



# PROTOCOL TOUCH®

# The CO<sub>2</sub> Advantage for CT Colonography







Comfort





# PROTOCO<sub>2</sub>L TOUCH PRODUCT INFORMATION



## COLON INSUFFLATOR

- Uses standard medical grade (USP) D or E size CO<sub>2</sub> cylinders
- Connects to a standard hospital electrical receptacle
- Cart provides storage area for CO<sub>2</sub> cylinders and a dedicated holder for spare administration sets

PROTOCO<sub>2</sub>L Touch Colon Insufflator with System Rolling Cart

## **ADMINISTRATION SET**

- Vinyl tubing, syringe, and plastic tubing clamp not made with natural rubber latex
- Includes silicone rectal catheter with retention cuff, 0.1 μm hydrophobic filter, 100 mL effluent collection container, and PROTOCO<sub>2</sub>L Touch connector

Firm blue tip aids effective insertion

Large holes for effective delivery of CO<sub>2</sub>

High quality silicone ensures catheter is rigid enough for effective insertion, yet soft enough for patient comfort

Easy-to-see blue line to aid catheter placement



Supplied with a syringe for effective inflation of the cuff up to 30 cc

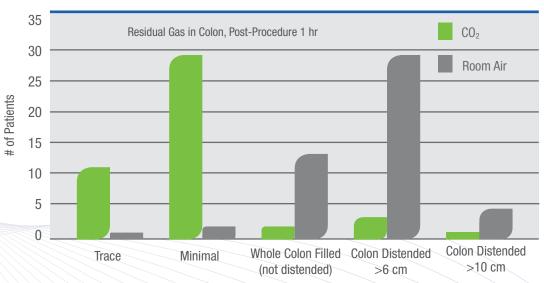


## **Comfort** for the Patient

#### CO<sub>2</sub> Advantage vs. Room Air:

- Rapid absorption of CO<sub>2</sub> compared to room air insufflation improves patient comfort<sup>1</sup>
- The preferred method of colonic insufflation for a positive patient experience<sup>1-5</sup>

#### After CO<sub>2</sub> insufflation, 94% of patients had only a trace to a minimal amount of residual gas<sup>6</sup>



- Unlike room air, CO<sub>2</sub> insufflation can be monitored and recorded with PROTOCO<sub>2</sub>L Touch.
  - Avoids the uncomfortable pressure spikes associated with manual room air insufflation<sup>4,7</sup>

"In our experience, we have found that automated CO<sub>2</sub> delivery is not only safe but also results in improved colonic distention compared with manual techniques and also that use of CO<sub>2</sub> compared with room air results in less postprocedural discomfort." 5

— Pickhardt PJ. *Radiology*. 2006;239(2):313-316.

#### **INDICATIONS AND USAGE**

The PROTOCO<sub>2</sub>L Touch Colon Insufflator provides a software controlled insufflation of carbon dioxide during CT colonoscopy. Carbon dioxide is more rapidly absorbed than room air and helps minimize the patient's post-procedure bloating and cramping. PROTOCO<sub>2</sub>L Touch helps reduce staff time during the colon insufflation process and enhances productivity. Automated insufflation helps ensure adequate and consistent distension in a patient- and operator-independent manner. It also features a specially designed small tip for patient comfort, as well as safety features to help protect against over-insufflation.

#### **IMPORTANT SAFETY INFORMATION**

The PROTOCO<sub>2</sub>L Touch Colon Insufflator administers and regulates carbon dioxide as a distention media to the colon during CT Colonography. The PROTOCO<sub>2</sub>L Touch Colon Insufflator should be used only when colon insufflation is indicated, and should therefore not be used for any other treatment. It should only be used under the direct guidance of a physician experienced in colon insufflation.

Instructions for Use may be obtained by contacting Bracco Diagnostics Professional Services Department at 800-257-5181, option 2.

Manufactured for E-Z-EM, Inc., a subsidiary of Bracco Diagnostics Inc., Monroe Twp., NJ 08831.

## **Clarity** for Optimal CT Colonography

#### **Easy to insufflate**

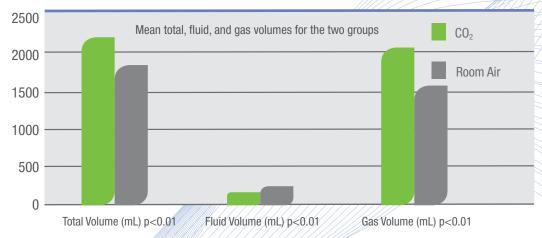
- Automation ensures adequate distention from patient to patient
  - Any gas lost during the study is automatically replaced to maintain distention adequate for scanning
- Less variability from user to user<sup>8</sup>

#### Easy to scan and read

- Ready-to-scan software ensures successful "first-scan" results
  - Software interface alerts users of insufflation completion and optimal colonic distention, a key parameter for successful CT colonography evaluation<sup>9</sup>

