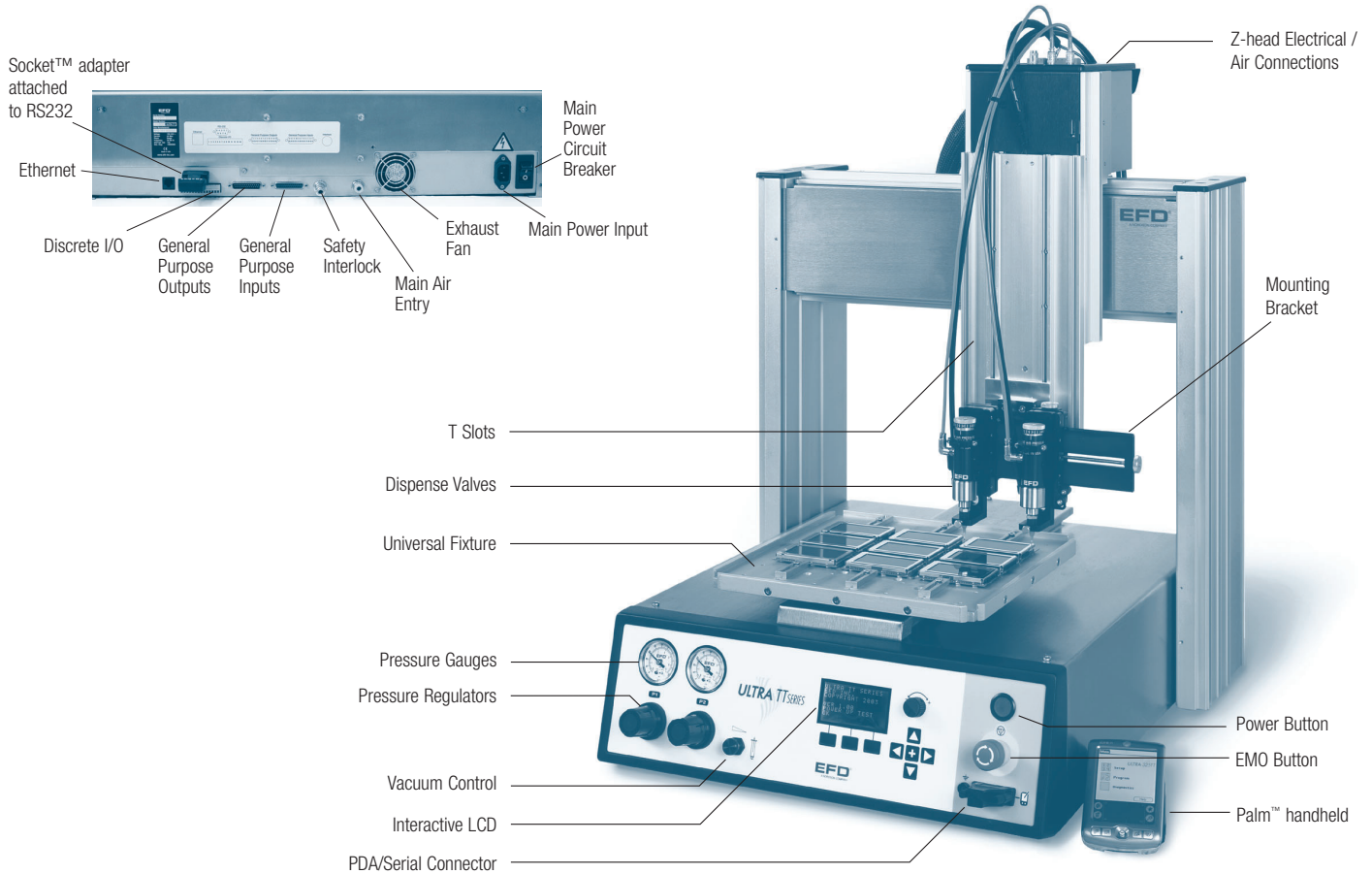


# Ultra™ 325 TT Automation Series

# Ultra™ 525 TT Automation Series

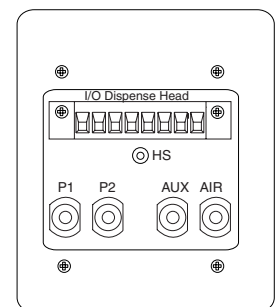
## Quick Start Installation Guide

Electronic pdf files of EFD manuals are also available at [www.efd-inc.com/manuals.html](http://www.efd-inc.com/manuals.html)



