



*GX Screwdrivers  
(40 Volts)*

A large, stylized number "3" graphic that serves as a background for the title. It is composed of two curved segments meeting at a central horizontal bar, with a subtle gradient and shadow effect.

**INSTRUCTIONS MANUAL**

## IMPORTANT

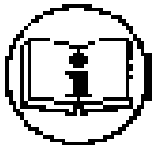


The tool delivered with this manual may be modified for specific needs.

In that case, please give us the tool code number written on our shipping note or the approximate tool delivery date when you will place an order for a new similar tool or for spare parts.

In that way, you will be sure to get the required and/or spare part.

## WARNING



This informations has to be kept in a location known all users.



Each operator has to read carrefully this manual before installing, using, and mending the product.

Be sure that the operator has understood using recommendations and the meaning of signs put on the product.

Most accidents could be avoided respecting this Manual Instructions. As a matter of fact, they were created according to European laws and norms regarding products.

In each case, please respect and follow safety national norms. Do not take off nor damage the stickers or advise put on the product and above all the details imposed by the law.

## SUMMARY

<b>1. GENERAL SAFETY RULES .....</b>	<b>4</b>
1.1 Work Area .....	4
1.2 Electrical Safety .....	4
1.3 Personal Safety .....	4
1.4 Tool use and Care .....	4
1.5 SERVICE.....	5
<b>2. SPECIFIC SAFETY RULES .....</b>	<b>5</b>
2.2 Never lubricate aerosol oil on to the electrical part. ....	5
<b>3. ELECTRIC SPECIFICATION .....</b>	<b>6</b>
<b>4. MECHANICAL SPECIFICATION OF XS-40D.....</b>	<b>6</b>
<b>5. INPUT POWER SELECT.....</b>	<b>6</b>
<b>6. SCREWDRIVER SPECIFICATION .....</b>	<b>7</b>
<b>7. TORQUE CURVE (AT NO LOAD MAX. SPEED) .....</b>	<b>8</b>
<b>8. PANEL OF EACH MODEL.....</b>	<b>8</b>
<b>9. ALARM DISPLAY BY LED .....</b>	<b>8</b>
<b>10. OPERATION.....</b>	<b>9</b>
10.1 Speed change in standard model ( GX___ ).....	9
10.2 Soft start & Double hit ( GX___ + ) .....	9
10.3 Angle control & Auto reverse ( GXT___ ) .....	10

# 1. GENERAL SAFETY RULES

**WARNING! Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury

## SAVE THESE INSTRUCTIONS

### 1.1 Work Area

- **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

### 1.2 Electrical Safety

- **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- **Avoid body contact with grounded surface ad pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock
- **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- **When operating a power tool outside, use an outdoor extension cord marked W-A or W.** These cords are rated for outdoor use and reduce the risk of electric shock.

### 1.3 Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools may result in personal injury.
- **Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

### 1.4 Tool use and Care

- **Use clamps or other practical way to secure and support the workplace to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety
- **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

### **1.5 SERVICE**

- **Tool service must be performed only by qualified personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury
- **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of electric shock or injury.

## **2. SPECIFIC SAFETY RULES**

**2.1 Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

**2.2 Never lubricate aerosol oil on to the electrical part.**

### 3. Electric specification

Items	Power controller	Screwdriver
Model	XS-40D	GX150, GX220, GX450, GX150P, GX220P, GX450P
Input	110 / 230VAC (selectable)	DC40V
Output	30/40VDC (selectable)	
Rated power	2.5A 95W	
Maximum output current	8 A	
Intermittent operation	10s On / 30s Off	
Safety system	CE certified ( Class I )	Class III
		 Detailed specification article 6 on page 4

### 4. Mechanical specification of XS-40D

Size : 98 x 158 x 55H (mm)

