

World's first patented Hybrid torque driver.
Affordable, flexible system that can replace
up to 8 conventional screwdrivers.

HD-Series

Hybrid Torque Control System



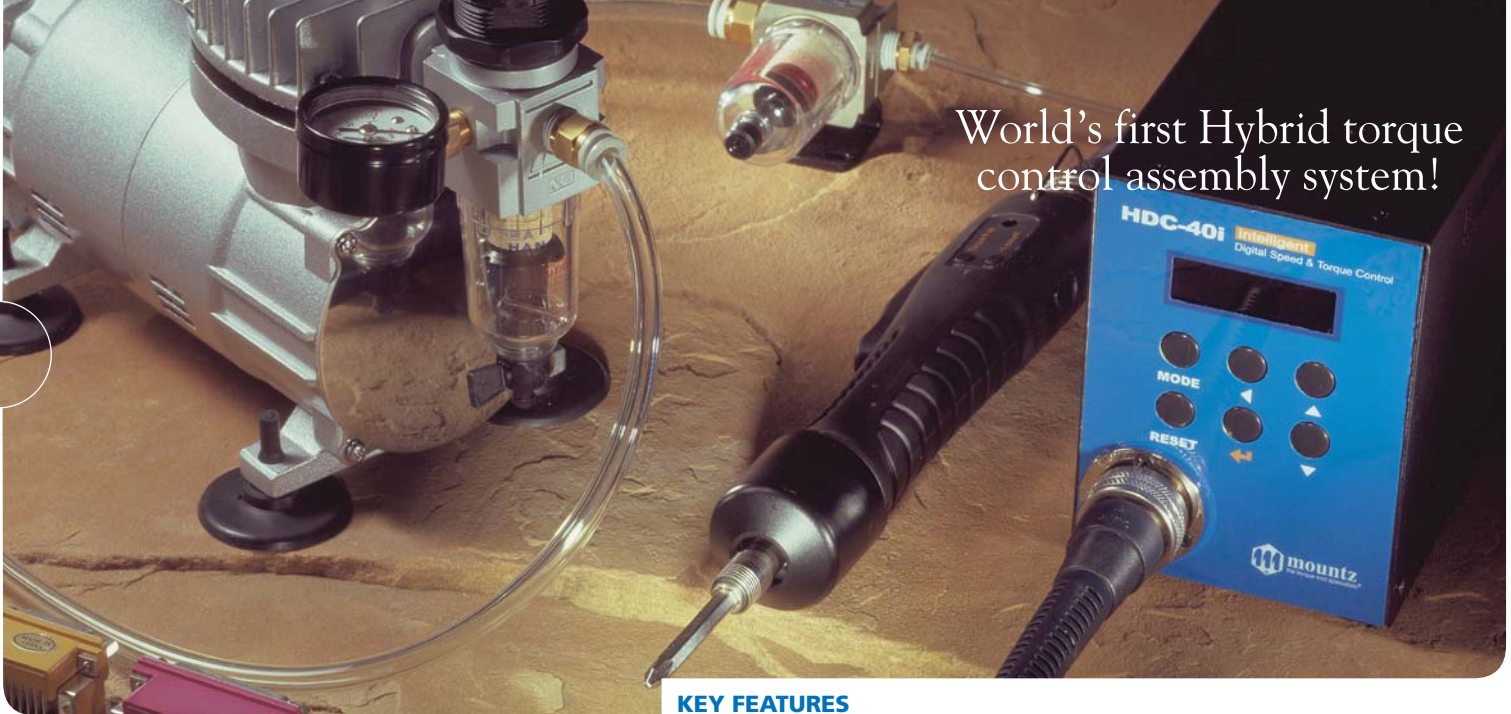
Innovation from the torque tool specialists® **NEW**

**CALRIGHT
INSTRUMENTS**

The Right Source For Your Test & Measurement Needs

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World's first Hybrid torque control assembly system!



