



WHY MAKITA CORDLESS?

INNOVATIVE CORDLESS TECHNOLOGY

Makita designs and manufactures innovative cordless tools utilizing the latest advanced technology that allows professionals the ability to use cordless tools on tasks previously thought to be impossible. Our goal in designing manufacturing & assembly cordless tools is to break away from the historical method of costly air hose operation and allow the operator freedom with a powerful, accurate and ergonomic solution.

Makita cordless tools are steadily emerging as the fastening systemof choice within the Assembly and Manufacturing industries. While manufacturing processes were once dominated by air tools, manufacturers are recognizing the many advantages of using Makita cordless tools, such as, reduced energy costs, more freedom and increased safety at the workplace. To meet the needs of today's manufacturers, Makita has developed a full range of assembly and manufacturing cordless power tools that are designed for precise torque accuracy. Makita cordless tools are your cost saving solutions.

Makita's launch of the Torque-Tracer wireless data communication tools add additional value within the manufacturing environment through providing features with improved Quality Assurance methods. Torque-Tracer's ability to capture fastening characteristics adds a traceability and communicate component to quality management with subsequent gains in productivity.

REDUCED ENERGY COSTS

- Less Energy Consumption needed to power cordless tools than to power air tools
- Extreme Energy Savings by eliminating air line and air tool leakage
- Higher Quality Control by reducing damage to manufactured products often caused by hoses and cords
- Reduced Operating Costs and down time by eliminating oilers and oil maintenance
- Reduced Maintenance Costs by minimizing down time to repair damaged products

MORE FREEDOM

- More Flexibility to roam from one workspace to the next
- Greater Access and Maneuverability in confined workspaces and inside closed compartments
- Increased Efficiency with the ability to interchange tools from one application to the next
- Easier to Reposition Fastening
 System when assembly lines need to be rerouted, expanded or eliminated
- Quicker Recoveries from power interruptions

SAFER WORKPLACE

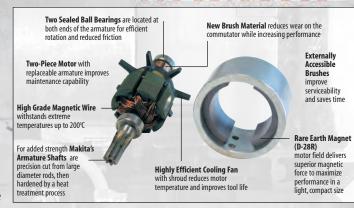
- Reduced Hazards caused by air hoses laying across floors or hanging from ceiling
- Lighter Weight with Ergonomic Design for operator control
- Lower Vibration and Noise for operator comfort
- Environmentally Friendly low toxicity battery platforms

WHY MAKITA CORDLESS?

ADVANCED MOTOR TECHNOLOGIES

Makita has been designing and manufacturing the highest quality motor in the industrial power tool industry for nearly 90 years. Our high performance motors last longer and are more efficient than competing motors because we utilize the latest technology and the best raw materials. Makita DC motors have the following characteristics that prove to set the standard for quality, reliability and performance:

- Exclusive Externally Accessible Brushes extend the life of the motor by up to five times by allowing for quick and easy servicing
- Newly Developed Brush Material is commutator friendly for reduced sparks, allowing increased motor performance and reduced wear on the commutator
- Thicker Armature Shaft will handle greater torque for heavy duty applications
- More Armature Poles to create a stronger electrical current and generate more power
- **Dual Ball Bearings** creates less friction and thus a smoother running motor than competitive motors that have one bearing and one bushing
- Larger Fan for a cooler running motor and longer life out of the motor
- Strategically Located Heat Sink in the cooling path of the motor to dissipate heat away from the switch
- Thicker Gauge Lead Wires than the competition for more efficient current flow
- D Motor Design Two-piece motor offers easy serviceability while delivering extreme performance



TORQUE CONVERSION TABLE

in.lbs.	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	0.00	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.09	0.10
1	0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21
2	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.31	0.32	0.33
3	0.34	0,35	0,36	0,37	0.38	0.40	0.41	0.42	0.43	0.44
4	0.45	0.46	0.47	0.49	0.50	0.51	0.52	0.53	0.54	0.55
5	0.56	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.66	0.67
6	0.68	0.69	0.70	0.71	0.72	0.73	0.75	0.76	0.77	0.78
7	0.79	0.80	0.81	0.82	0.84	0.85	0.86	0.87	0.88	0.89
8	0.90	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	1.01
9	1.02	1.03	1.04	1,05	1.06	1.07	1.08	1.10	1.11	1.12

							[N•m			
in.lbs.	0	1	2	3	4	5	6	7	8	9
10	1.1	1,2	1.4	1.5	1.6	1.7	1.8	1,9	2.0	2.1
20	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.1	3.2	3.3
30	3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.2	4.3	4.4
40	4.5	4.6	4.7	4.9	5.0	5.1	5.2	5.3	5.4	5.5
50	5.6	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.6	6.7
60	6.8	6.9	7.0	7.1	7,2	7.3	7.5	7.6	7.7	7.8
70	7.9	8,0	8,1	8.2	8.4	8.5	8.6	8.7	8.8	8.9
80	9.0	9.2	9.3	9.4	9.5	9,6	9,7	9,8	9.9	10,1
90	10.2	10.3	10.4	10.5	10.6	10.7	10.8	11.0	11.1	11.2

										Liamini
in.lbs.	0	10	20	30	40	50	60	70	80	90
100	11.3	12.4	13.6	14.7	15.8	16.9	18.1	19.2	20.3	21.5
200	22.6	23.7	24.9	26.0	27.1	28.2	29.4	30.5	31.6	32.8
300	33.9	35.0	36.2	37.3	38.4	39.5	40.7	41.8	42.9	44.1
400	45.2	46.3	47.5	48.6	49.7	50.8	52.0	53.1	54.2	55,4
500	56.5	57.6	58.8	59,9	61.0	62,1	63.3	64.4	65.5	66,7
600	67.8	68.9	70.1	71.2	72.3	73.4	74.6	75.7	76.8	78.0
700	79.1	80.2	81.4	82.5	83.6	84.7	85.9	87.0	88.1	89.3
800	90.4	91.5	92.6	93.8	94.9	96.0	97.2	98.3	99.4	100.6
900	101.7	102.8	103.9	105.1	106.2	107.3	108.5	109.6	110.7	111.9