## Valve/Dispensing Device Configuration

EFD Valve Model	Air Connections (actuating)	Air Connections (atomizing)	Fluid Pressure Connection
752V-UHSS	P1	N/A	P2 or Auxiliary Air
725DA-SS	P1	N/A	P2 or Auxiliary Air
725HF-SS	P1	N/A	P2 or Auxiliary Air
740V-SS	P1	N/A	P2 or Auxiliary Air
736HPA	P1	N/A	P2, Auxiliary Air or customer supplied
780S-SS	P1	P2	Auxiliary Air
790	Terminal 1+ Terminal 2 -	N/A	P2 Selectable between pulsed or constant pressure
Syringe Barrel 0~100 psi	P1	N/A	Same as actuating
Syringe Barrel 0~30 psi	P2	N/A	Same as actuating
5800MP	P1	N/A	Same as actuating
HP4X	P1	N/A	Same as actuating
HP7X	P1	N/A	Same as actuating
2800	N/A	N/A	N/A



P1 = 0~100 psi  
P2 = 0~30 psi

# 7 Step Easy Setup

## Electrical

1

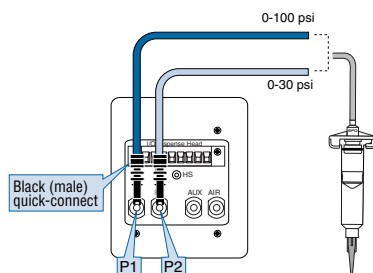
Use the power cord provided and plug the machine into the 100 ~ 240VAC, single-phase power source. This machine uses a self-regulating power supply and will work on any voltage in the stated range. The electrical connection is located on the back left-hand side of the machine.

## Mounting

3

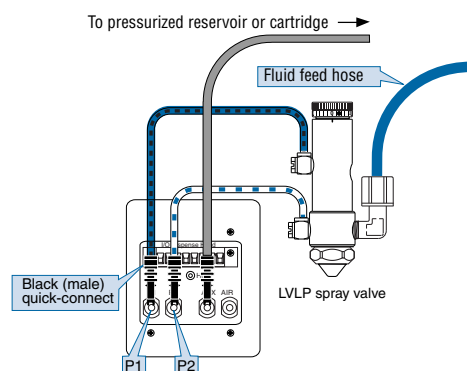
### Step 3: Syringe Barrel

Locate and install the universal syringe barrel bracket (#700814). Insert the holding pins into the holes on the back plate to fit the size barrel you are using. Insert the luer end of the barrel into the barrel stop and twist the barrel onto the captive luer extender. Attach the barrel adapter to barrel and plug the male quick connect into the P1 connector (0~100 psi) for dispensing high-viscosity fluid or P2 (0~30 psi) for dispensing low-viscosity fluid. Attach your dispensing tip to the bottom of the luer extender



### Step 3: Multi Air Input Valve

Attach the valve to the appropriate valve bracket. Install the valve bracket onto the machine. Attach pulsed-air line to the P1 connector and then attach the pulsed nozzle air to the P2 connector on top of the Z-head. Fluid reservoir air is connected to the auxiliary air connector on top of the Z-head.



## Height Sensor

4

Adjust the height sensor probe so it is located approximately 25.0mm above the dispense tip when the probe is not actuated. The height sensor is attached to the backside of the Z-plate. This will allow enough room for the dispense tip to reach the parts without obstruction from the probe. To make the required adjustment, loosen the probe hold-down screw and slide probe either downwards or upwards. Hand tighten only; do not overtighten probe hold down screw or it will deform the probe. This should give you an approximate 22mm offset between tip and probe. You must still teach the offset as described in the setup section in the manual to complete configuring your machine.

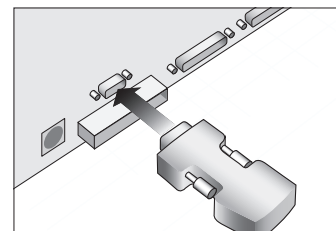
## Start-up

6

Remove the bolt at the top right-hand corner of the Z-plate. This bolt was used to prevent any movement of the Z-carriage during shipping.

Connect the Socket Bluetooth® adapter to the RS232 connector at the back of the Ultra TT. Turn the main power circuit breaker at the back of the machine ON. Reset the EMO switch on the front panel and press the green power button to power up the machine. Check that the Socket adapter LED is blinking.

Start the EFD software on your PDA handheld. Go to Tools and open the Bluetooth window. Tap Discover and wait for Socket #1 to appear in the Device list. Highlight this device and tap Connect. When the Security screen opens, type "1234" and press OK. (Do not check "Add to trusted device list".) Wait for the message "Connection established to selected device". Tap Done. Return to the Main screen, select Setup and the message "Dispenser is about to Home" will display. Tap OK to home the machine.

