RTS Two-Wire Intercom

Innovating the Future of Communications

803

Master Station

The RTS Model 803 Master Intercom Station is an updated replacement to the popular Model 802. By employing many of the technological breakthroughs that have occurred since the design of the 802, RTS has been able to integrate into the 803 the complete circuitry for all 802 base features and options except squawk. For example, call signaling is now standard on all twelve intercom channels. For applications requiring 4-wire operation, IFB panel emulation or ISO panel emulation the circuitry is already there; you simply install an option cable to the back panel, set one or two internal DIP switches (IFB and ISO emulate only) and you're ready to go. For all other applications, everything you need is "in the box".

Features

Audio Inputs and Outputs
12 intercom channels (channels 1-12); 3 auxiliary channels (channels 13-15); 2 program inputs; 2 headset dynamic-mic inputs and headphone outputs; 2 headset carbon-mic inputs and headphone outputs; 2 electret panel mic inputs; 1 built-in speaker and 1 switched speaker output; 1 unswitched, balanced mic output (hot mic).

Control Inputs and Outputs
6 DPDT relay outputs and 1 external switch contact input, all assignable via the front panel setup-mode; 12 dedicated, open-collector keying outputs (one for each intercom channel); 1 RS-232/RS-485 port for remote control, programming, and monitoring.

Three Operating Modes
1) normal operation, where front panel controls are used for intercommunications 2) setup mode, where front panel buttons access the user-programmable setup features; 3) DTMF mode, where the keypad is used for telephone dialing on a selected intercom channel.

Audio Input Control
Complete control of audio mix for all audio inputs via a combination of user controls, setup trimmers and the RS-232/RS-485 port. All audio inputs are assignable, via setup mode, to left headphone, right headphone, speaker, or any combination.

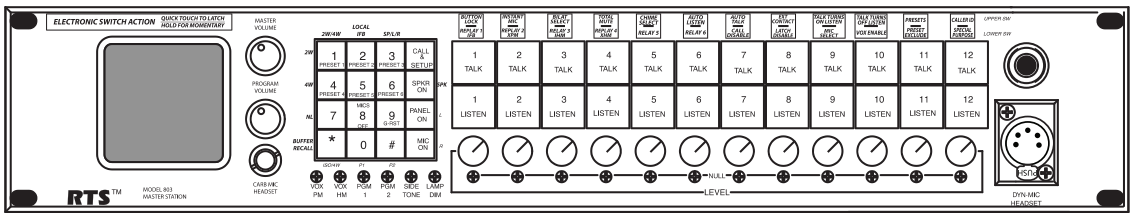
Two-Wire and Four-Wire Operation
Two-wire operation (with or without nulling) or four-wire operation independently selectable for each intercom channel via front panel setup mode; two-wire operation is standard (balanced or unbalanced); four-wire intercom channel operation requires an optional 50-pin connector); auxiliary channels 13 & 14 are four-wire only; auxiliary channel 15 is two-wire only. All channels (intercom and auxiliary) support simultaneous two-way communication (full duplex).

ISO Operation
Compatible with RTS VIE-306 Video ISO System; interfaces with external RTS VCP-6 or VCP-12 ISO Panels, or emulates these panels internally (requires one optional 50-pin connector for VCP-6 emulation; two for VCP-12 emulation).

IFB Operation
Compatible with RTS Model 4000 IFB System; interfaces with external RTS Model 4001 or 4002 IFB panels, or emulates these panels internally (requires one optional 50-pin connector for Model 4001 emulation; two for Model 4002 emulation). Also supports "local IFB", where any channel may be configured as a stand-alone IFB.

User-Programmable Setup Features
A variety of programmable features allow the user to customize, simplify, and "automate" communication tasks. (Features list includes original 802 features plus new features.) ¨
Control Signals: Call send and receive (compatible with TW intercom system), with 3 chime tones (or no chime) selectable for call send; talk-off send (compatible with RTS TW intercom system); global reset send DTMF send (for touch-tone dialing).

Line Drawing



803 Specifications

Inputs

Dynamic Microphone
- Source Impedance: 50 to 1000 Ω
- Level: -55 dBu to -25 dBu

Carbon Microphone
- Level: -15 dBu nominal
- Excitation: 10 milliamperes

Four-Wire Receive Level
- -20 dBu to 0 dBu into 40 kΩ

Program Input Level
- 0 dBu to +10 dBu into 40 kΩ

Outputs

Headphone Level
- 40 mW peak into 25 Ω
- 62.5 mW peak into 100 Ω
- 81 mW peak into 1000 Ω

Speaker Level
- 6 W peak power into 4 Ω

Unswitched Balanced Mic Out (Hot mic)
- Adjustable to +25 dBm peak

Current Source Line Driver
- Current: 10 mA pp nominal
- Two-Wire Level: 2 Vpp @ 200 Ω
- Four Wire Level: 6 Vpp @ 600 Ω

Relays
- Bellcore surge withstand: 2.5 kV
- Agency Approvals: UL, CSA, FCC Part 68
- Contact Type and Ratings
- Type: SPDT (wired DPDT in parallel)
- Maximum resistive current: 2 A
- Maximum operating voltage:125 VAC, 110 VDC
- Maximum switching capacity: 62.5 VA, 60W
- Minimum load:10 uA, 10 mVDC
- Rated load, resistive: 0.5 A@125 VAC; 1 A@30 VDC

Coil Ratings
- Power Consumption:140 mW
- Dielectric Strength: 1000 VAC

Key Outputs
- 0.4 A, 50 VDC maximum

Operating Distance
- 1 mile, nominal

Environmental

Ambient Temperature
- Storage: -40°C to +85°C
- Operating: 0°C to 50°C

Relative Humidity
- 10% to 90% Non-condensing

Mechanical

- Color, Front Panel: Gray, Federal Standard 595A
- Color #26492

Weight: 8 lb. (3.7 kg)

Dimensions (Excluding connectors and panel mic) 3.5” (89 mm) high, 19.0” (483 mm) wide, 10.0” (254 mm) deep

Electrical Power Requirements

Power, Nominal: 43VA

100/230 VAC version available

Supplies
- +5 VDC, 3 A
- +15 VDC, 1.6 A
- -15VDC, 0.3A

Contact Information

Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, Minnesota 55337
Telephone: (800) 392-0498
Fax: (800) 323-0498

Form Number: RTS-20437
Date: March, 2006

Ordering Information

803 • 12 Channel programmable master station • Catalog Number: 90007547000

803-C • 12 Channel programmable master station with 4-wire listen option • Catalog Number: 90007547001

803-C-G1 • 12 Channel programmable master station with 4-wire listen option and IFB-4001 emulate • Catalog Number: 90007547002

803-C-G1G5 • 12 Channel programmable master station with 4-wire listen option and IFB-4002 emulate • Catalog Number: 90007547003

803-G1 • 12 Channel programmable master station with IFB-4001 emulate • Catalog Number: 90007547009

803-G1G5 • 12 Channel programmable master station with IFB-4002 emulate • Catalog Number: 90007547010