 Overview

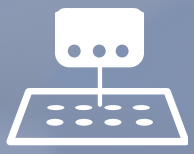
SPIFE Nexus IFE-6 Overview

The instructional procedures contained in this document are to be used for training purposes only. This information under no circumstances supersedes information and/or procedures contained in the Operators Manuals or test kit package inserts.



- Check fluids:
  - 0.85% Saline
  - deionized water
  - Destain
  - Clear Wash
- Turn on the SPIFE Nexus
- Initialize SPIFE Nexus software
- Prime instrument if this is the first run of the day
- Prepare the onboard items (see image above):
  A. **Platen Cover** with **Carbon Electrode Insert**
  B. **Antisera Spreader Tip**
  C. **Dryer Cover** (red dot toward back of instrument)
  D. **Reagent Chiller**
     - Uncap and place **Fixative** and **antisera** into labeled positions
     - Uncap and place **Saline Diluent** into **Diluent Well 1**
     - Uncap and place **Pipette Wash** into **Diluent Well 2**
  E. **Sample Cup Tray** (3377) with **IFE 3/6 sample cup strips** (3368)
  F. **2 Stain Cups—400uL** of **SPIFE Nexus Violet** stain per cup (outer 2 slots)
  G. **Reagent Roller** bar

- Prepare **Consumables Tray** items:
    - **H. Applicator Holder**
        - **Split Beta-60/IFE-6/9 Applicator Holder Template**
        - **12-tooth serrated plastic blades** (blue box; blue label)
        - **SPIFE Nexus Blade Weights** (thick side facing the front of the instrument)
    - **I. Blotter Holder**
        - Use the **Blotter Guide** to assist in **SPIFE Nexus Blotter D** placement
        - Position with green dot facing toward the front of the instrument
    - **J. Gel Cassette**
        - Bottom of Gel Cassette placed on platen
        - Place **REP Prep** on platen
        - Open and blot **IFE-6 gel** with **Blotter C**
        - Align left side of gel with pins on the bottom piece of cassette and lay down gel—no bubbles
        - Top half of cassette—2D barcode should be in upper right hand corner
        - **Positive ID Barcode label** placed in right upper corner of mylar; be sure to dry mylar prior to sticker placement
    - K. Place uncapped patient samples onboard
        - Barcodes should be visible in the rack slit
        - Slide sample tube racks to the right side of the sample tube transport area
        - Left back tube is sample 1
- Click the Start button on the SPIFE Nexus menu bar
- Select **Serum Immunofixation (IFE) 6 (Acid Violet)** test or **Urine Immunofixation (IFE) 6 (Acid Violet)**
- Check that all processes are toggled to yes and select the Start Run button
    - If hand-loading specimens into the sample tray, be sure to turn off sample loading
- When completed, instrument will automatically scan the gel
- Remove gel blocks using the **Gel Block Remover**
- **After every test:** discard the used blotters, Applicator Blades, Stain Cups, and sample cup strips as biohazardous waste. Clean any residual stain from the electrophoresis platen, Gel Cassette, and the Reagent Roller bar.



SPIFE Nexus
IFE-9 Overview

SPIFE Nexus IFE-9 Overview

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- Check fluids:
  - 0.85% Saline
  - deionized water
  - Destain
  - Clear Wash
- Turn on the SPIFE Nexus
- Initialize SPIFE Nexus software
- Prime instrument if this is the first run of the day
- Prepare the onboard items (see image above):
  A. **Platen Cover** with **Carbon Electrode Insert**
  B. **Antisera Spreader Tip**
  C. **Dryer Cover** (red dot toward back of instrument)
  D. **Reagent Chiller**
     - Uncap and place **Fixative** and **antisera** into labeled positions
     - Uncap and place **Saline Diluent** into **Diluent Well 1**
     - Uncap and place **Pipette Wash** into **Diluent Well 2**
  E. **Sample Cup Tray** (3378) with **IFE 9/15 sample cup strips** (3363)
  F. **2 Stain Cups—400uL** of **SPIFE Nexus Violet** stain per cup (outer 2 slots)
  G. **Reagent Roller** bar