										[N·m]
in.lbs.	0	100	200	300	400	500	600	700	800	900
1,000	113	124	136	147	158	169	181	192	203	215
2,000	226	237	249	260	271	282	294	305	316	328
3,000	339	350	362	373	384	395	407	418	429	441
4,000	452	463	475	486	497	508	520	531	542	554
5,000	565	576	588	599	610	621	633	644	655	667
6,000	678	689	701	712	723	734	746	757	768	780
7,000	791	802	814	825	836	847	859	870	881	893
8,000	904	915	926	938	949	960	972	983	994	1,010
9,000	1,020	1,030	1,040	1,050	1,060	1,070	1,090	1,100	1,110	1,120
						-				[N+m]

$[N \cdot m] \rightarrow [in.lbs.]$

N-m	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	0.00	0.89	1.77	2.66	3.54	4.43	5.31	6.20	7.08	7.97
1	8.85	9.74	10.6	11.5	12.4	13.3	14.2	15.0	15.9	16.8
2	17.7	18.6	19.5	20.4	21.2	22.1	23.0	23.9	24.8	25.7
3	26.6	27.4	28.3	29.2	30.1	31.0	31.9	32.8	33.6	34.5
4	35.4	36.3	37.2	38.1	39.0	39.8	40.7	41.6	42.5	43.4
5	44.3	45.1	46.0	46.9	47.8	48.7	49.6	50.5	51.3	52.2
6	53.1	54.0	54.9	55.8	56.7	57.5	58.4	59.3	60.2	61.1
7	62.0	62.9	63.7	64.6	65.5	66.4	67.3	68.2	69.0	69.9
8	70.8	71.7	72.6	73.5	74.4	75.2	76.1	77.0	77.9	78.8
9	79.7	80.6	81.4	82.3	83.2	84.1	85.0	85.9	86.8	87.6

[in.lbs.]

N•m	0	1	2	3	4	5	6	7	8	9
10	89	97	106	115	124	133	142	150	159	168
20	177	186	195	204	212	221	230	239	248	257
30	266	274	283	292	301	310	319	328	336	345
40	354	363	372	381	390	398	407	416	425	434
50	443	451	460	469	478	487	496	505	513	522
60	531	540	549	558	567	575	584	593	602	611
70	620	629	637	646	655	664	673	682	690	699
80	708	717	726	735	744	752	761	770	779	788
9.0	797	806	814	823	832	841	850	859	868	876

[in.lbs.]

N-m	0	10	20	30	40	50	60	70	80	90
100	885	974	1,060	1,150	1,240	1,330	1,420	1,510	1,590	1,680
200	1,770	1,860	1,950	2,040	2,130	2,210	2,300	2,390	2,480	2,570
300	2,660	2,740	2,830	2,920	3,010	3,100	3,190	3,280	3,360	3,450
400	3,540	3,630	3,720	3,810	3,900	3,980	4,070	4,160	4,250	4,340
500	4,430	4,520	4,600	4,690	4,780	4,870	4,960	5,050	5,130	5,220
600	5,310	5,400	5,490	5,580	5,670	5,750	5,840	5,930	6,020	6,110
700	6,200	6,290	6,370	6,460	6,550	6,640	6,730	6,820	6,910	6,990
800	7,080	7,170	7,260	7,350	7,440	7,520	7,610	7,700	7,790	7,880
900	7,970	8,060	8,140	8,230	8,320	8,410	8,500	8,590	8,680	8,760

[in.lbs.]

Conversion Formulas

1 kgf = 2.205 lbs. 1 N = 0.101972 kg 1 m = 39.37 in.

 $A N \cdot m = A \times 8.8523 \text{ in.lb}$

 \rightarrow

1 N•m = 8.8523 in.lbs.

B in.lbs. = B x 0.1130 N•m

m ->

1 in.lbs. = 0.1130 N•m C in.lbs. = C ft.lbs. x 12

C ft.lbs. = $\frac{C \text{ in.lbs.}}{12}$

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Trakita

TORQUE-TRACER



SMART TOOLS PROVIDING QUALITY ASSURANCES VIA WIRELESS COMMUNICATION

- · Identifies multiple fastening characteristics for each rundown
- · Flexible systems conform to a broad variety of environments
- Maintains cordless freedom of operator benefits while improving quality assurance best practices
 - Provides an energy efficient alternative to pneumatic platforms involving verifiers/qualifiers
 - Adds traceablity measures in environments wanting cordless flexibilty and safety
 - An alternative to expensive DC electric tool platforms
- Uses Bluetooth frequency spectrum and adaptive frequency hopping to assure an interference-free environment



BRUSHLESS MOTOR

Makita-built motor technologies. Provide higher speeds and advanced monitoring.



LITHIUM-ION BATTERY

High productivity with reduced weight. Very low self-discharge rates.

