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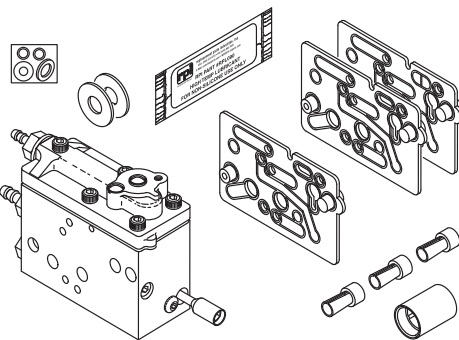
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## ADK170 & ADK164

### EXPLODED VIEWS & INSTALLATION INSTRUCTIONS

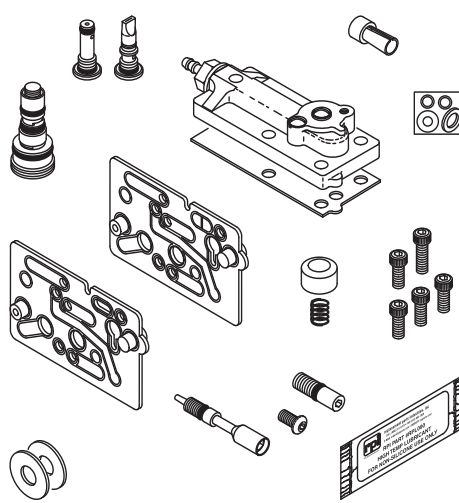
#### RPI PART #ADK170 - HANDPIECE CONTROL BLOCK



##### Kit includes:

RPI Part #	Description	QTY
ADC035	Sleeve Clamp	1
ADG158	Red Gasket	1
ADW186	Flat Washer	1
RPL090	High Temp Lubricant	1
RP0309	O-Ring	1
ADG159	Clear Gasket	2
ADW039	Flat Washer	2
RP0311	O-Ring	2
ADC034	Uni-Clamp	3

#### RPI PART #ADK164 - CONTROL BLOCK SERVICE KIT



##### Kit includes:

RPI Part #	Description	QTY
ADA165	Water Valve Actuator	1
ADA166	Control Block Cap Assy	1
ADG158	Red Gasket	1
ADG159	Clear Gasket	1
ADS118	Socket Head Cap Screw	1
ADS168	Stem (Drive Air Adj.)	1
ADS169	Button Head Cap Screw	1
ADS195	Compression Spring	1
ADS233	Stem (Water Flow Adj)	1
ADV161	Cartridge (Check Valve)	1
ADV162	Cartridge (Air Bleed Valve)	1
ADV163	Cartridge (Water Valve)	1
ADW186	Flat Washer	1
RPL090	High Temp Lubricant	1
RP0309	O-Ring	1
ADW039	Flat Washer	2
RP0311	O-Ring	2
ADS117	Socket Head Cap Screw	4

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## EXPLODED VIEW OF CONTROL BLOCK ASSEMBLY

### SERVICE TIPS

- Turn **OFF** the master ON/OFF Switch and operate the syringe to release air and water trapped in system.

- Always apply a light coat of lubricant (RPI Part #RPL090) to the O-Rings on stems and Cartridges prior to replacement.

- Clear Gasket (RPI Part #ADG159) to be used in all positions except end position when using optional Scaler Block.

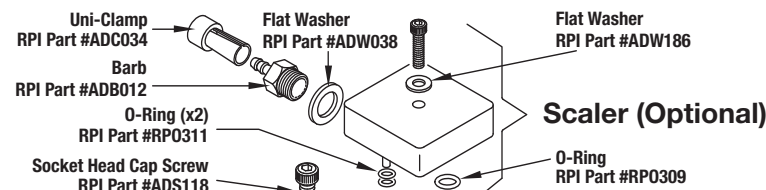
- When re-assembling 3 or 4 block assemblies, install Tie Bolt Kit and take care to tighten enough to effect sealing of Clear Gaskets (and/or Red Gasket). **DO NOT OVER TIGHTEN!**

