

# IR Classmate & IR Classmate+ Soundfield

## Reference & Installation Guide for systems with Swift TX & handheld transmitters



**IR Classmate Reference Guide – for users**

Pages 1-11

**IR Classmate Installation Guide – for setting up**

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Cautions & troubleshooting

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## Classmate receiver/amplifier

### The front panel:



### The bottom panel:



Full details on the IR Classmate receiver/amplifier are on the encapsulated sheet which should be stored in the door compartment. This is also available on [www.connevans.info/classmate](http://www.connevans.info/classmate)

### IR Classmate and IR Classmate+

The IR Classmate+ has all the features of the IR Classmate with the addition of a remote volume adjust feature for use with a SwiftTX transmitter.

### Safe battery charging/maximising battery life

Fully charged batteries will last around 8 hours in both beltback and handheld transmitters. The service life of the batteries is typically between 1-2 years depending on use.

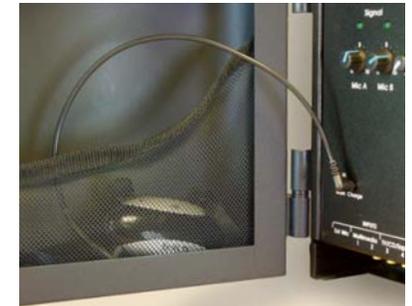
If using the external charger to charge the handheld microphone, remove from charge the next day but no harm will occur if left on charge over the weekend.

**IMPORTANT: in order for the wall unit to charge the batteries automatically and safely, the wall unit must be LOCKED. If not locked, the charge cycle will not terminate and the batteries may overheat and be damaged.**

The wall unit must also be permanently powered from the mains supply.

Charging mode is indicated by red flashing lights on the wall unit. No sound is produced when the wall unit is in charge mode.

Always ensure a transmitter is turned off while charging.



### Charge lead for in situ charging

Swift TX transmitters are charged in the unit using the 1.3mm DC – 1.3mm DC charge lead supplied with the IR Classmate unit. (Part no. XODIV00)

Handheld transmitters are charged using the 1.3mm DC – 21mm DC charge lead supplied with the transmitter. (Part no. X0IR00)

### Wall unit fuse

Turn off at mains before replacing fuse.

Use a small coin in the slot and turn anti-clockwise to open fuse cartridge. Replacement fuse is 20mm T6 Antisurge T630mA (Connevans part no: JF630T). Replace cartridge and tighten securely.



### Making the most of the additional audio inputs.

The IR Classmate wall unit provides three additional audio inputs besides the two IR mic channels. These are two stereo-summed (stereo input-mono output) auxiliary channels labelled 'Multimedia' and TV/CD/MP3. These channels are both the same and may be used in mono or stereo and will accept practically any line level audio signal.

The 'ext mic' channel can accept a wired dynamic microphone (low output) where the gain switch is set to 'Hi' or a wired electret condenser microphone where the gain switch is set to 'Lo' or 'Hi'. This channel offers a cost effective way of providing a third microphone channel that can be used, for example, at the front of the class.

## Using the audio outputs effectively

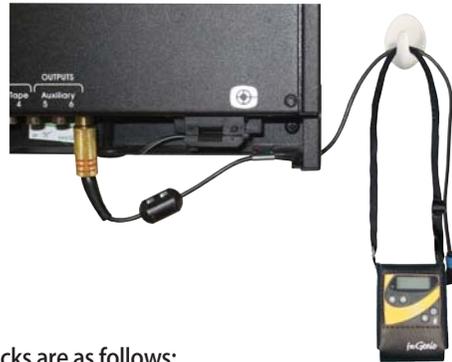
### 1. Feeding a personal fm transmitter

If someone in the class uses a radio aid (such as fmGenie) with their hearing aids, the audio output of the IR Classmate soundfield can be rebroadcast to their receiver by connecting the FM radio aid transmitter to the IR Classmate wall unit.

The personal FM transmitter may be connected to either of the aux outputs.

Depending on the facilities in the personal fm transmitter, the connection may be direct to the Tx 'Aux In' socket or via an attenuated lead to the Tx 'Mic' socket.

Generally, if the soundfield signal is applied through the Tx 'Aux In' socket, the Tx mic will remain live (usually undesirable) but if applied to the Tx 'Mic' socket, the Tx mic will be muted (desirable).