- Prepare **Consumables Tray** items:
  - **H. Applicator Holder**
    - **Split Beta-60/IFE-6/9 Applicator Holder Template**
    - **18-tooth serrated plastic blades** (blue box; pink label)
    - **SPIFE Nexus Blade Weights** (thick side facing the front of the instrument)
  - **I. Blotter Holder**
    - Use the **Blotter Guide** to assist in **SPIFE Nexus Blotter D** placement
    - Position with green dot facing toward the front of the instrument
  - **J. Gel Cassette**
    - Bottom of Gel Cassette placed on platen
    - Place **REP Prep** on platen
    - Open and blot **IFE-9 gel** with **Blotter C**
    - Align left side of gel with pins on the bottom piece of cassette and lay down gel—no bubbles
    - Top half of cassette—2D barcode should be in upper right hand corner
    - **Positive ID Barcode label** placed in right upper corner of mylar; be sure to dry mylar prior to sticker placement
  - K. Place uncapped patient samples onboard
    - Barcodes should be visible in the rack slit
    - Slide sample tube racks to the right side of the sample tube transport area
    - Left back tube is sample 1
- Click the Start button on the SPIFE Nexus menu bar
- Select **Serum Immunofixation (IFE) 9 (Acid Violet)** test
- Check that all processes are toggled to yes and select the Start Run button
  - If hand-loading specimens into the sample tray, be sure to turn off sample loading
- When completed, instrument will automatically scan the gel
- Remove gel blocks using the **Gel Block Remover**
- **After every test:** discard the used blotters, Applicator Blades, Stain Cups, and sample cup strips as biohazardous waste. Clean any residual stain from the electrophoresis platen, Gel Cassette, and the Reagent Roller bar.

SPIFE Nexus
IFE-15 Overview

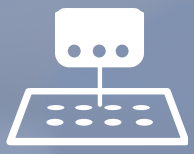
SPIFE Nexus IFE-15 Overview

The instructional procedures contained in this document are to be used for training purposes only. This information under no circumstances supersedes information and/or procedures contained in the Operators Manuals or test kit package inserts.



- Check fluids:
  - 0.85% Saline
  - deionized water
  - Destain
  - Clear Wash
- Turn on the SPIFE Nexus
- Initialize SPIFE Nexus software
- Prime instrument if this is the first run of the day
- Prepare the onboard items (see image above):
  A. **Platen Cover** with **Carbon Electrode Insert**
  B. **Antisera Spreader Tip**
  C. **Dryer Cover** (red dot toward back of instrument)
  D. **Reagent Chiller**
     - Uncap and place **Fixative** and **antisera** into labeled positions
     - Uncap and place **Saline Diluent** into **Diluent Well 1**
     - Uncap and place **Pipette Wash** into **Diluent Well 2**
  E. **Sample Cup Tray** (3362) with **IFE 9/15 sample cup strips** (3363)
  F. **2 Stain Cups—400uL** of **SPIFE Nexus Violet** stain per cup (outer 2 slots)
  G. **Reagent Roller** bar

