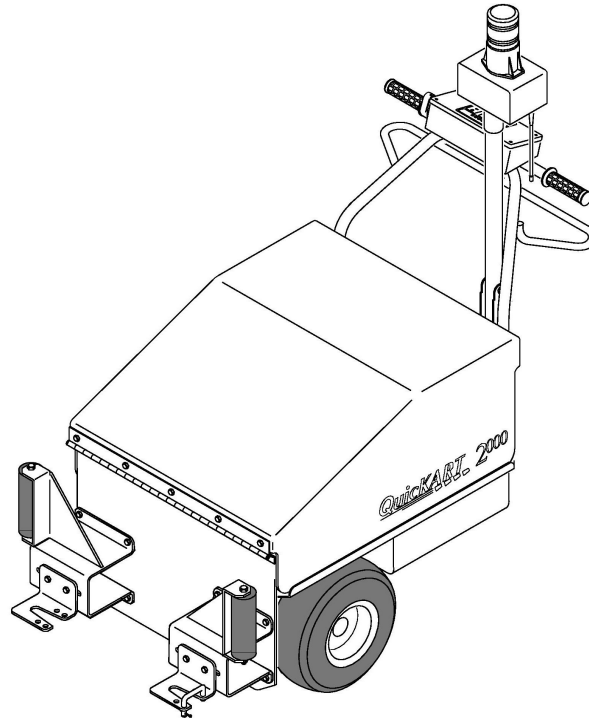




QuicKART 2000



Owner's Manual Operating Instructions Training Manual

QuicKART Electric Utility Machine

Manufactured by:

Dane Technologies, Inc.
7105 Northland Terrace
Minneapolis, MN 55428

Phone: 763-544-7779
Toll Free: 1-888-544-7779
Fax: 763-544-4234
www.danetechnologies.com

Part No. 970-005

Rev. Date: 3-10-06

QuicKART 2000

INTRODUCTION

Thank you for purchasing the Dane Technologies QuicKART 2000. With proper operation and maintenance, the QuicKART will provide years of dependable service. This manual contains information, which will assist in the training, operation and maintenance of the QuicKART. Please read it thoroughly and review it regularly.

The QuicKART is a tool, which will increase workplace safety and productivity. Those goals will only be accomplished if all employees using the QuicKART are thoroughly trained in the safe operation of the QuicKART. We urge all of our clients to develop and implement a training and certification program for all employees using and supervising the use of the QuicKART. This manual, our training program and our training video are provided to assist you in developing your own operator's certification program.

If you have questions regarding the safe operation or maintenance of the QuicKART, which are not covered in this manual, please contact us at our toll-free service line: 888-544-7779.

Daniel T. Johnson
President and CEO

QuicKART 2000 Owner's Manual Operating Instructions Training Guide

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Troubleshooting Flowchart	2
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Note on radio equipment used:

This device complies with part 15 of the FCC Rules. Operation 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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 which the receiver is connected.

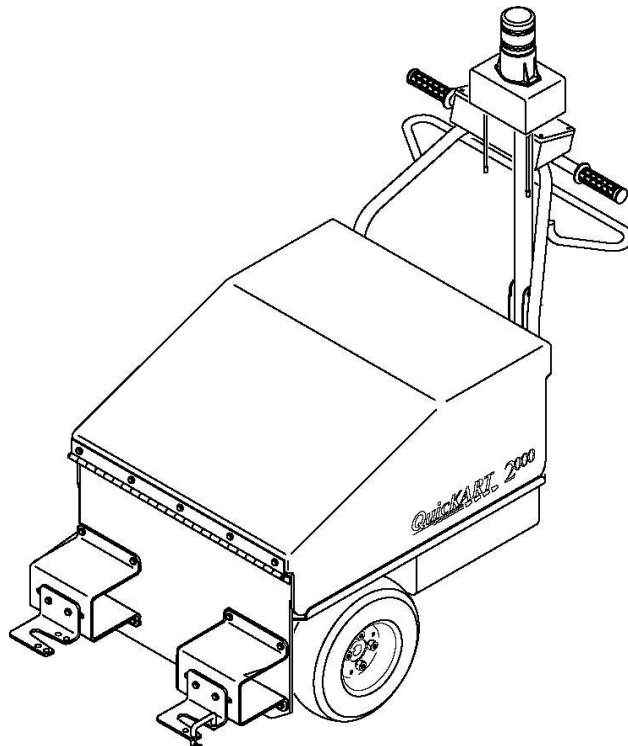
Consult the dealer or an experienced radio/TV technician for help.

The abbreviation IC, before the Canadian Registration Number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

The CE mark, if present, declares that this equipment meets relevant EU Directives and Standards.



QuicKART 2000



Operating Instructions

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QuicKART 2000 SERIES

Owner's Manual

Operating Instructions

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QuickKART 2000 WARNINGS & SAFETY NOTES

Please read all the information included in this manual and the service instructions prior to operating or servicing the QuickKART. In addition, make certain all operators have been given and passed the certified operators course before using the QuickKART.

IMPORTANT SAFETY NOTE:

THE RED BATTERY PLUG MUST BE DISCONNECTED FROM THE JUNCTION BOX ANY TIME MAINTENANCE IS BEING PERFORMED UNDER THE COVER! (See diagram on page 19)

- 1) The QuickKART is designed to push shopping carts. Any other use of the QuickKART is prohibited unless specifically endorsed by the manufacturer. Improper usage and operation of the QuickKART may void the warranty.
- 2) You must be at least 16 years old with a valid driver's license or vision test to operate the QuickKART. In certain states, regulations may require operators to be older. Please check your states regulations regarding operation of motorized equipment before using the QuickKART.
- 3) Never carry passengers on the QuickKART 2000!
- 4) The QuickKART is equipped with a brake, which automatically engages when the machine is turned off or not in motion. To avoid an accident, **do not leave the machine parked or unattended on slopes.** When the QuickKART is to be left unattended or in storage, turn it "OFF" and remove the key.
- 5) Do not leave the QuickKART unattended while it is turned "ON".
- 6) Operate the QuickKART at a safe speed; go only as fast as safety considerations allow. Take into consideration the location of store entrances, sidewalks, pedestrian and vehicle traffic, driveways, and parking lot layout.
- 7) Always operate in slow speed when near store guests. Operating conditions, such as wet or slippery pavement or slopes can affect the stopping distance of the QuickKART. Do not push more carts than the individual operator can safely control when those conditions are present. **Do not exceed 30 carts at a time under any circumstance. Refer to your store policy for the maximum cart number.**
- 8) Verify all warning and emergency labels are legible and mounted in correct areas shown on drawings shown on pages 8 and 9.
- 9) Do not drive over curbs or the edges of hardened surfaces higher than one inch.
- 10) Always look behind the QuickKART before and while operating in reverse.
- 11) Batteries must be fully charged initially before using the QuickKART.

- 12) **The electrolyte in a storage battery is an acid, which can cause severe burns to the skin and eyes. Wear appropriate protective clothing when working with batteries. Treat all electrolyte spills with an extended flushing with clear water. Contact a physician immediately if contact is made with battery acid.**
- 13) Standard batteries do require regular maintenance. It may be necessary to add distilled water to the batteries.
- 14) Hydrogen gas is formed when charging the batteries. Use a location with adequate ventilation when charging QuickKART batteries. Never smoke near batteries. Do not charge batteries in an area with open flame or where there is electrical equipment that could cause an electrical arc.
- 15) Do not lay metal objects (wrenches, screwdrivers, etc.) on any of the batteries to prevent electrical short circuits.
- 16) Batteries are heavy. Always use care and proper lifting technique to avoid injury when removing or replacing batteries.
- 17) Make sure QuickKART is properly secured when changing tires. (See instructions on page 42 and 43.)
- 18) Two options are available to tether the carts together, a strap or a cart restraint assembly, these are available as accessories. To view the procedure to strap the carts see the illustration on pages 11 and 12. The cart restraint assembly also has a strap and adds a spring to allow some motion of the carts in turns but still controls them.

QuicKART 2000 SERIES LABELS



Dane Industries, Inc.
Receiver Model 100-055



Tested to Comply
With FCC Standards

For Home or Office Use

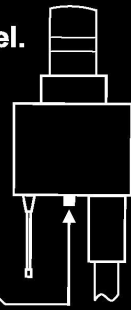
This device complies with FCC Rules part 15. Operation is subject to the following two conditions (1) This device may not cause harmful interference and (2) this device must accept any interference that may be received, including interference that may cause undesired operation.

Dane Industries, Minneapolis MN
Phone 888-544-7779

500-049

REMOTE PROGRAMMING INSTRUCTIONS

1. Turn QuicKart on, switch to "Radio" mode on Control Panel.
2. Simultaneously push: Brake and Horn buttons on Remote, and the Rubber button on underside of the Beacon Tower.
3. Horn will sound when programming is complete.



500-148

EMERGENCY SHUT OFF

PUSH SWITCH TO STOP
PULL SWITCH, TURN KEY
OFF AND ON TO RESTART

500-128

← REMOVE SCREWS
TO REPLACE 4
AA BATTERIES →

500-181



DANE INDUSTRIES, INC.

Manufactured under one or more of the following patents:

U.S. 5,934,694

U.S. 6,220,379

All other patents pending.

MINNEAPOLIS
MINNESOTA, USA

1-888-544-7779 within USA
763-544-7779 outside the USA

www.daneindustries.com

500-102



WARNING

WHO CAN OPERATE THE QUICKKART:

- FEDERAL REGULATIONS REQUIRE THAT YOU BE AT LEAST 16 YEARS OLD AND PASS A VISION TEST TO OPERATE THE QUICKKART. SOME STATES MAY REQUIRE OPERATORS TO BE OLDER.
- DO NOT OPERATE THE QUICKKART UNLESS YOU MEET THE MINIMUM OPERATOR REQUIREMENTS SET DOWN BY FEDERAL REGULATIONS AND YOUR STATE.
- DO NOT OPERATE THE QUICKKART UNLESS YOU HAVE VIEWED THE QUICKKART TRAINING VIDEO AND PASSED THE QUICKKART CERTIFIED OPERATOR'S TEST INCLUDED IN THE QUICKKART OPERATOR'S MANUAL.

PRE-OP CHECKLIST:

- UNPLUG THE BATTERY CHARGING CORD.
- PERFORM A COMPLETE SAFETY CHECK TO ENSURE THAT ALL EQUIPMENT IS WORKING PROPERLY, INCLUDING: 1. EMERGENCY SHUT-OFF 2. THROTTLE 3. HORN 4. SAFETY LIGHTS 5. REMOTE CONTROL 6. AUTOMATIC BRAKE

DO NOT OPERATE THE QUICKKART IF ANY PART IS NOT WORKING CORRECTLY.
TELL YOUR MANAGER IMMEDIATELY AND CALL DANE TECHNOLOGIES AT 1-888-544-7779.

IMPROPER USE OF THE QUICKKART MAY CAUSE DAMAGE TO PEOPLE OR PROPERTY AND WILL VOID THE MANUFACTURER'S WARRANTY. CALL DANE TECHNOLOGIES FOR SERVICE AT 1-888-544-7779.

QUICKKART OPERATING INSTRUCTIONS

BEFORE OPERATING THE QUICKKART:

- MAKE SURE YOU MEET THE MINIMUM OPERATOR REQUIREMENTS LISTED ON WARNING LABEL.
- COMPLETE THE PRE-OP CHECKLIST ON THE WARNING LABEL.

WHILE OPERATING THE QUICKKART:

- NEVER PUSH MORE THAN 30 SHOPPING CARTS, OR LESS IF CONDITIONS REQUIRE.
- PUSH ONLY AS MANY CARTS AS YOU CAN SAFELY CONTROL, BUT NEVER MORE THAN 30.
- USE A SAFETY STRAP TO KEEP THE CARTS UNDER CONTROL ON DOWNHILL SLOPES.
- NEVER SIT OR CARRY PASSENGERS ON THE QUICKKART.
- ALWAYS OPERATE THE QUICKKART SAFELY AND RESPONSIBLY. BE AWARE OF TRAFFIC AND PEOPLE AROUND YOU. USE THE SLOW SPEED WHEN NEAR STORE ENTRANCES OR GUESTS.

BEFORE LEAVING THE QUICKKART:

- PARK THE QUICKKART ON A LEVEL SURFACE AWAY FROM AREAS OF TRAFFIC.
- TURN KEY TO VERTICAL "OFF" POSITION AND REMOVE THE KEY.
- INFORM YOUR MANAGER IMMEDIATELY IF THE QUICKKART IS NOT WORKING PROPERLY.

P/N: 500-042, REV. C

WARNING

STOP! before performing any service or maintenance procedures, refer to the QuickKart owner's manual for full instructions and warranty information.

CAUTION!! THE BATTERY CABLE, MARKED WITH A YELLOW BAND, MUST BE DISCONNECTED ANY TIME MAINTENANCE IS BEING DONE UNDER THE COVER.

BEFORE PERFORMING ANY MAINTENANCE ON THE QUICKKART:

- * TURN OFF AND REMOVE THE KEY.
- * MAKE SURE THE QUICKKART IS ON A LEVEL SURFACE.
- * SECURE COVER OPEN.
- * SUPPORT MUST BE PROVIDED AND WHEEL BLOCKED BEFORE CHANGING TIRES.

SEE INSTRUCTION MANUAL.

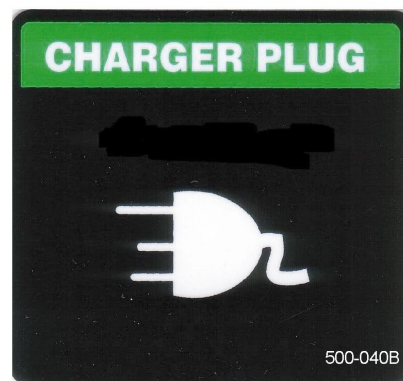
SAFETY PRECAUTIONS:

- * USE PROTECTIVE EYEWEAR AT ALL TIMES DURING MAINTENANCE (CHEMICAL SPLASH GOGGLES, FACE SHIELD).
- * DO NOT PERMIT OPEN FLAME, SPARKS, OR SMOKING IN THE AREA WHERE THE BATTERIES ARE BEING CHARGED OR DURING MAINTENANCE.
- * ADEQUATE VENTILATION IS ESSENTIAL FOR SAFETY.
- * DO NOT LAY METAL OBJECTS ON THE BATTERIES.
- * BATTERIES ARE HEAVY. LIFT CAREFULLY TO AVOID INJURY.

IMPROPER MAINTENANCE PROCEDURES MAY VOID THE MANUFACTURER'S WARRANTY. INFORM YOUR MANAGER AND DANE INDUSTRIES IMMEDIATELY IF THE QUICKKART IS NOT WORKING PROPERLY.

Dane Technologies, Inc.
Minneapolis, MN
Call Toll Free: 1-888-544-7779
www.danetechnologies.com

500-041 REV A



ATTENTION

-The QuickKart has a smart regulator that will stop the QuickKart when it is overloaded.

-To resume operation, reduce the number of shopping carts being pushed by the QuickKart.

500-101

NOTE: 500-125

Remote and QuickKART must be re-programmed after changing batteries.

WARNING:

Warranty will be VOID if this cover is removed. There are no operator serviceable parts inside.

DANE TECHNOLOGIES, Minneapolis, MN 500-121 A

Part No.: **Serial/ Date:**

- LOW BATTERY
 - DRIVE COMMAND
 - REMOTE FAST
 - REMOTE SLOW
 - REMOTE BRAKE
 - SUPPLY FAULT
- 500-045

500-180

WARRANTY VOID IF SEAL BROKEN

AUTOMATIC BRAKE RELEASE

PULL TO RELEASE AUTOMATIC BRAKE!

500-039B

PUSH TO RUN

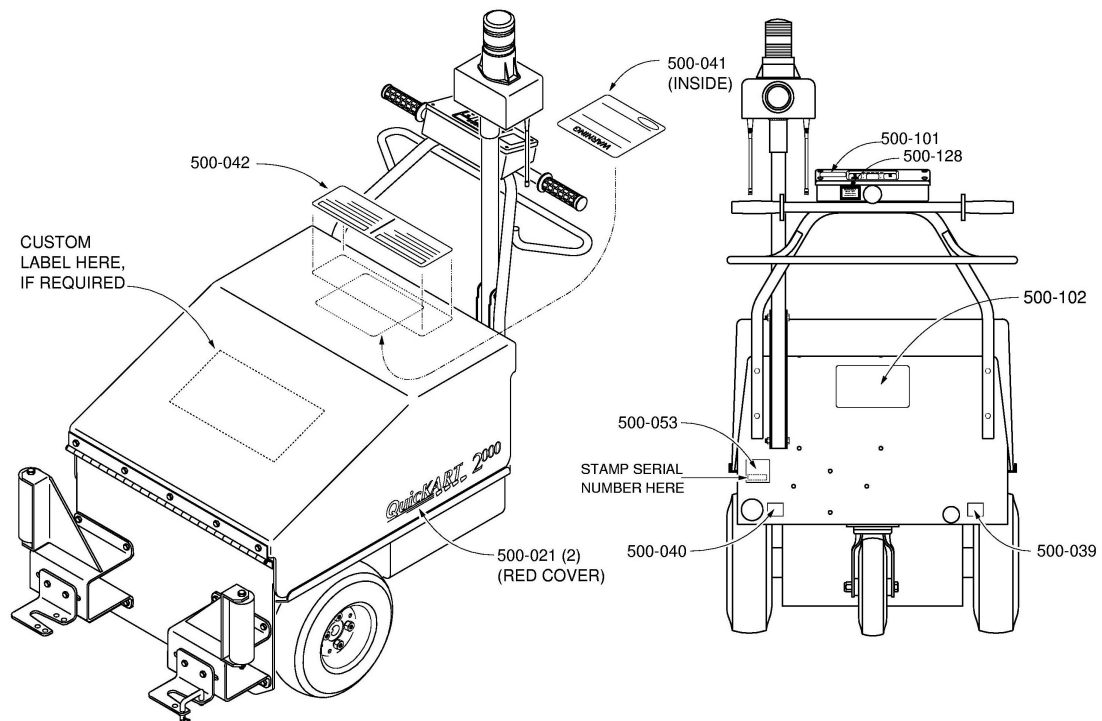
FCC ID N2N 600-023 MODEL No. 100-150

Canada IC: 4707A-600023

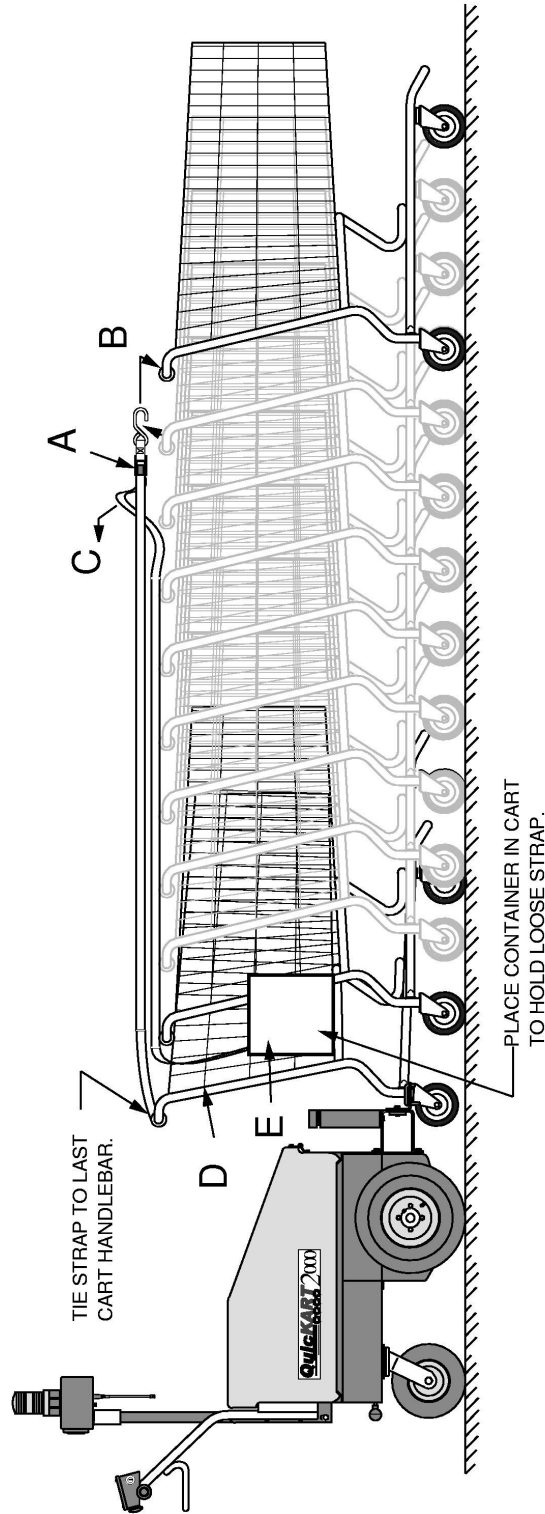
Dane Industries Inc. Minneapolis, MN USA 55442