### Connevans rebroadcast soundfield connection packs are as follows:

**45SIBKFMGB** for: Connevans fmGenie transmitter, Phonak SmartLink & SmartLink+, ZoomLink & ZoomLink+ or EasyLink & EasyLink+

**45SIBKINS** for: Phonak Roger Inspiro, Campus

**45SIBKFMGC** for: Cochlear implant users

### 2. Feeding an inductive loop amplifier

Either of the aux outputs may be used to drive an external inductive loop amplifier.

### 3. Feeding an audio recorder

Either of the aux outputs may be used to feed an audio recorder (CD/MP3/computer etc.) via the recorder 'aux in' socket. An output lead for an 'AUX IN' phono pair is available (Connevans part no: MXA118D).

### 4. Feeding additional amplifiers and speakers

In some cases where rooms are very large, or more than six speakers or a zone system is required where the sound may need to be relayed to another room, one or both aux outputs may be connected to the aux inputs of another system.

## Door compartment

There is enough room to store a Swift tx transmitter, a handheld microphone and the charging leads, as shown.

The handheld microphone should be stored with the charge socket to the top right hand side to avoid straining or trapping the charge cable.

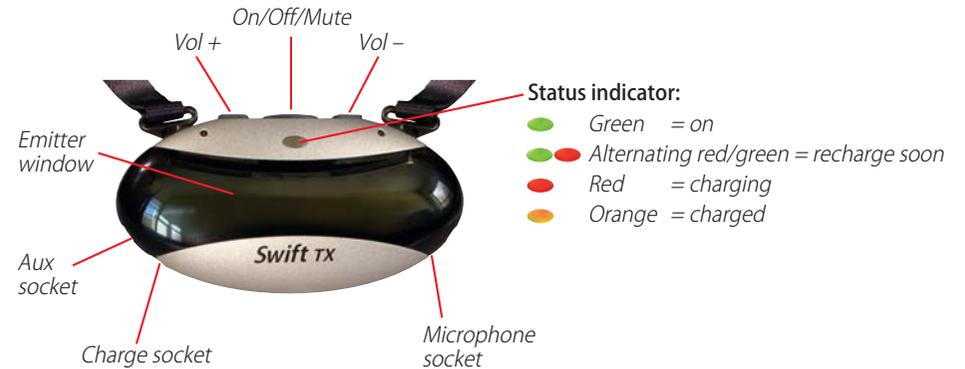
Make sure that the items in the door do not stick out so that they could be crushed against the volume controls etc.



## IR Classmate Transmitters

### Swift tx microphone transmitter

To turn on the Swift tx press and hold the on button until the status indicator lights. Similarly to turn off or mute the Swift tx press and hold the button until the indicator goes out.



### Indicator LED

The indicator LED shows green, red or orange, depending on the status or mode of the Swift tx.

#### In normal use:

**Solid green** – the Swift tx is on and working.

**Alternating green/red** – the battery is low and the unit needs to be recharged.

**No indication** – the unit is switched off.

#### When charging:

**Solid red** – the Swift tx is charging normally and is turned off.

**Flashing red** – there is a problem with charging – refer to fault finding appendix.

**Solid orange** – the Swift tx is charged, it is turned off and the charger has switched to trickle charge.

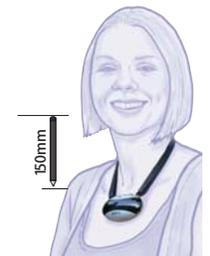
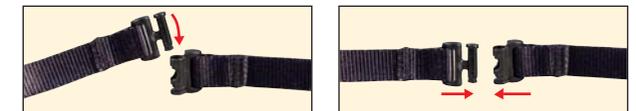
### Adjusting the neck strap

Correct positioning of a transmitter is important. The Swift tx should be worn so that the emitter faces forwards and the unit rests about 150mm (the length of a biro) below the mouth – this means it should sit just below your collarbone.

Both straps can be easily adjusted as required, using the sliders.

*Note – replacement straps are available, please see [www.DeafEquipment.co.uk](http://www.DeafEquipment.co.uk)*  
**45IRTXSTRAP** Replacement strap    **45IRTXCLIP** Replacement clip

The two parts of the neck clasp may be pushed together or pulled apart either directly or by sliding.



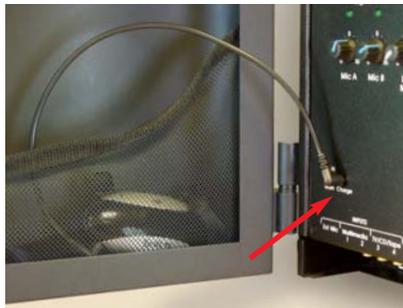
### Battery charging

The batteries in all of these transmitters will last approximately 8 hours. **You will usually need to leave the unit recharging at the end of the day.** To conserve power always remember to switch the transmitter off when not in use. If a second transmitter is only occasionally used it will need charging less often.



