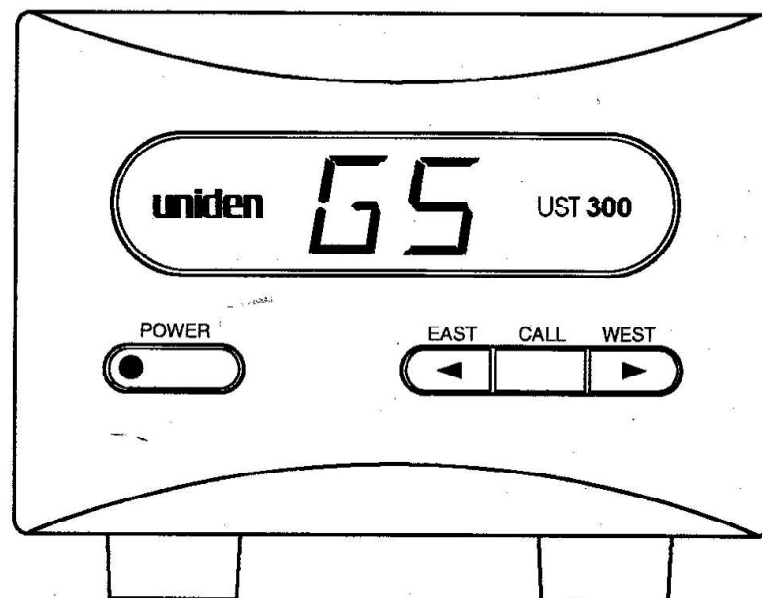


Satellite Television System

UST300

Operating Guide



A complete guide to the installation and operation of the UST300 Actuator Controller.

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Warranty

Important!

1. **Warning!** Uniden America Corporation does not represent this actuator controller to be waterproof. To reduce the risk of electrical shock, fire hazard, or damage to the unit, do not expose to rain or moisture.
2. In 1984 Congress passed the Cable Telecommunications Act (Public Law 98-549), which completely legalized the home reception of satellite TV signals.
3. **Caution!** To prevent electrical shock, do not use the UST300 power cord and polarized plug with an extension cord, receptacle, or other outlet unless the blades can be fully inserted to prevent blade exposure. When using an extension cord outdoors, be sure it is protected by a ground-fault circuit interrupter.

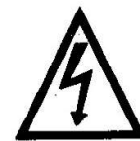
ATTENTION: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant, ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

4. **Caution!** Be sure this actuator controller has adequate ventilation. Do not place the unit in a cabinet or put other equipment on top of it. Otherwise, the internal components may overheat and suffer damage.

5. **Important:** For added protection of this product before a lightning storm, or when it is to be unused for a long period, such as during a vacation, it is suggested that you unplug the power cord from your system. Do not attempt to unplug your system during a lightning storm, but only when it is safe to do so. These precautions will prevent damage to the receiver from lightning surges on the power lines. Be sure to plug these items back in as soon as you are ready to use the receiver. If you live in an area that is prone to lightning storms, you may also want to obtain power line surge suppressors. These devices help protect your system from possible severe damage.
6. It is important to fill out and return the enclosed product registration card. This card gives our service department a record of the purchase and warranty duration of your UST300. It also allows us to keep you updated on technological improvements to your system.

If the registration card is not returned you will need a copy of your receipt or canceled check as proof of purchase to qualify for warranty service.

Features, Specifications, and availability of Optional Accessories are all subject to change without notice.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure. This voltage may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the equipment.

What is the UST300?

Congratulations for selecting the UST300 Actuator Controller. This unit can be used with your **UST4300 Integrated Receiver/ Descrambler System** to provide you with one of the most versatile satellite television systems available. With this complete system, you will be able to open your home to the exciting universe of satellite television viewing.

When connected to your satellite receiver, the **UST300** controls dish antenna movement which enables you access the desired satellite. Specifically, it moves the actuator arm of the dish during receiver operation whenever you tune to a selected satellite for program viewing.

To ensure that you get the most out of the **UST300** features, be sure to read this Guide before installing and operating the unit. If you have any questions or comments about the **UST300**, please contact your dealer or the Uniden Customer Service Center.

Satellite TV System Reference Information

Please take a moment to write down the following information. This will serve as a quick reference to all the equipment installed in your satellite television system.

UST300 Serial Number: _____

Other equipment: _____

Date of purchase: _____

Place of purchase: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Date of installation: _____

Important information about installation: _____

The TVRO System

A typical TVRO system incorporating both the **UST300** Actuator Controller and a satellite receiver consists of the following components:

Dish Antenna

The antenna system receives and concentrates the extremely weak signal.