Weight : 850gr

Power cord : 1.5 m

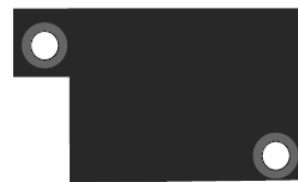
Fuse : 10 A 250V

### 5. INPUT Power select

By replacing the position of cover as below, the input power can be selected for 110V or 230V.



for 110VAC



for 230VAC

## 6. Screwdriver Specification

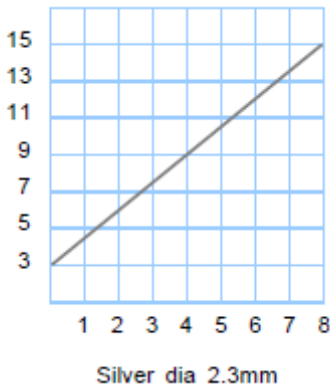


### ■ Specification

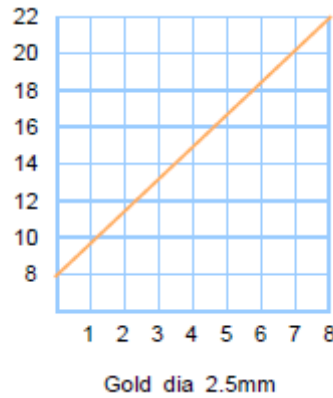
Type	Model	Start	Torque	No load speed	Features (available option)					
			(Kgf.cm)	(rpm)	x	S	C	+	T	A
Speed control	GX 150/ESD	LEVER	3~15	800~1700	○		○	(○)		
	GX 220/ESD		6~22	600~1250	○		○	(○)		
	GX 450/ESD		7~45	300~650	○		○	(○)		
	GX 150P/ESD	PUSH	3~15	800~1700	○		○	(○)		
	GX 220P/ESD		6~22	600~1250	○		○	(○)		
	GX 450P/ESD		7~45	300~650	○		○	(○)		
Angle control & Auto reverse	GXT 150P/ESD	LEVER	3~15	800~1700	○		○		○	
	GXT 220P/ESD		6~22	600~1250	○		○		○	
	GXT 450P/ESD		7~45	300~650	○		○		○	
Automation	GXA 150P/ESD	REMOTE	3~15	800~1700	○		○	(○)		○
	GXA 220P/ESD		6~22	600~1250	○		○	(○)		○
	GXA 450P/ESD		7~45	300~650	○		○	(○)		○

## 7. Torque curve (at No load Max. speed)

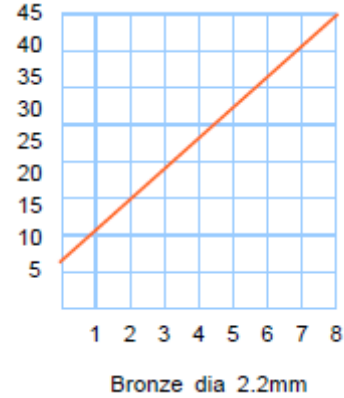
GX 150



GX 220

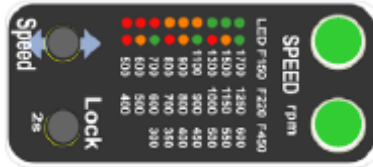


GX 450



## 8. Panel of each model

### ■ Standard (Speed control) / GX\_\_\_



### ■ Soft start & Double hit / GX\_\_\_+



### ■ Angle control & Auto reverse / GXT\_\_\_



## 9. Alarm display by LED

n	Alarm	Description	Reset
1	Over Voltage (over 48V)	● Green light blinks for 0.5s	Auto reset under 48V
2	Overload (4A/0.5s)	● Red light blinks for 0.5s	Auto reset after 5s
3	Overheat (over 80°C of motor)	● Orange light blinks for 0.5s	Auto reset lower than 80°C
4	Driver Lock by external signal	● Orange light On continuously	Auto reset by signal off



# 10. Operation

## 10.1 Speed change in standard model ( GX )



- 1) Keep pressing the Lock button for 2 second to visit to PROGRAM mode. Then two LED lights will display the set speed.
- 2) Select "Reverse" of F/R switch for increasing speed or select "Forward" of F/R switch for increasing speed.
- 3) Press "Speed" button and select the target speed. The set speed can be recognized by the colors of two LED as below.
- 4) Keep pressing the Lock button for 2 second to go back to operating(work) mode.

