

# Commercial





### SAFETY AND OPERATING MANUAL

CyberTank
KAC875A KAC875A.X KAC877A KAC877A.X

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#### INTRODUCTION

Dear Customer,

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Thank you for buying this Kress Commercial product. We are dedicated to developing high quality products to meet your commercial landscaping requirements.

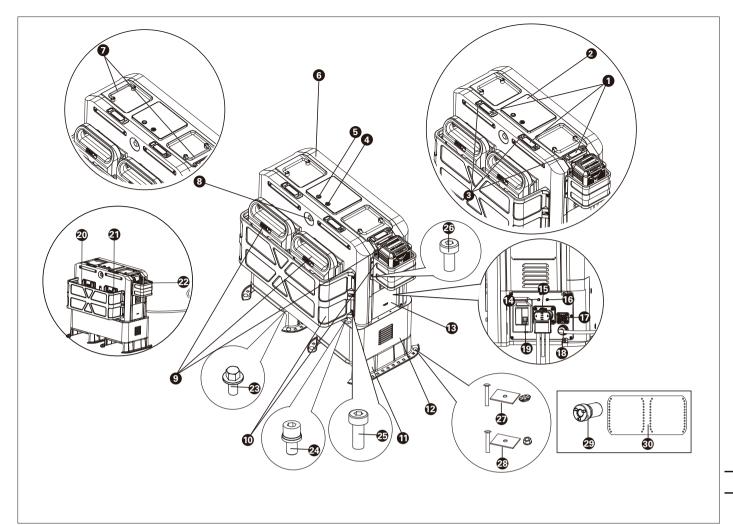
The Kress brand is synonymous with premium quality service. Over the years of your product's life, if you have any questions or concerns about your product, please contact your dealer or our Customer Service Team for assistance.

We are confident you will enjoy working with your Kress product for years to come.

The term "CyberTank" here in after refers to "Power Station".

#### **INTENDED USE**

The CyberTank is intended for charging CyberPacks and Kress 60V batteries for use on Kress outdoor power equipment.



#### **COMPONENT LIST**

1. BATTERY PACK RELEASE BUTTON 2. LED DISPLAY 3. POWER INDICATOR LIGHTS 4. ON/OFF BUTTON 5. FLASH CHARGING BUTTON 6. CHARGING CABINET 7. HANDLES 8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
4. ON/OFF BUTTON 5. FLASH CHARGING BUTTON 6. CHARGING CABINET 7. HANDLES 8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
5. FLASH CHARGING BUTTON 6. CHARGING CABINET 7. HANDLES 8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
6. CHARGING CABINET 7. HANDLES 8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
7. HANDLES 8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
8. EMERGENCY STOP BUTTON 9. BATTERY PACK *
9. BATTERY PACK *
40 PROTECTIVE CLUADRO
10. PROTECTIVE GUARDS
11. MOUNTING BRACKET
12. BATTERY CABINET
13. COVER
14. 4G PORT
15. CONNECTION PLUG
16. GPS PORT
17. SOLAR POWER PORT
18. AC CABLE
19. CIRCUIT BREAKER
20. CHARGING PORT 1
21. CHARGING PORT 2
22. CHARGING PORT 3

#### **ACCESSORY LIST**

	Description	Size	Number
23.	Flange bolts (For assembling the mounting brackets with the battery cabinet)	M8*14	4
24.	Socket head bolts (For assembling the battery cabinet with the charging cabinet)	M8*25	4
25.	Torx bolts (For assembling the large guard- with the charging cabinet)	M6*16	6

26.	Torx bolts (For assembling the small guard with the charging cabinet and se- curing the front and rear housing)	M5*10	4
27.	Carriage Bolts+Spacers+Nuts 1 (For securing the CyberTank in vehicles)	3/8-16 (Carriage Bolts) 3/8 (Nuts 1)	3
28.	Carriage Bolts+Spacers+Nuts 2 (For securing the CyberTank in vehicles)	3/8-16 (Carriage Bolts) 3/8 (Nuts 2)	11
29.	Socket	1/2"	1
30.	CyberTank Base Outline	/	1

<sup>\*</sup> Not all the accessories illustrated or described are included in standard delivery.

