



Aerial Installer Newsletter

Isle of Man Edition – May 09

It's less than a month to the Douglas transmitter group switchover – are you ready?

Important information for installers and their customers to help make final preparations for the transition to digital in the Douglas transmitter group area.

The Digital Switchover (DSO) for the Douglas transmitter group is on track. Switchover will happen in two stages as opposite:

Consumers may need guidance on accessing the mix of analogue and digital services in the 28-day period to the 16 July, when all remaining analogue services will cease.

Transition: 28 days	
DSO Stage:1	DSO Stage:2
18 June 2009	16 July 2009

The relay chain & switchover timings

The Douglas transmitter group, serving the Isle of Man has 9 relays operating in a chain as listed opposite. There are no self-helps in the Douglas transmitter group.

Jurby and Ramsey: enhanced relays for DSO

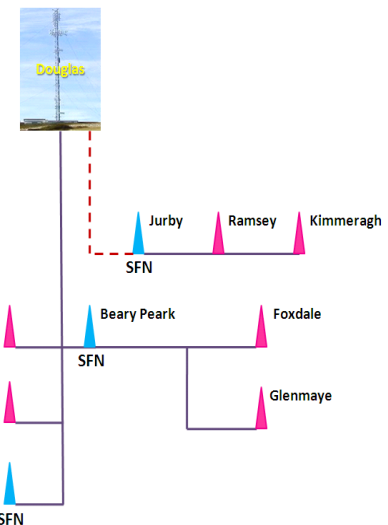
Jurby and Ramsey are two-channel relays providing the correct North West regional variant of BBC One and BBC Two to some households in the north of the Isle of Man who otherwise receive BBC North East & Cumbria services directly from Caldbeck. A second aerial is required to receive the services from these relays and so take-up has been limited.

At switchover, the two relays will be upgraded to carry all three public service broadcast (PSB) multiplexes (muxes), so households could access the full range of PSB services from one of these two relays using a single aerial, should they so choose. The relays will also provide an onward feed of signals to the **Kimmeragh** relay, which currently carries BBC North East & Cumbria services, but will change to carry BBC North West services from switchover.

Single Frequency Network (SFN) Interruptions

An SFN will operate between **Jurby**, **Beary Peark** and **Port St Mary** relays. All three will utilise the same UHF channels to allowing compatible receivers to collate each feed as one strong signal. Note signals will be liable to interruption during the day on both DSO1 and DSO2 to allow the SFN to be optimised. Stable operation will be available from late afternoon.

All masts switch on the same day - but at different times. See below and over.



What happens on Thursday 18 June?

Just after midnight, the switchover process for the Douglas transmitter group will start:

- At around midnight, analogue BBC Two will stop broadcasting permanently at the Douglas transmitter and its 9 relays.
- The remaining analogue services, will be subject to interruption until daytime.

During the morning, some Freeview channels will be available for the first time as all BBC digital services are provided when BBC A launches. It will launch in 64QAM /8K transmission mode at full DSO power, except at **Port St. Mary** which goes to full power in November 2009.

There is no analogue channel swap in the Douglas transmitter group.

DSO Stage 1: Target transmitter switch timings*

* *times and orders are subject to possible change due to events on the day.*

By 6am	Douglas
By 9am	Beary Peark, Jurby and Port St Mary
By midday	Glenmaye, Ramsey and Union Mills
By 2:30pm	Foxdale, Kimmeragh and Laxey

6 days later, on Wednesday 24 June, when the **Caldbeck** transmitter switches, viewers may find that their television services are interrupted occasionally.

What happens on Thursday 16 July?

- At around midnight, all analogue services and existing low powered digital services will be switched off and will stop broadcasting permanently.
- At all transmitters, the BBC-A mux will remain on-air but be subject to switching breaks.
- During the morning, the new (8K COFDM) high power digital services are launched:

DSO Stage 2: Target transmitter switch timings*

* times and orders are subject to possible change due to events on the day.

By 6am	Douglas
By 9am	Beary Peark, Jurby and Port St Mary
By midday	Glenmaye, Ramsey and Union Mills
By 2:30pm	Foxdale, Kimmeragh and Laxey

ITV1 will come from ITV Granada

At DSO2, the D3&4 digital multiplex will be fed from Winter Hill (not Caldbeck). This means that the ITV1 service available from all transmitters within the Douglas group will be ITV Granada. This change has been agreed by Ofcom and the Isle of Man Government. Other transmission changes will be made so that Douglas transmitter group viewers will NOT have to re-tune at the Winter Hill switchover in November 2009.

Consumers should wait for each stage to end the process before tuning or re-tuning.

Before the completion of switchover at each stage, channels may appear at different times. We advise that consumers wait until the expected completion time for switchover at their transmitter on both dates, before re-tuning their equipment.

Captions

Captions caption to run on analogue services right through to switchover. Douglas is an analogue relay of Caldbeck and captions cannot be inserted at the Douglas transmitter. As a consequence, it is not possible to provide date-specific captioning. Caldbeck, and hence Douglas, is carrying generic captioning which relates to both the Caldbeck and the Douglas transmitter groups.