There are two ways to charge a Swift TX transmitter:

1. **In situ**, using the 1.3 mm DC – 1.3mm DC charge lead supplied with the IR Classmate unit. (Part no. XODIV00). Connect the charge lead into the 'chg' socket on the Swift TX and plug into the 'Charge' socket of the IR Classmate. Charging is automatically terminated by the wall unit as long as the door is locked.



2. **Using the external charger** (part no: 45IRTXHCHG2) plugged into a mains socket. Charge time is 12-16 hours from flat (ie. overnight).

It is safe to leave on charge for up to 5 days.

When charging, the multi-colour indicator will show red.

The Swift TX should last a full school day with fully charged batteries – please contact our Soundfield technical helpline for advice should you experience short battery life.

Charger 45IRTXHCHG2 for charging a Swift TX or belt-pack transmitter



### Changing the rechargeable battery

The rechargeable battery will only need changing very occasionally – it should last between 1-2 years.

To open battery compartment, press in the centre of the battery door with both thumbs and slide off.



The battery door is treated with a clear anti-slip finish to reduce the tendency to move when worn.

Pull on ribbon tab to release battery.

**Use only with the exposed metal end battery as supplied with the Swift TX. Other types of battery will not charge.**

Rechargeable battery:  
1 x 2700mAh high capacity rechargeable AA battery – exposed end (MBRAAHX1VAM).

Side contact



This battery is fitted with the exposed metal end against the spring.

Position the battery on top of the ribbon tab for easy removal next time.

Technical Note – when a battery is first inserted, the Swift TX will automatically test the battery to make sure it has enough charge.

The indicator will show orange for 5 secs while it is testing, followed by green or red for 1 sec:

**Green** – the battery has enough charge. **Red** – the battery needs to be recharged.

A flickering indicator or no indicator – the battery has no charge and needs to be recharged or replaced.



### Using the Swift tx on external power

Connecting a charger automatically turns off the Swift tx and starts charging it (red indicator). During charging, a press of the ON/OFF button will suspend charging and return the unit to ON (green indicator) – in this mode, although the battery needs to be fitted, the Swift tx is now powered from the charger rather than the battery.

Using external power will preserve battery life when connected to an external sound source.

### Auto power-off

The Swift tx monitors the sound level and if the level drops below approx 76dB SPL for more than ten minutes, then the unit will switch off automatically to preserve the battery.

### Dual directional microphones

The Swift tx uses two separated microphones (Left and Right) to provide a constant transmitted voice level as the user's head is turned from side to side.

The optimised dual microphone design also provides ideal pick up of the user's voice and rejects unwanted sounds in all other directions.

This means that you don't get a variation of volume as the speaker moves their head from side to side.



### Microphone gain settings

The Swift tx microphone gain control is factory set and will not need adjusting.

### Channel change

The IR Classmate unit has two mic receiving channels A & B. The Swift tx A/B channel change switch is in the battery compartment.

Pendant, beltback or handheld transmitters can be used on either channel.

The Swift tx is normally used on channel A. However it can be easily changed to channel B as follows:

Open the battery compartment.

Inside, just above the battery, you will be able to see a small switch labelled 'A channel B'.

Use the end of a paperclip to slide the channel switch.

Always replace the battery compartment cover afterwards.



### Remote volume control feature – for use with IR Classmate +

When used with an IR Classmate +, the Swift tx can be used to remotely adjust the channel volume.

The range of remote volume adjustment is +/- 15dB and allows the user to temporarily adjust the volume of their voice from the IR Classmate +.

A short press of the + or - button on the top of the transmitter will increase or decrease the current volume by 1.5dB.

Holding down the + or - button will change the volume at the rate of 6dB per second.

To reset the volume to the default manual setting on the IR Classmate + unit, press both the + and - buttons simultaneously.

The IR Classmate + volume will reset itself to the manual setting when the IR Classmate + is turned off.



Note – the remote volume control function will only work with new IR Classmate + and IR Swift + models. Compatibility with the remote control feature is indicated by the '+' suffix.

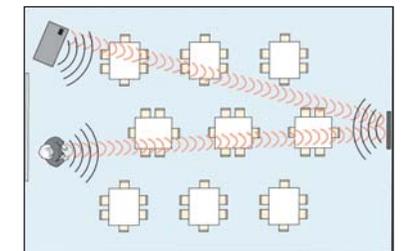
### Wirefree connection of an external sound source

The Swift tx transmitter can be used as a 'remote transmitter' in situations where it is not convenient to make a wired connection from an external AV source to the IR Classmate amplifier.

