

**Subscriber**



## **Model 8610 Addressable Home Terminal with On-Screen Display**



### **FEATURES**

- On-screen display provides subscriber with an easy-to-use interface.
- Pay-per-view event confirmation reduces unnecessary subscriber telephone calls to the cable operator.
- Operator-defined, on-screen channel programmer ID (PID) improves channel navigation.
- On-screen volume display allows optimal audio control.
- Eight-event, 14-day, on-screen program timer simplifies unattended recording.
- Group and individual message capabilities expand cable operators' marketing and revenue-generating opportunities.
- Multi-mode RF and baseband scrambling enhances system security.
- Motorola secure microprocessor enables unique permanent digital address for each home terminal, highly tamper resistant.
- 750 MHz tuning is a standard feature.
- SoundProtect™ audio masking is an optional feature.

**Scientific-Atlanta 1-800-722-2009**

In 1991, Scientific-Atlanta led the industry by introducing the Model 8600 Addressable Home Terminal with an integrated 240-character, on-screen display. Recognized for highest quality and performance, the 8600 Home Terminal family has become the cornerstone of addressable CATV markets. The 8600 HomeTerminal has been upgraded to the model 8610.

The 8610 Addressable Home Terminal is easy to use for both subscribers and cable operators. Subscribers value the easy control the 8610 Addressable Home Terminal provides them for access to their cable services. Operators value the ease of system deployment, operation, and maintenance — benefits that result from a premier, quality product.

## EASY FOR SUBSCRIBERS

### *Self-Revealing Navigation*

#### *Simplifies Subscriber Interaction*

When subscribers press the menu key, the 8610 addressable home terminal displays a self-revealing main menu. The arrow key enables subscribers to easily navigate through menu choices that apply only to the level of service and options to which they subscribed. Subscribers can employ either the remote control or the keypad on the home terminal. Subscribers simply press the Select key to choose the option to which the on-screen arrow is pointing. For enhanced ease of use, the remote control keys are colored and grouped according to function.

### *Automatic Pay-Per-View Event Confirmation*

The Model 8610 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 long can be downloaded from the pay-per-view schedule through the billing system.



### *Identify Cable-Exclusive*

#### *Programming With Channel Names*

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. This information is automatically downloaded from the headend to each home terminal to reflect 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. Displaying the program ID also makes it easier for subscribers to navigate cable systems with large numbers of channels.

### *Mute and Volume Control Display*

The 8610 Addressable home terminal presents an intuitively clear graphic display of relative volume level and mute, virtually 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” is displayed 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 5-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 up to 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.
- Four-digit LCD displays time of day when enabled by the subscriber.

## EASY FOR OPERATORS

### *Welcome On-screen Barker Distinguishes Your Cable Service From Competitors*

A customized welcome on-screen barker 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.

### *Other On-Screen Channel Barkers*

On-screen channel barkers solve the problem of dedicated video barker channels. When subscribers tune a channel for which they are not authorized, the home terminal can display an operator-defined barker message explaining, for example, how to order the channel. The barker message for a particular premium channel can be up to 240-characters long and includes the channel number and name with a color background. System operators can display different barkers for PPV, premium, unused, and parentally-controlled channels.

### *Value Added Group and Individual Messaging*

The 8610 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 8610 Addressable Home Terminal receives a message, an alert is overlaid on the video to inform the subscriber “You have a message.” If the home terminal is turned off, the message LED on the home terminal’s front panel will flash until the subscriber retrieves the message.

### ***Baseband Scrambling for Maximum Security***

The Model 8610 Addressable Home Terminal provides optimum security. Dynamic video baseband and RF sync-suppression scrambling techniques protect premium and PPV channels from theft of service.

Signal security is further enhanced through the use of “in-band” conditional access. Provisioning transactions are transmitted as part of the program signal, making it virtually impossible to block network control transactions to the terminal.

SoundProtect™ audio masking is an optional feature of the 8610 Addressable Home Terminal that alters the audio programming on an analog channel so that a cable-ready TV or VCR is unable to receive it. Only subscribers with properly authorized 8610 Addressable Home Terminals will be able to recover the original audio programming.

### ***Expanded Tuning Range***

Standard 750 MHz tuning bandwidth provides operators the flexibility to offer expanded analog channels.

### ***Complete Addressable Control***

Scientific-Atlanta's proven System Manager 10/20 controls Model 8610 Addressable Home Terminal functions, including:

- 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 8610 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 is stored in sealed, true, non-volatile memory that never requires a battery and is not affected by power outages.

### ***Set-Top Control***

Set-top control is a new feature that allows subscribers to control home terminal features and provides a status screen for easy diagnostics. Subscribers can control whether the on-screen display appears and if the power outlet is on or off.

## **SPECIFICATIONS**

### ***Environmental***

Temperature  
0°C to 45°C  
Relative humidity  
5% to 95%

### ***Electrical***

Input bandwidth  
54 MHz to 750 MHz  
Number of channels  
116 channels (single cable)  
255 channels (dual cable)  
Output channel downloadable  
3 or 4  
Output level  
9.0 dBmV, typical  
Noise figure  
8.7 dB (including baseband circuitry)  
Return loss  
Input  
8 dB  
Output  
12 dB  
Spurious response  
Output  
-60 dBc in channel  
Frequency accuracy  
±100 kHz max  
Frequency stability  
±100 kHz max  
AC input  
105 V to 125 V  
Power consumption  
12 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 1%  
Audio signal-to-noise  
50 dB min

### ***Mechanical***

Dimensions  
9.2 in. L x 7.0 in. W x 2.4 in. H  
Weight  
3.6 lbs  
Keyboard type  
11 keys (front access)  
Display type  
LED, 4-digit  
On-screen 10-line by 24-column character display

## **IPPV MODULE SPECIFICATIONS**

### ***RF Return (Optional)***

Frequency range  
15.45 MHz to 17.75 MHz  
Modulation rate  
20 kbps  
Modulation technique  
BPSK  
Maximum output power  
+60 dBmV

Unless otherwise noted, specifications are typical.

Specifications and product availability are subject to change without notice.

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