

***TELIKOU* Intercom System**

FT-800 (7+1) Channel Main Station

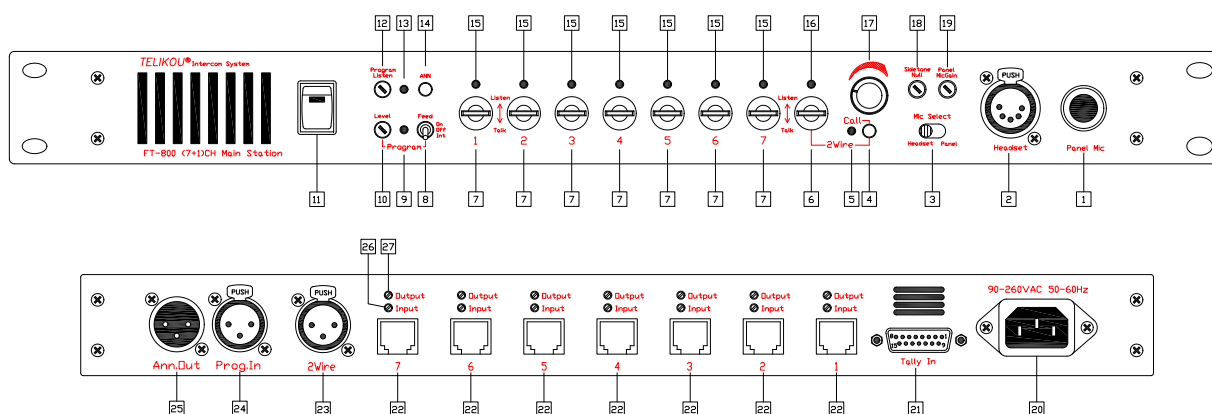
Instruction Manual

I. Introduction

Thank you for choosing TELIKOU intercom products. FT-800 is a 2-wire and 4-wire mixture main station. FT-800 has seven 4-wire channel and one 2-wire channel. Seven 4-wire channel not only can be connected to camera CCU, but also can be connected to BK-104 belt pack which supports Tally function. The FT-800 is suitable for television stations, communications centers, OB trucks, live performance venues and even sports facilities.

The FT-800 utilizes a wired system for stable and reliable performance. Flexible configurations, easy operation, full-duplex communication, clear and loud communication and strong noise resistance are just a few of the advantages of the FT-800.

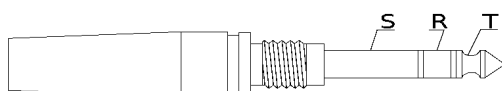
II. Basic operation



1. Panel Mic Connector

6.35mm (1/4") unbalanced microphone jack. The microphone type can be dynamic or electric. Telikou recommends GDC-18 Dynamic Gooseneck Microphone.

Panel mic wiring:



- T Mic Hot
- R Mic Common
- S Shield

2. Headset connector

The headset connector is available with either XLR-4M or XLR-5F.

Headset specifications:

EARPHONE: Dynamic 50-2000 ohm

MICROPHONE: Dynamic 200 ohm

Headset wiring:

Pin 1 -- COMMON

Pin 2 -- Mic. HOT

Pin 3 -- Headphone -

Pin 4 -- Headphone +

Pin 5 -- Drive for LED working light

(*XLR-4M connector doesn't support LED working light)

3. Microphone Select Switch

Microphone select switch is used to select between panel microphone or headset microphone.

4. 2-Wire Channel Call button

Press the button will send the call signal to PL(Party Line) two-wire channel.

5. Call LED

This LED will light when a call signal from the PL channel is detected or a call signal is sent by the CALL BUTTON.

6. PL Channel Button

If you want to listen the 2-wire device which connected at rear panel connector(23), lift up the button. The LED (16) above illuminate green.

If you want to talk with 2-wire device, press down the button. The LED (16) above illuminate red.

Two working model for this button:

1. Long Time Hold: (more than 200ms), switch is connected. When release the button, switch is cut off.
2. Short time press: if button is lift or pressed less than 200ms, this switch is connected and self-locking. Press again, switch is turned off.

7. 4-Wire Channel Button

Seven switch buttons correspond seven 4-wire channels.

Two working model for these buttons:

1. Long Time Hold: (more than 200ms), switch is connected. When release the button, switch is cut off.
2. Short time press: if button is lift or pressed less than 200ms, this switch is connected and self-locking. Press again, switch is turned off.

8. Program Feed To

Turn the switch on or off will send the external signal into intercom channels.

ON: Active channels will receive external program signal and the LED will illuminate.

OFF: External program signal is muted and LED is off.

INT: All the channels receive external program signal. Program signal will be muted when talk switch is turned on.

9. Program Feed LED

This LED illuminates when Program Feed to switch handle is placed at 'On' and 'Int'.

10. Program Level Control

Adjust program audio level to belt packs.

11. Power Switch and Power LED

Red LED will light when power supply switch is on.

12. Program Listen Volume Control

Adjust program audio level which for the FT-800 panel speaker or headset.

14. Stage Announce Button

Send the activated microphone signal to ANN. Out connector on the rear panel.

15. 4-Wire Channel LED

Only Listen is RED.

Only Talk is Green.

Listen and Talk is YELLOW.

16. PL Channel LED

Only Listen is RED.

Only Talk is Green.

Listen and Talk is YELLOW.

17. Volume Control

Use this control to adjust the audio level from the FT-800 headset or panel speaker.

18. Sidetone zero-adjusting

When the FT-800 is connected to two-wire equipment via the PL XLR on the back panel, sidetone null setting adjustment must be made as follows:

1. Set the Mic select switch to headset.
2. Turn on the PL channel switch and turn off the other channels.
3. Adjust the audio of headset to an appropriate listening level.
4. Speak into the headset while adjusting the SIDETONE NULL control slowly back and forth. There should be a point where your voice (and any accompanying acoustic feedback) is the lowest. This is the null point.
5. After FT-800 sidetone zero-adjusting, turn off the MIC

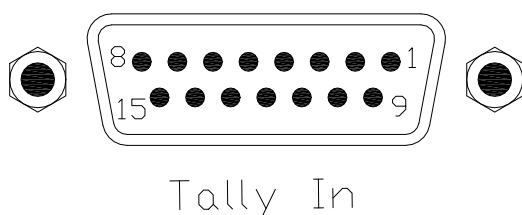
19. Panel Mic Gain

Mic gain is used to adjust the panel microphone gain. It has preset with electret microphones.

20. AC Power Input

Input Voltage : 90V-260V, Power : Less than 35VA

21. Tally In



DB15 pin definition:

- Pin 1 --- Green Tally signal to channel 1
- Pin 2 --- Red Tally signal to channel 1
- Pin 3 --- Green Tally signal to channel 2
- Pin 4 --- Red Tally signal to channel 2
- Pin 5 --- Green Tally signal to channel 3
- Pin 6 --- Red Tally signal to channel 3
- Pin 7 --- Green Tally signal to channel 4

Pin 8 --- Red Tally signal to channel 4

Pin 9 --- Green Tally signal to channel 5

Pin 10 --- Red Tally signal to channel 5

Pin 11 --- Green Tally signal to channel 6

Pin 12 --- Red Tally signal to channel 6

Pin 13 --- Green Tally signal to channel 7

Pin 14 --- Red Tally signal to channel 7

Pin 15 --- Common

The low level is effective for Pin1 to Pin14.

22. 4-Wire Channel Connector

RJ-45 connector. The pin out of connectors is as follows:

Pin 1 --- Ground;

Pin 2 --- +12V;

Pin 3 --- Audio Input +;

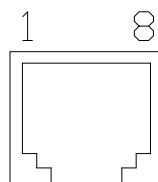
Pin 4 --- Audio Output +;

Pin 5 --- Audio Output -;

Pin 6 --- Audio Input -;

Pin 7 --- Green Tally Signal Drive;

Pin 8 --- Red Tally Signal Drive;



23. PL line connector

XLR-3F connector.

Pin 1 --- Common (Shield)

Pin 2 --- 15VDC;

Pin 3 --- Audio;-

24. Program Input

Balanced audio input. Input Level: 0dB.

XLR-3F connector.

Pin 1 --- Common (Shield)

Pin 2 --- + Audio

Pin 3 --- - Audio

25. Stage Announce Out

Balanced audio output. Output Level: 0dB.