### TESTING AFTER RE-ASSEMBLY

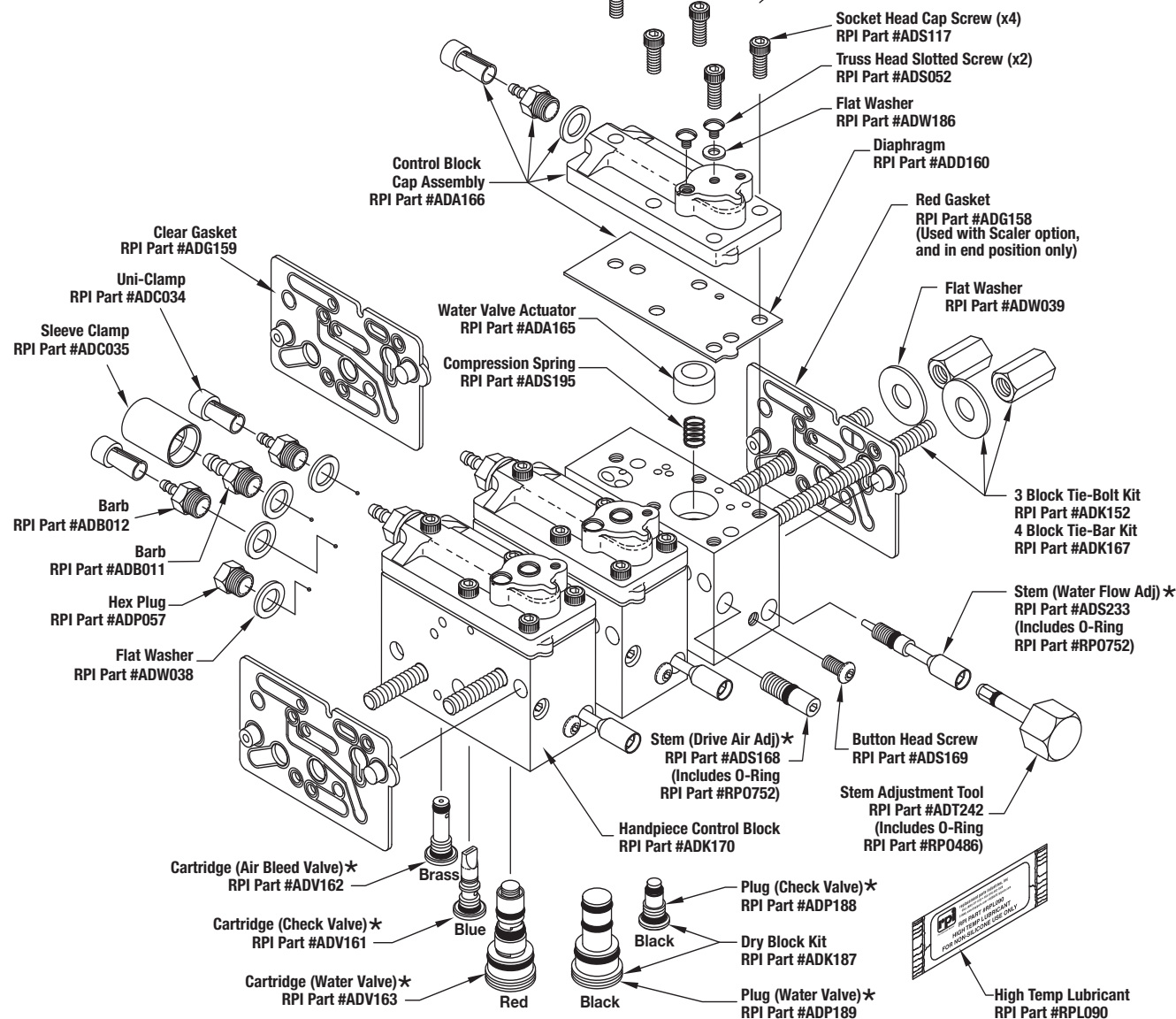
- Turn **ON** the master ON/OFF Switch. Remove Handpiece from Holder (or lift Handpiece/Whip Assembly from its resting position). Then activate Handpiece by stepping on the Foot Control. Check for air and/or water leaks all around block assembly, between block and cap, and around stems and cartridges. If leaks are detected, ensure all parts are properly tightened and re-check. If leakage is still present, the Control Block may be damaged and need to be replaced.

### COVER SYMBOLS

	<b>COOLANT WATER</b>
	<b>COOLANT AIR</b>
	<b>DRIVE AIR</b>

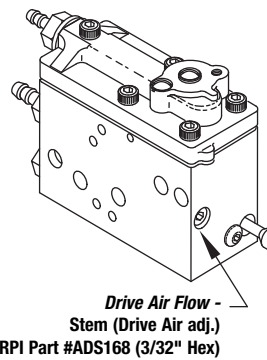


### Scaler (Optional)



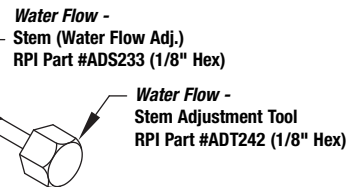
\* Apply a thin coat of High Temp Lubricant (RPI Part #RPL090) onto O-rings in Stems & Cartridges prior to assembly.