HD-Series

Hybrid Torque Control System

Mountz introduces the Hybrid Torque Control System, a revolutionary change in repeatable screw fastening technology. The patented HD-Series Torque Control System is the world's first torque control tool using both air and electric power to set and control torque. The HD's precise pneumatic pressure sensor and patented algorithm allow for precision digital torque selection. It provides real-time monitoring and torque control of the tightening process. It provides repeatability of the torque applied to screws, regardless of joint characteristics and frictional differences in actual applications.

| Key Benefits | |
|---------------------------------|--|
| Productivity/Flexibility | Increase productivity with one tool instead of 2 - 8 tools. Perfect for cell based manufacturing environments, change torque via front panel, PLC or direct connection to I/O on controller. |
| Quality | Visual digital torque & speed control. Built in screw counter, error detection, fastening strategy setting and customized software package provide documented fastening and control. |
| Cost | Less than half the cost of conventional DC control tools - state of the art technology at a fraction of the price. Replace 2 - 4 tools with 1 Hybrid system. |

KEY FEATURES

Controller

- Programmable digital torque setting with memory for 8 preset torque settings.
- Real-time monitoring and torque control of the tightening process.
- Selectable speed up to 1,700 rpm.
- Programming and monitoring with PC software.
- Programmable multi-sequence operation.

Brushless Electric Screwdrivers

- Various models that range from 0.3 - 39 lbf.in
- Electric Screwdrivers feature a high performance brushless motor design that provides durability and reduces the standard maintenance costs for electric screwdrivers.
- ESD housing and bit tip control to 1 ohm, (cable not ESD).
- Low inertial force provides smooth reaction-less operation with little G force to assembled parts.
- Low noise, vibration and maintenance.

I/O Interface & Settings

- 25P I/O interface to a PLC or 8 direct sensor ports.
- Hybrid systems can be "Daisy Chained" together for screw counting in a master/slave scenario.
- Sensor ports for preset selection and screw counting.
- Input via sensor ports for presets.
- Input / Output for PLC.
- Can be connected to Scout II.

Built-in Screw Counter

- Detection of fastening error and displays error condition.
- Visual assembly fastener count (count up or down), including total count.
- Real time monitoring by PC program.
- Detects - cross threading, omissions, unfinished rundowns and cycle complete.
- 0 to 99 screws.

Screw Counting Selections

- Auto.
- Start (Continuous on).
- Start Pulse with time limit.
- Start Pulse and Finish pulse.

Preset Parameter Settings

- Three selectable units of measure: Lbf.in, N.m, Kgf.cm
- Selectable settings for Torque, Speed, Min & Max Angle, and Soft Start time.
- Maximum angle control and verification
- Minimum angle control and error reporting

Motor Run Time Limits

- Motor run time limits, forward and reverse.
- Motor stall time limit.
- Sleep time.
- Motor acceleration for soft start.

LED Display Selections

- Preset and Speed.
- Preset and Torque.
- Converted Torque Idle & Target Torque (Running) Count setting and remaining screw count.
- Count setting and remaining screw count (Idle + Preset and Torque (Running)).
- Count setting and remaining screw count + Preset and Torque (Alternating).

Output Signal Types

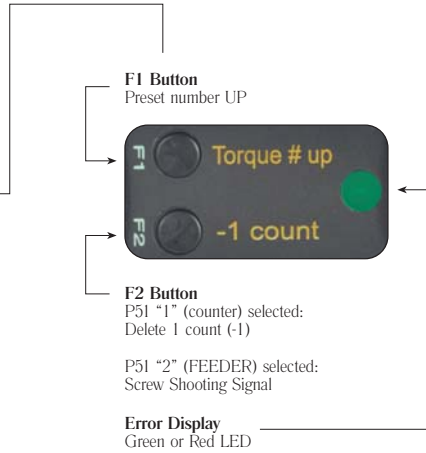
- Count complete
- Torque up and Count complete.
- Alarm, screw missing.





BRUSHLESS ELECTRIC SCREWDRIVER (use with HDC40i Controller)

| Model | Driver Type | Item # | Torque Ranges | | RPM | | Grip Dia. | Length | Drive Size | Weight |
|-----------|---------------|--------|---------------|--------------|------|-----|-----------|--------|------------|----------|
| | | | lbf.in | cN.m | High | Low | | | | |
| HD150-A | Lever Start | 145741 | 4.4 - 13 | 49.1 - 147 | 1700 | 500 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 15.5 oz. |
| HD150P-A | Push-to-Start | 145742 | 4.4 - 13 | 49.1 - 147 | 1700 | 500 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 15.5 oz. |
| HD220-A | Lever Start | 145743 | 6.1 - 19.1 | 68.7 - 215.8 | 1250 | 400 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 15.5 oz. |
| HD220P-A | Push-to-Start | 145744 | 6.1 - 19.1 | 68.7 - 215.8 | 1250 | 400 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 15.5 oz. |
| HD450-A | Lever Start | 145745 | 8.7 - 39 | 98.1 - 441.4 | 600 | 300 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 18 oz. |
| HD-450P-A | Push-to-Start | 145746 | 8.7 - 39 | 98.1 - 441.4 | 600 | 300 | 1 1/4" | 9 2/3" | 1/4" F/Hex | 18 oz. |



