

TEXAS INSTRUMENTS

LEARNING PATH



Learning to use

Super Speak & Math TM educational product

A parent's instruction and operation guide.



Important product
instructions for you
and your child.

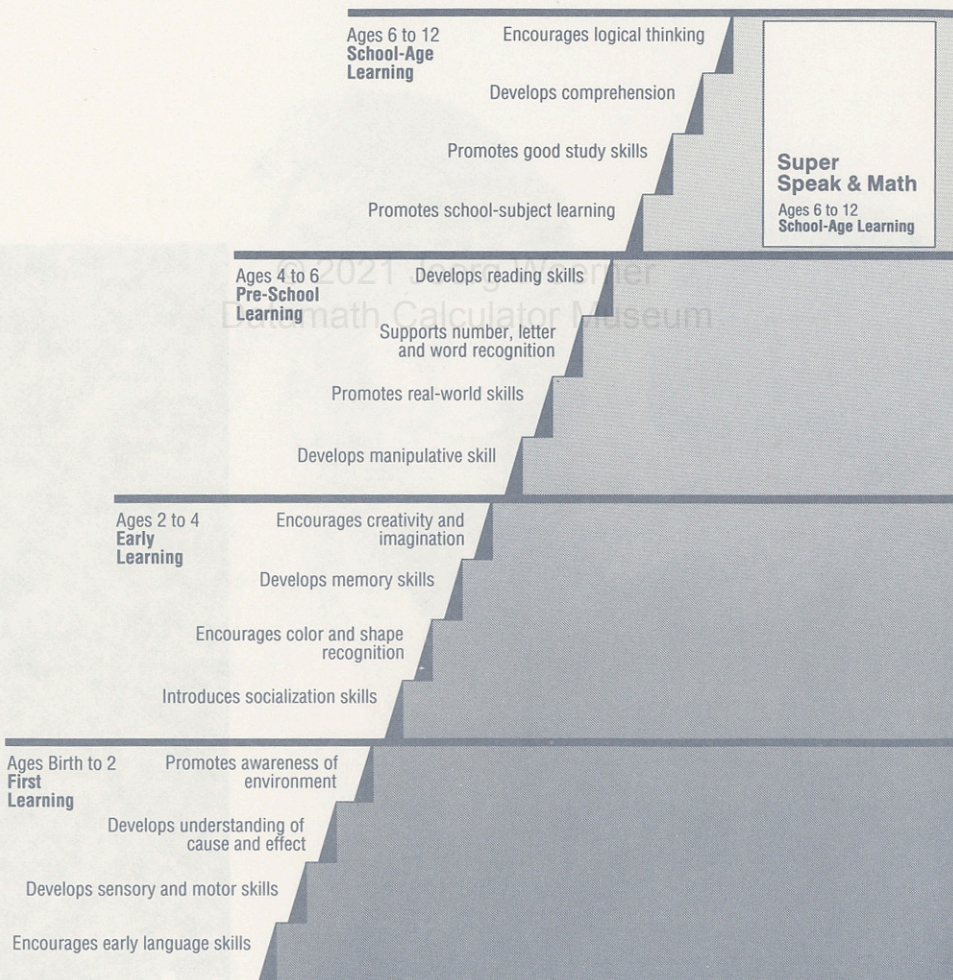
Service and warranty
information.





Where is your child on the Learning Path?™

The Texas Instruments Learning Path System has been developed to address the learning needs of children. Every product, designed with the help of experts, fits the development needs of a specific learning phase. These products allow the child to prepare for and ultimately do better in school.



TEXAS INSTRUMENTS

LEARNING PATH™



Learning to use

Super Speak & Math™ educational product

The Texas Instruments Super Speak & Math™ educational product is designed to help children from ages 6 through 12 develop and reinforce skills in mathematics.

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Datamath Calculator Museum

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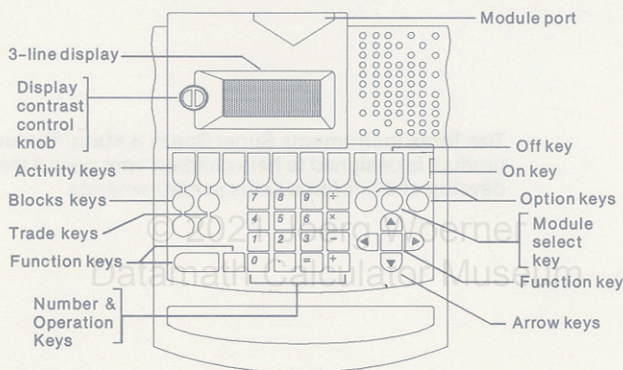
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The Super Speak & Math™ Product

Thank you for buying the Super Speak & Math educational product. This entertaining and challenging electronic toy helps develop and reinforce important skills in mathematics.

