

## USERS INSTRUCTION MANUAL

### SCARECROW 180™

### SCARECROW 360™



Scarecrow 180™



Scarecrow 360™

**SCARECROW**  
**BIO-ACOUSTIC SYSTEMS**  
KEEPING BIRDS AT BAY  
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# SCARECROW

## BIO-ACOUSTIC SYSTEMS

KEEPING BIRDS AT BAY

### ITEMS SUPPLIED

#### SCARECROW 180™

1 x fully automatic and random play bird dispersal unit, incorporating:

- 10 standard distress calls.
- 3 built in speakers,
- 1 light sensor,
- Wall mounting bracket
- Keypad for setting controls.

1 x Power Option; either 15V dc regulated switch mode EU/UK power supply, or Battery Lead.

1 x U Clamp Pair; to mate with built in brackets to provide pole mount option, and bolts etc.

#### SCARECROW 360™

1 x 'slave' unit to accompany the SCARECROW 180™

1 x Connection Cable; connection from 360 unit to 180 unit

#### SCARECROW 360™ SYSTEM

Complete 360° dispersal system comprising:

1 x SCARECROW 180™ fully automatic and random play bird dispersal unit (as above);

1 x Power Option; either 15V dc regulated switch mode EU/UK power supply, or Battery Lead.

1 x U Clamp Pair; to mate with built in brackets to provide pole mount option

1 x SCARECROW 360™ 'slave' unit to accompany the SCARECROW 180™

1 x Connection Cable; connection from 360 unit to 180 unit

### ACCESORY ITEMS AVAILABLE

**Solar Power Option;** suitable for B.I.R.D. System™, Scarecrow 180™ and Scarecrow 360™ System. System comprises:

- Solar Panel
- battery & regulator pack
- 2m pole stand; as described below

**2m pole Non-piercing roof mount;** mounted on a 1m square base. This requires the local purchase of four 450x450mm paving slabs, or equivalent, for stability.

**1m pole Non-piercing roof Mount;** for use on flat or ridge style roof. This requires the local purchase of four 450x450mm paving slabs, or equivalent, for stability.

**Adaptor for non-piercing roof mounts;** to 'saddle' a pitched roof peak.

*Should any of the above accessories be required please contact your supplier, or Scarecrow direct, on [sales@scarecrow.eu](mailto:sales@scarecrow.eu)*

## **PRACTICAL TIPS**

### **Point of Broadcast**

- Ideally, the point of broadcast should be from a high point – too low to the ground will only limit the area covered, and therefore the success obtained.

### **Volume Levels**

- The volume of broadcast has to be at a natural level for the birds to identify the broadcast as a natural call:
  - Too loud – the broadcast will merely appear to sound like a noise, and no reaction is likely.
  - Too quiet =- they simply will not hear the call, and again a dispersal reaction is unlikely.
- To attain what is perceived as a natural level for the target species, begin broadcasting the system at the lowest volume level and then increase the volume until you see the birds react to the call

### **Coverage**

- The system is stated as providing coverage in each speaker direction to a distance of 100m.
- This is dependent on a number of factors such as the lie of the land, prevailing weather conditions, strength/direction of wind, other ambient noise, air temperature and obstructions to sound broadcast.
- As such, either a greater or lesser distance may be obtained.
- Taking this into account, it is important to remember that the broadcast needs to sound at a natural level to the birds for greatest effect – too loud or too quiet, will merely either sound like a noise to the target birds and be ignored, or not heard at all.

### **Effect on other wildlife**

- The calls broadcast are only recognisable by the target bird species, and therefore has no lasting effect on other wildlife at all.
- That is not to say that there will be no reaction – in some extreme cases, the broadcast of a distress call may for example bring in a Hawk hoping to find some easy food.