BRUSHLESS ELECTRIC SCREWDRIVER (use with HDC30i Controller)

| Model | Driver Type | Item # | Torque Ranges | | RPM | | Grip Dia. | Length | Drive Size | Weight |
|---------|-------------|--------|---------------|-------------|------|-----|-----------|--------|------------|---------|
| | | | lbf.in | cN.m | High | Low | | | | |
| HD012-E | Lever Start | 145747 | 0.3 - 1 | 3 - 11.7 | 1100 | 500 | 1 1/8" | 7 7/8" | 4mm HIOS | 7.8 oz. |
| HD025-E | Lever Start | 145748 | 0.7 - 2.1 | 7.8 - 24.5 | 1100 | 500 | 1 1/8" | 7 7/8" | 4mm HIOS | 7.8 oz. |
| HD035-E | Lever Start | 145749 | 0.9 - 3 | 9.8 - 34.3 | 1100 | 500 | 1 1/8" | 7 7/8" | 4mm HIOS | 7.8 oz. |
| HD045-E | Lever Start | 145756 | 1.3 - 3.9 | 14.7 - 44.1 | 750 | 400 | 1 1/8" | 7 7/8" | 4mm HIOS | 7.8 oz. |
| HD060-E | Lever Start | 145757 | 1.3 - 5.2 | 14.7 - 58.8 | 1000 | 500 | 1 1/4" | 8 2/3" | 4mm HIOS | 9.9 oz. |

NOTE!
Brushless screwdrivers are also available for Automation and Vacuum models.

HDC40i CONTROLLER

Model: HDC40i Hybrid Controller
Item # 145740
For driver models: HD150, HD220 & HD450

HDC30i CONTROLLER

Model: HDC30i Hybrid Controller
Item # 145739
For driver models:
HD012, HD025, HD035, HD045 and HD060



Increase productivity with one tool instead of 3-4 tools. The convenience of selecting the control settings with the touch of a button and offering built-in error proofing systems, adds value to the quality control process.



USB cable for connecting Controller to PC.
Item # 770319

GENERAL SPECIFICATIONS (Both Models)

Input (Air Pressure):
Min 4.5 Bar (62.26 PSI) / Max 6 Bar (87 PSI)

Angle Control: 0.1 - 10 turns

Preset Parameters:
Torque, Speed, Soft Start & Angle in 8 preset numbers

Auto detection of the connected driver: Auto detection of the offset value from the EEPROM on the driver

Error display: Error display by code no. in system, communication & pattern error group

Fastening Quality Control: OK/NG monitoring of screw fastening by preset pattern of angle and/or time

Screw Counter: Save the total screw number, and monitoring the number of OK fastening screws. The controllers can be "Daisy Chained" together for screw counting in a master/slave scenario.

PC based program for parameter settings, monitoring and real time output

HDC40i SPECIFICATIONS

Input (Electric): AC120V ~ 220V, 50-60Hz

Output (Electric): DC40V, 3A

Fuse: AC250V 10A

Dimension (WxLxH): 3 3/4" x 8 3/4" x 5"

Weight: 4.6 lbs

Preset selection capability: Front panel or 25P I/O

HDC30i SPECIFICATIONS

Input (Electric): AC120V ~ 220V, free voltage

Output (Electric): DC30V, 1.5A

Fuse: AC250V 5A

Dimension (WxLxH): 3 1/2" x 7 1/8" x 5"