For the Swift tx, connect the external device into the 'aux' socket on the side (3.5mm mono or stereo). A standard lead may be used e.g.

- MXA117 – 3.5mm stereo jack to jack for use with headphone socket eg. a computer or iPod
- MXA121B – 3.5mm stereo to phono pair for use with TV (a SCART adaptor may be required)

Note – it is still possible to use the Remote Volume Control feature when using a Swift tx transmitter as a remote transmitter with an IR Classmate +.



When using the transmitter, place the unit so that the emitter (on the front) is not obstructed and is facing towards the IR sensor.



## Handheld microphone transmitter

### Controls



### Holding the microphone transmitter

It is important to hold the microphone in the middle so that the emitters are not being covered by your hand.



### Charging

Depending on use, the handheld microphone may only need charging every 1-2 weeks (approx. 10 hours use).

Remember to switch off the handheld microphone before charging. There are two ways to charge the handheld microphone:



**In situ** – using the lead supplied with the handheld microphone – plug into the end of the handheld microphone and into the ‘charge’ socket of the wall unit. Ensure the charge socket goes to the top right hand side of the door to avoid straining or trapping the charge cable.

Charging is automatically controlled by the wall unit as long as the door is locked. If the door is not locked, the charger cannot switch off automatically and the batteries may be damaged if left on charge for more than a couple of days.



### Using the external charger

(part no: 451RTXHCHG2) plugged into a mains socket. Charge time is 16-20 hours from flat (i.e. overnight).

Do not leave the handheld transmitter on charge for more than a couple of days.



## Changing the rechargeable batteries

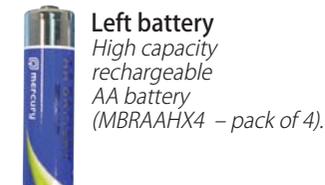
The rechargeable batteries will only need replacing very occasionally – depending on use, it will last between 1-2 years.

To open the battery compartment, unscrew the metal sleeve below the switch and slide the cover off.



Pull out the old batteries. Replace with two new rechargeable batteries, taking care to place the **battery with the exposed end in the side with the spring at the mic head end** and the contacts beside the spring. This is essential for correct charging.

Screw cover back on.



## Channel change

**Most users will never need to change the channel of the handheld microphone. If one Swift tx and one handheld mic are being used, there will be no need to change channels.**

More than one pendant or handheld microphone transmitter can be used on either channel for team teaching as long as only one is switched on at any one time.

To use two of the same type of microphone simultaneously, then one will need to have its channel changed.

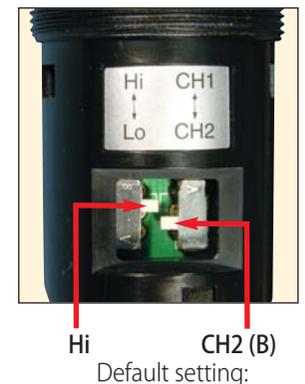
The handheld transmitter is normally used on channel B. However, if required, it can be changed to channel A as follows:

Unscrew the battery cover and the switches will be easy to see just above the battery compartment.

Use the end of a paperclip or a small screwdriver to slide the channel switch between channel A and channel B as required.

Please note that the label fitted to the outside of the battery compartment indicates the switch positions as ‘CH1’ (= Channel A) and ‘CH2’ (= Channel B).

The left hand switch should always be left on ‘Hi’.



## Check contents of kit, you should have the following:

**Microphone transmitters**  
– as ordered, such as:

Swift TX pendant transmitter



Handheld transmitter

**IR Classmate amplifier and wall fixings**



**Dome sensor & mounting box**



**2 pairs of speakers**  
(3 pairs for a 6 speaker system!)



18 metre length of 75 Ohm special co-ax cable (or on a reel for larger installations, whole reel will fit 5 classrooms)



2 F-connectors & 1 boot



100m reel of speaker cable (we know this is too much cable, but 100m reels are the cheapest form of supply)



1 box of speaker cable clips (using a cabling staple gun is preferable if you have one)



Charging lead for IR Swift TX transmitter



### Instruction sheets:

IR Classmate Tutor Courtesy Card  
IR Classmate Amplifier control & feature card  
Wall signs  
Mounting instructions  
This Reference & Installation Guide



## An overview of the installation steps are:

- 1) Charge transmitter batteries for testing purposes.
- 2) Decide where the speakers are to be fitted.
- 3) Decide where to fit the Infra Red sensors.
- 4) Decide where to mount the IR Classmate amplifier
- 5) Decide the easiest cable run for the speakers and sensors.
- 6) Install the system.
- 7) Setting up and testing the system.
- 8) Demonstrate and set the volume level for the user.