Actuator

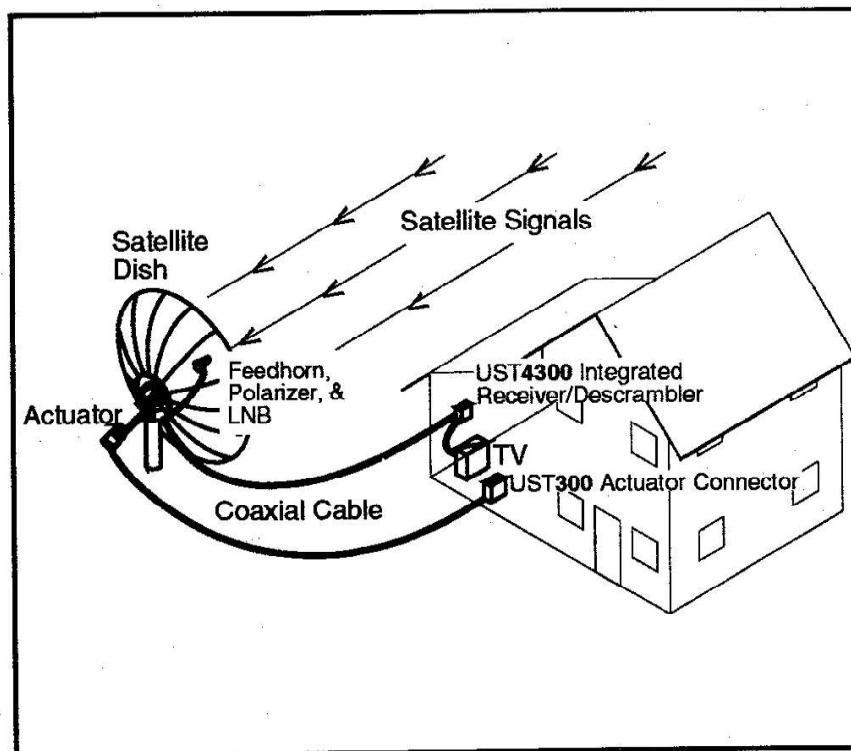
The actuator extends and retracts to aim the dish antenna at the orbiting satellites. The **UST300** controls the actuator when it selects satellites during receiver operation. The actuator positions are programmed into the **UST300** so it can recall the exact location of each satellite.

Feedhorn and Polarizer

The feedhorn and polarizer, mounted above the center of the dish antenna, collects the concentrated satellite signal. There are various types of polarizers. A single feed polarizer, either C-band or Ku-band, feeds the satellite signal to one LNB downconverter. In this configuration the receiver selects the polarity. A dual feed polarizer, either C-band or Ku-band, feeds the satellite signal to two LNBs. One LNB receives the horizontal signal and the other receives the vertical signal. The type of polarizer required depends upon the system configuration you select.

LNB

The satellite signal is extremely weak by the time it reaches your dish antenna. The LNB (Low Noise Block Downconverter) amplifies the signal over 1,000 times and converts it to a lower frequency. This allows you to use less expensive coaxial cable to carry the signal to your receiver.



You can install from one to four LNBs in your system. The number and types of feedhorns you install determine how many LNBs you need. One LNB is required if you install a single C-band feed. The single feed polarizer selects either the vertical or horizontal polarity, depending on the desired channel. The dual feed polarizer selects both vertical and horizontal signals simultaneously and requires two LNBs. Use this feed in multiple receiver systems to allow different receivers to access

channels of either polarity simultaneously.

Some systems are also equipped to receive Ku-band transmissions. Usually you can use the same antenna to receive C-band and Ku-band transmissions. However, you must add a special feedhorn and LNB. Like C-band, the Ku-band polarizer can be single feed or dual feed.

Video Display

You can connect either a TV set or monitor to the satellite receiver video display. If the video display unit has direct input, most satellite receivers have separate video and audio outputs. Also, most satellite receivers provide a VHF signal (Channel 3 or Channel 4).

If your TV set is not stereo, you can attach a stereo amplifier to some satellite receiver audio outputs for stereo sound, where available.

Remote Control

You can use the **UST300r** remote control to operate the actuator controller without leaving the comfort of your chair. The remote control uses advanced infrared technology.

Controls and Indicators

Front Panel Controls

1. **POWER** — Press the button to turn the unit on or off. While the receiver is on, the current satellite is displayed on the front panel.
2. **EAST** — This key moves the antenna East.

In Call mode, use this key to move eastward through the list of programmed satellites.

In Program mode, use this key to select the letters or numbers of the satellite being programmed. Also, use this key to program the limits and to resync the satellite positions.

3. **CALL** — This key selects programmed satellites. You can call satellites directly or by selecting a satellite from a list of programmed satellites.
4. **WEST** — This key moves the antenna West.

In Call mode, use this key to move westward through the list of programmed satellites.

In Program mode, use this key to select the letters or numbers of the satellite being programmed. Also, use this key to program the limits and to resync the satellite positions.

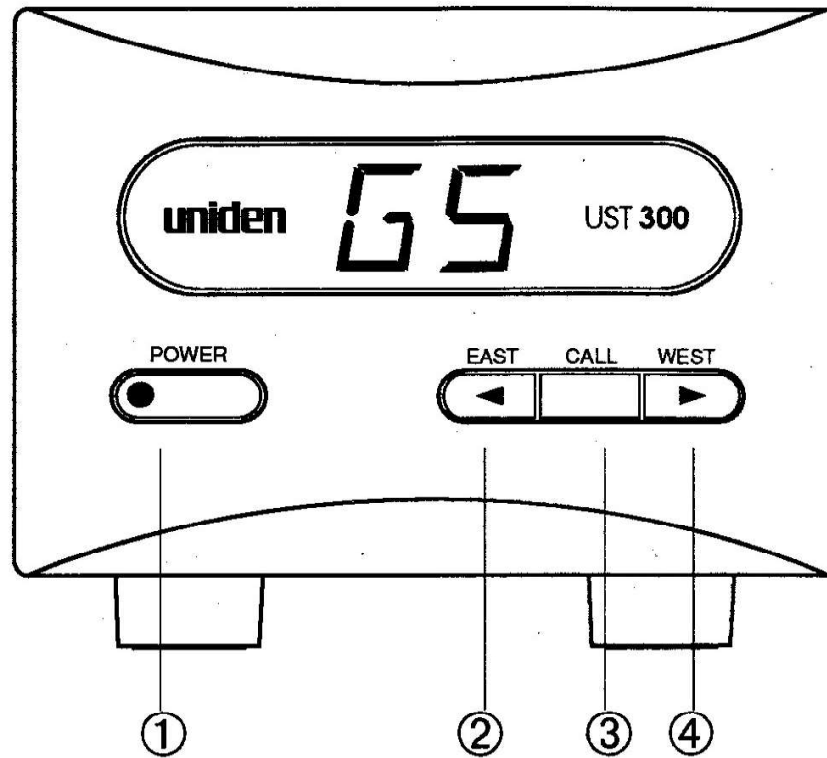
Front Panel Indicators

The LED Indicator on the front panel shows the current satellite's abbreviation and number. While the antenna is moving, the current satellite will be displayed if the antenna is near a programmed satellite. If the antenna is not near a programmed satellite, the display will show --.

