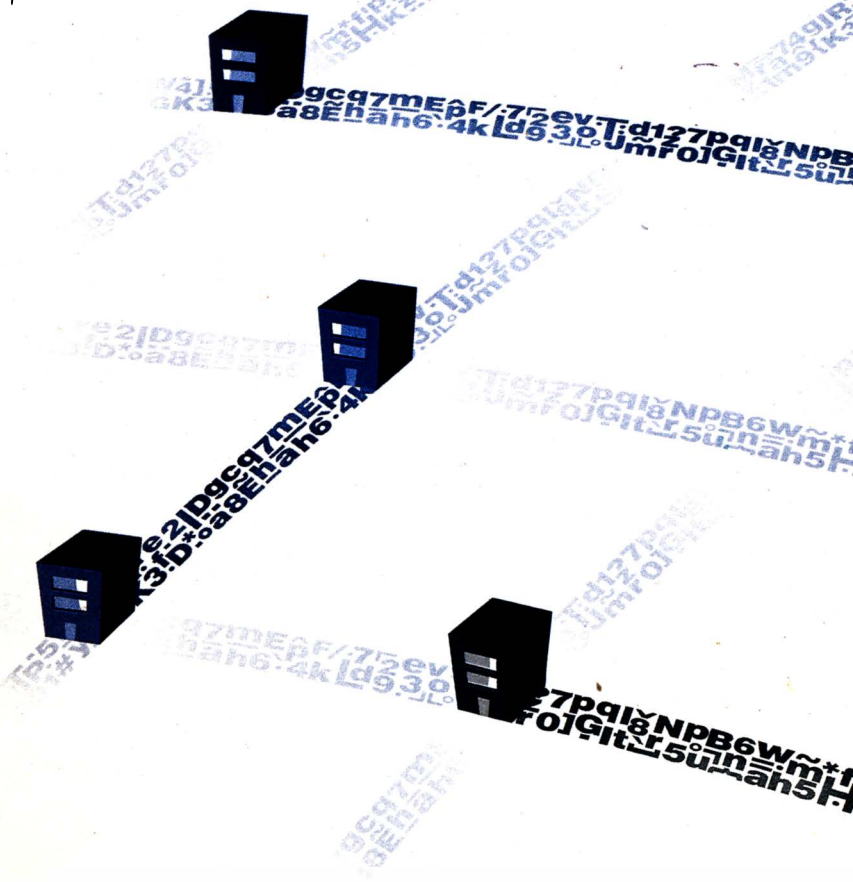
BT

Operating guide



KiloStream N Private Circuits

Network Terminating Unit 8

To report a fault with your KiloStream private circuit, please ring your BT X-Stream Service Centre on this number:

.....

Please quote:

- your circuit type .....
- your circuit number(s) .....

  .....

  .....

  .....

- your end address .....

  .....

  .....

  .....

Contents

About this guide

This Operating guide gives information on KiloStream N private circuits, including:

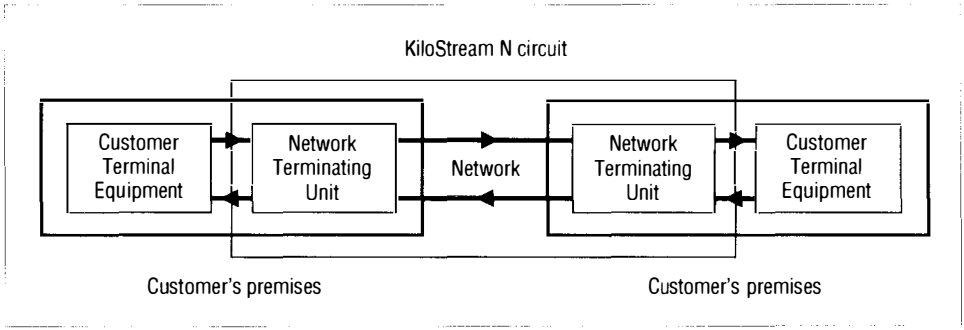
- connecting your equipment to the network terminating unit
- what the displays mean
- how to test your line
- how to test your equipment.

This guide forms part of an information pack containing:

- a problem-solving card, which summarises how to monitor and test your private circuit; you'll find this in the inside back cover of this guide
- a service guide, which gives general information on BT's range of private circuits and on upgrading.

About KiloStream N

KiloStream N is a dedicated digital private circuit service, offering either data or voice transmission.



