

Durable Production Performance

Cordless for Safety Critical Joints



LiveWire and the New LiveWire 2

Dualband 2.4 & 5 GHz WLAN Tools



Cleco[®]

Light, Intelligent. All The Power. And It's Wireless.

LiveWire 2 offers precision torque, angle and speed control features for safety critical fastening in a new lightweight, ergonomic, wireless design.

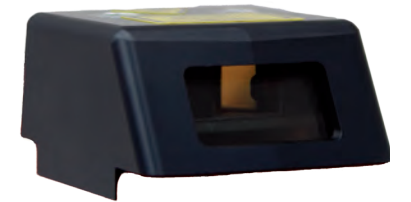
With up to 1700 rundowns per battery charge, LiveWire tools make sure that you can complete an entire shift of tightenings.

LiveWire™ has been designed and tested to provide wireless connectivity across the harshest of machine-to-machine environments.



Platform for optional accessories

- Modular Integrated Bar Code Scanner (937240PT)
Configurable to enable real time barcode data collection, auto parameter select, tool enable and disable.
- Optional RFID tag for use with tool location systems
- Additional modules are available to customize LiveWire tools to meet customer requirements



Scanner 937240PT (optional)



Digital Process Control

- Auto bolt sequencing
- Auto image selection
- Configurable reject management

New Diversity Antenna System (2.4/5GHz)

- Improved 5GHz Performance
- Double Antenna System
- Uniband 3 support up to 5,825 GHz/Channel 165

Digital Audio Interface

- Operator audible alarm
- Programmable sound duration

Electronic Intelligence

- On-board controller with power management
- Integrated servo with I/O signal handling
- Auto sensing power intelligence
- 512 cycle memory buffer



LiveWire Memory Chip LMC

- Tool settings memory
- Regional parameter settings
- Easy and fast tool replacement



Operator Display

- Real-time interface
- Operator feedback
 - Green LCD = OK
 - Yellow LCD = Running
 - Red LCD = NOK / Errors
 - Green LED = OK
 - Red LED = NOK
- Configurable application buttons



Configurable LED Illumination

Easy Integration in available Tightening Systems



One controller manages up to 16* tools simultaneously in varying combinations. 3

The Most Cost-Effective Safety Critical Solution Available.

Up to 50% Savings Over Traditional Systems

Mobility is a major advantage with wireless communications. Cleco LiveWire™ marries the freedom and flexibility of cordless tools with real-time wireless error proofing. Utilizing a 2.4 GHz/5 GHz WLAN (Wireless Local Area Network) interface in conjunction with the highest security encryption and authentication levels, plus a 512-cycle tool memory buffer, LiveWire™ delivers the industry standard in wireless connectivity and performance for your safety and production critical data transmissions.

Up to 83% More Productivity

Cleco LiveWire™ tools are available with Vmax™, a solution that drives tool power and speed increases up to 83% without losing accuracy or durability. This leading innovation utilizes the same 10 tools to one line controller hardware solution with up to 50% cost savings over traditional systems. New Vmax™ technology auto senses the applied power source and adjusts the maximum tool speed capability on the fly. LiveWire™ with Vmax™ combines the power you need with the most versatile wireless system available today.



**Up To 16*
LiveWire Tools.
1 Line
Controller.**

***Contact Regional
Application Center for
requirements greater than 10.**



WLAN Technical Data/Options:

Features	2.4 & 5 GHz Tools with LiveWire Memory Chip* 17B... and 47B... Series
Standard	IEEE 802.11a/b/g/h/n
Safety	WEP • 64/128 bit encryption WPA/WPA2/802.1x 128 bit TKIP/CCMP encryption • Pre-shared key mode (PSK) LEAP, PEAP • 802.1x EAP authentication (LEAP, PEAP, TLS, TTLS GTC, MD5, OTP, PAP, CHAP, MSCHAP, SCHAPv2, TTLS MSCHAPv2) on request
Range	Typically up to 164' (50m)
Channels	1 – 13 (2.401 – 2.483 GHz) 36 – 165 (5.17 – 5.825 GHz)
Transmission rate (power):	15 dBm @ 5 GHz 20 dBm @ 2.4 GHz (b)
Sensitivity	-94 dBm (@ 1 Mbps) -80 dBm (@ 5 GHz)
Modulation	DSSS/OFDM

*All important WLAN settings and the individual MAC address is stored in the changeable LiveWire Memory Chip (LMC). Allows to run spare tools in a secure WLAN network through changing the LiveWire Memory Chip to the new tool in a fast and easy way.

