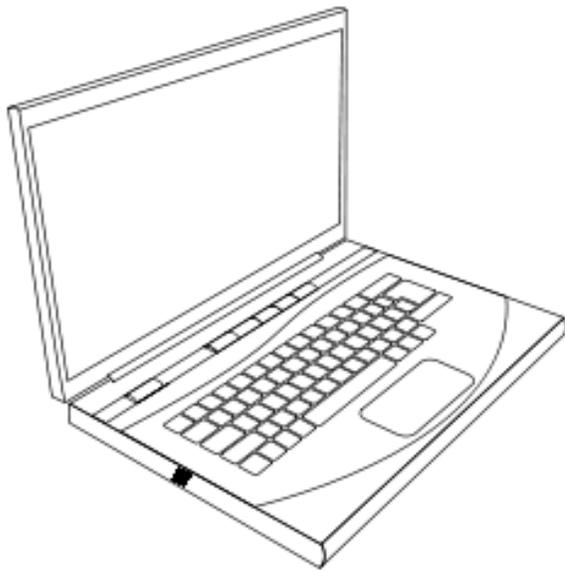


ect micro Dock Quick Start Guide

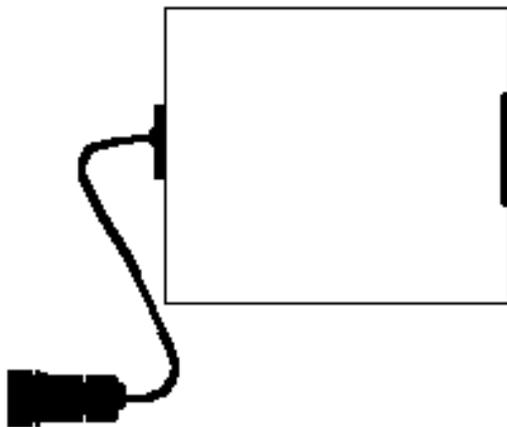
Version 3.312



Laptop Computer



ect micro Dock

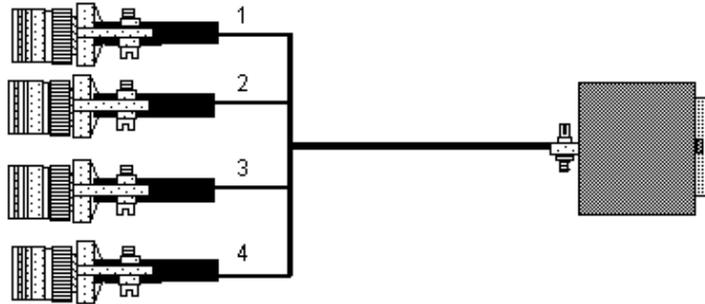


ect micro Dock Power Supply

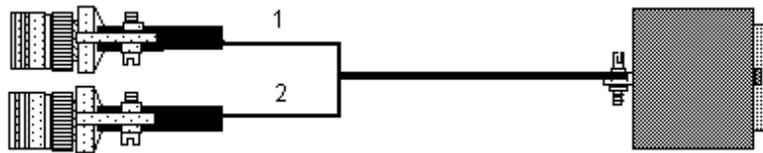


North American Power Cord

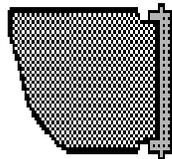
Standard Accessories



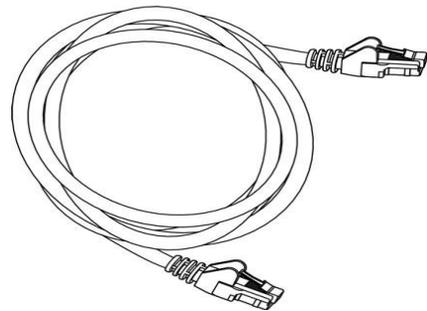
4-4 26 pin connector Cable



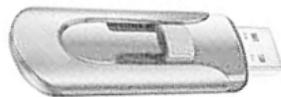
2-4 to 26 pin connector Cable



ect U Dock adaptor



Ethernet Cross-Over Cable
3 foot and 7 foot

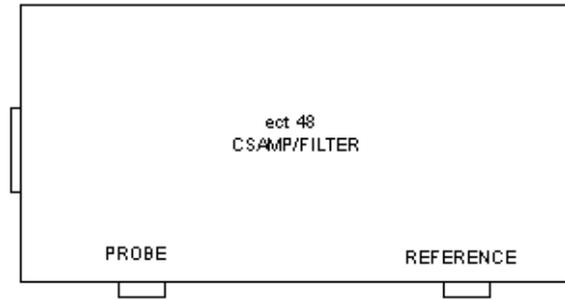


ect Training Videos and