TORQUE TRACER



TORQUE-TRACER WIRELESS COMMUNICATION TOOLING













BF1	Γ041Z (1-4 N·m)	BFT08ZRZ (4-8 N·m)	BFT124RZ (6-12 N·m)	BFL201RZ (10-20 N·m)	BFL301RZ (16-30 N-m)	BFL402RZ (25-40 N·m)
Voltage	14.4V	14.4V	14.4V	14.4V	14.4V	14.4V
Capacities	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	3/8" Square	3/8" Square	3/8" Square
Fastening Torque:	1-4(8.9-35.4)	4-8(35.4-70.8)	6-12(53.1-106)	10-20(88.5-177)	16-30(142-266)	25-40(221-354)
No Load Speed (R	PM) 800	860	600	360	260	200
Length	7-1/2"	7-1/2"	7-1/2"	16-7/8"	18-3/4"	18-3/4"
Height (w/Battery)	10-1/2"	10-1/2"	10-1/2"	3-7/8"	3-7/8"	3-7/8"
Width	2-13/16"	2-13/16"	2-13/16"	2-13/16"	2-13/16"	2-13/16"
Weight	3.3 lbs.	3.3 lbs.	3.3 lbs.	38 lbs.	4.4 lbs.	4.4 lbs.
Battery	BL1430	BL1430	BL1430	BL1430	BL1430	BL1430

WIRELESS DATA COMMUNICATION

Best-in-class engineering

Wireless communication with PLC or directly through your personal computer

Extreme accuracy and long life
Traceability through communication

Confirmation of inidividual parameter

Low voltage shut-off sensor



TOOL RECOGNITION

- Fastening Torque Values
- Fastening Angle Values
- Rundown Rotations
- Tool ID Recognition
- Time/Date Snap
- OK-NOK Parameter Achievement
- Batch Achievement



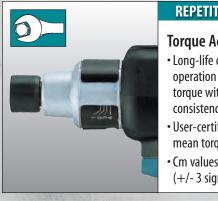
PROGRAMMING INTERACTIVITY

- Torque Value Tolerance Range
- Angle Value Tolerance Range
- Rundown Rotation Min/Max Settings
- Tool Lock Down Mode
- Tool Brake Option
- Soft Start Adjustment
- Calibration Ability
- Batch Management (PLC-Based)
- Log All Data From Tool Recognition

Makita **PRECISE CONTROL SCREWDRIVERS Torque Set Window** allows the operator **Smooth Shut-Off Operation** to view the desired Once preset torque is achieved, **Higher Torque Accuracy** torque setting the clutch activates automatically +/-7% at Cm ≥ 1.67 halting applied torque **Color Coded** Rubber Chuck Cover **Identification Plate** to protect the workpiece for easy tool and application identification "Quick Change" **Externally Accessible** 1/4" Hex Brushes allow for easy **Shank Chuck** service replacement and makita extended motor life Built-in L.E.D. Lamps activate when trigger is pulled for low light conditions Two-Piece D-28R Motor with replaceable armature and powerful rare earth magnet **Conveniently Located** Forward/Reverse Switch **Indicator Lamp & Audible Signal** Large On/Off Switch provides operator immediate feedback on Equipped with a Delayed fastening achievement **Anti-Slip Dimpled Grip Nut and Bolt Construction** provides comfort and allows repeat disassembly, operator control preventing damage to the housing **Auto Battery Shutoff Ensures consistent** fastening torque **Fuel Gauge Lamp** indicates percentage of **User Friendly Electronic Controls** remaining battery fuel Soft Start to suppress reaction and allow for smooth fastening One-second restart delay minimizes the potential for operator double-hits Delayed restarter controls the motor so that it does not start until one second passes **Utilizing ISO5393 Standards** after a screw has been driven; the motor models BFT040FZ, BFT080FZ, does not start even if switch trigger is pulled BFT122FZ & BFT123FZ provide Reduces deviation from pre-set fastening a high machine capability (Cm)

Model BFT122FZ

over-tightening



torque caused by unintentional

REPETITIVE ACCURACY

Torque Accuracy

- · Long-life clutch provides consistent operation within +/-10% of mean torque with real-world repeatability consistencies within +/-3%.
- User-certified to within +/- 5% of mean torque
- Cm values of well over 1.67 (+/-3 sigma)



SMART SYSTEM

Auto Battery Shutoff

- Shuts off the tool when battery capacity is less than 5%
- Ensures consistent fastening torque **Indication Lamp and Audible Alert**
- Precision sensor indicates fastening sufficiency and battery power conditions with light and/or audible alert

