



forest
DENTAL PRODUCTS, INC.

P.O. Box 989, Hillsboro, Oregon 97123, U.S.A.



Forest Model 2500 & 2510 Panel Mount Control Systems



Your new FOREST Model 2500 Automatic or 2510 Manual Panel Mount Handpiece is one of the finest on the market. The workmanship and materials used in this unit should ensure you many years of reliable service. Please take a few minutes to read and become familiar with the operating instructions provided in this manual.

The intended use of this equipment is to be used by trained dental professionals for dentistry and does not pose a threat when used as intended during its life expectancy of 15 years with proper maintenance.

FOREST DENTAL PRODUCTS INC. would like to thank you for the confidence you have shown in purchasing this piece of equipment. You now have the full technical support of our Customer Service and Engineering Departments. If you have any questions, please contact your local FOREST dealer or call us at:

FOREST DENTAL PRODUCTS INC.
Phone: 503/640-3012 Fax: 503/640-4008
Monday thru Friday 5:30 am to 5:00 pm PST

OEM Distributor
EUROPEAN DESIGN INC.
115 G.L. Comer Rd.
Glasgow, KY 42141
Phone: 800/257/7407 Fax: 270/651/1732
Monday thru Friday 8:00 am to 5:00 pm CST

WARRANTY

FOREST warrants its products to be free from defects in material and workmanship only. No other warranties are expressed or implied. This warranty shall extend for five (5) years unless otherwise stated. Written notice of breach must be given to FOREST within this period. Buyer's remedy for breach of this warranty is limited to repair parts or replacement of items by FOREST. This warranty is void if items are carelessly used or improperly maintained or installed. This warranty does not cover damage that results from using cleaning, disinfecting or sterilization chemicals and processes. This warranty does not cover light bulbs. No claim for labor or consequential damages will be allowed.



forest
DENTAL PRODUCTS, INC.

PRODUCT DESCRIPTION

The FOREST Model 2500 Panel Mount features an automatic control for three handpieces with a 3-way autoclavable syringe, master on/off with indicator, individual handpiece adjustment, non-retraction water coolant with on/off, individual water coolant adjustment, 4-hole Midwest oblate handpiece tubing, and a wet/dry type foot control.

The FOREST Model 2510 Panel Mount features a manual control for two handpieces with a 3-way autoclavable syringe, master on/off with indicator, individual handpiece adjustment, non-retraction water coolant with on/off, individual water coolant adjustment, 4-hole Midwest oblate handpiece tubing, and a wet/dry type foot control.

CONTENTS

CONTROL FUNCTIONS	2-3
FINAL ADJUSTMENTS	3
SERVICE AND MAINTENANCE	
Syringe	4
TUBING CONNECTIONS	5
SCHEMATICS	
Model 2500 Automatic Control System Schematic.....	6
Model 2510 Manual Control System Schematic.....	7

CONTROL FUNCTIONS

2500 AUTOMATIC CONTROL

All controls for the 2500 Automatic Handpiece Control are located on the front panel. Figure 1 shows the location and identifies the function of these controls.

MASTER ON/OFF

Turns on air and water for the complete system. Flip the toggle forward to activate the system. Always turn the toggle OFF when ever unit is not in use.

MASTER ON/OFF INDICATOR

Provides visual proof that the system is pressurized the the MASTER ON/OFF is in the ON position.

DRIVE AIR PRESSURE CONTROL

Allows handpiece to be adjusted to its manufacturer's recommended operating pressure. Turn the adjusting screw counter clockwise to increase the pressure, clockwise to decrease the pressure.

DRIVE AIR PRESSURE GAUGE

Indicates drive air pressure to the handpiece.

WATER COOLANT ON/OFF

Activates handpiece water coolant system. Flip the toggle forward to activate the system.

WATER COOLANT FLOW CONTROL

Allows adjustment to be made to the handpieces. Turn the knob counter clockwise to increase the flow, clockwise to decrease the flow.

AIR COOLANT FLOW CONTROL

Allows adjustment to be made to the handpieces. Turn the knob counter clockwise to increase the flow, clockwise to decrease the flow.