### **Relocating the Scarecrow 180 / 360™**

- One of the benefits of this system, if mounted on a pole/base unit, is that it can be moved from location to location from time to time to enable different problem areas to be tackled.
- Whilst this is an option, it is recommended that a system should ideally remain in situ if an area is required to be kept free of birds.
- The concept of the system is to create the impression over time that the area is a “threat area” and one therefore to avoid – so over time the bird numbers may even

## **PRACTICAL TIPS CONTINUED**

- reduce. This is achieved by the regular (but not too frequent) broadcast of the Distress Call, which clearly cannot be achieved if the system is relocated.
- If it is decided to relocate the unit then this should not be too frequent – ideally no more frequently than fortnightly. Having said that every location may be slightly different, as are the reactions of different species on hearing their distress call, so it is worth taking some time to observe how the system works best under your own circumstances.

### **Variable Volume**

- The system incorporates a “variable volume” feature – during broadcast the volume will automatically vary between the maximum set level, and approximately 20 metres from the unit.
- This is to provide the perception of predator movement, to aid to the overall confusion and concern of the target specie, to improve dispersal performance.
- This feature also ensures that no matter where the target bird may be within the overall coverage area during the time of broadcast, at some point the broadcast sound level will certainly sound as if it is at a natural level.

### **Independent Speaker Channel broadcast**

- The system incorporates three independent speaker channels.
- The broadcast is made out of each channel in turn, independently, and on a randomised basis.
- As with the variable volume, this is to provide the perception of predator movement, to aid to the overall confusion and concern of the target specie, to improve dispersal performance.
- This feature works in conjunction with the variable volume.

### **Habitat Management**

- Whilst the unique efficiency of SCARECROW bio-acoustic products is long established SCARECROW BIO-ACOUSTIC SYSTEMS LIMITED stress that they can only work effectively as part of an overall and planned programme of bird control.
- This will include total hygiene management and where applicable the use of operatives who have been professionally trained.
- Without limitation, SCARECROW BIO-ACOUSTIC SYSTEMS LIMITED will not accept liability for any consequences as a result of poor equipment maintenance, misuse, inappropriate use, lack of operative training, failure of due diligence or through lack of prior project consultation.