500-135

QuicKART 2000 LABEL LOCATIONS



QuicKART 2000 CART STRAP ACCESSORY

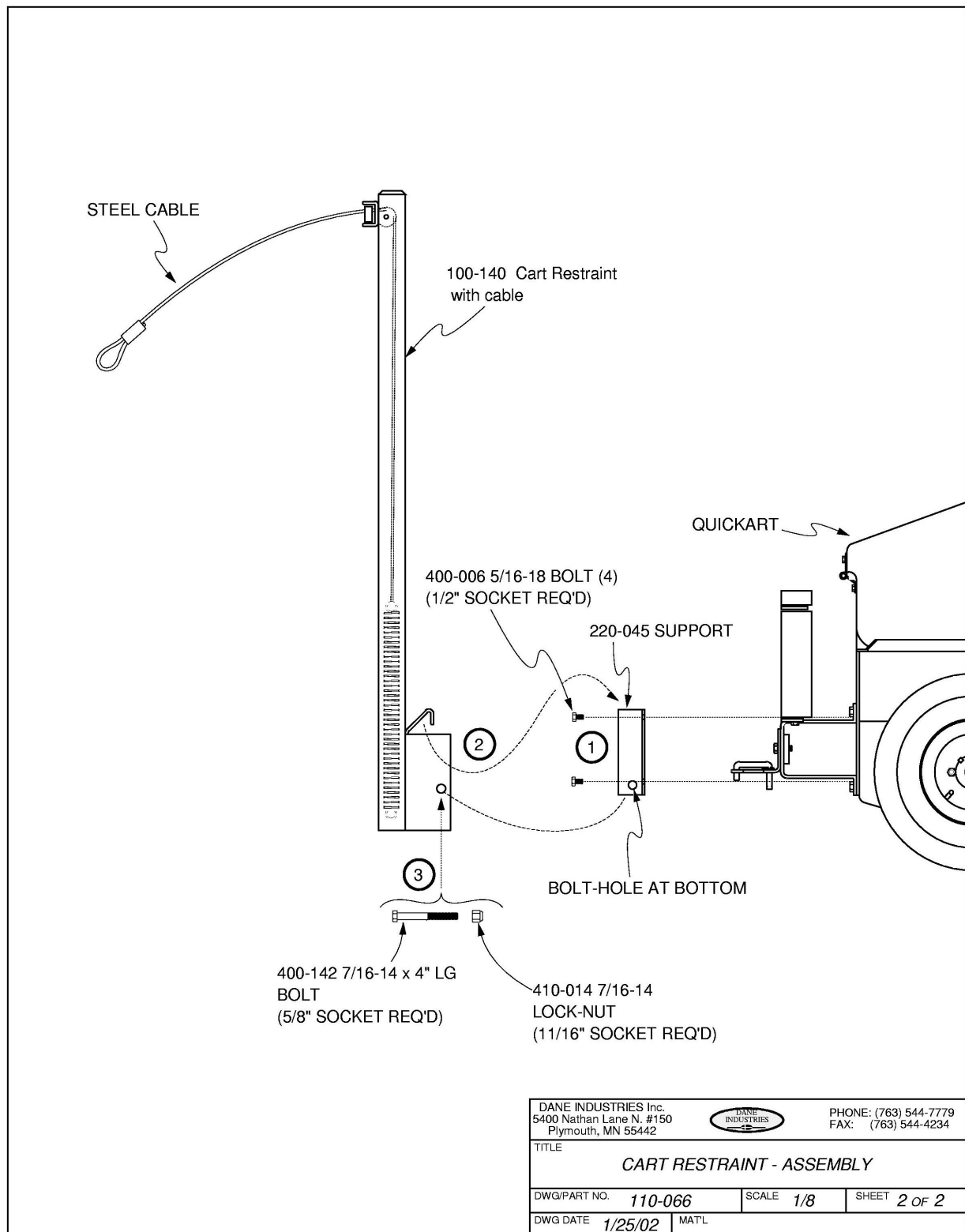


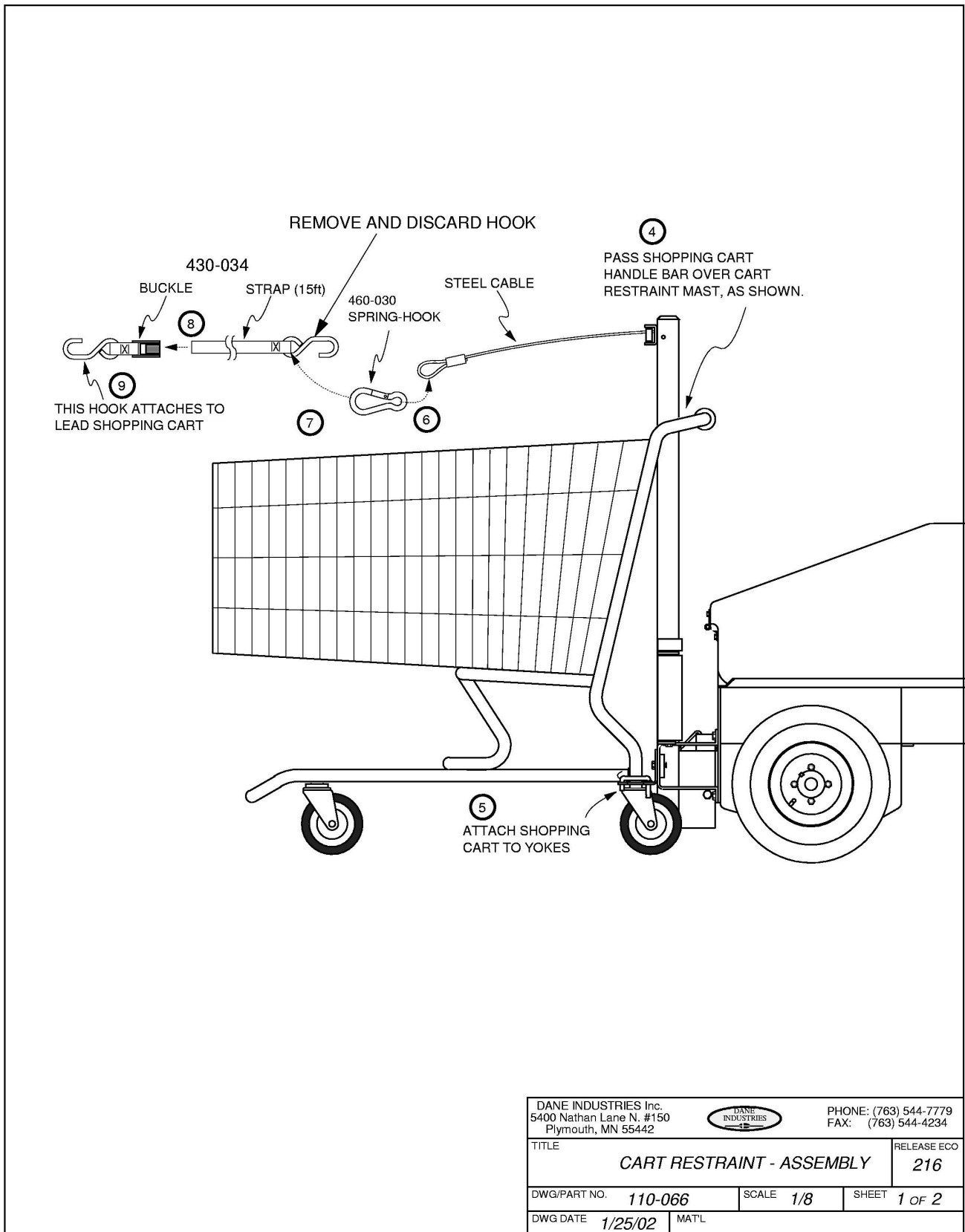
MOVING STRAP AFTER ADDING CARTS:


- RELEASE STRAP LATCH WITH ONE HAND TO ALLOW STRAP TO SLIDE.
- WITH OTHER HAND, REMOVE HOOK FROM HANDLEBAR AND MOVE TO ADDED CART(S).
- LET GO OF LATCH. WHILE STILL HOLDING HOOK, PULL LOOSE END OF STRAP TO TIGHTEN.

REMOVING CARTS:

- RELEASE STRAP LATCH WITH ONE HAND TO ALLOW STRAP TO SLIDE.
- WITH OTHER HAND, REMOVE HOOK FROM HANDLEBAR.
- LET GO OF LATCH. WHILE STILL HOLDING HOOK, PULL LOOSE END OF STRAP REPEATEDLY TO SHORTEN STRAP WHILE WALKING TOWARD QuicKART.
- HOOK LATCH AND HOOK ASSEMBLY TO SIDE OF LAST CART.
- STARTING WITH THE STRAP END, BUNCH UP LOOSE STRAP AND PLACE IN CONTAINER.





DANE INDUSTRIES Inc. 5400 Nathan Lane N. #150 Plymouth, MN 55442				PHONE: (763) 544-7779 FAX: (763) 544-4234
TITLE CART RESTRAINT - ASSEMBLY				RELEASE ECO 216
DWG/PART NO.	110-066	SCALE	1/8	SHEET 1 OF 2
DWG DATE	1/25/02	MAT'L		

UNPACKING THE QuickKART 2000

- 1) The QuickKART 2000 is typically shipped on a wooden pallet. It comes with additional individual components that are packaged inside the QuickKART. Care must be taken not to damage them during the unpacking. The components are:
 - a) **QuickKART**, the basic electric machine with two keys,
 - b) **A box including:** a Remote Control Transmitter, to remotely control the QuickKART, and Cart Coupler Hardware (yokes for the cart coupler).
- 2) Remove all the plastic film that is wrapped around the system components. Take care not to bend beacon post components (especially the antennas) when removing the plastic. Cut banding material, which holds the QuickKART to the pallet.
- 3) Raise the hood to find a small box containing the remote control, beacon post bolt and nut, and cart coupler hardware. Remove this box and set it aside.
- 4) To remove the QuickKART from the pallet, use a sturdy wooden board(s) to create a ramp. Remove all straps holding the QuickKART to the shipping pallet. Insert the key and turn on the QuickKART. Turn the twist grip slowly and guide the QuickKART forward, down the ramp to the floor.
- 5) **Turn “OFF” the QuickKART**
- 6) Make sure the machine is **OFF**, the Beacon post hinges from a center position on a bolt and nut already installed. Swing it to an 11:00 o'clock position. Remove the bolt at the bottom of the beacon post bracket. Replace the bolt in the bottom holes and tighten lightly. Use care not to damage the wires. Take care not to damage the antenna, lights or the cable connectors at the ends of this beacon post.
- 7) To attach the cart coupler yokes, refer to the diagrams starting on page 22 of the Owner's Manual.
- 8) Each hand-held remote control transmitter operates on a unique pre-programmed code. For the QuickKART to operate in the Remote Mode, the receiver, which is in the beacon post, must be programmed to match the hand held transmitter. See page 39 for directions on how to program the remote control transmitter.

QuickKART 2000 IMPORTANT MAINTENANCE NOTES

Check the QuickKART daily, for safe operation.

Improper use or operation of the QuickKART, or the lack of proper maintenance, may result in decreased performance or damage to the QuickKART. The following parts of the QuickKART need regular and routine maintenance.

1. **Batteries** - Add distilled water as necessary. Water levels should be checked **monthly**.
2. **Tires** - Tires are solid (foam filled). Check **weekly** for wear.
3. **Rear Swivel Wheel Bearing** - Grease every **6 months** (grease gun compatible).

If at any time the QuickKART does not operate correctly, immediately turn it off and remove the key to prevent further operation. Immediately report any malfunctions to the store manager responsible for the QuickKART and Dane Technologies at 1-888-544-7779.

WARNING

Do not permit open flame, sparks or smoking during maintenance.

Adequate ventilation is essential for safety.

Do not lay metal objects on the batteries.

OVERVIEW OF OPERATION

The QuickKART is an electrically powered shopping cart collection machine. It has several unique and patented features, which allow it to be used safely and simply in the shopping cart collection process.

The QuickKART provides the pushing power for a single employee to safely and easily move a maximum of 30 shopping carts from the parking lot into the store. Its ability to operate in remote control mode allows a single employee to steer the chain of carts from the front of the cart line while controlling the QuickKART as it pushes and follows from behind.

The QuickKART has proven its ability to work in all types of weather ranging from extreme heat or cold to rain and snow. The QuickKART has operated dependably in winter weather as cold as -20 degrees. It will also push carts through loose snow. On packed snow the QuickKART 2000 will push 10 to 20 carts. Winter operation can be enhanced with the use of optional snow tires.

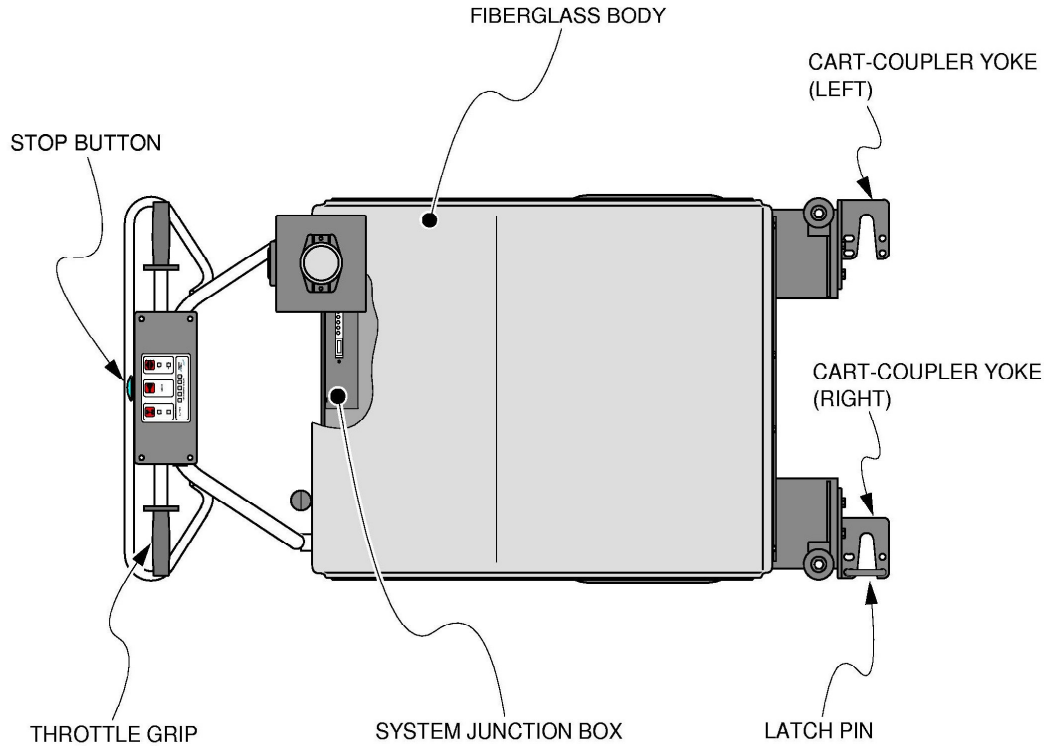
The QuickKART operates on a 36-volt battery system. It will operate for up to ten hours on a single charge. Cold weather will reduce operating time. It will require eight to ten hours to fully recharge the batteries.

Each hand-held remote control transmitter operates on a unique pre-programmed code. For the QuickKART to operate in the Remote Mode, the receiver, which is in the beacon post, must be programmed to match the hand held transmitter, see page 39 for details. The remote is powered by internal batteries, which should be changed every two months for dependable operation. The small light on the remote will cease to operate when the battery needs replacing. After battery replacement, the remote must be reprogrammed; see page 39 for details.

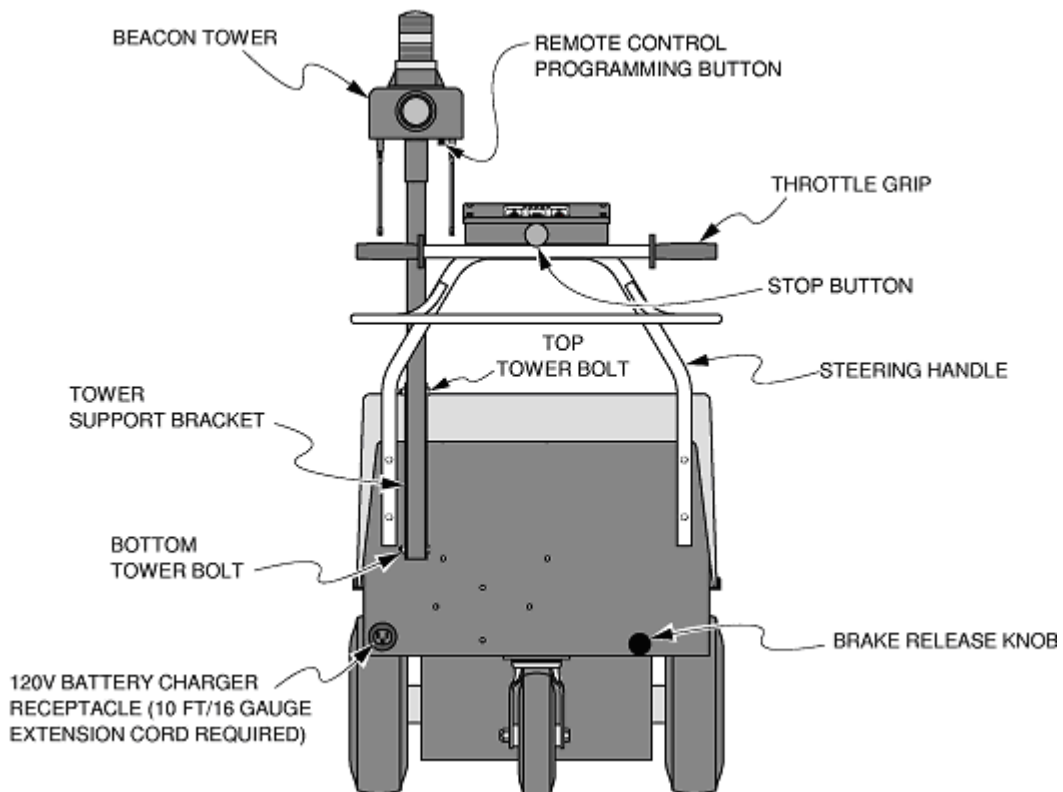
The QuickKART is a productivity-enhancing tool, which will be most effective when it is well maintained and used responsibly. Training of employees is very important. Please read and review this manual. We strongly recommend that a training and operator certification program be developed and implemented to assure adequate training and safe operation.

The use of the Dane Technologies' "Cart Depot" creates an integrated system for cart collection, which enhances productivity even further. Additional optional accessories are also available. These include an optional snowplow, snow tires and chains.