## 1. Charge batteries now

The rechargeable batteries inside your transmitter require charging before use. In order to be able to test the system once it is installed, we recommend you use the external charger, if you have one, to start charging the transmitter. Alternatively, you could plug the unmounted amplifier into an available socket and start charging the transmitter before carrying on with the installation.

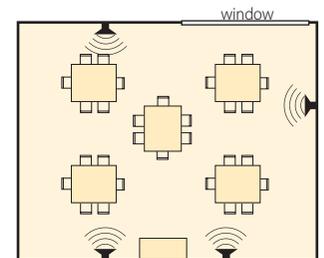
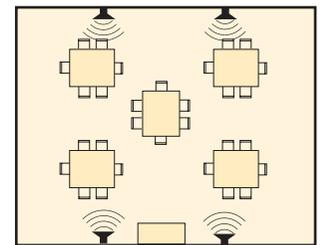
Even an hour or so will give enough charge to test the system – 1 hour charge gives 40mins use.

## 2. Deciding where to fit the speakers

Firstly please do not think home hi-fi and put the speakers in the corners, at waist level and point them to the centre of the room – this is the worst possible thing to do!

Placing loudspeakers for a classroom soundfield is more like deciding how best to light a room using 4 small lamps. If you think 'light' you will not go far wrong, i.e. fitted above head height (2 to 2.5 metre high) each over a 1/4 of the room pointing down on the area to be covered.

The positioning of speakers is often dictated by physical objects such as windows. You have to fit 4 (or 6) speakers so adapt your 'lighting' plan to give the best pattern for the students – perhaps avoiding the window, an unused end of a classroom or a teachers desk.



Speaker position allowing for a window

### 3. Deciding where to fit the infra red sensors

The infra red sensor picks up both direct and reflected signals. The 360° ceiling mounted sensor included as standard will adequately cover most classrooms. A 150° wall mounted sensor is available for coverage of 'dead end' or non reflecting areas.



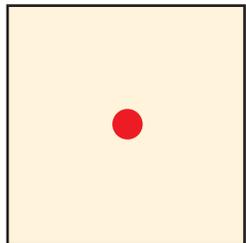
360°



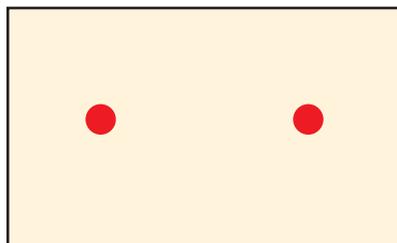
150°

The infra red sensors need to be positioned so that they provide coverage of the whole room. In large or strangely shaped rooms it may be necessary to fit additional sensors.

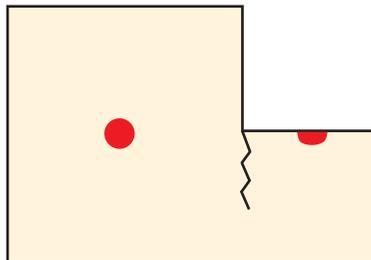
The dome sensor is normally fitted near the centre of the room and as far away from lights or other obstructions as possible.



Normal room:  
1 dome sensor



Large room: 2 dome sensors



L-shaped room:  
1 dome sensor + 1 wall sensor

### 4. Deciding where to mount the IR Classmate amplifier

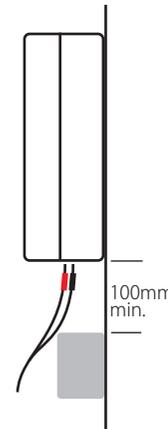


This is usually best done by discussing the options with the school staff. Make sure that there is adequate access to open the door and operate the controls!

Do not fit in direct sunlight or over a heater. Do not fit a spur switch or large trunking directly beneath the unit as this will impede access to the connectors.

It should not be necessary to adjust the controls during a lesson so the IR Classmate unit does not actually need to be beside the teacher although it is a good idea to mount it near to where a laptop or TV might be used. Mounting the unit away from little fingers is also a good idea and, of course, do not forget that you also need a 13A mains socket to power the system. The socket or switched spur, if used, should be labelled 'Do not switch off' or 'Leave on'.

Information note: each IR Classmate system has 2 channels to receive 2 separate infra red transmitters simultaneously from the same dome sensor – typically a pendant one for the tutor and a hand held one for class participation. The microphone channels are identified as A and B. Each transmitter has an internal switch to change between A and B as required. Mic A is usually bodyworn, mic B is usually handheld.



