Covidien provides contrast delivery systems for Computed Tomography (CT) Magnetic Resonance Imaging (MRI) and Angiography. Our range of injectors has been developed from a heritage of innovation and technology.

Providing valuable assistance to contrast delivery, each injector features integrated technological advancements, all designed to enhance ease of set up, operation and procedural time efficiencies.
The advanced dual head CT injector

**Dual Head Versatility**
- Performs up to 6 phases.
- Can perform a single phase injection.
- Faceplates for both pre-filled and empty syringes.

**Fully Programmable Powerhead**
- Enables you to select and amend protocols whilst remaining at the patients side.
- Intuitive user interface.
- Designed for ergonomic convenience and available in table, pedestal or ceiling mounted configurations.
- Step by step set up to help prevent air embolus.

**Patency Check™**
- Perform a saline flush first to check for patent veins, and correct placement of the cannula, prior to contrast injection.
- Stay at patient’s side while testing.

**Timing Bolus™**
- Perform a Timing Bolus injection of contrast medium followed by a saline flush to determine ideal scan delay for optimum image quality.

**Tilt Enable**
- Enable button will not be active until enabling sequence has been properly followed and the powerhead is tilted downward.
Battery Free Operation
- The first AC powered injector for the MR suite.
- Reduces time required for battery and equipment maintenance.

Independent Dual Syringe Powerhead
- Allows timed contrast injection and provides saline flush delivery.
- Single bolus and dual phase injections of contrast media can be performed.
- Drop in syringe loading reduces preparation time.
- Automatic syringe size detection.
- Large keys on the powerhead ensure ease of use.

Touchscreen
- Full colour touchscreen for greater visibility.
- Simple and reliable, featuring an operator intuitive user interface.
- Ability to start and stop the injection outside the magnet room.

Non-ferrous
- No ferrous parts.

Safety
- ‘Check for air’ safety check feature.

Quick and simple operation

Powerhead Keys
- Large keys on the powerhead ensure ease of use.
- The injector can be enabled, started and stopped directly from the powerhead.

Check For Air Feature
- System will not enable until steps have been followed and the operator has confirmed that they have ‘checked for air’.

Automatic Syringe Size Detection
- Illuminated indicators display syringe size on the powerhead.

Easy Drop-In Syringe Loading
- Results in faster procedures.
- Syringe filling can be performed in either the control room or the scan room.
- Powerhead is designed to accept empty or pre-filled syringes.

Drip Mode
- Allows to switch from injection to drip mode at any time, ensuring IV line patency throughout the procedure.
- Variable and programmable, allowing the user to change the drip rate, volume, and duration from the control room.
Simplicity – for single head delivery

**Touchscreen**
- New easy to read colour touchscreen.
- Requires only 3 simple key strokes to activate injection.
- Programme up to four phases with inject or scan delay features.
- Protocol manager to store and recall up to 12 user defined protocols.

**Syringes**
- The syringes provide a crystal clear view of the contrast medium.
- Compatible with pre-filled syringes.

**Powerhead**
- The powerhead LED display provides a highly visible indication of remaining volume.
- The programmable Auto-Fill feature automatically moves the syringe to the selected volume.

**Reliable and functional performance**

**Digital Powerhead Display**
- The LED display automatically "flips" as the powerhead is rotated – ensuring proper orientation for viewing.
- Indicates programmed protocol and volume remaining in the syringe.

**Fill Control Bar**
- Allows easy, one finger operation.
- Drives the plunger for syringe filling, pull-back, or infusion.

**Syringes**
- The syringes accommodate both front loading 200ml disposable syringes and pre-filled syringes.

**Air Detection Device**
- The optional Air Detection and Warning System (ADAWS) serve as an aid in identifying empty syringes and air bolus.

**Touchscreen**
- The pressure sensitive touchscreen display makes the injection setup direct and easy.
- Protocol manager to store and recall user-defined protocols.

**Multimodality**
- With just a touch of a button, switch between Angio and CT modes.
Optibolus™ Solution for the Optivantage™ DH CT power injector

Optibolus bolus shaping software delivers radiographic contrast media at a controlled flow rate and volume to ensure enhanced diagnostic images. The Optibolus software is used to provide an exponentially decelerating flow rate injection that optimises contrast use and provides an extended period of uniform vascular enhancement. Optibolus software can be turned on or off for any given injection.

Anatomical areas for Optibolus

These include the following CT examinations
- Cardiac CT
- PE scanning
- Peripheral angiography examinations
- Other angiographic procedures

Optibolus™ bolus shaping software offers:
- Prolonged imaging window.
- Improved contrast utility.
- Uniform vascular enhancement.

Contrast enhancement how, when and where you want it.

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