Software for systems
without DVD Disc

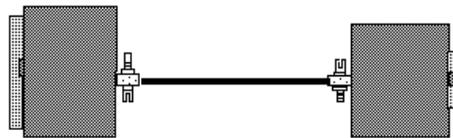


System , ect software
and manuals Discs

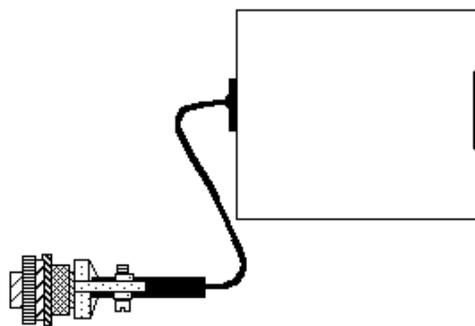
Optional Items



ect 48 Carbon steel Filter Amplifier



CSFA interface cable



CSFA power Supply 100- 240 Vac



North American Power Cord

Micro Dock Front Connectors

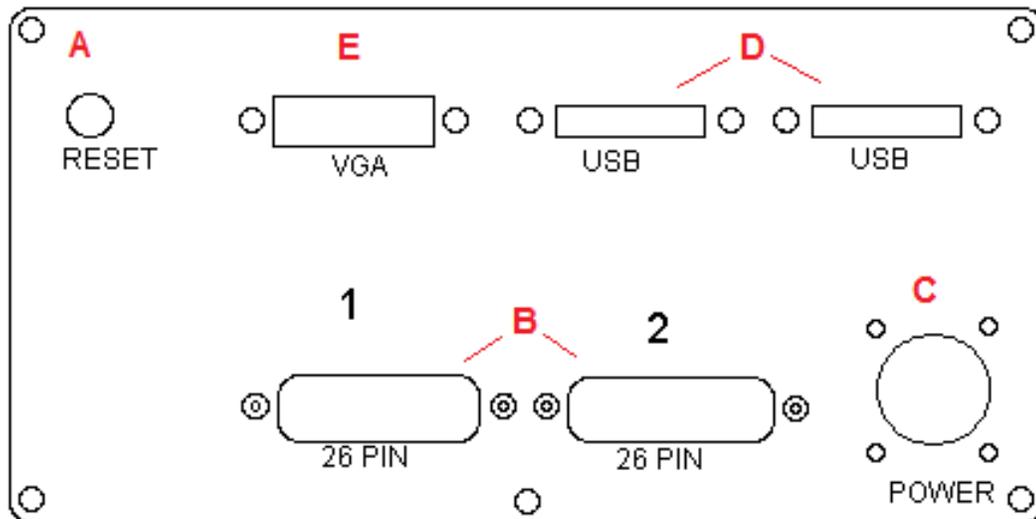


Figure 1. ect micro Dock Front Faceplate

Front Face Plate Description:

A - Reset button. Use the reset button to restart the ect micro Dock.

B - 26 pin input connectors. Labeled 1 and 2

Connect 26 4-4 pin or 26 2-4 pin adaptors to connector 1 for most DS probe applications.