Leave at least 100mm clearance above and below unit for fitting and connectors



Position for fitting a hook for rebroadcasting to an fm transmitter (part no: 45SIBKFMGB).

### 5. Deciding the easiest cabling run

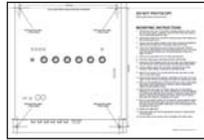
Take advantage of existing features such as any wooden picture rails or perhaps notice boards (it is much easier to fit cable clips to wood than plaster). If you have a false ceiling the cable can be run above it. Sometimes using a piece of plastic mini trunking for any difficult runs is a good solution.

The cable to the detector will usually look better if it is placed in mini trunking, but it's wise not to rely on the glue alone and to screw the trunking to the ceiling.

## 6. Install the system

### IR Classmate wall mounting

There is an separate A3 sheet which has a template and guidance for mounting the IR Classmate wall unit. Using this template makes drilling the correct holes simple and prevents drill debris from contaminating the IR Classmate wall unit. Do not place the unit on the wall until all drilling and dust making activities have been completed.



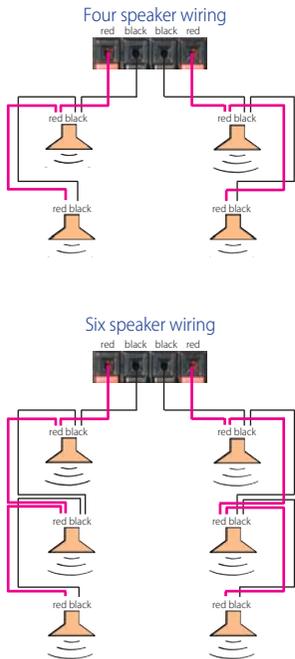
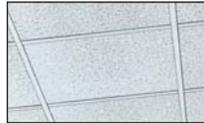
### Speaker Mounting

**Wall mounted speakers** Wall mounted speakers must be mounted horizontally to allow them to be angled down.



**Ceiling mounted speakers** When fitting ceiling tile speakers always ensure that cabling or other loose items are not left across the back of the speaker tile – anything left in contact with the speaker tile will cause distortion or buzzing.

The ceiling tile speakers supplied by Connevens may be 4 Ohms (4 speaker system) or 8 Ohms (2 speaker system) and are wired in the same way as the wall speakers.



### Speaker wiring

Speaker wiring – one cable run down each side of the classroom wiring 2 (or 3) speakers in parallel. It is important to maintain the correct polarity when connecting the cable so we suggest connecting the black trace wire to the black terminal(!) (Each speaker is 4 Ohms thus for 4 speakers we now have 2 Ohms on each cable).

The IR Classmate has 4 terminals – red, black, black, red. Connect the two cable runs, one to the left pair and one to the right pair, again maintaining correct polarity ie black trace wire to the black terminals.

(The terminals are wired internally to connect the two cable runs in series making the load on the amplifier 4 Ohms. The actual amplifier connections are the 2nd and 4th terminal as viewed from below, which you would need to know if you wanted to test the amplifier with just one speaker)

The cable is white with a black stripe along one wire. The white only wire should always be connected to the red terminals and the black stripe wire always to the black terminal.

## Connecting the speaker wiring

- 1 Pass the two speaker cables from behind the unit through the rectangular hole by the speaker connectors or through the rubber grommet with the mains cable. The cables then follow around the right hand corner of the unit and through the speaker cable clamp.
- 2 Prepare the speaker cable ends.
- 3 Place each speaker cable pair into the appropriate connector, observing the correct polarity.
- 4 Lay the speaker cables on top of each other and tighten the cable clamp.



Speaker cables coming through hole in back of cabinet



Speaker cables come from behind the unit, through the cable clamp to the connectors

## Fitting the F-connectors

The infra red sensors are connected to the IR Classmate amplifier using the provided co-ax cable and F-connectors. Place the boot on the amplifier end of the cable before stripping!



1. Cut back 15mm of outer casing. Fold back the copper braid and remove the foil.



2. Cut back the inner insulator to leave 9mm of the copper core protruding.



3. Screw the F-connector onto the cable. The end of the inner insulator should be flush with the inside of the connector.



4. Trim off any visible braiding.

Screw the plug to either connector on top of IR Classmate and pull the boot over the connection.



**To avoid expensive damage, check assembled cables for short circuits before connecting to the IR Classmate amplifier.**

Sensors can be connected to either plug on the top left of the amplifier. When wired properly, the red LED on the sensor will light when the system is turned on.