The KiloStream N circuit

The equipment you'll see

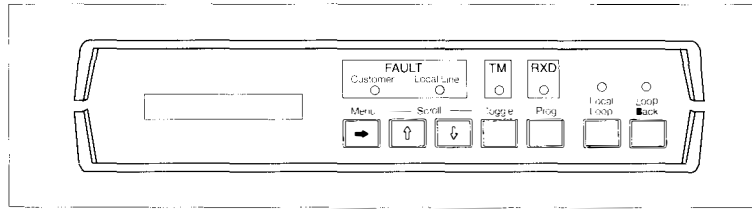
BT digital private circuits terminate at your premises on a network terminating unit (NTU) which is provided within the rental price.

Any on-site wiring and equipment beyond the NTU is your responsibility, and maintained by the relevant contractor. This may be BT or an independent supplier.

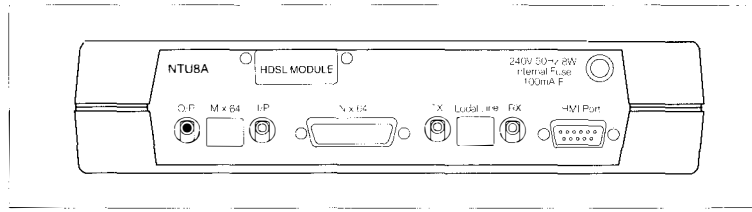
One of our engineers will connect the NTU to the BT network, using the ports on the NTU labelled as Local Line, TX and RX. If you alter these line connections in any way, you will set off remote alarms within the BT network and your service will be affected.

Single NTU

If you've ordered a single KiloStream N circuit, the unit is contained in a grey rectangular box. The lamps on the front of the unit, in conjunction with the liquid crystal display (LCD), show the operating state of the KiloStream N circuit.