The following abbreviations can also be displayed on the front panel, and are described under 'Display Warnings' in the Operation section.

| | |
|-----------|-------------------|
| EL | East Limit |
| WL | West Limit |
| AE | Actuator Error |
| ES | Emergency Stop |
| RE | Resync Satellites |
| MF | Memory Full |
| UL | Upper Limit |
| LL | Lower Limit |

Front Panel Controls

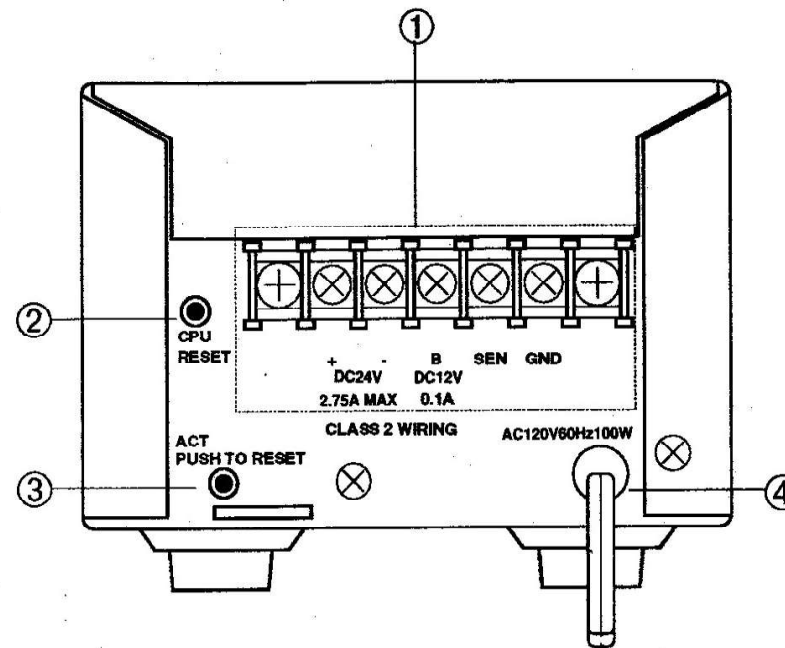


Front Panel Indicators



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Rear Panel



WARNING: Do not use metallic objects to reset switches on the rear panel of the actuator controller.

1. Actuator Wiring

- | | |
|------------------|---------------------------------|
| a. + / - | 24 VDC Motor Power (2.75A max.) |
| b. B DC 12V 0.1A | + 12 VDC Sensor Power |
| c. SEN | Sensor Return |
| d. GND | Sensor Ground |

2. **CPU Reset** — Press this button to reset the unit in case of a system lockup condition. (This will *not* erase programmed memory.) After this button has been pressed, the unit will turn off. Turn the unit back on to resume viewing.

3. **ACT Circuit Breaker** — If the unit fails to move the actuator, check the circuit breaker. This breaker is used to protect the unit from excessive current.
4. **Power Cord** (AC120V 60 Hz) — Connect to any standard household outlet. Do not connect to an outlet controlled by a wall switch.

Remote Control

1. **E◀** — This key moves the antenna east.

In Call mode, use this key to move eastward through the list of programmed satellites.

In Program mode, use this key to select the letters or numbers of the satellite being programmed. Also use this key to program the limits and to resync the satellite positions.

2. **PROG** — Press this key to enter the Program mode. While in Program mode, this key is used to store changes. Also, this key is used in other satellite programming options.

3. **Numeric Keys (1 to 9)** — Use these numeric keys when calling or storing a satellite directly.

Letter Keys (G, T, F, E, M, C, S, R, K, B) — Use these letter keys when calling or storing a satellite directly.