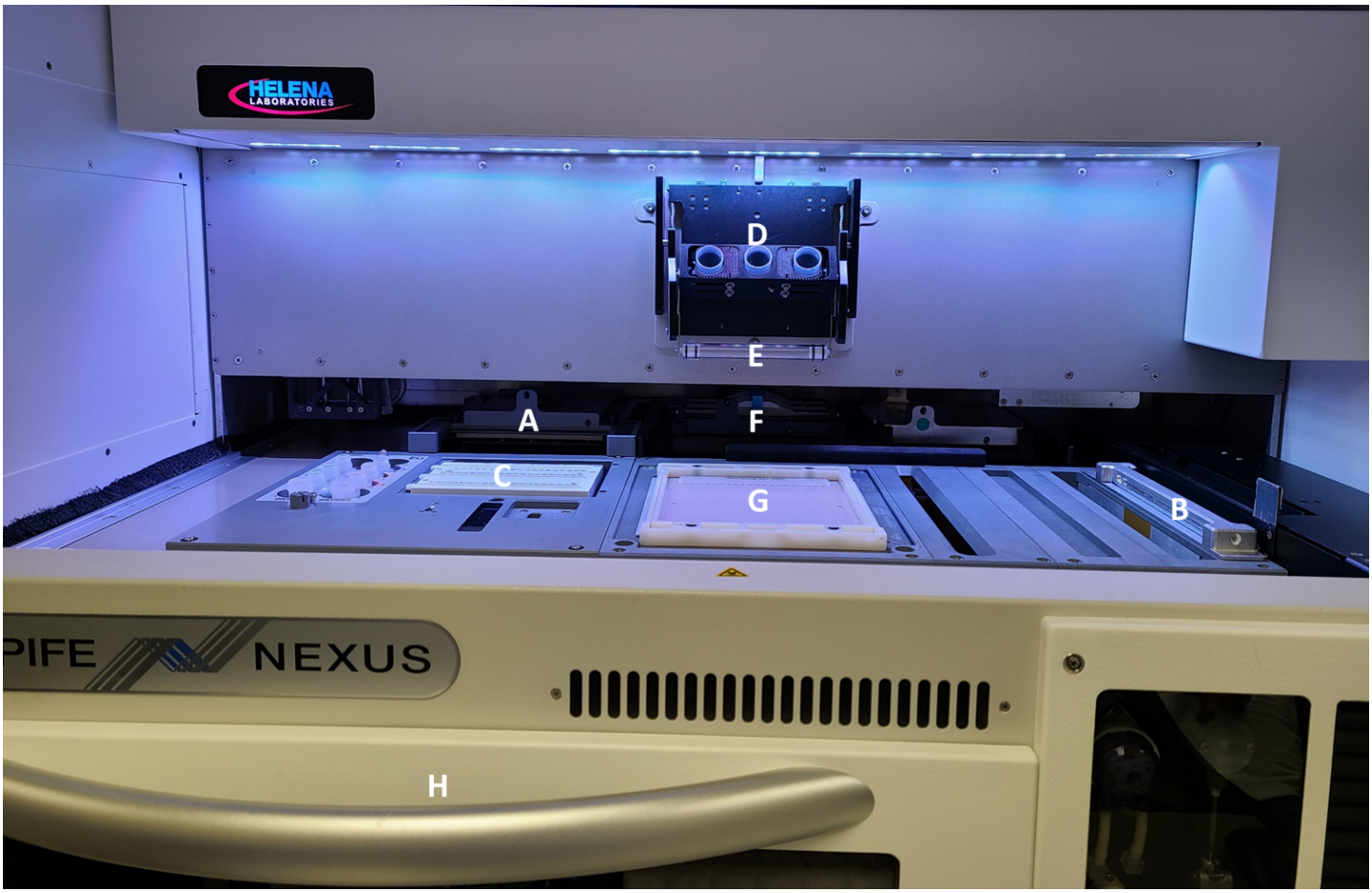
- Prepare **Consumables Tray** items:
    - **H. Applicator Holder**
        - **IFE-15/Split Beta-100/Cholesterol Applicator Holder Template**
        - **18-tooth serrated plastic blades** (blue box; pink label)
        - **SPIFE Nexus Blade Weights** (thick side facing the front of the instrument)
    - **I. Blotter Holder**
        - Use the **Blotter Guide** to assist in **SPIFE Nexus Blotter D** placement
        - Position with green dot facing toward the front of the instrument
    - **J. Gel Cassette**
        - Bottom of Gel Cassette placed on platen
        - Place **REP Prep** on platen
        - Open and blot **IFE-15 gel** with **Blotter C**
        - Align left side of gel with pins on the bottom piece of cassette and lay down gel—no bubbles
        - Top half of cassette—2D barcode should be in upper right hand corner
        - **Positive ID Barcode label** placed in right upper corner of mylar; be sure to dry mylar prior to sticker placement
    - K. Place uncapped patient samples onboard
        - Barcodes should be visible in the rack slit
        - Slide sample tube racks to the right side of the sample tube transport area
        - Left back tube is sample 1
- Click the Start button on the SPIFE Nexus menu bar
- Select **Serum Immunofixation (IFE) 15 (Acid Violet)** test
- Check that all processes are toggled to yes and select the Start Run button
    - If hand-loading specimens into the sample tray, be sure to turn off sample loading
- When completed, instrument will automatically scan the gel
- Remove gel blocks using the **Gel Block Remover**
- **After every test:** discard the used blotters, Applicator Blades, Stain Cups, and sample cup strips as biohazardous waste. Clean any residual stain from the electrophoresis platen, Gel Cassette, and the Reagent Roller bar.



