



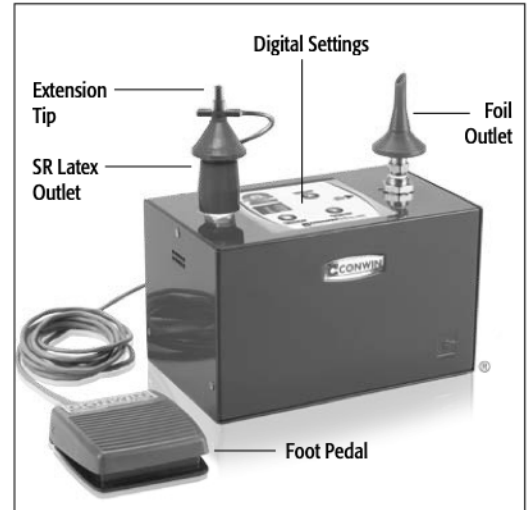
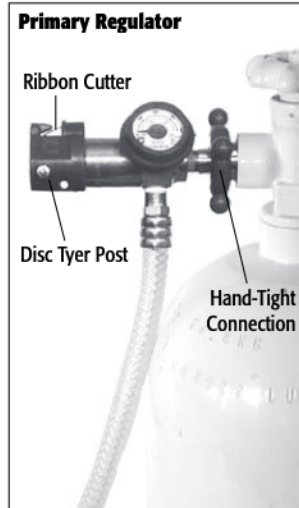
# Duplicator 2 Inflator Instruction Sheet

- 1 Duplicator 2 Inflator
- 1 Primary Regulator & Supply Hose
- 1 SR Latex Outlet
- 1 Second Stage Regulator
- 1 Extension Tip
- 1 Auto-Fill Foil Outlet
- 1 Foot Pedal
- 1 Power Cord

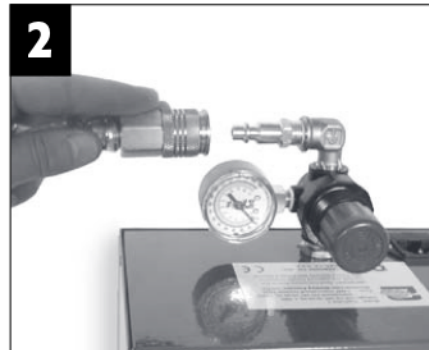


## Getting Started

- To prevent the risk of electrical shock, do not use the Duplicator 2 outdoors when weather conditions are wet. Never operate unit on a wet floor or work area.
- **IMPORTANT** - Before plugging Duplicator 2 into an outlet, refer to electrical rating listed on back of unit to verify that voltage is correct.
- If the Duplicator 2 malfunctions or is damaged, discontinue use and unplug unit from electrical outlet. Contact an authorized Conwin Service Center for details on how to receive service.
- Never attempt to repair the Duplicator 2 yourself. Opening the Duplicator 2 case will automatically void manufacturer warranty. Contact an authorized Conwin Service Center for all repairs.
- When using helium or nitrogen, always secure the cylinder in a safety stand or wall bracket.



Hand-tighten the primary regulator to a helium or nitrogen cylinder. (For Italian and Russian inflators use a wrench to tighten regulator.) Make sure the cylinder is properly secured in a safety stand or wall bracket prior to attaching the primary regulator. **Do not open the cylinder valve until Step 6.**



Connect the supply hose to the adjustable regulator in the back of the unit.



Plug the foot pedal into the back of the unit.



Plug the power cord into the back of the unit and into an electrical outlet. (A power strip with surge protector is recommended.) The digital display will appear when unit has power.

