

DECLARATION OF CONFORMITY



KOLVER S.r.l.
VIA MARCO CORNER, 19
36016 THIENE (VI) ITALIA

Declare that the new tool here described:

Electric screwdriver:

ACC2210/110	141910/110
ACC2220/110	141920/110
ACC2222/110	151222/110
ACC2230/110	151930/110
ACC2245/110	151945/110

Is in conformity with the following standards and other normative documents: 2006/42/CE, LVD 2014/35/UE, EMCD 2014/30/UE, EN 60745-1, EN 60204-1, EN 61000-6-1, EN 61000-6-3.

It is also in conformity with RoHS II normative (2011/65/UE).

Name: Giovanni Colasante
Position: General Manager
Person authorized to compile the technical file
in Kolver

Thiene, Jan. 1st 2017

Giovanni Colasante



Operator's Handbook

IDENTIFICATION DATA OF THE MANUFACTURER

KOLVER S.r.l.
VIA MARCO CORNER, 19/21
36016 THIENE (VI) - ITALIA

IDENTIFICATION DATA OF THE PRODUCT

ELECTRIC SCREWDRIVER MODEL:

ACC2210/110	141910/110
ACC2220/110	141920/110
ACC2222/110	151222/110
ACC2230/110	151930/110
ACC2245/110	151945/110

THECNICAL DATA OF THE PRODUCT

TENSION: 110V DC

POWER: 30W

SPEED RPM: 950; 2222: 2400; 2245: 450

TORQUE RANGE Nm: 2210: 0,2-1; 2220: 0,7-2

2222: 0,9-2; 2230: 1-3; 2245: 1-4,5

GENERAL SAFETY RULES

WARNING: when using electric screwdrivers, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all the instructions below before using the screwdriver and save them.

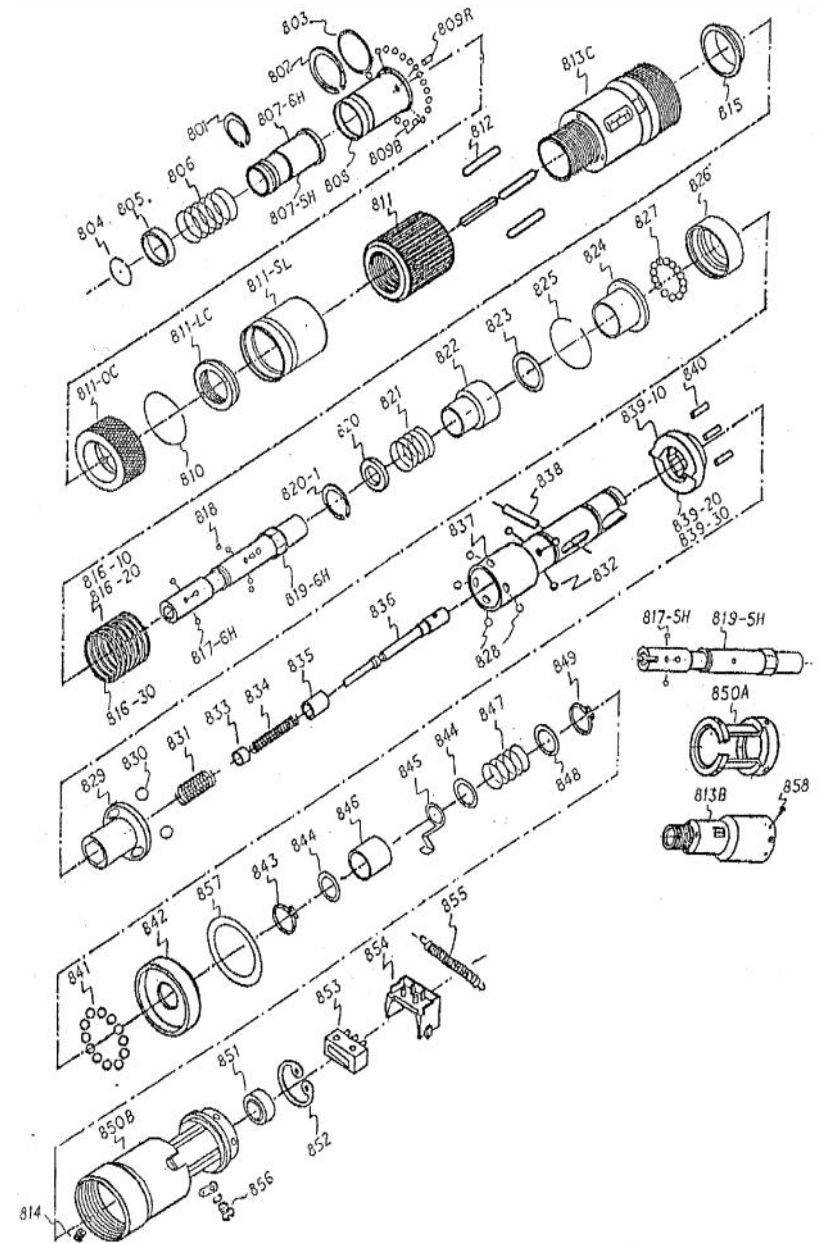
1. Keep the work area clean and well lit.
2. Do not use the electric screwdrivers in damp or wet locations or in presence of flammable liquid or gases.
3. Avoid body contact with grounded surfaces as pipes, radiators, refrigerators etc.
4. Keep children and visitors away from work area.
5. When not in use screwdrivers should be stored in dry and locked-up place and out of the reach of children.
6. Do not use the screwdrivers for purposes or works not intended.
7. Dress properly. Do not wear loose clothing and jewelry. Wear protective hair covering to contain long hair.
8. Never carry the screwdriver by cable or pull it to disconnect it from socket.
9. Use clamps or a vice to hold work.
10. Keep proper footing and balance at all times.
11. Inspect tool cable periodically and, if damaged, have it repaired or replaced by authorized service facility. Always keep handles dry, clean and free from oil and grease.
12. Disconnect tools from power supply before any operation of servicing, when changing accessories and when you do not use them.
13. When screwdriver is used outdoors, only operate with extension cords intended for use outdoors and so marked.
14. Pay attention while working. Do not operate screwdriver when you are tired.
15. Always check the screwdriver is not damaged before using it. Defective switches must be replaced by authorized service center. Never use tools that cannot be turned on or off by the switch.
16. The use of any other accessory other than recommended in this operating instruction may represent a risk of personal injury.
17. Have the screwdriver repaired only by authorized and expert people.
Failing to do so may represent a serious danger.