SPIFE Nexus Split Beta 60 Overview

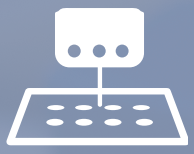
SPIFE Nexus Split Beta-60 Overview

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- Check fluids:
  - 0.85% Saline
  - deionized water
  - destain
- Turn on the SPIFE Nexus
- Initialize SPIFE Nexus software
- Prime instrument if this is the first run of the day
- Prepare the onboard items (see image above):
  A. **Platen Cover** with **Carbon Electrode Insert**
  B. **Dryer Cover** (red dot toward back of instrument)
  C. **Sample Cup Tray** (3370) with **deep well** sample cup strips (3360)
  D. **3 Stain Cups—700uL** of **SPIFE Nexus Blue** stain per cup
  E. **Reagent Roller** bar

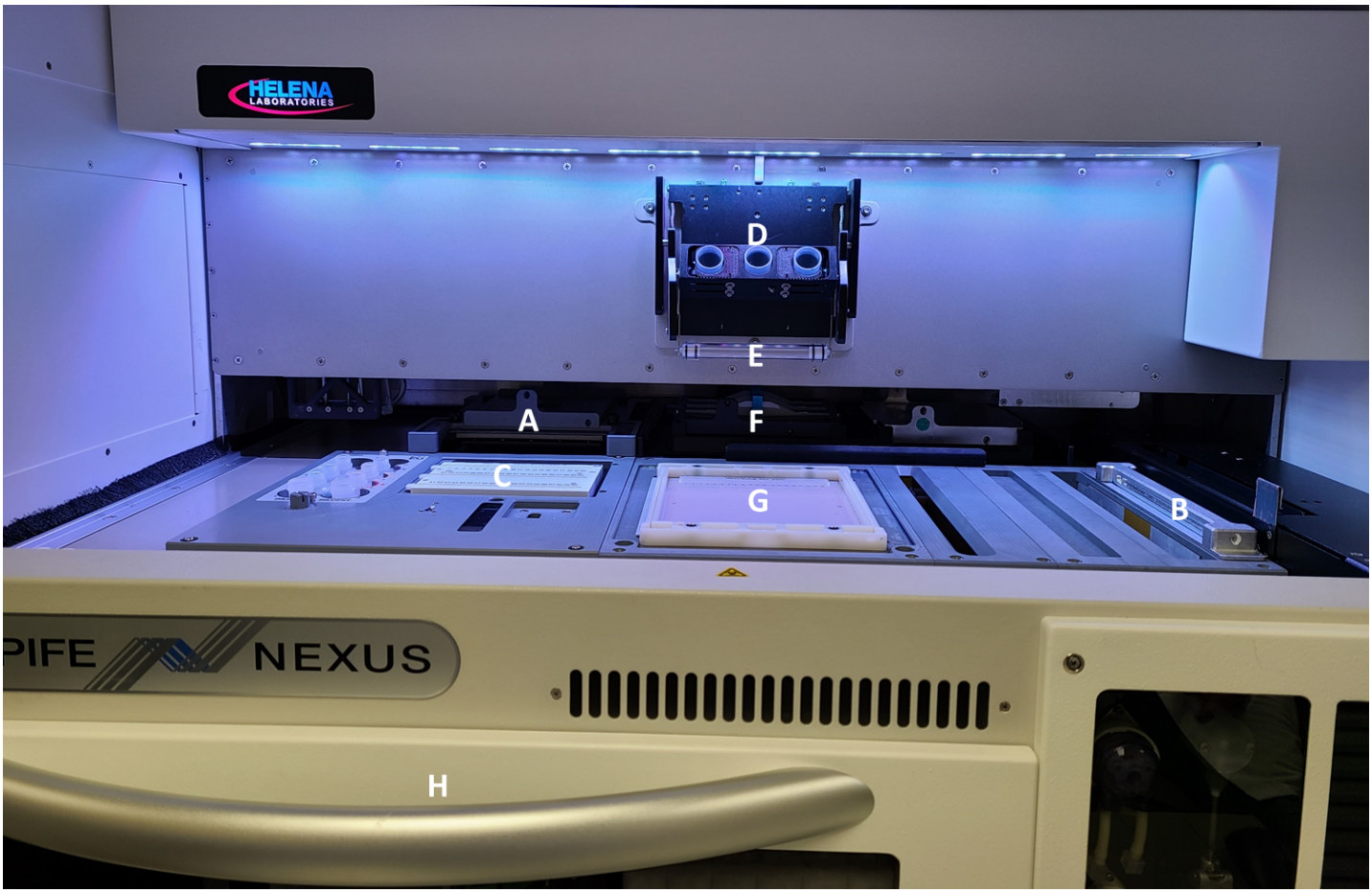
- Prepare **Consumables Tray**:
  - **F. Applicator Holder**
    - **Split Beta-60/IFE-3, 6, 9 Applicator Holder Template**
    - **20-tooth serrated plastic blades** (blue box; white label)
    - **SPIFE Nexus Blade Weights** (thick side facing the front of the instrument)
  - **G. Gel Cassette**
    - Bottom of Gel Cassette placed on platen
    - Place **REP Prep** on platen
    - Open and blot **Split Beta gel** with **Blotter C**
    - Align left side of gel with pins on the bottom piece of cassette and lay down gel—no bubbles
    - Top half of cassette—2D barcode should be in upper right hand corner
    - **Positive ID Barcode label** placed in right upper corner of mylar; be sure to dry mylar prior to sticker placement
  - H. Place uncapped patient samples onboard
    - Barcodes should be visible in the rack slit
    - Slide sample tube racks to the right side of the sample tube transport area
    - Left back tube is sample 1
- Click the Start button on the SPIFE Nexus menu bar
- Select **SPIFE Split Beta Serum Proteins 60 (Acid Blue)** test or **SPIFE Urine Proteins 60 (Acid Blue)**
  - The same test is selected whether running 20, 40, or 60 patient samples
- Check that all processes are toggled to yes and select the Start Run button
  - If hand-loading specimens into the sample tray, be sure to turn off sample loading
- When completed, instrument will automatically scan the gel
- Remove gel blocks using the **Gel Block Remover**
- **After every test:** discard the used blotters, Applicator Blades, Stain Cups, and sample cup strips as biohazardous waste. Clean any residual stain from the electrophoresis platen, Gel Cassette, and the Reagent Roller bar.



SPIFE Nexus Split Beta 100 Overview

SPIFE Nexus Split Beta-100 Overview

The instructional procedures contained in this document are to be used for training purposes only. This information under no circumstances supersedes information and/or procedures contained in the Operators Manuals or test kit package inserts.



- Check fluids:
  - 0.85% Saline
  - deionized water
  - destain
- Turn on the SPIFE Nexus
- Initialize SPIFE Nexus software
- Prime instrument if this is the first run of the day
- Prepare the onboard items (see image above):
  A. **Platen Cover** with **Carbon Electrode Insert**
  B. **Dryer Cover** (red dot toward back of instrument)
  C. **Sample Cup Tray** (3366) with **deep well** sample cup strips (3360)
  D. **3 Stain Cups—700uL** of **SPIFE Nexus Blue** stain per cup
  E. **Reagent Roller** bar

- Prepare **Consumables Tray**:
  - **F. Applicator Holder**
    - **IFE-15/Split Beta 100/Cholesterol Applicator Holder Template**
    - **20-tooth serrated plastic blades** (blue box; white label)
    - **SPIFE Nexus Blade Weights** (thick side facing the front of the instrument)
  - **G. Gel Cassette**
    - Bottom of Gel Cassette placed on platen
    - Place **REP Prep** on platen
    - Open and blot **Split Beta gel** with **Blotter C**
    - Align left side of gel with pins on the bottom piece of cassette and lay down gel—no bubbles
    - Top half of cassette—2D barcode should be in upper right hand corner
    - **Positive ID Barcode label** placed in right upper corner of mylar; be sure to dry mylar prior to sticker placement
  - H. Place uncapped patient samples onboard
    - Barcodes should be visible in the rack slit
    - Slide sample tube racks to the right side of the sample tube transport area
    - Left back tube is sample 1
- Click the Start button on the SPIFE Nexus menu bar
- Select **SPIFE Split Beta Serum Proteins 100 (Acid Blue)** test
  - The same test is selected whether running 80, or up to 100 patient samples
- Check that all processes are toggled to yes and select the Start Run button
- When completed, instrument will automatically scan the gel
- Remove gel blocks using the **Gel Block Remover**
- **After every test:** discard the used blotters, Applicator Blades, Stain Cups, and sample cup strips as biohazardous waste. Clean any residual stain from the electrophoresis platen, Gel Cassette, and the Reagent Roller bar.



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