PRECISE CONTROL SCREWDRIVERS

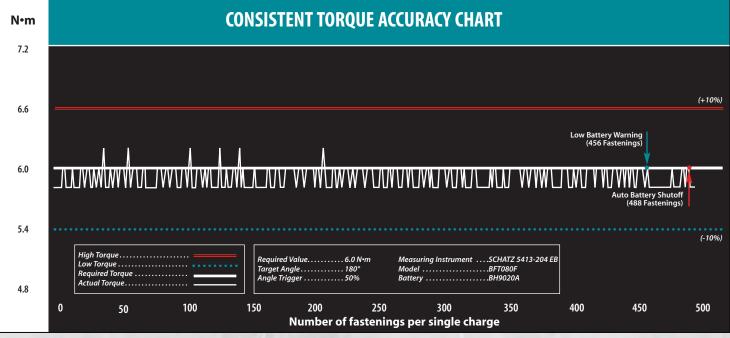


PRECISE TORQUE CONTROL SCREWDRIVERS



'	BFT020FZ (2.0 N·m)	BFT040FZ (3.5 N·m)	BFT080FZ (6.5 N·m)	BFT122FZ (10 N·m)	BFT081FZ (8 N·m)	BFT123FZ (12 N·m)	BFT083FZ (12 N·m)	BFT125FZ (12 N·m)
Voltage	9.6V	9.6V	9.6V	9.6V	12V	12V	14.4V	14.4V
Capacities	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Drive	1/4" Hex Drive
Fastening Torque [1	l•m (in.lbs.)]:							
(Hard)	0.5-2.0(4.4-17.7)	1-4 (8.9-35.4)	3-8 (26.6-70.8)	5-12 (44.3-106)	3-8 (26.6-70.8)	5-12 (44.3-106)	3-8 (26.6-70.8)	5-12 (44.3-106)
(Soft)	0.5-2.0(4.4-17.7)	1-3.5 (8.9-31.0)	3-6.5 (26.6-57.5)	5-10 (44.3-88.5)	3-8 (26.6-70.8)	5-12 (44.3-106)	3-8 (26.6-70.8)	5-12 (44.3-106)
No Load Speed (RP	M) 540	950	540	320	700	390	80	150
Length	7-7/8"	7-7/8"	7-7/8"	7-7/8"	7-7/8"	7-7/8"	7-7/8"	7-7/8"
Height (w/Battery)	9-7/8"	9-7/8"	9-7/8"	9-7/8"	10-1/4"	10-1/4"	10-1/4"	10-1/4"
Width	2-9/16"	2-9/16"	2-9/16"	2-9/16"	2-13/16"	2-13/16"	2-13/16"	2-13/16"
Weight (w/Battery)	2.9 lbs.	2.9 lbs.	2.9 lbs.	2.9 lbs.	3.5 lbs.	3.5 lbs.	3.3 lbs.	3.3 lbs.
Battery	BH9033A, BH9020A	BH9033A, BH9020A	BH9033A, BH9020A	BH9033A, BH9020A	BH1233C, BH1220C	BH1233C, BH1220C	BL1430	BL1430

^{*}Hard Torque





ADVANCED TECHNOLOGY

Two-Piece D-28 Motor

- Replaceable armature allows greater serviceability
- Dual sealed ball bearings for less friction and greater efficiency
- High performance fan reduces temperatures and increases tool life
- High-grade magnet generates maximum performance



LOW COST OF OWNERSHIP

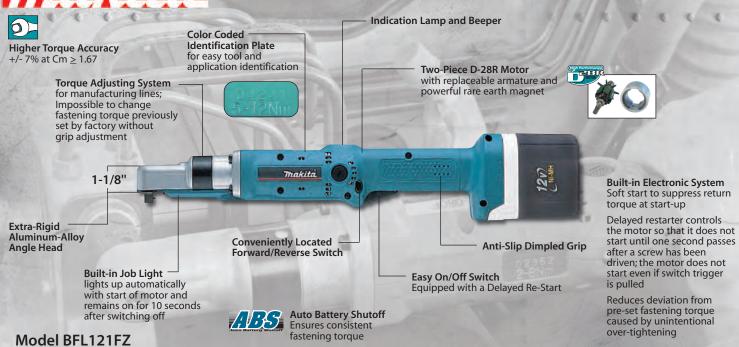
Designed for High Endurance Applications

- Nut and bolt housing assembly ensures long term housing integrity
- Replaceable brushes easily accessed without the need to open the tool housing
- Solderless internal components for easy and fast replacement

Thakita Color

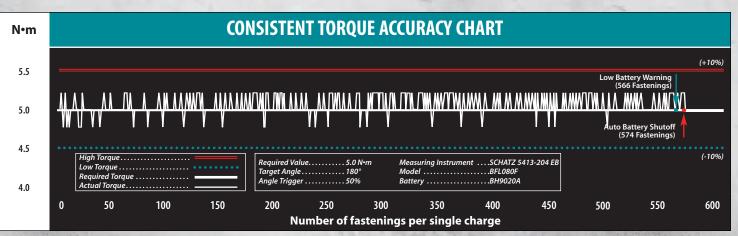
ANGLE NUTRUNNERS

RIGHT ANGLE NUT-RUNNERS



BFL080FZ (7.5 N·m) (BFL080FZ) BFL120FZ (12 N·m) BFL081FZ (7.5 N·m) (BFL121FZ) BFL20FZ (18 N·m) ltage 9.6V 9.6V 12V 12V 12V

(BFL08	J8UFZ (7.5 N·m) OF5Z)	BFL120FZ (12 N·m)	BFL081FZ (7.5 N·m)	(BFL121F5Z)	BFL200FZ (18 N·m)
Voltage	9.6V	9.6V	12V	12V	12V
Capacities	3/8" Square Drive	3/8" Square Drive	3/8" Square Drive	3/8" Square Drive	3/8" Square Drive
1/4" Square	Drive (BFL080F5Z)			1/4" Square Drive (BFL121F5Z)	
Fastening Torque [N•n	n (in.lbs.)]:				
(Hard)	2-8 (17.7-70.8)	5-12 (44.3-106)	2-8 (17.7-70.8)	5-12 (44.3-106)	8-20 (70.9-177)
(Soft)	2-7.5 (17.7-66.4)	5-12 (44.3-106)	2-7.5 (17.7-66.4)	5-11.5 (44.3-102)	8-18 (70.9-159)
No Load Speed (RPM)	450	250	700	410	220
Length (w/Battery)	17"	17"	16-1/4"	16-1/4"	16-1/4"
Height	2-15/16"	2-15/16"	3-5/8"	3-5/8"	3-5/8"
Width	2-9/16"	2-9/16"	2-15/16"	2-15/16"	2-15/16"
Weight (w/Battery)	3.3 lbs.	3.3 lbs.	3.5 lbs.	3.5 lbs.	3.5 lbs.
Battery	BH9033A, BH9020A	BH9033A, BH9020A	BH1233C, BH1220C	BH1233C, BH1220C	BH1233C, BH1220C



BRUSHLESS ANGLE NUTRUNNERS

Conveniently Located

Forward/Reverse Switch

Auto Battery Shutoff

Ensures consistent

fastening torque





Extra-Rigid

Angle Head

Aluminum-Alloy

Torque Adjusting System for manufacturing lines; Impossible to change fastening torque previously set by factory without grip adjustment

1-5/16"

BRUSHLESS ANGLE NUTRUNNERS

Built-in Job Light lights up automatically with start of motor and remains on for 10 seconds after switching off