Figure 2 shows the automatic handpiece holder and syringe holder assembly.

AUTOMATIC HANDPIECE HOLDER

Signals the automatic control system to supply drive air and air/water coolants to handpiece as it is lifted from its holder. When the handpiece is placed back into its holder, a signal to the automatic control system stops the drive air and air/water coolant supply.

FOOT CONTROL

Is used to regulate the drive air to the active handpiece. To operate, apply pressure to the foot control cover.

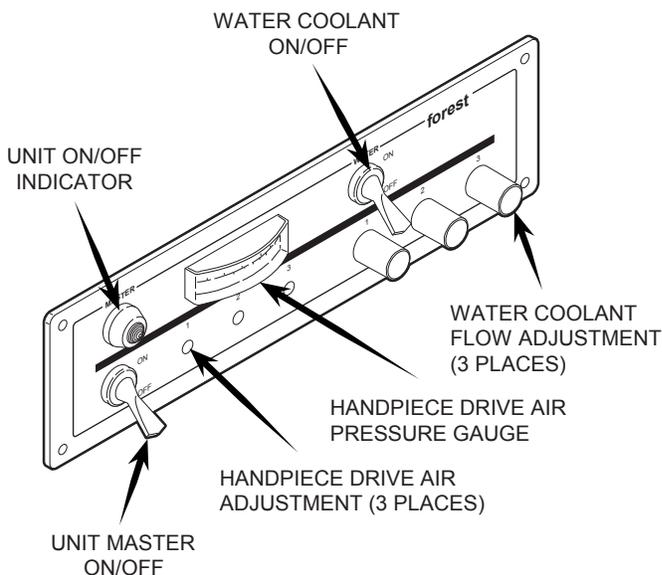


Figure 1. Handpiece control functions.

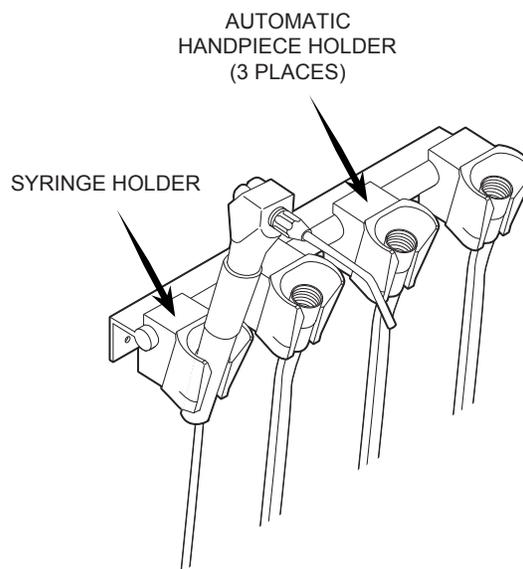


Figure 2. Automatic handpiece holder assembly.

CONTROL FUNCTIONS

2510 MANUAL CONTROL

All controls for the 2510 Manual Handpiece Control are located on the front panel. Figure 3 shows the location and identifies the function of these controls.

WATER COOLANT FLOW CONTROL

Allows adjustment to be made to the handpieces. Turn the knob counter clockwise to increase the flow, clockwise to decrease the flow.

WATER COOLANT ON/OFF

Activates handpiece water coolant system. Flip the toggle forward to activate the system.

DRIVE AIR PRESSURE CONTROL

Allows handpiece to be adjusted to its manufacturer's recommended operating pressure. Turn the adjusting screw counter clockwise to increase the pressure, clockwise to decrease the pressure.

DRIVE AIR PRESSURE GAUGE

Indicates drive air pressure to the handpiece.

HANDPIECE SELECTOR

Used to select either handpiece 1 or handpiece 2. Flip towards the appropriate number.

Figure 4 shows the manual handpiece holder and syringe holder assembly.

FOOT CONTROL

Is used to regulate the drive air to the active handpiece. To operate, apply pressure to the foot control cover.

FINAL ADJUSTMENTS

Adjust the air and water regulated pressure.

Adjust the handpiece pressure.

Check for any leaks.