C - Power connector. Connect the micro Dock power supply to the micro Dock before connecting the power supply to an AC source.

This will prevent false starts of the ect micro Dock

D - Auxiliary USB ports. These are not used during normal operation.

E - Auxiliary VGA port. This is not used during normal operation.

micro Dock Rear Connectors

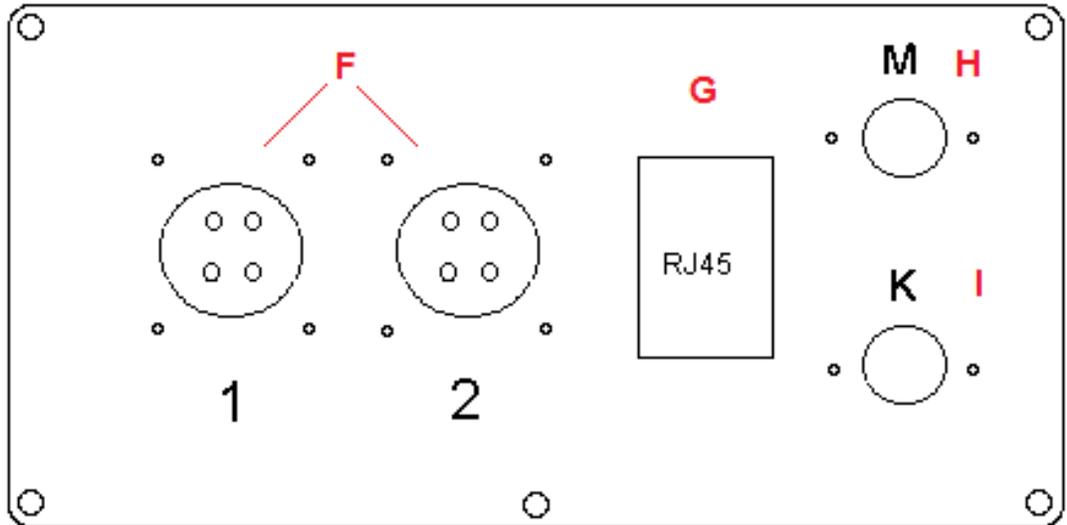


Figure 2. ect micro Dock Rear Face Plate

Rear Face Plate Description

- F - Standard 4 pin probe connector. May be used in place of the 26 pin connector when the ect micro Dock connector adaptor is connected into the # 1 26 pin connector on the front face plate. See Figure 5.
- G - Ethernet connector. Connect an Ethernet Cross-over between the ect micro Dock and a laptop computer.
- H - Auxiliary PS/2 mouse connector. Not used during normal operation.
- I - Auxiliary PS/2 keyboard connector. Not used during normal operation.



DO NOT MAKE ANY CHANGES TO THE **ect 48** LAPTOP

Do not think of this as a general purpose laptop. Think instead as it being a part of the **ect 48** Eddy Current System.

We have made many changes to the normal configuration of Windows 7. We have to turn off many features that run in the background, as they steal processor time. If the processor is busy doing something in the background, then data might be missed, which means a defect could be missed. If you merely change the name of the computer, it will not be able to communicate with the micro Dock.

If you believe you have a desperate need to change the Computer, make sure that you have a complete backup of the Hard Drive before you make the changes so that you can change back if necessary.