Model BFL400FZ



for higher no load speed and more powerful and faster driving



MAKSTAR® Battery New battery cell configuration for more power and efficiency

Built-in Electronic System Soft start to suppress return torque at start-up

Delayed restarter controls the motor so that it does not start until one second passes after a screw has been driven; the motor does not start even if switch trigger is pulled

Reduces deviation from pre-set fastening torque caused by unintentional over-tightening

Easy On/Off Switch Equipped with a Delayed Re-Start



Optional Paddle Switch Adapter converts trigger switch to paddle switch for easy operation



	ABS	ABS				
	BFL300FZ (16-30 N·m)	BFL400FZ (25-40 N·m)				
Voltage	14.4V	14.4V				
Capacities	3/8" Square Drive	3/8" Square Drive				
Fastening Torque	[N•m (in.lbs.)]:					
(Hard)	16-30 (142-266)	25-40 (221-354)				
(Soft)	16-30 (142-266)	25-40 (221-354)				

400 No Load Speed (RPM) 260 Length (w/Battery) 20" 20-1/4" Height 4-1/8" 4-1/8" 2-7/8" Width 2-7/8" Weight (w/Battery) 5.3 lbs. 5.5 lbs. Battery BH1427, BL1430 BH1427, BL1430

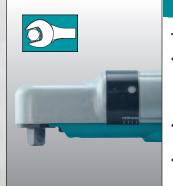


ADVANCED TECHNOLOGY

DC Brushless Motor

- Generates higher no load speed
- Dual ball bearings for greater efficiency and longer life
- Maintenance free through service life of ball bearings
- · Brush free motor reduces noise





REPITITIVE ACCURACY

Torque Accuracy

- Long-life clutch provides consistent operation within +/-10% of mean torque with real-world repeatability consistencies within +/-3%.
- User-certified to within +/- 5% of mean torque
- Cm values of well over 1.67 (+/-3 sigma)



SMART SYSTEM

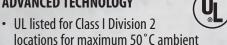
Auto Battery Shutoff

- Shuts off the tool when battery capacity is less than 5%
- Ensures consistent fastening torque **Indication Lamp and Beeper**
- Precision sensor indicates fastening sufficiency and battery power conditions with light and/or beeping



CLASS I DIVISION 2 RATED

ADVANCED TECHNOLOGY



- Meets the NEC Article 513 Aircraft Hanger requirements for Class I Division 2 locations
- Tested to Mil Standard 810F, Method 511.4

SMART SYSTEM

AUTO BATTERY SHUT-OFF



• Shuts-off the tool when battery capacity is less than 20%

Indication Lamp and BeeperPrecision sensor indicates following conditions with light and/or beeping: sufficient fastening, insufficient fastening, low battery power, and battery too low to operate

REPETITIVE ACCURACY

TORQUE ACCURACY

- Torque accuracy of: +/- 10% with Cm ≥ 1.67
- · Automatically shuts-off tool when pre-set fastening torque is reached to ensure accuracy

PRECISE TORQUE CONTROL SCREWDRIVERS











	BFH040FRAE	BFH040RAE	BFH090FRAE	BFH090RAE	BFH120FRAE
Voltage	12V	12V	12V	12V	12V
Capacities	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank
Max. Fastening Torque	.8 - 4.5(7-40)	.8 - 4.5(7-40)	3.4 - 9.0(30-80)	3.4 - 9.0(30-80)	5.0 - 12.0(44-106)
No Load Speed (RPM)	400	400	400	400	400
LED Lamp	YES	NO	YES	NO	YES
LED Pass/Fail	YES	YES	YES	YES	YES
Audible Signal	YES	NO	YES	NO	YES
Length	7-15/32"	7-15/32"	7-15/32"	7-15/32"	7-15/32"
Height	10-15/32"	10-15/32"	10-15/32"	10-15/32"	10-15/32"
Width	2-13/16"	2-13/16"	2-13/16"	2-13/16"	2-13/16"
Weight	3.3 lbs.	3.3 lbs.	3.3 lbs.	3.3 lbs.	3.3 lbs.

IMPACT DRIVERS & WRENCHES





IMPACT DRIVERS









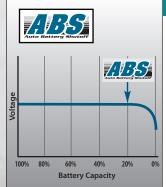




IMPACT WRENCHES



	BTD061Z (65 N·m)	BTD062Z (65 N·m)	BTD150SAE (130 N·m)	BTW151Z(150 N·m)	BTW070Z (65 N·m)
Voltage	9.6V	9.6V	12V / 14.4V	12V / 14.4V	9.6V
Capacities	1/4" Hex Shank	1/4" Hex Shank	1/4" Hex Shank	1/2" Square Drive	3/8" Square Drive
Fastening Torque: [N•	rm (in.lbs.)] 65 (575)	65 (575)	100 (885)	BTW121SA: up to 120 (1,060)	BTW070Z 65 (575)
			BTD150SAE: 130 (1,150)	BTW121SA: up to 120 (1,060)	
No Load Speed (RPM	1) 0 - 2,500	0 - 2,500	0 - 2,300	0 - 2,500	0 - 2,500
Impacts per Minute ((IPM) 0 - 3,000	0 - 3,000	0 - 3,000	0 - 3,000	0 - 3,000
Length	6-7/16"	6-7/16"	6-5/8" / 7-1/2"	6-15/16" / 7-5/8"	6-1/2"
Height (w/Battery)	9-5/16"	9-5/16"	9-7/8" / 10"	9-7/8" / 10"	9-5/16"
Width	2-5/8"	2-5/8"	2-15/16" / 3-1/16"	2-15/16" / 3-1/16"	2-5/8"
Weight (w/Battery)	2.4 lbs.	2.5 lbs.	3.3 lbs. / 4.0 lbs.	3.3 lbs. / 4.2 lbs.	2.5 lbs.
Battery	BH9033A, BH9020A	BH9033A, BH9020A	BH1233C, BH1220C / BH1433, BH1427, BH1420	BH1233C, BH1220C / BH1433. BH1427. BH1420	BH9033A, BH9020A