## ORIGINAL INSTRUCTIONS PRODUCT SAFETY

WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

WARNING – When using this product, basic precautions should always be followed, including the following:

- a) Read all the instructions before using the product.
- b) To reduce the risk of injury, close supervision is necessary when the product is used near children.
- c)Do not put fingers or hands into the product.
- d) Use of an attachment not recommended or sold by CyberTank manufacturer may result in a risk of fire, electric shock, or injury to persons.
- e) Do not use a battery pack or CyberTank that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- f) Do not operate the battery cabinet with a damaged cord or connector, or a damaged output cable.
- g)Do not disassemble the battery cabinet, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- h)WARNING RISK OF EXPLOSIVE GASES. To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of the battery. Review cautionary marking on these products:
- i) Using insulated tools, insulated gloves, personal protective equipment, and clothing and other measures for safe installation of the battery system;
- j) Housing is required for protection against ingress of moisture and debris;
- k) Maintain good ventilation to prevent excessive accumulation of hydrogen;
- l)Correctly connect the system and any auxiliary equipment (such as independent

- controllers, monitoring equipment, etc.) according to the circuit diagrams and instructions provided by the manufacturer;
- m)Do not touch battery electrolyte, which is corrosive and harmful to eyes and skin. In case of contact with electrolyte, seek medical attention immediately
- n)Carry out necessary commissioning tests and inspections before putting the system into service:
- o)NEVER smoke or allow a spark or flame in vicinity of CyberTank;
- p)Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause an explosion.
- q)When charging the CyberTank, work in a well ventilated area and do not restrict ventilation in any way.
- r) Do not crush, disassemble the battery packs. Do not expose the CyberTank to fire or excessive temperature. Exposure to fire or temperature above 100 °C (212 °F) may cause an explosion.
- s) Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.

#### **GENERAL SAFETY WARNINGS**

## SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.

## SAFETY WARNINGS FOR BATTERY CABINET

WARNING – When using this product, basic precautions should always be followed, including the following:

- a) To reduce the risk of injury, close supervision is necessary when the product is used near children.
- b)Use of an attachment not recommended or sold by Battery cabinet manufacturer may result in a risk of fire, electric shock, or injury to persons.
- c) Do not use a battery pack or CyberTank that is damaged or modified. Damaged or modified batteries may exhibit

- unpredictable behavior resulting in fire, explosion or risk of injury.
- d)Do not disassemble the battery cabinet, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- e)WARNING RISK OF EXPLOSIVE GASES. To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of the battery. Review cautionary marking on these products;
- f) Maintain good ventilation to prevent excessive accumulation of hydrogen;
- g)Do not touch battery electrolyte, which is corrosive and harmful to eyes and skin. In case of contact with electrolyte, seek medical attention immediately
- h)NEVER smoke or allow a spark or flame in vicinity of energy storage battery;
- i) Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause an explosion.
- j) When charging the energy storage battery, work in a well ventilated area and do not restrict ventilation in any way.
- k) Do not crush, disassemble the battery packs. Do not expose the CyberTank to fire or excessive temperature. Exposure to fire or temperature above 100 °C (212 °F) may cause an explosion.
- I) Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- m)Warning: Risk of fire, explosion, or burns. Do not disassemble, heat above 100 °C (212 °F), or incinerate.

