

***TELIKOU*[®] Intercom System**
FT-800 4-Wire Eight Channel Main Station
Instruction Manual

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I. Introduction

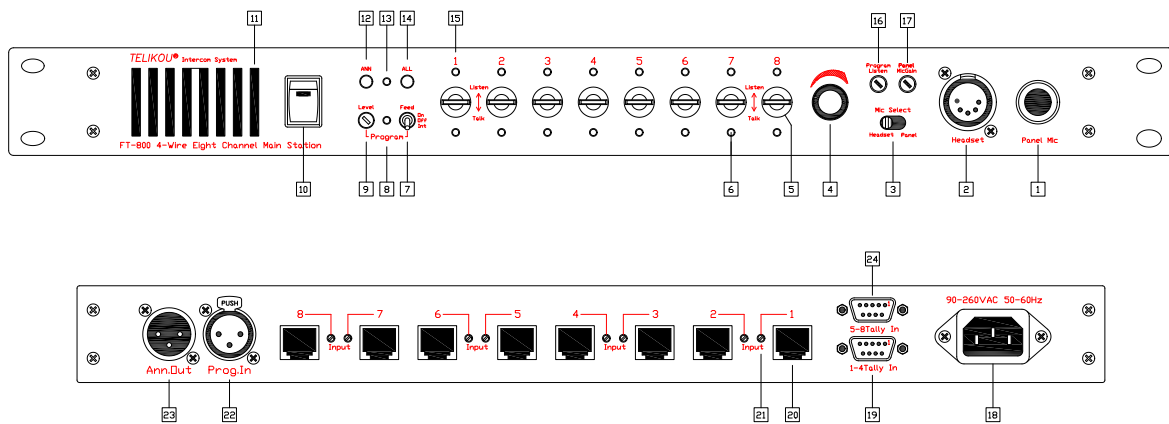
Thank you for choosing TELIKOU intercom products. FT-800 is a 4-wire eight channel main station. FT-800 not only can be connected to camera CCU, but also can be connected to BK-104 belt pack which supports Tally function. The FT-800 is suitable for television stations, communications centers, OB trucks, 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. Characteristics

- Announcement output
- Controllable background input
- Automatic circuit short protection and indication.
- Feedback noise suppression
- Eight channels support Tally

III. Basic operation

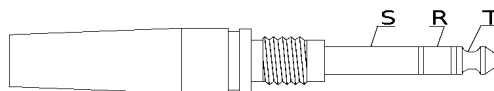


1. Panel Mic Connector

6.35mm (1/4") unbalanced microphone jack. The microphone type can be dynamic or electric.

6.35mm panel microphone wiring:

- T --- Mic Hot
- R --- 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 --- Earphone -

Pin 4 --- Earphone +

Pin 5 --- Null

3. Microphone Select Switch

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

4. Volume Control

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

5. Channel Button

Lift button enter the monitoring status. The up LED lights.

Press button enter the full duplex communication status. The up and bottom LED lights both light.

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

6. Talking Light

Green light when talking.

7. Program Feed

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.

8. Program Feed LED

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

9. Program Level Control

Adjust program audio level which sent to intercom channels.

10. Power Switch and Power LED

Red LED will light when power supply switch is on.

11. Panel Speaker

Panel speaker on when panel microphone is selected.

12. ANN

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

13. ANN LED

When ANN button is pressed, this light on.

14. ALL

When ALL button is pressed, microphone audio is sent to all the channels.

15. Listen LED

When channel switch is lift or pressed, this light on.

16. Program Listen Volume Control

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

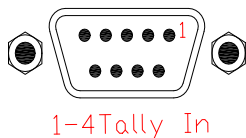
17. Panel Mic Gain

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

18. AC Power Input

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

19. Tally In for 1 - 4 Channel



DB9F 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

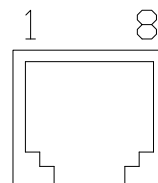
- Pin 6 --- Red Tally signal to channel 3
- Pin 7 --- Green Tally signal to channel 4
- Pin 8 --- Red Tally signal to channel 4
- Pin 9 --- Common

Note: low level is efficient.