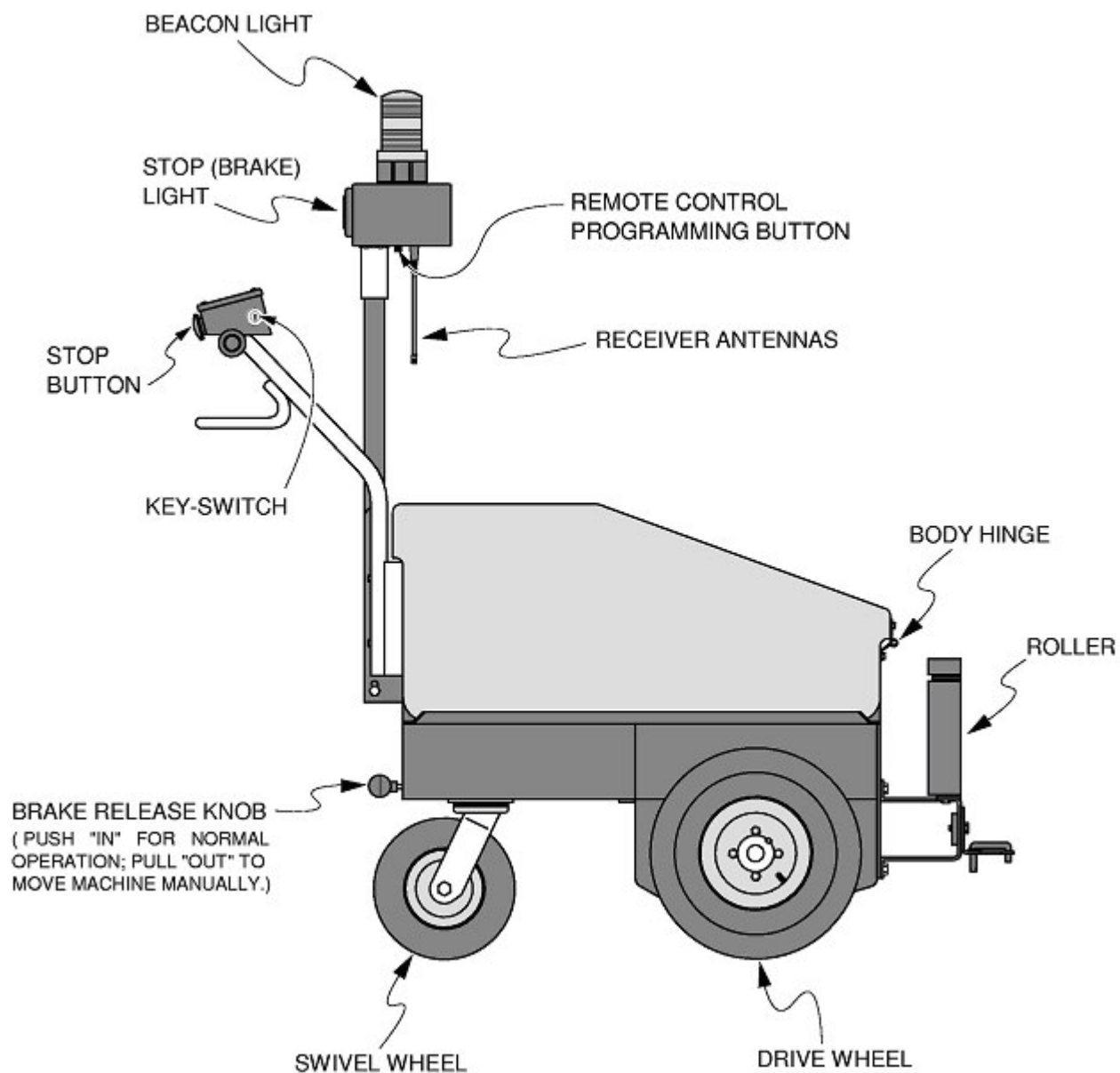
QuicKART 2000 – TOP VIEW



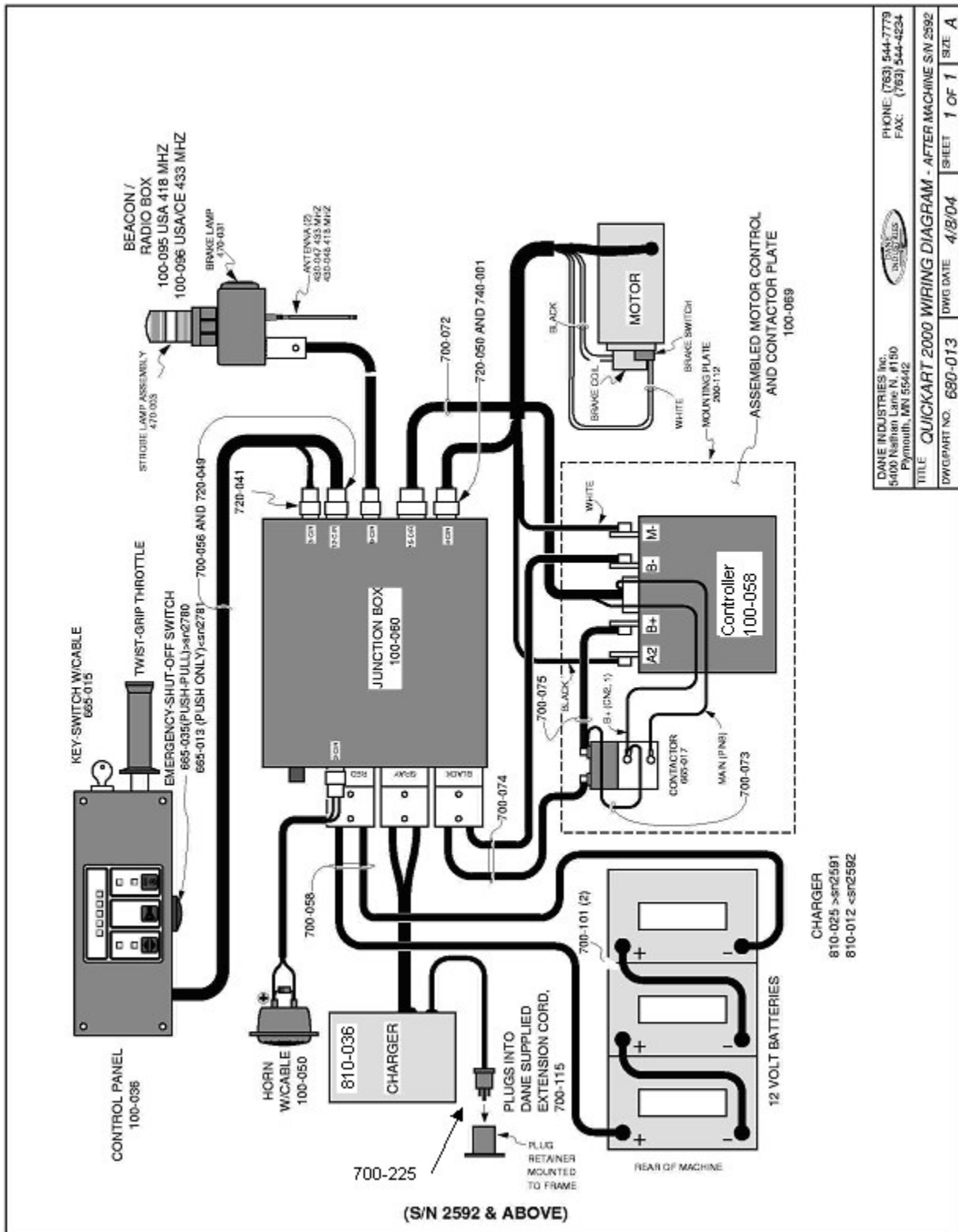
QuicKART 2000 – REAR VIEW



QuicKART 2000 – SIDE VIEW

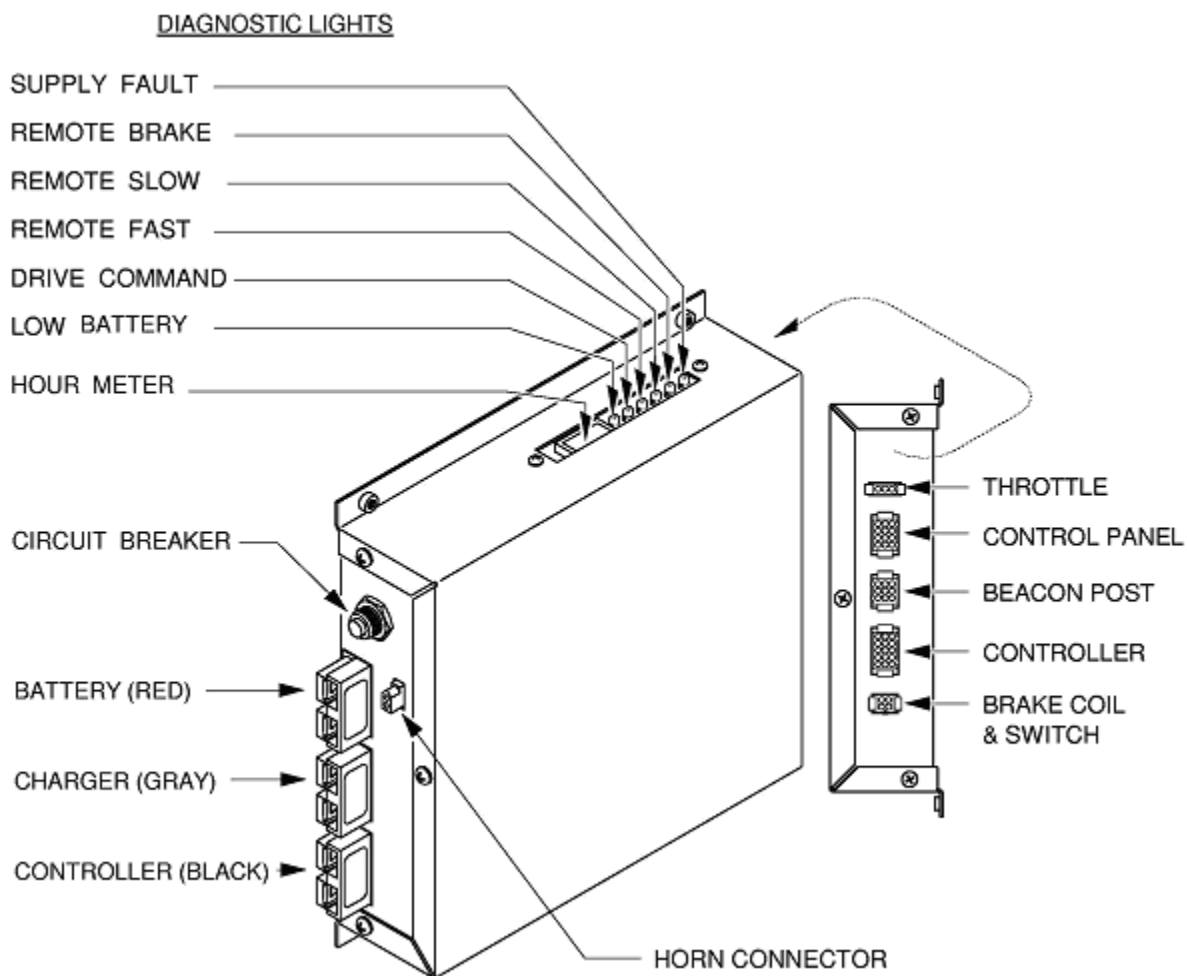


SYSTEM WIRING DIAGRAM



DANE INDUSTRIES Inc. 5400 Nathan Lane N. #150 Plymouth, MN 55442		PHONE: (763) 544-7779 FAX: (763) 544-4234	
		TITLE QUICKART 2000 WIRING DIAGRAM - AFTER MACHINE S/N 2592 DWG/PART NO. 680-013 DWG DATE 4/8/04 SHEET 1 OF 1 SIZE A	

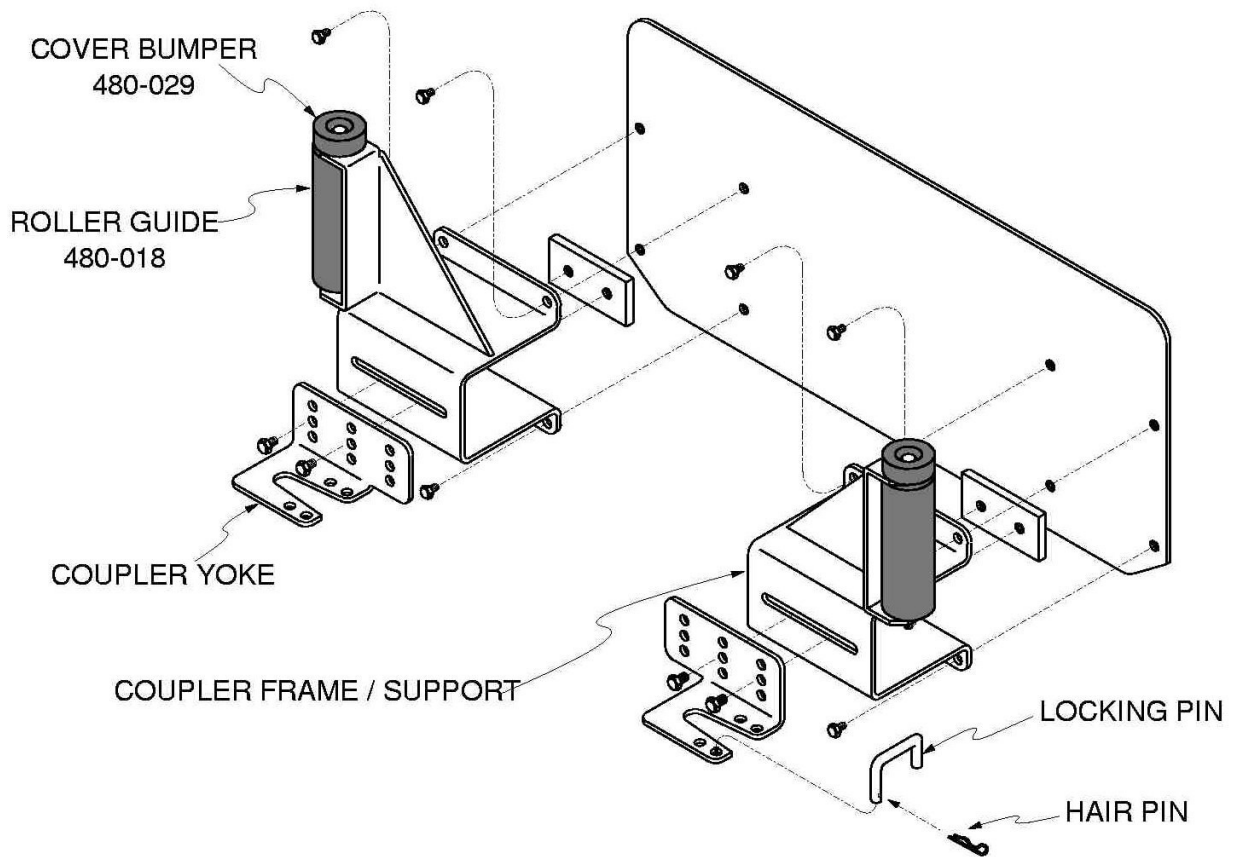
SYSTEM JUNCTION BOX



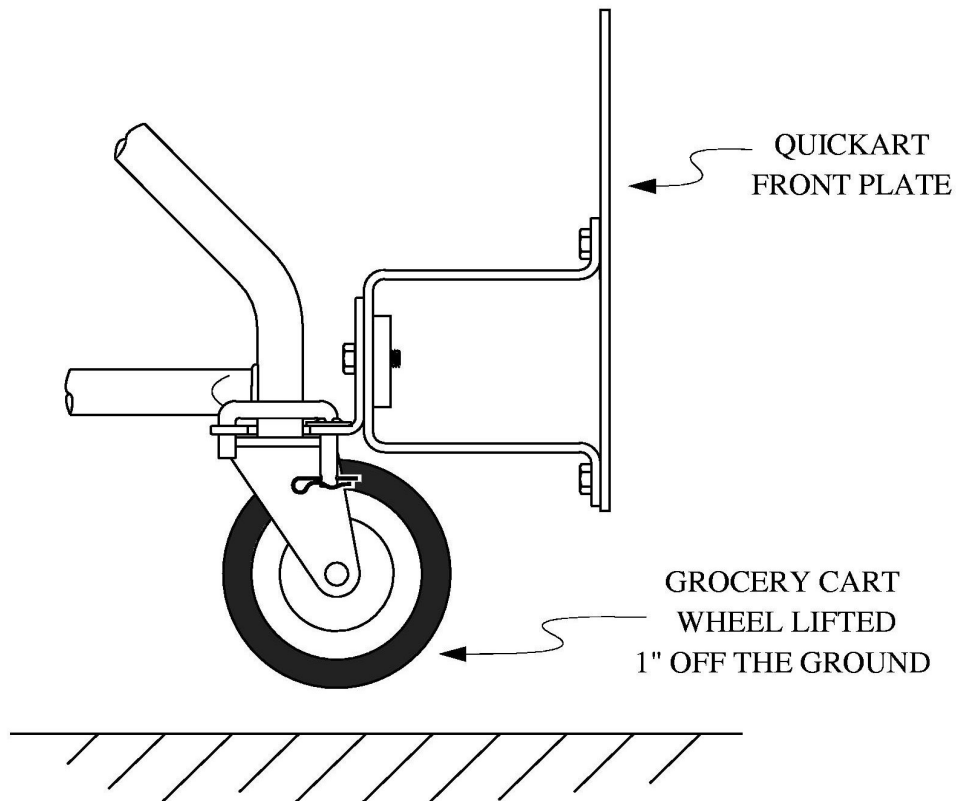
SYSTEM JUNCTION BOX DIAGNOSTIC LIGHTS

- Supply Fault:** There are two conditions that cause this diagnostic light to come on:
1. When this light remains on (but not flashing) it indicates the machine was turned off by pushing on the Red emergency button on the control panel. The machine will not function while the light is on. To reset, pull out the button, turn the key switch off, then on again. This condition does not require service. (The key switch is the correct way to turn off the machine when it is stored or set aside for periods of time.)
 2. When this light is flashing, it indicates that there is a problem in either the beacon post or the control panel. In a fault condition the “supply fault” light starts flashing as soon as the machine is turned on with the key switch. The machine will not function while the light is flashing. The control panel lights may remain lighted for 3-seconds then shut down but the fault light will remain flashing as long as the fault condition exists.
To determine if the problem is in the beacon post, turn off the machine with the key switch, unplug the cable leading to the beacon post then turn the key switch on again. If the problem is in the beacon post the machine will operate normally but only in the “manual” mode. If the problem is somewhere in the control panel circuitry, the fault light will continue to flash and the panel lights will go off in about 3 seconds.
- Remote Brake:** LED lights to indicate presence of “Brake” command from receiver. It has no effect in manual mode.
- Remote Slow:** LED lights to indicate presence of “Slow” drive command from receiver. Must light in conjunction with “Drive” Command LED in “Remote” mode in order to operate machine. It has no effect in manual mode.
- Remote Fast:** LED lights to indicate presence of “Fast” drive command from receiver. Must light in conjunction with “Drive” command LED in “Remote” mode in order to operate machine. It has no effect in manual mode.
- Drive Command:** LED lights to indicate drive signal is being sent to motor control.
- Low Battery:** LED lights when battery voltage is too low to operate machine properly (below approximately 27 volts).
- Hour Meter:** Hourglass symbol blinks every ten seconds when drive command is present to indicate that meter is timing machine operation.

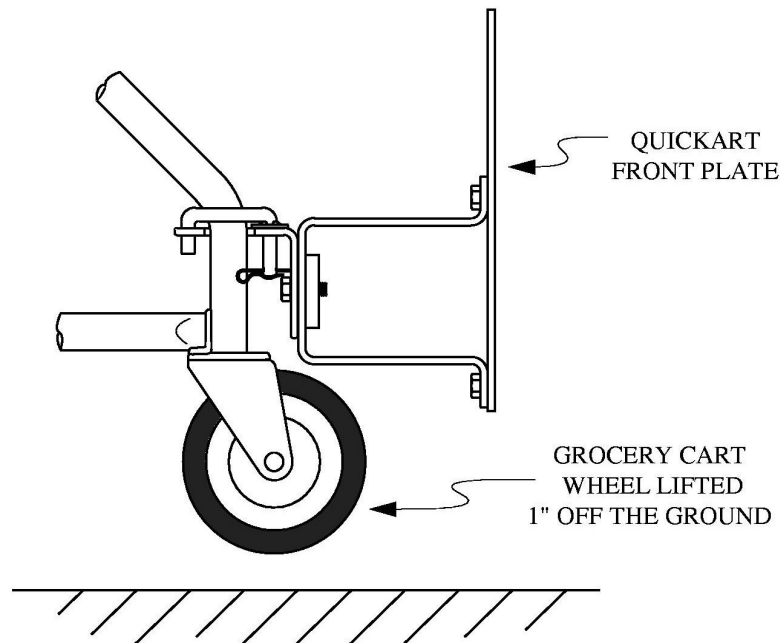
CART COUPLER & ROLLER GUIDE ASSEMBLY

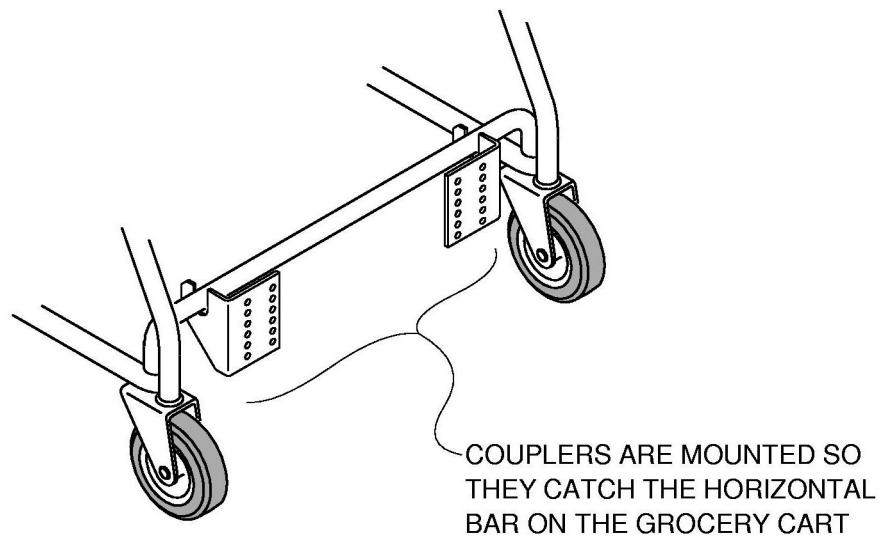
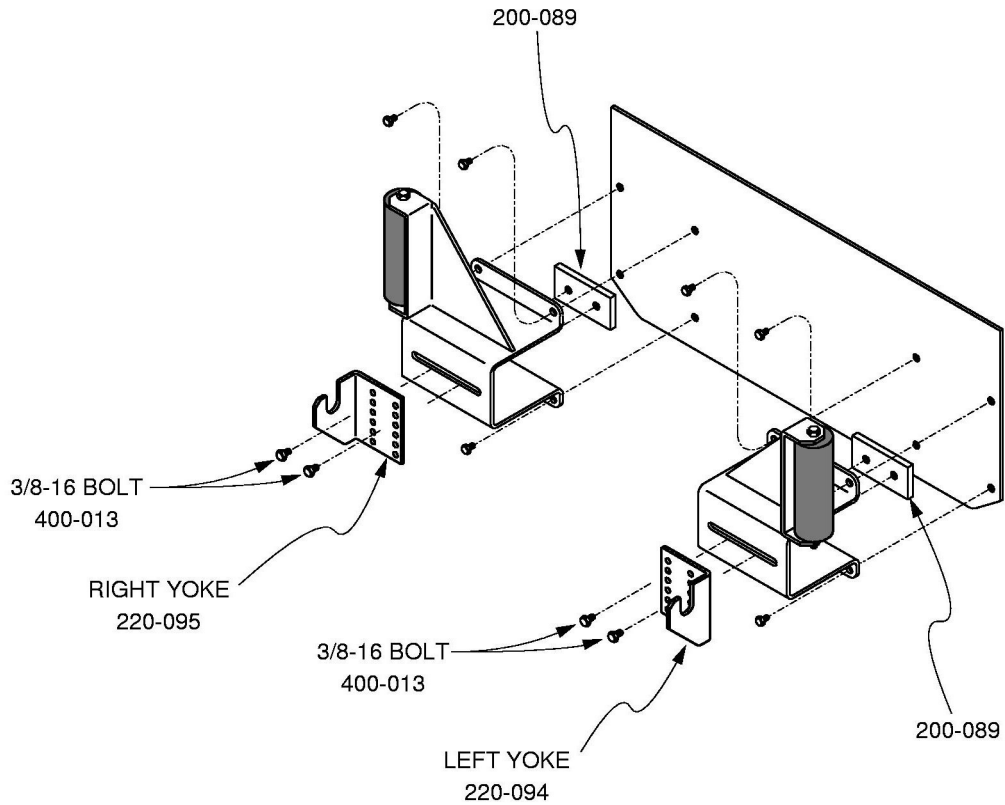