CONNECTING AND STARTING THE **ect 48** MICRO DOCK

FOR SOFTWARE VERSION 3.309 AND LATER

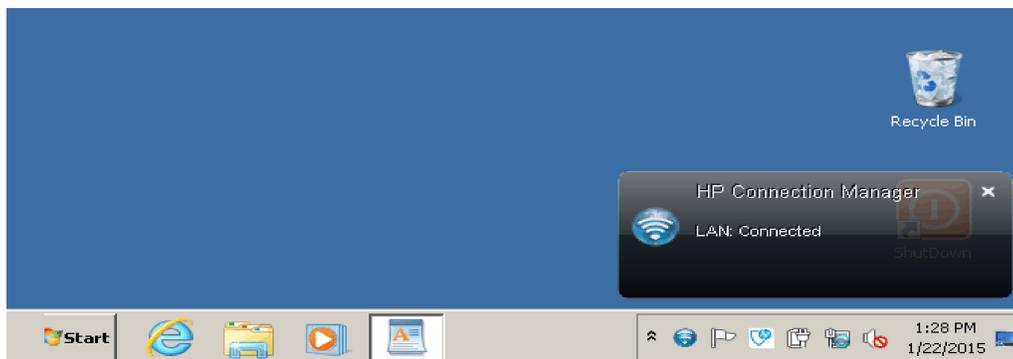
Connect everything together (Figure 3.), except for the power source to the micro Dock power supply.

Specifically, use the cross over ethernet cable to connect the laptop to the micro Dock.(The ethernet port location will vary depending on the model of laptop provided. The ethernet port on the micro Dock is connector "G" on the back face plate).

Connect the laptop power supply to the laptop and to source power.

Turn on the laptop and let it boot completely.

Connect the Micro Dock power supply to source power (It is recommended that the power connector is attached to the power socket "C" located on the front face plate before the micro Dock power cord is connected to source power.) . The micro dock should produce a beep sound. Wait until the network connection manager has confirmed a good network connection and then start the **ect 48** Software on the laptop. This method will avoid any micro dock not found messages which may occur if the ect48 software is run before a network is established.



To start the **ect 48** Software on the laptop, double click the icon or hold **Ctrl Alt** and then type **e**.

The **ect 48** will start. Do not touch any keys. You will see a message in the center of the screen, which reads **Searching for : Dock**. It will take about a minute for the Slave to establish communications with the Host and start. Then the F5 and F7 keys in the F Key Menu will now be red in color. Press any key and you are ready to begin.

If you exit the **ect 48** Software, it will be necessary to restart the system, although you can use a slightly different sequence. Since the Micro Dock is already up and running, push the Reset button on the micro Dock ("A" on the front face plate). Then start the **ect 48** Software on the laptop.

IMPORTANT:

- The laptop must not be running the **ect 48** software before the reset button is pressed .
- If the micro Dock is left running without the ect 48 program running on the laptop for 10 minutes the software on the slave will time out and quit to windows. This mode is useful when installing software upgrades but will cause the host computer not to find the slave. To resolve this issue press the reset button on the micro Dock and start the ect 48 program on the laptop.