## ADDITIONAL SAFETY WARNING FOR BATTERY PACK

- a)Do not dismantle, open or shred battery pack.
- b)Do not expose battery pack to heat or fire. Avoid storage in direct sunlight.
- c)Do not short-circuit a battery pack. Do not store battery packs haphazardly in

- a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or fire.
- d)Do not subject battery pack to mechanical shock.
- e)In the event of battery leaking, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.
- f) Do not use any battery pack which is not designed for use with the equipment.
- g)Keep battery pack out of the reach of children.
- h)Always purchase the battery pack recommended by the device manufacturer for the equipment.
- i) Keep battery pack clean and dry.
- j) Wipe the battery pack terminals with a clean dry cloth if they become dirty.
- k) Battery pack needs to be charged before use. Always use the correct charger and refer to the manufacturer's instructions or equipment manual for proper charging instructions.
- I) Do not leave battery pack on prolonged charge when not in use.
- m)After extended periods of storage, it may be necessary to charge and discharge the battery pack several times to obtain maximum performance.
- n)Recharge only with the charger specified by Kress. Do not use any charger other than that specifically provided for use with the equipment.
- o)Retain the original product literature for future reference.
- p)Use only the battery pack in the application for which it was intended.
- q)Remove the battery pack from the equipment when not in use.
- r) Dispose of properly.
- s) Do not mix cells of different manufacture, capacity, size or type within a device.
- t) Keep the battery away from microwaves

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## CAREFULLY READ THE INSTRUCTIONS FOR THE SAFE OPERATION OF THE CYBERTANK.

## USER MANUAL REQUIREMENTS FOR WIRELESS PRODUCT

- a) Operation of this device is subject to the following two conditions:
- (1)This device may not cause harmful interference, and
- (2)This device must accept any interference received, including interference that may cause undesired operation.
- b) Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- c) NOTE: This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.
- 1) To satisfy EMC & RF exposure requirements, a separation distance of 20 cm (7.9") or more should be maintained between the antenna of this device and persons during device operation
- 2) To ensure compliance, operations at closer than this distance is not recommended

## ANTENNA CAUTION (FOR DETACHABLE ANTENNAS)

This radio transmitter to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Gain of antenna: 4dBi max

Type of antenna: 50ohm, Chip (GPS) / Dipole

(4G

## SAVE THESE INSTRUCTIONS SYMBOLS



To reduce the risk of injury, user must read instruction manual

Read the operator's manual.



Warning



WARNING: Hazardous Voltage Circuits

Warning! Risk of electric shock near the battery terminals because of dangerous voltages.



Fuse must be replaced with rating specified in the manual



Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.



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Li-lon battery This product has been marked with a symbol relating to 'separate collection' for all battery packs and battery pack. It will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.



Protective earth (Ground)



Do not burn



Batteries may enter water cycle if disposed improperly, which can be hazardous for ecosystem. Do not dispose of waste batteries as unsorted municipal waste.



RCM marking

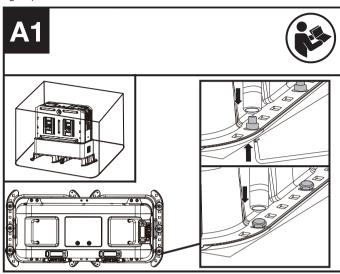
ABN: Australian Business Number. By this number, business information such as entity type, status, business location etc. can be found at website http://abr.business.gov.au. ABN of Positec Australia Pty Limited is 14 101 682 357

#### **ASSEMBLY & OPERATION**

NOTE: Before using the tool, read the instruction book carefully.

#### **BEFORE ASSEMBLY**

The product is secured in the box. Take out the product before assembly.(See Fig. A1)



#### **ASSEMBLY**

- 1. Remove the cover.(See Fig. A2)
- 2. Take out the connection plug and plug it to the charging cabinet until you

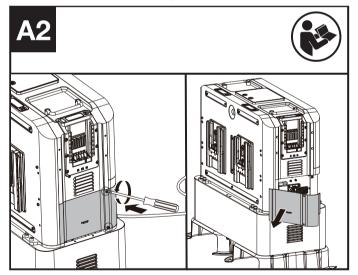
hear a sound of "click". (See Fig. A3)

