

Model 8616 Addressable Home Terminal with On-Screen Display

Description

The 8600™ home terminal family has evolved to meet the demands and diversity of the international marketplace. The Model 8616, a member of the 8600 home terminal family, was designed specifically for the Brazilian market. The multilingual on-screen display (OSD), extended tuner, and pay-per-view (PPV) capabilities enable the cable operator to better service the Brazilian market.

Features

- PAL-M 750 MHz tuning
- Portuguese/English OSD provides subscribers with an easy-to-use interface
- RF impulse pay-per-view (RF-IPPV) capability (optional)
- SoundProtect® audio masking (optional)
- Multi-mode scrambling enhances system security
- Dual language group and individual messaging capabilities expand cable operators' marketing and revenue-generating opportunities
- PPV event confirmation reduces subscriber telephone calls to the cable operator
- Operator defined on-screen channel name identifies programming and improves channel navigation
- On-screen volume display allows optimal audio control
- 8-event, 14-day, on-screen program timer simplifies unattended recording
- 110 volt, 220 volt, or 110-220 universal power supply



Easy for Subscribers

Navigation Simplifies Subscriber Interaction

When subscribers press the menu key, the 8616 addressable home terminal displays the main menu in either Portuguese or English. The arrow key enables subscribers to easily navigate through menu choices. Subscribers simply press the select key to choose the option to which the on-screen arrow is pointing. Subscribers can employ either the remote control or the keypad on the home terminal. For enhanced ease of use, the remote control keys are colored and grouped according to function.

Automatic Pay-Per-View Event Confirmation

The Model 8616 addressable home terminal lists those pay-per-view events and movies for which subscribers are authorized, reducing unnecessary telephone calls to cable operators to confirm pay-per-view orders. When subscribers select this option, authorized events are listed by channel, event number, and event description. A description of up to 24 characters can be downloaded from the pay-per-view schedule via the billing system.

Identify Programming With On-Screen Information

Whenever subscribers change channels or press the display key on the remote control, the home terminal indicates the channel number, the current time (in 12-hour or 24-hour format), and the program ID as an overlay on the screen. This information reflects changes in channel lineups and the correct time even after power outages.

The program ID instantly differentiates cable-exclusive channels from broadcast channels, increasing subscribers' awareness of the range of programming services offered. Display of the program ID also makes it easier for subscribers to navigate cable systems with large numbers of channels.

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Graphic Mute and Volume Control Display

The 8616 addressable home terminal presents a clear graphic display of the relative volume level, eliminating subscribers' confusion over volume settings.

When the optimum volume level for BTSC stereo separation is reached "best stereo" is displayed on the television monitor. "Mute" displays when the mute key is pressed, reducing subscribers' unnecessary telephone calls concerning lack of volume.

Other Features Subscribers Value

- An 8-Event, 14-Day program timer facilitates unattended VCR recording of premium programming.
- The optional factory integrated IPPV option provides the subscriber with easy, one-touch purchasing of pay-per-view events from either the remote control or the home terminal.
- The easy-to-use parental control capability allows subscribers to clearly designate channels under parental control. The five-digit access code can be changed from either the on-screen display or the System Manager Control System.
- Favorite channel control allows a list of 128 channels to be easily scanned, selected and reviewed.
- The helpful sleep timer feature turns off the home terminal after the time designated by the subscriber — either 15, 30, 45, 60, 90 or 120 minutes.

Easy for Operators

Welcome Message Distinguishes Your Cable Service From Competitors

A customized welcome message of up to 240 characters reinforces name identification of your cable service with subscribers and allows promotion of pay-per-view and other revenue generating services. This branding message helps set your cable service apart from competitors. As your marketing strategy dictates, you can change your welcome message as often as you like.

Value Added Group and Individual Messaging

The 8616 addressable home terminal messaging capabilities create flexible marketing opportunities for cable operators. Message applications include: cable system promotions, past-due reminders, public service announcements, and targeted advertising. System operators can define up to 64 different home terminal groups and send messages to all terminals within each group. Operators may also individually address messages to one or more home terminals.

When the 8616 addressable home terminal receives a message, an alert is overlaid on the video to inform the subscriber "You have a message."

Video or Text Barkers

When subscribers tune a channel for which they are not authorized, the home terminal can display an operator-defined barker message or force-tune to a predetermined operator-defined channel. The barker message for a particular premium channel can contain up to 240 characters and includes the channel number and name with a color background. System operators can display different barkers for turn-on, PPV, premium, unused, and parentally-controlled channels.

Baseband Scrambling for Maximum Security

The Model 8616 addressable home terminal provides unsurpassed security. Unique video baseband and RF sync suppression scrambling techniques protect premium channels from being compromised. Using Scientific-Atlanta's patented processes, the Model 8616 addressable home terminal provides video baseband security through static and random video and sync inversion scrambling. Operators can reserve maximum levels of random video and sync inversion for the most valuable premium and pay-per-view programming.

The Model 8616 addressable home terminal combines RF sync suppression and video baseband security techniques to make signal theft far more difficult. Unique dynamic switched sync suppression varies the timing key for random scrambling during each video frame. Together, video baseband and RF scrambling techniques provide a variety of scrambling modes, ensuring the best security possible. In addition, our Fast Dynamic mode provides a high level of video obliteration on scrambled channels if viewed on a cable-ready TV.

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SoundProtect audio masking is an optional feature of the 8616 addressable home terminal that alters the audio on an analog channel so that a cable-ready TV or VCR is unable to receive it. Only subscribers with properly authorized 8616 addressable home terminals will be able to recover the original audio programming (mono only).

Complete Addressable Control

Scientific-Atlanta's proven System Manager 4.5 controls Model 8616 addressable home terminal functions, including:

- Default set-top language Portuguese/English
- Premium service and PPV event authorization
- Individual channel authorizations
- Program timer
- Volume control
- IPPV purchase capability

Operator Ease and Flexibility

Downloadable frequency assignments and output channels provide continued flexibility for cable operators. The 8616 addressable home terminal allows the association of any channel number with any frequency and also allows the terminal's frequency output to be selectively assigned to channel 3 or 4.

All critical home terminal data are stored in sealed, non-volatile secure microprocessor that never requires a battery and is not affected by power outages.

Specifications

Environmental

Temperature

0°C to 45°C

Relative humidity

5% to 95%

Video Format

PAL-M 750 MHz

Electrical

Input bandwidth

54 MHz to 750 MHz

Number of channels

82 with single cable

99 with optional dual cable

116 channels (750 MHz option)

Output channel downloadable

3 or 4

Output level

9.0 dBmV typical

Noise figure

8.7 dB (including baseband circuitry), typical

Return loss

Input

8 dB

Output

12 dB

Spurious response

Output

-60 dBc in channel

Frequency accuracy

±100 kHz, max

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Frequency stability

±100 kHz, max

AC input

115 V AC ±10% (60 Hz) to 240 V

Power consumption

14 W, max

Surge protection

AC

Spark gaps and transformer isolation

RF

Inductor shunt to ground

Distortion at +15 dBmV, 78 channel load/116 channel
load (750 MHz)

Flat input, second order

-60 dB

Cross modulation

-60 dB

Composite triple beat

-63 dB, max

Input level

-7 dBmV to +20 dBmV

Audio distortion

THD 2.5%, max

Audio signal-to-noise

50 dB, min.

Mechanical

Dimensions

9.2 in. L x 7.0 in. W x 2.4 in. H

Weight

3.3 lbs/1.5 kg, max

Keyboard type

11 keys (front access)

Display type

On-screen 10-line by 24-column character display

IPPV Module Specifications

RF Return (Optional)

Frequency range

15.5 MHz to 17.7 MHz

Modulation rate

20 kbps

Modulation technique

BPSK

Maximum output power

+60 dBmV

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Model Number and Ordering Information

| Model | Description |
|-----------|--|
| 8616 STAN | Home Communications Terminal (HCT), 750 MHz with Portuguese/English OSD with SoundProtect Audio Masking |
| 8616 STAR | Home Communications Terminal (HCT), 750 MHz with Portuguese/English OSD with SoundProtect Audio Masking and RF IPPV |
| 8616 VTAR | Home Communications Terminal (HCT), 750 MHz with Portuguese/English OSD with SoundProtect Audio Masking and RF IPPV and switchable 110/220 AC |
| 8616 VBAR | Home Communications Terminal (HCT), 750 MHz with Portuguese/English OSD with SoundProtect Audio Masking and RF IPPV and switchable 110/220 AC and baseband outputs |



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Scientific-Atlanta, Inc.
1-800-722-2009 or 770-903-6900
www.sciatl.com

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