

# ACDelco™

## ARM602-3

# DIGITAL TORQUE ADAPTER

PRODUCT INFORMATION MANUAL

*Manuel informations du produit*

*Manual información del producto*

*English*

*Français*

*Español*



THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING SAFETY, OPERATION, MAINTENANCE AND STORAGE OF THIS PRODUCT.

CE MANUEL CONTIENT DES INFORMATIONS IMPORTANTES CONCERNANT LA SECURITE, L'OPERATION, LA MAINTENANCE ET LE STOCKAGE DE CE PRODUIT.

ESTE MANUAL CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE LA SEGURIDAD, FUNCIONAMIENTO, MANTENIMIENTO Y ALMACENAMIENTO DE ESTE PRODUCTO.

**DO NOT ATTEMPT TO OPERATE THE TOOL UNTIL YOU HAVE READ AND UNDERSTOOD ALL INSTRUCTIONS AND SAFETY RULES CONTAINED IN THIS MANUAL. FAILURE TO COMPLY MAY RESULT IN ACCIDENTS INVOLVING FIRE, ELECTRIC SHOCK, OR SERIOUS PERSONAL INJURY. SAVE THIS OWNER'S MANUAL FOR FUTURE REFERENCE AND REVIEW IT FREQUENTLY FOR SAFE OPERATION.**

**NE PAS TENTER D'OPERER L'OUTIL TANT QUE VOUS N'AVEZ PAS LU ET COMPRIS TOUTES LES INSTRUCTIONS ET REGLES DE SECURITE CONTENUES DANS CE MANUEL. SINON VOUS RISQUEZ DES ACCIDENTS TELS QU'UN INCENDIE, UNE ELECTROCUTION, OU DES BLESSURES CORPORELLES GRAVES. CONSERVEZ CE MODE D'EMPLOI EN CAS DE BESOIN ET RELISEZ-LE SOUVENT POUR UTILISER VOTRE OUTIL EN TOUTE SECURITE.**

**NO UTILICE ESTA HERRAMIENTA HASTA HABER LEÍDO Y COMPRENDIDO TODAS LAS INSTRUCCIONES Y NORMAS DE SEGURIDAD CONTENIDAS EN ESTE MANUAL. SI NO LO HACE PODRÍA PROVOCAR ACCIDENTES CON FUEGO, DESCARGA ELÉCTRICA O LESIONES PERSONALES SERIAS. GUARDE ESTE MANUAL DE INSTRUCCIONES PARA SU CONSULTA EN EL FUTURO Y REVÍSELO FRECUENTEMENTE PARA UN USO SEGURO.**



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**CAUTION**

Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

Do not expose this digital torque tool to dust or sand as this could cause serious damage. Do not expose the digital torque tool to extreme temperature, humidity direct sunlight or shock violently.

**SERVICE**

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel may 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 shock or injury.

**SPECIFIC SAFETY RULES AND SYMBOLS**

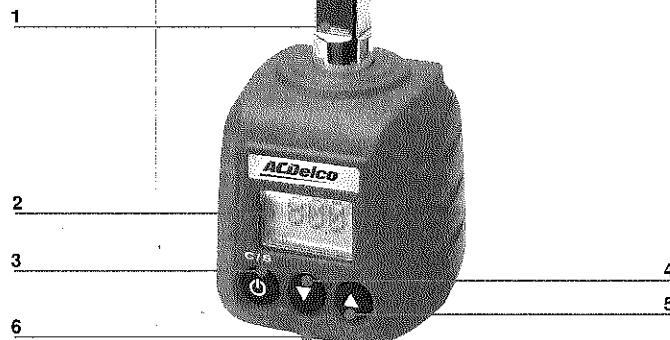
**CAUTION**

Recommended operating temperature is 0-50°C(32-122°F). Always replace damaged fasteners before applying torque.

**SYMBOLS**

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

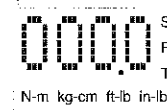
SYMBOL	NAME	EXPLANATION
V	Volts	Voltage (potential)
kg	Kilograms	Weight
	Direct Current	Type of Current



**CONTROLS AND COMPONENTS:**

- |                                     |                         |
|-------------------------------------|-------------------------|
| 1. 3/8" Square (Male)               | 2. LCD Panel            |
| 3. Power Button(C/S: Clear / Start) | 4. Down Button          |
| 5. Up Button                        | 6. 3/8" Square (Female) |

**LCD DISPLAY EXPOSITION:**



**Modes:**

1. S: Set Mode
2. P: Peak Mode
3. T: Trace Mode

**Measuring Units:**

1. N-m: Newtown Meters
2. kg-cm: Kilogram Centimeters
3. ft-lb: Foot Pounds
4. in-lb: Inch Pounds

**SPECIFICATIONS**

<b>Model Number</b>	ARM602-3
<b>Drive</b>	3/8" Square
<b>Voltage</b>	6 Vdc
<b>Dimensions(LxWxH)</b>	3"x1-27/32"x1-29/32" (75 mmx47 mmx48 mm)
<b>Accuracy</b>	
▶ <b>CW</b>	±2 % form 20% to 100% of full scale
▶ <b>CCW</b>	±3 % form 20% to 100% of full scale
<b>Operation Range</b>	3~59 ft-lbs (4~80 N-m)
<b>Alarm Setting Range</b>	6~59 ft-lbs (8~80 N-m)
<b>Resolution</b>	1 kg-cm, 0.1 N-m, 1 in-lb, 0.1 ft-lb
<b>Operation Mode</b>	Peak / Trace
<b>Auto Shut-Off</b>	After 60 seconds of No Use
<b>Operating Temperature</b>	0-50°C
<b>Storage Temperature</b>	-10-60°C
<b>Battery</b>	Coin Cell CR2032 X 2
<b>Tool Weight</b>	0.31 lbs (0.14 kg)

**ASSEMBLY****BATTERY INSTALL AND REPLACEMENT**

1. Prepare 2 new coin cells of "CR2032".
2. Loosen the 2 screws on the coin cell cover by a screwdriver.
3. Replace the 2 coin cells (with the "+" sign facing upwards).
4. Tighten the screws to fix the cover.