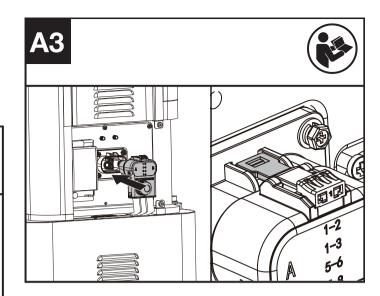
NOTE: The connection plug is stable. It is necessary to unlock the connection plug before unplugging it.(See Fig. A4)

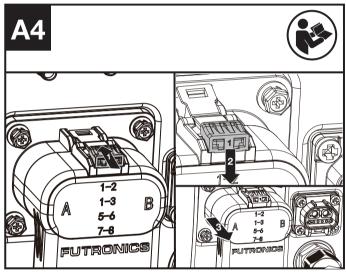
3. Assemble the antenna.

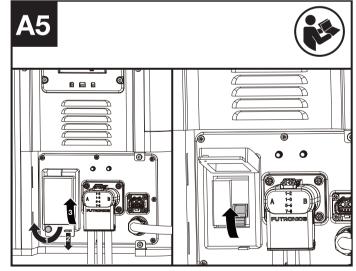
NOTE: Assemble the antenna when the 4G signal is weak through 4G port and GPS port. Please seek help and guidance from the dealer.

4. Turn on the circuit breaker (See Fig. A5)

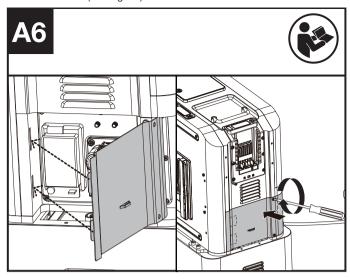




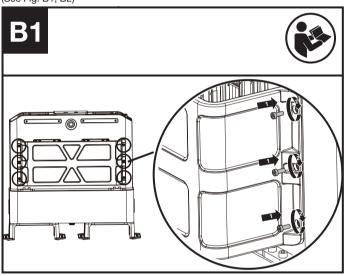


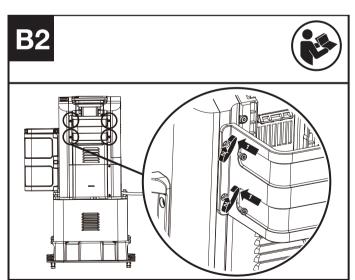


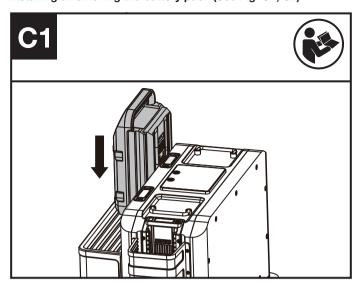
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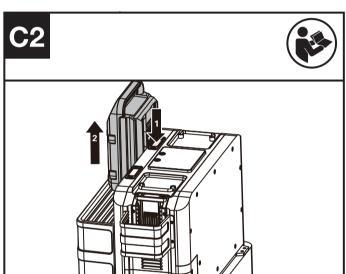


6. Assembling the large guard and the small guard to the charging cabinet (See Fig. B1, B2)









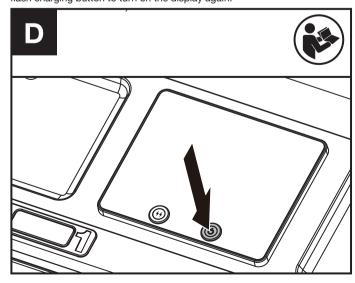
#### **OPERATION:**

#### CHARGING THE BATTERY PACKS.

- 1. Press the on/off button to turn on the CyberTank. (See Fig. D)
- 2. Install the battery packs (See Fig. C1)

**NOTE:** For turning off the CyberTank, press and hold down the on/off Button for 3 seconds.

**NOTE:** The display will turn off after 3 minutes. Press the on/off button or the flash charging button to turn on the display again.