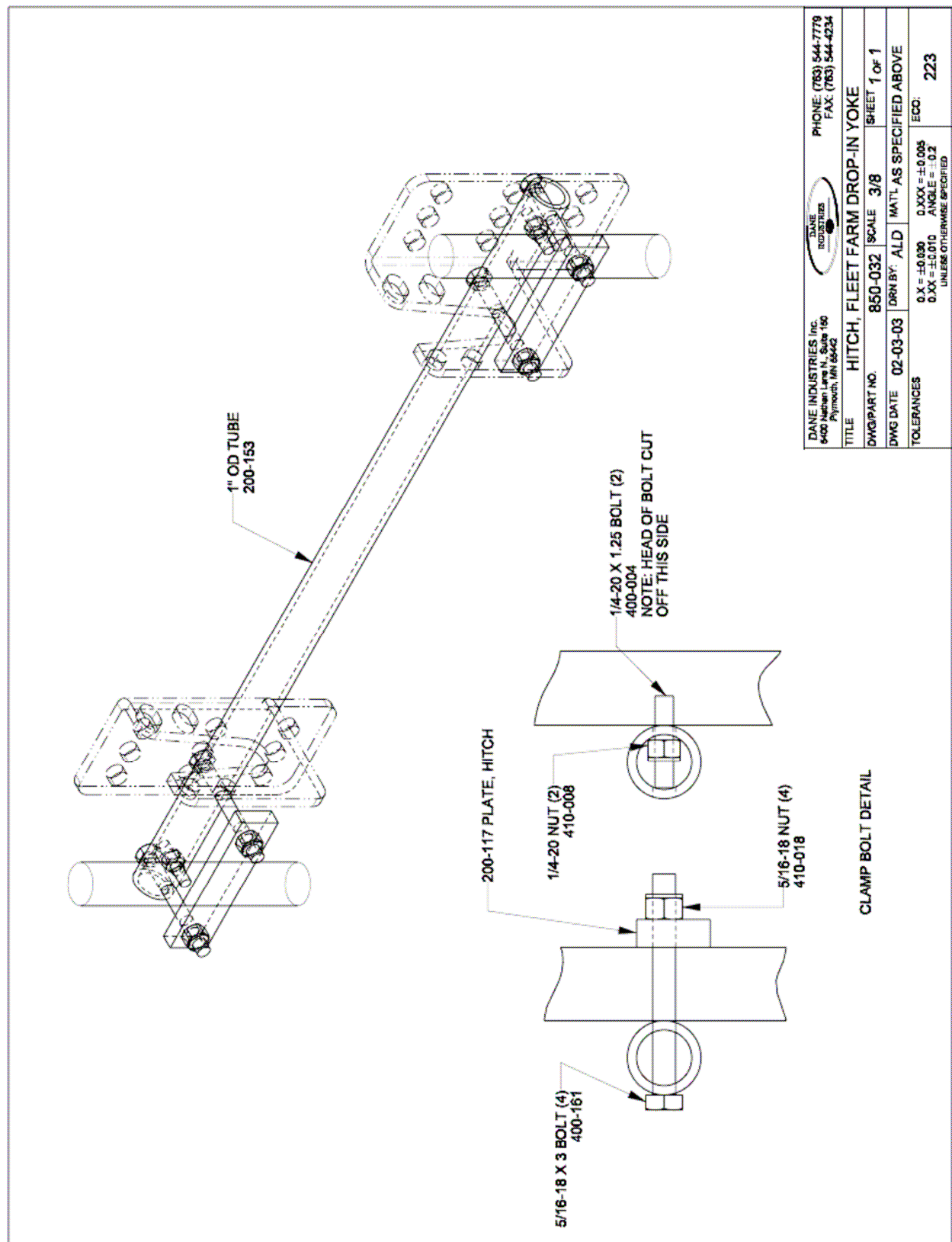
ATTACHING THE COLLECTION CART

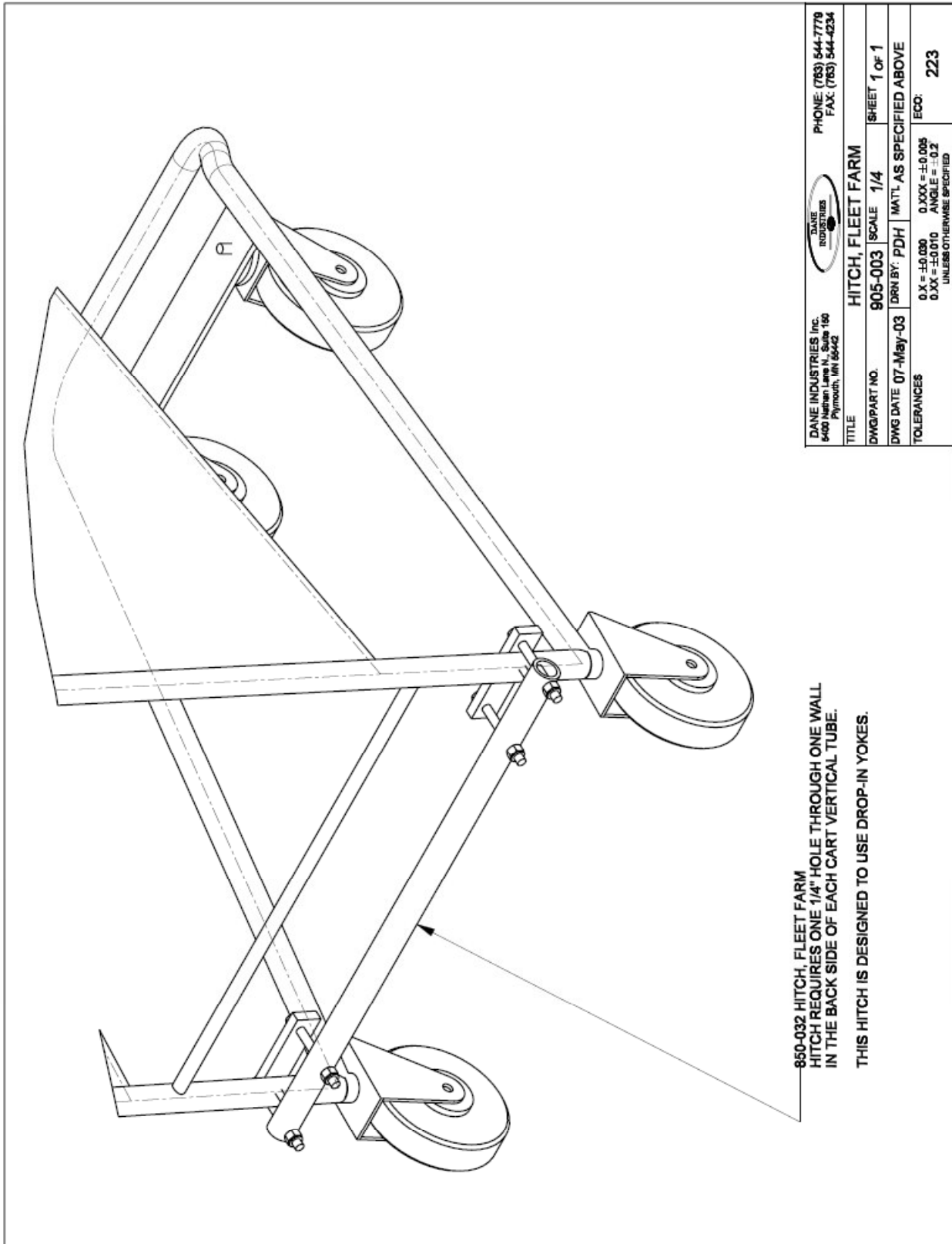


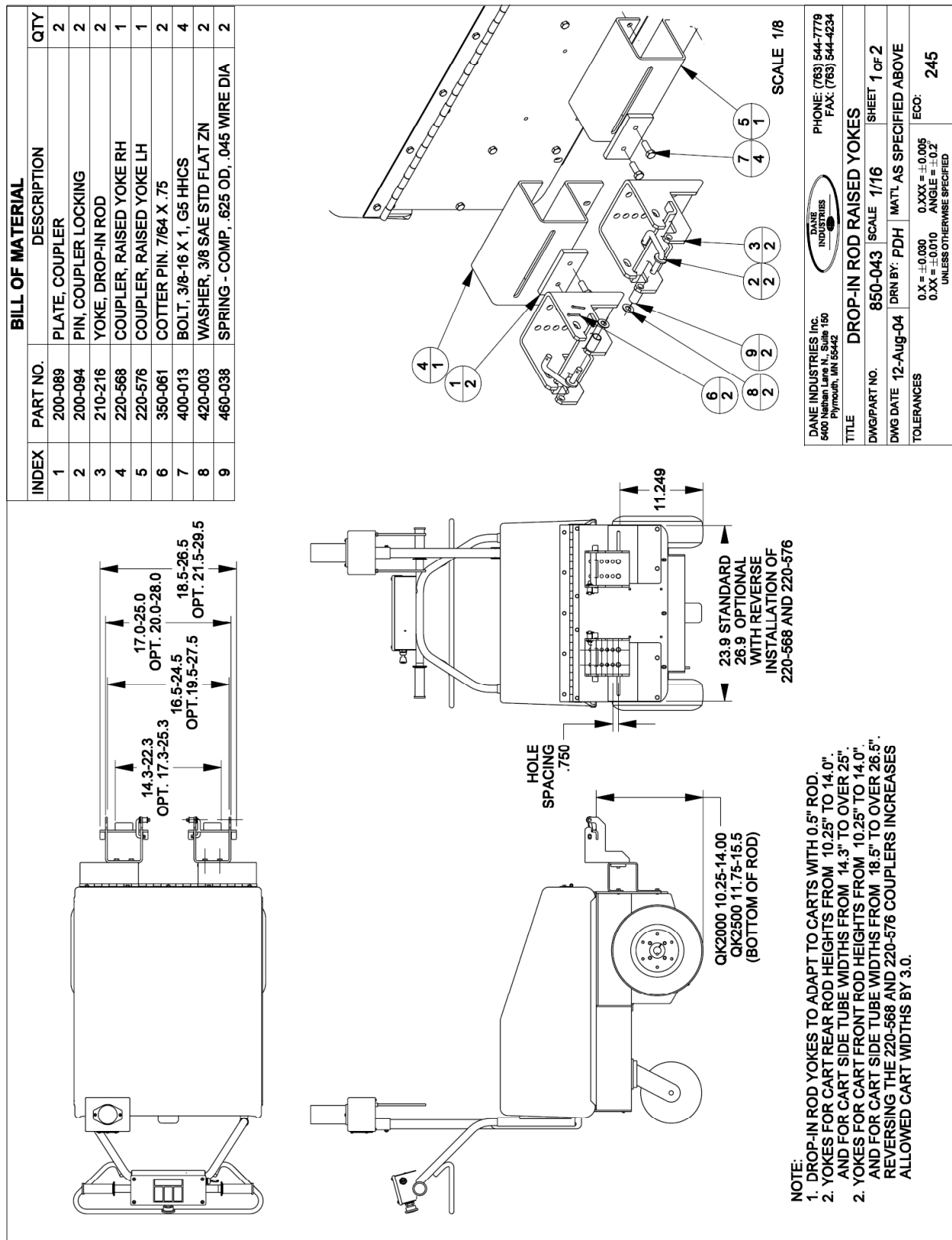
OPTIONAL METHOD OF CART ATTACHMENT



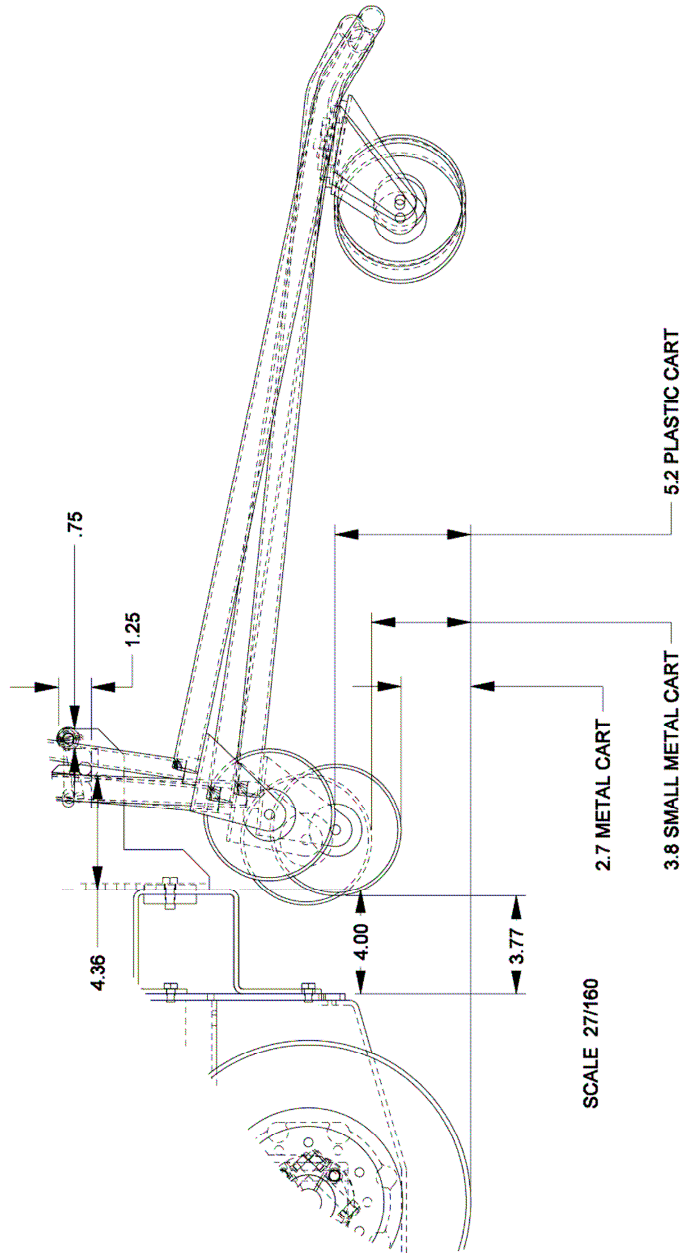





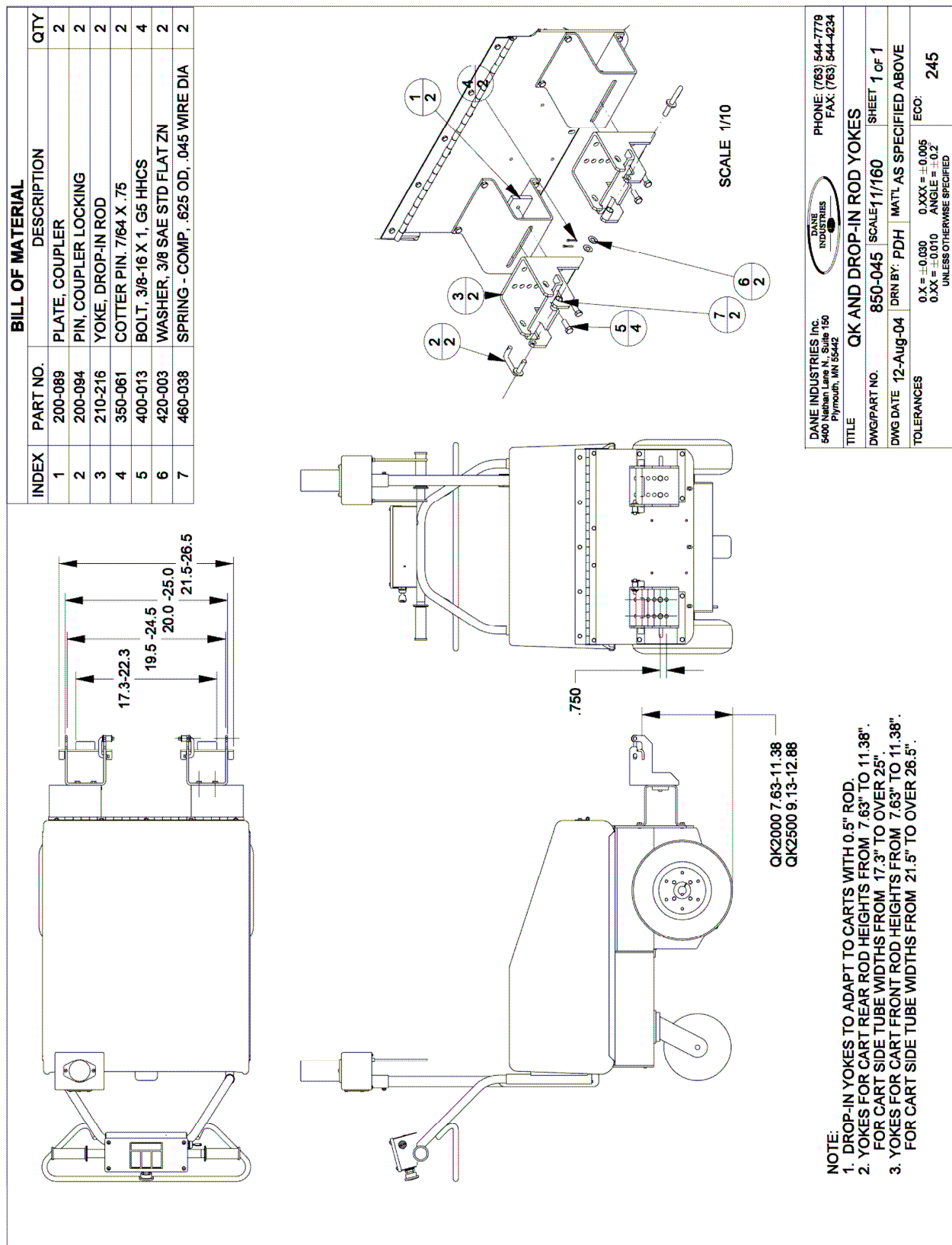


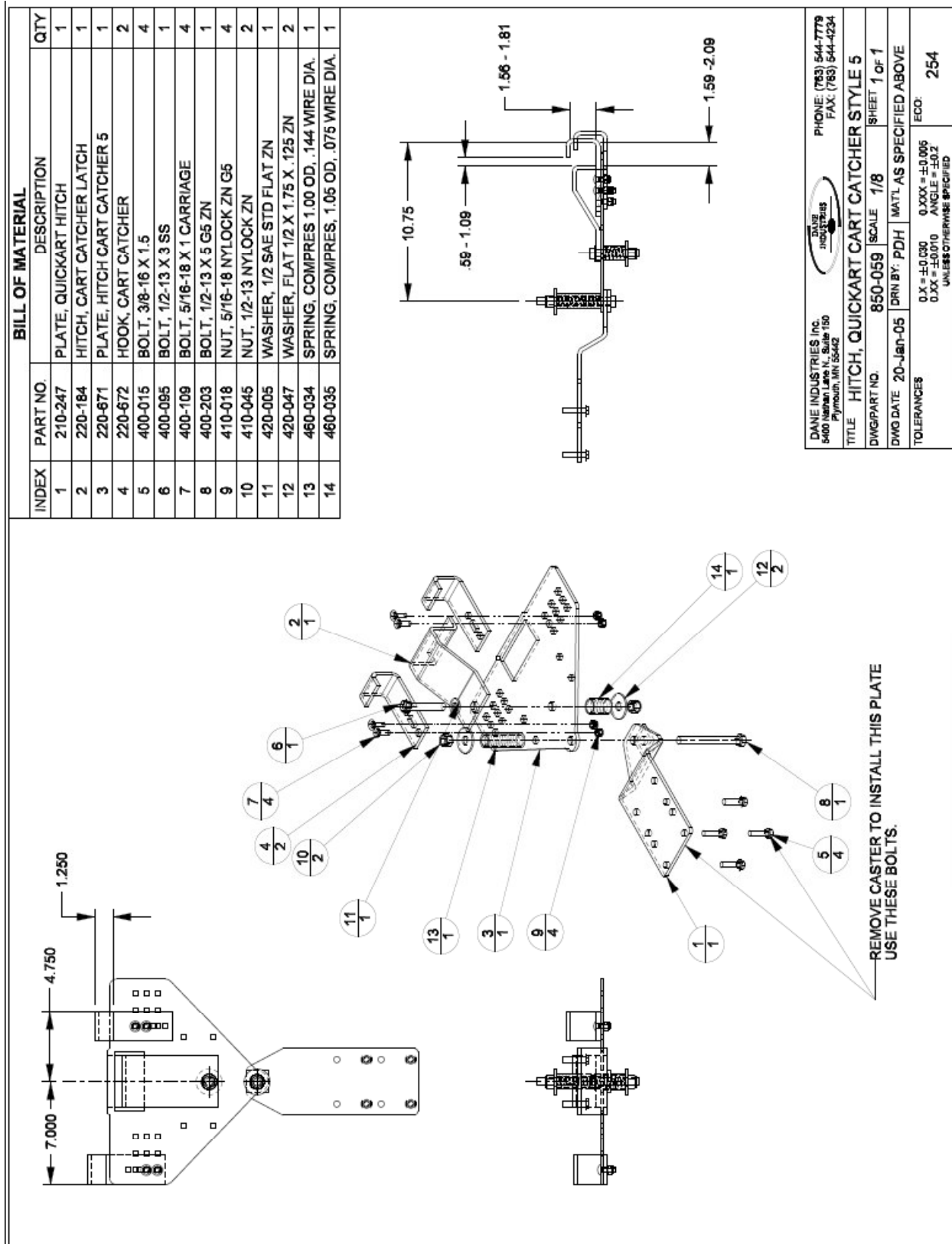


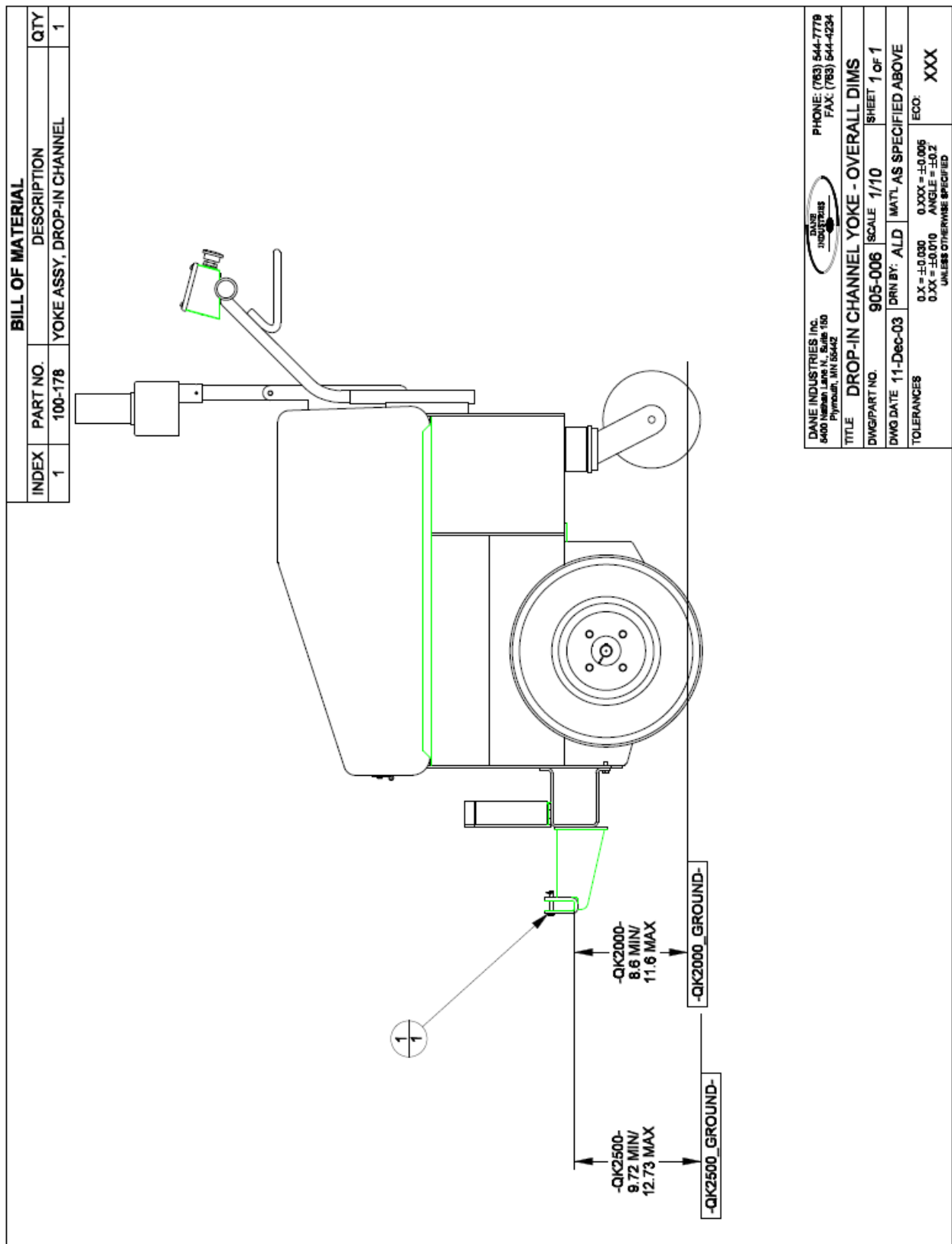
SHOWING CART (WHEEL) IN POSITION TO BE REMOVED FROM YOKES.



DANE INDUSTRIES Inc. 5400 Nathan Lane N., Suite 150 Plymouth, MN 55442				PHONE: (763) 544-7779 FAX: (763) 544-4234	
TITLE		DROP-IN ROD RAISED YOKES		SHEET 2 of 2	
DWG/PART NO.	850-043	SCALE	1/20		
DWG DATE	29-Jul-04	DRN BY: PDH	MAT'L AS SPECIFIED ABOVE		
TOLERANCES		0.X = ±0.030 0.XX = ±0.010 0.XXX = ±0.005 ANGLE = ±0.2° UNLESS OTHERWISE SPECIFIED		ECO: XXX	







ORIENTATION TO THE QuickKART 2000

MANUAL MODE: Manual Mode is defined as operating the QuickKART while walking behind the QuickKART 2000. Direction is controlled by the handle bar. Speed is controlled by turning the twist grip throttle. Direction is controlled by touching the touch pad switch located on the control panel. When the switch is pressed, the direction changes between forward and reverse as indicated by the direction light.

REMOTE MODE: (See diagram on page 34.) Remote Mode is defined as operating the QuickKART with the remote control while standing or walking alongside the lead cart of the cart chain coupled to the QuickKART 2000. Steering is controlled by guiding the lead cart in the desired direction. Forward speed, brakes and horn are operated with the hand held radio remote control. While in remote mode, the QuickKART will only move forward.

CONTROL PANEL: (See diagram on page 34.) At the top of the Control Panel are five lights that show the percent of remaining battery capacity (Battery Charge Level). When the batteries are fully charged the light at the "100" mark will be lighted. As the QuickKART is used throughout the day, the lights will slowly change from 100 to 80, 60, and 40 until the light for 20 is lighted. The charging level is most accurately shown when the QuickKART is pushing carts. When the 20% capacity light starts to flash on and off, it means there are approximately 4 minutes of remaining power before the QuickKART automatically shuts down. If the QuickKART does shut down, turn the key off for a few minutes, then on again. This may allow time to reach the charging station. Recharge the batteries for at least 8 to 10 hours or until fully recharged.

The control panel also includes a series of 4 lights and panel button switches with the following functions:

The light labeled "**MANUAL**" is for manual operation and "**RADIO**" is for remote operation. The push button switch, just below these two lights, will toggle between manual and remote control. The QuickKART will automatically set to manual operation and forward whenever it is turned on. It cannot be moved from manual to remote operation when the QuickKART is moving, only when it is stopped.

The light labeled "**FORWARD**" is for Forward-Direction operation and "**REVERSE**" is for Reverse-Direction operation. The push button switch, just below these two lights, will toggle between forward and reverse QuickKART direction. The QuickKART will always be set to forward operation whenever it is turned on. The switch will not change the operational direction until the QuickKART is stopped. For safety, the remote mode allows operation only in the forward direction.

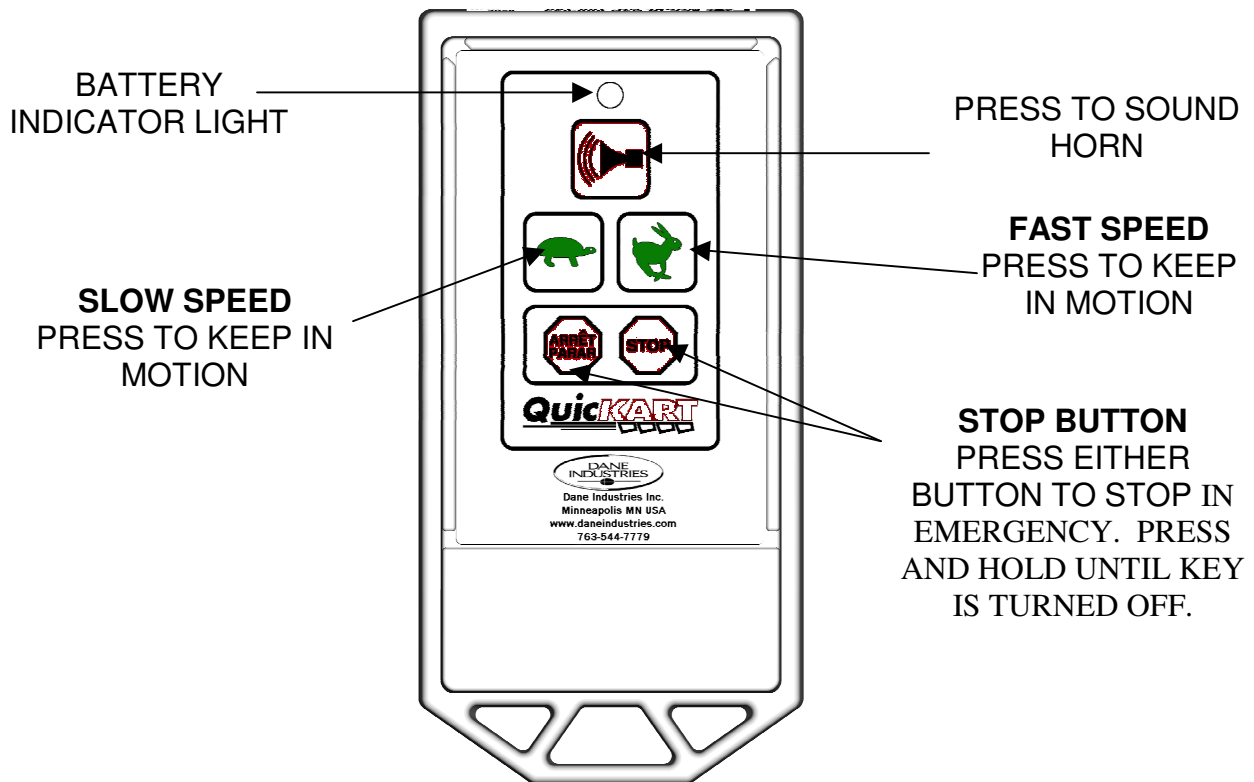
Pressing the "**HORN**" button will sound the horn loudly as long as it is pressed.

A large red or blue **"EMERGENCY"** shut off button is located on the backside of the control panel. (See top and side views of the QuickKART on pages 17 and 18.) This is located to provide easy access to stop the machine. To restart the machine after the **"EMERGENCY"** shut off button has been activated, pull out the button, turn off the key switch, wait 2 seconds, then turn it back on.

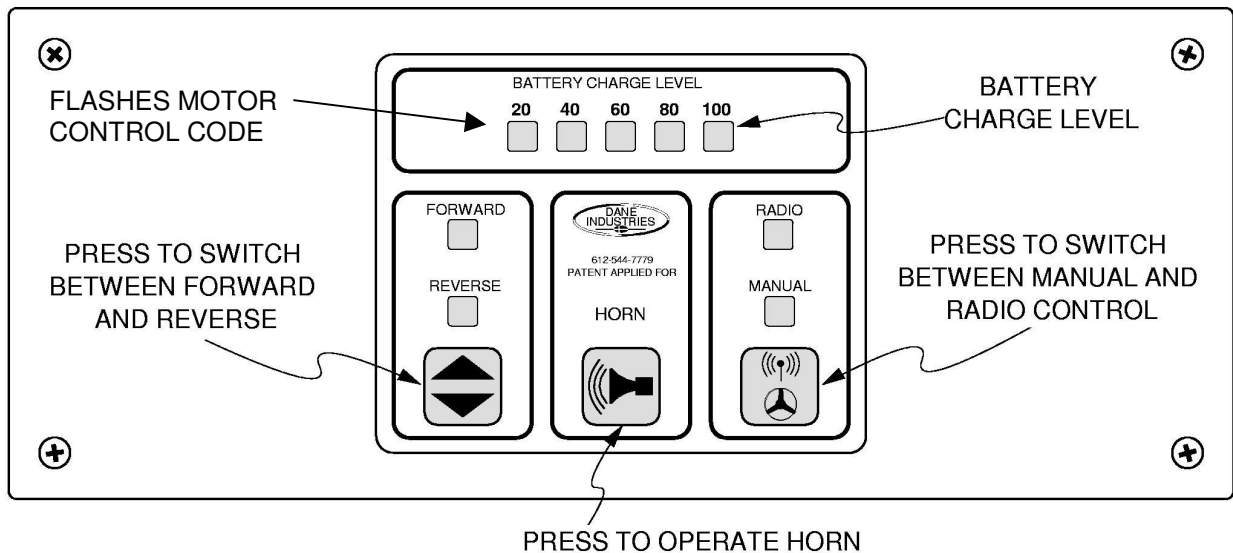
STEERING: In Manual Mode, the QuickKART 2000 is turned by exerting light pressure on the handlebars, to the left or right, similar to steering a bicycle. In Remote Mode, steering is controlled by guiding the lead cart in the desired direction.

ACCELERATION AND BRAKING: Acceleration and braking of the QuickKART are controlled by the twist grip throttle located on the right handle bar. QuickKART speed is controlled by twisting the throttle, similar to a motorcycle throttle. Braking action occurs as pressure is released. Braking force can be controlled for quick or gradual stops. Twisting the grip slowly brings the QuickKART to a gradual stop. Releasing it rapidly stops the QuickKART very quickly. Maximum braking force is applied when the throttle is fully released.

REMOTE CONTROL



CONTROL PANEL



OPERATION OF THE QuickKART 2000

MANUAL MODE:

To operate the QuickKART 2000 in the Manual Mode, perform the following steps:

- 1) Insert the key into the key-switch located on the control panel. Turn the key clockwise to turn the QuickKART "on".
- 2) Lights on the control panel will show the system status (see illustration on page 34). Confirm that all systems are working properly.
- 3) In manual operation, while standing behind the machine, both hands on the handles, slowly twist the throttle control and the QuickKART will start to move forward. Slowly release the pressure on the throttle control and the QuickKART will slow to a stop. When the throttle control is fully released, the electronic brakes will be applied. When moving forward or backward, a sudden release of the throttle control will cause the automatic brake to bring the QuickKART to a sudden halt.
- 4) To change the direction of travel, the QuickKART must be stopped. Press the direction switch on the control panel and the light for the selected direction will be displayed.
- 5) To turn the power off, press the emergency shut off button or turn the key counter-clockwise. **Note: Do not leave the machine "ON" and do not leave the key in the switch when unattended.**
- 6) The collection of grocery carts begins by walking the QuickKART into the parking lot to a location where customers have left carts. To attach the first cart, open the locking U-pin on the left side of the cart coupler assembly. Position the rear of the first shopping cart so that its vertical rear frame is aligned with the yoke openings on the coupler assembly. Lift the cart slightly off the ground and move it sideways until it engages both coupler yokes. Then, put the locking U-pin back into place to secure the shopping cart. It is recommended that the first cart be left permanently in place or if removed at night, identified, so the same cart is always attached to the cart. The coupler yokes can be adjusted up and down and from side to side to accommodate various types and sizes of grocery carts. See illustration on page 23 and 24.
- 7) Additional shopping carts can now be collected to form a train of a maximum of 30 carts.

REMOTE MODE:

The QuickKART can be operated in the remote mode by pressing the "**Radio/Manual**" switch located on the control panel.

- 1) While in remote mode, only one person is needed to collect shopping carts. This person gathers the carts and adds them to the train while using the remote control to control forward speed, braking and the warning horn. It is recommended that carts be formed into a line and then the machine brought up to the line in the "**SLOW**" speed to nest the carts. Continue to use the "**SLOW**" speed while operating near entrances and near store guests. **Never** use the "fast" remote speed near guests, the entrance or within the store.
- 2) "**NEVER**" press on the remote buttons unless you are at the front of the cart chain and controlling the lead cart. "**NEVER**" advance additional carts into the store unless you are at the front of the cart chain. The "**SLOW**" speed is .70mph. The "**FAST**" speed allows movement at a safe walking pace of 2.8mph as carts are returned to the store.
- 3) Only one button of the remote control is usable at a time. Press the "**SLOW**" or "**FAST**" button for the speed desired for the existing conditions. The QuickKART will briefly coast when the control buttons are released, helping to prevent a separation of carts. If a sudden stop is required, press the "**STOP**" button. Sudden stops will require the operator to hold back the lead cart at the front of the train to prevent cart separation.
- 4) **In an emergency, press and hold the stop button until you walk over and shut off the key.**
- 5) When the QuickKART 2000 is stopped, the parking brake automatically engages. This prevents the QuickKART from rolling on slopes or being pushed manually. If it is necessary to push the QuickKART (i.e. dead battery or machine not working), the parking brake can be released by pulling the release lever marked "**Brake Release**" on the lower right corner at the back of the machine. Once the parking brake is released, the QuickKART will not operate until the parking brake is pushed back in. It is recommended that the brake be released only if batteries are dead and manual pushing is required.
- 6) The QuickKART 2000 follows the train of shopping carts as guided by the cart attendant. The actual turning radius of the cart chain is a function of the design of the shopping carts being used. The tighter the carts nest together the longer the turning radius will be. After some experience the QuickKART operator will become familiar with this and be able to judge what turns will be practical. In practice the operator places one hand on the cart, at the front of the train, walking along side and guiding the cart in the desired direction. The other hand is used to operate the hand held remote control transmitter. When turning the cart chain it is easier to maintain safe footing by leaning against the lead cart rather than pulling.

BATTERY CHARGING

The QuickKART 2000 is powered by three, 12-volt, Deep Cycle batteries. Under normal usage they will power the QuickKART for 10 or more hours, when the ambient temperatures are above approximately 40 degrees F. Colder temperatures will reduce the operating time of the batteries and increase the charging time. To optimize battery power, store the QuickKART in a room with a temperature of at least 50 degrees F.

To recharge the batteries, park the QuickKART in a well-ventilated location near an electrical outlet. The QuickKART must be turned off and the key removed.

FIRST, plug the 10-foot extension cord into the connector located at the lower left rear of the QuickKART. **Use special care to ensure the extension cord is properly seated inside the connector. Failure to do so can cause improper charging or damage to the battery charger.**

SECOND, connect the charger's 10-foot power extension cord into a wall receptacle. The battery charger will automatically shut off when the batteries are fully charged. This takes between eight to ten hours, depending upon initial state of charge and battery condition. **Make sure the power to the wall receptacle is not turned off during the nightly recharging time.**

To put the QuickKART back into service, after the batteries are fully charged, disconnect the charger's power extension cord from the wall receptacle and from the lower receptacle at the lower left rear of the QuickKART. Store the extension cord in an appropriate location.

Lights on the battery charger show the charging rate. Fully discharged batteries will result in a charging rate of up to 16 amperes. As the batteries become fully charged this rate will drop to less than 10 amperes. A solid yellow light indicates maximum charge; a yellow and flashing green indicate partial charge completion. A green light indicates completion of charge. The red light indicates AC power is connected and on.

WARNING

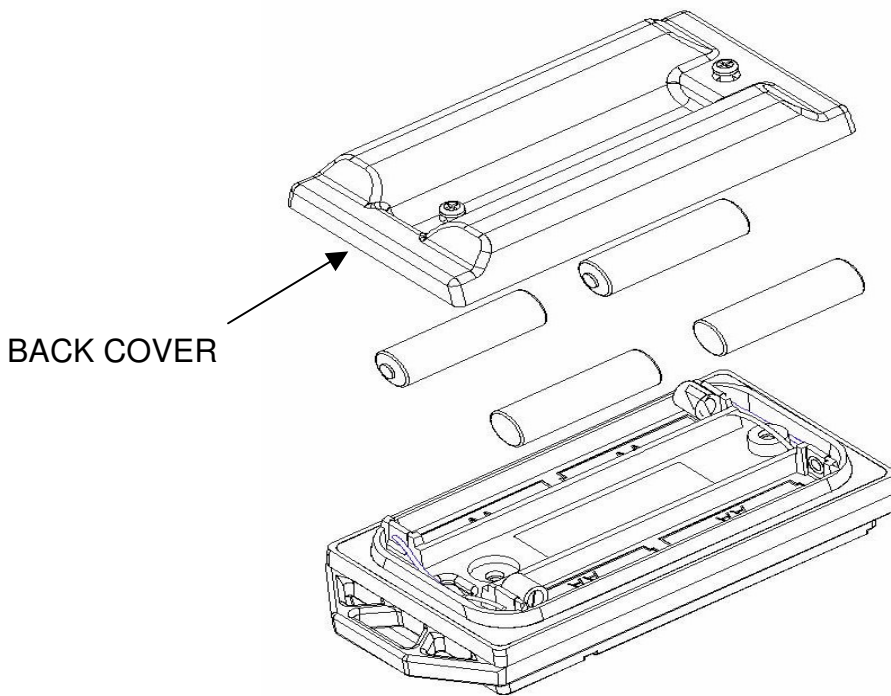
Do not use long extension cords. Use the 10-foot cord supplied with the machine. Find a location for re-charging that is close to an electrical outlet receptacle. If another cord must be used, it must be 16 gauge or larger and no longer than 10 feet in length.

REMOTE CONTROL: BATTERY CHANGING

Refer to Diagrams on page 39.

1. The remote control is to be taken apart only when the batteries need replacing. There are no adjustments or switches inside the module. As long as the small light on the remote panel lights-up the battery does not need replacing.
2. Before opening the remote turn off the QuickKART that had been using this remote. If another remote is being used by this QuickKART it is OK to proceed.
3. To open remote control, place the control panel face down on a table top and use a medium size Phillips screw driver to remove the two (2) screws from the corners of the remote's back cover.
4. After the screws are removed, leave the remote face down and remove the back cover.
5. To replace the batteries, take out the old batteries and replace them with new, ensuring that the new batteries are inserted as diagramed inside the battery compartment.
6. Properly dispose of the old batteries in an environmentally correct depository.
7. Examine the inside of the remote for any signs of condensation or water. If signs of moisture are present, allow the compartment to dry fully before replacing the back.
8. Before replacing the back, ensure that the gray rectangular gasket around the edge of the battery compartment is in good condition. If the gasket is damaged, return the remote to Dane Technologies for repair.
9. Also, ensure that the red and black wires leading away from the battery terminals and the black wire at the opposite end of the remote are intact. If they are broken, return the remote to Dane for repair.
10. The QuickKART should be "**off**". Before replacing the back, ensure the panel light comes on when any one of the function buttons is pressed.
11. Replace the back with the two Phillips screws.
12. Reprogram the remote control as described on page 39.

REMOTE CONTROL: BATTERY CHANGING DIAGRAM



PROGRAMMING THE REMOTE CONTROL

Each hand-held remote control transmitter operates on a unique pre-programmed code. For the QuickKART to operate in the Remote Mode, the receiver, which is in the beacon tower, must be programmed to match the hand held remote control. Every time the batteries in the remote control are replaced, the remote control needs to be reprogrammed to match the receiver code in the beacon tower. If the QuickKART stops responding to the remote control, check the status of the remote battery by depressing one of the remote buttons. If the red LED light does not illuminate, change the battery and reprogram the remote control as follows:

- 1) Turn on the QuickKART.
- 2) Switch to "**RADIO**" on the control panel.
- 3) Hold remote about arms length from the beacon post.
- 4) Simultaneously push these three buttons:
 - Rubber button located on the underside of the square box on the beacon post (see pages 17 and 18)
 - Stop button on the hand-held remote (page 34);
 - Horn button on the hand-held remote (page 34).
- 5) The horn should sound indicating the reprogram is complete and the QuickKART is ready for operation.
- 6) If the horn did not sound, retry the above steps making sure that the switch on the control panel is on "**RADIO**". If the horn still did not sound, you can also determine if the reprogram was successful by pressing the slow button on the remote to see if the QuickKART now responds to the remote signal.

QuicKART 2000 MAINTENANCE NOTES

Check the QuicKART daily, for safe operation.

Routine maintenance should only be performed by those permitted by federal and state age regulations. Repairs should only be completed by Dane Technologies or an authorized service technician. Federal law requires that you must be at least 18 years old to service the batteries of the QuicKART.

General condition: Keep the QuicKART free from the accumulation of grease, dirt, and other materials.

If the QuicKART malfunctions in any way, turn it off and remove the key. Immediately report the malfunction to the appropriate store manager as well as Dane Technologies. Do not use the QuicKART until it has been repaired by an authorized service technician.

WARNING

Do not permit open flame, sparks or smoking during maintenance. Adequate ventilation is essential for safety. Do not lay metal objects on the batteries.

D= Daily, M= Monthly, S-A = Semi-annually, Y=Yearly >>>	D	M	S-A	Y
Inspect throttle, turn key switch to "On". The cart should not move. Check that the RH throttle grip moves freely in a CW direction. The cart should move forward. Push the reverse button, the cart should move backward.	X			
Test the brake system. With the key switch "Off", try to move the machine. The brake should keep the drive wheels from rotating.	X			
Test the Emergency shut-off button. With the cart in "Manual" or "Remote", pressing the Emergency shut-off will disable all controls and stop the machine.	X			
Strobe Light: Check for damage and proper operation.	X			
Remote: Check for damage. With the cart in "Remote", check operation with all buttons. The remote should operate up to 100' from the machine.	X			
Charge batteries overnight, every night.	X			
Check couplers and yokes for unsafe wear, loose or missing fasteners, and safe connection.	X			
Batteries: Inspect loose connections, frayed insulation, and corrosion. Clean away corrosion. Check charger operation		X		
Wiring: Inspect all wiring and electrical connections for loose connections, frayed or deteriorated insulation, exposed wire, and broken or missing hardware.		X		
Maintenance Type Batteries: Check water levels, add distilled water as necessary.		X		
Check the machine for damaged or missing labels.		X		
Check body for damage. Check all bolts, fasteners and connections for tightness and wear.		X		
Check tires and caster wheel for wear, bent rims and missing or loose lug nuts.		X		
Check the antennas for damage.		X		
Check tires and caster wheel for wear, bent rims and missing or loose lug nuts.		X		
Apply grease to rear swivel wheel using a standard grease gun, two places.			X	
Check the AC charger cord for frayed or deteriorated insulation and exposed wire.			X	
Have your authorized service center check your QuickKART completely.				X

CHANGING FRONT TIRES

FRONT DRIVE TIRES:

Turn QuickKART off and remove key.

QuickKART must be on a flat surface. Make sure the automatic brake is functional and on.

Use protective eyewear at all times.

- 1) Slightly loosen the four (4) lug nuts, about 1/2 turn, from the wheel needing service. Use a 9/16-inch socket on the QK 2000 12-inch tires. **IMPORTANT:** Do not remove any of the nuts; only slightly loosen them while the wheel is still on the ground.
- 2) Use a jack to lift the front of the QuickKART off the ground approximately 2 to 3 inches. Insert a sturdy and stable block under the frame to hold it securely in this elevated position.
- 3) Unscrew the four 9/16-inch or 5/8-inch, front wheel lug nuts and place them in a location where they will not become lost. Remove the wheel. The new or repaired wheel is placed back on the front hub with the tire stem facing out. Replace the 4 lug nuts with the beveled side toward the inside and tighten.

Using the jack, lift the QuickKART off the supporting block (see item #2 above). Remove the block and use the jack to lower the QuickKART to the ground. Tighten the 4 lug nuts again ensuring that they are tightened to a minimum of 50 foot-pounds torque.

CHANGING REAR TIRE

REAR CASTERED TIRE:

Turn QuickKART off and remove key.

QuickKART must be on a flat surface. Make sure the automatic brake is functional and on.

Use protective eyewear at all times.

- 1) Lift the back of the QuickKART so the rear caster wheel is approximately 2 inches off the ground. This is accomplished by using a jack under the rear frame of the QuickKART, in the center. Once the QuickKART is lifted, place a sturdy and stable block in each corner then lower the jack so the weight of the QuickKART is resting on the blocks. Also place blocks on the front wheels to keep the QuickKART from rolling.
- 2) With two 9/16" wrenches, remove the four bolts holding the caster assembly to the frame. Save the hardware and use it when replacing the wheel.
- 3) When replacing the caster assembly, reuse the saved hardware. Insert bolts, apply nuts and tighten.
- 4) Using the jack, lift the QuickKART off the supporting blocks (Item #1 above), remove the blocks then lower the QuickKART to the ground.

Note: Variations in the hardware configuration may occur. Save all hardware and use it as it was removed when replacing wheel.

TECHNICAL SPECIFICATIONS

Weight (with batteries) -----	510 pounds	
Length -----	50 inches (4 feet, 2 inches)	
Width -----	27.5 inches (2 feet, 3.5 inches)	
Height (to handles) -----	40.5 inches (3 feet, 4.5 inches)	
Height (to top of beacon) -----	54 inches (4 feet, 6 inches)	
Front wheel tread -----	22 inches	
Wheel base -----	19.5 inches forward 14 inches reverse	
Turning radius -----	less than 2 feet	
Tires, front -----	12 or 16 inches diameter	
Tires, rear -----	8 inches diameter	
Chassis -----	Welded steel with powder coating	
Body -----	Fiberglass or ABS polymer	
Safety -----	40 amp secondary breaker on QK2000 Automobile type horn Beacon warning light Brake light Emergency stop switch Automatic brake Unique remote security code	
Brakes -----	Electronic dynamic Mechanical	
Electrical system -----	Three 12-volt batteries	
Charger -----	Input 120 VAC 36 VDC, 16 amperes max.	
Speed -----	Forward	0 – 3.0 MPH max.
	Reverse	0 – 1.5 MPH max.
	Remote slow	0.70 MPH
	Remote fast	2.80 MPH

REMOTE CONTROL:

Power Requirement: 4 Standard 1.5 volt AA radio batteries,

Range: 100 feet

QuickKART WARRANTY

- 1) **Parts:** One (1) Year Limited Warranty from date of shipment.
- 2) **Labor:** Ninety (90) Day Limited Warranty from date of shipment.
- 3) **Batteries:** Covered by the manufacturer's warranty.

1) PARTS – Limited Warranty

All parts except batteries (covered by battery manufacturer's warranty), tires, and circuit breakers needing resetting are warranted by Dane Technologies to be free of defects in material and workmanship for a period of one (1) year from date of shipment. This warranty **does not include** tire wear or wear and tear caused by abuse, negligence, freight damage or damage caused by improper use or care, or by external sources such as fires, floods or other acts of God.

Should any component fail during the first year of ownership except those mentioned as not under warranty, the component in question is to be returned to Dane Technologies or to an authorized Dane Technologies representative for inspection. If the component has failed due to a defect in material or workmanship, it will be exchanged or repaired at the discretion of Dane Technologies at no charge to the QuickKART owner.

Dane Technologies, Inc. will cover the costs of shipping parts covered under warranty to the customer based on UPS standard ground rates.

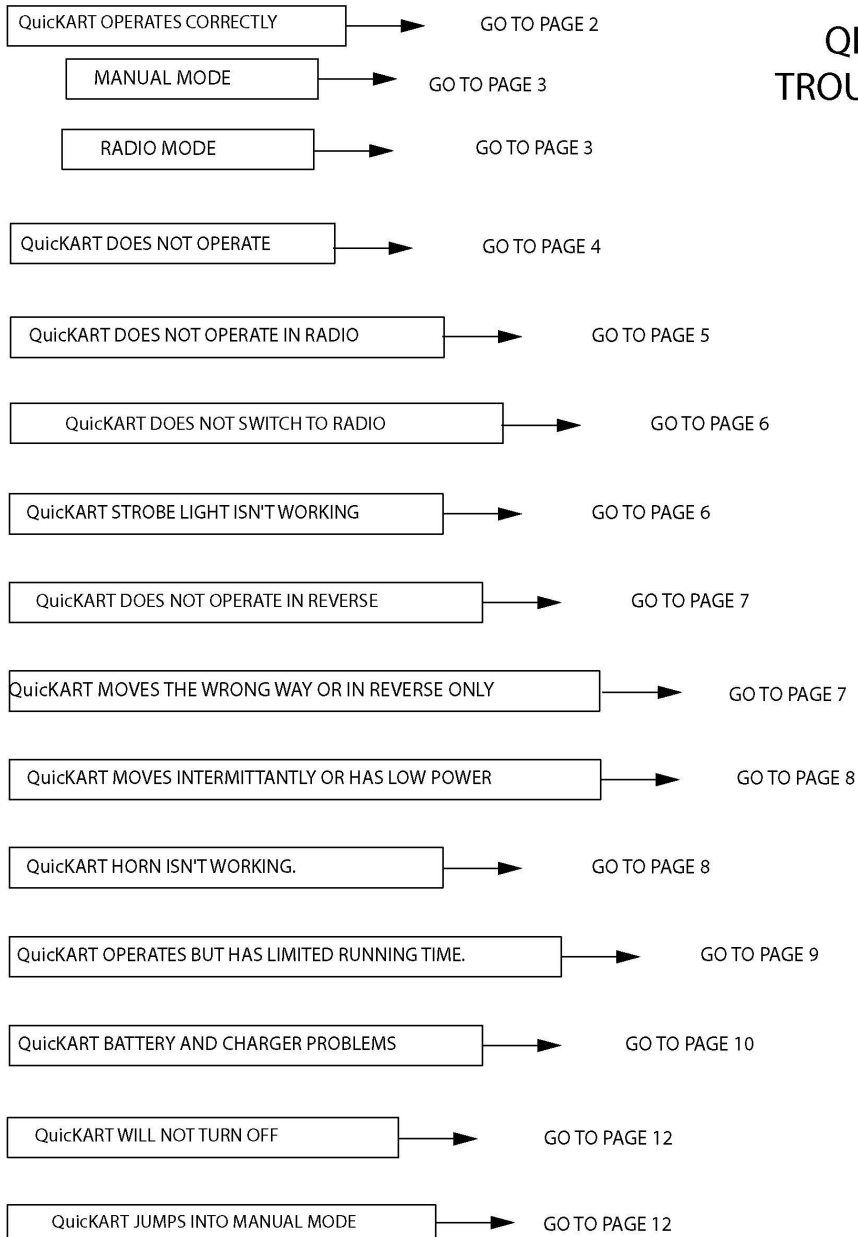
2) LABOR – Limited Warranty


Dane Technologies will cover labor charges for work performed in the field for ninety (90) days from the date of shipment as a result of defects in materials or workmanship. Charges incurred for failure to charge and maintain the batteries in the QuickKART or change the battery in the hand held remote are exempted. Non-warranty service performed during the same visit as for warranty service is not covered by the warranty.

Rev. 3-1-06

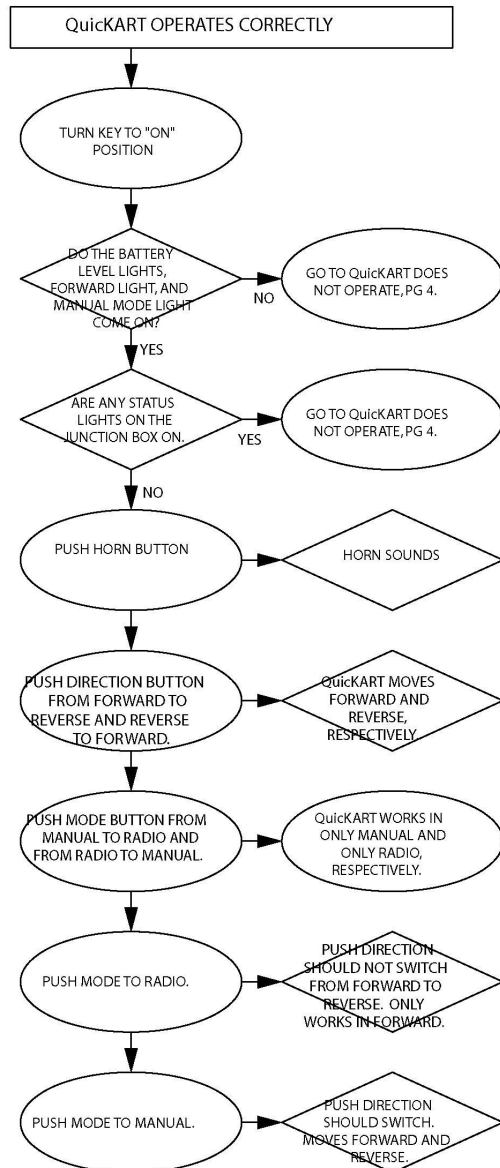



QK2000 SERIES TROUBLESHOOTING CHART

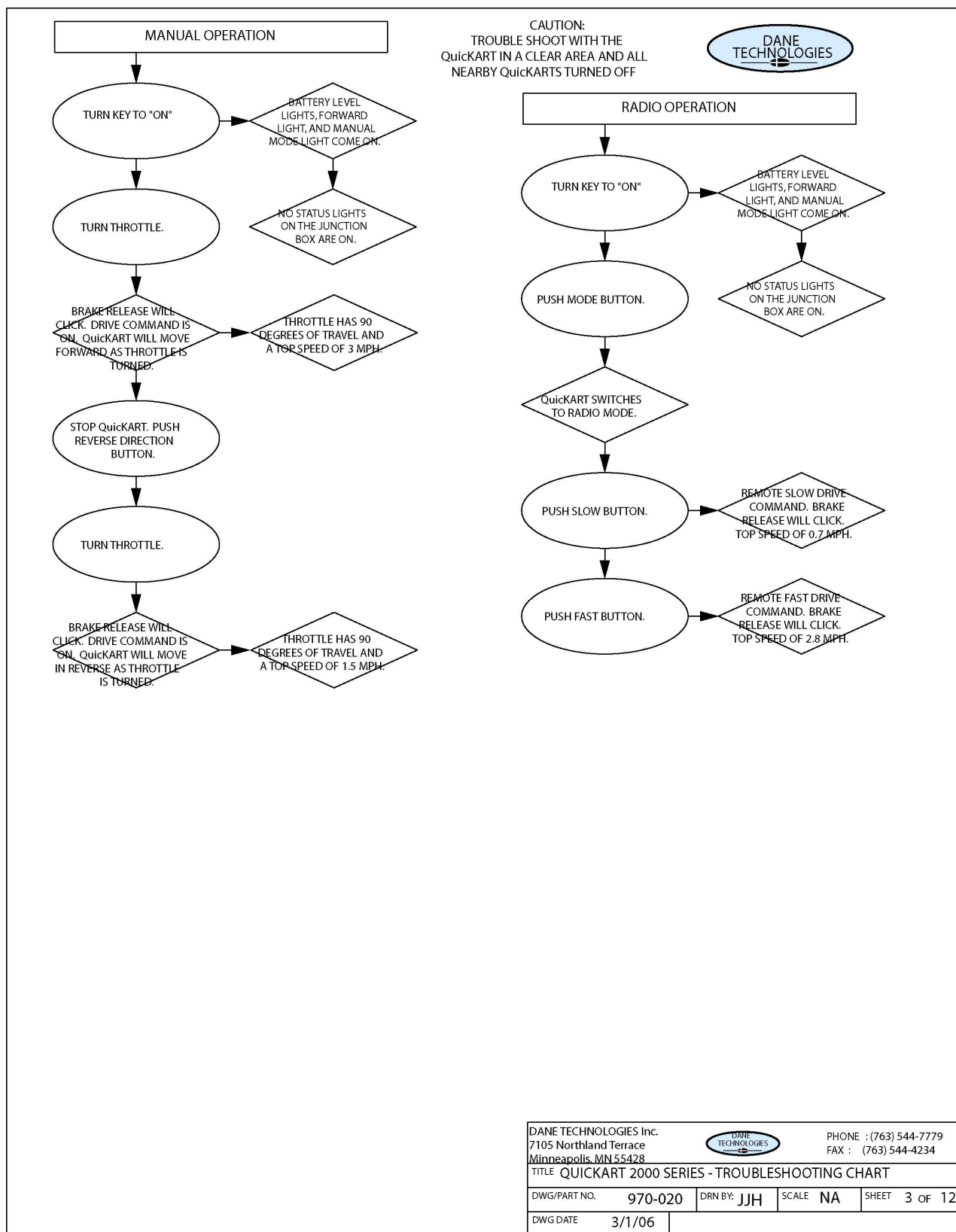


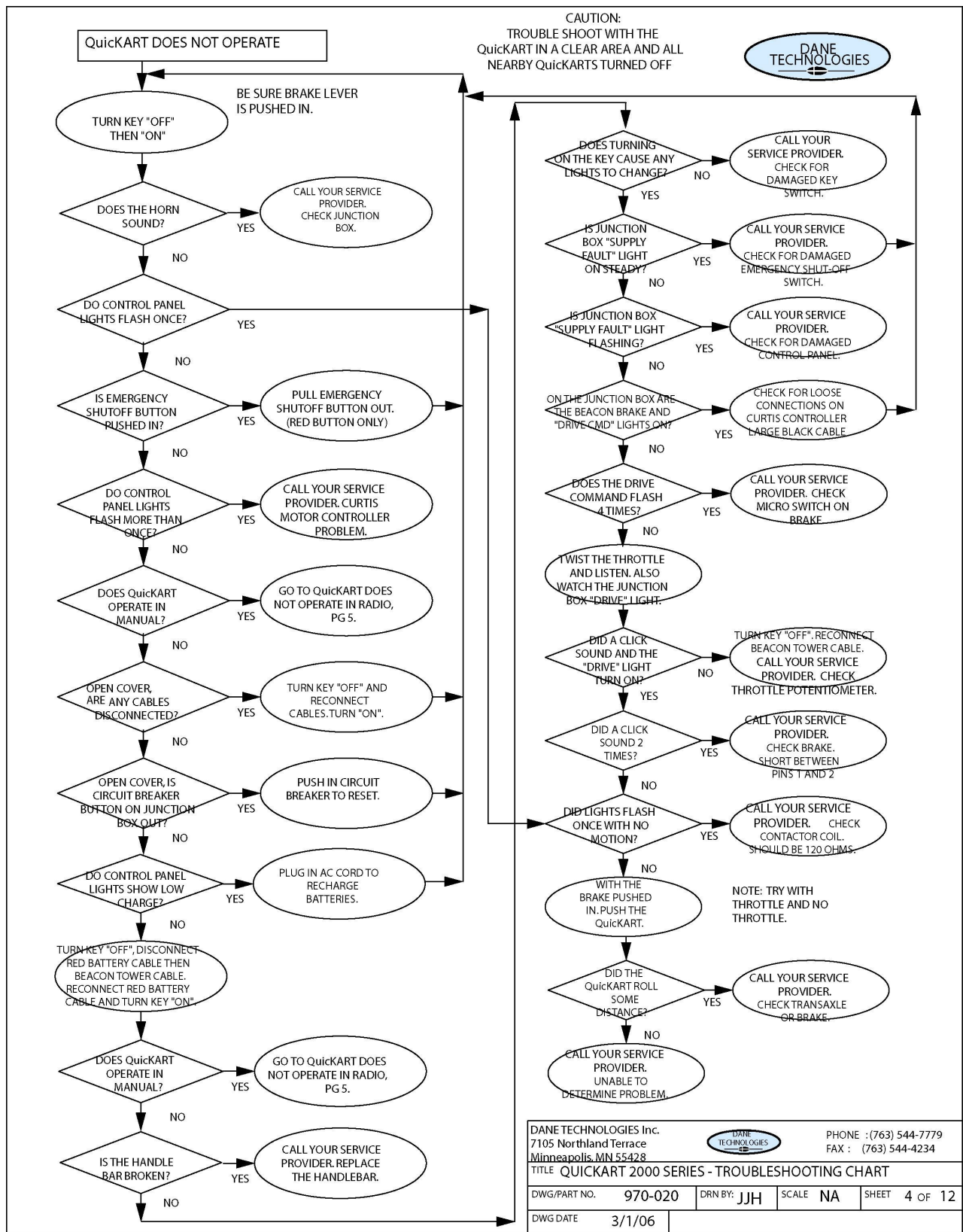
DANE TECHNOLOGIES Inc. 7105 Northland Terrace <u>Minneapolis, MN 55428</u>				PHONE : (763) 544-7779 FAX : (763) 544-4234	
TITLE QUICKKART 2000 SERIES - TROUBLESHOOTING CHART					
DWG/PART NO.	970-020	DRN BY:	JJH	SCALE	NA SHEET 1 OF 12
DWG DATE	3/1/06				

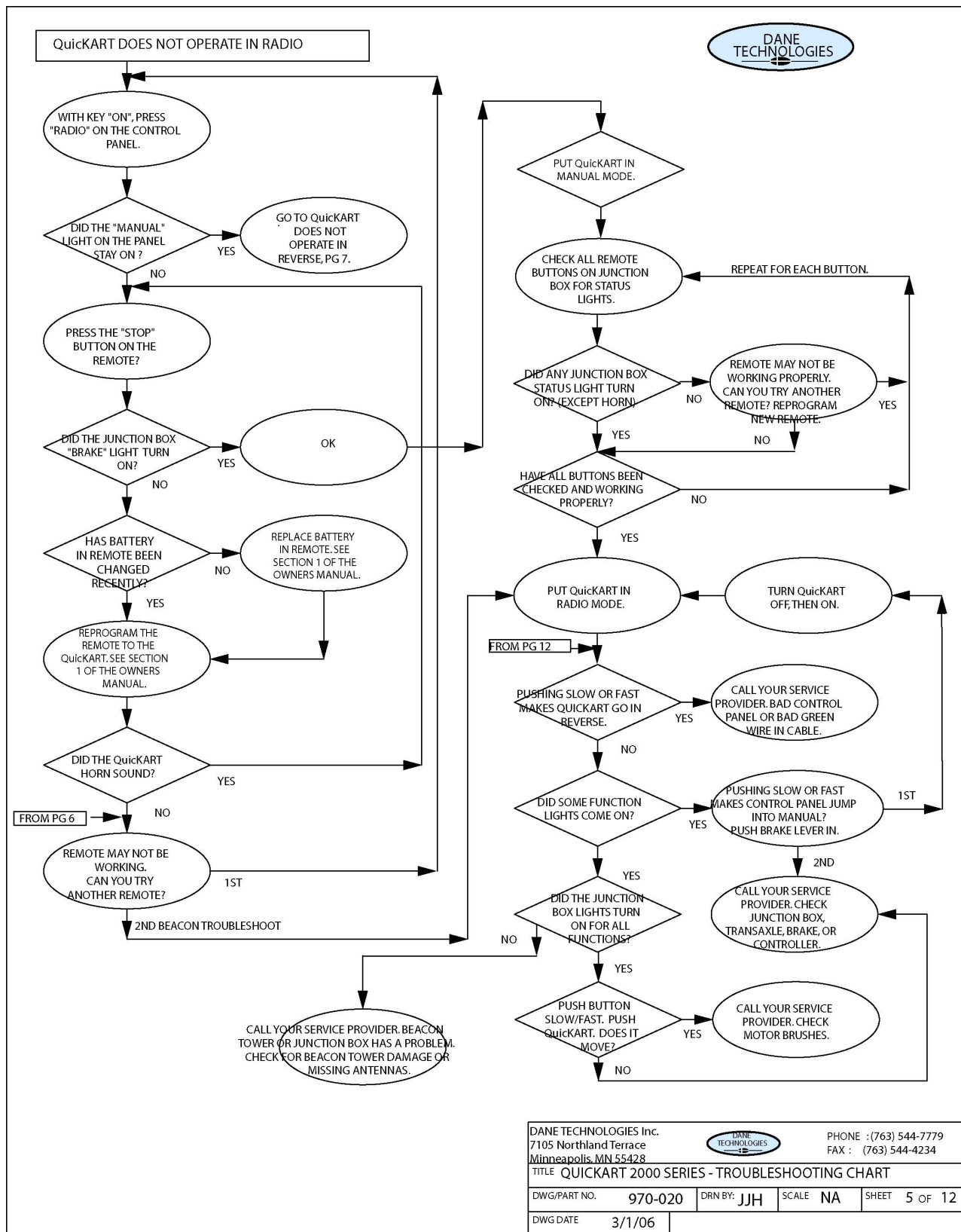
CAUTION: TROUBLE SHOOT WITH
THE QuickKART IN A CLEAR AREA AND
ALL NEARBY QuickKARTS TURNED
OFF

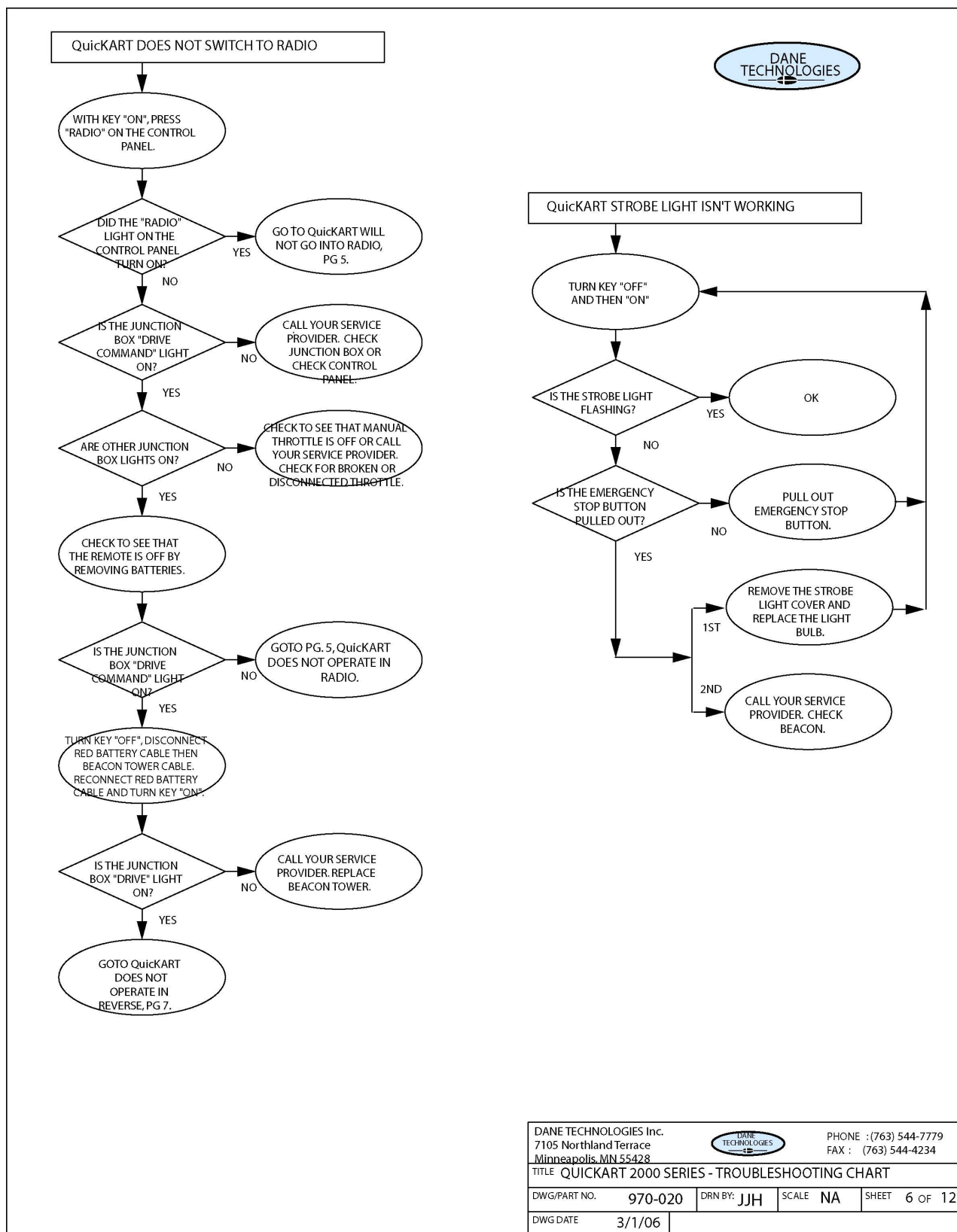


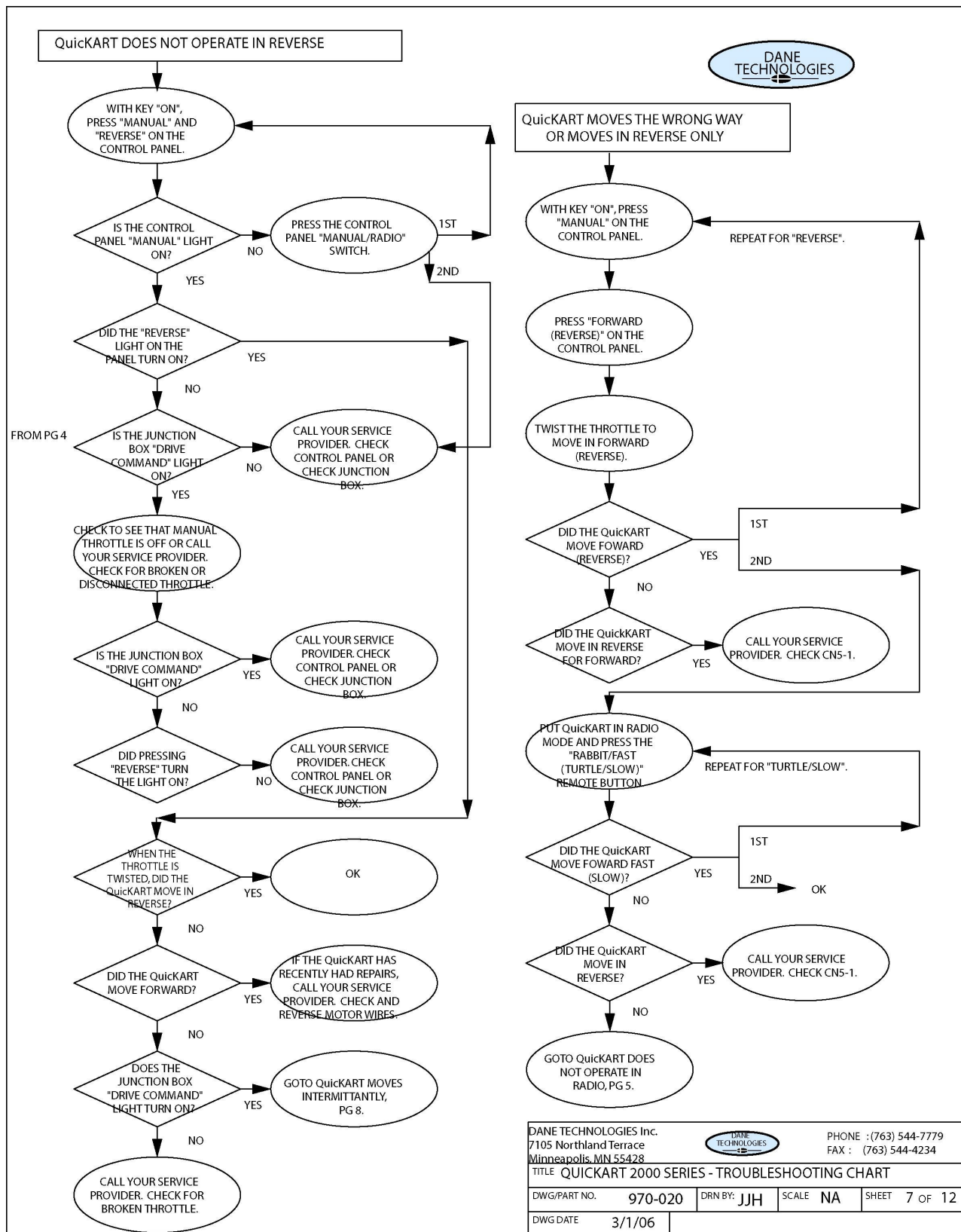
DANE TECHNOLOGIES Inc. 7105 Northland Terrace Minneapolis, MN 55428				PHONE : (763) 544-7779 FAX : (763) 544-4234	
TITLE QUICKKART 2000 SERIES - TROUBLESHOOTING CHART					
DWG/PART NO.	970-020	DRN BY:	JJH	SCALE	NA
DWG DATE	3/1/06			SHEET	2 OF 12