Front view of KiloStream N NTU8 single unit

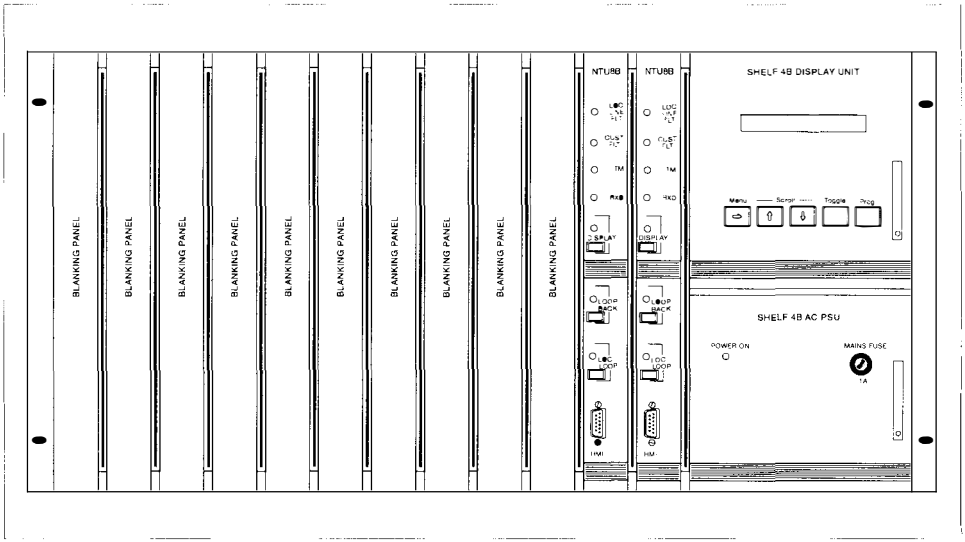


Rear view of KiloStream N NTU8 single unit

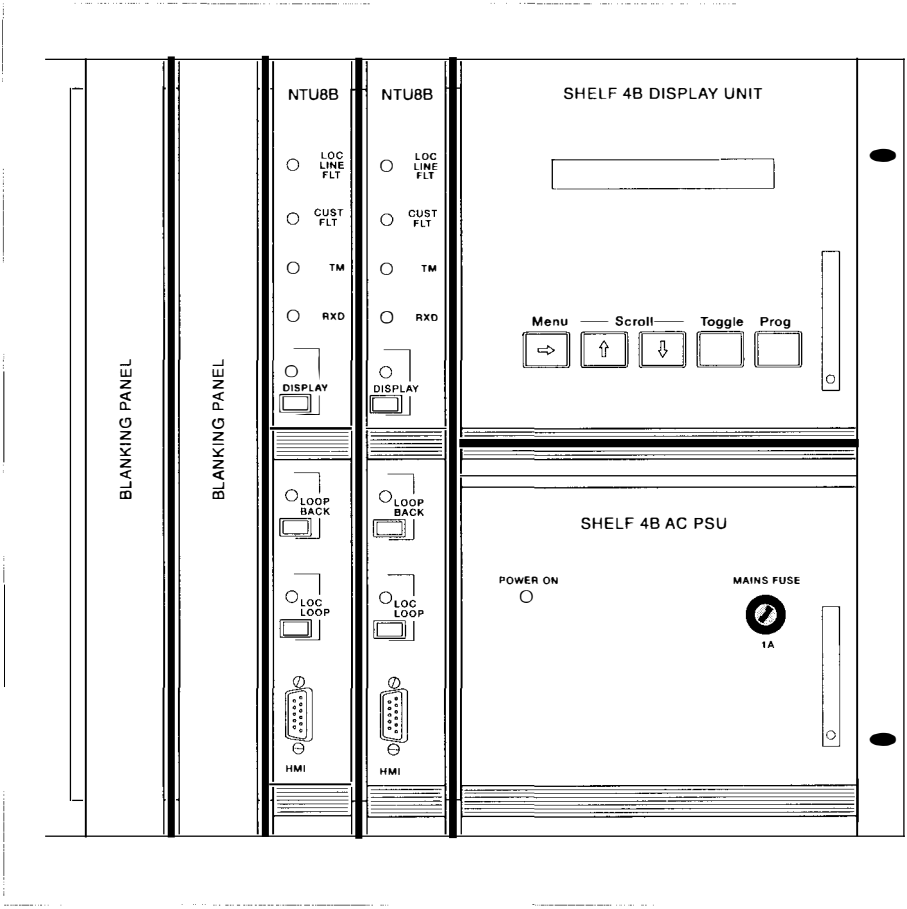
Multiple NTUs

If you've ordered a number of lines at one site, or a network of services, you may need shelf mounted NTUs. This installation normally consists of a series of NTUs in 'card' form. Each 'card' will be shelf mounted in a stacking system.

There is only one LCD display for a multiple NTU installation. To select the NTU for which you want to display details on the LCD, press the appropriate NTU DISPLAY button. A yellow lamp confirms the NTU you've selected. The LCD will continue to show information from that NTU until you press another DISPLAY button.



Front view of KiloStream N NTU8 shelf mounted unit



Close-up view of front of shelf mounted unit

Connections from the NTU

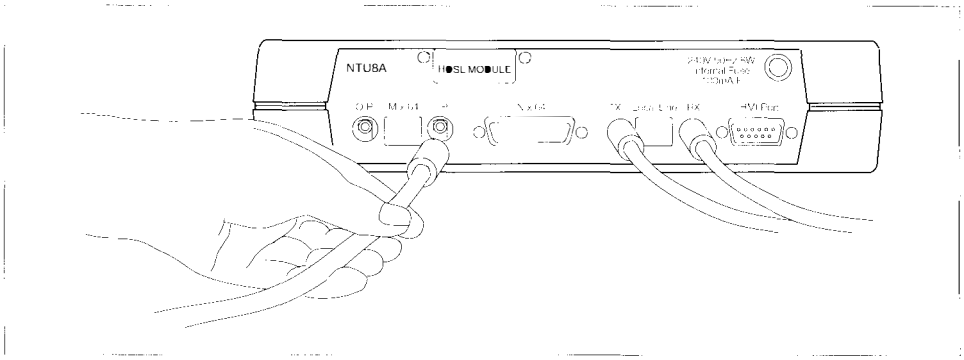
Connecting the NTU8 to the mains

The KiloStream N NTU8 is supplied with a three pin plug, fitted with a 3 amp fuse, for connection to a 13 amp mains supply. You should leave the power switched on at all times.

Connecting your equipment to the NTU8

The following sections give details for connecting your terminal equipment, for either KiloStream N voice or data.

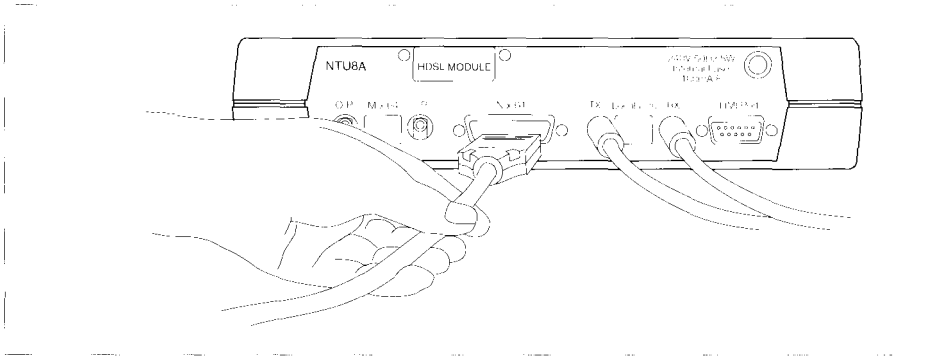
KiloStream N (voice)