Weight: 3.5 lbs

Preset selection capability: Front panel or 25P I/O



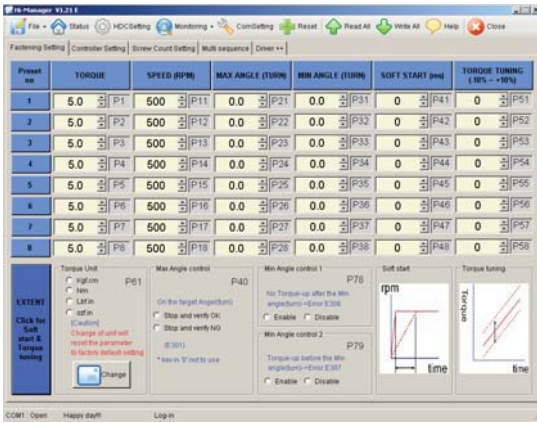
Display Window

Control Buttons

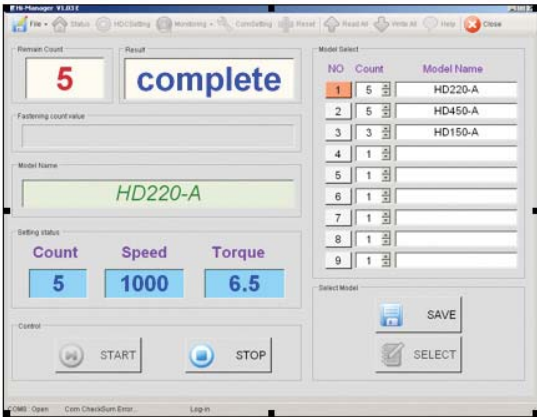
Connection to Driver



HDC40i & HDC30i Controller



THE HDC Controller enables an ability to define various fastening parameters.
 Four units of torque measurements: (oz.in, lbf.in, N.m, & kgf.cm)
 6 preset parameter settings & 8 preset torque settings
 Maximum angle control and verification
 Minimum angle control and error reporting

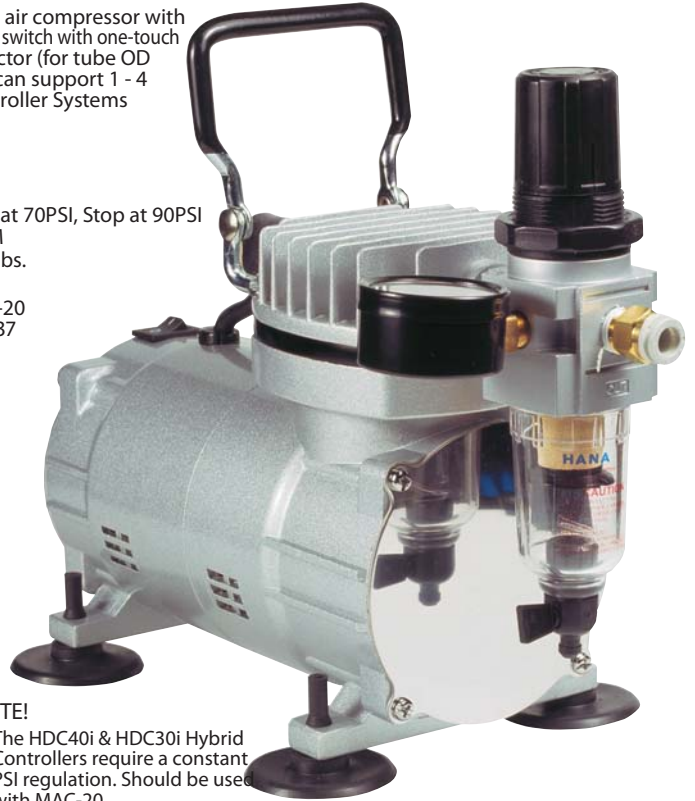


Screw count monitoring in real time.
 Using a screw counter is like putting the eyes and ears of a quality control manager where they are needed most - right on the assembly area. Screw counters verify that all fasteners have been installed and were seated to the tools preset torque setting. These units take the control of the assembly process out of the operator's hands.

MINI AIR COMPRESSOR

Oil free mini air compressor with auto pressure switch with one-touch male connector (for tube OD 8mm), unit can support 1 - 4 Hybrid Controller Systems

1/8HP, Start at 70PSI, Stop at 90PSI
 Flow: 20LPM
 Weight: 9.5 lbs.
 120V
 Model:MAC-20
 Item # 145737



NOTE!
 The HDC40i & HDC30i Hybrid Controllers require a constant PSI regulation. Should be used with MAC-20.