### ■ Speed display by two LED color (Standard model)

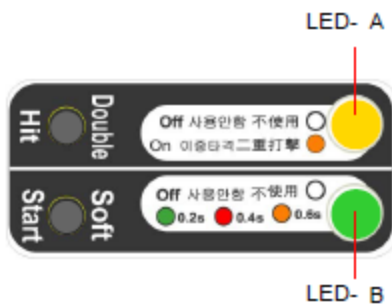
Model	LED	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●
	Button	1th	2nd	3rd	4th	5th	6th	7th	8th	9th
GX150	RPM	800	900	1000	1100	1200	1300	1400	1500	1700
GX220	RPM	600	650	700	750	800	900	1000	1100	1250
GX450	RPM	300	340	380	415	450	490	530	565	600

## 10.2 Soft start & Double hit ( GX + )

Model : GX150+, GX220+, GX450+, GX150P+, GX220P+, GX450P+  
 The Plus option drivers have the single speed of the maximum in the speed range.

### ■ Double Hit

When "Double Hit" is chosen by the Double Hit button, LED A will light Orange color. During the motor run, LED A will display Green light.



### ■ Soft Start

The rotation speed reaches to the target speed gradually after the soft start time as below.

- Green : 0.2 second
- Red : 0.4 second
- Orange : 0.6 second

### 10.3 Angle control & Auto reverse ( GXT )

Model : GXT150, GXT220, GXT450

One triggering by the lever can make 3 step operation sequence in a cycle

■ **Start, Stop and Direction in a cycle**

Step	1	→	2	→	3
Sequence	first RUN		stop HOLD		reverse RUN
Rotating direction	Clockwise or Counterclockwise by F/R switch				Reverse
Activating	Screwdriver runs to the target angle and stop. It always stops at the set torque, even it does not reach the target angle.		Stop and hold for set time		Rotate reverse until releasing the lever or stop at the target torque
Time setting	0 - 5 sec / 30 steps		0 - 5 sec / 12 steps		x

- Screwdriver stops Immediately when the lever is released in any sequence.

- Sliding F/R switch works for

■ **Operating (Work) mode**

① Rotating direction (FOR-REV)