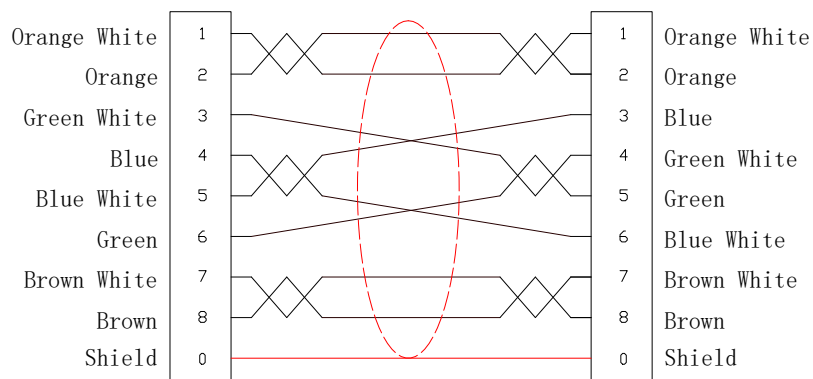
20. 4-Wire Channel Connector

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;



Note: When connect to any other TELIKOU 4-wire device. The RJ-45 connection cable should be made as follow.



21. Channel Input Level Adjustment

Used for balancing external input level to each channel.

22. Program Input

- Balanced audio input. Input Level: 1Vp-p.
- XLR-3F connector.
- Pin 1 --- Common (Shield)
- Pin 2 --- Audio Input -
- Pin 3 --- Audio Input +

23. Announce Out

Balanced audio output. Output Level: 1Vp-p.

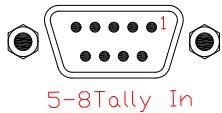
XLR-3M connector.

Pin 1 --- Common (Shield)

Pin 2 --- Audio Output -

Pin 3 --- Audio Output+

24. Tally In for 5 - 8 Channel



DB9F pin definition:

Pin 1 --- Green Tally signal to channel 5

Pin 2 --- Red Tally signal to channel 5

Pin 3 --- Green Tally signal to channel 6

Pin 4 --- Red Tally signal to channel 6

Pin 5 --- Green Tally signal to channel 7

Pin 6 --- Red Tally signal to channel 7

Pin 7 --- Green Tally signal to channel 8

Pin 8 --- Red Tally signal to channel 8

Pin 9 --- Common

Note: low level is efficient.

IV: Connect to CCU

CCU board is optional. Each FT-800 can has max four CCU channel. CCU channel can not talk with any other channel except front panel.

Pin 1 --- Ground;

Pin 2 --- Ground;

Pin 3 --- Audio Input +;

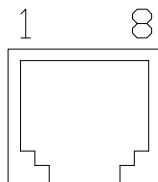
Pin 4 --- Audio Output +;

Pin 5 --- Audio Output -;

Pin 6 --- Audio Input -;

Pin 7 --- Ground;

Pin 8 --- Ground;



CCU channel board adopts transformer coupling. Audio signal can be either differential signal or Non-differential signal.

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

The step is as follow:

1. Turn off all the channels except CCU channel which is need to be adjusted .
2. Turn on the camera microphone . Meanwhile, FT-800 headset and camera headset both can hear each other.
3. If the voice heard from FT-800 is not proper. Adjust the Input Level potentionmeter which is beside RJ-45 connector, until the voice level which is heard from FT-800 is proper.
4. If the voice heard from camera is not proper. Try the camera voice knob first. If it can not reach the proper level. Open the top cover.
5. Adjust the Output Level potentionmeter which is at the middle of CCU board, until the voice which heard from camera headset is proper.
6. Repeat step 1~6 for rest CCU channel.

V: Troubleshooting

Problem	Reason	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 	<ol style="list-style-type: none"> 1. Check the earth connection. 2. Relocate the offending unit. 3. Rewire or change the cable.
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 cable wiring	<p>Connect with Pin9 from Pin1 to Pin8 one by one.</p> <p>If corresponding channel tally lights On. It means FT-800 and tally light has no problem.</p> <p>Then check the switcher and the cable between FT-800 and switcher.</p>

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

- Audio Bandwidth: 200Hz-4000Hz ±2dB
- 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: >10Kohm
- 4-Wire Channel Input Level: 1Vp-p
- 4-Wire Channel Output Level: 1Vp-p

POWER SUPPLY:

AC 90-260V, Power : >45VA;

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

Note: Please be sure equipment is well connected to the ground for personal safety and devices protection.