Cordless Transducer Control: Pistol



17BPYSB13Q

(Apex u-Guard socket shown above not included)

Cleco®

Pistol Grip Series

Torque Range 3.0 - 13 Nm 2.2 - 9.6 Ft. Lbs.	Bolt Size M5 - M6 #10 - 1/4"
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- Brushless precision
- Resolver control
- Transducer accuracy
- On-board controller with I/O signal handling and power management
- Integrated servo



Cordless Tools Nomenclature

17	B	P	X	X	B	XX	Q
Motor 17	Power B-Battery/ PM48				Version B - 26-48 V		Output Drive Q - Quick change
Tool Style P - Pistol		Peripherals S - Barcode Scanner - None				Max Torque (Nm) 05 - 5 Nm 07 - 7 Nm 09 - 9 Nm 13 - 13 Nm	
Data Transmission Y - WLAN: Dual-Band 2.4 GHz, 5 GHz Z - Xbee: IEEE 802.15.4 (4 tools/access point)							

Pistol Model Number	Torque Range		Free Speed (RPM)			Weight-Less Battery		Output Drive Size	Length With 26V Battery	
	Ft. Lbs.	Nm	26V*	44V*	Vmax	lbs.	kg		in.	mm
17BPYSB05Q	2.2-3.7	3-5	1639	2428	2428	3.34	1.52	1/4" Hex	8.44	215
17BPYSB07Q	2.2-5.2	3-7	1161	1721	1721	3.34	1.52	1/4" Hex	8.44	215
17BPYSB09Q	2.2-6.6	3-9	887	1314	1314	3.34	1.52	1/4" Hex	8.44	215
17BPYSB13Q	2.2-9.6	3-13	629	931	931	3.34	1.52	1/4" Hex	8.44	215

*Speed with fully-charged battery.

General: All tools must be used with an approved Cleco/DGD tightening controller or suitable PC software. Battery weights: 26-V Li-Ion 1.1 lbs. (0.50 kg), 44V Li-Ion 1.9 lbs. (0.85 kg)

Extra Equipment: Sockets, batteries and chargers must be ordered separately.

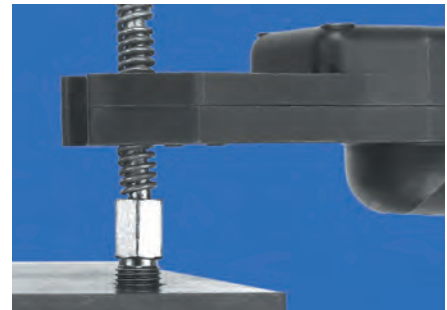
Cleco®

Tube Nut Series

Torque Range
10 - 40 Nm
7.4 - 29.5 Ft. Lbs.

Bolt Size
M6 - M8
1/4" - 7/16"

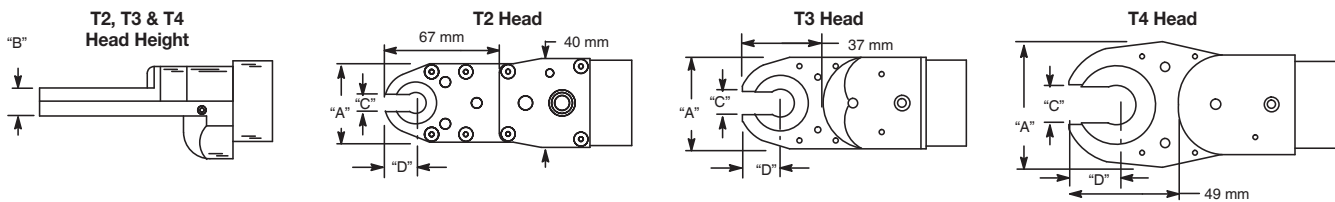
- Brushless precision
- Resolver control
- Transducer accuracy
- On-board controller with I/O signal handling and power management
- Integrated servo



The 47BT tube nut wrench alternates the direction of rotation each time the lever is actuated. When rotating in reverse, the socket will stop at the open position.



47BTYSB20T2



Tube Nut Tool Nomenclature

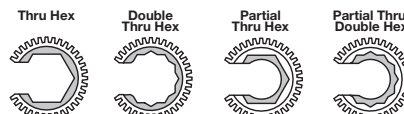
47	B	T	X	X	X	XX
Motor 47	Power B-Battery/ PM48				Version B-26 V-48 V	
Data Transmission Y - WLAN: Dual-Band 2,4 GHz, 5 GHz Z - Xbee: IEEE 802.15.4 (4 tools/access point)				Peripherals S - Barcode Scanner - None		
				Head Type T2 - 20Nm T3 - 30Nm T4 - 40Nm		

Socket Nomenclature

KSX	XX	X	X
Head Type KS2 - T2 KS3 - T3 KS4 - T4			
		Output Type 0 - Partial Thru Hex 1 - Thru Hex 2 - Double Thru Hex 3 - Partial Thru Double Hex	
		Extension Length 0 - Flush 2 - 1/4" 4 - 1/2" 6 - 3/4"	
		Maximum Hex Socket Size MG, EE T2 Head Type MM, 3/4" T3 Head Type MU, 1 1/16" T4 Head Type 00, ## (Specials) All Head Types	