		Charging Port 1	Charging Port 2	Charging Port 3
Battery	Cyber- Pack	(KAC804 KAC810)	(KAC804 KAC810)	(KAC804)
pack	Kress 60V bat- tery	<u> </u>	<u> </u>	<u> </u>
Robotic (KR800)		X	X	<b>\</b>
Inverter (use only inverters specified by		X	X	<u></u>

**NOTE:** For charging port 2 and charging port 3, when battery packs are installed on both charging port 2 and charging port 3, the battery pack installed first will get charged first. And when a robotic mower is connected to charging port 3, the robotic mower will be charged first.

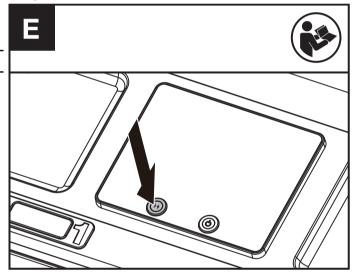
**NOTE:** It is also feasible to install battery packs first before turning on the CyberTank. In this mode, The battery pack with more power level will bet charged first.

#### FLASH CHARGING(See Fig. E)

When charging a battery pack in charging port 1; Press the flash charging button for 3 seconds, the flash charging mode will start.

**NOTE:** Pressing the flash charging button again, for 3 seconds, will cancel the flash charging mode.

In flash charging mode it will take 8 minutes to fully charge a CyberPack battery.



#### **CHARGING AND FLASH CHARGING**

	Charging Port 1	Charging Port 2	Charging Port 3
Charging	<u></u>	<b>/</b>	<b>/</b>
Flash charging	<u> </u>	X	X

**NOTE:** Flash charging mode is only available on charging port 1. **NOTE:** When the power level of the battery cabinet is less than 20 %, the flash charging mode is unavailable.

**NOTE:** Only one charging port can be used for charging when the power level of battery cabinet is less than 20 %. The battery pack installed first will be charged first. When a robotic mower is connected to charging port 3, the robotic mower will be charged first.

### CHARGING THE BATTERY CABINET Mode 1: AC cable charging

- 1. Ensure the circuit breaker is turned on, and emergency stop is off.
- 2. Connect the CyberTank to the outlet with the AC cable.

3. Press the on/off button to turn on the CyberTank. (See Fig. D) **NOTE:** When CyberTank is already turned on, connect it to the mains directly. **NOTE:** When charging the battery cabinet and the battery packs at the same time, battery packs will charge first and then the battery cabinet will charge after the batteries have finished charging.

**NOTE:** Use grounded sockets.



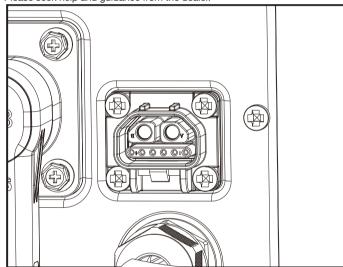
Warning! Considering the current capacity, please use the dedicated line to avoid overload of power supply.

**NOTE:** An extension cord can be connected between the CyberTank and the AC cable to extend the connection distance.

EXTENSION CORD (VDE 2.5 mm²)			
Voltage	300 V		
Temperature	105 °C		
Length	15 m		

#### Mode 2: Solar power charging

Please seek help and guidance from the dealer.



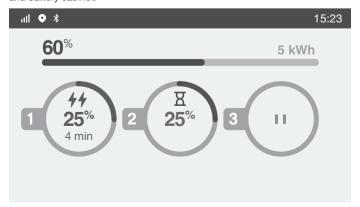
**NOTE:** Connect the CyberTank with the Kress solar power inverter. The input voltage is 48 V.

#### Mode 3: Power generator charging

Choose the generator that meets the technical data. Read the power generator manual carefully before operating. Please seek help and guidance from the dealer.