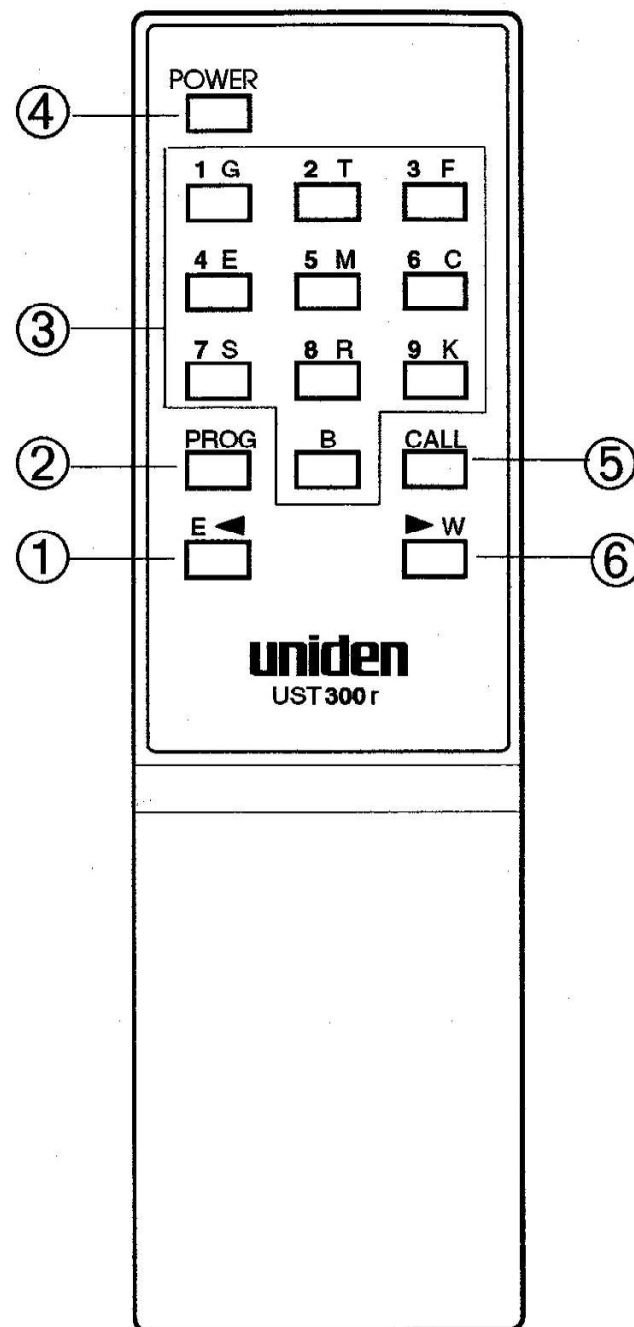
4. **POWER** — Press the button to turn the unit on or off. While the unit is on, the current satellite is displayed on the front panel.

5. **CALL** — This key selects programmed satellites. You can call satellites directly or by selecting a satellite from a list of programmed satellites.

6. **▶W** — This key moves the antenna west.

In Call mode, use this key to move westward through the list of programmed satellites.

In Program mode, use this key to select the letters or numbers of the satellite being programmed. Also use this key to program the limits and resync the satellite positions.



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Operation

Normal Operation

Power On

Turn the power on both your satellite receiver and **UST300** Actuator Controller using the remote control or front panel button. Next, turn on your television set and set it for either Channel 3 or 4, depending on the switch setting on the back of the receiver. You are now ready to select a satellite.

Selecting a Satellite

There are two ways to access a satellite:

- Using the Direct Satellite Access method to directly call a satellite
- Selecting a satellite from a programmed list

Using the Direct Satellite Access Method

1. Press **CALL** on your remote control or unit front panel.

The current satellite indicator on the front panel starts flashing. (The unit will remain in Call mode for 8 seconds.)

2. Press the corresponding letter of the desired satellite.

The number continues to flash, but the satellite letter stops flashing. (The unit will remain in Call mode for another 8 seconds.)

3. Press the number of the desired satellite.

The antenna will start moving.

Note: *If the satellite is not programmed, the current satellite will return.*

As the dish moves, the decimal point between the letter and number flashes to indicate the antenna is moving.

Selecting a Satellite From a Programmed List

1. Press **CALL** on your remote control or unit front panel.

The current satellite indicator on the front panel starts flashing. (The unit will remain in Call mode for 8 seconds.)

2. Press **E◀** to move eastward through the list of programmed satellites

— OR —

Press **▶W** to move westward through the list of programmed satellites. (The unit will remain in Call mode for 8 seconds after the last button is pressed.)

3. When the desired satellite is displayed on the front panel, press **CALL** to move to that satellite. As the dish moves, the decimal point between the letter and number flashes to indicate the antenna is moving.

Note: *The keys on the front panel work the same as the keys on the remote for selecting a satellite from a programmed list.*

Moving the Satellite Dish Manually

Press the **E◀** or **▶W** keys to move the dish manually.

The satellite abbreviation will appear on the front panel if the antenna is within ± 10 counts of the satellite.

If no satellite is near the current position, the front panel will display --.

As the dish moves, the decimal point between the letter and number flashes to indicate the antenna is moving.

Note: *The keys on the front panel work the same as the keys on the remote for moving the satellite dish manually.*

Programming

Programming the Limits

Note: It is important that the East and West limits are set *before* programming any satellites. The limits are set to avoid any mechanical damage to the satellite system that may be caused by overextending the actuator.

Setting the EAST Limit

1. Use the **E◀** and **▶W** keys to locate the easternmost satellite.
2. Move a few counts east of that satellite.
3. Press **PROG** to locate the East limit setting.

An **A** starts flashing on the screen. (The unit will remain in Program mode for 8 seconds.)

4. Press **E◀** twice until **EL** appears on the front panel.

Note: If **E◀** is pressed too many times, use **▶W** to bring up **EL** on the front panel.

5. Once **EL** is located on the front panel, press **PROG** to store the current position as the East limit.

Setting the WEST Limit

1. Use the **E◀** and **▶W** keys to locate the westernmost satellite.
2. Move a few counts west of that satellite.
3. Press **PROG** to locate the West limit setting.

An **A** starts flashing on the screen. (The unit will remain in Program mode for 8 seconds.)

4. While the **A** flashes, press **E◀** once until **WL** appears on the front panel.

Note: If **E◀** is pressed too many times, use **▶W** to bring up **WL** on the front panel.

5. Once **WL** is located on the front panel, press **PROG** to store the current position as the West limit.

Deleting the EAST Limit

1. Move to the East limit using the **E◀** key.

EL will flash on the front panel for 8 seconds.

2. Press and hold **PROG** for 4 seconds.

EL will flash three times on the display to indicate that the East limit has been deleted.