### Mounting the infra red sensors

Dome sensor mounting is dependent on the type of ceiling in the classroom.

#### Solid ceiling – direct or with mounting box

1 The mounting plate can be bent to allow space for the F-connector and cable and be screwed directly to the ceiling.



2 If a mounting box is used, the box is fitted directly to the ceiling and the sensor is fitted to the lid as shown.

The cable exit hole is drilled by the installer to suit the trunking used.



#### Suspended ceiling

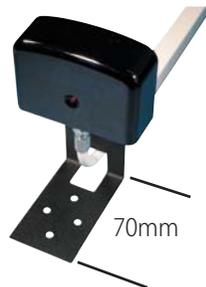
The mounting plate can be removed and used as a template for drilling holes in the ceiling tiles.



#### Wall mounted sensors

Wall mounted sensors should be mounted between 2 and 2.5m above the floor. Preferably not higher than the speakers.

The bracket for the wall mounted sensor needs to be bent 70mm from the flat end of the bracket.



### 7. Setting up and testing the system

#### Checking the operation of the IR Classmate amplifier and speaker system

The easiest way to check the system is to connect a portable radio, MP3, laptop or CD player into one of the auxiliary inputs (numbered 1 to 4). Adjust the appropriate volume to a suitable level and walk around the room, checking for a reasonably constant sound level and lack of distortion or buzzing from any particular speaker. Buzzing or distortion from a particular speaker may indicate a faulty speaker or loose mount.



A 3.5mm to phono plug pair lead is supplied in the Connevens Soundfield AV lead pack (45SIBPK1) if this has been purchased.

#### Check the transmitter

As long as the transmitter has been on charge for at least 30 minutes, you will have enough charge in the batteries to test and demonstrate the system.

Switch the Swift TX transmitter on. Check that the left 'Mic A' green LED lights. Ensure the microphone is positioned about 150mm from the mouth and talk whilst increasing the 'Mic A' volume on the IR Classmate until you can hear it clearly without causing feedback whistling.

Walk around the room whilst talking. There should be no places where the sound cuts out or sounds noisy. This is much easier to do if you can find someone else to listen to the sound whilst you walk around the room.

#### Swift tx pendant microphone transmitter:

Place round neck and adjust neckstrap to correct length.



## 8. Demonstrate and set the volume level for the user

It is important that the soundfield is set up properly. We have found that most users tend to set the system too loud. This is unnecessary and undesirable. The golden rule is "if the user of the transmitter can hear themselves very clearly from the speakers, then the volume is too loud". It is difficult for the person talking to judge the level of their own amplified voice.

There are two ways to set up a soundfield properly; one uses a sound level meter and the other relies on the subjective judgement of another person. Both methods require two people with the class teacher preferably being the one doing the talking.

### Setting the correct volume level

This is normally only necessary upon installation. In normal use, from person to person, it is not necessary to alter the volume since the sound out of the speakers should be about the same as directly from the person talking. However, if a particular user has a quiet voice then the transmitter may be moved nearer to the mouth.

- Wear the microphone as shown.
- Walk to the point in the room furthest away from the IR Classmate and invite a colleague to join you.
- Switch the transmitter off for the moment.
- Talk in a normal voice to your colleague while they stand about 1 metre in front of you.
- Ask your colleague to remember the average sound level by either...
  - a) Using a sound level meter *or*
  - b) Remembering the sound level by ear ...and then get them to walk over to the IR Classmate amplifier.
- Switch the transmitter on.
- Ask your colleague to increase the 'Mic A' volume control on the amplifier, whilst you continue to talk in the same normal voice as before, until either...
  - a) the sound level shown by the meter at where they are standing is the same average value as when they were standing in front of you.
  - b) until they judge the sound level at where they are standing to be about the same as when they were standing in front of you.
- The tone controls can now be adjusted if necessary to optimise vocal clarity.

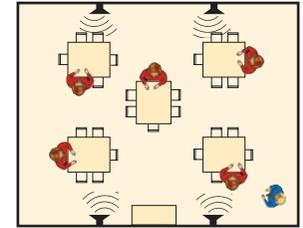


- Ask your colleague to walk around the room listening to make sure that your voice is clear all around the room.

Job done! Don't be tempted to increase the volume much further as teachers tend to raise their voices in an active classroom situation!

Once the installation has been carried out, please do not underestimate the importance of ensuring that the teacher has the opportunity to experience listening to another person using the system. There are two reasons for this: firstly so that they become impressed at the natural sound and secondly it is hard for anyone to listen objectively to their own voice. It is also an excellent opportunity to 'play' at using the system with a colleague, allowing the teacher to gain confidence with their own 'performance'.