#### LED DISPLAY

The display shows the charging status and the power level of battery packs and battery cabinet.



#### Different symbols on the display represent different operating status.

Symbol	Status
4	Charging
44	Flash Charging
X	Ready For Charging
II	Empty charging port
*	Bluetooth
utl	4G Signal
•	GPS
!	Warning
	Solar Power Charging
	Over temperature warning

#### **POWER INDICATOR LIGHTS**

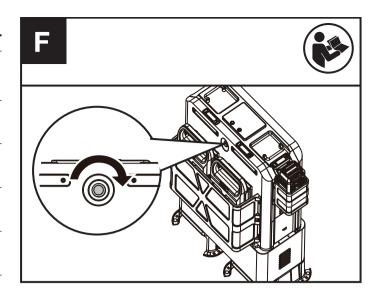
Different conditions of power indicator lights represent different charging status and battery conditions.

Light	ON/ flash	Status
○ 🕏 Yellow on		Ready for charging
Green flash		Charging
Green on		Fully charged
Red on		Defective battery

#### **EMERGENCY STOP BUTTON (See Fig. F)**

In case of emergency, push the emergency stop button to shut down the  $\ensuremath{\mathsf{CyberTank}}.$ 

**NOTE:** Once the emergency stop button is pushed, the CyberTank cannot be immediately turned on again, please reset the emergency stop button before turning the CyberTank on. Rotate the emergency stop button to reset it.



## CONNECT YOUR CYBERTANK TO THE APP

#### - 4G

With the 4G function, your CyberTank can be connected to the APP. For connection, please refer to the APP Download and Connection Guide.

#### -Anti-theft

This product has a anti-theft function. You can locate the product and lock it remotely through the APP. For more information about the anti-theft function, please refer to the APP.

#### -Over-the Air (OTA) updates

If your CyberTank is connected to the APP, you may be notified that new software is available via the APP. Once you confirm, the update will happen automatically Over-the Air. You can also set up automatic updates via the APP.

#### **TRANSPORTATION**

- When transporting your CyberTank, keep it upright and secured to prevent movement or damage. For transporting your CyberTank in the vehicle, use suitable loading tools to lift up or put down the CyberTank and keep it secured in the vehicle. For securing the product in a vehicle, please refer to the CyberTank Installation Guide.
- To lift the CyberTank with a crane or similar lifting devise, use the handles and a suitable lifting strap. Guide the CyberTank to prevent it from swinging.
- The brackets, provided with the CyberTank are designed so that the CyberTank can be lifted and moved with a fork lift or hand pallet truck.
- The CyberTank is heavy, if lifting by hand, two people should lift together. It is not suggested to lift the CyberTank by hand.
- The contained Li-lon batteries are subject to the dangerous goods legislation requirements. Transport the CyberTank only when the housing is undamaged.

#### **MAINTENANCE**

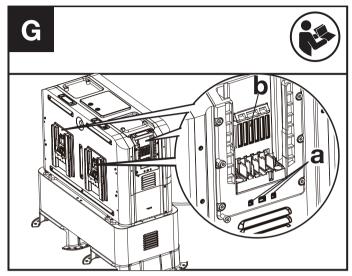
Remove the plug from the AC Outlet, turn CyberTank off, and pace circuit breaker in the off position before carrying out any adjustments, servicing, or maintenance

- -If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Never try to open the housing cover of the CyberTank without the guidance of the dealer.
- Use a protection cover to cover the CyberTank in rainy days.
- Have your CyberTank serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the CyberTank is maintained.
- Recommend purchasing the Protective Cabinet for use in all weather conditions.

**CAUTION:** Do not operate or store the CyberTank in rain or wet condition to avoid electrodes corrosion and shortening the life. Charge the CyberTank, CyberPack and Kress 60 V battery packs after the electrodes are completely dry in case they are wet. Replace the electrodes if obvious verdigris appears.