Aerials

At switchover, all muxes will be within the analogue aerial group, except at 3 relays. At **Laxey (900hhs)**, **Kimmeragh (3,000hhs)** and **Port St Mary (5900 hhs)** relays the BBC A and D3&4 muxes will be just outside the analogue aerial group – changing from group C/D to the lower group B. As a result it is likely that the majority of existing C/D aerials will be able to satisfactorily receive these multiplexes at switchover. However, in the case of **Port St Mary**, future interference from the proposed digital switchover transmitter network in the Irish Republic may mean that some viewers need to change their aerial to group B at some point in the future.

Communal systems

UHF channel changes at **Douglas, Glenmaye, Jurby, Kimmeragh, Laxey, Port St Mary, Ramsey** and **Union Mills** will mean that communal systems will need to be re-tuned at DSO Stage1 and DSO Stage2. Channelised (fixed) and filtered systems will need to be upgraded or replaced. Use the trade view on the Digital UK postcode checker at www.digitaluk.co.uk to get the new UHF allocations.

3 and 6-mux Coverage

After switchover, all transmitters on the Isle of Man will carry the 3 public service muxes providing around 20 channels. Note that this is a permanent and not a short-term factor. Owing to increased transmission powers, some viewers may be able to receive 6 muxes (3 public and 3 commercial) from off-island main transmitters should they choose to replace or re-align a suitable aerial.

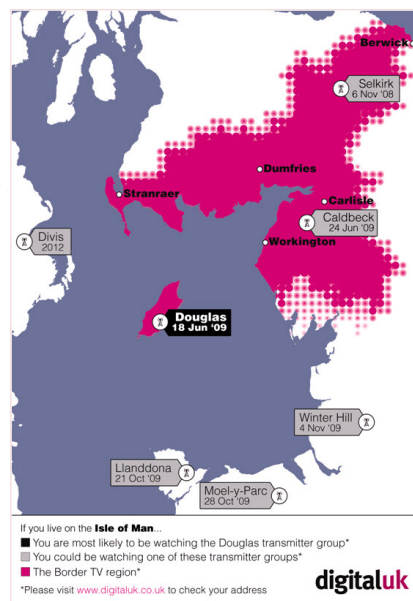
Transmitter groups adjacent to the Douglas transmitter group

A household on the Isle of Man is most likely to be watching the Douglas transmitter group. However, they could also be watching the Caldbeck, Winter Hill, Moel-y-Parc, Llanddona or Divis transmitter groups as shown opposite.

8K transmission mode and impact on 2K-only equipment

The move to the 8K transmission mode at Douglas has been agreed with Ofcom for muxes BBC-B and D3&4. This is mandatory owing to the use of a single frequency network (SFN) within the transmitter group. The BBC Trust has agreed the move to 8K for the BBC-A mux for all transmitter groups at DSO.

Any homes already receiving off-island signals from Caldbeck and using legacy 2K-only equipment, (including old ITVdigital and some very early Freeview equipment without the digital tick logo) will find that it will stop working when Caldbeck commences switchover on 24 June 2009.



- **IMPORTANT:** At Caldbeck DSO Stage1 on 24 June, those with 2K-only equipment will only lose the BBC channels served by the BBC–A mux as it moves to 8K.
- The other existing Caldbeck DTT muxes will still run at 2K until 22 July when all will be switched off and replaced with 8K counterparts. It is then 2K-only receivers will no longer deliver any services.
- Digital boxes will need to be replaced. 2K IDTVs can be upgraded by adding of any current digital box or digital TV recorder carrying the digital tick logo

See www.digitaluk.co.uk/2kequipment for the latest list of affected models. Retailers and installers should prepare their helplines for calls from consumers that are affected.

Homes receiving from other off-island transmitters will face the same issues when their serving transmitter makes the switchover.

Split NIT may re-emerge as an issue

Isle of Man installers and retailers may receive calls from homes receiving off-island signals about other products (which also do not carry the digital tick logo) affected by the Freeview/broadcasters' "Split NIT" network changes completed in August 2008. Some owners of the related products have yet to re-tune these models. When they do this equipment will cease to function. See: www.freeview.co.uk/freeview/Resolutions/About-Freeview-availability/Coverage-issues/Why-has-my-Freeview-equipment-stopped-working and www.freeview.co.uk/freeview/Resolutions/BBC-and-ITV-channels-missing or contact Freeview on 08701 111 270 for more info.

Over-air download: Vestel T810 DTRs

The Selkirk switchover revealed some Vestel DTRs produced in 2006-2007 under various brands* that stopped working due to being unable to handle 8K transmissions when a negative UHF channel offset was applied. The software fix broadcast in November last year is being re-run on Mux 1 nationally on various dates. If possible check your sales records and advise any consumers receiving off-island signals and with the relevant models to have their DTR powered up on this date and ready to run the update procedure. See the download schedule at http://www.dtg.org.uk/retailer/download_schedule.pl.