■ **PROGRAM mode**

① First run angle (Increase / Decrease) together with "First Run(Speed)" button

② Time (Increase / Decrease) together with "Stop(Reverse)" button

③ Rotation speed (Increase / Decrease) together with "Speed(First Run)" button

④ Reverse run angle (Increase / Decrease) together with "Reverse(Stop)" button



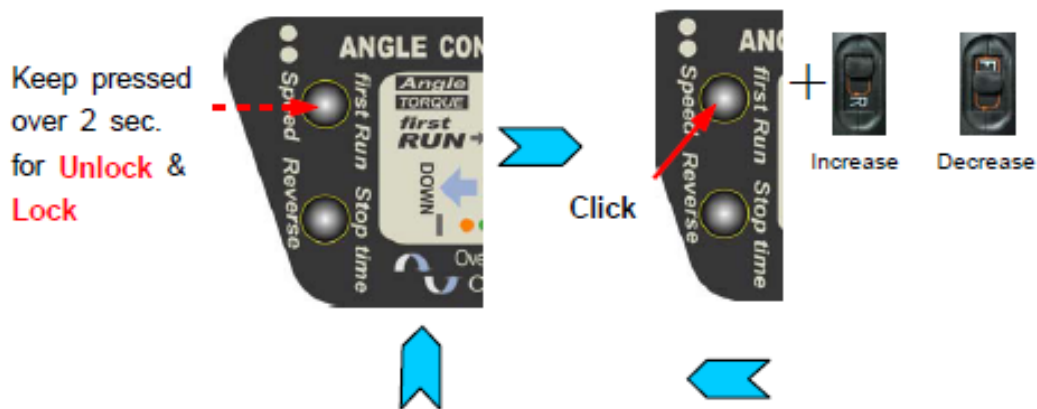
Increase

Decrease

■ Angle setting for first RUN

- ① Keep the first Run button pressed over 2 sec. for angle setting. Then press one by one for the desired rotating angle
- ② Select the R position of F/R switch for increasing set angle or F position for decreasing set angle
- ③ Keep the first Run button pressed over 2 sec. for Lock & operating mode.

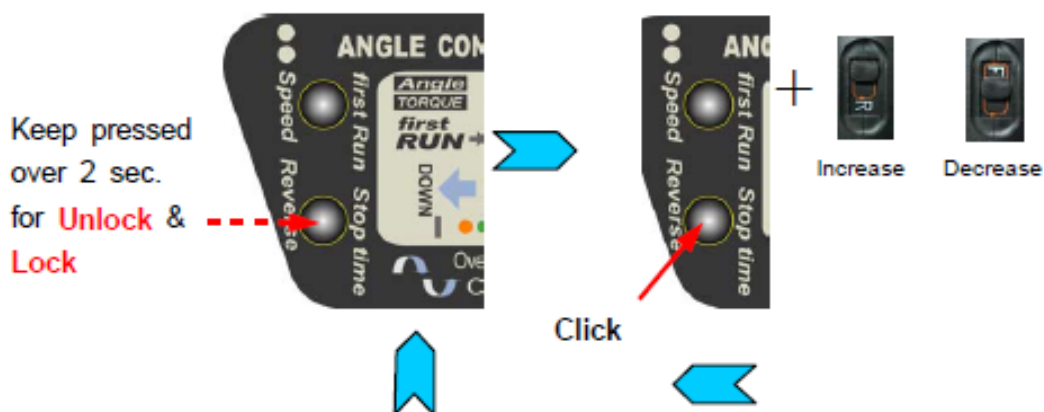
Click	0	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	1 <sup>2</sup>	1 <sup>3</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>8</sup>	1 <sup>9</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>2</sup>	2 <sup>3</sup>	2 <sup>4</sup>
Angle in turn	Off	1/4	2/4	3/4	1	5/4	6/4	7/4	2	9/4	10/4	11/4	3	4	5	6	7	8	9	10	11	12	13	14	15
LED	O	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	O



■ Time setting for stop HOLD

- ① Keep the **stop time** button pressed over 2 sec. Then click the stop time button one by one for desired stop holding time
- ② Select the R position of F/R switch for increasing set time or F position for decreasing set time
- ③ Keep the **stop time** button pressed over 2 sec. for Lock & operating mode.

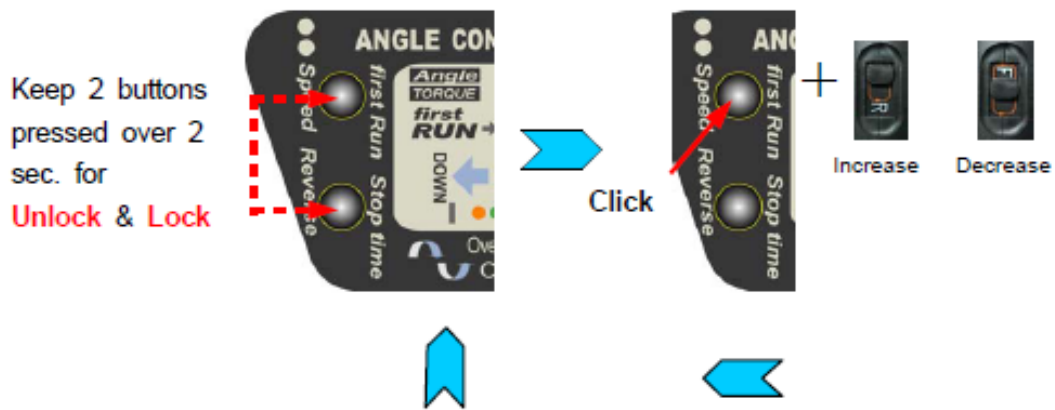
Click	0	1 <sup>th</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>	14 <sup>th</sup>
Time (second)	Off	0.1	0.3	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
LED	Orange	R	G	R	G	R	G	R	G	R	G	R	G	R	O