#### **CLEANING**

- Turn off the CyberTank and remove the CyberPacks or the Kress 60V batteries.
- Keep the socket free of foreign matters, and clean with a soft brush or cloth.
- 3. Never use chemical cleaners to clean it.
- 4. If there is dust in the drain (a), use compressed air or a soft bristle brush to remove the dust in the drain (See Fig. G). If there is dust in the cooling duct (b), use compressed air or a soft bristle brush to remove the dust in the cooling duct (See Fig. G).



- 5. Do not spray water onto electrical components.
- 6. Do not use pressure washer to clean your CyberTank.

#### **STORAGE**

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- Remove the CyberPacks or the Kress 60V batteries from the CyberTank before storage.
- Store the CyberTank in a dry and secure place that is inaccessible to children and other unauthorized people. Do not place objects on top of your CyberTank.
- 3. It is suggested to store the CyberTank within a temperature range between 0 °C and 35 °C (32 °F 95 °F). Keep the storage environment dry and ventilated
- 4. The CyberTank is intended for commercial use and it should be stored in buildings not designated as habitable spaces -e.g. Workshops, warehouses, stores, detached garages, sheds. Where the CyberTank is stored in a building that is adjacent to a residential dwelling, that location should be more than 152.4 cm (5 ft) away from the dwelling. Under no circumstances should the CyberTank be stored within a residential dwelling. This includes areas such as bathrooms, toilet rooms, closets, halls and storage spaces.

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#### **TROUBLESHOOTING**

PROBLEM	SOLUTION
Battery Packs will not charge.	<ul> <li>A. Check to make sure battery packs have been correctly installed.</li> <li>B. The battery overheats after continuous use or the temperature is too low.</li> <li>Overheating-Allow battery pack to cool down.</li> <li>The temperature is too low-Place battery in a warm environment, once battery is warm place back on CyberTank for Charging.</li> <li>C. Check whether the circuit breaker is turned on.</li> <li>D. The emergency stop button has not been reset-Reset the emergency stop button and press the on/off button to turn on the CyberTank again.</li> <li>E. CyberTank overheats or the temperature is too low-Cooling or warming up the CyberTank to the appropriate temperature.</li> <li>F. CyberTank was not properly charged-Make sure the CyberTank is properly charged.</li> <li>G. Return to Authorized Service Location-may need new battery.</li> </ul>
CyberTank is not charging.	A. The emergency stop button has not been reset-Reset the emergency stop button and press the on/off button to turn on the CyberTank again.  B. Check whether the circuit breaker is turned on.  C. CyberTank overheats or the temperature is too low-Cooling or warming up the CyberTank to the appropriate temperature.  D. The battery cabinet and the battery packs are getting charged at the same time-Battery packs will charge prior to the charging of the battery cabinet.  E. Contact the dealer for detailed information.
CyberTank suddenly shuts down.	<ul> <li>A. The emergency stop button is accidentally pushed-Rotate the emergency stop button to reset it and turn on the Cyber-Tank again.</li> <li>B. Circuit breaker has been tripped-Please turn circuit breaker back on.</li> <li>C. Contact the dealer for detailed information.</li> </ul>
CyberTank will not turn on.	A. CyberTank overheats or the temperature is too low-Cooling or warming up the CyberTank to the appropriate temperature.  B. The battery cabinet is out of power-Connect the CyberTank to the mains through AC cable and ensure the connection is stable.  C. Ensure the connection between the charging cabinet and battery cabinet is stable.  D. The emergency stop button has not been reset-Reset the emergency stop button and press the on/off button to turn on the CyberTank again.  E. Contact the dealer for detailed information.
The CyberTank lost connection with the APP.	A. 4G signal is weak-Changing the working site to where signal is strong.  B. Contact the dealer for detailed information.
Flash charging doesn't work.	A. CyberTank overheats or the temperature is too low-Cooling or warming up the CyberTank to the appropriate temperature.  B. The battery overheats after continuous use or the temperature is too low.  Overheating-Allow battery pack to cool down.  The temperature is too low-Place battery in a warm environment, once battery is warm place back on CyberTank for Charging.  C. The battery cabinet is out of power-Connect the CyberTank to the mains through AC cable and ensure the connection is stable.  D. Ensure the flash charging button has get pressed.
Warnings on the display	A. Refer to the App. B. Contact the dealer for detailed information