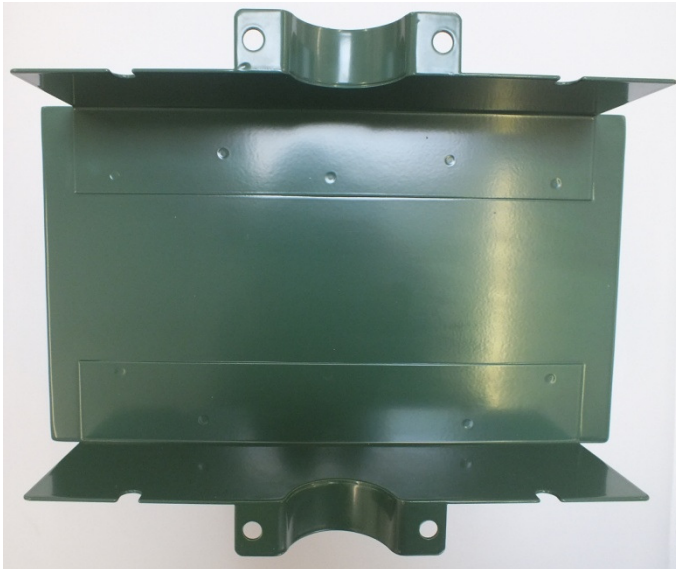
# SCARECROW

## BIO-ACOUSTIC SYSTEMS

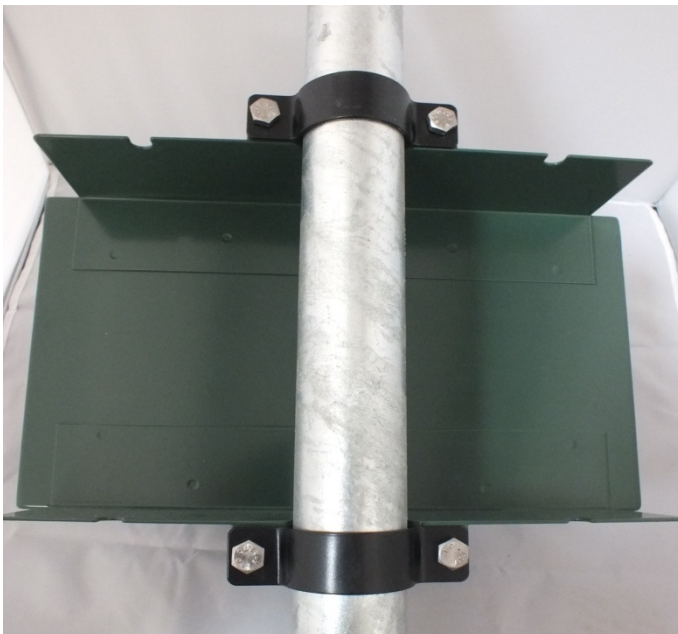
KEEPING BIRDS AT BAY

### ASSEMBLY / FIXING

- Both the Scarecrow 180™ and the Scarecrow 360™ are provided with integrated brackets at the back of the unit.
- For the Scarecrow 180™ this is to facilitate either wall or pole fixing.
- The Scarecrow 360™ unit is fixed to the back of the Scarecrow 180™, and designed to provide full 360° broadcast by being fixed back to back and pole mounted – no U clamps are required, but bolts are.
- If wall fixing, bolts, nuts and washers are supplied.
- If the Scarecrow 180™ is to be pole mounted appropriate U clamps are provided for a suitable standard type scaffold pole (pole not supplied).



**WALL BRACKETS**



**U CLAMPS MOUNTED ON  
POLE**

# SCARECROW

## BIO-ACOUSTIC SYSTEMS

### KEEPING BIRDS AT BAY

## POWER SUPPLY AND CONNECTIONS

### SCARECROW 180™

The standard Scarecrow 180 requires just one cable connection, as supplied. One end of the cable connection is fixed to the underside of the Scarecrow 180, in the “Power Input” connection.



The other end is the choice made of either 15V DC regulated switch mode EU/UK power supply, or Battery Lead, and is fixed to power source.



### SCARECROW 360™

When this additional unit is purchased to facilitate a full 360° broadcast, one further cable is supplied for connecting the two units – in both cases the connection is made by using the “Master/Slave Connector” socket.



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## BIO-ACOUSTIC SYSTEMS

### KEEPING BIRDS AT BAY

#### SOLAR POWER OPTION

The solar power unit is a standalone unit and has two connectors.

The first is “Solar”, connecting the solar panel to the battery and regulator.

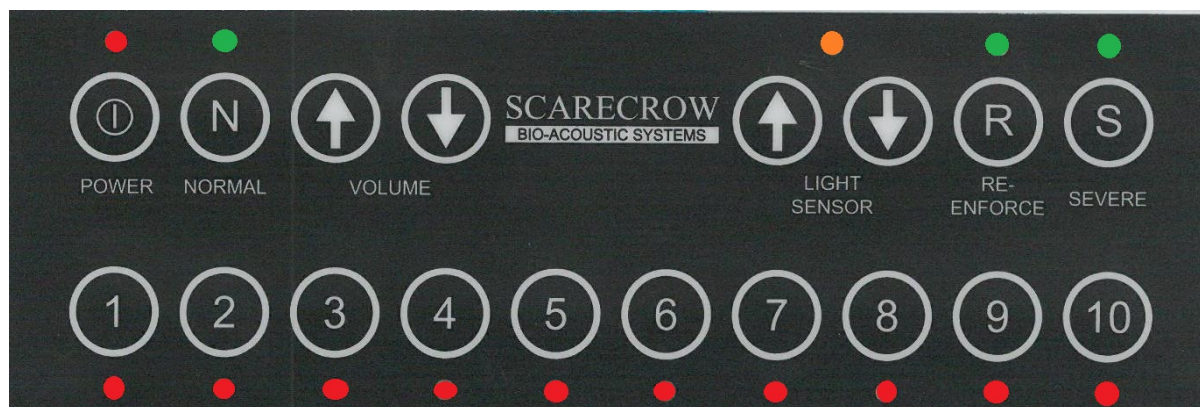
The second is “12V Out”, connecting the battery and regulator to the main Scarecrow 180 unit, at “Power Input”