**NOTE**

1. When cell capacity is low, the digits on the display will be not clear.
2. Remove the coin cells if stored for a long period of time.
3. Keep spare coin cells on hand when going on a long trip or to cold areas.
4. Do not mix the type of coin cells or combine used coin cells with new ones.
5. Sweat, oil and water can prevent a coin cell's terminal from making electrical contact. To avoid this, wipe both terminals before loading a coin cell.
6. Coin cell life depends on coin cell quality and the amount of buzzer is used.
7. Dispose of coin cells in a designated disposal area. Do not throw coin cells into a fire.

**OPERATION****WARNING**

To reduce the risk of injury, wear safety goggles or glasses with side shields. Always remove battery pack before changing accessories or making adjustments.

**POWER ON**

Press and release the Power Button (3) to turn the adapter on.

**ZERO FUNCTION**

When powers on, the digital torque tool can be zeroed at measure mode by press and release the Power Button (3).

**NOTE**

Do not zero at the torque is applying on the digital torque tool.

**HOW TO SET PEAK MODE OR TRACE MODE**

Press and release the Down Button (4) or Up Button (5) to select the mode you need.

**TRACE MODE:** When in track mode the adapter will display real-time torque.

**PEAK MODE:** When in peak mode the adapter will hold the highest measured reading on the display until "zero-clear" by pressing and releasing the Power button (3).

**HOW TO SELECT UNIT**

1. Press the Power Button (3) more than 2 seconds to Set Mode.
2. When you see the digits start blinking, press the Power Button (3) again to select the desired measuring unit.
3. When the desired measuring unit is displayed, press the Power Button (3) 2 seconds to confirm your selection. (or wait for 5 seconds the system will automatically confirm your selection)

**SETTING TORQUE ALARM VALUE**

1. Press the Power Button (3) more than 2 seconds to Set Mode.
2. When you see the digits start blinking, press the Up Button (5) and Down Button (4) discontinuously to adjust the target torque value.
3. If you want to quickly go through to the target torque value, just press it the Up Button (5) and Down Button (4) continuously.
4. When the target torque value is displayed, press the "Power Button (3)" 2 seconds to confirm your selection. (or wait for 5 seconds the system will automatically confirm your selection)

**NOTE**

1. When you are reaching 90% of the target torque value, an intermittent buzzer will start to warn you.
2. When the target torque value is reached, a high-frequency buzzer will warn you not to pull further.

**MEMORY FUNCTION**

The system will memory the "mode" and "unit" selection which you set even you change coin cells.

**RESET MEMORY FUNCTION**

To clean the memory, just press the "Down Button (4)" and "Up Button (5)" together for 2 seconds.

**COUNT FUNCTION**

Just press the "Power Button (3)" and "Up Button (5)" together to show how much times this adapter has been used.

**NOTE**

The system will record this time automatically when the torque value reaches the target torque value you set. The counter unit is thousand as shown "K", and the maximum is 999K.

**OVERLOAD ALARM/RECORD**

The system will show "Err" on the display if the torque exceeds 110% of the maximum torque, and a high-frequency buzzer will warn you not to pull further. After that the "Err" will be shown for 1 second every time when you power on this adapter.

**NOTE**

Overload will damage this adapter and lose its accuracy. Please return this adapter to an authorized service center to calibrate it and eliminate the "Err".

**AUTO POWER OFF**

This adapter will be shut off automatically after 60 seconds of no use.

**HOW TO USE AS A TORQUE WRENCH**

Connecting the adapter to ratchet wrench, and socket.

**INCORRECT OPERATION**

The torque or force only applies on the driver head. **Never apply extra torque or force on the place other than the driver head.**

**CAUTION**

To reduce the risk of damage to the tool, do not use excessive force or "kink" the cable. Do not use in areas where visual inspection camera and cable will contact corrosive or oily substances. Do not use the cable to clear clogs or move obstructions. This is not a drain cleaner!

**MAINTENANCE****WARNING**

Remove batteries before cleaning.

**CLEANING**

1. Use a soft, dry, clean-cloth clean the adapter and LCD panel.
2. Clean torque wrench by wiping. Do not immerse.
3. Store torque wrench in protective case at its lowest torque setting. Do not force handle below lowest setting.
4. If the adapter gets wet, wipe it with a dry towel as soon as possible. The salt in seawater can be especially damaging.
5. Do not use organic solvents, such as alcohol or paint thinner when cleaning the adapter.

**ACCESSORIES**

**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.

Recommended accessories for use with your tool are available at extra cost from your local service center.

**IMPORTANT:** To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustments should be performed by certified service centers or other qualified service organizations, always using identical replacement parts.

**PROTECTING THE ENVIRONMENT**

Before disposing of damaged, check with your state Environmental Protection Agency to find out about special restrictions on the disposal of tool or return them to a certified service center for recycling.

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