#### **TECHNICAL DATA**

	KAC875A KAC875A.X**	KAC877A KAC877A.X*	
Rated voltage	48 V		
Battery capacity	105 Ah 150 Ah		
Battery energy	5040 Wh 7200 Wh		
Battery chemistry	LiFePO4 Lithium Iron Phosphate		
Battery pack type	Cybe	erPack	
	Kress 60 V battery		
Battery pack charging time*** (CyberPack)			
	100%	80%	
1 x 4.0 Ah	14 min	10 min	
2 x 4.0 Ah	14 min	10 min	
1 x 11 Ah	14 min	10 min	
2 x 11 Ah	14 min	10 min	
1 x 4.0 Ah @ Flash mode	8 min	5 min	
1 x 11 Ah @ Flash mode	8 min	5 min	

Charging time***	up to 4 hr	up to 5 hr	
Input voltage	AC 220-240V /50-60 Hz		
Input current (Max)	15 A		
Input power	1800 W Max		
Output voltage & current			
Charging port 1	60 V ===, 60 A	A /110 A Max	
Charging port 2	60 V, e	60 A Max	
Charging port 3	60 V ===, 60 A Max		
Short circuit current (Max)	35 A		
Protection class	Class I		
Degree of protection	IP 44		
Recommended ambient temperature for discharging	-20 °C - 45 °C (-4 °F - 113 °F)		
Recommended ambient temperature for charging	0 °C - 45 °C (32 °F - 113 °F)		
Recommended ambient temperature for operating	5 °C - 45 °C (41 °F - 113 °F)		
Optimum storage temperature in Use	0 °C - 35 °C (32 °F - 95 °F)		
Weight	140 kg (309 lbs)	165 kg (364 lbs)	

<sup>\*\*</sup> X=1-999,A-Z,M1-M9 they are only used for different customers, there are no safe relevant changes between these models.

We recommend that you purchase your accessories from the same Dealer that sold you the tool. Refer to the accessory packaging for further details. Your Dealer can assist you and offer advice.

#### **Technical data for Bluetooth**

Frequency bands for Bluetooth, MHz	2400-2483.5
Maximum Transmitted Power for Bluetooth, dBm	8 dBm

#### Technical data for 4G

ΕN

Band	TX (MHz)	RX (MHz)	Maximum Average Conducted Output Power (dBm)
GSM 900	880-915	925-960	35.00
DCS 1800	1710-1785	1805-1880	32.00
WCDMA Band I	1920-1980	2110-2170	26.00
WCDMA Band V	824-849	869-894	26.00
WCDMA Band VIII	880-915	925-960	25.00
LTE Band 1	1920-1980	2110-2170	25.00
LTE Band 3	1710-1785	1805-1880	25.00
LTE Band 5	824-849	869-894	25.00
LTE Band 7	2500-2570	2620-2690	25.00
LTE Band 8	880-915	925-960	25.00
LTE Band 28	703-748	758-803	25.00
LTE Band 40	2300-2400	2300-2400	25.00

#### Technical data for GPS

	TX (MHz)	RX (MHz)
GPS L1	/	1559-1610
GLONASS G1	/	1559-1610
BDS	/	1559-1610
Calileo (E1)	/	1559-1610

<sup>\*\*\*</sup> Charging time varies with different temperature.

#### **ENVIRONMENTAL PROTECTION**

Environmentally friendly disposal
Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

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