SMART SYSTEM

Auto Battery Shutoff

- Shuts-off the tool when battery capacity is less than 20%
- Ensures consistent fastening torque



REPETITIVE ACCURACY

Vari-Torque System

- VTS allows the operator to adjust the number of impacts to match the fastening application
- Prevents over-tightening that could cause the fastener to fail
- Torque adjusting dial for operator convenience (for models BTW121SA and BTW151SA only)



TOOLS FOR CLOSE-QUARTERS OPERATIONS

7.2V Lithium-Ion Cordless Driver-Drill



Model DF010

- High torque accuracy with auto-clutch system stops the motor when clutch is disengaged
- Makita built 2-speed motor delivers 50 in.lbs. of torque
- Compact design at only 1.2 lbs. for reduced operator fatigue

Voltage	7.2V
Capacities	1/4" Hex Shank
Fastening Torque	Hard Joint 5.6 (50) Soft Joint 3.6 (32)
No Load Speed (RPM)	Low 200 High 650
Length	11"
Height (w/Battery)	5-9/16"
Width	1-11/16"
Weight (w/Battery)	1.2 ibs.
Battery	BL7010

7.2V Lithium-Ion Cordless Impact Driver



Model TD020DSEW

- Makita-built motor delivers 177 in.lbs. of torque, 2,300 RPM and 3,000 IPM
- Compact design at only 1.17 lbs. for reduced operator fatigue
- Built-in L.E.D. light illuminates the work area

Voltage	7.2V
Capacities	1/4" Hex Shank
Fastening Torque	20 (177)
No Load Speed (RPM)	2,300
Impacts per Minute (IPM)	3,000
Length	10-7/8"
Height (w/Battery)	5-1/8"
Width	1-9/16"
Weight (w/Battery)	1.17 ibs.
Battery	BL7010

10.8V Lithium-Ion Cordless Impact Driver



Model TD090DW

- Makita-built motor delivers 800 in.lbs. of torque
- Compact design at only 6-1/8" long and 2.0 lbs. to reduce operator fatigue
- · Built-in L.E.D. light illuminates the work area

Voltage	10.8V
Capacities	1/4" Hex Shank
Fastening Torque	90 (800)
No Load Speed (RPM)	2,400
Impacts per Minute (IPM)	3,000
Length	6-1/8"
Height (w/Battery)	7"
Width	2-1/8"
Weight (w/Battery)	2.0 ibs.
Battery	BL1013

12V Lithium-Ion Cordless 3/8" Driver-Drill



Model FD02W

- · Makita-built delivers 200in.lbs. of max torque
- Variable 2-speed design (0-350 & 1,300 RPM)
- Ultra compact design at only 7-7/16" long and weighs only 2.2 lbs.

Voltage	12V
Capacities	3/8" Chuck
Fastening Torque	200
No Load Speed (RPM)	Low 0-350 High 0-1,300
Length	7-7/16"
Height (w/Battery)	??????
Width	??????
Weight (w/Battery)	2.2 ibs.
Battery	BL1014

14.4V Lithium-Ion Cordless Impact Driver



• ????

- ????
- ????
- Voltage 14.4V Capacities 1/4" Hex Shank Fastening Torque 1,240 No Load Speed (RPM) 0-2,400 Impacts per Minute (IPM) 3,200 5-3/4" Lenath Height (w/Battery) Width ????? Weight (w/Battery) 3.1 ibs. Battery BL1430

14.4V Lithium-Ion 1/2" Cordless Driver-Drill



Model BDF440Z

- Makita-built, 4-pole motor delivers 363 in.lbs. of torque
- Compact design at only 7-3/8" long and 3.5 lbs. to reduce operator fatigue
- · Built-in L.E.D. light illuminates the work area

Voltage	14.4V
Capacities	1/2" Chuck
Fastening Torque	Hard Joint 41 (363) Soft Joint 25 (221)
No Load Speed (RPM)	Low 400 High 1,400
Length	7-3/8"
Height (w/Battery)	9-1/2"
Width	3-1/8"
Weight (w/Battery)	3.5 lbs.
Battery	BL1430

18V LXT LITHIUM-ION SERIES





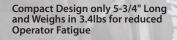
Makita-Built 4-Pole Motor

Design delivers 1,330 in.lbs. of
Maximum Torque

Ergonomic Shape Fits like a Glove with Even Pressure and Easy Control

Variable Speed 0-2,300 RPM for a Wide Range of fastening Applications

18V Li-lon Battery Change in 30 Minutes and Produces 430% Total Lifetime Work with 2.5x More Cycles





18V LXT LITHIUM-ION CORDLESS













	BTD141	BTL061 (BTL063)	BTW251 (BTW253)	BTW450	BTD144
Voltage	18V	18V	18V	18V	18V
Capacities	1/4" Hex Shank	1/4" Hex Shank (3/8" Square)	1/2" Square (3/8" Square)	1/2" Square	?????
Max. Fastening Torque:	150 N•m (1,330 in/lbs.)	230 N•m (210 N•m)	60 N•m (530 N•m)	40 N•m (325 in/lbs.)	160 N•m (1,420 in/lbs.)
No Load Speed (RPM)	0 - 2,300 rpm	0 - 2,000 rpm	0 - 2,400 rpm (0 - 2,100 rpm)	1,600 rpm	0 - 1,300/0 - 2,000/0 - 2,600 rpm
Impacts per Minute	0 - 3,200	0 - 3,000	0 -3,000 (0 - 3,200)	2,200	0 - 1,300/0 - 2,800/0 - 3,400 ipm
Length	5-3/4"	15-1/4"	6-1/2" (6-1/8")	10-1/2"	5-1/2"
Weight (w/Battery)	3.5 lbs.	3.7 lbs.	3.7 lbs. (3.5 lbs.)	7.5 lbs.	3.3 lbs.
Battery	BL1830	BL1830	BL1830	BL1830	BL1830
Impacts per Minute Length Weight (w/Battery)	0 - 3,200 5-3/4" 3.5 lbs. BL1830	0 - 3,000 15-1/4" 3.7 lbs.	0 -3,000 (0 - 3,200) 6-1/2" (6-1/8") 3.7 lbs. (3.5 lbs.)	2,200 10-1/2" 7.5 lbs.	0 - 1,300/0 - 2,800/0 - 3,400 5-1/2" 3.3 lbs.