## Automation delivers the right amount for comfortable colonic distension

#### CO<sub>2</sub> provides greater overall colonic distention<sup>9</sup>



The improvement in overall distention with  $C0_2$  was >400mL in volume compared to room air  $(2223 \pm 686 \text{ mL vs. } 1809 \pm 514 \text{ mL; p} < 0.01)^9$ 

- Automated, low-pressure CO<sub>2</sub>
   insufflation may reduce the
   occasional colonic spasms
   associated with manual
   insufflation, particularly in
   segments with advanced
   diverticular disease<sup>4</sup>
- Regulated pressure gradually distends the colon and maintains distention for the duration of the study
- Minimal risk for perforation with refined, low-pressure automated CO<sub>2</sub> insufflators<sup>4,5</sup>

# The **Experts** agree

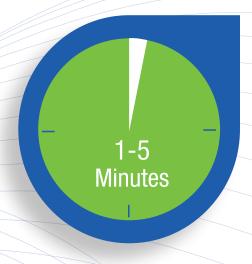
"The CT technologists at my institution unanimously prefer the automated CO<sub>2</sub> technique over manual methods. They cite a more clearcut point to begin scanning, a diminished need for coaching patients, and decreased operator dependence."<sup>4</sup>

— Pickhardt PJ. AJR. 2007;189:290-298.

"The preferred method of colonic insufflation is by means of mechanical insufflation using carbon dioxide."<sup>3</sup>

American College of Radiology 2014
 CT Colonography Practice Parameters

# **Consistency** From Study to Study

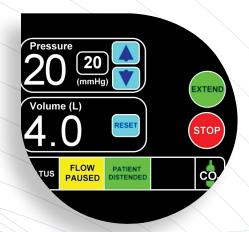


#### Intuitive design streamlines insufflation

- Helps decrease demand on staff time, particularly during insufflation<sup>1</sup>
  - Insufflation time with the PROTOCO<sub>2</sub>L Touch averages 1-5 minutes and can easily be completed with one technologist, if necessary<sup>1</sup>
- Puts control at the user's fingertips with a simple touchscreen interface
- Provides real-time information by visually displaying pressure and volume for quick reference during the procedure
- Offers the convenience of both visual and audible alerts when CO<sub>2</sub> supply is low

### **Patient comfort and safety features**

- Protects against over-insufflation with automation, over-pressure audible alerts, pressure relief valves, and one-touch flow-stop feature
- Safety shutdown feature for further safety support
- Soft, high-quality catheter for comfortable insertion





## Simple setup and insertion

- Catheter features insertion guides to aid in quick, easy, accurate, and comfortable patient placement
- Administration sets are designed for intuitive connection to and removal from the insufflator





#### **Ordering Information**

Cat. No.

#### **Description**

390308

390309

PROTOCO<sub>2</sub>L Touch Automated CO<sub>2</sub> Colon Insufflator for CT Colonography

390305 System Rolling Cart

Administration Set with small catheter and retention cuff (latex-free 20 Fr. catheter/retention cuff) for single-use insufflation

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References: 1. Dachman AH. Advice for optimizing colonic distention and minimizing risk of perforation during CT colonography. *Radiology*. 2006;239:317-321.

2. Neri E, Halligan S, Hellström M, et al. The second ESGAR consensus statement on CT colonography. *Eur Radiol*. 2012. doi:10.1007/s00330-012-2632-x.

3. American College of Radiology. ACR-SAR-SCBT-MR practice parameters for the performance of computed tomography (CT) colonography in adults. Chicago, IL: American College of Radiology; 2005-2009, revised 2014. 4. Pickhardt PJ. Screening CT colonography: how I do it. *AJR*. 2007;189:290-298. 5. Pickhardt PJ. Incidence of colonic perforation at CT colonography: review of existing data and implications for screening of asymptomatic adults. *Radiology*. 2006;239(2):313-316. 6. Sumanac K, Zealley I, Fox BM, et al. Minimizing postcolonoscopy abdominal pain by using CO<sub>2</sub> insufflation: a prospective, randomized, double blind, controlled trial evaluating a new commercially available CO<sub>2</sub> delivery system. *Gastrointest Endosc*. 2002;56:190-194. 7. Burling D, Taylor SA, Halligan S, et al. Automated insufflation of carbon dioxide for MDCT colonography: distension and patient experience compared with manual insufflation. *AJR*. 2006;186:96-103.

8. Shinners TJ, Pickhardt PJ, Taylor AJ, Jones DA, Olsen CH. Patient-controlled room air insufflation versus automated carbon dioxide delivery for CT colonography. *AJR*. 2006;186:1491-1496. 9. Patrick JL, Bakke JR, Bannas P, Kim DH, Lubner MG, Pickhardt PJ. Objective volumetric comparison of room air versus carbon dioxide for colonic distention at screening CT colonography. *Abdom Imaging*. 2014. doi:10.1007/s00261-01400206-x.

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