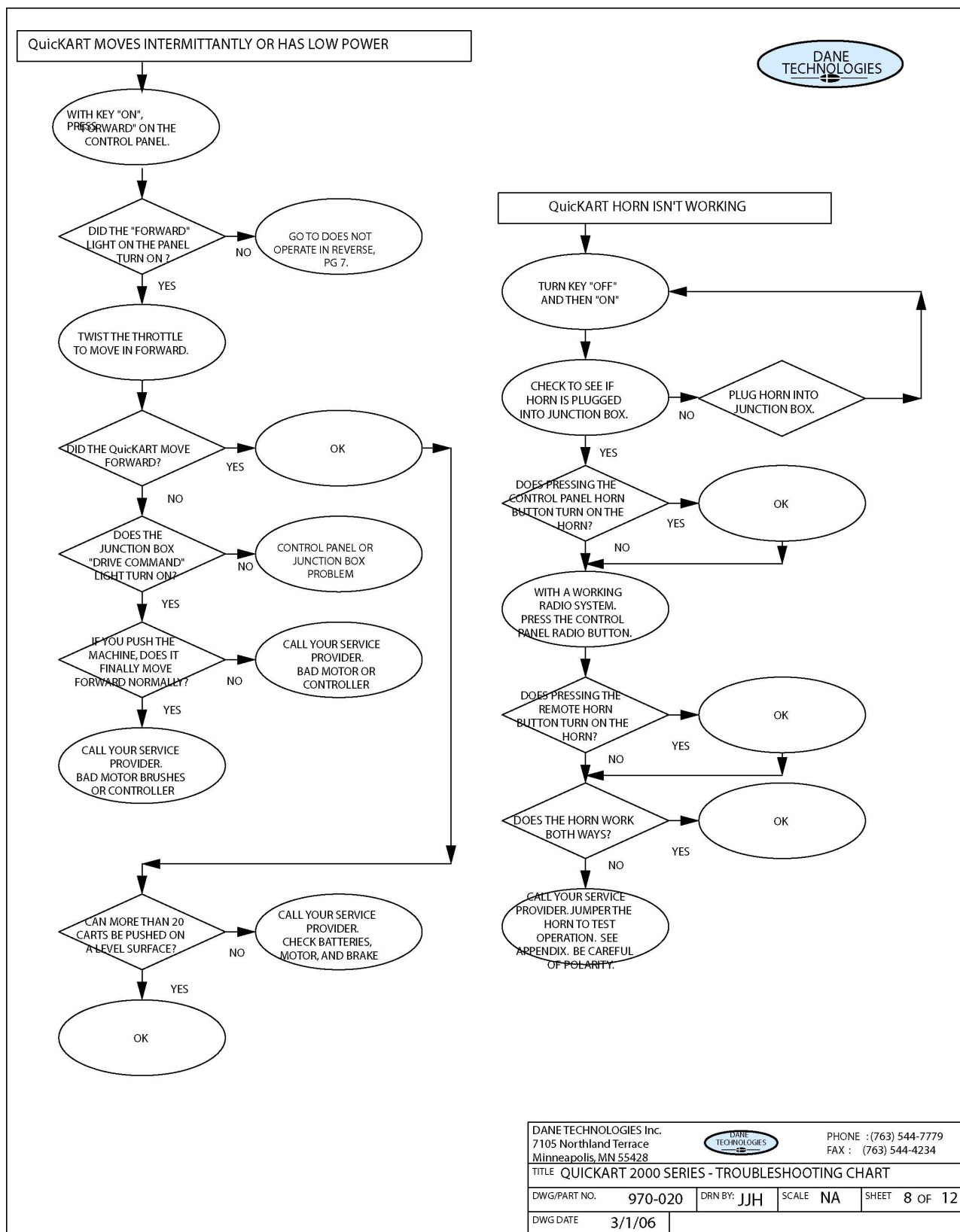


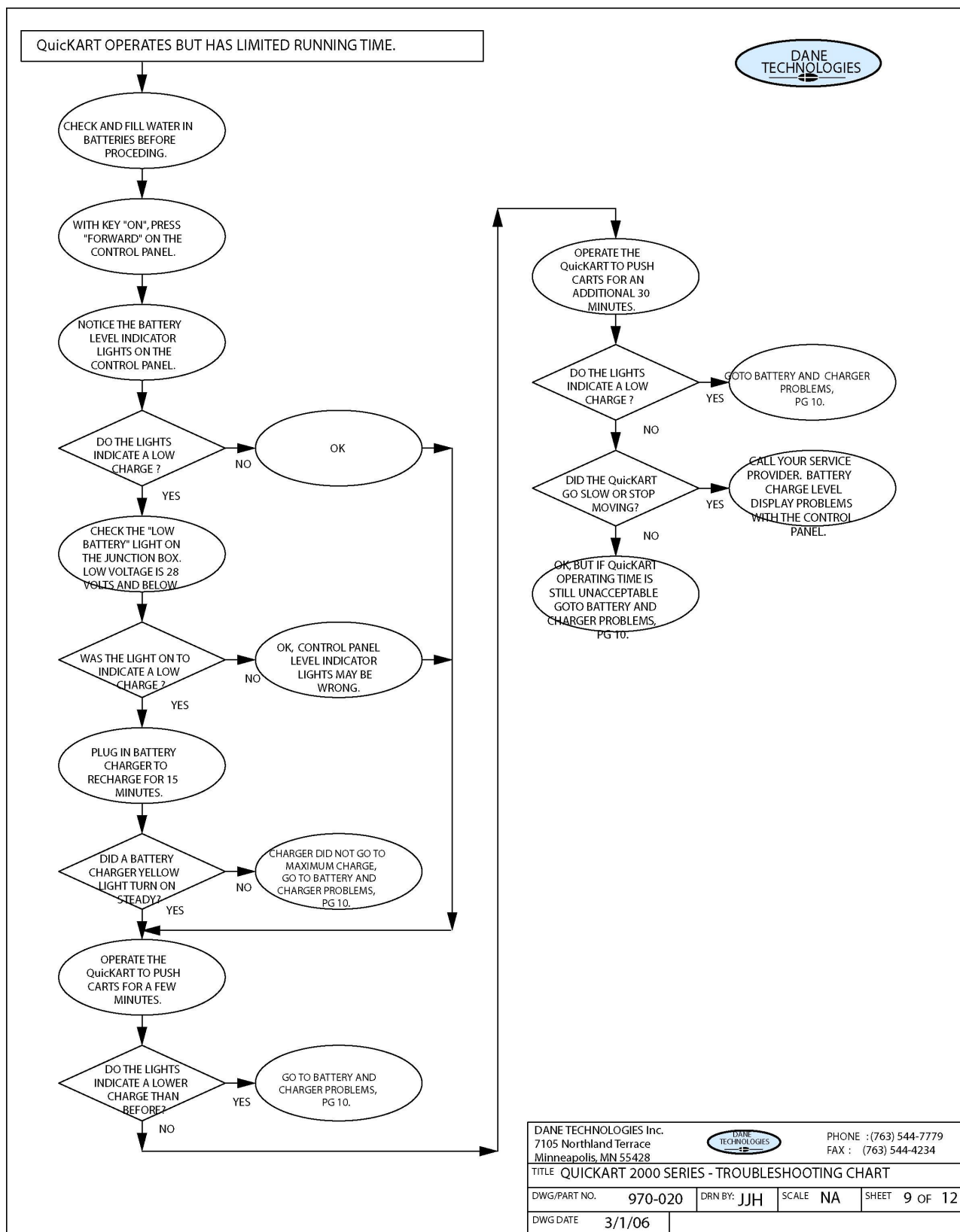


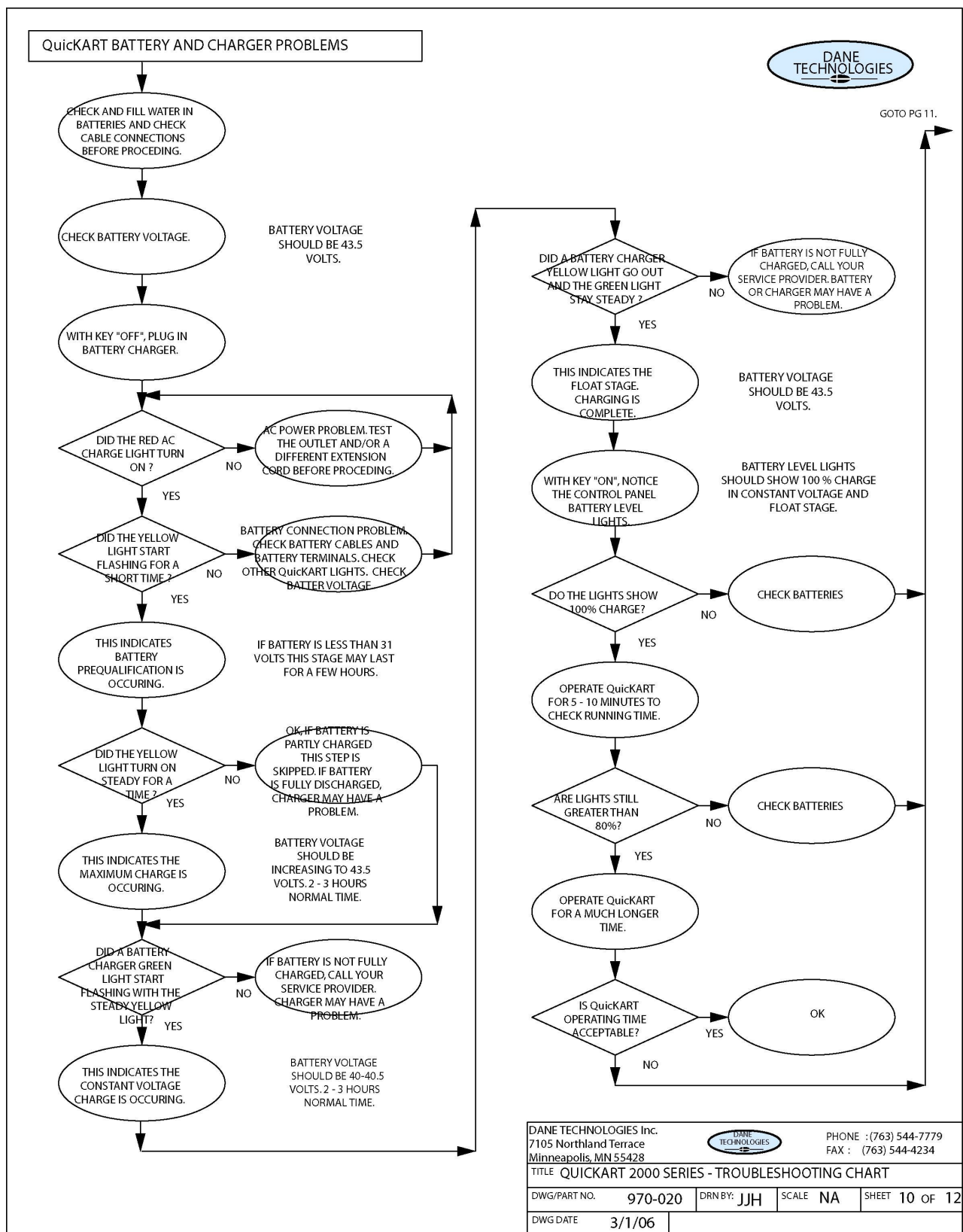




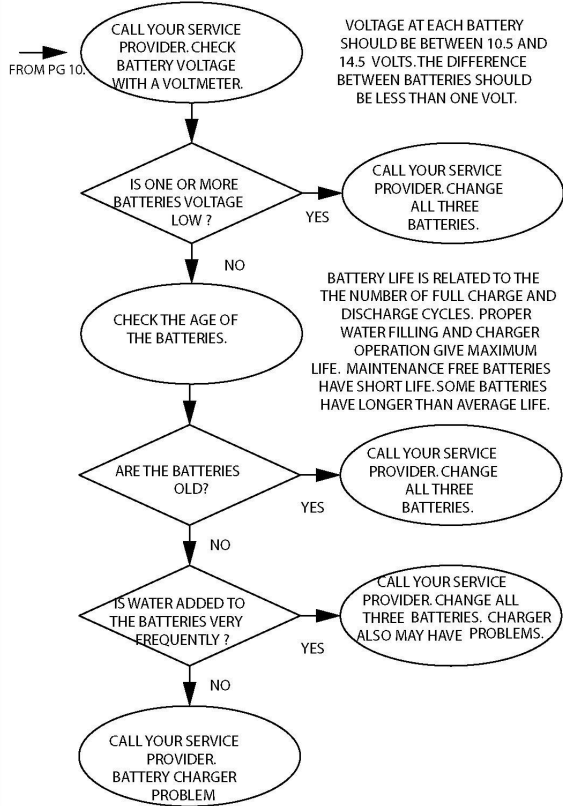





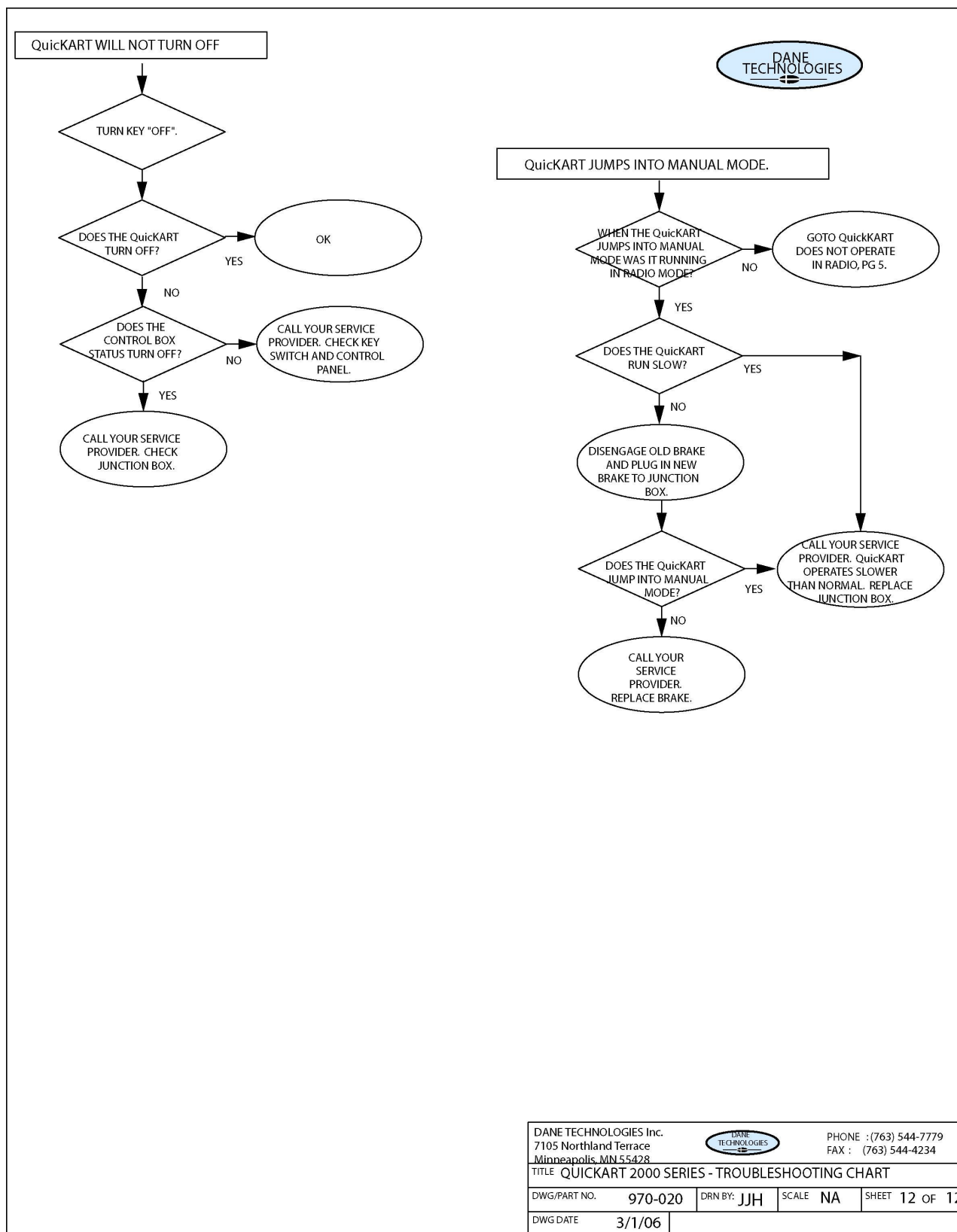




QuickKART BATTERY AND CHARGER PROBLEMS, CONTINUED

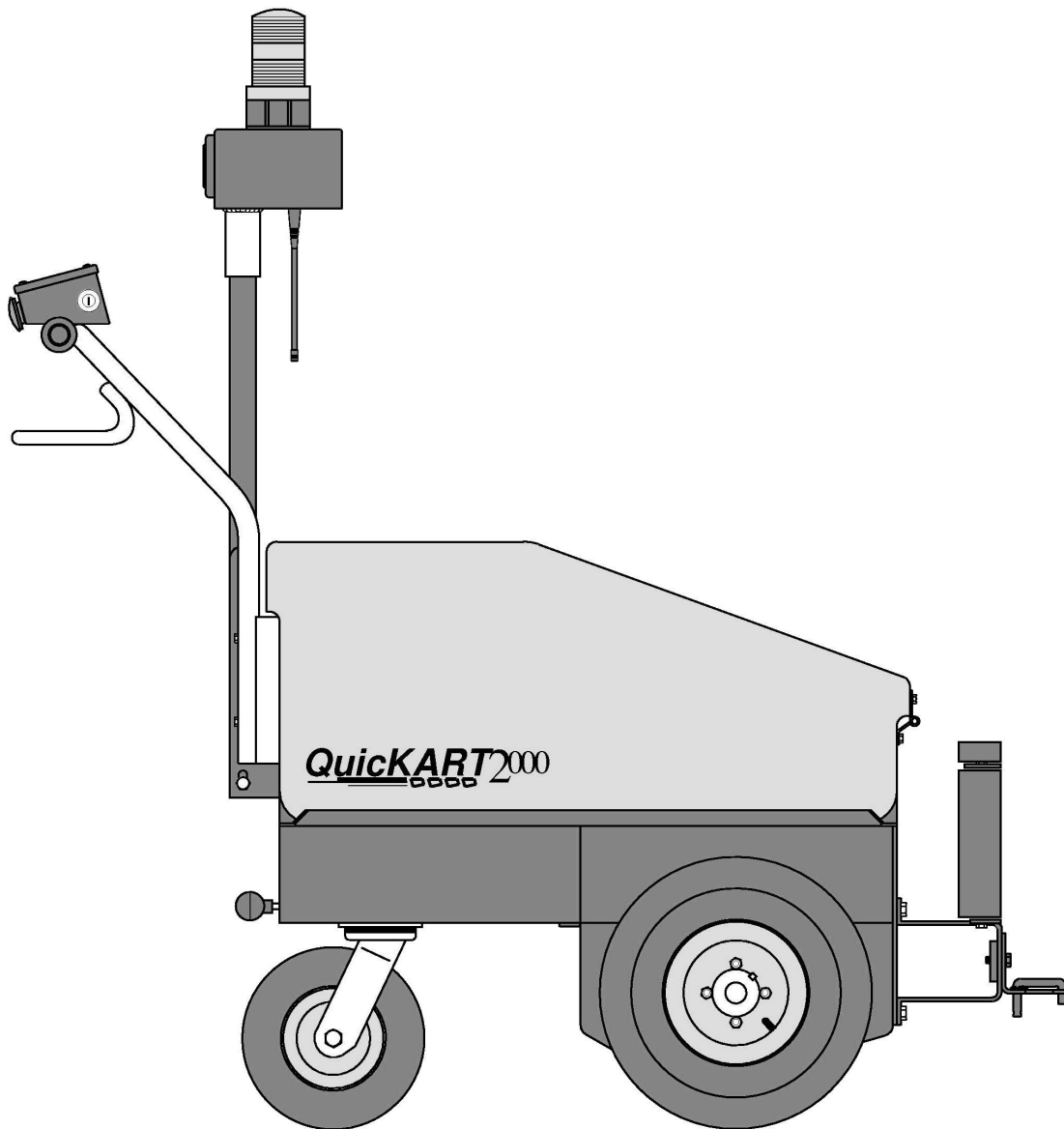


DANE TECHNOLOGIES Inc. 7105 Northland Terrace Minneapolis, MN 55428				PHONE : (763) 544-7779 FAX : (763) 544-4234	
TITLE QUICKKART 2000 SERIES - TROUBLESHOOTING CHART					
DWG/PART NO.	970-020	DRN BY:	JJH	SCALE	NA
DWG DATE	3/1/06	SHEET 11 OF 12			





QuickKART 2000 Training Manual



Prepared by Dane Technologies
Rev. Date: 10-10-05

QuickKART 2000 OPERATOR TRAINING MANUAL BASIC INFORMATION

Purpose of QuickKART:

The task of collecting shopping carts from the parking lot and returning them to the cart storage area/room is a job that can be time consuming, monotonous and expose associates to injuries such as sprains and strains. The QuickKART is a battery powered machine that assists in the collection of shopping carts. By utilizing the QuickKART to collect shopping carts the collection process becomes more efficient, enjoyable and greatly reduces the need for associates to manually push carts.