The ect 48 micro Dock System Connection

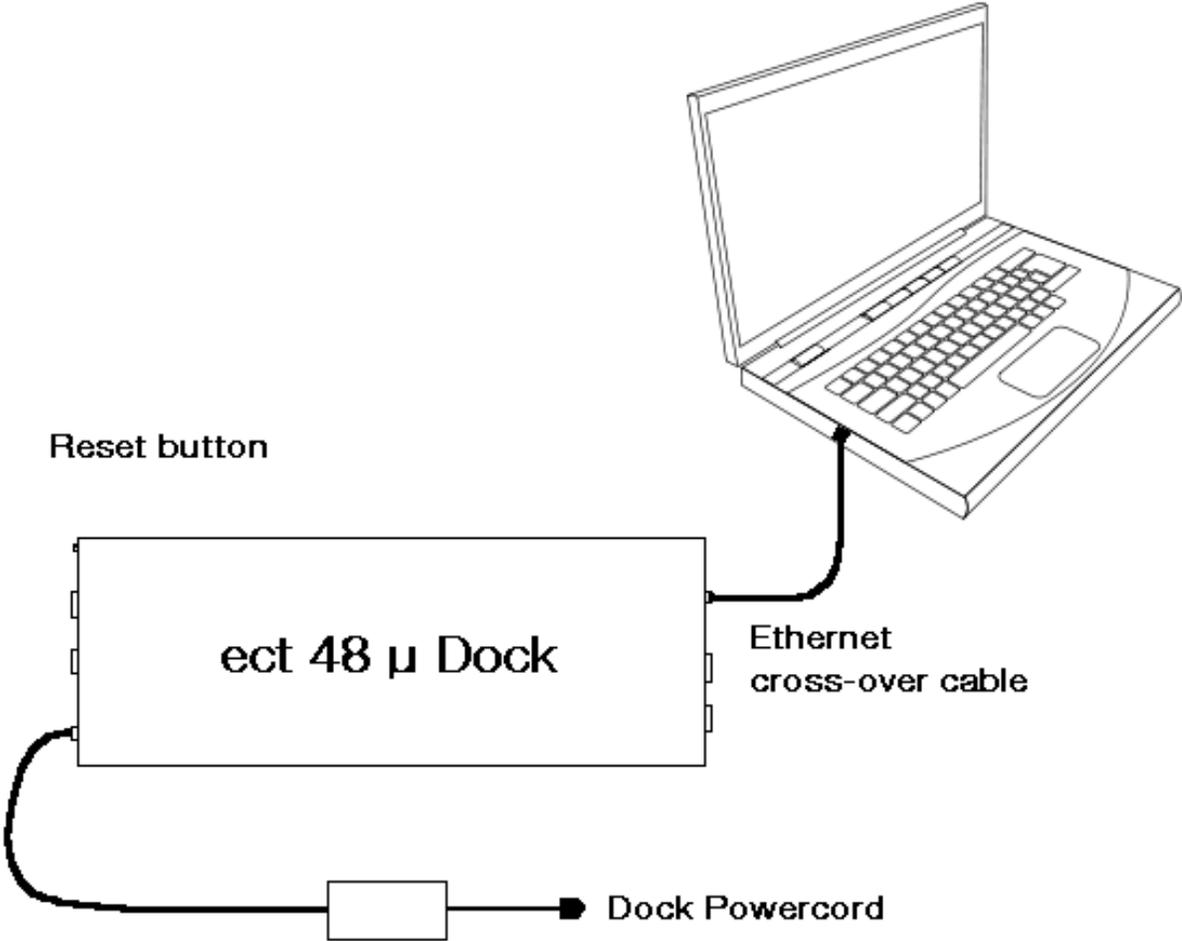


Figure 3. ect micro Dock eddy Current system

Typical Probe Connection for Inspection

Non-ferrous inspection

For most non-ferrous applications, only Connector 1 will be used (Figure 4). Probes with 4-pin circular connectors can be connected using the supplied 4-4 to 26-pin cable. For most applications, the inspection probe is connected to the 4-pin connector with 1 black band and the reference probe (if used) is connected to the other 4-pin connector which is marked with 2 black bands.

Figure 5 shows an alternate probe connection. The 4-4 to 26-pin connector is not used. The two connectors on the back of the micro Dock are used. Connector 1 is the probe and connector 2 is the reference. The 26-pin Udock jumper must be connected to the 26-pin connector 1 on the micro Dock.

For more information, see Section 3.2.4 Probe Mode in the ect 48 manual.