A Product That's Both Educational and Fun!

The Super Speak & Math™ product offers activities designed to teach and reinforce basic math skills. Its game-like activities, musical sound effects, and speech make learning fun.



On/Off Keys—Turn the product on and off.

Activity Keys—Let you select the activity to be played. You can select an activity at any time.

3-line Display—Lets you see the whole problem as it is being entered, including the operation and answer.

Number and Operation Keys—Let you type numbers and select an operation.

Function Keys—Allow you to enter a calculation, repeat an answer or instruction, clear an entry or a calculation.

Display Contrast Control Knob—Adjusts the display contrast to the necessary level of brightness.

Module Select Key—Switches between the built-in activities and additional word problems contained in a module (if one is inserted).

Module Port—Allows you to insert a new word-problem module (sold separately).

Option Keys—Let you select the level of challenge and the number of players for an activity.

The Super Speak & Math Activities

Eight built-in activities give you many hours of enjoyment, challenge, and learning.

Super Speak & Math Activities

Activity	Concepts
Place Value	Teaches the place-value system in representing one- and two-digit numbers.
Trade	Reinforces understanding of the place-value system.
Target	Emphasizes logical reasoning and problem-solving.
Solve It	Uses the place-value system to develop logical reasoning.
Word Problems	Tests your knowledge of basic mathematical terms and facts.
Estimate	Develops the ability to estimate answers to problems.
Select	Helps you to recognize basic math operations.
Calculator	Provides the opportunity to make up and solve your own math problems.

Learning Fun That Grows with You

Super Speak & Math also grows with you. In addition to the activities that come built into the unit, expansion modules (sold separately) provide new word problems for greater challenge.

Getting Started

As soon as you have installed batteries, you are ready to select an activity. Just follow the spoken and displayed instructions to play the activity.

Installing Batteries

The Super Speak & Math unit requires four AA alkaline batteries (not included). The battery compartment is located on the back of the unit.

1. To remove the battery-compartment cover, press it down gently and slide it in the direction of the arrow.
2. Insert the batteries as shown in the diagram inside the battery compartment. Then slide the cover back into place.

Super Speak & Math may turn on when you insert the last battery. If so, it will be in the Calc mode. Press **On** to clear the unit, and then select an activity.

If you forget to turn the unit off, it shuts off automatically if not used for about two minutes. This Automatic Power Down (APD™) feature helps batteries last longer.

Selecting an Activity

To select an activity, press **on** and the activity key of your choice. Super Speak & Math then says the name of the activity and the level of play, and prompts player one if it is in two-player mode. Then the activity begins.

Using a Module

You can switch between the built-in activities and the word problems in an expansion module (if one is installed). When you press **module**, Super Speak & Math says the name of the module and switches to the word problems in the module.

To return to the built-in activities from a module, press **module** again. The display shows **MAIN UNIT**.

Selecting an Option

At any time during play you can select the level of challenge and the number of players for most activities.

Pressing **level** selects the level of challenge (1 is easiest; 3 is most difficult). Each time you press the key, the level advances by one until you reach the top level. Pressing **level** again returns to level 1. Super Speak & Math says the level you select.

**Selecting an Option
(continued)**

Pressing **players** selects the number of players. When you press the key, Super Speak & Math says the number of players selected (one or two players). Each player is prompted, in two-player mode, to play when it's that player's turn ("player one," etc.).

If no options are selected, an activity begins for one player, at level 1. You can change the level and number of players any time during play.

Entering an Answer

You must press the **enter** key for your answers to be acknowledged by Super Speak & Math. Press **enter** only when you are sure of the answer you typed in the display.

Clearing an Entry

Before pressing **enter**, you can press the **c/cE** key once to clear the last entry made. You can then re-enter your answer.

Rewards and Encouragement

Super Speak & Math uses sound effects and speech to reward correct answers. In most activities, you can try again if you give an incorrect answer.

- For all of the activities, except Estimation, Target, and Calculator, the player solves problems in rounds of five. After solving five problems in a row, Super Speak & Math tells you your score. "You got _____ out of five right!"
- You get two tries at solving a problem for most activities.

When you answer correctly, Super Speak & Math says an encouraging phrase and the answer, and then presents a new problem. If there are two players, the problem is presented to Player Two.

When you enter an incorrect answer, Super Speak & Math encourages you to try again. If your second try is incorrect, Super Speak & Math then says the correct answer while displaying it. A new problem is then presented. If there are two players, the problem is presented to Player Two.

At the end of the round of five problems, each player's score is announced.

The Super Speak & Math Keys

The following chart gives a quick overview of each Super Speak & Math key. You can use the chart as a reference after you are familiar with the activities.

Keys	Functions
place value	Selects the Place Value activity.
blocks keys	Let you add to the “tens” or “ones” columns.
trade	Selects the Trade activity.
trade keys	Let you trade “ones” and “tens” blocks.
target	Selects the Target activity.
solve it	Selects the Solve It activity.
arrow keys ▲▼◀▶	Allow you to move up, down, left, or right in the display area.
word problems	Selects the Word Problems activity.
estimate	Selects the Estimate activity.
select	Selects the Select-the-Operation activity.
calc	Selects the calculator mode. The calculator operates like a four-function calculator.
0 – 9	Display the numbers you type.
operation keys +, −, ×, ÷	Select calculator operations.
level	Selects the level of challenge for most activities.
module	Switches between the built-in activities and additional word problems available in the expansion module (if one is installed).
players	Lets you choose one player or two players for most activities.
enter	Enters the answers you typed.
repeat	Repeats the last spoken instruction or statement.
c/ce	Press once to clear one digit at a time, or press twice to clear the display completely.
=	Press the equals key to complete a calculation and receive an answer.
.	Press the decimal key to enter a decimal point.

The Calculator

The calculator lets you view a whole problem in the three-line display. It performs like most standard calculators except that it only gives whole-number answers. An answer from one problem must be re-entered to be used in another problem.

Playing with the Calculator

To select the Calculator, press **calc**.

1. When you select Calculator, the display shows a zero in the top right corner of the display.
 - You can add a maximum of four digits to four digits or subtract four digits from four digits.
 - Multiplication is limited to a five-digit product. In division there can only be a one-digit divisor and a four-digit dividend, and the remainder is always noted in the display (**r 0** is a remainder of zero).

If an answer is too large to be shown, Super Speak & Math says "Warning, warning," and **TOO BIG** is shown in the display.

2. When you press the **=** key, the problem and its answer are spoken and displayed.
3. If you press the wrong key while typing in your numbers, press **c/ce** once and then press the correct number. To clear the whole problem, press **c/ce** twice.

Example	Press	Display
12 + 36	12 + 36 =	12 + 36 — 48
52 - 15	52 - 15 =	52 - 15 — 37
20 × 5	20 × 5 =	20 × 5 — 100
29 ÷ 3	29 ÷ 3 =	r 2 9 3 $\overline{) 29}$

Place Value

This activity has three levels of challenge. It can be played by one or two players. The object is to understand how many ones and how many tens a number has.

Playing Place Value

To select Place Value, press **on** and then press **place value**.

- Press **level** to change the level of challenge.
- Press **players** to select the number of players.

Each player gets two tries to correctly answer a problem. After five problems in a row, each player's score is announced.

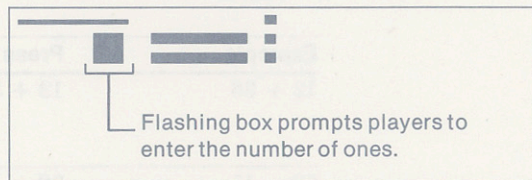
Level 1

1. The voice asks, "What number is this?" A certain number of blocks light up in the display.

- The small square blocks are ones and the rectangular blocks are tens.

Note: In math instruction, the blocks that we refer to as ones may be called "units" and the blocks that we refer to as tens may be called "longs" (1 long = 10 units).

- A flashing box appears in the ones place on the bottom line of the display. The blocks that represent the number of ones also flash.



2. Give your answer by pressing the number key that represents the correct number of ones.



When you enter the number for ones, it is announced ("_____ ones"). The flashing box then moves to the tens place.

Place Value (Continued)

Level 1 (Continued)

3. Enter the number of tens. When you enter the tens, it is also announced (“_____tens”).

Prompt to enter number of tens.

Two tens and three ones.

4. If you make a mistake, use the **c/ce** key to clear the problem and then start over.
5. Press **enter** to enter the answer.

Level 2

1. When you play in level 2, Super Speak & Math asks “How many blocks?” and shows a number in the display. You must represent that number with blocks showing the correct place values.

place value

Ones key

Tens key

36

Three tens and six ones.

2. Press the **ones block** key once to light each ones block that you need. Press the **tens block** key once to light each tens block that you need.
3. When the lighted blocks match the value of the number, press **enter** to enter your answer.

Level 3

In Level 3, you are asked questions from Level 1 and Level 2.

Note: You can use the **c/ce** key to clear numbers and blocks.

Trade

This activity has three levels of challenge. It can be played by one or two players. The object is to regroup the ones- and tens-blocks to reflect the answer. You get two tries to answer correctly.

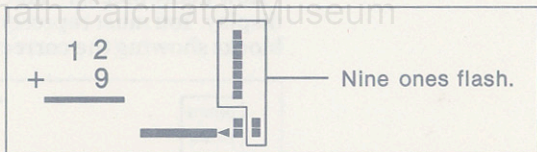
Playing Trade

To select Trade, press **on** and then press **trade**.

- Level 1 is addition and Level 2 is subtraction.
- Level 3 is a combination of addition and subtraction.

Level 1

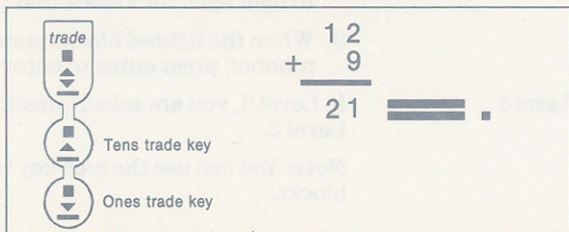
1. When you begin at Level 1, Super Speak & Math asks you to "Make the trade," and an addition problem appears in the display.
 - The numbers that make up the problem are represented by blocks. The group of blocks that represents the number on the second line of the display flashes. The non-flashing blocks represent the number on the first line of the display.
 - An arrow is displayed between the tens- and the ones-blocks on the bottom row. This points in the direction you should trade.



2. To trade ones for tens, press the **ones trade** key. To trade tens for ones, press the **tens trade** key. When you press a trade key, the blocks in the display change to reflect the trade.

When the trade is complete, the arrow goes away and you can no longer trade blocks in that direction. The blocks that remain in the display stop flashing. They represent the answer.

3. You are prompted, by the flashing box, to type in the number of ones and then the number of tens.



Trade (Continued)

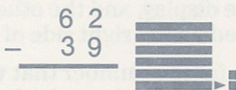
Level 1 (Continued)

4. Press **enter** to enter your answer.

Level 2

1. At Level 2, the voice asks you to "Make the trade."
A subtraction problem is displayed.

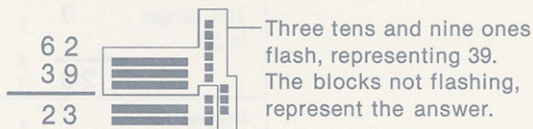
The number on the first line of the display is represented by the displayed blocks. The arrow points in the direction you should trade.



2. To trade ones for tens, press the **ones trade** key. To trade tens for ones, press the **tens trade** key. When you press a trade key, the blocks in the display change to reflect the trade.

When the trade is complete, the arrow goes away and you can no longer trade blocks in that direction. A new set of blocks representing the number on the second line of the display flashes. The non-flashing blocks represent the answer.

3. You are prompted, by the flashing box, to type in the answer: first the ones and then the tens.



4. Press **enter** to enter your answer.

Level 3

Level 3 is a combination of addition and subtraction problems.

Note: The **c/cē** key only clears numbers that you enter for the answer.

Target

This activity has only one level of challenge. One player can play against Super Speak & Math, or two players against each other. The object is to be the first to arrive at a target number selected by Super Speak & Math.

Playing Target

To select Target, press **on** and then press **target**. To change the number of players, press **players**.

1. This activity begins with Super Speak & Math saying, "Use the numbers displayed to get to ____." Super Speak & Math chooses the target number and three other numbers players can add together to reach the target.

The target number is displayed on the bottom line of the display, and the other three numbers are lighted on the right side of the display.

2. Look for the number that will help you arrive at the target first, and type in that number. Then it's Super Speak & Math's turn or Player Two's turn to enter a number.

- The number that you enter is displayed on the first line of the display. Each number entered thereafter is flashed briefly on the second line of the display, before it is added to the last one entered, to show how close you are to the target.
- When the target is reached, a tune is played and the winner is announced ("You win/I win" or "Player one wins/Player two wins"). If the target is exceeded by a player, the opponent player wins.

The target is 23.	0 7 2 2 23 1	Player 1 enters 7.	21 7 2 2 23 1
Player 1 enters 7.	7 7 2 2 23 1	Player 2 enters 2.	23 7 2 2 23 1
Player 2 enters 7.	14 7 2 2 23 1	Player 2 wins.	

Playing Solve It

To select Solve It, press **on** and then press **solve it**.

[illegible]

2. Use the arrow keys (◀, ▶, ▲, ▼) to move to any underline you choose. Then press a number key to enter one of the displayed numbers.

As you type a number, it leaves its position on the right and appears in the space you chose.

The number you enter flashes until you move to the next valid position. An incorrect move or key press results in a beep. If you change your mind, press **c/ce** to start over.

3. Once you have entered all of the numbers and are certain of your answer, press **enter**.

Note: If you arrange the numbers correctly, the answer appears in the display and Super Speak & Math says the whole equation and the answer. After two incorrect tries, Super Speak & Math arranges the numbers correctly, displays the equation and answer and then says it.

Word Problems

This activity has three levels of challenge. It can be played by one or two players. The object is to listen to the word problems and type in the numerical answer.

Playing Word Problems

To select Word Problems, press **on** and then press **word problems**.

- To change the number of players, press **players**.
 - To change the level of challenge, press **level**.
1. Super Speak and Math states the first question. The display is blank except for a zero in the last position of the bottom line.

Listen to the question as many times as you need by pressing the **repeat** key.

2. When you are ready to answer, key the numbers into the display.

If you want to change your answer, press **c/ce**.

3. When you are sure of your answer, press **enter**.

Note: The calculator is active during this activity, and can be used to help you determine the answers to some problems. You do not have to press **calc**. When you are satisfied that a calculation is the correct answer, type it into the display and press **enter**.

When you answer correctly, Super Speak & Math says an encouraging phrase and the answer, and then presents a new problem. If there are two players, a problem is then presented to Player Two.

When you enter an incorrect answer, Super Speak & Math encourages you to try again. If your second try is incorrect, Super Speak & Math then says the correct answer while displaying the answer. A new problem is then presented. If there are two players, the problem is presented to Player Two.

After each player completes a round of five problems, his score is announced.

Estimation

This activity has three levels of challenge. The object is to estimate, as close as you can, the answer to a problem in as little time as possible.

Playing Estimation

To select Estimation, press **on** and then press **estimation**. To change the level of challenge, press **level**. The easiest problems are in level 1 and the hardest problems are in level 3.

1. When you select estimation, you are asked to "Estimate the answer." A complete problem without the answer appears in the display.
 - Zeros that appear on the third line of the display represent digits you do not have to estimate.
 - To the left of the zeros, a box flashes, prompting you to enter the first number.
2. Key in your estimate of the answer, and press **enter**.

Each problem is scored individually. When you press **enter**, the number of seconds and the score is displayed.

Scoring

Your score is based on how fast and how close your answer is to the correct answer. You have 60 seconds, maximum, to give your answer.

The faster you give your answer, and the closer your estimate is to the correct answer, the higher your score is.

If you do not estimate within 60 seconds, Super Speak & Math displays the time of 60 seconds and the score of zero.

You only get one try on each problem.

Select

This activity has three levels of challenge. It can be played by one or two players. The object is to select the correct operation (+, -, \times , or \div) for a problem that is displayed with its answer.

Playing Select

To play Select, press **on** and then press **select**.

- To change the number of players, press **players**.
 - To change the level of challenge, press **level**. The easiest problems are in level 1 and the hardest problems are in level 3.
1. When you select this activity you are asked to "Choose the operation." The display shows the first problem with its answer.

The operation symbols flash continually, one at a time, on the left side of the display until you choose one.
 2. Choose an operation by pressing one of the operation keys (-, +, \div , or \times), or press **enter** when the operation symbol of your choice appears.

The operation symbols stop flashing and the operation you chose is shown in the display.
 3. Now either press **enter** or, if you want to change your answer, press another operation key or the **c/ce** key.

When you answer correctly, Super Speak & Math says an encouraging phrase and the answer, and then presents a new problem. If there are two players, a problem is presented to Player Two.

When you enter an incorrect answer, Super Speak & Math encourages you to try again. If your second try is incorrect, Super Speak & Math then says, "The correct operation is _____," while displaying the problem with the operation. Super Speak & Math then presents a new problem. If there are two players, the problem is presented to Player Two.

After each player completes a round of five problems, his score is announced.

Service Information

If you have problems with the Super Speak & Math unit or questions about service, the information on these pages can help you get the assistance you need.

In Case of Difficulty

- If the Super Speak & Math unit makes no sound when you press on or produces garbled, hard-to-understand sounds, make sure the batteries are new and are installed according to the illustration inside the battery compartment.
- If the display appears to be blank, the contrast may be set too low. Try increasing the display contrast. Then check the batteries.

For Service and General Information

If you have questions about service or the general use of your Super Speak & Math educational product, please call Consumer Relations at **1-806-747-1882**.

Please note that this is a toll call, and collect calls are not accepted.

You may also write to the following address:

Texas Instruments Incorporated
Consumer Relations
P.O. Box 53
Lubbock, Texas 79408

Please contact Consumer Relations

- **Before** returning the product for service.
- For general information about using the product.

Express Service

Texas Instruments offers an express service option for fast return delivery. Please call Consumer Relations for information.

Service Information (Continued)

Returning Your Product for Service

A defective product will be either repaired or replaced with the same or a comparable reconditioned model (at TI's option) when it is returned, postage prepaid, to a Texas Instruments Service Facility.

Texas Instruments cannot assume responsibility for loss or damage during incoming shipment. For your protection, carefully package the product for shipment and insure it with the carrier. Be sure to enclose the following items in the package:

- Your full return address and a daytime phone number.
- Any accessories related to the problem.
- A note describing the problem you experienced.
- A copy of your sales receipt or other proof of purchase to determine warranty status.

Please ship the product postage prepaid; C.O.D. shipments cannot be accepted.

In-Warranty Service

For a product covered under the warranty period, no charge is made for service.

Out-of-Warranty Service

A flat-rate charge by model is made for out-of-warranty service. To obtain the service charge for a particular model, call Consumer Relations at 1-806-747-1882 **before** returning the product for service. (We cannot hold products in the Service Facility while providing charge information.)

Texas Instruments Service Facilities

**U.S. Residents
(U.S. Postal Service)**
Texas Instruments
P.O. Box 2500
Lubbock, Texas 79408

**U.S. Residents
(other carriers)**
Texas Instruments
2305 N. University
Lubbock, Texas 79408

Canadian Residents Only

Texas Instruments
41 Shelley Road
Richmond Hill, Ontario L4C 5G4

One-Year Limited Warranty

This Texas Instruments one-year limited warranty extends to the original consumer purchaser of this educational product and/or software module.

Warranty Duration

This educational product and/or software module is warranted to the original consumer purchaser for a period of one (1) year from the original purchase date.

Warranty Coverage

This product and/or software module is warranted against defective materials or workmanship. **This warranty is void if the product or module has been damaged by accident, unreasonable use, neglect, improper service, or other causes not arising out of defects in material or workmanship.**

Warranty Disclaimers

Any implied warranties arising out of this sale, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the above one-year period. Texas Instruments shall not be liable for loss of use of the product or module or other incidental or consequential costs, expenses, or damages incurred by the consumer or any other user.

Some states do not allow the exclusion or limitations of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you.

Legal Remedies

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

Warranty Performance

During the above one-year warranty period, a defective TI product or module will be either repaired or replaced with a reconditioned comparable model (at TI's option) when the product or module is returned, postage prepaid, to a Texas Instruments Service Facility.

The repaired or replacement product or module will be in warranty for the remainder of the original warranty period or for six months, whichever is longer. Other than the postage requirement, no charge will be made for such repair or replacement.

Texas Instruments strongly recommends that you insure the product for value prior to mailing.

FCC Information Concerning Radio Frequency Interference

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 with 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, you can try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Caution: Any changes or modifications to this equipment not expressly approved by Texas Instruments may void your authority to operate the equipment.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communication.

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**TEXAS
INSTRUMENTS**

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