



# TEXAS INSTRUMENTS HOME COMPUTER

## EARLY LEARNING FUN

EDUCATION

### SOLID STATE CARTRIDGE

Colorful and exciting educational activities help teach shape and number recognition, counting, sorting, and the alphabet, as well as first computer skills. Fun for children ages 3 through 6.



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## Quick Reference Guide

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Note that the key sequences required to access special functions depend on the type of computer console you have. Important keystroke sequences are summarized here for your "quick reference."

TI-99/4   TI-99/4A   Action

<b>Space Bar</b>	<b>Space Bar</b>	Instructs computer to repeat activity. Only used when "WANT TO PLAY AGAIN?" screen appears.
<b>Zero key</b>	<b>Zero key</b>	Instructs computer to go to next activity. Only used when "WANT TO PLAY AGAIN?" screen appears.
<b>SHIFT P</b>	<b>FCTN P</b>	Returns to the instruction screen for the activity being played. Used while any module activity is played.
<b>Period key</b>	<b>Period key</b>	"Flips" through beginning screens of each activity in the module. When released, goes to instructions for that activity.
<b>SHIFT R</b>	<b>FCTN 8</b>	Returns to selection list of categories in module.
<b>SHIFT Q</b>	<b>FCTN =</b>	Returns to main computer title screen.

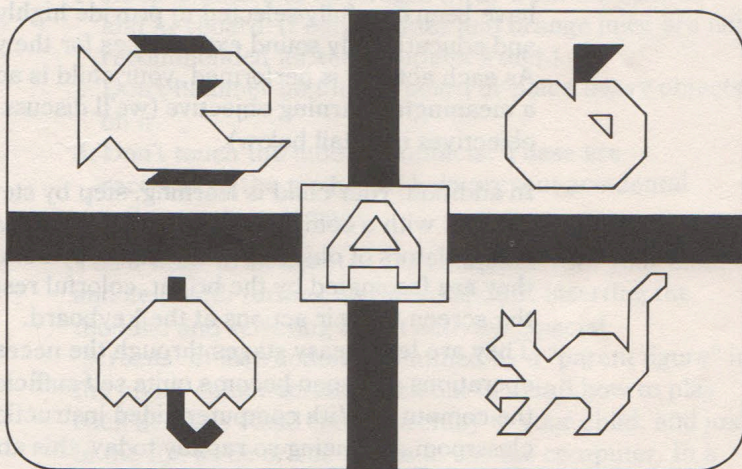
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TEXAS INSTRUMENTS  
HOME COMPUTER

## *Early Learning Fun*



This *Solid State Software*™ Command Module is designed to be used with the Texas Instruments Home Computer. Its preprogrammed solid-state memory expands the power, versatility, and capability of your Home Computer.

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Command Module program and data base contents  
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See important warranty information at back of book.



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## TEXAS INSTRUMENTS HOME COMPUTER

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### A NOTE TO PARENTS

Your child's capacity for "learning by doing" is well known to you. You've watched him or her grow and absorb knowledge daily, and you know first-hand the thrill of discovery your child feels at mastering new skills.

Now we invite you and your child to join us in an exciting learning adventure. The activities in this module have been carefully selected to provide highly enjoyable and educationally sound experiences for the young child. As each activity is performed, your child is accomplishing a meaningful learning objective (we'll discuss these objectives in detail below).

In addition, your child is learning, step by step, how to interact with a computer. Children are natural manipulators of objects — they "learn by doing" — and they are fascinated by the bright, colorful responses on the screen to their actions at the keyboard. They are led in easy stages through the necessary operations and soon become quite self-sufficient in using the computer. With computer-aided instruction in the classroom advancing so rapidly today, this ability is an important plus for your child.

Best of all, your child is having fun while involved in these activities. The absorption of new knowledge, the mastery of new skills, a sense of accomplishment and success in a "grown-up" world — these are exciting rewards that are vital to a child's development.





