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West Country Region Aerial Installer Newsletter

Huntshaw Cross Edition – June 09

It's less than a month to the switchover in north Devon – are you ready?

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

The Digital Switchover plan (DSO) for the Huntshaw Cross transmitter group, serving north Devon, is on track. Switchover will happen in two stages on the dates opposite. Consumers may need guidance on accessing the mix of analogue and digital services in the 28-day period to the 29 July, when all remaining analogue services will cease.

Transition: 28 days	
DSO Stage:1	DSO Stage:2
1 July 2009	29 July 2009

The relay chains & switchover timings

The Huntshaw Cross transmitter group, serving north Devon has 14 broadcaster relays: **Barnstaple, Berrynarbor, Braunton, Chambercombe, Combe Martin, Great Torrington, Hartland, Ilfracombe, Muddiford, North Bovey, Swimbridge, Tedburn St Mary, Westward Ho!** and **Woolacombe**. These operate in a chain as shown opposite.

Reassignments

The *Brushford and Chagford* relays were reassigned to the *Stockland Hill* transmitter group in October 2008. *Tedburn St. Mary* joins the *Huntshaw Cross* transmitter group. *Woolacombe, Hartland and Ilfracombe* with its feeds for *Berrynarbour, Combe Martin, Chambercombe* have moved from the *Caradon Hill* transmitter group to the *Huntshaw Cross* group, At switchover *Berrynarbour* will be re-attributed to *Combe Martin* (from *Ilfracombe*), while remaining in the *Huntshaw Cross* transmitter group.

Self-help relays

There are 2 self-helps in the Huntshaw Cross transmitter group:

Lee and **North Molton**. Ofcom has confirmed that a digital licence application has been made for Lee and it will be licensed. The North Molton analogue self-help licence expired 15 March 2009; no application for a digital licence had been made as at 12 June 2009.

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

What happens on Wednesday 1 July?

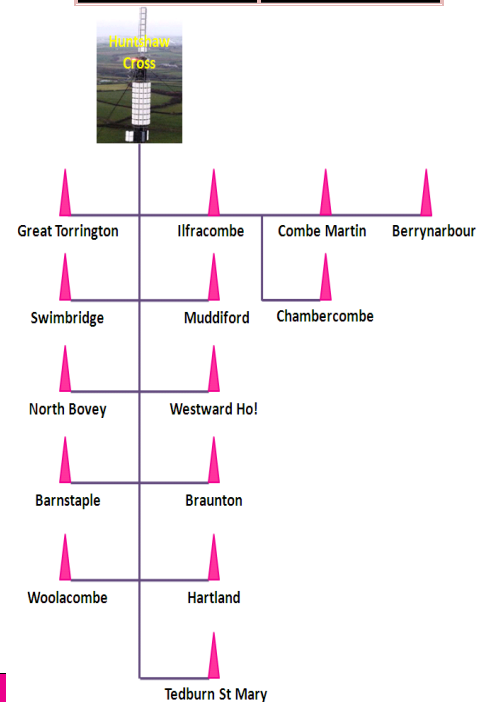
Just after midnight, the switchover process for the Huntshaw Cross transmitter group will start:

- At around midnight, analogue BBC Two and the low power Multiplex (Mux) 1 will be switched off permanently at the Huntshaw Cross transmitter and all of its 14 relays.
- Other services will be subject to interruption until daytime.
- Analogue channel moves will take place at **Combe Martin** and **Ilfracombe**
- Low powered existing DTT muxes 2, A, B, C & D remain on air.
- At all transmitters, the new BBC-A mux (replaces Mux 1) is launched at full DSO power in 64QAM/8K COFDM mode.

During the morning, analogue services (BBC One, ITV1 and Channel 4) are restored, and some Freeview channels will be available from relays for the first time (BBC Two digital, and the other BBC digital channels).

Analogue Channel Swaps within the Huntshaw Cross Transmitter Group:

At **Combe Martin** and **Ilfracombe** at DSO 1, analogue Channel 4 will move to the old analogue BBC Two channel/slot – for the length of the transition period, until switched off permanently on 29 July. This means that Channel 4 will appear on “button 2” on TVs and video recorders unless consumers re-tune their products. Any existing advance timer settings stored on the recorder for BBC Two will record Channel 4 programmes unless the recorder is re-tuned.