■ Rotating speed setting

- ① Keep the both **first Run** & **stop time** buttons pressed over 2 sec. for unlock. Then click one by one for the desired rotating speed.
- ② Select the R position of F/R switch for increasing speed or F position for decreasing speed
- ③ Keep the **first Run** button pressed over 2 sec. for Lock & operating mode.

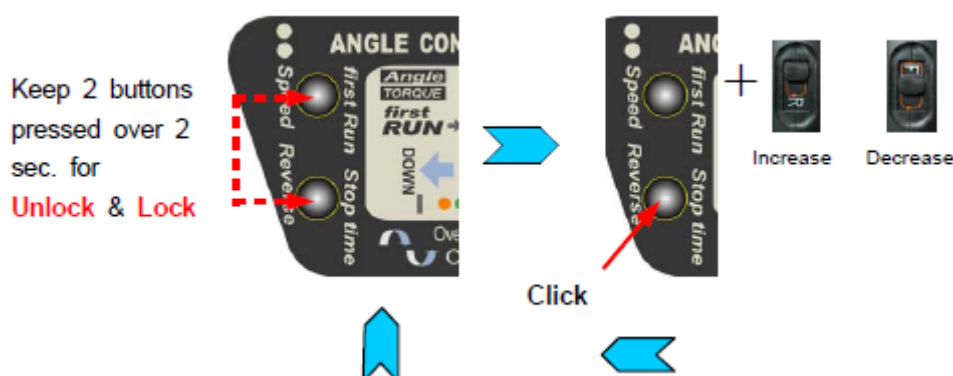
Click	0	1st	2nd	3rd	4th	5th	6th	7th	8th
Speed (rpm)	700	650	600	550	500	450	400	350	300
LED	Orange	Red	Green	Red	Green	Red	Green	Red	Orange



■ Angle setting for Reverse RUN

- ① Keep the both first Run & stop time buttons pressed over 2 sec. for unlock. Then click stop time button one by one for the desired angle
- ② Select the R position of F/R switch for increasing set angle or F position for decreasing set angle
- ③ Keep the stop time button pressed over 2 sec. for Lock & operating mode.

Click	0	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4
Angle in turn	Off	1/4	2/4	3/4	1	5/4	6/4	7/4	2	9/4	10/4	11/4	3	4	5	6	7	8	9	10	11	12	13	14	15
LED	O	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	O



■ Application Example

	First RUN Angle	Stop HOLD Time	Auto Reverse Angle	Applications with different sequence in a cycle
Normal screwdriver	off	off	off	Normal screwdriver It stops at the set torque
Angle control	ON(1)	off	off	It stops at set angle(1)
Tapper or Insert fastening	ON(1)	ON(2)	ON(3) or off	It stops at set angle(1) and waits for set time(2), and makes reverse rotation to the set angle(3)
Wire inserting on terminal block	ON(1)	ON(2)	off	It stops at set angle(1) and waits for set time(2), and makes reverse rotation and stops at set torque







[www.doga.fr](http://www.doga.fr)

**Head office**

**Phone : +33 (0)1 30 66 41 20**

Fax : +33 (0)1 30 66 41 79

**Adress**

8 avenue Gutenberg - ZA Pariwest

BP 53 - F 78311 Maurepas Cedex

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