XLR-3M connector.

Pin 1 --- Common (Shield)

Pin 2 --- +Audio

Pin 3 --- -Audio

26. 4-Wire Channel Input Level Gain Adjustment

Adjustment range: 42dB

27. 4-Wire Channel Output Level Gain Adjustment

Adjustment range:-27dBu~7dBu

III: Connect to CCU

Need optional CCU board.

Pin 1 --- Ground;

Pin 2 --- Ground;

Pin 3 --- Audio Input;

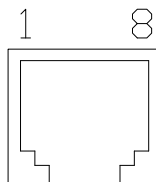
Pin 4 --- Audio Output;

Pin 5 --- Audio Output;

Pin 6 --- Audio Input;

Pin 7 --- Ground;

Pin 8 --- Ground;



The CCU audio signal can be balanced or unbalanced signal.

After connection, FT-800 channel gain may need to be adjusted according to CCU I/O signal.

Open the top cover before adjustment.

The step is as follow:

1. Turn off all the “TALK” status, only turn on the “LISTEN” for CCU channel .
2. Turn on the microphone of camera and speak to the microphone. Meanwhile, the FT-800 headset can hear the voice from CCU.
3. Adjust the Input Level potentionmeter which is beside RJ-45 connector, until the voice level which heard in FT-800 headset is proper.
4. Turn off all the “LISTEN” status on FT-800 and microphone on camera.
5. Turn on the “TALK” on CCU channel and speak to the microphone. The camera side can hear the voice from FT-800.
6. Adjust the Output Level potentionmeter which is beside RJ-45 connector, until the voice which heard in camera headset is proper.
7. Repeat step 1~6 for rest CCU channel.

IV: Troubleshooting

Problem	Cause	Solution
Excessive crosstalk	<ol style="list-style-type: none"> 1. High DC resistance in cable common. 2. Headset cables are not well connected 	<ol style="list-style-type: none"> 1. Rewiring and check the cable 2. Check and reconnect the headset
Hum or Buzz	<ol style="list-style-type: none"> 1. Incorrect ground connection. 2. Inductive pickup caused by close proximity to power lines or transformers. 3. Headset cable is not wired properly; 4. Channel gain is too low or too high 	<ol style="list-style-type: none"> 1. Check the earth connection. 2. Relocate the offending unit. 3. Rewire or change the cable. 4. Adjust the channel gain
distorted or low audio level on main station	<ol style="list-style-type: none"> 1. Channel input levels is too high or too low 2. Incorrect or damaged headset 	<ol style="list-style-type: none"> 1. Adjust the channel input gain 2. Change to proper headset
distorted or low audio level on Channel Headset	<ol style="list-style-type: none"> 1. Channel output levels is too high or too low 2. Incorrect or damaged headset 	<ol style="list-style-type: none"> 1. Adjust the channel output gain 2. Change to proper headset
NO Tally Light	Device error or wrong wiring	<p>Connect Pin1 to Pin14 with Pin15.</p> <p>If the corresponding channel tally lights On. It means FT-800 has no problem.</p> <p>Please check the switcher and the cable between FT-</p>

		800 and switcher. Otherwise, please check the FT-800 and tally light.
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V Technical Specification

Audio Bandwidth: 200Hz-4000Hz ± 2 dB

Earphone impedance: Dynamic 50-2000ohm

Microphone impedance: Dynamic 100-600ohm

4-Wire Channel Input Audio Type: Balanced

4-Wire Channel Output Audio Type: Balanced

4-Wire Channel Input Impedance: $>10\text{Kohm}$

4-Wire Channel Output Impedance: $<600\text{ohm}$

4-Wire Channel Input Level: -47dBu~5dBu

4-Wire Channel Output Level: -27dBu~7dBu

POWER SUPPLY:

AC 90-260V, Power : $>45\text{VA}$;

ENVIRONMENTAL:

0° - 70°C (32°-158°F)

Relative Humidity: 0-90%

DIMENSION:

19" (W) x1.75" (H) x9.48" (D), 482mm x 44.5mm x 241mm

WEIGHT:

2.8kG

0dBu=0.775VRms

Note: Please be sure to connect ground for personal safety and devices protection.