DSO Stage 1: Target transmitter switch timings*

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

On DSO days actual switchover timings can be found at www.digitaluk.co.uk/huntshawcrossrelaytimes

By 6am	HUNTSHAW CROSS and all relays except those listed below
By 9am	Ilfracombe, Westward Ho!
By 9:30am	Tedburn St Mary
By 11:30am	Chambercombe
By midday	Hartland
By 1pm	Woolacombe
By 2pm	Berrynarbor

All viewers will then need to install or re-tune Freeview, BT Vision or Top Up TV equipment.

What happens on Thursday 29 July?

- At around midnight, all analogue services and the remaining two existing low powered digital PSB 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, new (8K COFDM/64QAM) high power digital services are launched.
NB: At the Huntshaw Cross main transmitter:
 - COM muxes will not adopt 8K and their final UHF channels and increased power until 30 September 2009 (*to be confirmed – may change to later date.*)
 - On the same date, Arqiva A and Arqiva B will move to 64QAM (SDN already operates using 64 QAM).
 - The COM muxes will adopt their final post DSO transmission powers in March 2012.

DSO Stage 2: Target transmitter switch timings*

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

On DSO days actual switchover timings can be found at www.digitaluk.co.uk/huntshawcrossrelaytimes

By 6am	HUNTSHAW CROSS
By 9am	Barnstaple, Braunton, Ilfracombe, North Bovey, Westward Ho!
By 11:30am	Chambercombe, Swimbridge, Woolacombe
By midday	Hartland, Tedburn St Mary
By 2pm	Combe Martin, Great Torrington, Muddiford Berrynarbor
By 3pm	Berrynarbor

All viewers will then need to install or re-tune Freeview, BT Vision or Top Up TV equipment.

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

On screen messaging to Huntshaw Cross transmitter group homes began in January 2009. This continues with varying captions running on analogue services right through switchover. In the two weeks running up to each switchover stage, messages will be split between flagging loss of channels if not prepared for digital, and to tune or re-tune digital equipment.

Aerials

At Huntshaw Cross, on 30 September, the Arqiva B mux (former Mux D) will join the other five multiplexes within the existing analogue group C/D for those households currently tuned to the low power filler transmission. For all of the Huntshaw Cross relays, at switchover, all multiplexes will be within the analogue aerial group. Consequently, homes with good analogue reception currently will be able to use their existing aerial for digital.

Communal Systems

UHF Channel changes at **Barnstaple, Great Torrington, Hartland, Tedburn St Mary, Westward Ho!** and **Woolacombe**, 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. Note that a further re-tune or upgrade will be needed on 30 September 2009 (*to be confirmed – subject to change*) when the Huntshaw Cross main mast only changes UHF channels, transmission mode and transmission powers for the three commercial multiplexes.

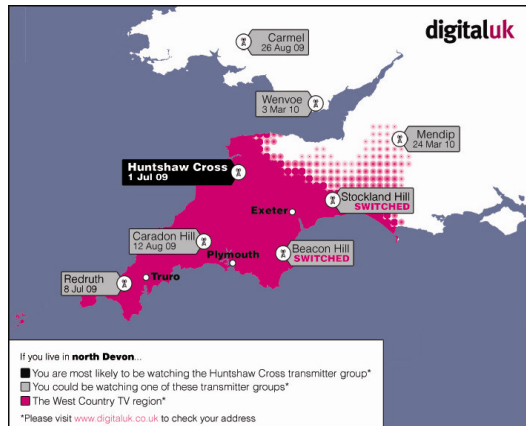
Use the trade view on the Digital UK postcode checker at www.digitaluk.co.uk to get the new UHF allocations.

3 and 6-mux Coverage

After switchover, the Huntshaw Cross transmitter will carry 6 multiplexes (muxes) offering around 40 TV channels. All of its relays will carry the new 3 public service muxes providing around 20 channels. (This is a permanent and not a short-term position.) The increased transmission powers will mean more viewers may be able to get 6 muxes from the Huntshaw Cross mast if they chose to re-align or replace with a suitable aerial.