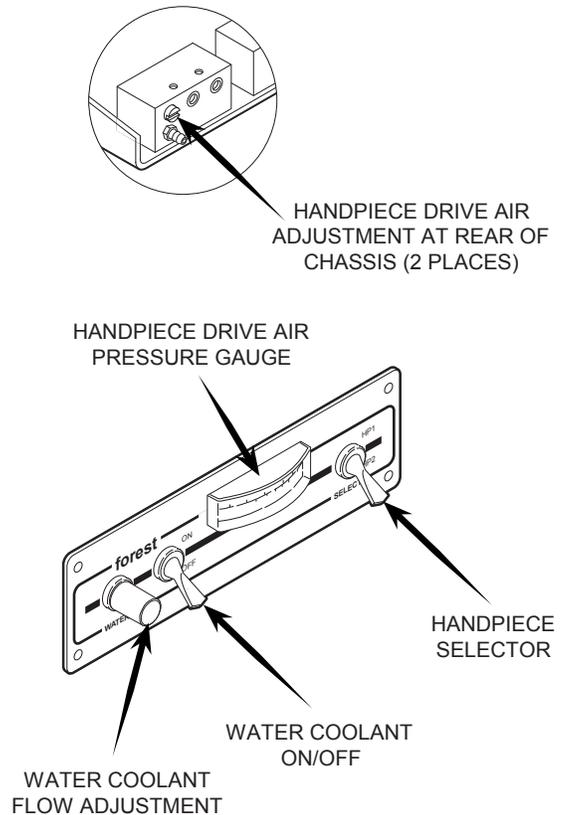


Figure 3. Handpiece control functions.

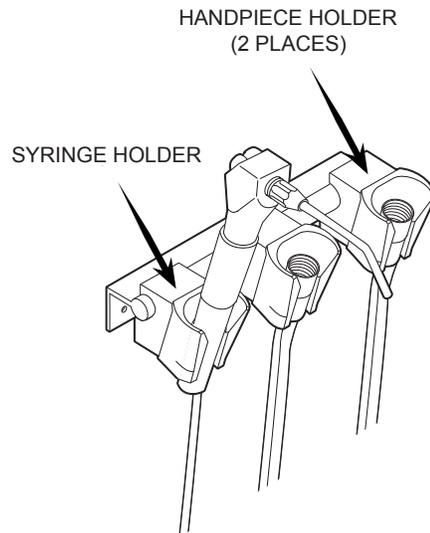


Figure 4. Manual handpiece holder assembly.

SYRINGE

TIP STERILIZATION

1. To remove Syringe Tip, firmly grasp tip and pull away from Syringe head.
2. Replace the tip by inserting a new one into the tip socket, and firmly pushing into place until you feel it softly "pop" into place. To ensure it has been fully inserted, the uppermost small groove on the tip shank must be just visible over the end of the socket. See Figure 5.

NOTE

Be sure to rinse all cleaning agents from the tip prior to sterilization. You may sterilize Syringe Tips by any of the following methods; Chemical Vapor, Ethylene Oxide or Steam Autoclave. Temperatures should never exceed 280 degrees Fahrenheit, (138 degrees Celsius).

INSTALLATION

1. Turn off Air and Water supplies.
2. Unscrew Syringe handle and determine which fitting leads to the air button.
3. Slide the Syringe handle down over the syringe tubing. Select the air side of the syringe tubing and connect to the air fitting on the syringe.
4. Repeat with the water tubing to the water fitting. Ensure that the unit end of the Syringe tubing is properly connected to the air and water supply fittings on the dental unit. Recommended operating pressures : Air 80 psi, Water 40 psi.

This groove must be just visible above tip of conical socket.



TROUBLE SHOOTING

- Problem:** Water leakage around buttons.
Solution: Replace the button assembly 1107-721 (See figure 5). Turn water and air supply off. Depress air and water buttons on Syringe to relieve residual pressure. Hold both buttons down and use a paperclip to push cross pin out of syringe head. Gently remove button from head, being careful not to lose conical spring beneath. To install new button, ensure that conical spring is seated with the small end pointing up. Gently push into place and hold both buttons down firmly while re-inserting cross-pin.
- Problem:** Water spray when air button is pressed.
Solution: Ensure tip is properly and fully inserted. If so, replace O-ring 0015-003 (See Figure 5). Twist conical tip socket assembly (1107-722) off of syringe head to access this O-ring. When re-installing tip socket assembly, hand tighten only. If tip cannot be fully inserted, then socket is too tight.