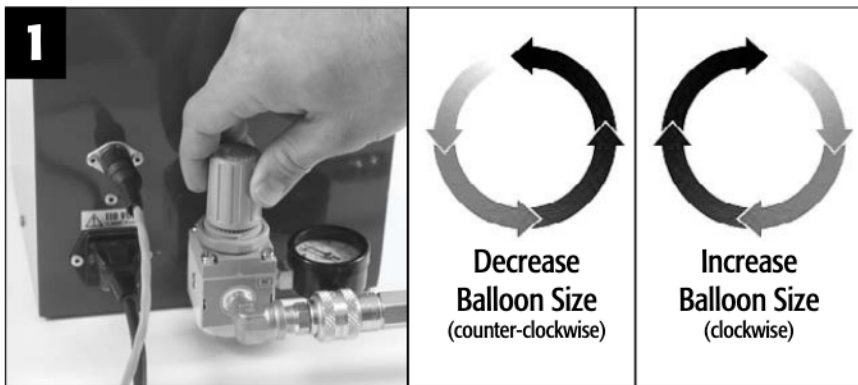


Hand-tighten the SR Latex Outlet.



Slowly open the cylinder valve. Make sure the valve is fully opened. The cylinder pressure will read on the gauge located on the regulator. The inlet pressure will read on the second stage regulator gauge, located on the back of the unit.

# Latex Balloon Inflation



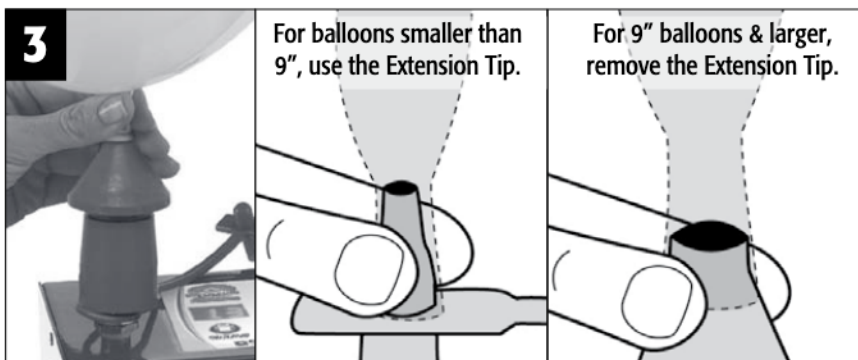
## Set the Adjustable Regulator

Reference the Latex Size Setting Chart to set the Duplicator 2 to the appropriate pressure. To adjust the pressure, pull the setting knob up to unlock. Turn it clockwise to increase the pressure and the size of the balloon. Turn the knob counter-clockwise to decrease the pressure and reduce the size of the balloon. When the unit is set to the desired size, press the black knob down to lock it in place.



## Set the Inflation Time

Reference the chart (see right) to determine the appropriate number of seconds required for the inflation cycle. The digital display will indicate number of seconds.



## Inflating Latex Balloons

Place the balloon over the inflating outlet. Slightly roll the neck of the balloon over the inflating tip. This will insure the gas enters the center of the balloon and the round shape of the balloon is maintained during the inflation process. **To achieve consistent results, do not cover the opening of the Extension Tips with your fingers.**



## 2 Options to Start Inflating

Option 1: Press the raised button marked "Push to Inflate Latex Balloon" for one-handed inflation.

Option 2: Tap the foot pedal to begin the inflation cycle.

When the system automatically shuts-off, remove the balloon from the outlet without allowing any of the gas to escape.

## Latex Size Setting Chart | 70 PSI

Balloon Size	Helium	Nitrogen	Air Compressor
5"	0.1 Seconds	0.2 Seconds	0.3 Seconds
9"	0.5 Seconds	1.4 Seconds	1.4 Seconds
11"	0.9 Seconds	2.5 Seconds	2.6 Seconds
16"	2.7 Seconds	7.5 Seconds	7.6 Seconds

## Duplicator 2 Latex Balloon Settings Chart

Settings should be used as guidelines for the Duplicator 2. Please note that size settings will vary based on user preference, balloon color and manufacturer. To adjust the size of balloon to your individual preference, it is necessary to inflate test balloons.

**PSI** refers to the gauge located on the adjustable regulator connected to the back of the Duplicator 2. The pressure setting controls the speed of inflation.

**SECONDS SETTINGS** refers to the tenth of a second increment readouts on the digital display on the face plate of the Duplicator 2.

**Important:** To insure consistent balloon sizing when using helium or nitrogen, check the size of the balloons every 1/3 of a cylinder of gas. If necessary, increase the size of the balloon by either increasing the time setting or the inlet pressure on the adjustable regulator.

