V. SPECIFICATIONS

POWER: 120 VAC, 60Hz, 120 WATTS MAXIMUM, 1 A. FUSE;

CHARGE TIMER: Programmable 3,5,7,9,12,16 hours

CHARGER REQUIREMENTS: Most 3 to 16 hour fixed current chargers.

TRICKLE RATE: PULSED AC line voltage duty cycle meets C/40 requirements

BOX DIMENSIONS: 2.25" X 4.1" X 2.65"

LIMITED WARRANTY

The AUTO-TRICKLE ADAPTER is warranted to the original purchaser for a full 2 YEARS from the date of purchase to be free from defects in material and workmanship. During this period Tejera Microsystems Engineering Inc. will repair or replace, at their discretion, the defective unit. Be sure you fill out and return your warranty registration card below.

This warranty does not apply to any unit which has been abused, improperly installed, improperly used, used for purposes other than those purposes for which the unit was designed, handled roughly, damaged in shipment, nor to any unit which has been altered or repaired by unauthorized personnel. Under no circumstances will the buyer be entitled to incidental or consequential damages. This Limited Warranty gives you specific legal rights, you may also have other rights which vary from state to state.

WE STRONGLY RECOMMEND THAT THE COMPATIBILITY OF THIS DEVICE BE VERIFIED BEFORE RELYING ON IT. AS A NORMAL PRECAUTION WE RECOMMEND THE TESTING OF ALL BATTERIES PRIOR TO AND DURING OPERATION WITH RADIO CONTROLLED EQUIPMENT.

WARRANTY PROCEDURE:

NOTE: Fuse replacement is not covered under this warranty.

A minimum charge of \$4.00 to cover shipping and handling is required on all returned units, and should be enclosed with the unit. You must enclose your Bill of Sale as proof of purchase with the unit. (A legible photocopy is acceptable.) In the event that the work is not covered under the warranty, the unit will be repaired and returned C.O.D. (for repair charges) to the owner unless special instructions are received with the unit.

REPAIRS:

For out of warranty repairs the standard repair fee per unit is 50% of the suggested retail price plus \$4.00 shipping and handling charges. Please prepay or supply credit card information along with a telephone number or we will repair and return the unit C.O.D.

ALL RETURNS MUST BE SENT TO: Tejera Microsystems Engineering, Inc.,

Visit our web site for our current address.

www.TMEnet.com



Warranty Registration

TME, Inc. limited warranty becomes effective upon the date of purchase. However, this form must be filled out and returned within 10 days to validate the warranty.

Date Purchased	Product model#	Model	CMD-2000	
Name	Signature			
Address				
City	STATE	7IP		

$\pmb{CHARGEminder^{_{\text{TM}}}}$

USER'S MANUAL MODEL 2000



INTRODUCTION

Congratulations for having purchased the CHARGEminder by Tejera Microsystems Engineering, Inc.. You are now the owner of the best and most cost effective way of keeping your NiCd batteries safely and automatically in a constant state of readiness. The CHARGEminders' unique microprocessor circuitry works with your existing overnight charger(s) to prevent overcharging. It also safely maintains the charge on your batteries indefinitely by converting your charger into a pulse trickle charger. The gentle pulse trickle effect not only gives you a visual indicator but tests have proven it is actually better for your NiCd battery's life than conventional trickle charging. The CHARGEminder is simple to use since it just plugs into the wall outlet before your charger. There is nothing else to buy and no soldering is required. Simply plug it in and go! For obtaining the maximum benefit from this product please read the following instructions very carefully.

I. INSTRUCTIONS

IMPORTANT NOTE:

DO NOT PLUG ANY <u>SURGE PROTECTING</u> STRIPS (REGULAR POWER STRIPS WITH BREAKERS ARE OK), OR ANY OTHER TYPE OF DEVICE EXCEPT FOR OVERNIGHT NICD BATTERY CHARGERS INTO THE AUTO-TRICKLE ADAPTER. Before operating the unit the CHARGEminder must be set to match the SPEED of the battery charger. Pick the time (in hours) on the CHARGEminder that either exactly matches or is slightly lower than the time recommended by your chargers manufacturer.

INSURING COMPATIBILITY - PLEASE READ

The CHARGEminder IS COMPATIBLE with almost all inexpensive (or dumb) chargers.

To insure compatibility prior to use, the following test must be made. Note that this test does not require the use of the CHARGEminder.

STEP 1. Fully charge your batteries in the normal fashion.

STEP 2. Unplug the battery charger from the wall while <u>leaving the batteries</u> connected to the charger.

STEP 3. On a daily basis for the next seven days, test the batteries by temporarily connecting them to your equipment and verifying normal operation. If after seven days your batteries still have adequate capacity to operate your equipment, the charger is "trickle compatible" with the CHARGEminder Adapter.