Transmission Powers

The table below gives DTT transmission powers for the Douglas transmitter group from switchover:

Transmitter	Effective Radiated Powers (ERP) all 3PSB Muxes									
	2kW	1kW	200W	100W	40W	20W	10W	2.5W	2W	
Port St Mary*	✓*									
DOUGLAS		✓								
Beary Peark			✓							
Kimmeragh, Ramsey				✓						
Jurby					✓					
Laxey						✓				
Glenmaye							✓			
Union Mills								✓		
Foxdale										✓

*Port St Mary multiplexes will operate initially at 500W, increasing to 2kW in late 2009

Amplifiers may need to be removed

With the transmission powers above, homes with aerial amplifiers could experience service loss, or picture and sound disturbances, due to their DTT receiver's tuner being overloaded. Those using old aerial amplifiers with poor filtering could experience video/ audio synchronisation problems caused by the receiver trying to interpret noise as a DTT signal. Simply removing the amplifiers in both of these situations usually rectifies the situation.

Prepare for increasing cases of overlapping signals

Installers should prepare for some cases of homes receiving signals from more than one mast due to all the relays starting DTT broadcasts with high power transmissions. The high use of wideband aerials raises the potential for homes getting unexpected results. This is particularly relevant as the relays use UHF channels lower in the band than the Douglas mast. The home's aerial may only be able to receive enough broadcast data to identify the channel in info banners but not display video and audio services. Until such time as new products appear that can enable consumers to handle storing of duplicated or different regional channels, there are three main ways to set up products to display only the desired services:

1. The manual tune procedure - you need to know the UHF Channels for each mux.
2. Running a tuning search with aerial plug removed and then inserting just before the process gets to the wanted UHF channels.
3. Add an attenuator – to knock-out unwanted weak UHF channels. If removing the attenuator afterwards to maximise signals, remember it will need to be added again for future re-tunes.

Alternatively, for most products the favourite channel settings can be used to reorganise services to the user's preferred order.

* **T810 versions only** – (check for label on bottom of product). Includes Digihome, Dual, Durabrand, Goodmans, Grundig Hitachi, Sharp, Techwood - Call 08456 50 50 50 for full model numbers

The re-tune challenge

At each stage of switchover, viewers will have to re-tune their equipment to pick up the new digital services. Further re-tunes will be required when adjacent transmitters switch and again when new channels are introduced or change position. This is the single most common issue that caused consumers to contact helplines and retailers. **Installers and their retailer partners are reminded to have sufficient staff available and plan to handle re-tuning for customers not able to manage it themselves.**

Some suggestions include:

- Explain re-tuning and its importance when you sell equipment.
- Offer chargeable “Home Help” options around switchover and ongoing.
- Have dedicated (temporary) staff to run an in-store “re-tune area”. This helps separate the customers wanting advice from those wanting to buy.
- Tailor your answerphone message – direct those seeking advice to the Digital UK Call Centre.
- Know where other re-tuning advice is available:

Digital UK Re-tune Tools: To help consumers, Digital UK has created simple re-tune guides that are being included by manufacturers in their UK DTT model packaging. These are also available on the Digital UK website for downloading alongside generic guides ideal for retailers. There is also a manual search helpsheet for the more technical user, a webvideo designed to reassure users and a drop down search area where full instruction manuals can be accessed for many models. All can be accessed via www.digitaluk.co.uk/retune .

Look out for RF connected equipment

Recent regional switchovers have revealed a significant number of cases where digital TV systems have been connected through RF (radio frequency) modulators and coax cabling rather than SCART AV inputs. This has given rise to some homes finding that they miss some services on a retune due to the recorder or Skybox being tuned in to the TV on the same or an adjacent UHF channel to that for the related digital multiplex.

Key tools on the Digital UK website.

The **Digital UK postcode checker** provides all relevant and accurate switchover information. It lists the transmitter a home is likely to be using, aerial groups and UHF allocations pre and post DSO and services that can be received and all available platforms to a home before, during and after switchover. Go to www.digitaluk.co.uk.

Digital UK planned engineering work web pages carry information on planned switchover related transmitter work at www.digitaluk.co.uk/engineering_works. If you do not have Internet access when on the road, you can get the same information by calling the Digital UK contact centre on 08456 50 50 50. One of our agents will check the postcode checker or engineering work pages for you.

Trade Helpline

Digital UK is now piloting a trade helpline. It is designed to address switchover based transmission enquiries that the Postcode Checker and engineering pages do not resolve. Having first checked these tools, Installers can call **0845 270 1708** and subject to answering a few status checks and accepting terms and conditions, a trade case number will be allocated. You will then be transferred to the trade helpline. Usage is monitored and if the service is abused we will review if we continue provision.

Checklist

Important things to remind your customers about include:

- Getting every TV in their home ready for switchover.
- Relays will not all switch at the same time.
- The need to re-tune digital equipment when new multiplexes or services are introduced.

Contact 08456 50 50 50 for any further guidance or assistance.