Transmitter groups adjacent to the Huntshaw Cross transmitter group

A household in north Devon is most likely to be watching the Huntshaw Cross transmitter group. However, they could also be watching the Beacon Hill, Caradon Hill, Carmel, Mendip, Redruth, Stockland Hill or Wenvoe transmitter groups and could switch on different dates, as shown in the map opposite.



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

The move to 8k for all multiplexes is now agreed by Ofcom for the whole UK DSO programme.

Any homes already receiving signals from Huntshaw Cross and using legacy 2K-only equipment, (including old ONdigital and some very early Freeview equipment without the digital tick logo) will find that it will stop working when Huntshaw Cross commences switchover on 1 July 2009.

- **IMPORTANT:** At Huntshaw Cross DSO Stage1 on 1 July, those with 2K-only equipment will only lose the BBC channels served by Mux 1 as it closes and the new BBC-A mux starts at 8K.
- The other existing Huntshaw Cross DTT muxes will still run at 2K until 29 July. Then Mux 2 and Mux B multiplexes will be switched off and replaced with new 8K services from their BBC-B and D3&4 counterparts.
- Muxes A, C and D move to the new replacement SDN, Arqiva A and Arqiva B 8K services on the 30 September 2009 (*to be confirmed – subject to change*) and 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 transmitters will face the same issues when their serving mast makes the switchover.

Split NIT may re-emerge as an issue

Installers and retailers may receive calls about other old products (without the “digital tick” logo) that stop working. Some were 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 on 1 July their equipment will cease to function. See: www.freeview.co.uk/freeview/Resolutions/About-Freeview-availability/Coverageissues/Why-has-my-Freeview-equipment-stopped-working or 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

Last year’s Selkirk switchover revealed some Vestel DTRs produced in 2006-2007 under various brands* that stopped working because they couldn’t handle 8K transmissions when a negative UHF channel offset was applied. This issue may reappear with negative offsets also being applied to the main Huntshaw Cross mast 3PSB feeds. 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 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

Transmission power and reach increases radically at switchover. For the Huntshaw Cross main transmitter, the powers of the 3PSB muxes will increase five-fold to their final levels at switchover and the mast antenna and channel changes mean that the current Mux C and D fillers will be switched off. The 3COM mux powers will eventually increase too, but will continue to run at 4kW until the final full power is reached in March 2012. The table below gives pre and post DSO transmission powers for the main Huntshaw Cross mast from switchover completion:

* Effective Radiated Power								Huntshaw Cross							
Current *ERP	Public Service Muxes			Commercial Muxes				Post DSO *ERP	Public Service Muxes			Commercial Muxes			
	Mux 1	Mux 2	Mux B	Mux A	Mux C	Mux C filler	Mux D		Mux D filler	BBC-A	D3 & 4	BBC-B	SDN	Arqiva-A	Arqiva-B
	4kW	4kW	4kW	4kW	4kW	4kW	80W		4kW	80W	20kW	20kW	20kW	10kW	10kW

* 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 following table gives transmission powers for all relays in the Huntshaw Cross transmitter group from switchover.

Transmitter	Effective Radiated Powers (ERP) all 3PSB Muxes							
	70W	60W	56W	32W	10W	6.8W	4W	2W
Combe Martin	✓							
Hartland		✓						
Ilfracombe			✓					
Westward Ho!				✓				
Chambercombe					✓			
North Bovey						✓		
Tedburn St Mary							✓	
Berrynarbor, Braunton, Great Torrington, Muddiford, Swimbridge, Woolacombe								✓

Amplifiers may need to be removed

With the transmission powers increases 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 read noise as a DTT signal. Simply removing the amplifiers in both cases 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 DTT broadcasts from relays, and a move to high power transmissions. The widespread use of wideband aerials could also produce overlaps. This is particularly relevant where relays use UHF channels lower in the band than the main Huntshaw Cross mast. Wenvoe in Wales is near and some homes close to the coast could find Welsh national services located at LCN1, 2, 3 and 4. They will need to locate and reposition the English services in these slots, if that is their preference. The 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 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:

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

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

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 causes viewers 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 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. Some viewers find that they miss some services on a re-tune, because the recorder or Sky box is tuned in to the TV on the same / adjacent UHF channel, to that for a 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 whether we continue provision of this service.

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.