

Durable Production Performance

Cordless for Safety Critical Joints



LiveWire and the New LiveWire 2
Dualband 2.4 & 5 GHz WLAN Tools



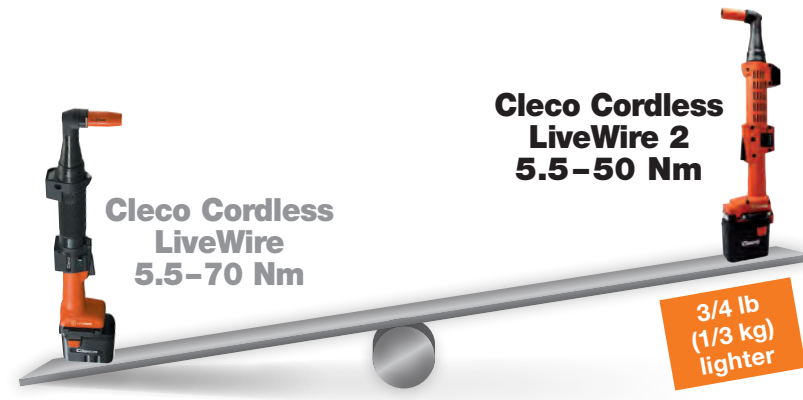
Cleco®

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)

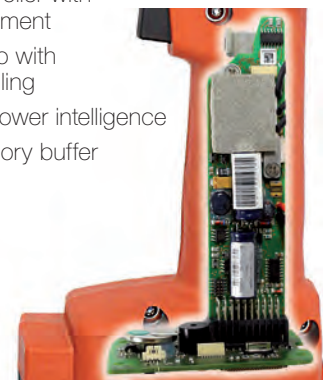
- Improved 5GHz Performance
- Double Antenna System
- Uniband 3 support up to 5,825 GHz/Channel 165

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.

New LiveWire 2 Cordless Transducer-Controlled Tool

Cleco®

LiveWire 2 Right Angle Series

Torque Range **Bolt Size**
 5.5 - 50 Nm M5 - M10
 4.1 - 36.9 Ft. Lbs #10 - 3/8"

- Lighter than our LiveWire
- Add-On platform
- Brushless precision
- Resolver control
- Transducer accuracy
- On-board controller with I/O signal handling and power management
- Integrated servo



Nomenclature for LiveWire 2 Tool Series

47	B	A	Y	P	B	XX	XXX	X	L
Motor 47	Power B – Battery/ PM48				Version B – 26–48 V		Output Drive AM3 – 3/8" Sq.Dr.		Tool Series L – LiveWire 2 Series
Tool Style A – Angle				Peripherals P – Accessory Platform				Retainer – Pin Retainer B – Ball Retainer	
Data Transmission Y – WLAN: Dual-Band 2.4 GHz, 5 GHz							Max Torque (Nm) 15 - 15 Nm 35 - 35 Nm 21 - 21 Nm 50 - 50 Nm 28 - 28 Nm		

Right Angle 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
47BAYPB15AM3L	4.1-11.1	5.5-15	538	983	983	4.04	1.83	3/8" SQ	22.2	563
47BAYPB21AM3L	5.9-15.5	8-21	411	751	751	4.04	1.83	3/8" SQ	22.2	563
47BAYPB28AM3L	7.4-20.7	10-28	291	532	532	4.04	1.83	3/8" SQ	22.2	563
47BAYPB35AM3L	9.6-25.8	12-35	244	447	447	4.62	2.09	3/8" SQ	23.4	595
47BAYPB50AM3L	13.3-36.9	18-50	168	293	293	4.66	2.11	3/8" SQ	23.7	603

*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: Scanner, sockets, batteries, and chargers must be ordered separately.

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



vmax[™]

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	--

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



961341-030

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

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.

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