Further instructions on the assembly of the Solar Pack and 2m stand are included with these accessories



## KEY PAD GUIDE AND DEFAULT SETTINGS



### **Standard Programmed Calls:**

- |                      |                   |
|----------------------|-------------------|
| 1. Herring Gull      | 6. Pigeon         |
| 2. Black Headed Gull | 7. Jackdaw        |
| 3. Starling          | 8. Canada Goose 1 |
| 4. Rook              | 9. Canada Goose 2 |
| 5. Crow              | 10. Birds of Prey |

### **Standard Factory Settings:**

- Unit volume is pre-set to cover a 50m distance
- Pin Disabled
- Light Sensor – Mid Point 5
- Random Broadcast Playback Timer set to Normal

When the unit is first provided from Scarecrow, the system will not have the PIN activated. In this “unlocked state” all buttons on the keypad are operative.

Thereafter, if the User has activated the PIN, the system can be either be in a locked state or unlocked when first powered up.

If locked, a PIN number is required to unlock the system and perform any functions.

## **TURNING THE UNIT ON/OFF**

### *Turn on the system.*

- Press the 'POWER' button to switch on.
- The red LED above the power button will turn on.
- If a PIN is enabled, LED's 1-4 will flash four times indicating that the system is locked.
- Enter the correct PIN number, if incorrect, the system will shut down immediately.
- The system will also shut down after 30 seconds if no PIN is entered.

### *Turn off system.*

- Press and hold the power button for 3 seconds until all number LED's flash rapidly to switch off.
- If the system was in low power standby, the system will power up first, flash all number LED's rapidly then shut-down when the power button is released.
- If a PIN is enabled, LED's 1-4 will flash indicating that the system is locked.
- Enter the correct PIN number, if PIN entered is correct, the system will shut down immediately.
- The system will remain on if the incorrect Pin was entered.
- If the system was in low power standby, the system will power up first, flash LED's 1 – 4 to prompt for the PIN entry.

### *Lock the system.*

- If PIN enabled and the system is unlocked, press the power button briefly to lock the system, all number LED's will flash and the system will be locked.

### *Note:*

The system will lock itself after 15 minutes if no keys are pressed and the PIN is set and enabled.

### *Unlock the system.*

- Assuming the unit is on, press and hold 'N' for 3 seconds and LED's 1-4 will flash to prompt PIN entry.
- Enter the correct PIN number which will be confirmed by all the number LED's flashing twice. Incorrect pin will be indicated by all number LED's lighting for two seconds.

### *Cancel PIN entry mode.*

- Briefly press the Power button to exit PIN entry mode while LED's 1 – 4 are flashing.

## **PROGRAMMING INSTRUCTIONS**

### **Broadcast Random Timer**

- The system has three main random timer functions that indicate how long the interval will be between each call sequence broadcast. The System is automatically pre-set to “Normal” mode – amend to “Severe” or “Re-Enforce” as required by pressing the appropriate button briefly and LED comes on, and “Normal” LED goes out – function mode amended.
- N = Normal = 20 to 45 minutes – This is the default setting and recommended everyday setting
- R = Re-Enforce = 10 to 30 minutes – This setting should not be used for more than 48hrs otherwise the birds may habituate to the sound and make the system less effective
- S = Severe = 5 to 15 minutes - This setting should not be used for more than 48hrs otherwise the birds may habituate to the sound and make the system less effective

### **Bird Calls**

- Press 1-10 for the required Bird Calls.
- Press individual numbers one at a time and once the individual LED stays on, the call is programmed.
- In the event the wrong call is programmed, simply press the number again until the LED goes off.

### **Volume**

- The volume is set to 50m, as a factory setting default.
- Press either volume button, up or down, to alter the volume/distance coverage as required – very roughly, each number equates to about 10 metres.
- On pressing either volume button, the bird sequence will start broadcasting continuously in a “Test Mode” at the current set maximum level (i.e. the variable volume feature will not operate at this stage). This will last for 10mins to enable you to check the volume level is adequate for the required target area and then, after 10 minutes, automatically time out. If the process is completed sooner, press N, R or S as appropriate, and the final volume setting made will be the maximum level to which the system will broadcast.
- While the volume key is pressed and for a few seconds after, the number LED’s will show the volume setting from 1 to 10.
- To override the 10 minute test mode and activate the random timer for broadcast, once the volume is set at the correct level, re-press the required Broadcast Random Timer Button e.g. N, R or S.