WARNING: before connecting the control unit and power supply to the socket, please check the voltage you are using is the same indicated on the label of the unit itself.

1. APPLICATIONS

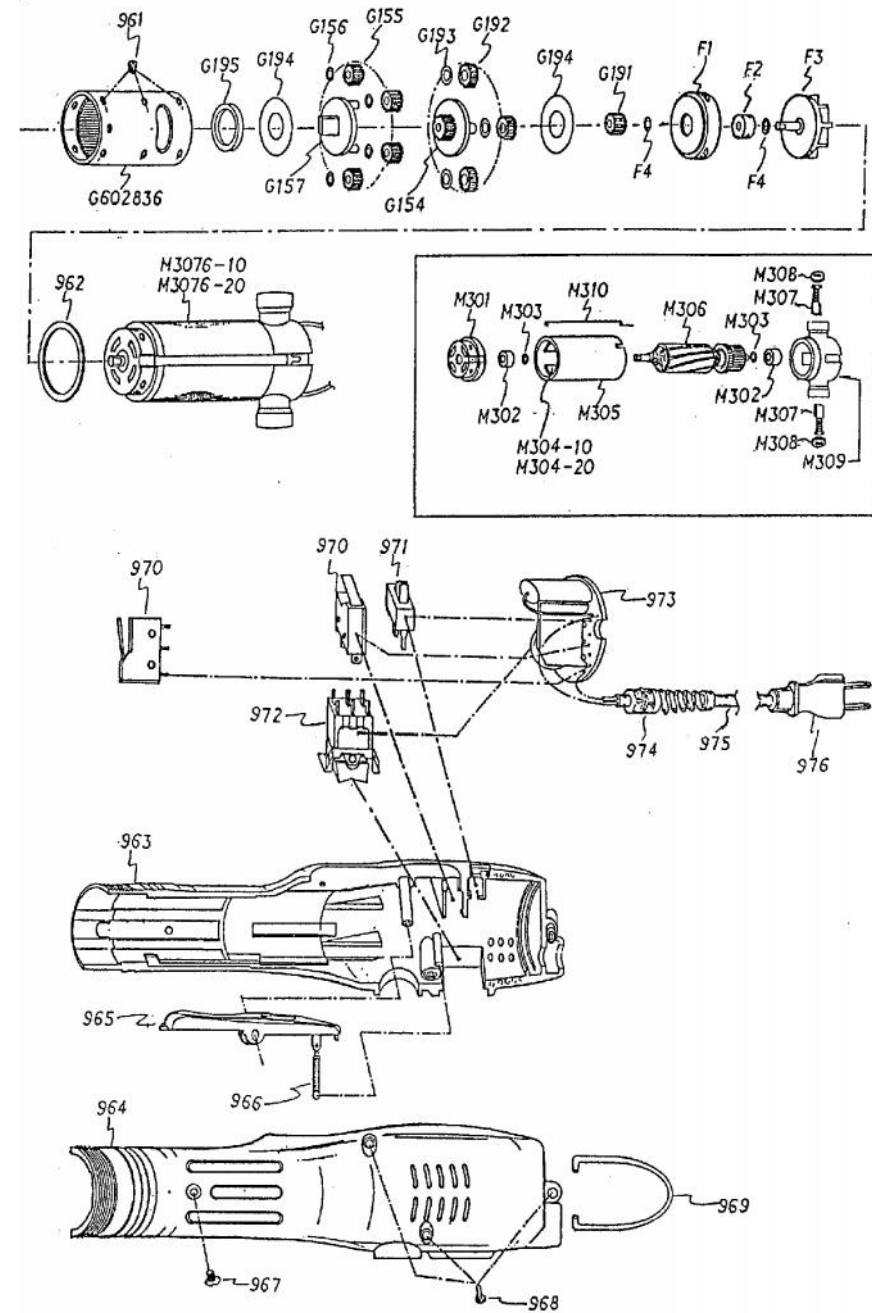
Kolver electric screwdrivers are designed to tighten to preset torque values any fasteners up to M5. Tabel 1 will help you to identify the capacity and the torque range of each model. Precision assembly industries in the field of electronics, electric appliances, toys, glasses frame and so on, are the natural users of electric screwdrivers.

Model	Capacity	Speed RPM	Torque range [Nm]
ACC2210/110	M3	950	0,2 - 1,0
ACC2220/110	M4	950	0,7 - 2,0
ACC2222/110	M4	2400	0,9 - 2,0
ACC2230/110	M5	950	1,0 - 3,0
ACC2245/110	M5	450	1,0 - 4,5



SPARE PARTS LIST ACC

REF	DESCRIPTION	CODE	REF	DESCRIPTION	CODE
M3076-10	Motor 2210	219210	961	Fixing screw	200039
M3076-20	Motor 2220	219220	962	Isolation washer	219962
M3076-30	Motor 2230 & 2222	219230	963	Shell (base)	219963
M-301	Motor cover	219301	964	Shell (cover)	219964
M-302	Bering	220080	965	Trigger start	219965
M-303	Washer	219303	966	Spring	219966
M-304/1	Magnet 2210	219304	967	Flat screw	219967
M-304/2	Magnet 2220	219314	968	Screw	219968
M-304/3	Magnet 2230 & 2222	219324	969	Hanger	219969
M-305	Steel housing 2210 & 2220	219305	970	Microswitch	219970
M-305/1	Steel housing 2230 & 2222	219350	971	Start switch	219971
M-306	Rotor 2210 & 2220	219306	972	For-Rev slide switch	219972
M-306/1	Rotor 2230 & 2222	219360	973	P.C.B.	219973
M-307	Carbon brush	219307	974	Cable joiner	219974
M-308	Carbon brush cover	219308	975	Cable 110V	219975/110
M-309	Brushes seat 2210 & 2220	219309	976	Plug 110V	219976/110
M-309/1	Brushes seat 2230 & 2222	219390			
M-310	Stop spring 2210 & 2220	219310			
G602836	Internal gear	219836			
G-154	Upper reduction plater	219154			
G-155	Planet gear	219155			
G-156	Washer	219156			
G-157	Lower reduction plate	219157			
G-191	Main gear	219191			
G-192	Planet gear	219192			
G-193	Washer	219193			
G-194	Steel washer	219194			
G-195	Washer ring	219195			
F1	Separate seat	219957			
F2	Bearing	210080			
F3	Fan	219959			
F4	Washer	219960			