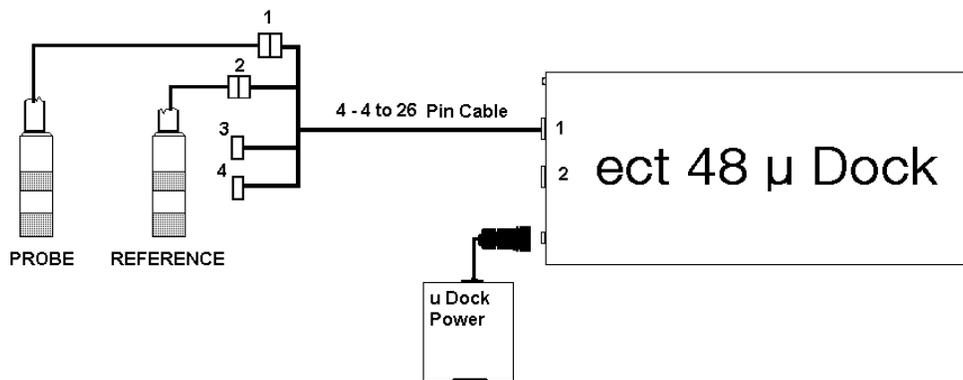


Figure 4. ect micro Dock non-ferrous connection

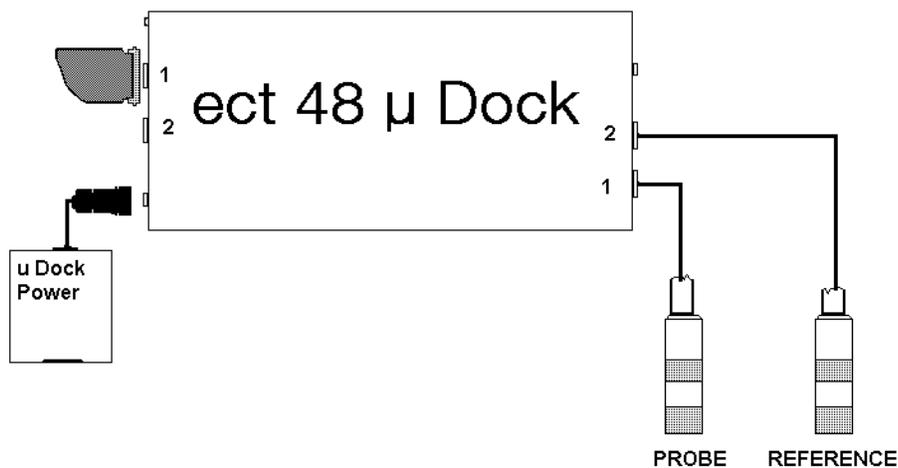


Figure 5. Non-ferrous connection with probes directly to the ect micro Dock

Ferrous Inspection

For most ferrous applications, both Connector 1 and Connector 2 will be used. See Figure 6. Connect the Carbon Steel Filter Amplifier to Connector 1 using the supplied 15-pin to 26-pin cable labeled “ect48 CS Cable”.

For Remote Field, Near Field™, or combination Near Field™/Remote Field probes, connect the 7-pin connector of the inspection probe to the 7-pin connector on the Carbon Steel Filter Amplifier that is marked “Probe”. Connect the 7-pin connector of the reference probe to the 7-pin connector on the Carbon Steel Filter Amplifier marked “Reference”.

Use the supplied 4 - 4 to 26-pin cable to connect the two 4-pin connectors of the probes. Connect the inspection probe to the 4-pin connector marked with 1 black band and connect the reference probe (if used) to the 4-pin connector which is marked with 2 black bands. Connect the 26-pin connector to the connector 2.

The ect 48 Carbon Steel Filter Amplifier, Revision 3, must also be connected to the source power supply. Be careful to make sure that the injection controls for Channels 1 and 2 are set to some low values, such as 200, to prevent the probe from being overheated due to the high drive level capability of the Revision 3 Amplifier.

For more information, see Section 3.2.4 Probe Mode in the ect 48 manual.