If the system has been supplied with a handheld microphone you must now go through the same procedure with this microphone using the 'Mic B' volume control.



### Leaving the IR Classmate in a ready state for the user

If the transmitter batteries were not fully charged before testing and setting up the system, switch off the transmitter and plug the charger lead from the amplifier into the transmitter charger socket.

The IR Classmate should enter charge mode within a couple of seconds, shown by the flashing red indicators and the transmitters red LED on the transmitter will light.

Place the transmitter, complete with microphone, into the door of the IR Classmate and lock the door. The system will automatically switch off when charging is done.

**Warning: Automatic switch off ONLY occurs when the door is locked.**  
Excessive charging will eventually damage the batteries.

Charge the hand held microphone midweek or as required.

*Note: Only one transmitter may be charged at a time.*



Swift tx transmitters are charged with a 1.3mm plugged charge lead (part no. X0DIV00)



Handheld transmitters are charged with a 2.1mm plugged charge lead (part no. X0IR00)

**Cautions:**



Do not allow the door to swing open – either use it shut or fully open, to reduce the probability of someone hitting their head on it.

The unit will become warm during normal use.

The inside front panel will become hot when the system is producing continuous loud sound.

Open the door if the unit is to be used for extended periods (i.e. more than ten minutes) with loud or continuous sound such as music or if the ambient temperature is above 30°C.

Do not block the ventilation holes at the bottom and top of the unit.

Do not allow the tip of the charger lead to touch any metallic object, including the casework of the IR Classmate. Store the charger plug safely in the insulated door pouch when not in use or remove from the front panel socket.

The charger in the IR Classmate is designed only to charge Connevens infra red transmitters which contain Ni-MH batteries of 2800mAh capacity. Do not attempt to charge other devices, battery types or use for other purposes.

Do not use non-rechargeable batteries in IR Classmate transmitters as this may cause damage.

Do not expose the IR Classmate to rain or moisture.

Do not fit in direct sunlight or over a heater.

The IR Classmate wall unit MUST be earthed.

For continued protection, replace the fuse only with the same type and rating i.e. Antisurge T630mA.

Hazardous voltages exist inside the IR Classmate unit.

No user serviceable parts inside.

Refer servicing to authorised representatives of Connevens Limited.

Remove the mains plug from the wall socket before undertaking any servicing operations.

The IR Classmate is manufactured by:

**Connevens Limited**

Bridge House, 1 Nutfield Road, Merstham, Surrey RH1 3EB  
 Helpline 01737 247571 soundfield@connevens.com

**Trouble shooting:**

If the IR Classmate does not operate as expected check the following:

Symptom	Probable cause/remedy
<b>Main unit</b>	
No red indicator lights	Unit unplugged, switched off or fuse blown
Red indicators solid but no sound	Volume control too low, transmitter not on, speaker cable disconnected
Red indicators flashing and no sound	Unit in charge mode
No green 'Signal' indicators	Transmitter unit not functioning – check led indicator on transmitter.
<b>Microphone transmitters – all types unless specified</b>	
No light on transmitter	Batteries dead or incorrectly fitted
Alternating green/red light on Swift TX transmitter	Batteries need recharging
Red light on handheld transmitter	Batteries need recharging
Green light on transmitter but no green light on wall unit	Receiver not receiving the IR signal. – Check that microphone emitters are not covered or pointing into non-reflective area. – Check dome sensor is not obstructed and look for red LED in centre. No red LED indicates no connection between sensor and wall box so check wiring on F-plug connectors.
No red light on infra red sensor	Coaxial cable connections faulty or internal fault caused by short circuit
Distorted, whistling and generally nasty sound	Two transmitters on the same channel will cause this – turn one off. Has your colleague from next door come in wearing their transmitter?
Feedback whistling all the time or when the user of the transmitter speaks	'Mic' volume too high. Microphone too far away from user's mouth.
Sound too bright or boomy	Adjust the tone controls to suit the acoustics of the room and speakers
Sound distorted	Reduce the volume of the appropriate channel. The system is only intended for speech and music in an average size classroom giving up to about 90dB SPL.

**Handy hint:** You can easily check if the transmitter emitters are working by pointing a mobile phone camera at them – you don't need to take the photo but the emitters will show up really clearly! *The camera will see the infra red light from the emitters.*



# **Connevens Limited**

**Equipment for Deaf and Hard of Hearing People  
in Education, Employment, the Home & Leisure**

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