Connecting terminal equipment to the KiloStream N NTU8 (voice)

You should connect your terminal equipment to the NTU with two coaxial cables: one for transmission into the NTU and one for transmission from the NTU. The ports for these cables are labelled as Mx64 I/P and O/P respectively. The physical interface is a BNC connector whose mating face conforms to BS9210 (N0001, part 2, fig 2). Your terminal equipment supplier should provide these cables. The electrical interface conforms to CCITT Recommendation G703.

KiloStream N (data)



Connecting terminal equipment to the KiloStream N NTU8 (data)

For the KiloStream N (data) service, you must connect your terminal equipment to the NTU with the correct type of cable, using a 15-way D-type connector. Your terminal equipment supplier will normally provide this cable.

Cabling distance

In order to achieve the best performance from your KiloStream N circuit, the cabling distance between the NTU and your terminal equipment should not be more than 10 metres. If you have to relocate the terminal equipment at any time, please don't exceed this distance.

Configuration of the service

BT engineers have configured your KiloStream N circuit to the service option and circuit capacity that you specified when you ordered. Please note that your terminal equipment must also be configured to the same specification, otherwise the service will not function properly. You can check the configuration of your NTU by using the STATUS menu as shown in the section opposite, *Getting started.*

Getting started

When we connect your private circuit, the LCD will show one of three menu headings: OPTIONS , STATUS or TEST .

To change the LCD to the menu you require:

- press the up or down Scroll button.

When you see the > symbol on the right of the LCD, there are further options available within the menu. To see these further options:

- press the Menu button.

Examining the set-up of your NTU

You can use the OPTIONS menu (which is display-only) to examine the set-up of your NTU. There are four messages:

0: CUSTOMER (for BT use only)

0: PASSWORD (for BT use only)

0: CLOCK (for BT use only)

0: LOCAL LINE (indicates alarm thresholds).

Looking at the current status of your NTU

You can use the STATUS menu (which is display-only) to examine the current operational status of the NTU in its normal state. There are five messages:

S: CUSTOMER INTERFACE SETTING

S: BIT RATE SETTING (in kbit/s)

S: CUSTOMER INTERFACE ALARM STATUS

S: LOCAL LINE INTERFACE ALARM STATUS

S: G.821 STATS (for BT use only).

Testing your KiloStream N circuit

You can test your KiloStream N private circuit in one of two ways:

- use the TEST menu to carry out straightforward tests
- use the Local Loop or Loop Back buttons to loop your private circuit.

Using the TEST menu

Use the TEST menu to test the NTU, apply a remote loop, or send binary data to the other end of the circuit.

To change the LCD to the test you want:

- press the Toggle button; an asterisk appears in the LCD and the whole display flashes.

To activate the test you've selected:

- press the Prog button.

To deactivate the test you've selected:

- press the Toggle button
- press the Prog button.

The actual options available within the TEST menu depend on the KiloStream N service option you've chosen: voice or data. Both services have five options.

If you have KiloStream N (voice)

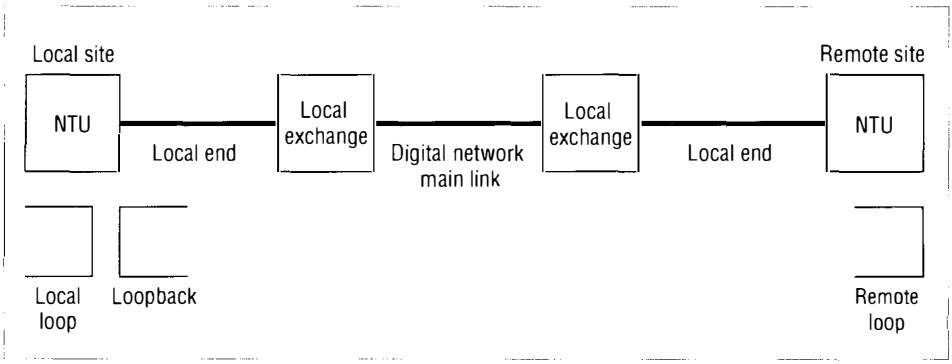
select	to
T: BINARY	(not active for KiloStream N voice)
T: G821 LL STATS	(for BT use only)
T: LOOP	apply or remove local loops on either all timeslots or individually selected timeslots; this operation is complex and you should only carry it out in conjunction with the relevant X-Stream Service Centre. Note that there is no remote loop facility available for KiloStream N voice
T: SELF TEST	cause the NTU to test itself (this doesn't interrupt data flow); if the NTU fails, the LCD displays SELF TEST FAIL. You should report this to the relevant X-Stream Service Centre
T: LAMP TEST	momentarily illuminate all lights; this doesn't interrupt data flow