## DRIVE AIR FLOW & WATER ADJUSTMENTS



### WATER FLOW ADJUSTMENT

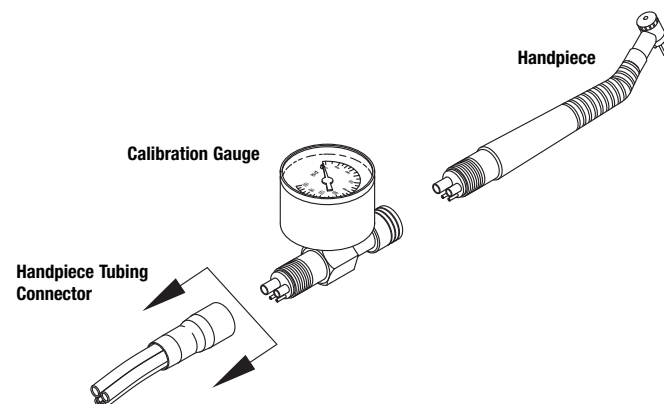
Adjust the water flow as desired by turning the Stem (Water Flow Adj.) (RPI Part #ADS233) using the Stem Adjustment Tool (RPI Part #ADT242) clockwise to decrease and counter-clockwise to increase flow.



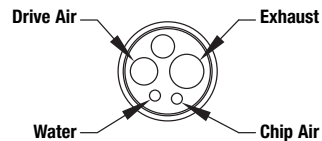
### DRIVE AIR FLOW ADJUSTMENT

After each installation or servicing of the Handpiece Control Block, calibrate the Drive Air by adjusting the Stem (Drive Air Adj.) (RPI Part #ADS168). Adjust Drive Air by turning Stem clockwise to decrease and counter-clockwise to increase flow. Use a calibration gauge to monitor adjustment to conform to handpiece manufacturer's recommendation. **CALIBRATION GUIDE:** High Speed use 32-38 psi. Slow Speed use ~45 psi. For specific air pressure calibration, see manufacturer's specifications.