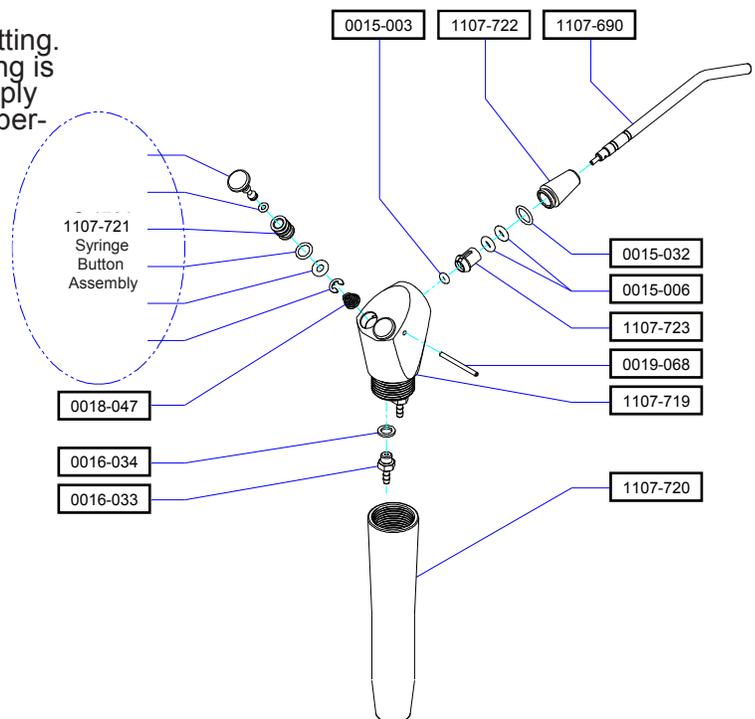
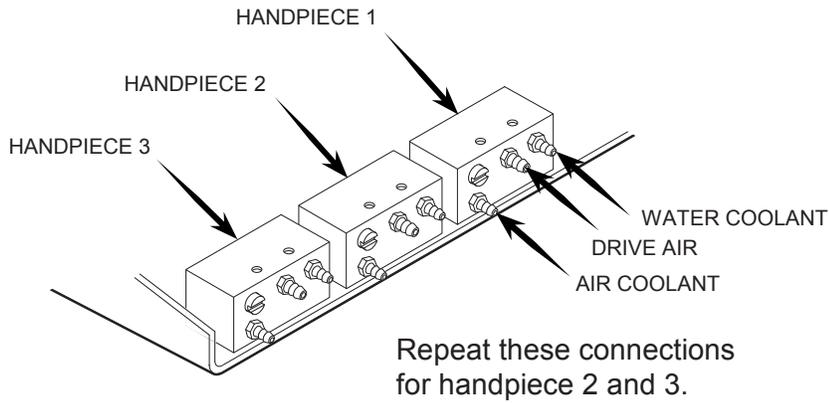


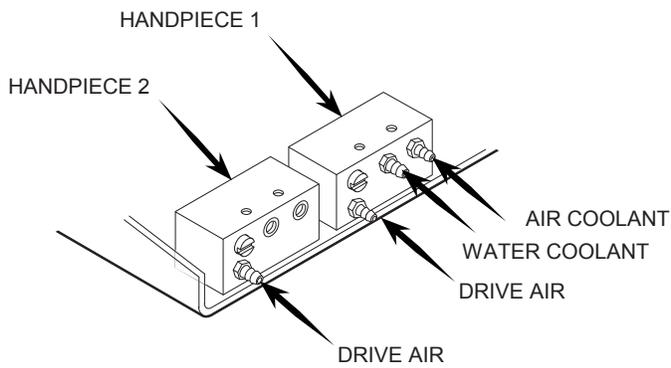
Figure 5. Syringe.