## **PROGRAMMING INSTRUCTIONS CONTINUED**

### **Light Sensor**

- The light sensor tells the system to stop broadcasting at night to save power and to reduce noise nuisance.
- The DUSK timer runs for 1 hour at sunset to keep the system active after sunset to discourage birds from roosting.
- The DAWN timer delays wakeup of the system for 60 seconds to ensure that the system is not triggered by passing motor vehicle headlights at night.

### **Light Sensor: Test**

- Briefly press one of the light sensor buttons to disable the dawn / dusk timers.
- Cover the light sensor (positioned on left hand side of speaker below keypad) with hand - the Amber LED should go out indicating the system is in night mode.
- Remove your hand and check the LED now goes to a solid Amber colour – this indicates the system is now in day mode and the light sensor is working correctly.
- During normal operation, the light sensor LED will be on during daylight, it will flash when dawn or dusk timer is running and will blink once every 5 seconds if in night mode (to save power).

### **Light Sensor: Adjustment**

- Adjust Light Sensor by pressing the associated “up/down” buttons repeatedly as required; 1 = most sensitive to light, 10 = least sensitive.
- The light sensor level will be shown on the number LEDs while operating the buttons and for a few seconds after release.
- Minimum setting disables the light sensor. This is achieved by adjusting the light sensor down until LED No 1 also goes out - this is confirmed by rapid flashing of all number LED's.

### **Light Sensor: Other**

- Pressing the UP or DOWN buttons briefly will bypass the dawn and dusk timers when in "Dawn/Dusk" Timer mode (e.g. amber LED is flashing). This allows the system to go into night mode immediately if dark, or day mode if daylight, without the delay.



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- During normal operation, the light sensor LED will be on during daylight, it will flash when dawn or dusk timer is running and will blink once every 5 seconds if in night mode (to save power).

#### Light Sensor: Typical Results

- The light sensor function enables the unit to be set up so it activates at dawn and then goes into night mode at dusk. Below is an overview of the basic results seen during test on a partially cloudy day.
  - Level 0 = Disabled, unit always in day mode.
  - Level 1 = Unit deactivates 20 minutes after sunset
  - Level 2 = Units deactivates 15 minutes after sunset
  - Level 3 = Units deactivates 6 minutes after sunset
  - Level 4 = Units deactivates 2 minutes after sunset
  - Level 5 = Units deactivates 1 minute after sunset
  - Level 6 = Units deactivates at sunset
  - Level 7 = Units deactivates 1 minute before sunset
  - Level 8 = Units deactivates 2 minutes before sunset
  - Level 9 = Units deactivates 5 minutes before sunset
  - Level 10 = Units deactivates 6 minutes before sunset

*Note: the system will continue broadcasting for a further 60 minutes after the times stated below, as the dusk timer keeps the system active to prevent roosting.*

*Note: There is a slight delay before the sensor responds.*

*Note: If the light sensor is NOT enabled in the options function, all number LED's will flash rapidly when either button is pressed. It is enabled by default.*

## **OTHER FEATURES**

### **Low battery warning**

- If the battery voltage falls below 9v, the system will shutdown to prevent damage to the battery.
- The next time the unit is powered up (provided the battery remained connected) the system will flash code 5 and play “low battery” through the speakers indicating that a low battery shutdown had occurred.
- You must recharge the battery.

### **Low Standby Mode**

- The system will go into a low power standby mode (if enabled) and no broadcast is running.
- As standard each unit has low power standby mode activated.
- The system will go into this mode if no buttons have been pressed for 15minutes, no broadcast sequence is active during daylight and one hour after sunset has been detected.
- A brief press of the power button will bring the system out of this mode.
- Low standby mode is indicated by a brief flash of the light sensor LED during night time or a brief flash of the set mode (N, R or S) during day time.
- To force low power standby to run, press ‘N’, ‘R’ or ‘S’ button to stop the current broadcast then press power button briefly, after 10 seconds the system should power down into low power mode.
- Low power mode is indicated by a brief flash of the power LED, the light sensor led (if night) or either the ‘N’, ‘R’ or ‘S’ led’s if daytime.