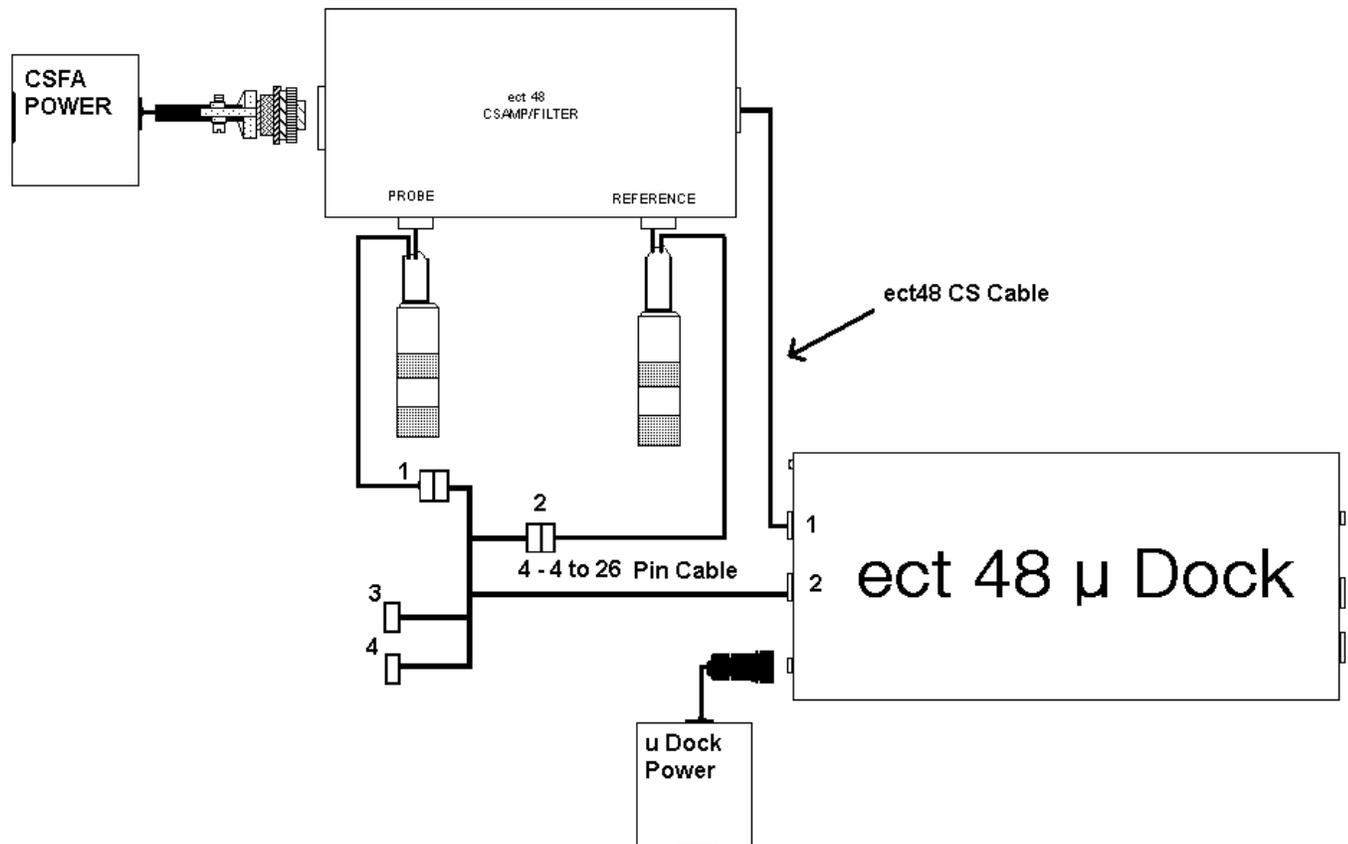


Figure 6. ect micro Dock ferrous inspection

Note: Power must be supplied to the ect48 CSFA to work correctly.

Where to find a description of the ect 48 Menu functions in the ect 48 manual.