### YOUR CHILD AND THE COMPUTER

The Texas Instruments Home Computer is a rugged, durable device designed to be easy to use and care for. Just teach your child to give the computer the same good care and respect he or she would give a television set, record player, radio, or any other piece of electronic equipment:

1. Keep snacks and beverages away from the console and keyboard. (Peanut butter and orange juice are not recommended for the computer's diet.)
2. Don't hammer on the keyboard or place heavy objects on it.
3. Don't touch the module contacts. These are recessed in the module to help prevent accidental soiling and/or damage.

You'll want to sit down at the computer with your child and help with turning on the computer, inserting the module, and selecting a first activity. Special "screens" of instructions, identified by a "parent figure" in the upper center screen, spell out in detail how to play each activity. Read these carefully to your child, and join in the fun as he or she learns to use the computer. In a short while even very young children, working alone, with a parent, or with an older friend, can have enjoyable, positive learning experiences with these specially designed activities.



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# TEXAS INSTRUMENTS

## HOME COMPUTER

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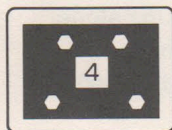
### THE EARLY LEARNING FUN ACTIVITIES

There are four categories of activities in the module: Numbers, Shapes, Sorting, and the Alphabet. Within each group the activities are arranged according to difficulty, with the simplest exercises first. This "developmental" arrangement helps your child learn the skills he or she needs to progress through the activities.

#### **Number Activities**

These activities are designed to teach and reinforce basic number concepts, such as identifying numbers, distinguishing between numerals, counting, and to familiarize your child with the location and use of the number keys on the keyboard. By seeing a group of shapes on the screen and identifying a numeral with them, your child takes an important step from a pictorial to an abstract representation of the number. He or she learns that the numeric symbol — "2" for example — represents a concrete quantity of "things" — two apples, two books, etc.

#### **"Counting Up"**

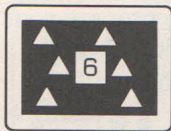


Introduces in sequence the numbers 1 through 9. The concept of counting is presented by showing a numeral and a corresponding number of shapes. At the beginning of the activity, the numeral 1 floats to the center of the screen. The child then presses the number key **1**, and one shape pops on the screen. Next 2 floats to the center; the child presses **2**, and two shapes pop on the screen, one at a time. The activity continues in this way through the numeral 9.



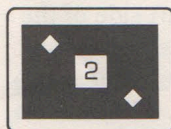


### **"Number Please?"**



Reinforces the number identification and counting skills introduced in "Counting Up." When a number key is pressed, a corresponding number of shapes pop on the display screen, one at a time, with accompanying musical notes. Then the numeral appears in the center of the screen. Another number is then selected and pressed. The activity continues until five numbers have been entered.

### **"How Many Things?"**



Is a true counting activity. A random number of shapes appears on the display screen one at a time, with a musical note sounding as each shape pops on. The child counts the shapes and presses the appropriate number key on the keyboard. The numeral then appears and flashes in the center of the screen. After several seconds the screen clears, and a new set of shapes appears. The activity is played ten times.



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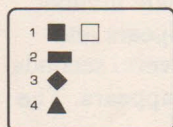
## TEXAS INSTRUMENTS HOME COMPUTER

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### Shape Activities

These activities introduce the important relational concepts of sameness and difference through shape recognition and matching — skills that help prepare your child for learning to read. In addition, "Make a Match" takes your child one step further in using the computer by teaching the basic computer convention of pressing a number key in answer to a question. Notice also that "Shape Hunt" reinforces the counting skills introduced in the Number activities.

### "Make a Match"

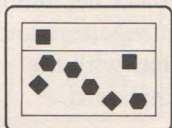


Introduces five geometric shapes — circle, square, triangle, diamond, and rectangle. On the left side of the display screen four shapes appear, arranged in random order and numbered 1 through 4. Then one of the four shapes pops on the right side of the screen. The child presses the number of the shape on the left that matches the single shape on the right. The single shape will then move across the screen and position itself beside the numbered shape. If a correct match has been made, both shapes flash while a musical series of notes is heard. If an incorrect number key has been pressed, the single shape jumps back to its original position with a quick "uh-oh" sound, letting the child know he or she should try again. The activity goes on until ten shapes have been matched.