Socket Sizes

EA - 1/4"	M5 - 5 mm	MH - 14 mm	MP - 22 mm
EC - 3/8	M6 - 6 mm	MI - 15 mm	MQ - 23 mm
EE - 1/2	MA - 7 mm	MJ - 16 mm (5/8")	MR - 24 mm (15/16")
EF - 9/16	MB - 8 mm (5/16)	MK - 17 mm	MS - 25 mm
EH - 11/16	MD - 10 mm	ML - 18 mm	MT - 26 mm
EJ - 13/16	ME - 11 mm (7/16)	MM - 19 mm (3/4")	MU - 27 mm (1 1/16")
EK - 7/8	MF - 12 mm	MN - 20 mm	
EM - 1	MG - 13 mm	MO - 21 mm	



Tube Nut	Torque Range		Free Speed (RPM)			Weight-Less Battery		Max. Drive Size	Length w/ 26V Battery		Head								
	Model Number	Ft. Lbs.	Nm	26V*	44V*	Vmax	lbs.		kg	in.	mm	A Width		B Blade Ht.		C Opening		D End/Cntr.	
47BTYSB20T2		7.4-14.8	10-20	260	455	455	5.6	2.54	1/2"	23.6	598	1.42	36	0.55	14	0.28	7	0.53	13
47BTYSB30T3		11.1-22.1	15-30	188	329	329	5.6	2.53	3/4"	23.3	588	1.65	42	0.59	15	0.475	12	0.73	19
47BTYSB40T4		14.8-29.5	20-40	141	247	247	6.4	2.90	1 1/16"	29.9	612	2.36	60	0.59	15	0.675	17	0.93	24

*Speed with fully-charged battery.

General: All tools must be used with an approved Cleco/DGD tightening controller or suitable PC software.
Battery weights: 26-V Li-Ion 1.1 lbs. (0.50 kg),
44V Li-Ion 1.9lbs (0.85 kg)

Extra Equipment: Batteries and chargers must be ordered separately.

To order individual sockets, use a "KS" prefix. (i.e. KS2EA01 for a T2, 1/4", flush, thru hex socket.)

Batteries

Part No.	Description	Weight	
		lbs.	kg
935377	26V Li-Ion	1.1	0.50
936400PT	44V Li-Ion	1.9	0.85



Battery Chargers

Part No.	Description
935391	26 V battery charger
936491PT	26 V/44 V charger



vmaxTM

961350PT



Vmax Power Module

Model No.	Weight		Width		Length		Depth	
	lbs.	kg	in.	mm	in.	mm	in.	mm
961350PT	6.8	3.1	9.4	240	4.7	120	5.9	150

2M power cable included.

Preventative Maintenance Diagnostics

Part No.	Description
936492PT	Battery service interface and software CD

- USB to PC Interface for 44 V battery
- Displays discharge cycles, total and per cell voltage
- Better diagnostics
- Easy to troubleshoot

Battery service interface allows cycles and cell voltages to be read via serial interface cable.



936492PT

LiveWire 2 Scanner

Part No.	Description
937240PT	Bar Code Scanner for "L" tools



937240PT

Vmax Cables

Part Number	
Tool	Extension
961341-***	961342-***
961369-060	--



961341-030

***Length: 030=3 m, 060=6 m, 080=8 m, 100=10 m
Note: Maximum 20 m length

2.4GHz to 5GHz Upgrade Kit

Upgrades are available at your local ATG Application Center to upgrade the W and X series 2.4GHz tools to a 5GHz Y series tool.

Tool Holders

Part No.	Description
935144	Pistol tool holder w/infrared interface
935396	Pistol tool holder
935290	Angle tool holder w/infrared interface
935395	Angle tool holder
935170	Infrared interface cable
935998	70Nm RA, Crowfoot/Tubenut holder
935999	70Nm RA, Crowfoot/Tubenut holder w/infrared interface



935144

935290

935170

LiveWire Communication Access Points

Part No.	Description
961390	XBEE 802.15.4 Base Station
961300	868 MHz Base Station (EU only)
544249PT	WLAN Dual Band Access Point 2.4/5GHz (US) incl. Antennas
961453PT	WLAN Dual Band Access Point 2.4/5GHz (EU) incl. Antennas

Radio Range: 30-50 meters (XBEE 30 meters max.)
IEEE 802.11a/b/g (depending on tool)
Max. Tools: 16
XBEE max tools 4



Tool Holder Extension Cables

Part No.	Description
935154	3m Tool holder IrDA serial extension cable
935155	6m Tool holder IrDA serial extension cable
935157	10m Tool holder IrDA serial extension cable