<pre> Drive: Task: C:\NECT48DEM\ Defect List: dexodata Tube: 1.000x0.058in 90/10 CuNi Probe: 0.850 05 30 Settings File: SeaCure Make tube List Auto Erase Off <Ctrl>Print Scr Sec. </pre>	<pre> File Locked File... Label Screen Mode 1 Probe Mode 8.1 Sample Rate 1000 Chart speed 86 High Speed Def scan nov next Zone 1 Row 1 Tube 1 next roV. zOne Index 0 Previous Next Default Settings setUp </pre>	<pre> chaNnel 3 Locked Freq 33,068Hz Phase 226 Gain 116 H volt/Div 1 V volt/Div 1 Lp filter 999 LP DSP Hz 120 Hp DSP Hz Off X Position 0 Y Position 0 Injection 800 Balance -32,767 Balance -32,767 Channel setUp </pre>	<pre> Mixer 1 Locked Input phase 82 Output phase 55 Gain% 100 H volt/Div .50 V volt/Div .50 X weight 41 Y weight 68 X Position 0 Y Position 0 Source 1+Chan 2 Source 2-Chan 3 thresHold 20 Cancel RaW On Don't Anal Less 0%0 0%I 0.00V </pre>	<pre> Analyze Menu: Calibrate Table 1 View/Edit Table Save Defect Sort aNal channel Defect Defects Conductivity Freq Transforms: Off Next Defect tab Back shift tab Add to Cal Table setUp Seconds </pre>	<pre> F1 pause F2 playback+- 0 F3 record F4 reset RAM F5 map/report F6 disk recall F7 disk save F8 erase RAM F9 F11 acquire F12 analyze Z 1 R 1 T 1 Balance Erase Quit help? esc Full Menus On </pre>
<h3>3.1 Task Menu</h3> <ul style="list-style-type: none"> 3.1.1.1 Drive 3.1.1.2 Task 3.1.3 Tube Alloy 3.1.5 Recommended Probe 3.1.7 Data Directory 3.1.9 Tube Data Directory 3.1.12 Tube List 	<h3>3.2 File and Screen Menu</h3> <ul style="list-style-type: none"> 3.2.2.1.3 Recall File 3.2.2.1.4 Save File 3.2.2.2 Label 2.4.4 Screen Mode 2.4.5 Probe Mode 3.2.16 setUp 	<h3>3.3 Frequency Channel Menu</h3> <ul style="list-style-type: none"> 3.3.1 Frequency Channel Number 3.3.2 Frequency 3.3.3 Phase 3.3.4 Gain 3.3.5 H Volt/Div 3.3.6 V Volt/Div 3.3.7 LP Filter 3.3.8 Lp DSP Filter 3.3.9 Hp DSP Filter 3.3.10 X Position 3.3.11 Y Position 3.3.12 Injection 3.3.13 Balance X 3.3.14 Balance Y 3.3.16 Channel Setup Menu 	<h3>3.4 Mixer Channel Menu</h3> <ul style="list-style-type: none"> 3.4.1 Mixer Channel Number 3.4.2 Input Phase Control 3.4.3 Output Phase Control 3.4.4 Gain % 3.4.5 H volt/Div 3.4.6 V volt/Div 3.4.7 X weight 3.4.8 Y Weight 3.4.9 X Position 3.4.10 Y Position 3.4.11 Source 1 3.4.12 Source 2 3.4.13 Threshold 3.4.14 Cancel 3.4.15 Raw 3.4.16 Don't Analyze Less Than 	<h3>3.5 Analyze Menu</h3> <ul style="list-style-type: none"> 3.5.1 Analyze 3.5.2 Calibrate 3.5.3 Table 3.5.4 View Edit Table 3.5.5 Save Defect 3.5.5.1 Channel 	<h3>3.6 F Keys</h3> <ul style="list-style-type: none"> 3.6.1. F1 ~ pause. 3.6.2 F2 ~ playback +- 3.6.3 F3 ~ record 3.6.4 F4 ~ reset RAM 3.6.5 F5 ~ map/report 3.6.6 F6 ~ disk recall 3.6.7 F7 ~ disk save 3.6.8 F8 ~ erase RAM 3.6.9 F9 ~ Reserved 3.6.10 F10 ~ Reserved 3.6.11 F11 ~ Acquire 3.6.12 F12 ~ Analyze