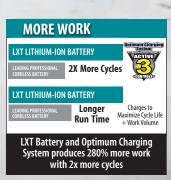
All tools vailable in kits or as bare tool



Makita built, 4-pole maximum torque motor delivers more efficient power in a compact size









BATTERY CHARGING SYSTEM

THE MOST ADVANCED SYSTEM IN THE WORLD

ADVANCED RAPID CHARGING SYSTEM



Forced Air Cooling Fan cools the battery by forcing cool air through the battery's built-in air vents to minimize charging time







Automatic Control CPU gathers usage information from the battery's data chip. Then it charges the battery in the manner most suitable for longer life





battery, as well as the current charge level of the battery (-80%, +80%, 100%)



Built-in Air Vents

increasing the battery life

receive cool air from the charger, further

Multi-Contact Terminals ensure tight connection to the tool under extreme vibration



Heat-Sinks protect the battery cells by absorbing heat



Construction protects each battery cell while preventing dust and debris contamination

BATTERY CHECKING SYSTEM

- Facility Troubleshooting Capabilities
- Determines:
 - # Full Charges
 - # Partial Charges
 - Internal Resistance
 - Level of Utilization
- Proprietary System Allos Support Staff to Assess **Productivity Levels**





Voltage	Cell Type	Amp Hour (Ah)	Style	Battery	Part#	Models		Cell Type	Amp Hour (Ah)	Style	Part#
18 14.4	Li-ion Li-ion	3.0 3.0	Slide Slide	BL1430 BL1830	BL1430 BL1830	DC18RA, DC18SE, DC24SA	Lithium-Ion 18V Charger	(Li-ion/Ni-MH)	1.3 - 3.3	Slide	DC18RA
10.8 7.2	Li-ion Li-ion	1.3 1.0	Stick Stick	BL1013 BL7010	BL1013 BL7010	TD090D, DF030D TD020D, DF010D					
14.4 14.4	(Ni-MH) (Ni-MH)		MAKSTAR® MAKSTAR®	BH1433 BH1420	193355-1 193352-7	BTD150SAE, BTW150SAE, BTW151SA	Optimum Automotive Charger	(Li-ion/Ni-MH)	1.3 - 3.3	Slide	DC18SE
14.4	(Ni-MH)	2.7	MAKSTAR®	BH1427	193992-1	BFL300FZ, BFL400FZ, BTD150SAE, BTW150SAE, BTW151SA	10	(80. 841)	17 22	MAN/CTAD®¥	102/01
12 12	(Ni-MH) (Ni-MH)		MAKSTAR® MAKSTAR®	BH1233C BH1220C	193931-1 193929-8	BFH040RAE, BFH040FRAE, BFH090RAE, BFH090FRAE, BFH120FRAE, BFL081FZ, BFL121FZ, BFL200FZ, BFT081FZ, BFT123FZ, BTD120Z, BTW120SAE, BTW121SA	MAKSTAR® Refreshing Battery Adapter (ADPO3)	(Ni-MH) Conditions battery cel For MAKSTAR batteri Refreshes batteries as Automatically detects * Use with charger DC	es only fast as 40 minutes battery that needs to		193681- ed life
9.6 9.6	(Ni-MH) (Ni-MH)		MAKSTAR® MAKSTAR®	BH9033A BH9020A	193536-7 193531-7	BFL080FZ, BFL120FZ, BFT040FZ, BFT080FZ, BFT122FZ, BTD040Z, BTD042Z, BTD061SAG, BTD061Z BTD062Z, BTW070Z, BTW072Z	MAKSTAR® Interchangeable Battery Adapter	(NJi-IVII-I) & Ni-Cd Charges all Ni-MH & Ni 7.2V, 9.6V, 12V, 14.4V & Use with charger DC24	-Cd removable (1.3Ah 18V	Pod & Stick - 3.0Ah) batter	193205 ies

PRODUCTION TOOLING ACCESSORIES



Description	Part#	Models	Des	cription	Part#	Models	Description	Part#	Models
Torque Adjusting Key	765024-0	6798FDZ	Cordless Tool Impact	Protector	s		Two-Piece In	npact Protecto	r Sets*
	765025-8	BFT040FZ, BFT080FZ, BFT122FZ, BFT123FZ, BFL080FZ, BFL081FZ, BFL120FZ, BFL121FZ, BFL200FZ, BFL300FZ, BFL400FZ	Resists impacts that can damage tool	- Clear -	417476-8 417349-5 418066-0	BTD120Z, BTW120SAE, BTW121SA BTD040Z, BTD042Z, BTD061SAG, BTD061Z, BTD062Z, BTW070Z & BTW072Z BFL080FZ, BFL081FZ, BFL120FZ, BFL121FZ, BFL200FZ	Clear (A) Red (A) Blue (A) Yellow (A) Clear (B) Red (B)	418745-0 418744-2 418743-4 418691-7 418748-4 418747-6	BFL300FZ
Paddle Switch Adapter Converts trigger switch	*			Red Blue	418065-2 418064-4	BFL080FZ, BFL081FZ, BFL120FZ, BFL121FZ, BFL200FZ	Blue (B) Yellow (B) Clear (A)	418746-8 418692-5 418745-0	437 - 7
to paddle switch	194008-5	BFL300FZ, BFL400FZ		Red Blue Yellow	418032-7 418425-8 418424-0 418423-2	BFT040FZ, BFT080FZ, BFT122FZ, BFT123FZ	Red (A) Blue (A) Yellow (A) Clear (B) Red (B) Blue (B)	418743-4 418743-4 418691-7 418751-5 418750-7 418749-2	BFL400FZ
-			The second second				Yellow (B)	418693-3	*Set requires both (A) and (