### **LED meanings**

- All number LED’s flash four times when any button pressed = System locked by PIN, press N for 3 seconds then enter PIN number.
- Number LED’s 1-4 flashing continuously = > PIN number entry expected.
- All number LED’s flash twice after PIN entry = PIN number entry correct.
- All number LED’s on for 2 seconds = PIN number incorrect or timeout ERROR.
- All number LED’s scroll down from 10 to 1 after factory reset = Confirmation of reset to defaults.
- N,R or S LED flashing indicates that the random timer between broadcasts is running.
- A single number LED flashing indicates that particular bird is broadcasting.

## **PIN CONTROL / USE**

- PIN option factory setting is set to “Disabled” as default.
- Default PIN : 10, 10, 10, 10

### **Activate PIN Function and Save New Pin (use when PIN Function not activated before)**

- Press and Hold N for 3 seconds – Red LED’s 1- 4 will now flash
- Enter the default PIN 10,10,10,10 – The N,R and S Green LED’s will now flash
- Press S briefly and then enter new 4 digit PIN twice – All LED’s will flash twice to confirm change. The PIN is now saved and enabled.

### **Disable PIN function**

- Press and hold N for 3 seconds - Red LED’s 1- 4 will now flash
- Enter the current user PIN or 10,10,10,10 if default - then press R to disable the PIN.
- The system will now not require a PIN to operate.

### **Enable a previously disabled PIN**

- Press and hold N for 3 seconds, enter the existing user PIN number
- Press N briefly. The system will now require the user PIN to operate.

**Note:** After S, N or R has been pressed as above, the system reverts to normal operation mode.

### **PIN number features:**

- If the system is locked by PIN, hold “N” for 3 seconds - LED’s 1-4 flash continually (these LED’s flashing indicates “PIN entry mode”).
- If no PIN has been programmed yet, enter factory setting default PIN 10,10,10,10. Otherwise enter the saved PIN.
- LED’s 1-4 will go out as you enter each digit.
- You should then see all LED’s flash twice for confirmation of correct entry. System now unlocked. (Wrong entry indicated by all lights lit for 2 seconds)
- If the PIN is active and after 15 minutes of no user input, the system will revert to PIN locked in which case you will have to press N for 3 seconds and then enter the PIN number to unlock the system.
- If the PIN is entered incorrectly 5 times in a row the buttons will be locked out for 5 minutes before a retry is allowed. All the number LEDs will light for 2 seconds if N is pressed for 3 seconds to try and enter a PIN number during lockout period.
- Briefly pressing the power button will lock the system if the PIN is enabled.

## RE-SET FACTORY SETTINGS

- If you have forgotten your PIN or want to revert the unit back to its factory settings please follow the below steps:
- Press and hold N for 3 seconds until the 1- 4 Red LED's flash enter PIN 4726
- You now have 15 seconds to complete the following sequence
- Press S and hold until all LED's flash twice
- Press R and hold until all LED's flash twice
- Press N and hold until all LED's flash twice
- All number LED's will now scroll down from 10-1 indicating the factory re-set and the system will switch off.
- Please note the pin will have now been re-set to the default 10,10,10,10

## TECHNICAL SUPPORT

Should you have any concerns about the installation or set up of your system, please contact either the agent from whom the purchase was made, or Scarecrow Bio-acoustic Systems direct as follows:

- Phone: 01825 766363
- Email: [support@scarecrow.eu](mailto:support@scarecrow.eu) / [sales@scarecrow.eu](mailto:sales@scarecrow.eu)

If an item needs to be returned to the manufacturer, the Returns Address is:

Scarecrow Bio-Acoustic Systems Limited  
The Old Dairy  
Straight Half Mile  
Maresfield  
East Sussex  
TN22 2HH