AS1651/1671 - FibTel
Fibre (MM / SM) to ROLI / RILO

KELTEL communications ltd

| Bi-Directional Conversion | -48V Battery Feed | Wall Mount Enclosure |

Description
The Fibre to Audio Interface Unit provides conversion between Singlemode or Multi-mode to copper signalling. The local copper connection can be 2W or 4W audio, 2W/4W with E&M, or ROLI/RILO (FXS/FXO). All these are available by fitting alternative adaptor cards within the unit.

The ROLI/RILO signalling adaptor can provide both signal variants on the one PCB but is preset to the required version at the install stage. The units can be connected as shown below to provide a long line extension or hotline facility between two handsets in a lift to ring configuration. Local signal connections are presented on an RJ45, fibre is via ST connectors and DC power via the in-line supply is on a centre positive dc connector. Future options include input for low speed data over speech (evacuation and status signalling) and Eurocard version for rack mount.

Setup
If the loss over the fibre line will be greater than 6dB then Lk4 on the board should be set to HI (High Power). When using an external -50Vdc source check orientation of supply.

To set up board as ROLI or RILO, the switch highlighted in black should be changed, see side of unit diagram below.

Operation
The lamps on the unit facia reflect the operation of the line-side connection (fibre) regardless of the interface circuit fitted within the unit. In IDLE the Carrier lamp will be ON solid GRN (this shows that a carrier is being received). When an outgoing call is created the Tx/Rx lamp will flash GRN, when an icomming call is received the lamp will flash RED.

When installing to establish the Tx &Rx fibres are good, by pressing the Test Button (Top RHS) the Tx/Rx lamp will flash GRN as the button is released and if the distant end unit is detected it will flash the Tx/Rx lamp RED. (Flash approx 5 times). If there is no unit detected then the unit will not flash the Tx/Rx lamp RED.

Technical
FIBRE
Singlemode -	Multimode -
- ST connection	- ST Connection
- Loss Budget 10dB	- Loss budget TBA

ROLI
Battery Feed @ 24V & 55Vrms Ring Voltage
Set Internal DIP switch Sw1 OFF
Connection as per RJ45 opposite

RILO
Loop O/P @ Ring/Line Detector
Set Internal DIP switch Sw1 ON
Connection as per RJ45 opposite

Power is supplied via a plugable screw terminal for connection to the unit -48V and is diode protected
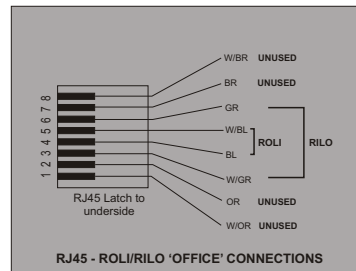
Weight - 600g (inc PSU) Size - 180 x 88 x 40 mm

RJ45 - ROLI/RILO 'OFFICE' CONNECTIONS

		ROLI	RILO
W/BR	UNUSED		
BR	UNUSED		
GR			
W/BL			
BL			
W/GR			
OR	UNUSED		
W/OR	UNUSED		

RJ45 Latch to underside

FUNCTIONAL DIAGRAM

ROLI I/F — AS1651 / 1671
RILO I/F — AS1651 / 1671
FIBRE LINK
PABX

AS16x0

ROLI
RILO

ROLI/ RILO

FIBRE Multimode or Singlemode

Rx
Tx
FIBRE

CONNECTION DIAGRAM

RILO / ROLI
RILO / RILO Select
Fibre Function Select

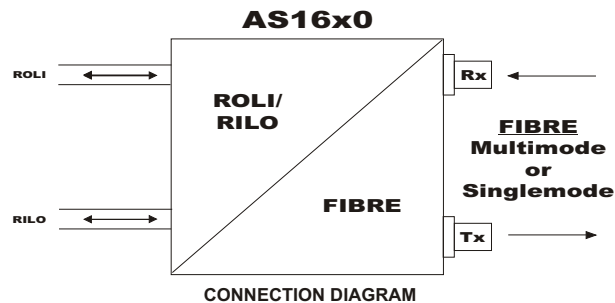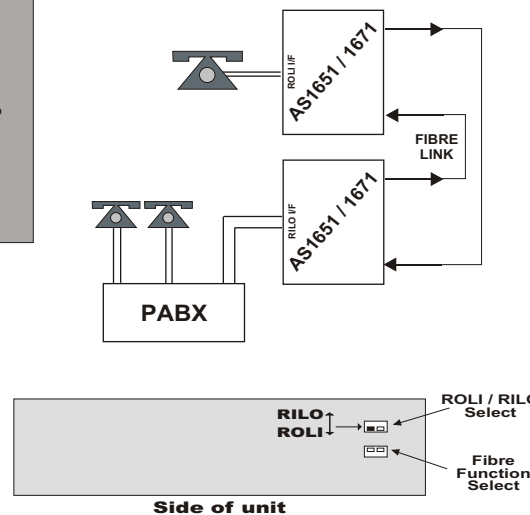**Side of unit**

Lamp operation
Carrier:
Solid GRN - Incomming Carrier detected
Flash RED - No Carrier detected

Tx/Rx:
Flash GRN - Outgoing Call
Flash RED - Incomming Call
Flash GRN/RED - Call Established

Keltel Comms Ltd

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