### "Shape Hunt"

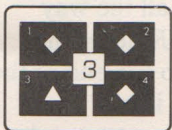


Combines the counting activity of "How Many Things?" and the matching skills introduced in "Make a Match." The display screen is divided into two sections — the top portion is the "sky," and the bottom section is the "sea." The left corner of the sky shows a flashing shape. In the sea are several shapes, some matching the shape in the sky and some different. The child counts the shapes that match the one in the sky and presses that number on the keyboard. If correct, the matching shapes disappear from the sea one at a time and reappear, with accompanying musical tones, in the sky. The activity is repeated eight times.

### Sorting Activity

This activity continues teaching the important concepts of sameness and difference by asking the child to pick out a shape that is *unlike* the other shapes that appear on the display screen. Selection by difference is a more sophisticated skill than the matching exercises presented in the Shape activities, and the activity helps develop your child's problem-solving abilities.

### "Odd One Out"



Uses five shapes to reinforce the ability to discriminate between "same" and "different." Four shapes, numbered 1 through 4, appear on the screen. Three of the shapes are identical, and one is different. The child identifies the shape that "doesn't belong," determines its number, and presses that number on the keyboard. If correct, the number pops on the center of the display screen and remains there, flashing, for several seconds. Then the screen clears and four more shapes appear. The activity is repeated eight times.



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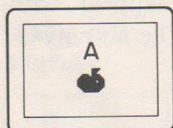
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### Alphabet Activities

These activities continue the "reading readiness" exercises begun in the Shape activities. By associating a letter of the alphabet and a picture of an object beginning with that letter, your child learns to recognize letters and their sounds. He or she also becomes familiar with the location and use of the letter keys on the keyboard.

### "Letter Line-Up"



Introduces the letters of the alphabet, in order, and the concept of initial sounds. The alphabet is divided into four sets of five letters (A-E, F-J, K-O, P-T) and one set of six letters (U-Z). When the last letter of any set has been presented, the activity gives a quick review of all the letters in the set.

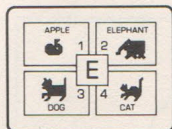
To begin the activity, the child selects and presses any letter key on the keyboard. That letter floats to the center of the display screen. The child presses the letter key again, and the object beginning with that letter pops on the screen with a musical tone. After several seconds, the next letter in the alphabet floats to center screen, and the process is repeated.

The letters are always presented in their alphabetical order, regardless of the starting letter selected by the child. In other words, the child may work all the way through the alphabet by pressing **A** first, *OR* he or she may choose any letter and work through to the end of the alphabet from that point on. For example, if **R** is pressed to begin the activity, the next letter presented after R will be S, and the next T.





### "A Is for Apple"



Continues the letter/sound/word concepts introduced in the activity above. The child is asked to match the letter with the object that begins with that letter. A letter appears in the center of the screen, surrounded by four numbered pictures. One picture shows the object and word that begin with the letter in the center of the screen. The other pictures are different. The child presses the number of the picture that matches the letter. If correct, all the other objects disappear and the letter flashes. Then a new letter and group of objects appear. The activity is repeated ten times.

Each activity begins with a set (or "screen") of clear, simple instructions, marked by a "parent figure" in the upper center screen and carefully worded to give your child the information he or she needs in order to play the activity. These instructions are designed to be read to your child, but after a few times you'll find that he or she will be able to recognize each activity by the colorful, distinctive designs and pictures ("computer graphics") that appear on the screen. Children may need very little help in playing the activities once they are familiar with the keyboard and the contents of the module.

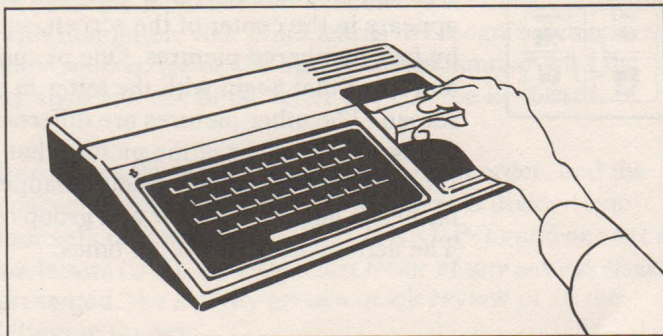


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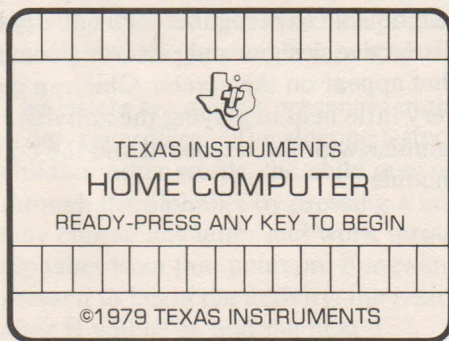
# TEXAS INSTRUMENTS HOME COMPUTER

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## USING THE SOLID STATE SOFTWARE™ COMMAND MODULE



1. *If the computer is OFF*, slide the module into the slot on the console, and turn the computer on. The master title screen should then appear.



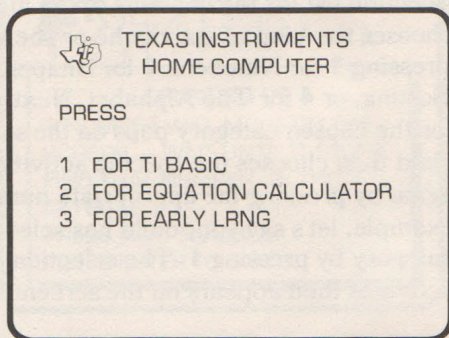
*If the computer is ON*, hold down the **SHIFT** key and press **Q** to make the master title screen appear. Then slide the module into the slot on the console.





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2. Press any key to make the master selection list appear. The title of the module will be third on the list.



3. Press the **3** key to select the module.

(Note: To remove the module, *first* return the computer to the master title screen by pressing **SHIFT Q**. Then remove the module from the slot. If you have any problem with inserting the module, or if it is accidentally removed from the slot while in use, please see "In Case of Difficulty" on page 18.)

**That's all there is to it. You're ready to begin enjoying Early Learning Fun with your child. From this point on, the activities are self-explanatory, and the best way to learn them is to dive right in.** If you'd like a little more information, however, a sample activity is shown below.



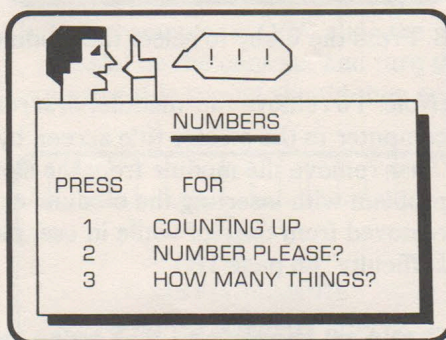
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### A SAMPLE ACTIVITY

The first thing you'll see in the Early Learning Fun module is an engaging title screen, followed quickly by a selection list for the contents of the module. Your child chooses the kind of activity he or she wants to play by pressing **1** for Numbers, **2** for Shapes, **3** for Sorting, or **4** for The Alphabet. Next the selection list for the chosen category pops on the screen, and your child then chooses the specific activity to be played, again by pressing the appropriate number key. For example, let's say your child has selected the "Numbers" category by pressing **1**. The selection list for number activities then appears on the screen:

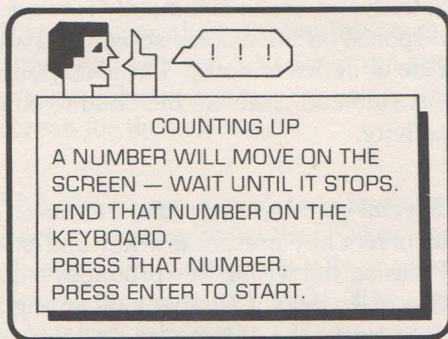






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If your child then presses **1** again, the instructions for playing "Counting Up" pop onto the screen.