If you have KiloStream N (data)

select	to
T: BINARY	send constant binary 1s (or 0s if preferred) to the distant end of the circuit; this interrupts data flow
T: G821 LL STATS	(for BT use only)
T: LOOP	apply or remove a remote loop (a loopback at the distant NTU); this interrupts data flow
T: SELF TEST	cause the NTU to test itself (this doesn't interrupt data flow); if the NTU fails, the LCD displays SELF TEST FAIL. You should report this to the relevant X-Stream Service Centre
T: LAMP TEST	momentarily illuminate all lights; this doesn't interrupt data flow

Looping your circuit

You can use the Local Loop and Loop Back buttons to help further with fault location.



Types of test loop

- Local looping allows you to test the operation of your equipment.
- Looping back helps BT engineers to test the connection from the network.

Testing the operation of your equipment

To test the connection and operation of your equipment through the customer interface of the NTU, you need to install a local loop. To do this:

- press the Local Loop button to display CONFIRM LOOP? message on LCD
- press the Prog button within three seconds.

This applies a local loop and the TM and Local Loop lights are illuminated.

To remove the loop:

- press the Local Loop button.

Testing the connection from the network

To test the connection from the network through the local end and the NTU, BT engineers may ask you to apply a loopback to help them locate the fault. To do this:

- press the Loop Back button to display CONFIRM LOOP? message on LCD
- press the Prog button within three seconds.

This applies a loopback and the TM and Loop Back lights are illuminated.

To remove the loop:

- press the Loop Back button.

If you have a problem

If you think there's a problem with your KiloStream N private circuit, you may try the checks below to try to solve the problem.

If a fault proves to be in your terminal equipment or on-site wiring, rather than in the private circuit, BT reserves the right to charge for time spent on a visit to your premises: it's in your interests to carry out these checks first.

symptom	cause	what you should do
no lamps or blank LCD	no power to the NTU	check that the power to the NTU is switched on
FAULT Local Line LED lit	fault on KiloStream N circuit	check that all connections to the NTU are correct
FAULT Customer LED lit	incorrect connection or loss of input to NTU from the local DTE	check all connections to the NTU and DTE: if symptoms persist consult your equipment supplier
TM LED lit	the test function is active	remove any loops or tests from the NTU at each end of the circuit

If you can't solve the problem using the checks above, you may try to locate the problem within the circuit or your own terminal equipment. To do this, you may carry out the tests described in the section *Testing your KiloStream circuit*.

How to report a fault

BT has established X-Stream Service Centres to deal exclusively with maintaining KiloStream and MegaStream digital private circuits.

Before you contact an X-Stream Service Centre, you may want to:

- ensure that the fault is in the private circuit or NTU and isn't due to your own wiring or terminal equipment
- ensure that all plugs are properly connected and that there is power to the equipment
- ensure that any non-BT maintained equipment is working
- carry out the tests described in the section *Testing your KiloStream circuit.*

If the fault is with the KiloStream private circuit or the NTU, please telephone the nominated X-Stream Service Centre, as shown on the inside front cover of this guide.

When you ring, you'll need to give the following information:

- the circuit reference number, which you'll find on the cover of your NTU
- the name and telephone number of the person in your company whom we can contact while the fault is being traced; when the line is clear, we will inform the same person
- a description of the fault.

BT X-Stream Service Centres are manned by specialist staff who have access to computer-aided facilities to speed the handling of any problem with your KiloStream private circuit; these facilities include access to alarm information.

The X-Stream Service Centre staff will keep you informed of progress made towards restoring your service, and will report back to you when service has been restored.

You can report a problem at any time of the day or night, seven days a week, 365 days a year.

If you report a problem outside normal office hours (0900 to 1700, Monday to Friday), you will need to state if access to your premises is available outside normal office hours.

Note: X-Stream Service Centre staff don't have test access to equipment beyond your NTU, nor can they provide diagnostic information about equipment beyond your NTU.

Offices in Europe, North America, Japan and Asia Pacific.

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