SPARE PARTS LIST ACC

REF	DESCRIPTION	CODE	REF	DESCRIPTION	CODE
801	Clip	219801	826	Thrust sheet	219826
802	Clip	219802	827	Steel ball	219827
803	Washer	219803	828	Steel ball	219828
804	Clip	219804	829	Idling ring	219829
805	Lining ring	219805	830	Steel ball d. 5mm	219830
806	Spring	219806	831	Main shaft return spring	219831
807-5H	Bit control ring 5mm	219807	832	Steel ball	219832
807-6H	Bit control ring 1/4	219880	833	Stopping ball	219833
808-5H	Main shaft thrust sleeve 5mm	219808	834	Central control rod spring	219834
808-6H	Main shaft thrust sleeve 1/4	219881	835	Control rod sliding sleeve	219835
809-B	Steel ball	219809	836	Central control rod	219836
809-R	Roller ball	219882	837	Main shaft-output	219837
810	Stop ring	219810	838	Pin	219838
811	Torque nut fixing type	219811	839-10	Upper clutch	219839
811-LC	Thread of torque nut	219883	839-20	Upper clutch	219893
811-SL	Torque nut outer slide sleeve	219884	839-30	Upper clutch	219894
811-0C	Torque adjusting locker	219885	840	Roller ball	219840
812	Pin	219812	841	Steel ball	219841
813-B	Torque nut seat	219813	842	Upper clutch thrust cover	219842
813-C	Torque nut seat	219892	843	Clip	219843
814	Fixing screw	219814	844	Washer	219844
815	Torque spring bottom seat	219815	845	Hook	219845
816-10	Torque spring 10 Kg/cm	219816	846	Shaft liner	219846
816-20	Torque spring 20 Kg/cm	219886	847	Spring	219847
816-30	Torque spring 30 Kg/cm	219887	848	Washer	219848
817-5H	Steel ball d. 2.5mm	219817	849	Clip	219849
817-6H	Steel ball d. 2mm	219888	850-A	Upper mechanical seat	219850
818	Steel ball d. 2.38mm	219818	850-B	Upper m. seat wear improved	219891
819-5H	Main shaft output 5mm	219819	851	Bearing	219851
819-6H	Main shaft output 1/4	219889	852	Stop ring	219852
820	Release ring spring seat	219820	853	Micro switch	219853
820-1	Stop ring	219890	854	Micro switch seat	219854
821	Release ring spring	219821	855	M. switch seat pull spring	219855
822	Release ring	219822	856	Earth connection screw set	219856
823	Washer	219823	857	Schock absorber	219857
824	Lower clutch thrust sleeve	219824	858	Screw	219858
825	Stop ring	219825			

2. USE

The screwing system is composed by a screwdriver and a cable with schuko plug. To install it please follow the instructions.

- a. Pull the collect ring of the quick change chuck, insert the desired bit into the ¼” seat and release the ring. The bit is automatically locked into position .
- b. Connect the screwdriver plug to a mains supply socket 110v- 50Hz .
- c. Put the bit head firmly into the fastener head, position the forward/ reverse selector upside.

- **PUSH AND LEVER COMBINATION FUNCTION** (switch on the PL position).
Apply axial pressure through the tool onto the fastener. Then, press the trigger to start tightening the fastener. When the preset torque is reached, the tool stops automatically.

- **PUSH START FUNCTION** (switch on the P position) .

Make sure to keep the tool bit straight onto the fastener. Then, push to start tightening (same as PL function but no need to press the trigger).

IMPORTANT: For each second of operation the motor needs 3 seconds of rest, as indicated on the tool label (1s/3s). Failure to do so may result in motor overheating and eventually damage and will be considered as a misuse. Our warranty will not apply.

3. ACCESSORIES

Use only ¼” ISO 1173 bits and power bits.

4. ADJUSTING THE CLUTCH

The torque values is adjusted by changing the tension of the clutch spring. The torque can be increased by turning nut #811 clockwise and decreased by turning it anticlockwise.

To check the torque value we suggest the use of KOLVER K and/or miniK torque tester series.

4. MAINTENANCE

The D.C. motor is equipped with two carbon brushes 8mm long. When their lenght is about 5mm it is time to replace them with new ones as per the following instructions.

- a. Unscrew cover # M-308 and let the carbon brush come out of its seat.
- b. Insert a new carbon brush and screw back cover # M-308.

The average life of carbon brushes is approx 1 milion cycles.

Note

The sound level generated by Kolver electric screwdrivers is always lower than 70dB(A).

The vibrations transmitted to operator’s hand are lower than 2,5m/s². In particular the exposition to vibrations is lower than 1m/s² for operators who make up to 4200 screwing cycles per day.

GUARANTEE

1. This KOLVER product is guaranteed against defective workmanship or materials, for a maximum period of 12 months following the date of purchase from KOLVER, provided that its usage is limited to single shift operation throughout that period. If the usage rate exceeds of single shift operation, the guarantee period shall be reduced on a prorata basis.
2. If, during the guarantee period, the product appears to be defective in workmanship or materials, it should be returned to KOLVER or its distributors, transport prepaied, together with a short description of the alleged defect. KOLVER shall, at its sole discretion, arrange to repair or replace free of charge such items.
3. This guarantee does not cover repair or replacement required as a consequence of products which have been abused, misused or modified, or which have been repaired using not original KOLVER spare parts or by not authorized service personnel.
4. KOLVER accepts no claim for labour or other expenditure made upon defective products.
5. Any direct, incidental or consequential damages whatsoever arising from any defect are expressly excluded.
6. This guarantee replaces all other guarantees, or conditions, expressed or implied, regarding the quality, the marketability or the fitness for any particular purpose.
7. No one, whether an agent, servant or employee of KOLVER, is authorized to add to or modify the terms of this limited guarantee in any way. However it's possible to extend the warranty with an extra cost. Further information at kolver@kolver.it