ACCESSORIES

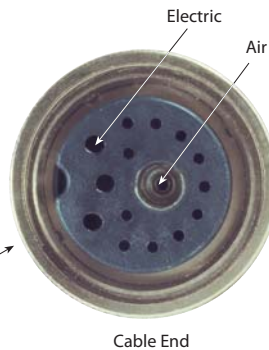
| Item # | Model |
|--------|--|
| 773816 | One-Touch Male Connector (1/4 RPT, Tube OD 4mm) |
| 773817 | One-Touch Male Connector (1/4 RPT, Tube OD 8mm) |
| 773818 | One-Touch Union Tee (Tube OD 8mm) |
| 773819 | One-Touch Straight Union (Tube OD 8mm) |
| 773820 | One-Touch Plug-in-Reducer, (8mm Plug to 4mm Tube) |
| 773821 | Tubing - Polyurethane Clear (4mm OD X 2.5mm ID, 20 Meter Roll) |
| 773822 | Tubing - Polyurethane Clear (4mm OD X 2.5mm ID, 33 Meter Roll) |
| 773823 | Tubing - Polyurethane Clear (8mm OD X 5mm ID, 20 Meter Roll) |
| 773824 | Tubing - Polyurethane Clear (8mm OD X 5mm ID, 33 Meter Roll) |

CABLES

The driver cable connects the driver to the HDC controller. This cable provides both air and current to the driver, as well as signals back to the controller.

Item # 14-PELZ937
 For Drivers:
 HD150
 HD220
 HD450

Item # 14-PELZ942
 For Drivers:
 HD012
 HD025
 HD035
 HD045
 HD060

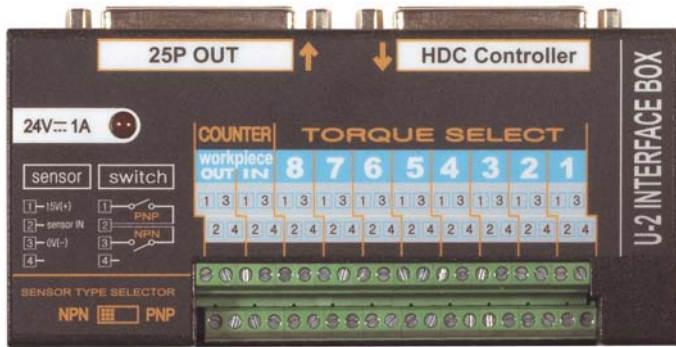


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U-2 INTERFACE BOX

8 Sensor ports for preset # selecting.
2 Sensor ports for count.
(Input power: 24VDC 1A)
Item # 145758



CABLE 6 FT. (RS232 to USB TYPE A)
Item # 145780



AC ADAPTER FOR U-2

AC Adapter for U2 Interface &
RSC-4-9 Converter
Not pictured.
Item # 145758



**PHOTO SENSOR
SB-32W**

Item # 145759



**CABLE 25 PIN I/O
(Male-Male)**

Item # 145760

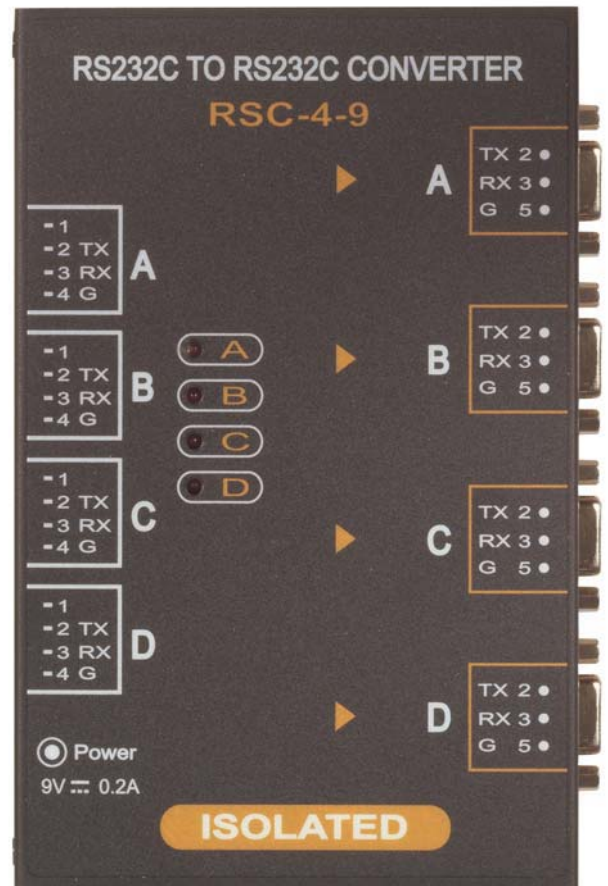
PISTOL GRIP

Converts inline drivers to pistol grip.
Fits driver models:
HD150, HD220 & HD450
(driver not included)
Item # 145738



RSC-4-9 CONVERTER

Item # 145784



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