The reason for this test is that some charger designs can actually DIS-CHARGE the batteries when unplugged from the AC outlet. The CHARGEminder ADAPTER uses an on / off technique to create a pulse trickle effect. Chargers that load down (discharge) your batteries may not effectively produce enough charge to maintain an effective trickle. A diode may easily be added to your charger to rectify this problem if necessary. For more information on this consult the factory or their web site at "www.TMEnet.com"

OPERATION

Using your CHARGEminder it is as easy as 1, 2, 3.

STEP 1. Plug it in.

Plug the CHARGEminder into the wall outlet first. Then plug the charger you want automated into the CHARGEminder's outlet on the front.

STEP 2. Set the timer once.

The CHARGEminder allows you to select programmable times for 3, 5, 7, 9, 12, and 16 hour chargers. If your charger is between these numbered hours, pick the next lower number. Example: You have a 8 hour charger, pick the 7 hour setting. The trickle charge at the end will insure a full charge.

Push and hold the start button on the face of the unit for more than 3 seconds. Continue to hold until the lights indicate the number of hours your charger is rated. When you see the proper time selected immediately let go of the button.

NOTE: For 3, 5 and 7 hour timing there will only be one RED light on at a time. When one light is on, use the number <u>ABOVE</u> the RED light. When the GREEN light on the right comes on, use the number <u>BELOW</u> the RED light to indicate the number of hours.

STEP 3. Push Start to begin charging.

Once the CHARGEminder is set as shown above, the CHARGEminders RED light will blink on and off to indicate it is in TRICKLE or maintenance charge. Momentarily push the start button to start a charge cycle.

Note that during the charge cycle the red light will stay on and not blink. The RED light and the charger you have plugged in will remain ON for the pre-selected number of hours. It will then automatically go back to trickle until you push the start button again.

If for any reason you want to abort the charge timer and go back to trickle, just momentarily push the start button and you will see the CHARGEminder's lights blinking again.

NOTE: For battery safety reasons, a prolonged power blackout will reset your CHARGEminder to the 3 hour setting. Please verify the number of hours before you push the start button.

II. FUSE REPLACEMENT

If your charger does not work when connected to the unit, you may have exceeded the maximum 120 watt capacity and blown the fuse. To check or replace the fuse you will need to UNPLUG THE UNIT and carefully remove the four screws on the box. The fuse may be removed by gently pulling it away from its clips. Be sure to replace with a 1 Amp Fast blowing fuse only. Carefully reassemble the unit before plugging it into a power receptacle.

III. SPECIAL NOTES

WHAT IF I CHANGE MY MIND AND I DON'T WANT TO QUICK CHARGE MY BATTERIES?

To stop the charge timer and go back to trickle mode prematurely, simply push the switch once again. The charger will go back to trickle mode.

WHEN SHOULD I CHARGE MY BATTERIES?

When using chargers that fully charge your batteries in less than 12 hours or less DO NOT initiate a full charge period to a fully charged battery. Best results are obtained by using your batteries until they just begin to die out before placing them back on charge or leave them on trickle as described below. When using 16 hour or "overnight" chargers, you may initiate a full charge period even if there is a residual charge in the battery. Overnight chargers are much more forgiving to overcharging. However do not initiate a full charge period to a fully charged overnight battery more than twice per week.

IF YOU ARE NOT IN A HURRY

In most cases the trickle rate alone will fully charge your discharged batteries in about three to four days. If you are not going to need your batteries charged right away, TRICKLE is the ideal way to let your batteries slowly come up to charge.

IV. CHARGING TIPS and SUGGESTIONS

If battery running time is VERY IMPORTANT to you then it is VERY IMPORTANT TO CYCLE or CONDITION (test) your NiCd batteries once every two or three months of use. We also recommend testing after a very long term period in trickle mode simply as a precautionary test.

The main reason for cycling is to predict any negative trends and to uncover anything that has gone wrong with your charging system. This is critical with flying models. Cycling immediately after use allows you to gauge your systems operating time.

KEEP YOUR BATTERIES COOL! The CHARGEminder ADAPTER will safely reduce the output current of your chargers to prevent internal heat buildup. However, storing or charging them in a hot garage or basement will speed up the chemical reactions in a NiCd. Charging in a hot environment will result in reduced battery capacity and can lead to premature shorts.

THE CHARGEminder ADAPTER may be used with some overnight GEL CELL and WET CELL battery chargers. MAKE VERY SURE before trying that if you take 25% of your chargers available output current, that your battery's maximum float or trickle rate is not exceeded. Once the GEL OR WET CELL IS ON TRICKLE, IT IS BEST TO DISCONNECT IT FROM THE CHARGER. THESE CELLS DO NOT SELF DISCHARGE AS FAST AS NICA BATTERIES AND THEREFORE DO NOT REQUIRE A TRICKLE CHARGE. Leaving GEL CELLS on for long periods may cause leakage. Wet cells may dry out in time as well.