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It should be noted that most of the pages are identifiable as having been processed by me.

I put a lot of time into producing these files which is why you are met with this page when you open the file.

In order to generate this file, I need to scan the pages, split the double pages and remove any edge marks such as punch holes, clean up the pages, set the relevant pages to be all the same size and alignment. I then run Omnipage (OCR) to generate the searchable text and then generate the pdf file.

Hopefully after all that, I end up with a presentable file. If you find missing pages, pages in the wrong order, anything else wrong with the file or simply want to make a comment, please drop me a line (see above).

It is my hope that you find the file of use to you personally – I know that I would have liked to have found some of these files years ago – they would have saved me a lot of time !

Colin Hinson

In the village of Blunham, Bedfordshire.



TEXAS INSTRUMENTS HOME COMPUTER

EARLY LOGO LEARNING FUN

EDUCATION

SOLID STATE CARTRIDGE

This cartridge is designed to work only with the TI-99/4A Home Computer.

Delightful TI LOGO activities prepare the three to seven
year old child for the exciting world of programming

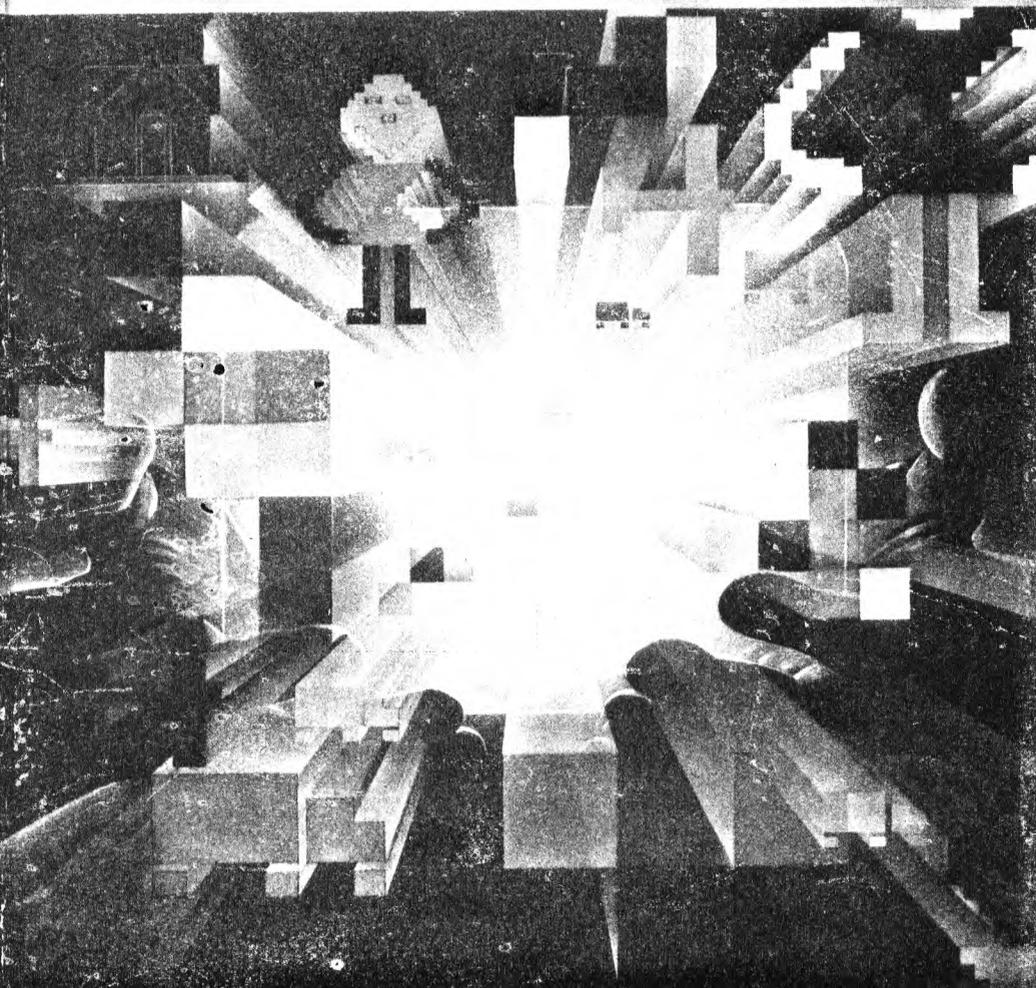


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Note to Parents

In the Fall of 1979, the Lamplighter School began a most unusual educational project. For the first time, the LOGO computer language was made available to school children on a large scale. Professor Seymour Papert, the originator of LOGO, directed the project and framed the Lamplighter teachers in its use. Prior to the Lamplighter project, LOGO had proven to be a revolutionary educational computer language, but had been available only on a limited scale in educational experiments. At the Lamplighter school, the LOGO language was to be made as much a part of the school activities as pencils and books.

Coleta Lewis, a teacher at the Lamplighter preschool, realized that even preschool children could benefit from the power of LOGO available to older students. Consequently, she developed programs based on the belief that learning should be purposeful and self directed and that children need to develop skills to help them cope successfully with the world in which they live—a world that cannot be predicted. For the past three years these programs have proven to be extremely effective with young children.

LOGO is a computer language that uses command words that are in your child's vocabulary, such as FORWARD, BACK, RIGHT, LEFT, etc. As a result, your child can make graphical events occur simply by pressing a single key on the computer keyboard. Keys and a pictorial representation of the results of each LOGO activity are written on a reproducible card called a cue card. Thus, children as young as three years old can become self-learners and direct their own learning activities.

This cartridge, Early LOGO Learning Fun, contains a selection of the best of the Lamplighter LOGO procedures in a format designed for preschool children. We believe that your child can benefit from them just as the Lamplighter children have over the past three years. Let the power and excitement of Early LOGO Learning Fun introduce your child to computer literacy and guide him or her into the world of LOGO.

Using the Solid State Cartridge

Inserting a cartridge is easy. If you have any problem inserting the cartridge, or if it is accidentally removed from the slot while in use, please see "In Case of Difficulty" on page 19.

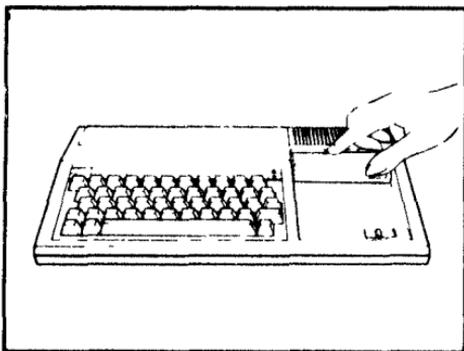
Inserting the Cartridge

An automatic reset feature is built into the computer. When a cartridge is inserted into the console, the computer returns to the master title screen. All data or program material you have entered is erased.

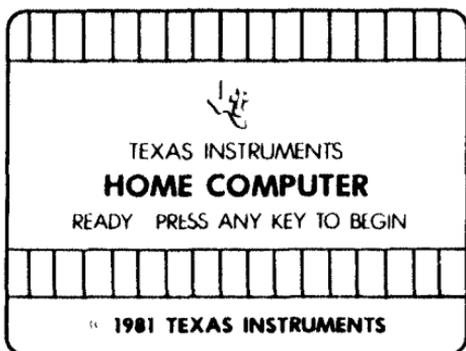
Note: Be sure the cartridge is free of static electricity before inserting it into the computer (see page 19).

1 Turn the computer ON, and wait for the master title screen to appear.

2. Then, slide the cartridge into the slot on the console.



3. Press any key to make the master selection list appear. Then, press the appropriate number key for your selection.



Removing the Cartridge

1 To remove the cartridge at the end of play, press QUIT to return to the master title screen.

2. Then, remove the cartridge from the slot.

Getting Started

Early LOGO Learning Fun contains six activities: **HALT and MOVE, BUILD, PARK, PEOPLE, DRAW, and DALLAS.** Each of these activities is represented on cue cards for your child's reference. Cue cards for each activity are wrapped separately and located at the back of the manual.

Each activity involves moving various objects to different areas on the screen to make a unique design or picture. When an activity begins, an object appears in a particular spot (specific to each activity). This spot is the HOME position. In other words, the first object on the screen always appears in the same place. Your child can make additional objects appear in the HOME position. From there, he or she can move them to different parts of the screen.

The objects appearing on the screen in these activities are called "sprites." In this cartridge, a sprite is the original or additional object that appears on the screen. Only four sprites can be positioned on a horizontal line. For example, in the BUILD activity, where the sprites are squares or blocks, only four blocks are able to stay on one horizontal line. If you or your child tries to place a fifth block on a horizontal line, the first block disappears from that line until the fifth block is moved to another line.

Your child can experiment with changing the color of objects on the screen by pressing the following letter keys:

Key	Color
-----	-------

R	Red
---	-----

B	Blue
---	------

Y	Yellow
---	--------

W	White
---	-------

O	Orange
---	--------

P	Purple
---	--------

G	Green
---	-------

After an object is changed from black to a color, it cannot be changed back to black.

Your child can move the objects to different parts of the screen by pressing the arrow keys. Press the **S** (←) key to move left, the **D** (→) key to move right, the **E** (↑) key to move up, and the **X** (↓) key to move down.

Getting Started

To begin Early LOGO Learning Fun, press any key. The first screen appears.

PRESS ANY KEY TO BEGIN

EARLY
LOGO
LEARNING
FUN
1982 TEXAS INSTRUMENTS

Next, the menu (selection list) appears.

WELCOME TO
EARLY LOGO LEARNING FUN

PRESS		FOR
1		DIRECTIONS FOR PARENTS
2	■	BUILD
3	🚗	PARK
4	●	PEOPLE
5	▲	DRAW
6	🚗	DALLAS
7	🌊	TITLE SONG REPLAY

To choose an activity, press a number from 1 through 7.

Cue Cards

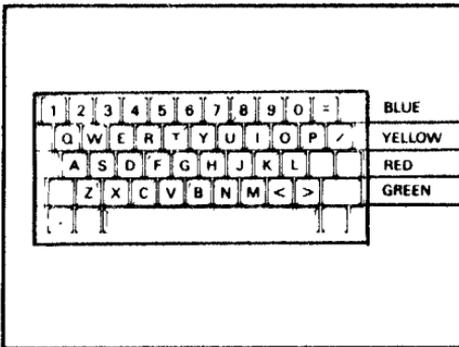
A cue card is a simplified set of instructions indicating what keys your child should press and the results of pressing those keys. It can be used to introduce an activity or to assist your child in working independently.

Cue cards for each activity are wrapped separately and located at the back of the manual. At the bottom of each card is a note indicating which activity is appropriate for use with the card and giving permission for the card to be reproduced.

Introducing an Activity with a Cue Card

Look at the cue cards with your child while seated in front of the computer. Point to and say each letter in the activity's name. Encourage your child to say the letter while locating and typing it on the keyboard. The "crayons" beside each color key (R, Y, B, etc.) provide an opportunity for you or your child to color these to match the word for a color (R - Red, etc.) Coding each row of keys with colored tape often minimizes the difficulty children may have in recognizing and locating letters. You can help by telling him or her that "the letter A is in the red row," etc.

Children often make typing errors when they begin to type on the computer keyboard because of their limited physical coordination. As you introduce the first TI LOGO activity, you may want to tell your child that he or she can correct a typing error by pressing the **ERASE** key (while holding down the **FCFN** key) before pressing **ENTER**, and then retyping the name of the activity. If you choose not to explain how to correct a typing error, tell your child that if a typing error is made and **ENTER** is pressed, a message appears on the screen telling him or her that the computer did not understand the name that was typed. Then tell your child to retype the name correctly. After the name of the activity is typed correctly, press the **ENTER** key.



Next, explain to your child that he or she has choices to make with each activity (color, movement, etc.). Review the choices available with the activity being introduced. Introduce how to place another sprite on the screen by pressing **A** for Another and using the arrow keys. Also explain that an activity can be stopped by pressing **Q** for Quit. Your child can play the same or a different activity by typing in the activity name and pressing **ENTER**.

BUILD Activity

This activity lets your child make a colorful design by changing the color and location of blocks.

Beginning BUILD

While viewing the menu, have your child press the **2** key. The BUILD activity is ready for play. Be sure you have the cue card in front of your child for simplified instructions.

The black square that appears in the center of the screen is in the HOME position. Have your child experiment with changing the color of the square by pressing the letter keys listed in "Getting Started." Next, your child can move the square to different parts of the screen using the arrow keys.

Playing BUILD

Your child can make additional squares appear on the screen to make a colorful design. Have your child press the **A** key for Another square to appear. He or she must use the arrow keys to move the square away from the HOME position, or the next square appearing on the screen cannot be seen. Each new square always appears in the HOME position.

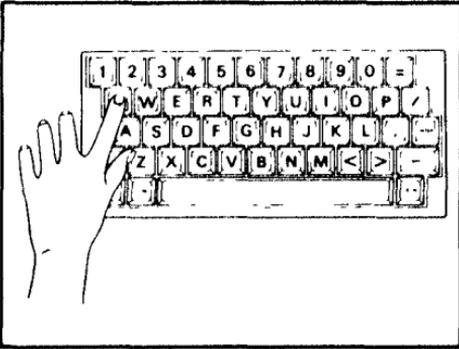
The cue card for this activity shows all the key strokes necessary for playing the BUILD activity.

Your child can have up to 31 squares on the screen before the activity runs "OUT." When this occurs, the activity stops and the screen displays the message OUT.

?

Ending BUILD

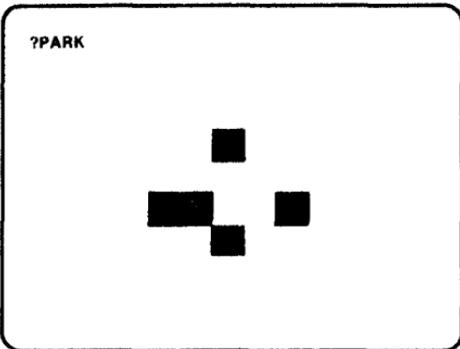
Your child can stop playing the BUILD activity at any time by pressing **Q** for Quit. A question mark appears, allowing you or your child to type in the name of another activity.



Replaying BUILD or Another Activity

To repeat the BUILD activity, have your child look at the top of the cue card, type the name of the activity, and then press **ENTER**. Another black square appears at **HOME**.

To begin another activity, have your child type in the name of an activity using the appropriate cue card for assistance. When the name is correctly typed, have your child press **ENTER**.



To return to the master title screen press **FCTN = (QUIT)**.

PARK Activity

The PARK activity involves moving cars and garages to make a design or "picture" on the screen. This activity encourages decision making skills and introduces the concept of assigning color and direction to a sprite.

Beginning PARK

While viewing the menu, have your child press the **3** key. The PARK activity is ready for play. Be sure you have the appropriate cue card in front of your child for easy instructions and guidance.

The PARK activity lets your child pick a car or a garage by pressing **C** for car or **G** for garage. If your child presses **C**, a black car appears at HOME. If your child presses **G**, a black garage appears at HOME. Your child can change the color, position, and movement of these objects on the screen.

To begin, press either **C** for car or **G** for garage. A black car or garage appears in the HOME position. Have your child experiment with changing the colors of the objects on the screen by pressing the letter keys listed in "Getting Started." Next, your child can move the car or garage to different parts of the screen by pressing the arrow keys.

Playing PARK

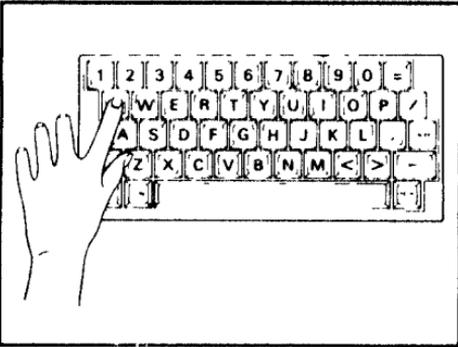
Your child can make additional cars and/or garages appear on the screen. Have your child press the **A** key for Another car or garage to appear. After pressing the **A** key, your child must press **C** or **G** to specify which object he or she wishes to see on the screen. He or she must also use the arrow keys to move the additional car or garage away from the HOME position, or the next car or garage appearing on the screen cannot be seen. Each new car or garage always appears in the HOME position.

The cue card for the PARK activity lists all the keystrokes available for playing PARK. Up to 31 cars and/or garages are allowed on the screen in this activity. After all the objects have been used, the screen displays the message QUIT

?

Ending PARK

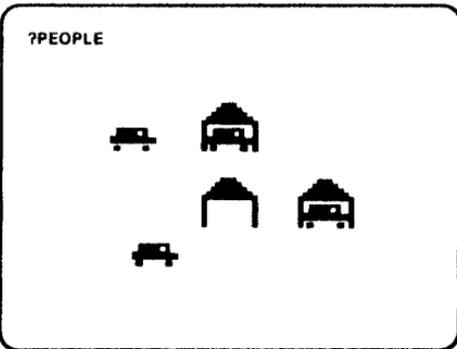
You or your child can stop playing at any time by pressing the **Q** key for Quit. A question mark appears, allowing you or your child to type in the name of another activity.



Replaying PARK or Another Activity

To repeat the PARK activity, have your child look at the top of the cue card, type the name of the activity, and press **ENTER**. The activity is now ready for play.

To begin another activity, have your child type in the name of an activity using the appropriate cue card for guidance. When the name is correctly typed, have him or her press **ENTER**.



To return to the master title screen press **FCN = (QUIT)**.

PEOPLE Activity

The PEOPLE activity lets your child build "people" on the screen by placing body parts together. This activity encourages your child to make a small task part of a larger one (placing body parts together to make a "person") and also to recognize basic body parts.

Beginning PEOPLE

While viewing the menu, have your child press the **4** key. The PEOPLE activity is ready for play. Be sure you have the appropriate cue card in front of your child for easy instructions and guidance.

In the PEOPLE activity, a black face appears in the center of the screen, the HOME position. Your child can experiment with changing the colors of the face on the screen by pressing the keys listed in "Getting Started."

Next, your child can move the face to different parts of the screen by using the arrow keys on the keyboard.

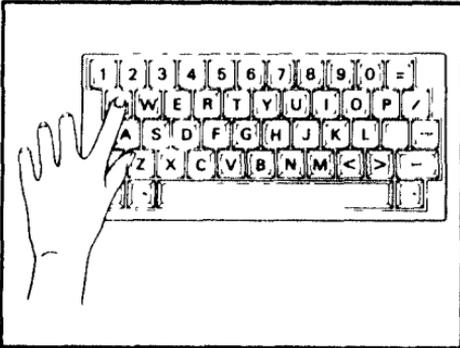
Playing PEOPLE

Your child can make body parts (the head, torso, left arm, right arm, legs and feet) appear on the screen by pressing the **A** key for Another body part. He or she must also use the arrow keys to maneuver the body parts away from the HOME position, or the next "person" appearing on the screen cannot be seen. Each new body part always appears in the HOME position. After one "body" is complete, another face can be made to appear by pressing the **A** key.

The cue card for the PEOPLE activity gives all the keystrokes needed to play PEOPLE. Your child can have up to 4 "people" on the screen before the sprites run out. If all the sprites have been used, the screen displays the message **OUT**.

Ending the PEOPLE Activity

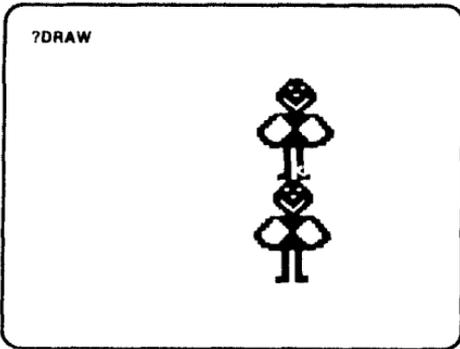
You or your child can stop playing at any time by pressing the **Q** key for Quit. A question mark appears, allowing you or your child to type in the name of another activity.



Replaying PEOPLE or Another Activity

To repeat the PEOPLE activity, have your child look at the top of the cue card, type the name of the activity, and press **ENTER**. The activity is now ready for play.

To begin another activity, have your child type in the name of an activity using the appropriate cue card for guidance. When the name is correctly typed, have him or her press **ENTER**.



To return to the master title screen press **FCTN = (QUIT)**.

DRAW Activity

The **DRAW** activity involves making a design or "picture" on the screen by moving a small triangle called a "Turtle." Your child tells the Turtle in which direction to move, and it draws a line. The **DRAW** activity introduces directionality (up, down, right, and left), recognition of upper-case letters, creative decision

Beginning DRAW

While viewing the menu, have your child press the **5** key. The **DRAW** activity is ready for play. Be sure you have the appropriate cue card in front of your child for easy instructions.

The Turtle appears in the center of the screen, the **HOME** position, facing north. The Turtle is moved by pressing three special keys, the **F** key for moving forward, the **R** key for turning to the right, and the **L** key for turning to the left.

Playing DRAW

Have your child practice moving the Turtle by pressing the **F** key to make it move forward. Point out that the Turtle "draws" a black line ten Turtle steps long each time **F** is pressed.

Once your child understands this concept, show your child how to make the Turtle turn left or right, using the **R** key to make the Turtle turn right, and the **L** key to make the Turtle turn left. Each time the **R** and **L** keys are pressed, the Turtle makes a 45 degree turn. Some children may have difficulty seeing the turn that the Turtle makes. Telling the Turtle to turn several times usually eliminates this visualization difficulty. Next, have your child

making, and exploration of space. This activity also provides readiness for commands used in the **TILOGO** Turtle mode, such as the **FORWARD**, **BACK**, **RIGHT**, and **LEFT** commands, and also the **PENUP** and **PENDOWN** commands.

practice turning the Turtle to the right and left and then moving it forward with the **F** key.

NO DRAW Command

Your child might find it interesting to move the Turtle without it drawing a line. This is called the **PENUP** command in the more complex **TILOGO** language. It is called the **PENUP** command because it draws much in the same way a person writes with a pen. In the case of **PENUP**, you can say that the Turtle's pen is up and not ready for drawing. The special key that tells the Turtle not to draw is **N**, for No draw. Encourage your child to move and turn the Turtle several times.

DRAW Command

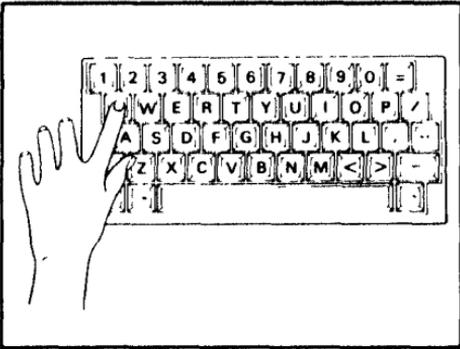
If your child wishes to have the Turtle draw again after being in the **NO DRAW (PENUP)** mode, he or she can press the **D** key for Draw. This is called the **PENDOWN** command in **TILOGO**. Now the Turtle is ready to draw. Your child can continue making designs or "pictures" on the screen. When the Turtle has run out of ink, the screen displays the message **OUT OF INK**.

2

The cue card for the **DRAW** activity lists all the keystrokes needed to play

Ending DRAW

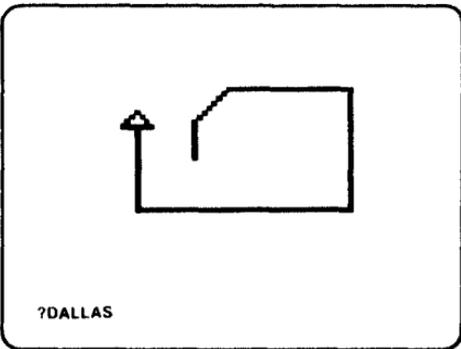
You or your child can stop playing at any time by pressing the **Q** key for Quit. A question mark appears, allowing you or your child to type in the name of another activity.



Replaying DRAW or Another Activity

To repeat the DRAW activity, have your child type in the name of the activity using the appropriate cue card for guidance. When the name is correctly typed, have him or her press **ENTER**.

To begin another activity, have your child type in the name of an activity using the appropriate cue card for guidance. When the name is correctly typed, have him or her press **ENTER**.



?DALLAS

To return to the master title screen press **FCFN = (QUIT)**

The DALLAS activity involves moving planes and trucks on the screen to make a colorful, graphical "picture." Your child can change the color, position, and speed of each object on the screen. This activity can help your child develop number

recognition and skills in cause and effect relationships (ability to predict what will occur when something is done to an object or thing).

Beginning DALLAS

While viewing the menu, have your child press the **6** key. The activity is ready for play. Be sure that the appropriate cue card is accessible for guidance

The DALLAS activity lets your child press the **P** key for a Plane, or the **T** key for a Truck. If your child presses the **P** key for a plane, a black plane appears in its HOME position. If your child presses the **T** key for a truck, a black truck appears in its HOME position. Your child can change the color, position, speed, and direction of the sprites on the screen

Have your child experiment with changing the colors of the objects (see "Getting Started"). In this activity, the truck and the plane appear in different parts of the screen rather than in the center

Playing DALLAS

Your child can make additional planes and trucks appear on the screen by pressing the **A** key for Another. After pressing the **A** key, your child needs to press either the **T** key or the **P** key to specify which object he or she wishes to see on the screen. Your child must also use the number keys to move the object away from the HOME position, or the

next truck or plane appearing on the screen cannot be seen (see "Setting the Speed"). Each new plane or truck appears in the HOME position

The cue card for this activity gives all the keystrokes needed to play DALLAS. Up to 31 trucks and/or planes are allowed on the screen in this activity. After all the objects have been used, the screen displays the message OUT.

?

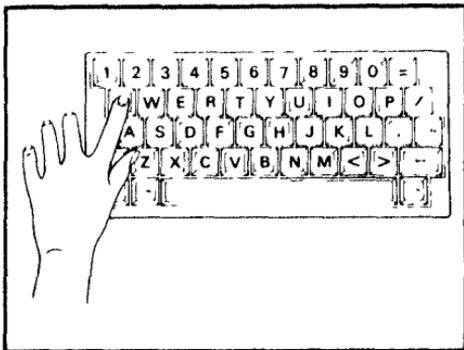
Setting the Speed

The excitement of using planes and trucks in an activity is that they move. Your child can make them go fast or slow. Have your child type a number to tell the plane or truck how fast to go. Nine (9) is the fastest speed, one (1) is the slowest. If your child wants a truck or plane to stop, simply have him or her type zero (0).

Your child can also change the direction in which the sprites move on the screen. The sprites can move up, down, left, or right. Have your child press one of the arrow keys to tell the truck or plane which direction to move. Remember that your child cannot change the color, position, or speed of an object already on the screen after he or she has pressed the **A** key for Another

Ending DALLAS

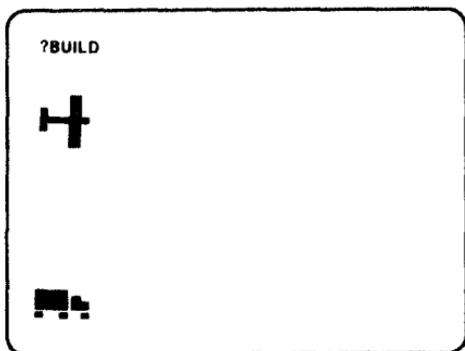
You or your child can stop playing at any time by pressing the **Q** key for Quit. A question mark appears, allowing you or your child to type in the name of another activity.



Replaying DALLAS or Another Activity

To repeat the DALLAS activity, have your child look at the top of the cue card, type the name of the activity, and press **ENTER**. Follow the same procedure to play the DALLAS activity again.

To begin another activity, have your child type in the name of an activity using the appropriate cue card for guidance. When the name is correctly typed, have him or her press **ENTER**.



To return to the master title screen press **FCTN = (QUIT)**.

MOVE and HALT Activities

The word **MOVE** makes objects move across the screen and the word **HALT** makes the objects halt their movement. The cue card for the **HALT** and **MOVE** activities contains all the keystrokes for playing.

MOVE Activity

After your child makes a design or picture using any of the LOGO activities, he or she can make the objects appearing on the screen move to the right.

Have your child follow these simple steps:

- Type the letter **Q** (a question mark (?) appears)
- Type the word **MOVE**
- Press **ENTER** when **MOVE** is typed correctly.

The design or "picture" moves

HALT Activity

To stop the **MOVE** activity, have your child follow these steps:

- Type **HALT**.
- Press **ENTER** when **HALT** is spelled correctly.

The design or "picture" stops moving.

To continue with the same activity or choose a different activity, your child must type in its name. After the name is typed correctly, have your child press the **ENTER** key. To return to the master title screen, he or she can press **FCTN = (QUIT)**.

Caring for the Cartridge

These cartridges are durable devices, but they should be handled with the same care you would give any other piece of electronic equipment. Keep the cartridge clean and dry, and do not touch the recessed contacts.

CAUTION:

The contents of the Solid State Cartridge can be damaged by static electricity discharges.

Static electricity build ups are more likely to occur when the natural humidity of the air is low (during winter or in areas with dry climates). To avoid damaging the cartridge, just touch any metal object (a doorknob, a desk lamp, etc.) before handling the cartridge.

If static electricity is a problem where you live, you may want to buy a special carpet treatment that reduces static build-up. These commercial preparations are usually available from local hardware and office supply stores.

In Case of Difficulty

If the cartridge activities do not appear to be operating properly, return to the master title screen by pressing **QUIT**. Withdraw the cartridge, align it with the cartridge opening, and reinsert it carefully. Then press any key to make the master selection list appear. (**Note:** In some instances, it may be necessary to turn the computer off, wait several seconds, and then turn it on again.)

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

If you have any difficulty with your computer or cartridge, contact the dealer from whom you purchased the unit and/or cartridge for service directions.

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

Quick Reference Guide

This Solid State Cartridge is designed to be used only with the Texas Instruments TI-99/4A Home Computer. Important keystroke sequences are summarized here for your quick reference.

Press	Action
-------	--------

ENTER	Indicates you have completed the word or letter that you have typed.
-------	--

Q	Stops an activity; a question mark (?) appears beside the cursor, allowing you to change activities.
---	--

FCFN3 (ERASE)	Erases an entry.
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FCFN = (QUIT)	Returns to the master title screen.
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Note: Before beginning any session with the Early LOGO Learning Fun cartridge, be sure that the **ALPHA LOCK** key is in the on (down) position.



TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas