

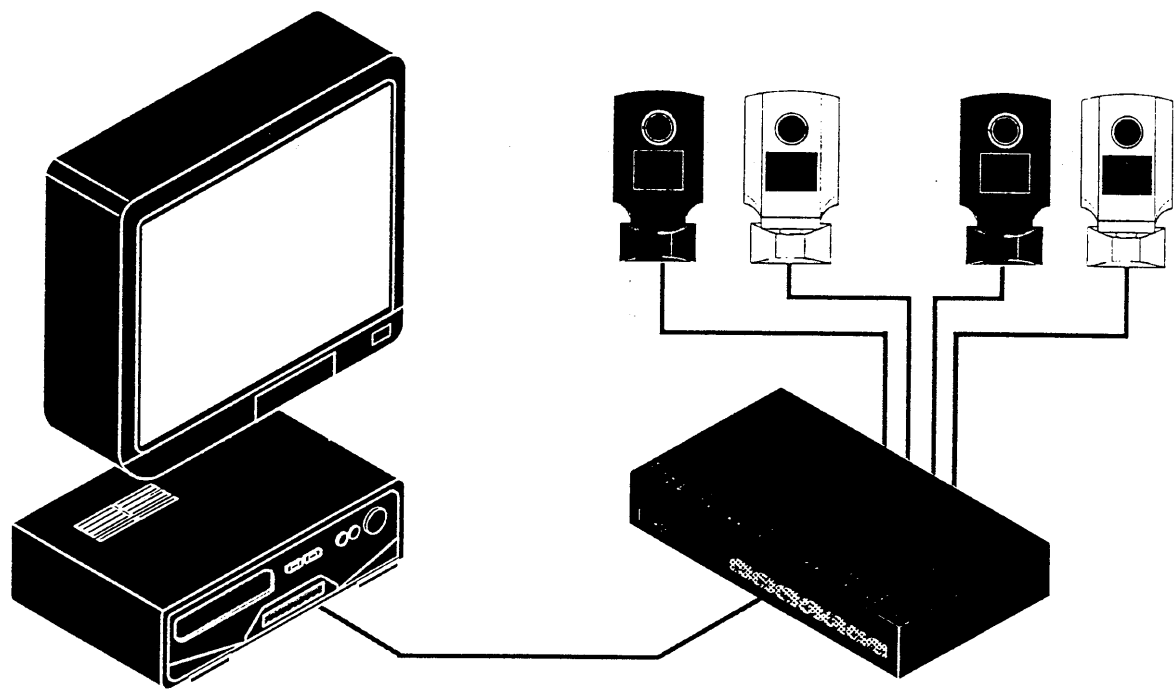
720-835 to 860



AM - PA1GN OBSERVATION SYSTEM

ATC 4

AN INTELLIGENT OBSERVATION



INSTALLATION AND OPERATING HANDBOOK

Please read these instructions completely before attempting to connect, operate or adjust this product.

Foreword

Congratulations on purchasing the Cam-paign ATC 4 Automatic & Programmable Observation System.

A1 Security & Electrical Ltd. are leading manufacturers of electronic security products for the professional and DIY market. All equipment is purposely designed and manufactured for installation by inexperienced persons using only conventional domestic tools.

Safety Warning

Before proceeding with the installation, please note the following safety warnings:

1. For safety reasons, the Control Unit and any Camera Units connected to the Control Unit by cable, operate at 12 volts power from the Control Unit transformer which is connected to the 240 volts mains supply.
2. The use of safety goggles is advised when drilling holes and hammering home cable clips.
3. Before drilling holes in walls, check for hidden electricity cables and water pipes. The use of a cable / pipe locator may be advisable if in any doubt.

The ATC 4 Observation System has been supplied with a moulded 3-pin mains plug, fitted with a 3 amp. fuse, for your safety and convenience.

Should the 3 amp. fuse need replacing, ensure that the replacement fuse has a rating of 3 amps and conforms to BS 1362.

If the moulded plug supplied with this system is not suitable for use in your household, simply cut off the moulded plug and replace with a suitable plug. The 3 amp. fuse should be retained and inserted into the new plug.

The following colour code should be adhered to when wiring the mains lead to a new plug:

Live (L) - Red Or Brown, Neutral (N) - Black Or Blue.
Earth (E) - Green & Yellow.

The ATC 4 Automatic & Programmable Observation System is designed to operate with TV's and VCR's using the PAL transmission standard.

The ATC 4 Automatic Programmable Observation System is designed to operate on 220-240 VAC, 50Hz.

To prevent risk of electric shock or fire, do not remove the ATC 4 Control Unit cover. There are no user serviceable parts inside this unit.

Tools Required

Terminal Screwdriver, Hammer,
Drill, 5.5mm Drill Bit.

Handbook

The ATC 4 'Installation and Operating Handbook' should be retained and kept in a safe place for future reference. As an aid to fault finding, future expansion of the system or checking your system.

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Introduction

The Campaign ATC 4 CCD Camera System, with auto-programmable facilities, is a new development in home security. Conventional Camera Monitoring systems use either separate monitors or television sets that require expensive time lapse video recorders to keep a record of activities. The Campaign ATC 4 system provides the ability for complete, programmable and automatic monitoring and event recording of a property and activities, utilising standard TV and VCR sets.

The ATC 4 Auto-programmable system offers varied and flexible opportunities for security observation and automatic control of deterrent devices. The system will automatically switch over your TV to view someone at your door or enable you to view a trespasser, it can also provide monitoring and record activity near your garage, car or shed.

The system can be set to give an audible warning only, when an intruder is detected, this is useful if you are expecting a visitor, and do not want your TV to change channel.

The system can automatically record in your absence, callers to your property, would-be intruders, or for commercial use, providing an automatic record of shoplifters, staff pilfering or till theft which can be used as evidence by the police.

It has been designed primarily to protect domestic and light commercial activities, but can be used to monitor any outdoor or indoor environment such as a builders yard, car sales yard, warehouse departments.

The system Control Unit offers the following modes:-

- a) **Scan Mode** - Programmable for automatic switching between any cameras on the system. at between 1-99 second intervals.
- b) **Manual Mode** - Personal selection of the area one wishes to view.
- c) **Home Mode** } See below
- d) **Away Mode** }

The systems Control Unit can learn up to 8 signals from standard domestic infra-red remote controls, i.e. TV, VCR or Hi Fi Centre remotes. Once the Control Unit has learned the signals, they can be programmed for the Home and Away modes, and repeat the signals in a personally chosen order, each time any of the cameras on the system are activated.

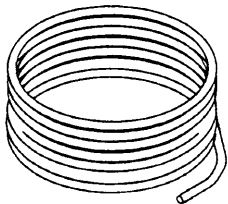
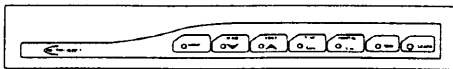
Additional equipment can be added to automatically operate mains equipment, such as flood lights or warning devices.

An On-Screen display makes the set-up of the system easier. In operation the system provides an on-screen display of camera number, mode, time and date, these details are automatically included in every recording to provide additional information and security.

System Contents

ATC 7 Control Unit

- (complete with mains lead and plug).
- Automatic Activation.
 - On-Screen Programming Display.
 - Four Camera Sockets.
 - One SCART Socket.
 - Two Infra-red Transmitter Sockets.
 - One Accessory Socket.
 - RF IN/OUT Sockets.
 - CH. ADJ Feature.
 - Non - Volatile Memory.
 - Full LED Indication.



15m Camera Connection Cable.

Cable supplied to connect the Camera Unit to the Control Unit.



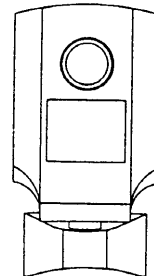
20m Infra-Red Transmitter Cable And Holder. (Wall mount)



2m Transmitter Cable And Holder. (TV or Video mount)



Installation & Operation Manual. Step-by-Step guide on how to install and operate the system.



Camera Unit

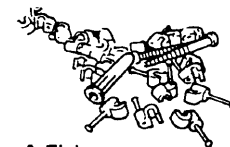
- Monochrome
- PIR Movement Activated.
- High Definition.
- Audio.
- 0.1 Lux.
- 537 Lines.
- Infra-Red Lighting.
- Easy To Install.
- IPS 5/6 Compliance.

Passive Infra-red (PIR) activation Control Unit is for vision and audio.



2m Rf Coaxial Cable.

RF coaxial cable is supplied to connect the Control Unit to a TV or Video Recorder.



Clips & Fixings. All cable clips, screws and plugs are provided.

Setting Up

The ATC 2 Monochrome Camera Unit supplied with the system has, in addition to the normal visual and audio facilities, the following features:-

- a) **Passive infra-red movement detection** - this will trigger the programmed selection if the unit is in Home or Away modes.
- b) **Infra-red lighting** - which will enable the unit to operate in complete darkness without the aid of external lights, although an extended range of observation can be obtained if flood lights are added. Switch Box ATC 23 will enable the system to switch on an individual flood light for each camera connected.

Up to 4 Cameras can be used on the system, see Expanding The System, page 16.

SETTING UP

Connecting The Control Unit To A TV Only

(refer to page 6 for SCART connections)

- Step 1. Remove the aerial lead from the TV aerial socket and connect it to the 'RF IN' socket at the rear of the Control Unit.
- Step 2. Connect the RF cable supplied with the system, from the 'RF OUT' socket on the Control Unit, to the TV aerial socket, see figure 1.

Step 3. Connect the Control Unit and TV to the mains supply.

Step 4. Turn the TV to the channel number you wish to use for observing the camera(s) picture. Do not select a channel number already being used for normal programmes or video.

Step 5. Move the 'Test signal' switch at the rear of the Control Unit to the 'ON' position (up). The TV must now be tuned to receive the Test signal (two white bars), on the channel you have selected for the camera(s).

Refer to your TV instructions for details on tuning.

In the event of your TV instructions being unavailable the instructions below may help.

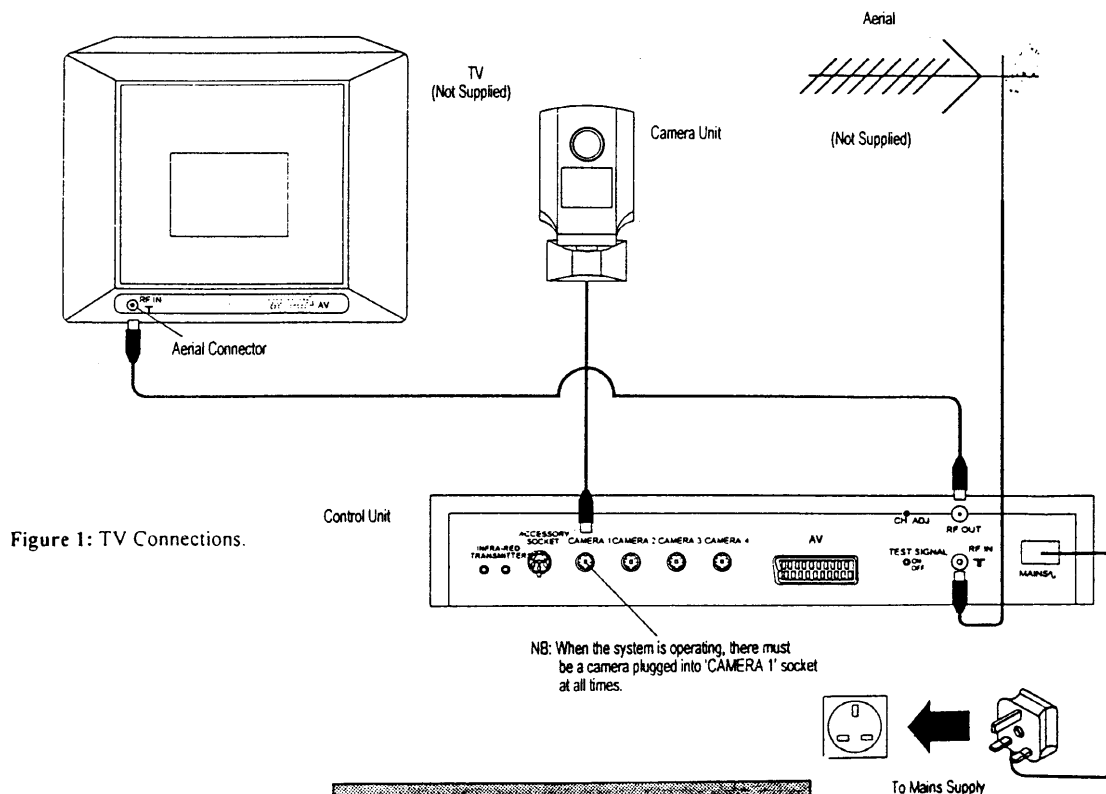
1) **Older sets** - Normally have separate tuning for each channel.

- Select the camera channel.
- Turn the channel tuner until the test signal appears on screen.

2) **Modern sets** - Most have auto-tuning available.

- Select the camera channel.
- Locate and press the button which puts a tuning bar/indicator on screen (normally the channel number will start flashing).
- Press the tuning button to move the bar/indicator until the 'Test signal' appears on screen.
- A final button is normally pressed to confirm your selection.

Step 6. When you are satisfied with the clarity of the signal return the test signal switch to the 'OFF' position (down).



Setting Up

Connecting The Control Unit To A TV And VCR

- Step 1. Remove the aerial lead from the VCR aerial socket (RF IN) and connect it to the 'RF IN' socket at the rear of the Control Unit (see figure 2).
- Step 2. Connect the RF cable supplied with the system, from the Control Unit's 'RF OUT' socket to the VCR 'RF IN' socket.
- Step 3. Check the RF lead which connected the TV to the VCR is still connected.
- Step 4. Connect the Control Unit, TV and VCR to the mains supply and turn the TV to the channel number you wish to use for observing the Camera Unit(s) picture. Do not select a channel number that is already being used for normal programmes or video.
- Step 5. Turn the 'Test Signal' switch at the rear of the Control Unit to the 'ON' position (up). The Control Unit is transmitting a signal (two white bars), tune the chosen TV channel until the signal is displayed on screen and store/save.
Refer to your TV instruction booklet on tuning channels, if this is not available see suggestions in 'Connecting The Control Unit To A TV Only' section on page 4.
- Step 6. The TV channel selected will need to be tuned into your VCR.
Refer to your VCR manual for information on tuning TV channels to your VCR.

If the VCR tuning instructions are not available, the following instructions may assist you in setting up the system.

- i. Turn your TV to the video channel.
- ii. Press the 'Preset/Tuning' button on your VCR remote control, tune the VCR until the system 'Test signal' which was displayed on your TV appears on screen. Set the VCR channel number to the same number as selected for the TV.
- iii. A final button is normally pressed to confirm your selection.

It is always advisable to follow your TV/VCR instructions carefully.

- Step 7. When you are satisfied with the clarity of the signal return the test signal switch to the 'OFF' position.

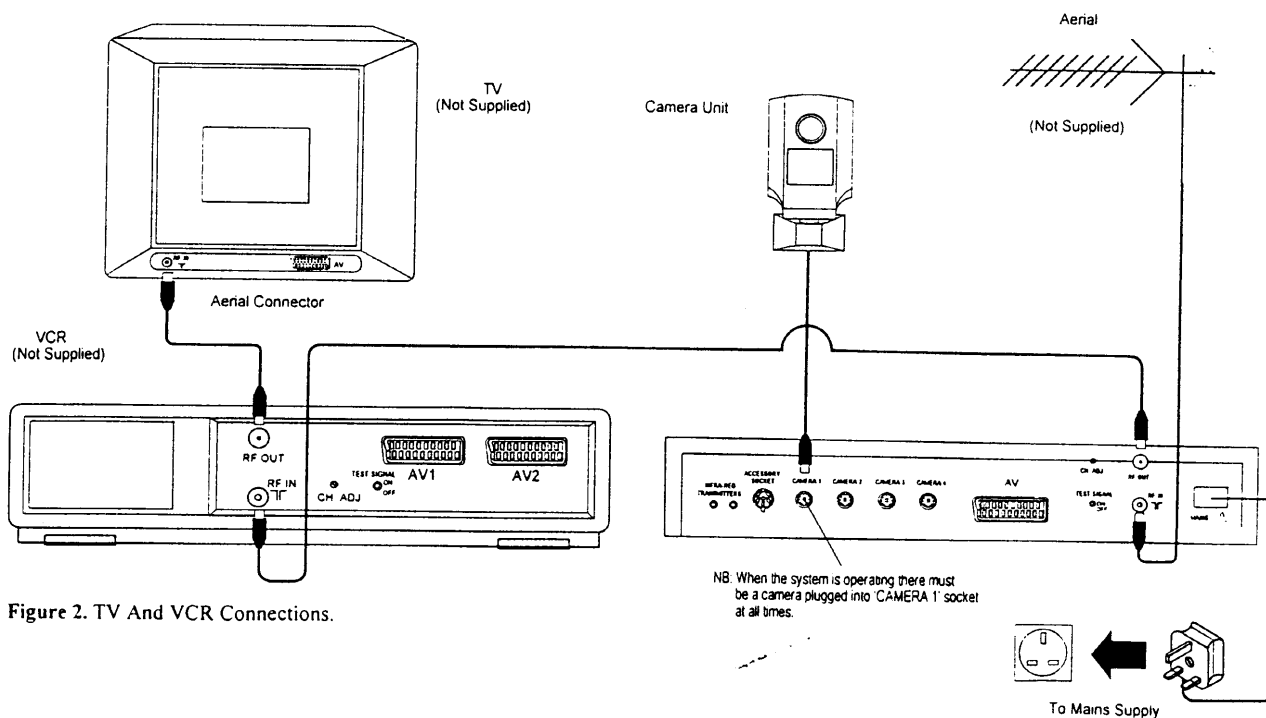


Figure 2. TV And VCR Connections.

Setting Up

Connecting The Control Unit To A TV Only Using A SCART Lead

If the TV you're connecting to the Control Unit has a SCART socket, you can use a SCART-to-SCART lead to connect the Control Unit to the TV. The advantages of using a SCART-to-SCART lead are:-

- i. The video/audio input signals are not fed into the TV's tuner, resulting in a better overall camera picture and sound quality.
- ii. If your TV supports pin 8 switching, the Camera Unit when activated can switch your TV directly. In this case the SCART lead must have full implementation (i.e. all pins are wired). When using pin 8 switching, you do not need to use the Infra-red transmitter, provided to control your TV. The TV will be controlled via the SCART connection.

Follow the steps outlined below:-

- Step 1. Connect one end of the SCART-to-SCART lead to the TV, and the other end to the Control Unit (see figure 3).
- Step 2. Connect the Aerial lead into the TV Aerial socket.
- Step 3. Connect the Control Unit and TV to the mains supply.
- Step 4. Turn your TV to the AV channel (refer to your TV instruction booklet for details).

When a Camera Unit has been assembled and plugged into CAMERA 1 socket, the Camera Unit's picture will be displayed on screen.

Connecting The Control Unit To A TV And VCR Using A SCART Lead

- Step 1. Connect the SCART-to-SCART lead to the Control Unit, and to your VCR (see figure 4).
- Step 2. Plug your aerial into the 'RF IN' socket, located at the rear of the Control Unit.
- Step 3. Connect an RF lead from the 'RF OUT' socket, located at the rear of the Control Unit, to the VCR 'RF IN' socket.
- Step 4. Connect an RF lead from the VCR to the TV.
Note: If your VCR has two SCART sockets, you can connect the VCR to the TV via a second SCART-to-SCART lead, in this case use the AV channel on the TV as well as the VCR.

When a Camera Unit has been assembled and plugged into CAMERA 1 socket, and the TV, VCR and Control Unit switched on and tuned into the correct channel, the Camera Unit's picture will be displayed on screen.

Note: If a second SCART-to-SCART lead is used to connect the VCR to the TV, the TV should be tuned to its AV channel as well as the VCR.

If a second SCART-to-SCART lead is not used, tune your TV to the normal video channel.

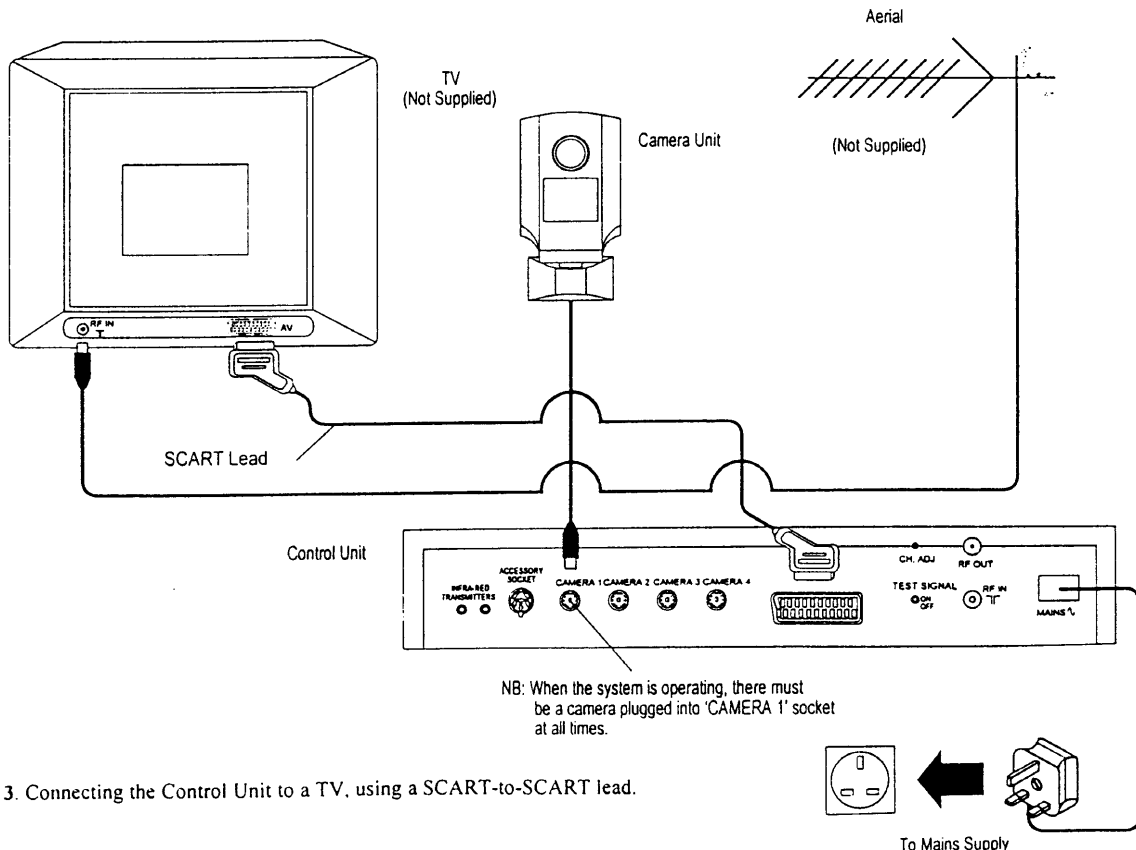


Figure 3. Connecting the Control Unit to a TV, using a SCART-to-SCART lead.

Setting Up

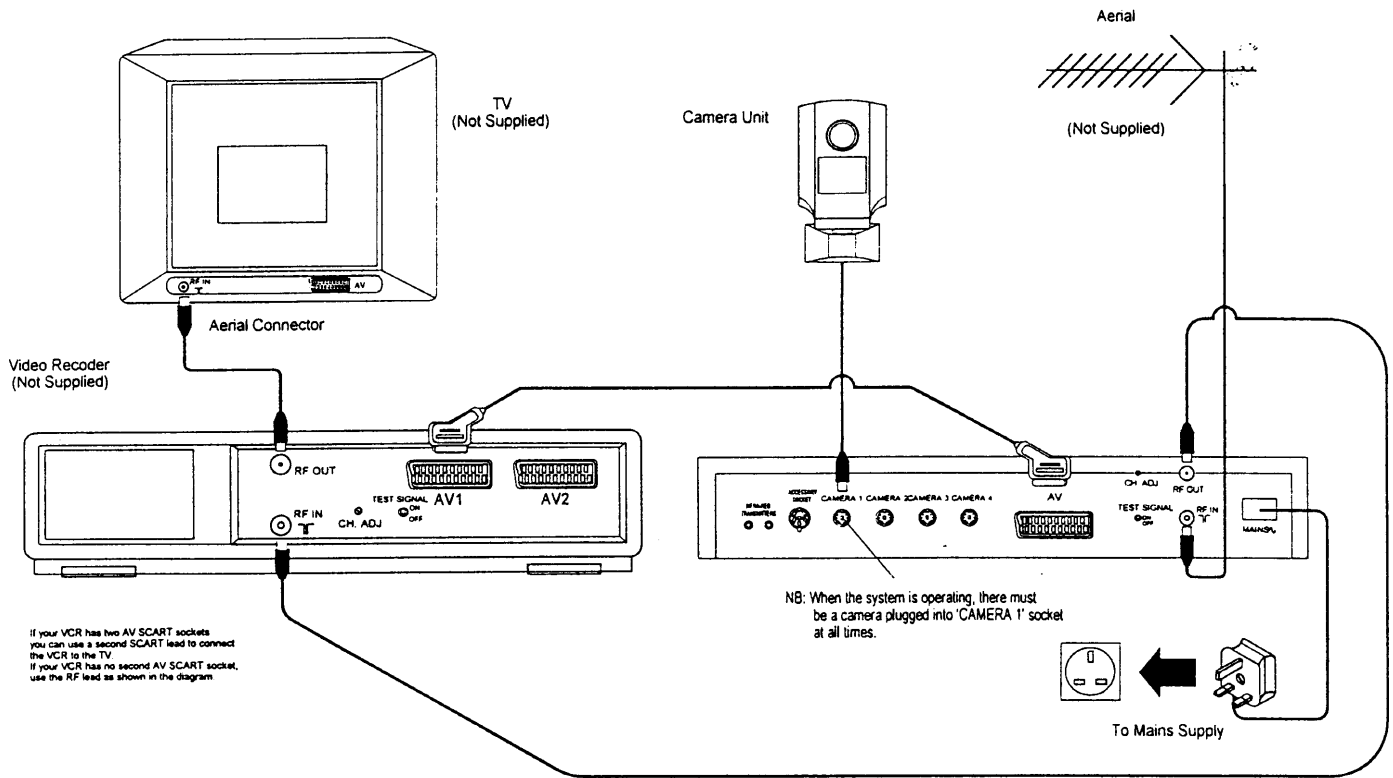


Figure 4. Connecting the Control Unit to a TV & VCR using a SCART-to-SCART lead.

Infra-red Transmitter Leads

There are two infra-red transmitter leads supplied with the system, these are used to transmit your programmed commands from the Control Unit to the devices you wish to control when a camera is activated.

The 2 metre transmitter lead should be used if only one device is being used in conjunction with the system. i.e. TV only. The 20 metre transmitter lead or a combination of both leads should be used if you require to control more than one device, i.e. TV, VCR, and Hi-Fi.

Do not connect the transmitter leads until the Control Unit and remote control signals have been programmed.

(see 'Commissioning The System' page 14).

Preparing The Camera Unit For Use

It may be advisable to temporarily connect the camera and test the picture, before installing the cable and Camera Unit in their permanent positions.

The camera cable supplied with the system has a plug connector on one end, this is for connection to the Camera 1 socket on the Control Unit. The other end of the cable has 5 prepared wires which require to be connected to the Camera Unit terminals.

Follow the procedure outlined below:-

1. Locate and remove the bottom section of the Camera Unit, by removing the two retaining screws. The Camera Unit's terminal block should now be exposed.
2. Connect the camera cable to the terminal block (see figure 5a) using the following wiring code:

Connect the **Green** wire to the terminal marked '1'
 Connect the **Red** wire to the terminal marked '2'
 Connect the **Yellow** wire to the terminal marked '3'
 Connect the **Screen** wire to the terminal marked '4'
 Connect the **White** wire to the terminal marked '5'
 Terminal 6 is not used, and should be left **unconnected**.

3. Use the cable tie provided, to prevent the camera cable from being pulled out of the Camera Unit, see figure 5(b).
4. Replace the bottom section of the Camera Unit and secure using the two retaining screws.

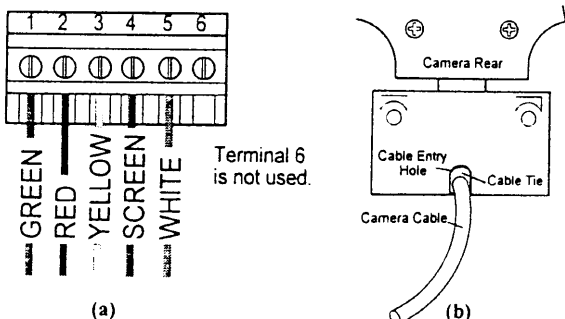


Figure 5

It is important to check that the cables are connected to the correct terminals before connecting the Camera Unit to the Control Unit.

Connecting The Camera Unit To The Control Unit

IMPORTANT NOTE: Before connecting the first Camera Unit to the Control Unit it is important to disconnect the mains power to the Control Unit.

The recommended maximum overall camera cable length is 130m. This distance should not be exceeded, as the camera picture will be greatly distorted.

- Step 1. Connect the Camera cable plug to the 'Camera 1' socket. **Important: Camera 1 socket must always be used first.**
- Step 2. Reconnect the mains supply to the Control Unit.
- Step 3. Ensure the TV is on the selected Camera channel. Press the 'Home' button on the keypad, the camera picture will now be on screen, after a few seconds the Control Unit will beep to confirm that the Camera Unit is fully operational, and the system time, date, Camera Unit number, and Control Unit mode will be displayed, see figure 6.

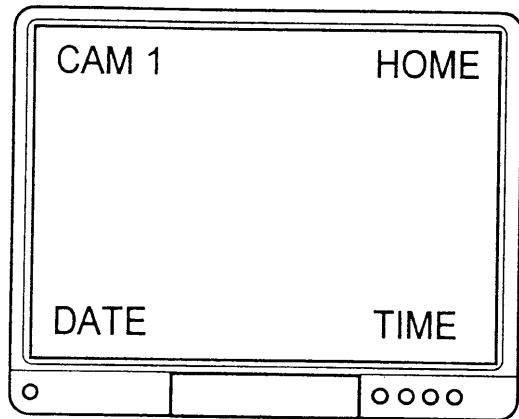


Figure 6. On Screen Display.

If the above message is not displayed, disconnect the Control Unit from the mains supply, wait 5 seconds, then reconnect. The on-screen messages should now be present.

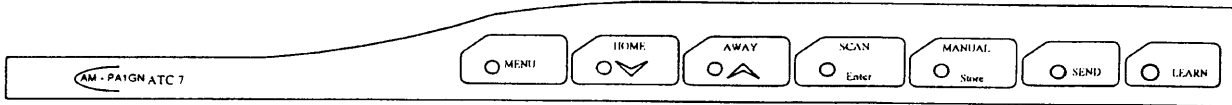
Viewing The Camera Picture

To site the Camera Unit for best viewing position you may require assistance, a person to hold the Camera Unit in position and someone to view the picture.

Although the Camera Unit has the benefit of infra-red lighting to enable you to view in complete darkness, it is important to consider the effect on the picture from the glare of nearby street lights. A flood light may be required in addition to the infra-red lighting if you require distant views at night.

The Control Unit with the ATC 23 accessory, can be used to control either internal or external lighting, see 'Expanding The System' on page 16.

Programming The System



Function Selection Buttons

MENU : Use to select main menu.
HOME : } Programmable, Observation Options.
AWAY : }
SCAN : } Observation Options.
MANUAL : }

Programming Buttons

Up/Down Cursors : Up/Down Cursors.
Enter : Use to select options.
Store : Use to save options.
SEND : Use to confirm transmission of control signals.
LEARN : Use to replicate transmitted control signals.

Figure 7. Keypad Layout.

Programming The System

Figure 7, shows the Control Unit Keypad and an explanation of the purpose of each button

If the Control Unit is connected to a TV only, please ignore any reference to 'VCR'.

The 'Menu' key enables access to the systems programmable facilities.

Step 1. Press 'Menu' on the keypad at the front of the Control Unit, the on screen display will show the main menu of programmable options as shown in figure 8.

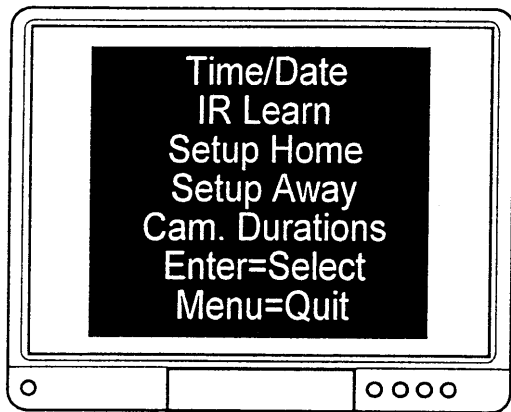


Figure 8. Programmable Options.

A flashing highlight will be displayed in each of the programming modes, the highlight can be moved up or down to select the function you wish to change by using the 'V', '^' buttons. Pressing the 'Enter' button will select the required function.

Setting The Time And Date

- Step 1. Select the 'Time / Date' function by using the 'V', '^' keys to move the highlight to that function.
- Step 2. Press 'Enter' on the keypad, the on-screen display will change to the display shown in figure 9, with one of the sections already highlighted.

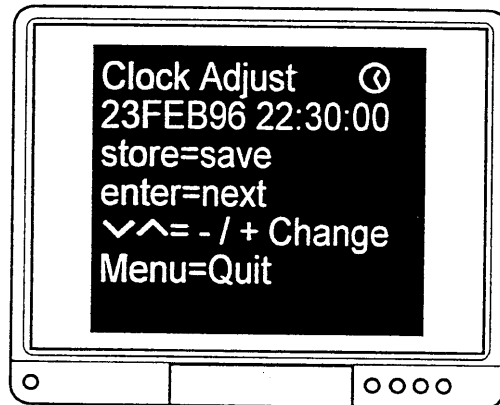


Figure 9.

- Step 3. Press the 'Enter' button to move the highlight to the function / information you wish to change.
- Step 4. Alter the information by using 'V', '^' keys until the time and date is correct.
- Step 5. Press 'Store' to save the new time and date.
- Step 6. Press 'Menu' to return to the main menu, press 'Menu' again if no other programming is required.

Teaching The Control Unit Remote Control Functions

When the system is fully programmed and commissioned it is possible, in both 'Home' and 'Away' modes, for the Control Unit upon activation of a Camera Unit, to transmit up to 8 remote control infra-red signals to control, in a chosen sequence, your TV, VCR, Hi-Fi etc.

The Control Unit needs to learn the infra-red signals normally transmitted by your remote control hand-set e.g. TV, VCR, Hi-Fi system and other remote controlled devices you require to be operated by the Control Unit.

All makes of TV and VCR remote control's etc. send out their own unique messages. The Control Unit has been designed to learn the infra-red signals used by most of the brands in the U.K.

Important note: The Control Unit cannot learn graduated remote control signals i.e. adjust volume, picture brightness etc.

Before starting to programme the infra-red signals it is advisable to plan your requirements, and allocate each signal to one of the command letters A - H. Then plan the action you wish to occur using the infra-red signals when a Camera Unit is activated, and when the activation has ceased.

A popular requirement would be for the Control Unit to change the picture on your TV when you are at home watching TV, to an activated Camera Unit, then switch back once activation has ceased.

i.e. A = Switch TV to Camera channel. } 'Home' Mode
 B = Return to normal TV channel.

Alternatively when the property is unoccupied you may wish to automatically record the activities that have occurred in your absence, or turn on a music centre as a deterrent to a would be intruder.

i.e. C = Switch video on/off.
 D = Change video to Camera channel.
 E = Start video recording. } 'Away' Mode.
 F = Turn Hi-Fi On/Off
 G = End video recording.

Example:

Letter	Command	Letter	Command
A	Switch TV to Camera channel.	E	Start video recording.
B	Return to normal TV channel	F	Turn Hi-Fi On/Off
C	Switch video on/off	G	End video recording
D	Change video to Camera channel.	H	

Mode	Commands																
Home Mode	A							⊙	B								
Away Mode	C	D	E	F				⊙	G	F	C						

← Camera Activated → ← Activation Ceased →

Use the tables below to plan which command letter you intend to allocate to each infra-red signal, and what action the Control Unit will initiate upon activation.

Note: The Control Unit only needs to learn and be programmed to use the infra-red signals you need.

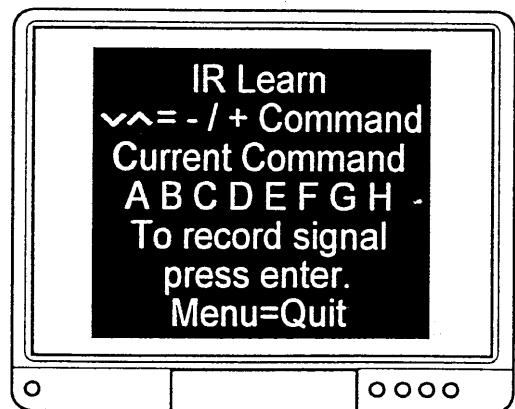
Letter	Command
A	
B	
C	
D	
E	
F	
G	
H	

Mode	Commands																
Home Mode								⊙									
Away Mode								⊙									

← Camera Activated → ← Activation Ceased →

Step 1. From main menu select the 'IR. Learn' function by using the '∨', '∧' keys to move the highlight to that function.

Step 2. Press 'Enter' on the keypad, the on-screen display will change to the display shown in figure 10, with one of the command letters already highlighted.



A B C D E F G H } Command Letters

Figure 10.

You may programme up to 8 commands. Each of the command letters, A - H will require to be programmed to represent a remote control signal, and then the Control Unit will be required to learn your chosen remote control signals.

Step 3. Use the '∨', '∧' keys to move the highlight to the first letter (A), or the letter you wish to allocate to the first infra-red signal, and press 'Enter'. The on-screen display will change to the display shown in figure 11.

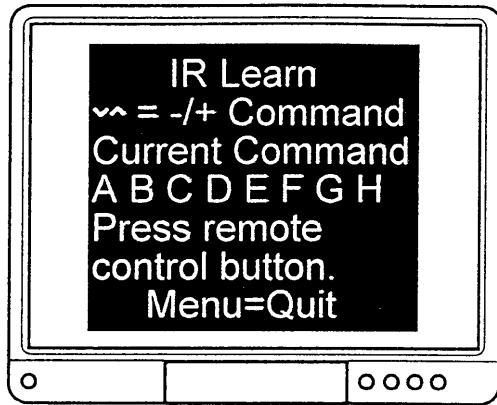


Figure 11.

Note: Before you follow step 4, it is important that you ensure that when the remote control button is pressed the signal does not also change either the TV or VCR.

Step 4. Point your remote control, at a distance of between 2mm and 5mm from the 'Learn' window on the Control Unit and press the button on the remote control you have planned to allocate to the command letter 'A'. When the signal has been accepted the 'Send LED' will flash and the on-screen display will change to the display shown in figure 12 (a).

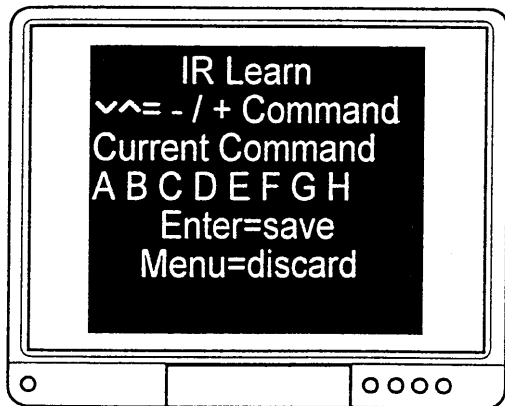


Figure 12 (a).

Step 5. If display 12 (a) is on screen press 'Enter' on the keypad to store the information, if the signal has not been learned follow the instruction displayed until display 12 (a) is on screen and press 'Enter' to store.

If the signal has not been learned the on-screen display will change to display one of the reasons shown in figure 12(b).

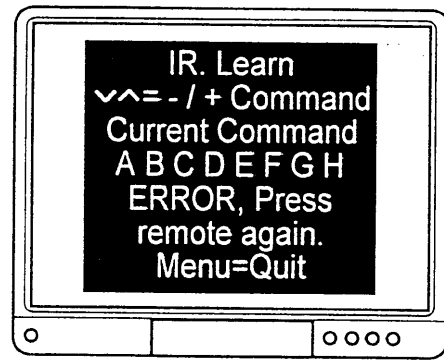
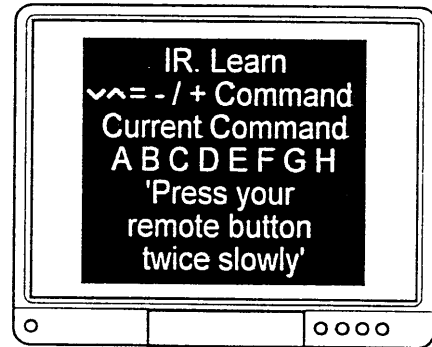


Figure 12 (b).

Follow steps 3, 4 and 5 to programme each infra-red signal you require up to the maximum of 8, selecting a different letter for each signal.

Step 6. Press the 'Menu' key to return to the main menu, once the Control Unit has learned your remote control signals you may programme your chosen sequence for 'Home' and 'Away' modes.

Press 'Menu' again if no other programming is required.

Setting Up the 'Home Mode'

- Step 1. From the main menu select the 'Set-up Home' function by using the '∇', '▲' keys to move the highlight to that function.
- Step 2. Press 'Enter' on the keypad, the on-screen display will change to display figure 13.

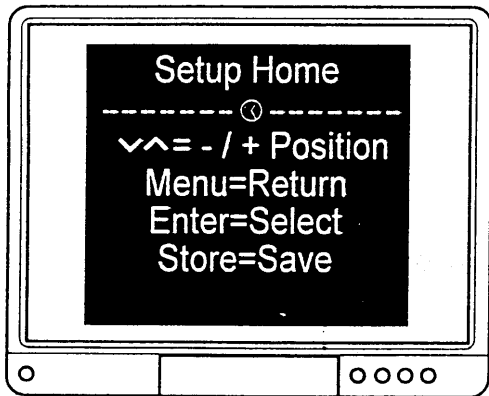


Figure 13.

The section of the on-screen display shown in figure 14. has 7 spaces either side of a clock. The command letters you have allocated to represent your infra-red signals, are required to be programmed to occur in your chosen sequence.

The sequence to the left of the clock will initiate immediately a Camera Unit is activated, whilst the sequence to the right of the clock will occur when all Camera Unit activation has ceased. In both cases the sequence will start at the left.



Figure 14.

- Step 3. Press 'Enter' on the keypad. The on-screen display will change to the display shown in figure 15.

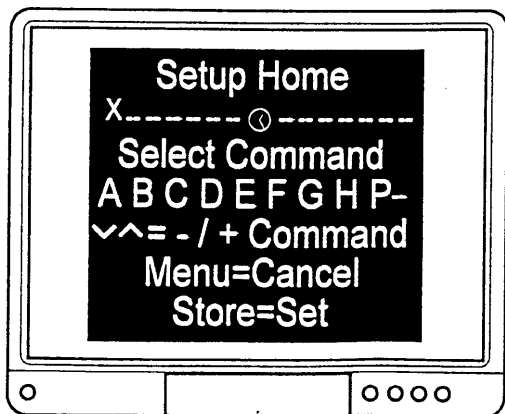


Figure 15.

On the command line, the letter 'P' stands for Pause, and should be used when using TV's or VCR's which require a time delay when switching between two functions

Example 1:

Some VCR's will not respond to an infra-red control signal while performing a task, until the task is complete. In this case a pause would be useful to delay the Control Unit from trying to control the VCR (when the VCR is busy).

Example 2:

Some TV's will not accept a channel number such as 01, if both infra-red signals are transmitted from the Control Unit's transmitter close together. A time delay (1 second) between both signals can be achieved by using the pause feature.

- Step 4. Use the '∇', '▲' keys to move the flashing highlight to the letter and therefore the command, you wish to occur first when a Camera Unit is activated.
- Step 5. The 'X' shows the position the selected command letter will be allocated to. Use the '∇', '▲' keys to move the highlight to the required position. When you have selected both the letter and position press 'Store'. The on-screen display will change to the display shown in figure 16.

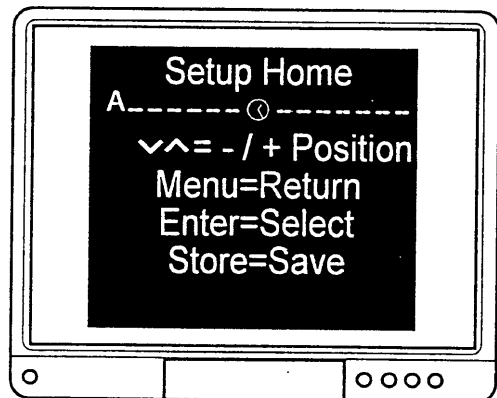


Figure 16.

- Step 6. Press 'Enter', repeat steps 4 and 5 until you have programmed, to the left of the clock, the commands you wish to occur when a Camera Unit is activated and also, to the right of the clock, the commands you wish to occur when the Camera Unit activation has ceased.
- Step 7. Press 'Store' key until the first letter is highlighted, all of your selected programme commands are now stored.
- Step 8. Press 'Menu' key to return to main menu on screen.

Press 'Menu' again if no other programming is required.

Setting Up the 'Away Mode'

- Step 1. From the main menu select the 'Set-up Away' function by using the '∇', '▲' keys to move the highlight to that function.
- Step 2. Press 'Enter' on the keypad, the on-screen display will change to display figure 17 with one of the sections already highlighted.

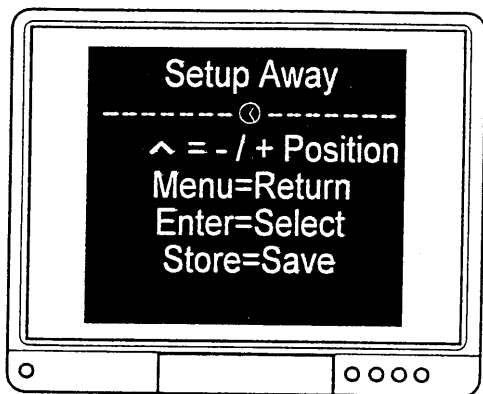


Figure 17.

The section of the on-screen display shown in figure 18, has 7 spaces either side of a clock. The command letters you have allocated to represent your infra-red signals, are required to be programmed to occur in your chosen sequence.

The sequence to the left of the clock will initiate immediately a Camera Unit is activated, whilst the sequence to the right of the clock will occur when the Camera Unit activation has ceased. In both cases the sequence will start at the left.



Figure 18.

Step 3. Press 'Enter' on the keypad. The on-screen display will change to the display shown in figure 19.

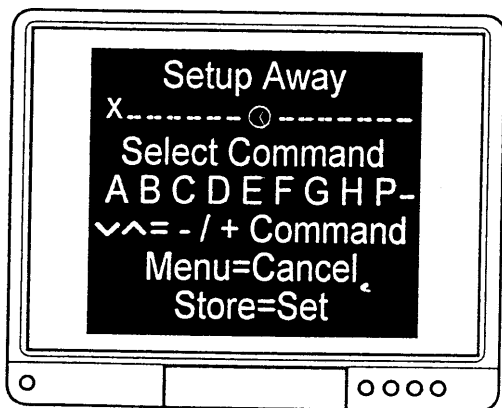


Figure 19.

Step 4. Use the '∨', '∧' keys to move the flashing highlight to the letter and therefore the command, you wish to occur first when a Camera Unit is activated.

Step 5. The 'X' shows the position the selected command letter will be allocated to. Use the '∨', '∧' keys to move the highlight to the required position. When you have selected both the letter and position press 'Store'. The on-screen display will change to the display shown in figure 20.

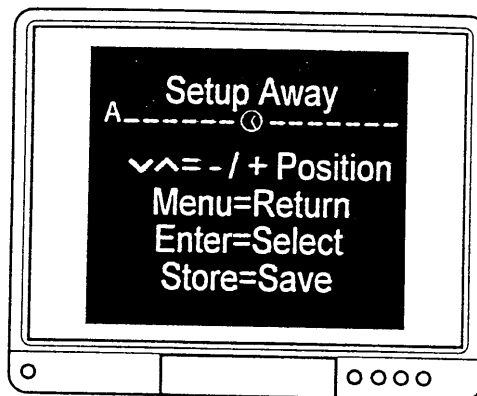


Figure 20.

Step 6. Press 'Enter', repeat steps 4 and 5 until you have programmed, to the left of the clock, the commands you wish to occur when a Camera Unit is activated and also, to the right of the clock, the commands you wish to occur when the Camera Unit activation has ceased.

Step 7. Press 'Store' key until the first letter is highlighted, all of your selected programme commands are now stored.

Step 8. Press 'Menu' key to return to main menu on screen.

Press 'Menu' again if no other programming is required.

Programming Camera Durations

Step 1. From the main menu select the 'Cam. Durations' function by using the '∨', '∧' keys to move the highlight to that function.

Step 2. Press 'Enter' on the keypad, the on-screen display will change to the display shown in figure 21, with the first time setting highlighted.

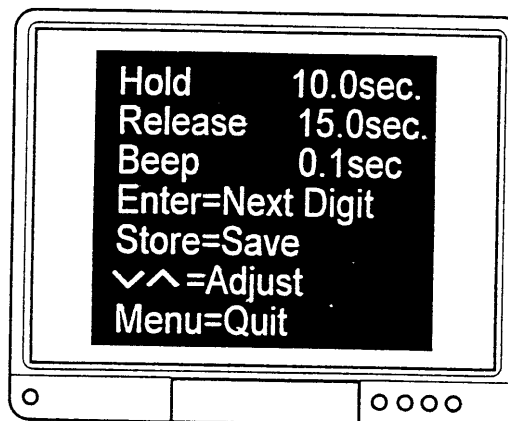


Figure 21.

Hold: Time duration between switching between multiple Camera Units, either when activated or in 'Scan' mode.

Release: Time duration the camera picture will remain 'on' once activations ceases..

Beep: When the Camera Unit has been activated, the Control Unit will beep. The beep time duration can be varied, using this setting. If set to 0.0sec, the beep will not sound.

Programming The System

Step 3. Use the 'Enter' keys to move the flashing highlight to the required time settings (i.e. Hold, Release, and Beep), and adjust the time setting by using the 'V', '^' keys.

Step 4. Press the 'Store' button to save your changes.

Note: Only the first two digits can be varied, when changing the Hold, Release time durations.

Press 'Menu' button to return to main menu.

Commissioning The System

In 'Home' or 'Away' modes the Control Unit transmits, using the Transmitter leads supplied, your selected infra-red remote control signals to activate/command the relevant device.

Two Infra-red Transmitters have been supplied with the system, figure 22 (a) and (b), the wall mounted transmitter has a 20m connection lead, and should be used, when several devices are to be controlled by the transmitter.

The TV or VCR mounted transmitter has a 2m connection lead, and should be used when the transmitter is to cover an individual device, see figure 22(c).

If only one Transmitter is required, the lead plug can be connected to either transmitter socket.

Step 1. Connect the transmitter lead plug(s) to the infra-red transmitter socket(s) at the rear of the Control Unit, as shown in figure 20(c).

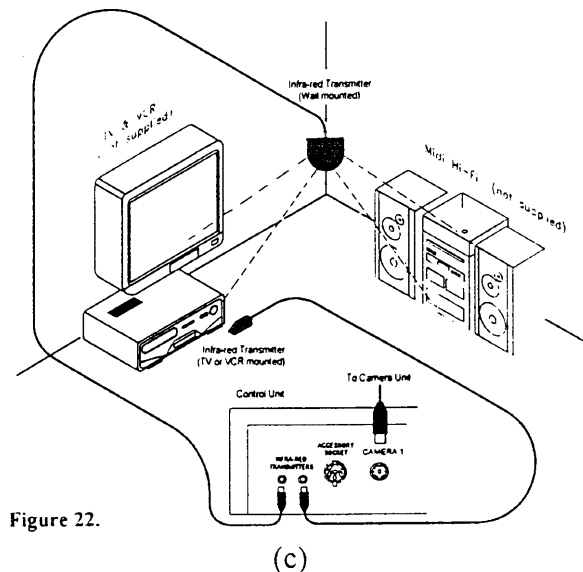
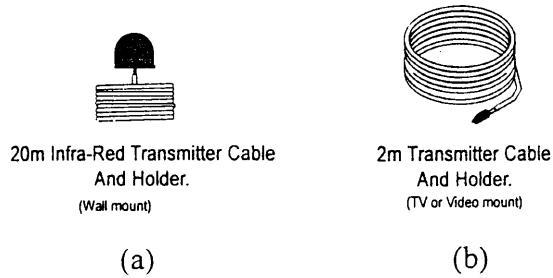


Figure 22.

Note: When using the wall mounted transmitter, direct the LED in the correct position, before attaching the top (dome) to the base, see figure 22(d).

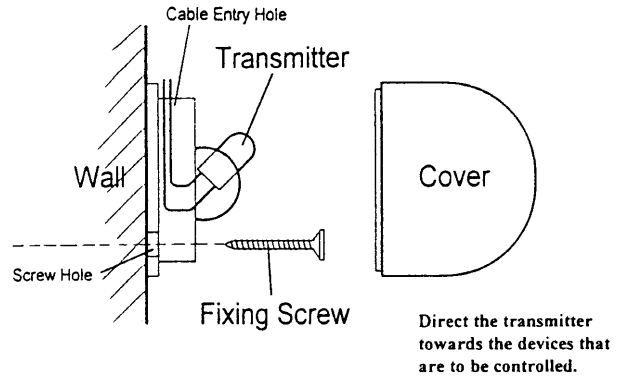


Figure 22 (d). Mounting The Transmitter

Step 2. Remove the top (dome shaped) cover from the transmitter base.

Step 3. Position the transmitter as close as possible to the equipment to be controlled. The transmitter should have a clear line of sight to the equipment to be controlled.

Note: At this stage, it is strongly recommended, that the transmitter is temporarily fixed, into position, and fully tested. This will help identify any problems such as:

- No clear line of sight between the transmitter and the equipment to be controlled.
- Transmitter is located too far away to control equipment.
- Transmitter may be located too close, resulting in only some of the equipment being controlled.

With the transmitter temporarily fixed into position follow the procedure in 'Testing 'Home' Mode' section, to verify transmitter operation. The transmitter LED should be directed towards the equipment to be controlled.

Once satisfied with the operation of the transmitter, follow the steps outlined below:

Step 4. Mark the position of the fixing screw hole, and drill hole.

Step 5. Insert wall plug (if needed).

Step 6. Fix the transmitter to the wall, using the fixing screw provided, see figure 22(d).

Step 7. Ensure the transmitter LED points in the direction of the equipment to be controlled.

Step 8. Replace top cover, and tidy transmitter cable.

The system will control up to 4 Camera Units, connect any additional Camera Units purchased to the Camera sockets at the rear of the Control Unit.

Important Note:

Camera 1 socket must always be used, when operating the system.

Testing The System

Testing The System

Although not essential, it would be useful to have two people to test the system.

Testing 'SCAN' Mode.

With the TV on the camera channel, press the 'Scan' button on the keypad. The on-screen display should have 'Scan' at the top right corner.

The Control Unit will automatically scan through each of the Camera Units connected to the system, the view from each Camera Unit will remain on screen for the programmed 'Hold' time.

Testing 'Manual' Mode.

With the TV on the camera channel, press the 'Manual' button on the keypad. The on-screen display should have 'MAN' at the top right corner and the view from Camera 1 will be on screen. The on-screen display will also show the Camera Unit number on the top left corner. Press the 'Manual' button again and the Control Unit will change to view the next Camera Unit connected to the system (if any). The on-screen display will show the new Camera Unit number.

Testing 'Home' Mode.

With the TV on the camera channel, press the 'Home' button on the keypad, the on-screen display should have 'Home' at the top right corner.

Step 1. Activate each Camera Unit connected to the system in turn, the picture on the TV will change to the most recently activated Camera Unit. The picture from each of the activated Camera Unit(s), will appear separately for a time duration given by the *hold time* setting, on the TV screen until their *release time* has expired (see Camera Unit Durations).

Step 2. Turn the TV to any normal channel, and activate Camera Unit 1, the picture on the TV will automatically change from the normal channel to the camera channel with the Camera Unit 1 view on screen.

Alternatively, and depending on what command(s) have been programmed for 'Home' mode, as each Camera Unit is activated, the Control Unit will carry out the sequence selected. Repeat step 2 for each Camera Unit connected to the system.

Testing 'Beep' Mode.

When the Beep mode has been selected, the 'Home' sequence is ignored when a Camera Unit has been activated. When a Camera Unit has been activated the system will give an audible warning only, in the form of a beep.

To test the 'Beep' mode follow the steps:

Step 1. Select 'Beep' mode by pressing the 'Home' button twice. The mode shown at the top right hand side of the on-screen display will change from 'Home' to 'Beep'.

Step 2. Activate a Camera Unit, the beep will now sound.

Step 3. Manually select the camera channel, using your TV/VCR remote control to view the activated Camera Unit picture.

Testing 'Away' Mode.

With the TV on the camera channel, press the 'Away' button on the keypad, the on-screen display should have 'Away' at the top right corner.

With the TV & VCR in stand-by mode, the VCR should have a cassette loaded, ready for recording.

Step 1. Activate each Camera Unit connected to the system in turn, the Control Unit will beep to indicate an activation has occurred and initiate the Infra-red Away sequence. Using the Infra-red Away sequence example on page 10, i.e.

Letter	Command	Letter	Command
A	Switch TV to Camera channel	E	Start video recording
B	Return to normal TV channel.	F	Turn Hi-Fi On/Off
C	Switch TV/VCR on/off.	G	End video recording.
D	Change TV/VCR to Camera channel.	H	

Mode	Commands												
Home Mode	A								⊙	B			
Away Mode	C	D	E	F					⊙	G	F	C	

← Camera Activated → ← Activation Ceased →

Camera Activated:

- The VCR unit will switch on.
- The VCR will switch to the camera channel.
- The VCR will start recording the Camera Unit's picture.
- The Hi-Fi will switch on.

Step 2. Allow the Camera Unit(s) to become de-active, i.e. leaving the room. The Control Unit should now follow the Away sequence to the right of the clock. In the example:

Activation Has Ceased:

- The VCR will stop recording.
- The Hi-Fi will switch off.
- The VCR will switch off.

The above example, is to demonstrate a typical Away sequence setup. The flexibility of the system allows you to choose your own sequences.

The recording on the video cassette will show the camera picture of the specific Camera Unit(s), that were activated during the test.

If the Control Unit does not perform the Home/Away sequence programmed into the system, check that the infra-red transmitter(s) are plugged into the Control Unit and are within range to control the TV, VCR, Hi-Fi etc.

If the Control Unit does not perform the Home/Away sequence programmed into the system after checking the Transmitter(s) are connected and are located correctly, try re-teaching the Control Unit the Infra-red control signals.

Expanding The System

There are a number of accessories available to expand your observation system.

Camera Unit

ATC1W(white)/ATC1B(black)

- High Definition.
- Audio.
- 0.1 Lux.
- 537 Lines.
- Infra-Red Lighting.
- Weather proof.
- IPS 5/6 Compliance.

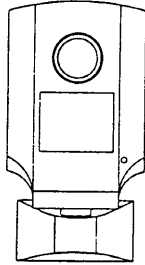


Figure 23.

Camera Unit

ATC2W(white)/ATC2B(black)

- PIR Movement Activated.
- High Definition.
- Audio.
- 0.1 Lux.
- 537 Lines.
- Infra-Red Lighting.
- Weather proof.
- IPS 5/6 Compliance.

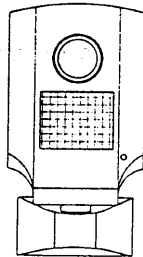


Figure 24.

Camera Unit

ATC11W(white)

- High Definition.
- Audio.
- 537 Lines.
- Weather proof.
- IPS 5/6 Compliance.

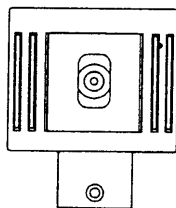


Figure 25.

Cables

- ATC13 - 15m Camera Extension Cable With Connectors.
- ATC14 - 25m Camera Extension Cable With Connectors.
- ATC15 - 50m Camera Extension Cable With Connectors.
- ATC16 - 2m Infra-red Transmitter Cable + Holder.
- ATC17 - 20m Infra-red Transmitter Cable + Holder.
- ATC 22 - 2m RF Coaxial Cable.
- ATC 27 - 25m Switch Box Extension Cable With Connectors.

2-Way Switch Box & Lead

ATC28(white)

The 2-Way Switch Box, see figure 26, has been designed to control two mains operated devices (2000W max.), i.e. flood lights, each device has its own variable time duration.

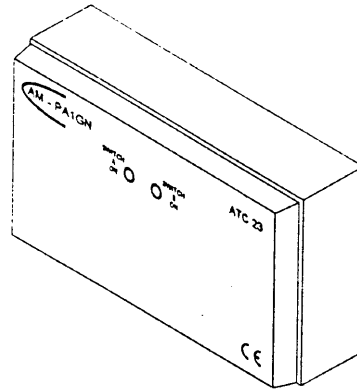


Figure 26.

The wiring connections are simple. there are 6 wires connecting the 2-Way Switch to the Control Unit's Accessory Input, see figure 27, below. The wires are colour coded Red-to-Black, and should be connected as shown in the diagram to the 1st terminal block.

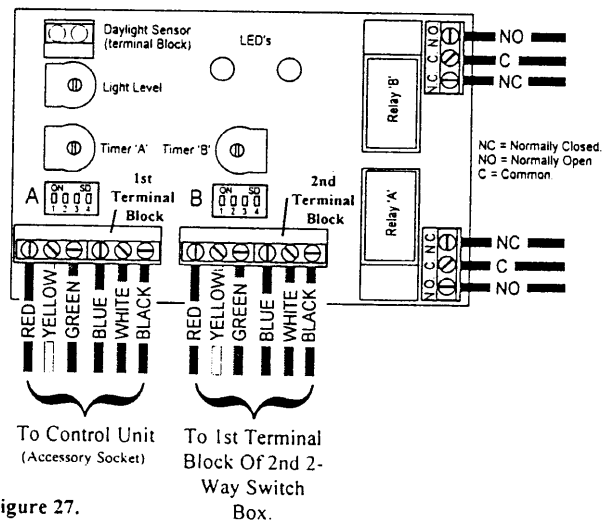


Figure 27.

The 2nd terminal block should only be used when a 2nd 2-Way Switch Box is to be connected to the system.

In such a case, the wiring shown in figure 28 should be followed. i.e. the Red wire from the 2nd terminal block should be connected to the 1st terminal block of the second 2-Way Switch Box etc..

The outputs are labelled:

- NC - Normally Closed.
- C - Common.
- NO - Normally Open.

Expanding The System

The 'NO' output will usually be used, when connecting a flood light to the system. When the switch is activated the 'NO' and 'Common' output will be closed-circuit (switched on).

The 'C' output is always used, and carries 'MAINS' voltage, when connecting to flood lights, and other similar devices.

The 'NC' output is not usually used in applications such as flood lights, mains operated siren etc. But can be used to give the opposite function of the 'NC' output, i.e. cause open circuit (switch off) when the switch is activated.

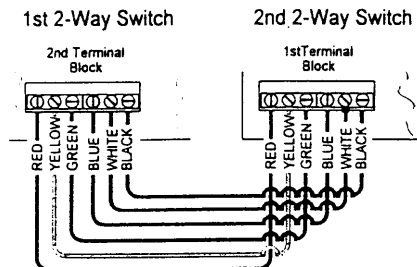


Figure 28.

Each switch has a variable time setting, allowing you to switch a mains operated device for a pre-determined time. To change the time setting, simply use a screw driver to adjust the variable resistors, labelled Timer 'A' and Timer 'B', figure 27. To determine what time the switches are set at, time the 'on' period of the front LEDs, i.e. if the LED labelled 'SWITCH A ON', were to illuminate when a Camera Unit became active for a time period of 2 minutes (max. setting), then the time period for switch A is 2 minutes.

The DIL switches labelled A 1 to 4, and B 1 to 4 figure 27, are used to allow you to decide which Camera Units (1 to 4) will activate the two switches. If for example, the DIL switch labelled A 1, were switched 'on' (top position), when the Camera Unit which is plugged into the Camera 1 socket activates, Switch A will become active. The same is true for all of the DIL switches. The second group of DIL switches, labelled B 1 to 4, will perform the same function, with output B. A 25m lead is supplied, to connect the 2-Way Switch Box to the Control Unit.

A Daylight Sensor is available, to offer more control over the switching of flood lights and other equipment connected to the 2-Way Switch Box, see 'Daylight Sensor & 20m Lead' section for more details.

The above 2-Way Switch Box can switch a 2000W(max.) total load, but is limited to 2 outputs. Which means that you can only switch two groups of flood lights.

For example, if you had 4 flood lights connected (i.e. 2 x 500W flood lights to each output), one flood light per Camera Unit, see figure 29(a). It will not be possible to switch all of the 4 flood lights individually, only in groups of two.

If you want to be able to switch all 4 flood lights individually, i.e. having Camera Unit 1, switching flood light 1, Camera Unit 2, switching flood light 2 ... , a second 2-Way Switch Box is required, see figure 29(b).

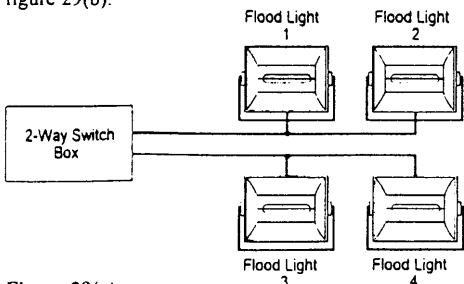


Figure 29(a).

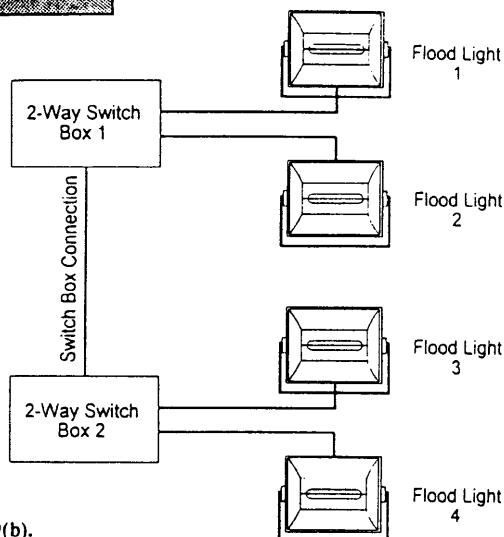


Figure 29(b).

See '2-Way Switch Box (ATC23)' section for further details.

Daylight Sensor & 20m Lead

ATC24

A Daylight Sensor can be connected to the terminals marked 'Daylight Sensor', figure 30. The Daylight Sensor offers you more control over internal/external lighting devices. It will only activate a device when daylight falls below a pre-determined level set by you. The level can be changed by adjusting the variable resistor labelled 'Light Level', figure 30.

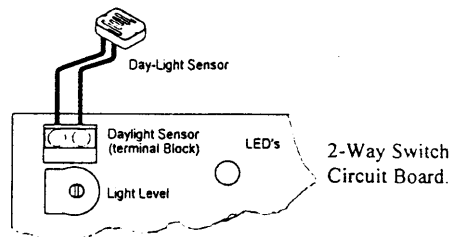


Figure 30. Daylight Sensor Wiring.

The Daylight Sensor has been supplied with a transparent plastic protective cover, figure 31.

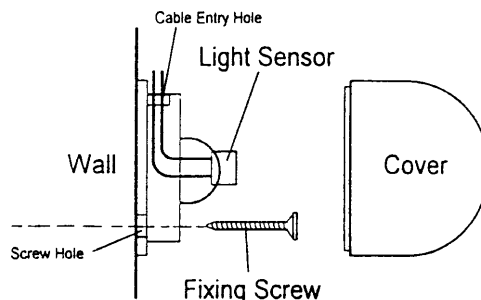


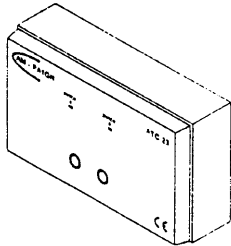
Figure 31. Daylight Sensor.

The Daylight Sensor should be positioned in an area where daylight is readily available, i.e. on a window ledge, outside wall, in garden etc. Use the fixing screw provided, to fix the Daylight Sensor in place, figure 31.

2-Way Switch Box

ATC23(white)

The 2-Way Switch Box, see figure 32, has been designed to control two mains operated devices (2000W max.), i.e. flood lights, each device has its own variable time duration.



See '2-Way Switch Box & Lead' on page 17 for wiring details.

Figure 32.

To be use in conjunction with the ATC 28 2-Way Switch Box.

ATC26 - 25m 2-Way Switch Box Extension Lead.

ATC27 - 15m 2-Way Switch Box Extension Lead With Connector.

Protective Hood

ATC25W(white) / ATC25B(black).

For applications where the Camera Unit is to be mounted outside, in a position prone to wet weather, a protective hood fitted to the Camera Unit is recommended, as shown below in figure 33.

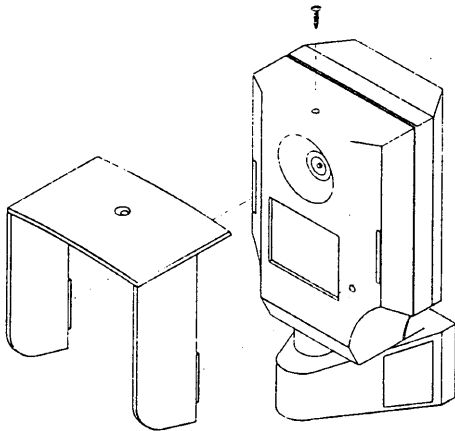


Figure 33. Protective Hood.

- Step 1. Remove the Protective Hood from packaging, ensure the retaining screw is put to one side.
- Step 2. There are two slits in the front of the Camera Unit, and a screw on the top of the Camera Unit which are used to fasten the Protective hood to the unit. Place the protective Hood in position as shown in figure 33.
- Step 3. Use the retaining screw provided to secure the Protective Hood to the Camera Unit.

Note: The Protective Hood has been designed to for use with the ATC1 and ATC2 Camera Units, and not the ATC11 Camera Unit.

Fault Finding

Symptoms:

Cause/Solution:

No Picture:

- TV is not switched on, switch TV on.
- TV/VCR is not tuned to Camera Unit.
- Control Unit is not switched on, switch the Control Unit on.
- Camera Unit is not connected (a Camera Unit must always be plugged into the CAMERA 1 socket, when the Control Unit is in operation). Plug Camera Unit into CAMERA 1 socket.
- Camera Unit removed from sockets 2,3 or 4 while operating (switch Control Unit Off and On to resume correct operation).

Distorted Sound/ Vision:

- TV is not tuned to the camera channel correctly. Tune TV correctly.
- Cross channel interference (use the channel adjust screw). Turn the CH ADJ. screw and re-tune TV/VCR.

Snowy Picture:

- RF lead(s) are not correctly connected. Connect the RF leads correctly.

Picture But no Sound:

- TV volume control set too low, or TV mute is selected. Adjust these setting.

No Beep From Control Unit When Camera Unit Is Activated:

- Beep option in Cam. Duration is set to 0.00. Change setting.

Normal TV Picture Missing:

- External aerial is not connected to the system properly (check setup connections).

Audio Feedback From TV Speaker.

- The Camera Unit(s) are too close to the TV set (reduce volume on TV or move Camera Unit/ TV).

TV/Video Will Not Change Channel / Record When The Camera Unit Is Triggered:

- Home / Away sequences are setup incorrectly. Check setting.
- Corrupt infra-red (re-record using IR Learn option).
- IR emitter not in line of sight of TV/VCR.
- IR emitter is too far away from TV/VCR.
- If using SCART only TV/VCR may not support 'pin 8' Switching (see manufacturers instructions).

Our Guarantee

A1 Security & Electrical Ltd. has built a successful world wide reputation by providing both DIY enthusiasts and professional installers with high quality security products backed with an unsurpassed after sales advisory service.

The Campaign ATC 4 Observation System is designed and tested to provide a high standard of security and long reliable service. However if you run into any difficulty, please telephone our HELP LINE between 9 am - 5 pm., Monday to Friday and 10 am - 4 pm Saturday and Sunday. A member of our technical support staff will be pleased to talk through any problems which you may encounter.

HELP LINE TELEPHONE NUMBER
0151 489 0166
Available 7 Days A Week.

Before contacting our HELPLINE, we recommend that you carry out the simple checks detailed in the 'Fault Finding' section.

The Helpline must be contacted in the first instance before any product is returned either to A1 Security & Electrical Ltd. or your stockist.

When you first contact the Helpline you will be given a reference number, please keep this number for future reference, by noting it in the box provided.

Helpline Reference Number:

A1 Security & Electrical Ltd.
16 Brickfields,
Huyton Trading Estate,
Huyton, Merseyside
L36 6HY.

A1 Security & Electrical Ltd. Guarantee to the original Purchaser that this security product will be free from defects in materials and workmanship for a period of 1 year from the date of purchase. Any product found to have defects in material or workmanship within the period of this guarantee shall be replaced by the manufacturer free of charge.

The conditions of this guarantee are as follows:

1. The product has been properly installed and maintained.
2. Defects or damage due to normal wear and tear, accident, misuse or interference are not included.
3. The product is made available for inspection by the manufacturer.
4. The claim on this guarantee is processed by an approved stockist.
5. This guarantee card is returned duly completed to the manufacturer at the address below within 28 days of the date of purchase of the product..

Note: This guarantee does not affect any statutory rights.



ATC 4 OBSERVATION SYSTEM GUARANTEE REGISTRATION FORM

Name _____

Name & Address Of _____
Place Of Purchase _____

Address _____

Occupation _____

Date of purchase _____

Age (Please Tick Box)

Under 18 18 - 25

26 - 40 Over 40

Signature _____

Date _____