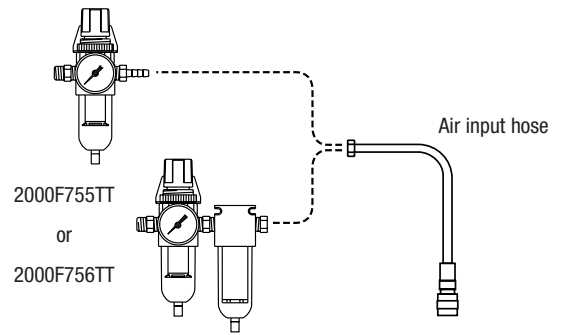


## Air

# 2

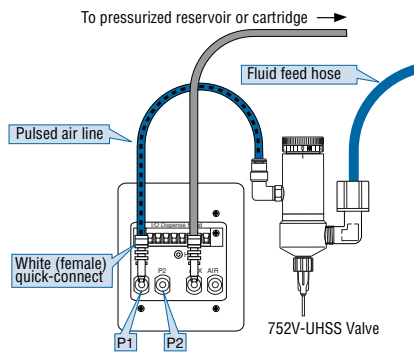
Use 6mm OD tubing to connect the air to the main air input on the back of the machine. It is important that dry, clean, filtered air is used.

It is recommended that either the 2000F755TT (5 micron filter regulator) or 2000F756TT (includes coalescing filter) be incorporated between the factory air supply and the Ultra TT System.



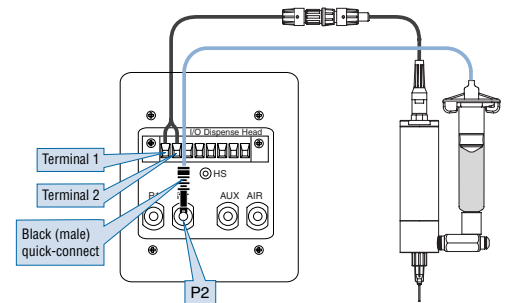
## Step 3: Single Air Input Valve

Attach the valve to the appropriate valve bracket. Install the valve bracket onto the machine. Attach pulsed-air line to the P1 connector on top of the Z-head. Fluid reservoir air is connected to P2 or to auxiliary air connector on top of the Z-head. The fluid reservoir tank should be placed to the side of the machine or if using cartridges, attached to the T-slots on the Z-plate.



## Step 3: Auger Valve

Attach the 790 auger valve to the auger valve bracket (#700806). Install the valve bracket onto the machine. Barrel reservoir air is connected to the P2 connector on top of the Z-head. The brown (+) lead is connected to Terminal 1 and the white (-) lead is connected to terminal 2 of the (4) position connector on top of the Z-head.



## Tooling Plate

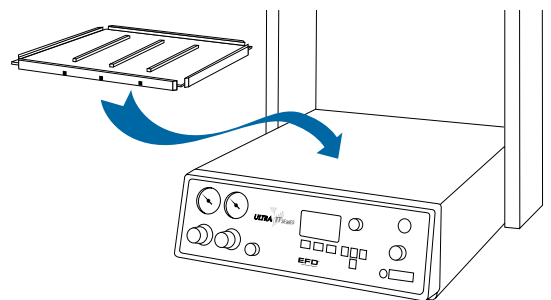
# 5

Install the EFD universal fixture plate (#7007-300 or #7007-500) or your own tooling plate.

Ensure that it is level.

Note: Dimensional drawings for the Y-carriage can be found on the CD-ROM included with this machine.

Caution: Failure to level your work-holding fixture may result in difficulties when programming.



## Programming

# 7

Follow the tutorial in the manual on the operations CD-ROM. This will teach you how to program all the essential elements of a fluid-dispensing program. Read the manual before attempting to teach your first program. If you have any questions regarding your new Ultra TT Automation Series system, please contact EFD or their authorized representative.

## Helpful Hints

- Pressure, Speed, Time and Tip Size control deposit size. Experiment with all four variables to determine ideal application.
- Always use largest possible gauge tip to achieve your deposit size.
- Taper tips drastically reduce the amount of fluid pressure required to dispense thicker materials.
- As a rule of thumb, the tip should be the diameter of your deposit size from the substrate. This may change depending upon fluid pressures and viscosity of the material being dispensed.
- Never dispense a two-part material through an EFD valve. Always premix your material and load and dispense directly from EFD syringe barrels.
- When making small dots, try using different retract heights and speeds. This can often yield much better results.
- When adjusting pressure with regulators, always reduce the pressure below the desired range before turning the pressure back up.
- Change tips as often as possible; material can cure inside the tips and reduce flow. Changing pressure to compensate for reduced flow is the least reliable method to compensate for flow reduction.
- Locate a point or mark on your part that you can use to orient the tip to when creating a new tip offset.
- Always consider safety when working around automated equipment.
- Remove the shipping bolt on top right-hand corner of Z-plate.

### For application assistance in the USA, call 800-556-3484.

For EFD sales and service in over 30 countries,  
contact EFD USA or go to [www.efd-inc.com/contact](http://www.efd-inc.com/contact)



This equipment is regulated by the European Union under WEEE Directive (2002/96/EC).  
See [www.efd-inc.com](http://www.efd-inc.com) for information about how to properly dispose of this equipment.\*



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