## 60/40 Helium/Air Outlet Size Setting Chart

Balloon Size	Size in Seconds
11"	1.4
16"	4.2

## 60/40 Helium/Air Outlet Settings (optional)

Settings should be used as guidelines for the 60/40 Helium/Air Outlet. The 60/40 Helium/Air Outlet is recommended for use with 11" or larger balloons. For maximum float time on 11" balloons with a 60/40 mix, use Ultra Hi-Float® with the purple restriction clip on the Hi-Float® pump. Note: Float times may vary due to altitude, environmental conditions, and proper balloon sizing.



## Foil Balloon Inflation



Place the foil balloon over the inflating outlet. Pinch the neck of the balloon between thumb and forefinger and press down on the outlet. Support the foil balloon in an upright position to insure the neck of the balloon does not fold over the outlet and restrict the flow of helium. When the balloon has reached the proper pressure the inflator will automatically shut off the helium flow. Remove the balloon from the outlet and attach a ribbon and a balloon weight.

## Shutting Down the Duplicator 2



Close the cylinder valve or shut off the air compressor.



Release the pressure from the unit by pressing and holding the Foil Outlet until all of the gas has escaped. Disconnect the supply hose and adjustable regulator from the back of the unit. Remove regulator from the cylinder.

## Recommendations For Use With An Air Compressor

Most air compressors are factory set to automatically cycle on at 90 PSI and automatically cycle off at 120 PSI. The Duplicator 2 must have a steady supply of air or gas to produce equal size balloons. For accurate sizing, it is essential to work within the limits of the cubic foot per minute capacity of the air compressor.

### Air Compressor Required Specifications

- Primary Moisture Filter
- 20 Gallon Storage Tank
- Cycle Pressure: 90 PSI On - 120 PSI Off
- Compressed Air Availability: 6.5 Cubic Foot/Minute @ 90 PSI

### Important Guidelines When Using an Air Compressor

- Compressor must build up tank pressure before inflating balloons.
- The output setting on the air compressor should not exceed 80 PSI. If the compressor is set higher than 80 PSI, the Duplicator 2 will not perform the compressor's storage tank capacity.
- After each job, blow down the compressor to remove water collected in the tank during compression. The Dual Sizer will require factory rework and recalibration if moisture enters its system.
- Power surges will affect the accuracy of the Duplicator 2-line voltage must be steady at 120 volts. Use a power strip with surge protection.



# Add-On Accessories for the Duplicator 2



### 60/40 Helium-Air Outlet

The 60/40 Helium/Air Outlet enables the user to inflate 11" or larger balloons with a mixture of 60% helium and 40% air.

**Conwin # 36310**



### Insider Balloon

#### Stuffing Tool

This fast and easy-to-use tool efficiently fills large balloons with the maximum number of small balloons. The Insider can be clamped to any convenient table or workstation.

**Conwin # 85900**



### He/N2 Quick Switch

The He/N2 Quick Switch allows the user to switch from helium to nitrogen by turning the knob. Exclusively designed to be used with Conwin's Duplicator 2 and Dual Split-Second Sizer models that feature the second stage regulator separate from the supply line and primary regulator.

**Conwin # 36350**



### Air Compressor

#### Hook-Up Hose

The Air Compressor Hook-Up Hose, with quick-disconnect fittings and moisture filter, allows user to operate inflator up to 12-ft. away from the compressor.

**Conwin # 36340**



### Hi-Float® Outlet

The hand-tight Hi-Float® Outlet enables the user to inflate balloons filled with Hi-Float® neck up. This prevents any Hi-Float® from getting into the inflator.

**Conwin # 36320**



### Digital Inflator

#### 10ft Extension Hose

Snaps on to the back of the inflator and allows you to inflate up to 10ft away. Choose between 5 different snap-on outlets to meet the need of any job.

**Conwin # 10630**

## Service & Warranty

For assistance with service & repair issues or for warranty information, please visit [ConwinOnline.com/Support](http://ConwinOnline.com/Support), or call 1-(818) 246-9233

**CONWIN**  
730 Salem Street  
Glendale, CA 91203

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