Trainer's Guide:

The Trainer's Guide which follows is designed to provide a step by step approach to presenting a QuickKART Operator Training and Certification Program for employees. This guide will aid you in training associates on the proper operation of the QuickKART.

Operator Requirements:

Those employees who may be expected to operate the QuickKART must be trained and authorized to operate it before being permitted to use it. Successful completion of the training program and quiz shall qualify as being trained and authorized.

No one under the age of 16 years old may be permitted to operate the QuickKART. The Department of Labor and Industry in some states may require that operators of the QuickKART be 18 years old or older.

Any associate involved in an accident or injury involving the QuickKART must be retrained.

Training:

Training is an important way of making sure all associates understand how the QuickKART operates and how to use it to collect shopping carts from the parking lot.

There are several different ways we can learn. Some people learn more quickly from watching a videotape and reading while others may require hands on training and/or more time and attention. Take the time to answer all questions and clarify the material.

Training Documentation:

The Operator Training Program includes a Quiz and Performance Skills Certification. Those associates who successfully pass both of these sections are permitted to operate the QuickKART. Copies of this documentation are to be kept in the associate's personnel file/training file.

Maintenance Requirements:

Those associates who may be expected to perform routine maintenance must review the Owner's/Operator's Manual and follow instructions outlined in the manual for each task.

Following Routine Preventative Maintenance Procedures as outlined in the QuickKART Owner's Manual (see pages 15 and 40) will help prevent mechanical breakdown and costly repairs.

QuickKART 2000 OPERATOR TRAINING MANUAL

Trainer's Guide

Program Preparation: The following items should be considered when preparing for the QuickKART Training Program:

1. Obtain a quiet area/room in which to conduct the training. Ensure that the temperature is comfortable and area is well ventilated.
2. Schedule the training session and be sure all participants are notified either in writing or verbally.
3. Assemble the following materials:
 - Color TV/Monitor.
 - 1/2" VHS Player.
 - Dane Technologies QuickKART Training Video.
 - Pencils.
 - Sufficient copies of Quiz for QuickKART Training
 - Best Cart Collection Route for your store.
 - OPTIONAL: Handouts or transparency of pages 64 - 67.
 - OPTIONAL: Transparency of Quiz Answer Key
 - OPTIONAL: Overhead.
4. Review the following material:
 - Basic Information regarding QuickKART Operator Training (see pages 59 and 60).
 - Training Script for QuickKART (next pages).
 - Dane Technologies QuickKART Training Video.
5. The trainer needs to be familiar with the QuickKART and comfortable with the actual operation and use of the QuickKART.

6. Practice presenting the program if you have not done it before or if it has been a considerable length of time since you last presented it.

Presentation:

1. Set-up and test the TV, VCR and videotape before the training session is scheduled to begin. Be sure the videotape is rewound.
2. Prepare all materials and set-up chairs and tables so that they are arranged appropriately.
3. Remember to encourage associates to take an active role in their learning.

CLASSROOM Training Script:

Welcome: I would like to thank you for coming to this training.

Introduction: During the next hour you will be learning how to operate the QuickKART which is an electronically powered shopping cart collection machine.

Purpose of Machine: The purpose of the QuickKART is to make the cart collection process easier, more efficient and enjoyable.

Review of Topics: As part of this training we will:

1. View a videotape on the operation of the QuickKART which is approximately 12 minutes long.
2. Briefly discuss some specific operating procedures for the machine.
3. Take a quiz on the proper operation of the machine.
4. Review proper answers to the quiz.
5. Go outside and show you how to run the machine, have each of you operate it and then qualify you on the operation of the QuickKART.

Videotape Introduction: To begin, let's view a videotape that was provided by Dane Technologies, which is the developer of the QuickKART. The video will introduce you to the machine and show you how to properly operate it.

Play Tape: (Dim lights and present videotape).

Summarize Important Operating Practices: The videotape addressed those things you need to know order to operate the machine properly and safely. However, there are some operating issues we feel are worth repeating as well as some additional operating procedures that need to be addressed.

QuickKART Important Operating Procedures: See next page.
(Optional Handout/
Transparency)

QuickKART 2000 IMPORTANT OPERATING PROCEDURES (Optional Transparency and/or Handout)

Review of procedures for trainees:

1. Before operating the QuickKART, check to be sure all tires look in good condition, check that the light is flashing, steering is ok and brake works. If any problems are identified, do not operate machine--remove key and notify supervisor.
2. When proceeding down a sloped lot with a chain of carts, walk to the side of the front cart and hold back on the lead cart or use strap to prevent carts from separating. Proceed at a pace that will allow you to stop carts fairly quickly should the need arise.
3. Never stand or walk in front of carts being pushed or attempt to stop carts by standing in front of a chain of carts.
4. When passing through a narrow area with chain of carts, allow enough room between carts and any fixed object so that you don't become wedged between them.
5. Never allow anyone to ride on shopping carts when collecting carts. Slowly stop the QuickKART and politely ask the person to get off.
6. When approaching employees or customers with a chain of carts, slow down and allow them to pass where possible; otherwise, politely indicate, "Excuse me please, cart collection passing through. Thank you."
7. The person who is directing the chain of carts must always be in possession of the remote control transmitter and in control of the speed of the QuickKART and chain of shopping carts.
8. Never attempt to "steer" a line of carts by using the handles on the machine. Always use the remote control and lead from the front when two or more carts are loaded at the front of the QuickKART.
9. If for any reason the QuickKART does not stop properly or is not completely under your control, press the emergency shut-off button on the control panel, remove key and notify your supervisor immediately.
10. When battery level on the QuickKART control panel indicates 20% or less, drive it to the designated parking area and plug it into the electrical receptacle for recharging. This will help to keep the batteries charged. Parking area must be in a large, well-ventilated area to prevent buildup of explosive hydrogen gas. Do not smoke or permit any open flame or spark sources nearby when charging batteries.

11. If the remote control unit for the QuickKART does not work, check to be certain the QuickKART mode is set for Remote. If it still does not work the batteries may need to be replaced. Last, make sure that the programmable code in the hand held remote matches the store's code.
- 12 Remember when collecting carts and returning them to the store that you physically have to steer and stop the carts. Adjust your speed so that you maintain control of the carts and can react quickly to pedestrian and vehicle traffic.
- 13 As you turn corners from the front of the line of carts, make sure that the QuickKART clears objects such as curbs or posts.
- 14 The speed of the QuickKART in the Manual Mode is determined by how far you turn the twist grip throttle. Braking is done by releasing the twist grip throttle. The quicker you release the throttle the faster the QuickKART stops.
- 15 Upon approaching the cart storage room/area with a chain of shopping carts, stop using the QuickKART to push the carts and manually push no more than 10 carts or the store policy at a time through the cart room door(s) and into the cart room. Do not use the QuickKART to push the carts through the cart room door since this can be a congested or narrow area.
- 16 Avoid blocking the drive lane areas with shopping carts. Select an approach to the cart room that won't cause shopping carts and the QuickKART to protrude into the drive lane when stopped and manually pushing carts into the cart room.
- 17 Always use caution on wet or slippery pavement. Stopping distances are greater and the risk of slip and falls increase. In these conditions, reduce the number of carts to a number that can be managed safely.
- 18 Always operate the QuickKART safely and courteously. Do not assume that drivers or pedestrians will see you and stop.

QuickKART 2000 WARNINGS AND SAFETY NOTES (Optional Transparency and/or Handout)

The manufacturer of the QuickKART provides the following warnings and safety notes:

1. When the QuickKART is to be left unattended or in storage, always turn the key to the “off” position and remove the key. Also, do not leave the QuickKART unattended while in Remote Mode.
2. Operate the machine only as fast as safety considerations will allow, taking into consideration the location of store entrances, driveways and parking lot layout.
3. Always take operating conditions, such as wet or slippery pavement, into consideration. Do not push more carts than the individual operator can safely control given those conditions. Do not exceed 30 carts under any conditions.
4. Do not drive off from curbs or edges of hardened surfaces of over 1 inch high.
5. Only one operator should operate the QuickKART at any time.
6. During Manual operation, the operator of the QuickKART must stand behind the QuickKART. Never ride on the QuickKART.
7. Do not attempt to turn the machine when pushing more than one grocery cart.
8. Always look behind the QuickKART before and while operating in reverse.
9. The QuickKART is intended to push shopping carts. Any other use of the machine is prohibited unless specifically endorsed by the manufacturer.
10. Hydrogen gas is formed when charging the batteries. Use adequate ventilation when charging batteries. Never smoke near batteries. Do not charge batteries in an area with open flame or around electrical equipment that could cause an electrical arc.
11. **Even though you likely won't be performing maintenance of the QuickKART you should still know that the battery cable, marked with the red connector, must be disconnected from the junction box any time maintenance is being performed under the cover!**
12. The electrolyte in a storage battery is an acid which can cause severe burns to the skin and eyes. Treat all electrolyte spills with an extended flushing with clear water. Contact a physician immediately. Always use protective eyewear, (chemical splash goggles or face shield), when handling the batteries.

13. Do not lay any metal objects, wrenches, screwdrivers, etc., on any of the batteries to prevent electrical short circuits.
14. Wear appropriate protective clothing when working with batteries. Electrolyte can cause severe burns to the eyes, skin and clothing.
15. Batteries are heavy. Proper care must be taken when lifting to avoid injury.
16. Improper usage and operation of the QuickKART may void the warranty.

Question and Answer:	Are there any questions?
Collect Handouts:	(If handouts provided collect them at this time for reuse at next training session).
Quiz:	<p>If no other questions, I will pass out a quiz that I would like you to complete. Please be sure to write you name, store location and date on the quiz.</p> <p>When you are finished with the quiz, please turn it over and wait until everyone is done with it.</p>
Correct Quiz:	Since everyone is done with their quiz, please switch quizzes with a person next to you or behind you. (If only one associate is being trained, correct the answers as you review them with the associate.) As we review the quiz, please correct the one you have.
Review Best Answers to Quiz:	(Use Answer Key).
Add Score:	Please add up the number of correct answers and write it at the top of the quiz.
Collect Quizzes:	(Collect and keep quizzes at hand for follow-up procedure after hands-on training. Remember to take the quizzes with you for the demonstration and performance training section).
Review Cart Collection Route for Store:	This cart collection shows the suggested routes that should be taken for this store for ease of returning carts to cart room and avoid blocking the drive lane. Note the pattern and direction of approach to cart room. As you become proficient with the cart collection process you may find alternative collection routes that work equally as well or better.
Proceed to Cart Room or Where the QuickKART is stored:	At this point; I need everyone to proceed to the front cart room where I will show you how to run the machine.

DEMONSTRATION TRAINING SCRIPT:

Show How To Turn The Machine On:	In order to start the machine the key switch located on the control panel is turned clockwise.
Perform Actual Inspection of QuickKART:	As indicated in our training, check the tires for proper air pressure (unless foam filled), tire wear, check that flashing light works, check charge level, and check steering and braking before moving off.
Show the Location of The Throttle:	With the machine set in the Manual Mode and direction of travel in forward, by twisting the twist grip throttle the machine will move forward.
Drive Machine to Cart Corral:	If you will follow me as I drive over to the cart corral I will continue to show you how the machine operates.
Explain How to Connect Cart to Cart Coupler:	In order to connect a shopping cart to the cart coupler, lift up on the rear of the cart and slide rear legs of cart into slots on cart coupler and place the locking pin in the closed position so that it securely holds the shopping cart in place.
Remote Control Transmitter:	At this point switch to the "Remote" Mode on the QuickKART Control Panel. Collect carts and nest them into the cart/chain of carts on the front of the QuickKART.
Explain and Physically Direct Carts to Next Cart Corral:	While standing to the side of the lead cart, put your thumb over the slow forward switch on the hand held remote control. Press slow forward to start the chain of carts moving forward and quickly slide your finger over to the fast forward to increase the speed of the machine as conditions permit.
Stopping:	As you approach your destination, slide your finger back to the slow forward button or just let your finger off the button. Remember that you need to hold back the lead cart since you are acting as the brake for the chain of carts.
Quick Stop:	To make the QuickKART stop faster you can press the stop button on the remote control. However, you will still need to hold back the carts.
Collect Maximum of 30 Carts:	We continue to add up to 30 carts. If the slope of the lot is steep or snow or ice has accumulated, limit the carts to a manageable number.

Proceed to Cart Room:	Since we now have a large chain of carts we will proceed back to the cart room.
Show and Explain How To Get Carts Inside:	Now that we are just outside the cart room, we need to stop using the QuickKART and proceed with manually pushing a maximum of ten (10) at time into the cart room. You can still use the QuickKART to advance the chain of shopping carts up to the cart room doors.
Back-Up Machine:	To back up the QuickKART, press the push button beneath the “MAN/REM” LED until the “MAN” LED illuminates. Then press the push button beneath the “FWD/REV” LED until the “REV” LED is illuminated. Looking backward, back it up until you can proceed forward.
Explain How to Switch To Forward:	To go forward, press the button beneath the “FWD/REV” LED until the “FWD” LED is illuminated.
New Cart Collection Cycle:	You are now ready to perform another cart collection cycle.
Disconnect Cart from Cart Coupler:	Once we have gotten all the carts in the cart room and done for the night, disconnect the cart from the cart coupler using the reverse of the procedure used to connect it.
Charging:	(Show where QuickKART is parked and how to charge the batteries.)

PERFORMANCE TRAINING:

Hands-On Training:	Have each trainee go through an entire cart collection process while you observe to be sure each person can operate the machine properly. If unable to perform the process competently, show them the process once again and then recheck. Use the Performance Training Check-Off on the bottom of the quiz to document results of each trainee’s operation of the QuickKART.
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FOLLOW-UP:	Check the quiz and ensure each associate passed with an 80% score or better. If not, those associates need to repeat the training. Answering 12 or more questions correctly is a score of 80% or better.
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Be sure you record on the bottom of the associate's quiz whether they displayed the ability to operate the QuickKART based on their hands-on training.

Place quiz in associate's personnel file.

Store: _____
 Location: _____
 Meter Hours: _____
 Sticker Condition _____

Date: _____
 Serial Number: _____

QuickKART 2000 and 2500 Preventive Maintenance

PM Checklist	Inspected	OK	Needs Repair/Replacement
Inspect cord, cord plug, cord reel			
Inspect and test brake release system			
Inspect, clean battery terminals and cables			
Inspect throttle			
Check wiring, wiring plugs for damage			
Check battery charger operation			
Check battery fluid levels			
Inspect tires, rims, and lug nuts			
Inspect body parts			
Inspect and grease rear caster			
Inspect for handle bar damage (play in handle)			
Inspect beacon tower Strobe light			
Brake light			
Antennas			
Inspect and test remote Battery			
Range			
Inspect control panel Ignition switch			
Emergency stop button			
Function test			
Inspect rollers and yokes			
Operation test			

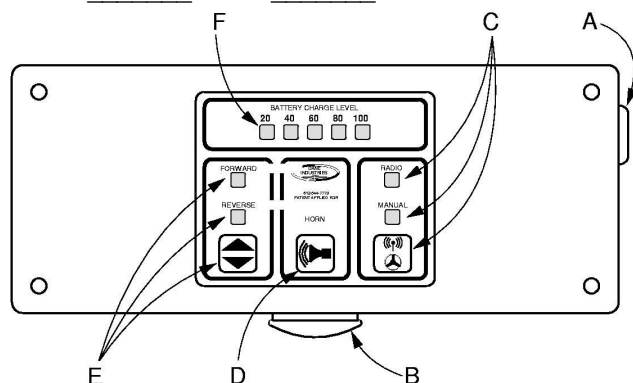
Any other problems: _____

Comments: _____

QuicKART 2000 QUIZ

Your Name: _____ **Date:** _____ **Store Location:** _____

- The approximate maximum number of shopping carts that should be pushed by the QuickKART is:
A. 10 B. 20 C. 30 D. 50
- While directing a chain of carts using the QuickKART, the operator should walk to the side of the lead cart and hold it back to prevent the carts from separating and also enable them to be stopped promptly. True _____ False _____
- The QuickKART can be used to push a chain of shopping carts into the cart room. True ____ False ____
- When approaching customers or employees with a chain of carts being pushed by the QuickKART proceed toward them at your normal operating speed. True _____ False _____
- During manual operation, the brake on the QuickKART is applied by releasing the throttle grip.
True _____ False _____
- Before beginning to use the QuickKART, be sure to check (select only one)
A. The condition of the tires. D. Flashing light is working.
B. Battery charge level is greater than 20%. E. All of the above.
C. Brake for proper operation.
- When manually operating the QuickKART, it's acceptable to operate several carts attached to the front of the machine. True _____ False _____
- The QuickKART can be driven off curbs and on grass surfaces. True _____ False _____
- When the QuickKART is to be left unattended or in storage, turn it "OFF" and remove the key.
True False



For each item below, identify its location on the control panel in Figure 1 and write the appropriate letter next to the item.

ITEM DESCRIPTION

10. Direction Selector Button
11. Key Switch
12. Charge Level Indicators
13. Manual/Remote Selector
14. Horn
15. Emergency Shut-Off

Letter

Number Correct: _____



To be completed by trainer.

PERFORMANCE TRAINING

Observe the associate perform the following tasks and indicate if he/she displayed acceptable operation. For successful completion of training associate must display ability to properly perform all three operating tasks:

Control Panel Use

Ok Unacceptable

Manual Operation of QuicKART

Ok	Unacceptable
----	--------------

Cart Collection in Remote

Ok		Unacceptable	
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

Trainer: _____ Date: _____

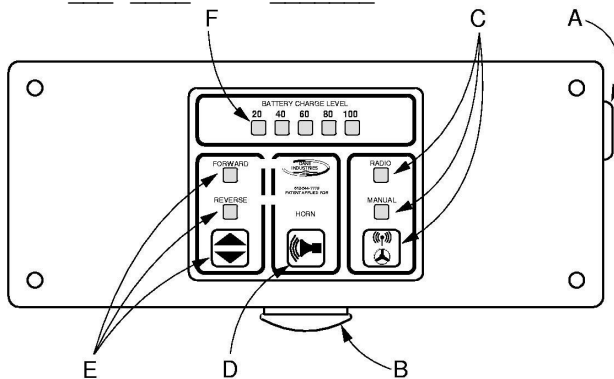
If performance training was not successfully completed, do not allow the associate to operate machine on their own until retrained and re-evaluated. If re-evaluated, make note below.

Note:

QuickKART QUIZ --- ANSWER KEY

Your Name: _____ **Date:** _____ **Store Location:** _____

1. The approximate maximum number of shopping carts that should be pushed by the QuickKART is:
A. 10 B. 20 C. **30** D. 50
2. While directing a chain of carts using the QuickKART, the operator should walk to the side of the lead cart and hold it back to prevent the carts from separating and also enable them to be stopped promptly. True **X** False _____
3. The QuickKART can be used to push a chain of shopping carts into the cart room. True _____ False **X**
4. When approaching customers or employees with a chain of carts being pushed by the QuickKART proceed toward them at your normal operating speed. True _____ False **X**
5. During manual operation, the brake on the QuickKART is applied by releasing the throttle grip. True **X** False _____
6. Before beginning to use the QuickKART, be sure to check (select only one)
A. The condition of the tires. D. Flashing light is working.
B. Battery charge level is greater than 20%. E. **All of the above.**
C. Brake for proper operation.
7. When manually operating the QuickKART, it's acceptable to operate several carts attached to the front of the machine. True _____ False **X**
8. The QuickKART can be driven off curbs and on the grass. True _____ False **X**
9. When the QuickKART is to be left unattended or in storage, turn it "OFF" and remove the key. True **X** False _____



For each item below, identify its location on the control panel in Figure 1 and write the appropriate letter next to the item.

ITEM DESCRIPTION

10. Direction Selector Button
11. Key Switch
12. Charge Level Indicators
13. Manual/Remote Selector
14. Horn
15. Emergency Shut-Off

Letter

- | |
|---|
| E |
| A |
| F |
| C |
| D |
| B |

Number Correct: _____



To be completed by trainer.

PERFORMANCE TRAINING

Observe the associate perform the following tasks and indicate if he/she displayed acceptable operation. For successful completion of training associate must display ability to properly perform all three operating tasks:

Control Panel Use

Ok _____ Unacceptable _____

Manual Operation of QuickKART

Ok _____ Unacceptable _____

Cart Collection in Remote

Ok _____ Unacceptable _____

Trainer: _____

Date: _____

If performance training was not successfully completed, do not allow the associate to operate machine on their own until retrained and re-evaluated. If re-evaluated, make note below.

Note: _____

QuicKART QUIZ ANSWER KEY

	<u>NUMBER</u>	<u>CORRECT ANSWER</u>
1.	C	(Approximately thirty (30) carts maximum)
2.	TRUE	(Always stand to the side, never in front and hold back on the lead cart.)
3.	FALSE	(Upon reaching the cart room doors, manually push a maximum of 10 carts into the cart room.)
4.	FALSE	(Slow down and wait for them to pass and make presence known)
5.	TRUE	(The twist grip throttle controls speed and braking)
6.	E	(Tires, battery charge, steering and brakes and flashing light)
7.	FALSE	(Only operate manually with one attached cart.)
8.	FALSE	(This could damage machine and is not a safe practice)
9.	TRUE	(Machine must be turned " OFF " and remove the key)
10.	E	(Forward, Reverse Selection)
11.	A	(Key Switch)
12.	F	(Charge Level Indicators)
13.	C	(Manual/Remote Selector)
14.	D	(Horn)
15.	B	(Emergency Shut off)

Twelve or more correct answers produces a score of 80% or better.