TUBING CONNECTIONS

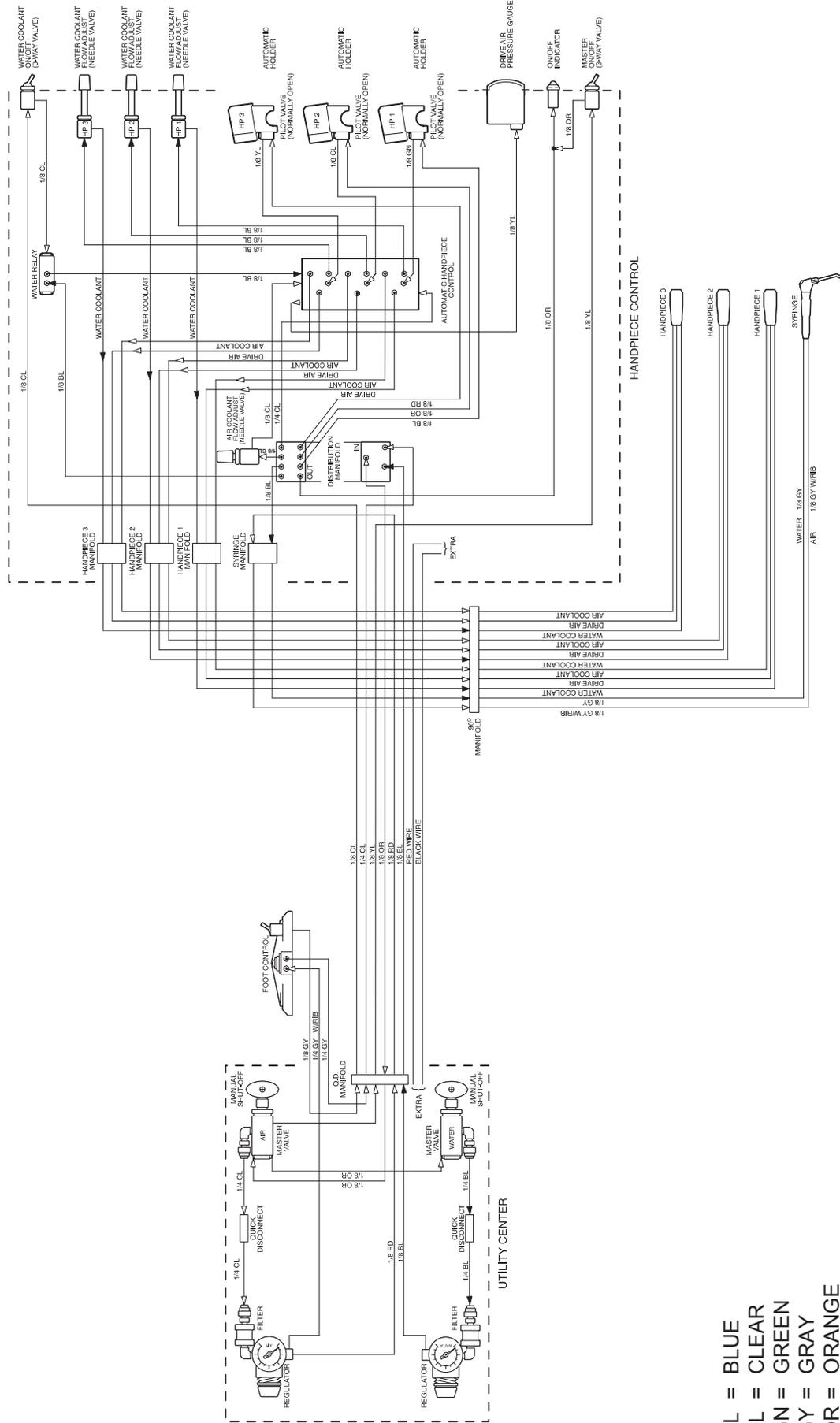
2500 AUTOMATIC CONTROL



2510 MANUAL CONTROL

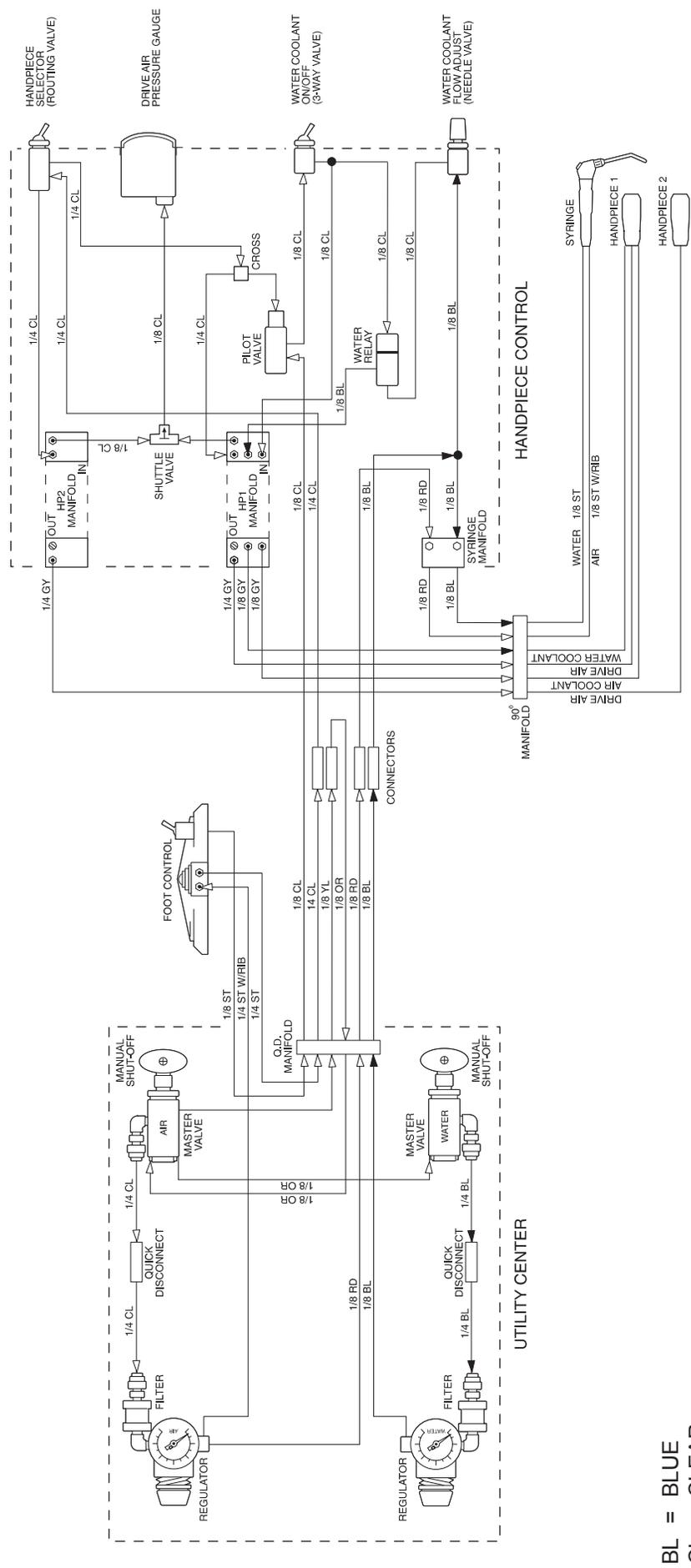


AUTOMATIC CONTROL SYSTEM SCHEMATIC MODEL 2500 - 3 HANDPIECE



- BL = BLUE
- CL = CLEAR
- GN = GREEN
- GY = GRAY
- OR = ORANGE
- RD = RED
- ST = STERLING
- YL = YELLOW
- ▲ = WATER
- △ = AIR
- = VACUUM

MANUAL CONTROL SYSTEM SCHEMATIC
 MODEL 2510 - 2 HANDPIECE MANUAL (1 WET, 1 DRY)



- BL = BLUE
- CL = CLEAR
- GN = GREEN
- GY = GRAY
- OR = ORANGE
- RD = RED
- ST = STERLING
- YL = YELLOW
- ▲ = WATER
- △ = AIR
- ▽ = VACUUM