Deleting the WEST Limit

1. Move to the West limit using the **▶W** key.

WL will flash on the front panel for 8 seconds.

2. Press and hold **PROG** for 4 seconds.

WL will flash three times on the display to indicate that the West limit has been deleted.

Programming a Satellite

When you program a satellite, you are storing that position in your unit's computer memory so that the satellite can be called up whenever you want to view a channel on that satellite. There are two ways to program a satellite:

- Using the Direct Entry method
- Manually storing a satellite

Direct Entry Method

1. Use the **E◀** and **▶W** keys to locate the desired satellite. (You may have to tune the channel and polarity on the receiver to locate the satellite.)
2. Once the best satellite position is located, press **PROG** on the remote to enter the Program mode.

An **A** starts flashing on the screen.

3. Press the desired satellite letter on the remote.

The satellite letter will appear on the front panel.

4. Press **PROG** to store the satellite letter.

The satellite number will start flashing.

5. Press the desired satellite number.

The satellite number will appear on the front panel.

6. Press **PROG** to store the satellite.

The satellite abbreviation will flash twice to indicate that it has been successfully programmed.

Manual Entry

1. Use the **E◀** and **▶W** keys to locate the desired satellite. (You may have to tune the channel and polarity on the receiver to locate the satellite.)
2. When the best satellite position is located, press **PROG** on the remote to enter the Program mode.

An **A** starts flashing on the screen.

3. Use the **E◀** and **▶W** keys to select the desired satellite letter.

The satellite letter will appear on the front panel.

4. Press **PROG** to store the satellite letter.

The satellite number will start flashing.

5. Use the **E◀** and **▶W** keys to select the desired satellite number.
6. When the satellite number is displayed, press **PROG** to store the satellite.

The satellite abbreviation will flash twice to indicate that it has been successfully programmed.

Deleting a Satellite

1. Move to the satellite to be deleted.
2. When the satellite position is reached and the satellite's abbreviation appears on the front panel, press and hold **PROG** for 4 seconds.

The satellite abbreviation will flash 3 times to indicate the satellite has been deleted.

Resync Satellites Option

Use this option to *resync* or adjust all of the positions of the programmed satellites which may result from actuator slippage.

1. Use the **E◀** and **▶W** keys to locate a key satellite.
2. When the best satellite position of this key satellite is found, press **PROG**.

An **A** will flash on the front panel to indicate the unit is in Program mode.

3. Press **E◀** three times until **RE** is displayed.

Note: If **E◀** is pressed too many times, use **▶W** to bring up **RE** on the front panel.

4. Press **PROG**.

The current satellite's abbreviation starts flashing.

Note: If the system needs to be resynced, the satellite abbreviation displayed may not correspond with the key satellite currently being viewed.

5. Use **E◀** and **▶W** to select the key satellite currently being viewed.
6. When the key satellite's abbreviation is displayed, press **PROG** to resync all of the satellite's positions around the key satellite.

The display will flash the satellite's abbreviation two times to indicate that it has been successfully resynced.

Master Clear

This is used to erase all of the programmed satellite positions and limits.

Note: Before you begin, make sure that the unit is turned OFF.

1. While pressing and holding down **E◀** and **CALL** on the front panel, press **RESET** on the rear of the unit.
2. Continue to hold **E◀** and **CALL**.

After three seconds, -- will flash three times on the front panel to indicate that all of the memory has been erased.

Display Warnings

ES

Emergency Stop — If the dish antenna is moving, press any key on the remote or front panel to stop it from moving any further.

Immediately after the dish antenna is stopped, *ES* flashes on the display for 8 seconds. After 8 seconds, the front panel displays a satellite if the antenna is near a satellite; otherwise, the display will show --.

AE

Actuator Error — If the unit attempts to move the dish antenna and no return pulse is found, the unit stops attempting to move it. The display flashes *AE* for 8 seconds.

Actuator errors are typically caused by loose wires or incorrect wiring of the actuator. Also, if the circuit breaker has been triggered, the unit will not supply the required voltage to the actuator, causing an actuator error.

EL

East Limit — If the dish antenna is moving and the actuator reaches the programmed East limit, *EL* flashes on the screen for 8 seconds. The dish antenna will not move eastward beyond the East limit.

WL

West Limit — If the dish antenna is moving and the actuator reaches the programmed West limit, *WL* flashes on the screen for 8 seconds. The dish antenna will not move westward beyond the West limit.

MF

Memory Full — If all of the 40 satellite positions have been programmed, *MF* flashes on the front panel for 8 seconds, indicating that the memory is full.

To make room for additional satellites, delete any unused satellite positions.

UL

Upper Limit — The internal counter has a maximum count of 10000. If the controller reaches that limit, *UL* flashes to indicate that the unit cannot move any higher.

LL

Lower Limit — The internal counter has a minimum counter of 0000. If the controller reaches that limit, *LL* flashes to indicate that the unit cannot move any lower.

Installation

Installing the UST300

Some Important Guidelines

Because of the complex nature of TVRO systems, the placement and adjustment of the dish antenna and satellite system components is critical. Therefore, it is recommended that you **do not** attempt to install the system yourself. Your dealer can perform a professional installation that will provide you with the best reception possible.

When you install the **UST300** in a TVRO system:

- First make all connections between the components.
- Then program the **UST300**.

Caution: *Do not connect the **UST300** to AC power until you make all the proper connections to the dish antenna. Failure to do so may cause damage to the unit and void the warranty.*

Install the dish antenna according to the manufacturer's installation instructions and orient it in the proper direction.

Use the manufacturer's template to adjust the feedhorn until it is on the polar axis. The dish antenna must be able to point at the satellites in the Clarke orbit belt without obstruction.

Replacing an Existing System

If you are replacing an existing antenna controller with the **UST300**, do not disconnect the original antenna controller completely before you connect the **UST300**.

Place the **UST300** next to the existing antenna controller. Remove one wire at a time from the original antenna controller and connect it to the proper terminal on the back of the **UST300**.

Installing a New System

If you are installing the **UST300** in a new system, you may want to use the **UST300**, a receiver, and a TV set or monitor at the dish antenna location to adjust the dish antenna. With this setup, you can immediately see the results of adjustments to the dish antenna as you make them.

Note: *When using an extension cord outdoors during installation, be sure it is protected by a ground-fault circuit interrupter.*

Locating the UST300

When installing the actuator controller, select a location that assures adequate ventilation for the sophisticated electronics. The ideal location is close to both the receiver and an unswitched AC power outlet. It should also offer a clear view of the front panel displays of the **UST300** from the desired viewing position.

Selecting the Proper Cable

Use the table in the Appendix to determine the type of cable to use when you connect the dish antenna to the **UST300**. Make sure to protect all connections from moisture to ensure long and trouble free operation.

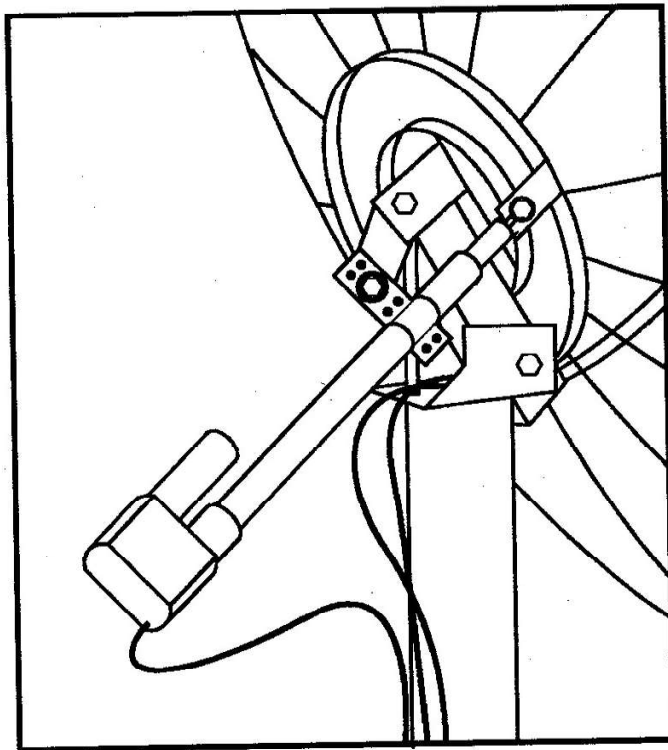
Actuator Installation

You can use the UST-706 actuator arm with most mesh dish antennas up to 10 feet in diameter. If the dish antenna is larger or you notice improper counting of the satellite positions, you may need a heavy-duty actuator jack.

Assembly

Assemble the actuator as follows:

1. Unpack the actuator and the parts kit.
2. Find the tube clamp and attach it to the right side of the metal plate on the antenna mount (for locations east of the Rocky Mountains) so that it extends downward.



3. Position the actuator through the clamp so the motor is up on top of the arm. The two small holes in the actuator case should point down for proper drainage.
4. Slide the actuator outer tube in the clamp until you can view all satellites from horizon to horizon.
5. Tighten the bolt on the clamp to hold the arm in place.
6. Pull the antenna down so that the end of the actuator arm attaches to the metal plate on the hub of the mount.
7. Use a 1/2-inch bolt to attach the pivot socket to this plate. Make sure that you fasten the lock washer and nut securely and that the connection is very tight.

Notes:

- For proper installation, retract the actuator arm fully retracted and locate the motor casing above the arm.
- Secure the clamp and pivot socket bolts tightly.
- If you install the antenna west of the Rocky Mountains, reverse the actuator position (install it on the left instead of the right). Reverse the + and - wires only on the back of the - **UST300**. Then press **WEST** to extend the actuator just beyond the westernmost satellite you want to receive.

Watch the antenna carefully during this step so that it does not tip over. You may need to adjust the limit cam inside the actuator to reach the satellite.

Actuator Connections

Connect the actuator to the **UST300** as follows:

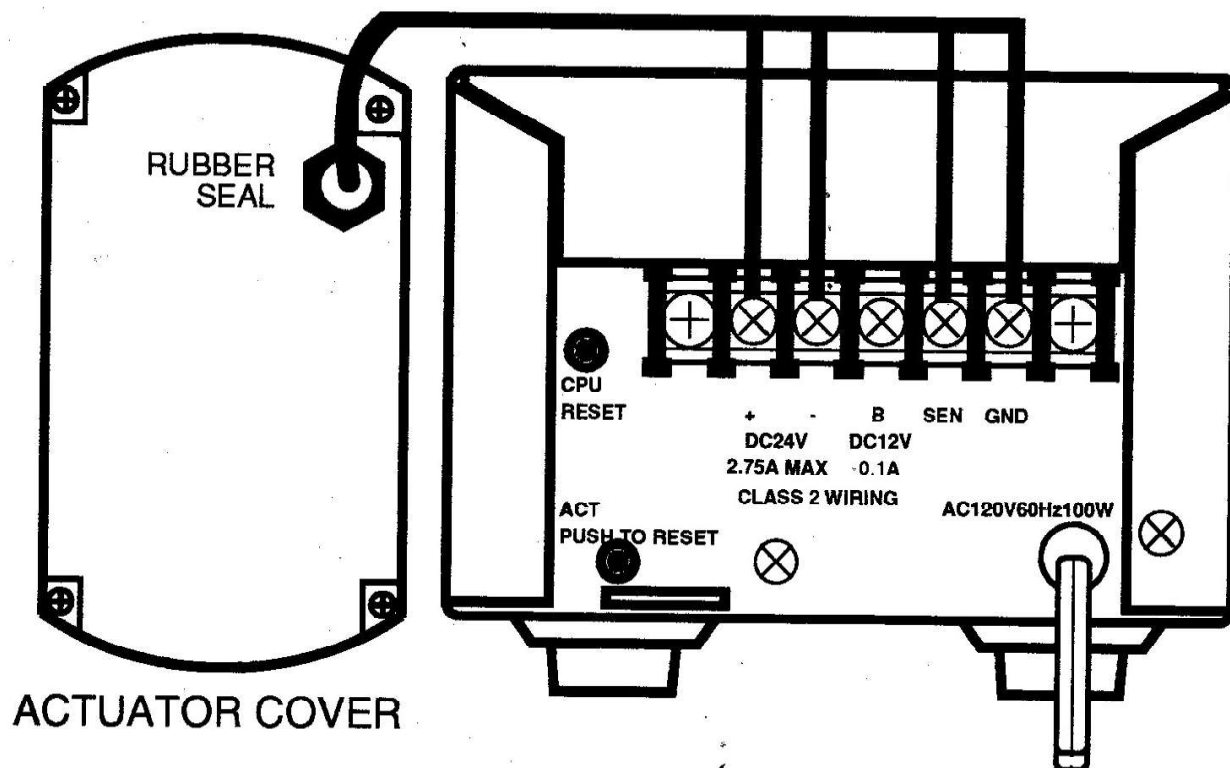
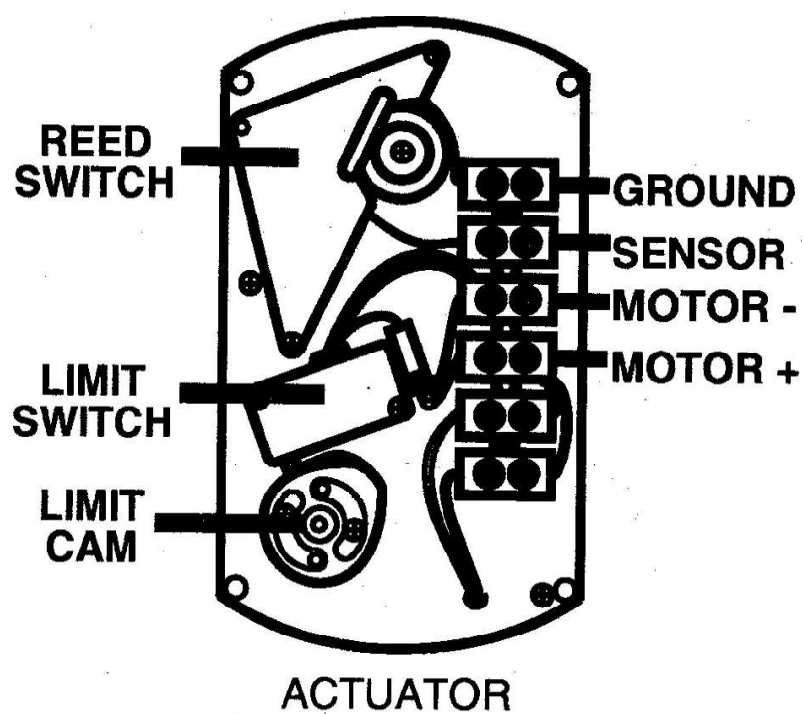
1. Remove the back cover of the actuator motor.
2. Route the cable through the rubber seal.
3. Connect the appropriate cable wires to the connectors on the terminal strip inside the casing. Make sure you use the cables recommended in the Appendix.

4. Connect the cable wires from the actuator to the screw terminals on the rear on the **UST300**.

Important: *Improper connections can cause permanent damage to the satellite system.*

5. If the mechanical limit switches are set, put the case back on the motor. Make sure you position the gasket properly to assure a watertight seal.

If the mechanical limit switches are not set, continue with the next section.



Actuator Mechanical Limit Settings

The mechanical limit settings prevent damage to the dish antenna by restricting the distance the actuator arm can travel. Use the following procedure to set the East and West mechanical limits:

1. Remove the back case of the actuator motor housing.
2. Set the West limit as follows:
 - a. Move the dish antenna all the way west until the bottom cam activates the limit switch.
 - b. Loosen the bolts on the collar and slide the actuator arm downward such that the dish antenna is pointed just beyond the westernmost satellite. Tighten the collar bolts

— OR —

Remove the bolt that attaches the inner arm of the actuator to the dish antenna and rotate the inner arm clockwise until the antenna is pointed just beyond the westernmost satellite. Replace and tighten the bolt that attaches the inner arm of the actuator to the dish antenna.

Note: Make sure that all bolts are attached securely to prevent actuator arm slippage.

3. Set the East limit as follows:
 - a. Move the dish antenna to a point just beyond the easternmost satellite.
 - b. Loosen the two screws that secure the top limit cam.
 - c. Rotate top limit cam until the limit switch is activated.
 - d. Tighten the screws that secure the top limit cam.

Important: Make sure the cam screws are tight before you replace the actuator case. If the actuator limit cam is not secure, it may cause permanent damage to the actuator.

4. Put the case back on the motor. Make sure that you position the gasket properly to assure a watertight seal.
5. Use **E◀** and **▶W** to move the actuator arm back and forth. Make sure that the satellite dish can reach the satellite farthest west and the satellite farthest east before the limit switch stops the travel of the arm.

Note: The mechanical limit switches eliminate the possibility of damaging the dish antenna through extreme actuator movement. Also program the East and West limits from the actuator controller as an added precaution.

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Technical Information

Troubleshooting

If your **UST300** is not performing up to your expectations, please try the simple steps listed below. If you cannot get satisfactory results after following these steps, contact your local Uniden dealer.

Note: *Most of the problems occurring with satellite TV systems are related to cable trouble. If you are experiencing any problem with your system, first check all cables and connections carefully. If the problem still exists try the following steps:*

Problem: The front panel indicator on the UST300 is not working.

1. Check the Power switch to make sure it is on.
2. Check the AC power cord to make sure it is plugged into an outlet that is not controlled by a wall switch.

Problem: The antenna will not move. Antenna movement is erratic.

1. Check the actuator breaker on the back of the satellite selector.
2. The actuator is improperly installed or binding. Check the actuator installation and antenna mount to make sure nothing is obstructing movement.
3. Check the actuator cable for proper connections at both the motor and the back of the satellite selector.

4. The antenna is too heavy for the actuator. Check with your Uniden dealer about a heavy duty antenna kit.

Problem: Cannot select the desired satellite from memory.

1. The satellite is not programmed.

Specifications

Actuator Controller

| | |
|----------------|------------------------|
| Actuator Type: | Pulse type |
| Motor Voltage: | 24 VDC |
| Motor Current: | 2.75 A max. |
| Sensor Power: | + 12 VDC (100 mA max.) |

Operating Power

| | |
|----------------------|----------------------------|
| Main Unit: | 120 VAC, 60 Hz |
| Remote Control Unit: | 3.0 VDC (two AA batteries) |

Remote Control

| | |
|----------------------|----------|
| Remote Control Type: | Infrared |
| Range: | 7m min. |

Memory

| | |
|----------------------|-----------------------------------|
| Satellite Capacity: | 40 Satellite Positions |
| Additional Capacity: | 2 Limit Positions (East and West) |
| Memory Protection: | About one week without power |

Dimensions

| | |
|----------------------|-------------------------------------|
| Main Unit: | 120 mm (W) x 88 mm (H) x 348 mm (D) |
| Remote Control Unit: | 45 mm (W) x 18 mm (H) x 150 mm (D) |

Weight

| | |
|----------------------|--------|
| Main Unit: | 3.1 kg |
| Remote Control Unit: | 60 g |

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Appendix

Cable and Wiring Information

Since you have purchased one of the finest actuator controllers available, you will want to use the finest cable and wiring available. Please consult the chart below when selecting the appropriate cable. The quality of the **UST300** can only be realized when the *highest quality* cable is used.

Caution: *Be sure that the UST300 is properly installed before it is operated. Any damage due to improper installation will void the warranty.*

| Cable | Up to 120' | 120 - 200' | 200 - 320' |
|-------------------------|------------|------------|------------|
| C/Ku Input LNB* | RG-59 | RG-6 | RG-6 |
| Polarity motor* | 20 gauge | 18 gauge | 16 gauge |
| Actuator motor* | 18 gauge | 16 gauge | 14 gauge |
| Sensor 3-shielded wire* | 24 gauge | 24 gauge | 22 gauge |
| TV, VCR | RG-59 | RG-59 | RG-6 |

**Make sure that all outdoor connections are completely sealed from moisture to avoid any damage or break in connections.*

Direct Satellite Keys

| SATELLITE | LETTER CODE |
|-------------|-------------|
| Galaxy | G |
| Telstar | T |
| Satcom | F |
| Anik | E |
| Morelos | M |
| Satcom | C |
| Spacenet | S |
| G Star | R |
| Satcom (Ku) | K |
| SBS | B |

Character List

Satellite Letters Unit Functions Satellite Numbers

| | | |
|---|----|---|
| A | EL | 1 |
| B | WL | 2 |
| C | RE | 3 |
| D | | 4 |
| E | | 5 |
| F | | 6 |
| G | | 7 |
| H | | 8 |
| I | | 9 |
| J | | |
| K | | |
| L | | |
| M | | |
| N | | |
| O | | |
| P | | |
| Q | | |
| R | | |
| S | | |
| T | | |
| U | | |
| V | | |
| W | | |
| X | | |
| Y | | |
| Z | | |

Warranty

ONE YEAR LIMITED WARRANTY

WARRANTOR: Uniden America Corporation ("Uniden")

ELEMENTS OF WARRANTY: Uniden warrants, for one year, to the original owner, this Uniden Satellite Selector (hereinafter referred to as the Product) to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall terminate and be of no further effect 12 months after the date of the original purchase of the Product. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) repaired by someone other than an authorized service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or (F) installed, programmed, or serviced by anyone other than an authorized Uniden service center.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will repair the defect and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by warrantor or its representatives in connection with the performance of this warranty. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL

OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in this Operating Guide you are *certain* that the Product is defective, pack the Product carefully (preferably in its original packaging) and include a note describing the defect that has caused you to return it. The Product should be shipped or delivered (by UPS or insured parcel post), freight prepaid, to warrantor at:

Uniden America Corporation
Parts and Service Division
8707 North By Northeast Blvd.
P.O. Box 501368
Indianapolis, IN 46250
(317) 842-2483 (Monday through Friday,
8:00 am to 5:00 pm Eastern Time).

with evidence of original purchase.

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