When **ENTER** is pressed, the numeral 1 floats to the center of the screen. The child presses the **1** key, and a picture of an object pops on the screen, accompanied by a musical note. After a few seconds, the screen clears and the numeral 2 floats to the center. The child then presses **2** and two objects pop on, one at a time, with two musical notes. The activity continues in this way through the number 9. At that time, the "Want to Play Again?" screen appears.

When the "Want to Play Again?" screen appears, there are four options available to your child. He or she may:

1. press the space bar to repeat the same activity,
2. press the zero key to go immediately to the next activity,
3. press **SHIFT R** to return to the selection list of module activities (to choose a new category), or
4. press no keys at all. After twelve seconds the next activity will automatically begin.



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### SPECIAL FEATURES

#### **"Rewards"**

When your child makes a correct keyboard entry in an activity, he or she is instantly rewarded by a colorful response on the display screen and a bright musical tone or series of notes. These responses reinforce correct answers and motivate the child to continue playing the activity.

#### **Error Signal**

Special care has been taken to make the response to incorrect key presses low-key and non-intimidating. Pressing the wrong key produces a quick "uh-oh" sound that gives instant feedback on wrong answers and encourages the child to try again.

#### **"Want to Play Again?"**

After an activity has been played a specific number of times, the child is offered an opportunity to go on playing that activity or to move on to the next one. The "Want to Play Again?" screen appears and directs the child to press the space bar if he or she wants to repeat the activity. If the space bar is not pressed within twelve seconds, the next activity begins automatically. The child can also press the zero key **0** to instruct the computer to proceed immediately to the next activity.

#### **ENTER key**

This key is pressed to start most of the activities in the Early Learning Fun module.

#### **Space Bar**

The space bar is used only when the "Want to Play Again?" screen appears. It instructs the computer to repeat the present activity.





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## Early Learning Fun

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
### **Zero key**

Again, this key is used only when "Want to Play Again?" appears on the screen. Pressing **0** tells the computer to go immediately to the next activity.

### **SHIFT P**

If you or your child want to review the instructions while playing an activity, hold down the **SHIFT** key and press **P**. This action returns you to the instruction screen for the activity.

### **Period key**

This key allows your child to find a favorite activity quickly. Holding down the  key causes the first screen of each activity to flash briefly on the screen (similar to flipping the pages of a book). When the desired activity is reached, release the  key, and the instructions for that activity appear on the screen.

### **SHIFT R**

Holding down the **SHIFT** key and pressing **R** will instruct the computer to return to the selection list of module contents. This key sequence allows your child to leave one activity and select another quickly.

### **SHIFT Q**

If your child has been playing the module activities and another family member wants to use some other part of the computer, just hold down the **SHIFT** key and press **Q**. This action instructs the computer to leave the module and return to the main computer title screen.

### **Time Alerts**

When no key has been pressed for a period of two minutes, the computer produces a quick "pip, pip, pip" sound and shows the selection screen for the module contents. Then the computer plays a "Westminster Chimes" melody, to notify you it's waiting for some instruction. Fifteen seconds later, with no key presses, the Chimes are repeated. Then, if there is no keyboard response after fifteen seconds more, the computer returns to the main computer title screen.



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### OTHER SUGGESTED ACTIVITIES

Don't be surprised if your child invents new games to play with the Early Learning Fun module. Children are quick to see and implement game possibilities that we adults tend to overlook. Here are a few ideas we've thought of:

#### **Color Identification**

Help your child learn and identify the colors that appear on the screen. Any activity in the module is well suited to this purpose.

#### **Counting**

When playing "Number Please?" help your child learn the correct order of the counting numbers 1 through 9 by pressing the number keys in sequence and counting aloud the objects that appear on the screen. For younger children, you may want to bring blocks or similar toys to the computer and count these also, to add a concrete dimension to the activity.

#### **Shape Identification**

The shapes used in the module activities are basic shapes found in hundreds of real-world situations. Help your child learn the correct names for these shapes. He or she may even have a set of blocks that includes circles, squares, triangles, and rectangles. Using these blocks along with the activities on the screen gives an important tactile dimension to this experience. "How Many Things?," "Make a Match," and "Shape Hunt" are good places to try this activity.





### **Letter Sounds (Phonics)**

In the letter activities, you and your child can try to think of other objects that begin with the letter on the screen. Younger children will need guidance in identifying beginning sounds and associating them with letters, but older children may even be able to identify the sound a letter makes within a word. For the vowel letters (a, e, i, o, u) in the module, the short vowel sounds are used (apple, elephant, igloo, octopus, and umbrella). Explain the long vowel sound – "the letter says its name" – and help your child think of words beginning with these sounds.

### **CARING FOR THE MODULE**

These modules are durable devices, but they should be handled with the same care you would give any other piece of electronic equipment. Care should be taken to keep the module and its recessed contacts clean and dry.

#### **CAUTION:**

The contents of a module can be damaged by static electricity discharges.

Static electricity build-ups are more likely to occur during the cold winter months (or in areas with very dry climates) when the natural humidity of the air is low. We've all had the experience of walking across a carpet, reaching for a metal doorknob, and having a quick, painful spark jump from our fingertips to the metal surface. This is static electricity. To avoid possible damage of the module, just touch any metal object (a doorknob, a desk lamp, etc.) before handling the module. If static electricity is a problem in your locale, you may want to purchase a special carpet treatment that reduces static build-up. These commercial preparations are usually available from local hardware and office supply stores.



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### IN CASE OF DIFFICULTY

If the module activities do not appear to be operating properly, return to the master title screen by pressing **SHIFT Q**. Withdraw the module, reinsert it carefully, and press any key to make the master selection list appear. The title of the module should show up in the third position. Press **3** to select the module. (*Note:* In rare instances, it may be necessary to turn the computer off, wait several seconds, and then turn it on again.)

If the module is accidentally removed from the slot while the module contents are being used, the computer may behave erratically. To restore the computer to normal operation, turn the computer console off, wait a few seconds, reinsert the module, and turn it on again.

If you have any difficulty with your Texas Instruments Home Computer or the module, please contact the dealer from whom you purchased the unit and/or module for service directions.

Additional information concerning use and service can be found in your *User's Reference Guide*.



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## **THREE-MONTH LIMITED WARRANTY HOME COMPUTER SOFTWARE MODULE**

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Texas Instruments Incorporated extends this consumer warranty only to the original consumer purchaser.

### **WARRANTY COVERAGE**

This warranty covers the electronic and case components of the software module. These components include all semiconductor chips and devices, plastics, boards, wiring and all other hardware contained in this module ("the Hardware"). This limited warranty does not extend to the programs contained in the software module and in the accompanying book materials ("the Programs").

The Hardware is warranted against malfunction due to defective materials or construction. **THIS WARRANTY IS VOID IF THE HARDWARE HAS BEEN DAMAGED BY ACCIDENT OR UNREASONABLE USE, NEGLIGENCE, IMPROPER SERVICE OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIAL OR CONSTRUCTION.**

### **WARRANTY DURATION**

The Hardware is warranted for a period of three months from the date of the original purchase by the consumer.

### **WARRANTY DISCLAIMERS**

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This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

### **PERFORMANCE BY TI UNDER WARRANTY**

During the three month warranty period, defective Hardware will be replaced when it is returned postage prepaid to a Texas Instruments Service Facility listed below. The replacement Hardware will be warranted for a period of three months from date of replacement. Other than the postage requirement, no charge will be made for replacement.





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TI strongly recommends that you insure the Hardware for value prior to mailing.

### TEXAS INSTRUMENTS CONSUMER SERVICE FACILITIES

*U.S. Residents:*

Texas Instruments Service Facility  
P.O. Box 2500  
Lubbock, Texas 79408

*Canadian Residents:*

Geophysical Services Incorporated  
41 Shelley Road  
Richmond Hill, Ontario, Canada L4C5G4

Consumers in California and Oregon may contact the following Texas Instruments offices for additional assistance or information.

Texas Instruments Consumer Service  
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El Segundo, California 90245  
(213) 973-1803

Texas Instruments Consumer Service  
6700 Southwest 105th  
Kristin Square, Suite 110  
Beaverton, Oregon 97005  
(503) 643-6758

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the microprocessor, and the microcomputer.  
Being first is our tradition.



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