## TUBING HOOK-UP & HANDPIECE PORT IDENTIFICATIONS

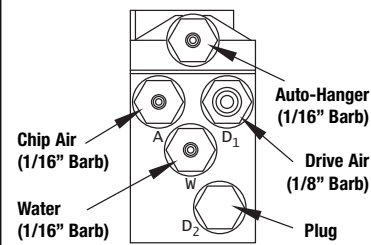


### HANDPIECE TUBING CONNECTOR END VIEW

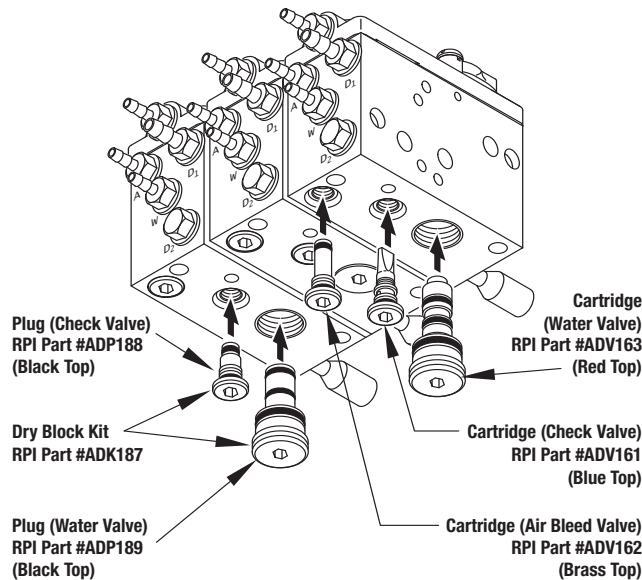


**Service Tip:** After installing and before calibrating, verify proper hook-up of handpiece tubing as shown.

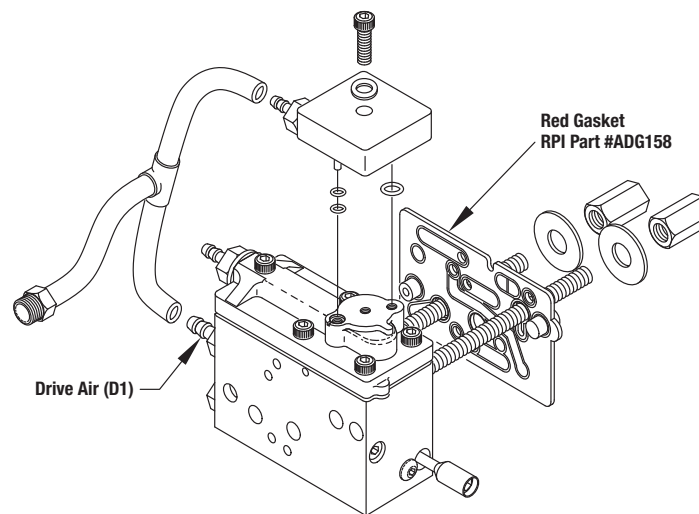
### PORT IDENTIFICATION REAR VIEW FOR HANDPIECE CONTROL BLOCK



## CARTRIDGE PLACEMENT



## OPTIONAL SCALER BLOCK INFORMATION



**WARNING:** Touching Scaler Tip during operation **WILL** result in serious injury!

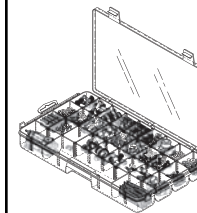
**CAUTION: DO NOT RUN SCALER WITHOUT WATER!** Extended operation of Scaler without water flowing from Tip can cause severe damage to Scaler Handpiece.

**CARDIAC PACEMAKERS WARNING:** Do not operate Ultrasonic Scaler, as Scaler can interfere with the Pacemaker.

## FREQUENTLY USED KITS & PARTS

**Control Block Kit (Major)**  
RPI Part #ADK190  
OEM Part # (No OEM Part # Available)

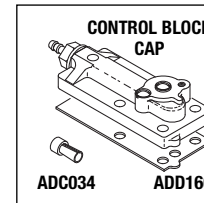
With this Kit, you can easily replace Handpiece Control Block parts, or completely rebuild the Control Block. Save money and time with this Kit!



### Kit includes:

RPI Part #	Description	QTY	RPI Part #	Description	QTY
ADA166	Control Block Cap Assy	1	ADB012	Barb	10
ADA165	Water Valve Actuator	3	ADD160	Diaphragm	10
ADP188	Plug (Check Valve)	3	ADG159	Clear Gasket	10
ADP189	Plug (Water Valve)	3	ADP057	Hex Plug	10
ADS168	Stem (Drive Air Adj.)	3	ADS052	Truss Head Slotted Screw	10
ADS233	Stem (Water Flow Adj.)	4	ADS195	Compression Spring	10
ADV161	Cartridge (Check Valve)	4	RPO311	O-Ring	12
ADV162	Cartridge (Air Bleed Valve)	4	RPO311	O-Ring	12
ADV163	Cartridge (Water Valve)	4	ADW039	Flat Washer	15
ADG158	Red Gasket	5	ADC034	Uni-Clamp	20
ADS169	Button Head Cap Screw	5	ADC035	Sleeve Clamp	20
ADT242	Stem Adjustment tool	5	ADS117	Socket Head Cap Screw	25
ADW186	Flat Washer	5	ADS118	Socket Head Cap Screw	25
RPL090	High Temp Lubricant	5	ADW038	Flat Washer	50
ADB011	Barb	10			

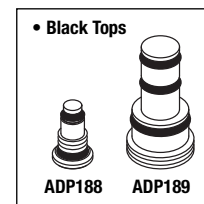
**Control Block Cap Assy**  
RPI Part #ADA166  
OEM Part #38.0546.00



### Kit includes:

RPI Part #	Description	QTY
ADB012	Barb	1
ADC034	Uni-Clamp	1
ADD160	Diaphragm	1
ADW038	Flat Washer	1
ADW186	Flat Washer	1
ADS052	Truss Head Slotted Screw	2

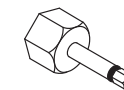
**Dry Block Kit**  
RPI Part #ADK187  
OEM Part #38.0648.00



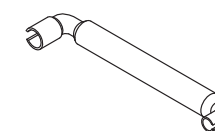
### Kit includes:

RPI Part #	Description	QTY
ADP188	Plug (Check Valve)	1
ADP189	Plug (Water Valve)	1

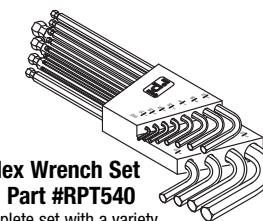
## USING THE RIGHT TOOLS



**Stem Adjustment Tool**  
RPI Part #ADT242  
Perfect for adjusting water flow.



**Universal Tool**  
RPI Part #RPT296  
Great for mounting sleeves and clamps.



**L-Hex Wrench Set**  
RPI Part #RPT540  
Complete set with a variety of sizes used most often.