LITHIUM-ION FLASHLIGHTS



DRILL & DRIVER BIT SETS



Part # 15 Pc. Drill & Driver Set 784864-A Includes: (1) "Stubby" Finder/Driver™ Retracting Screw Holder (7) Insert Bits (1 ea. #1 Phillips, #3 Phillips, #4-5 Slotted, #6-8 Slotted, #2 Robertson & 2 ea. #2 Phillips), (7) Black Oxide Drill Bits (1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"



17 Pc. Impact Drill & Driver Set T-00153 Includes: Compact Quad-Driverm; (1) #8 Countersink insert; (3) Titanium Hex Shank Drill Bits: 1/8", 3/16", 1/4"; (7) 2" Driver Bits: (2) P2, (2) P3, (2) R2, T20; (1) Hex to Square Adapter-1/4"

to 1/4"; (1) 1" P2 Driver Bit; (3) Magnetic Nutsetters: 1/4", 5/16", 3/8"



28 Pc. Impact Drill & Driver Set T-00169

Includes: (1) Square Drive Adapter - 1/4" to 1/4";

(4) Magnetic Nutsetters: 1/4", 5/16", 3/8", 7/16";

(1) 3" Finder/Driver™ Bit;

(4) Insert Bits: (1) P1, (2) P2, (1) P3, (2) Flat, (3) R2;

(9) Power Driver Bits: (2) P1, (5) P2, (2) P3, (2) R2, (1) T20, (2) Flat



T-01373 38 Pc. Impact Drill & Driver Set Includes: (4) Black Oxide Drill Bits Sizes:1/16", 3/32", 1/8", 1/4"

(3) 3.5" Ext. Length Driver Bits (6) 2" Power Bits: (2) P2, (2) P3, R15, R20

(21) 1" Insert Bit Assortment: Slotted, Phillips, Robertson & Torx

(1) Hex-to-Square Socket Adapter: 1/4"-1/4"

(1) Magnetic Bit Holder

(2) Magnetic Nutsetter: 1/4", 5/16"

62 Pc. Impact Drill & Driver Set

Includes: (7) Black Oxide Drill Bits Sizes: (2) 1/16", 3/32", (2) 1/8", 3/16", 1/4"

(3) 3.5" Ext. Length Driver Bits

(4) Spade Bits: 3/8", 1/2" 5/8", 3/4"

(9) 2" Power Bits: Slotted, Phillips, Robertson & Torx

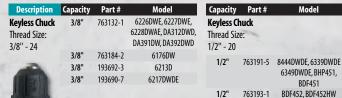
(32) 1" Insert Bit Assortment: Slotted, Phillips, Robertson & Torx

(2) Hex-to-Square Socket Adapter: 1/4" - 1/4", 1/4" - 3/8"

(1) Magnetic Bit Holder w/P2

(3) Magnetic Nutsetters: 1/4", 5/16", 3/8"

DRILL & IMPACT CHUCKS





Description	Capacity	Hex Shank	Part #	Model
Keyless Chuck Attachment	3/8"	1/4"	763198-1	1/4" Hex Shank
Converts Impact Driver into Driver-D	rill			Impact Drivers
Keyless Chuck Attachment	3/8"	1/4"	192077-0	Cordless Driver-Drill
Converts Key Drill Chuck into Keyless	Chuck			
Keyed Drill Chuck Attachment Set	3/8"	1/4"	191881-4	
	3/8"	1/4"	763054-5A	Cordless Driver-Drills
Replacement 1/4" Shank		1/4"	784643-3	Cordless Impact Drive

6349DWDE, BHP451,

BDF451

BDF452, BDF452HW BHP452.BHP452HW

DRILL & DRIVER BIT SETS

Magnetic Nutsetters	Description	Size	1-3/4" Long Part #	2-5/8" Long Part #
		1/4"	784819-A	784803-7
0	Drives hex head screws, bolts & nuts	5/16"	784820-A	784804-5
-		3/8"	784821-A	784802-9
		7/16"		784805-3



0

Impact Socket Sets 6 - Point Drive Heavy-Duty design

1-3/4" Long Part # 784819-A-A Includes: 1/4", 5/16", 3/8" Nutsetter & Storage Holder Part #



8 Pc. 1/4" Drive Set: 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2" & 785501-A-A 1/4" x 1/4" Socket Adapter 9 Pc. 3/8" Drive Set: 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 785508-A-A 3/4" & 3/8 x 1/4" Socket Adapter

Socket Adapters



Description	Size	Hex Shank Size	Part #
Converts drill into a	1/4"	1/4"	785516-A
power nutsetter	3/8"	1/4"	785517-A



MANUFACTURING & ASSEMBLY

INDUSTRY MEASUREMENT STANDARDS

Makita's success and growth can be attributed to our total commitment to quality and our driven dedication to the industry to design high quality tools for professionals throughout the world. To remain the #1 Quality power tool leader we use the most rigorous testing to include electrical resistance, surge durability and mechanical efficiency. We utilize the most current and recommended testing equipment for our power tools to ensure precise torque accuracy and quality performance.

Available at: