



OPEN COLLECTOR TALLY INTERFACE

Ross Switchers Tally Interface

Real-time red/green camera tally from your Ross switcher to Ikan tally lights — up to four cameras, plug-and-play.



TI-OC-ROS-25-4 TI-CBL-OC-ROS25M DB25 (Carbonite/Ultrix)

TI-OC-ROS-25A-4 TI-CBL-OC-ROS25M-A DB25 (Acuity pinout)

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This manual covers both Ross bundle variants. Setup is identical except for the switcher cable and the model-specific notes in Section 6 and Appendix A.

1 · Introduction

The Ikan Open Collector Tally Interface connects your Ross switcher's tally system directly to Ikan tally lights. When you switch cameras, the matching light turns red on air and green on preview, so talent and crew always know which camera is live — with no extra software, custom wiring, or IP setup.

Tally, briefly

A tally system shows which camera is **live** and which is **next**. By convention, **red** means the camera is on program (on air) and **green** means it is on preview. Ross tally pins are assigned in DashBoard, so you choose which cameras and buses drive each light — including the green/preview bus.

Who it's for

Ross switcher owners in broadcast, corporate AV, house of worship, education, and live-event production who want reliable hardware tally for up to four cameras per interface.

THIS MANUAL COVERS

Both Ross bundles — the Carbonite/Ultrix variant (TI-OC-ROS-25-4) and the standalone-Acuity variant (TI-OC-ROS-25A-4). Setup differs only in the included cable and a few model-specific notes, all called out in Section 6.

2 · What's in the Box

Each Ross bundle ships as a single carton. Confirm all three items are present before installation.

1 × TI-OC-U interface	Open Collector Tally Interface — black ABS enclosure, DB9 female input, four RJ45 outputs (OUT 1-4).
1 × TI-CBL-OC-ROS25M	3-ft DB9-to-DB25 tally cable — Carbonite/Ultrix (bundle TI-OC-ROS-25-4)
1 × TI-CBL-OC-ROS25M-A	3-ft DB9-to-DB25 Acuity-pinout cable — standalone Acuity (bundle TI-OC-ROS-25A-4)
1 × Power adapter	5VDC 750mA wall adapter with barrel-jack connector.

WHICH CABLE IS IN MY BOX?

Your bundle includes **one** switcher-specific cable that matches your Ross switcher's tally connector. Match the SKU on the carton label to the table above, then confirm your switcher model in Section 6.

3 · Hardware Overview

The interface is intentionally simple: one tally input from your switcher, four identical tally outputs to your Ikan tally lights.



Black ABS enclosure, 105 x 78 x 40 mm - Ikan logo - "TALLY INTERFACE" - "MADE IN USA"

TI-OC-U interface — output side (four RJ45 jacks) and input side (5VDC power + DB9 tally input).

Input side

- **DB9 female (INPUT)** — accepts the switcher tally signal through the included DB9-to-DB25 cable.
- **5VDC barrel jack** — connect the supplied power adapter here.

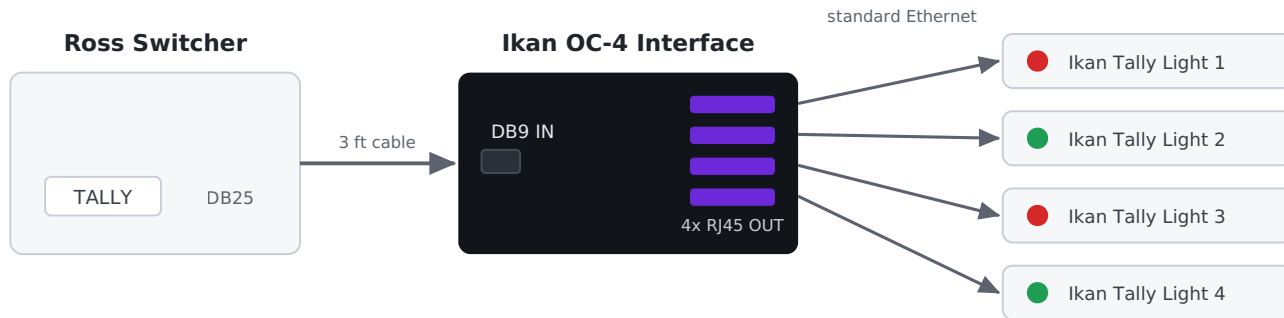
Output side

- **Four RJ45 jacks (OUT 1-4)** — one per camera position. Run a standard Ethernet cable from each output to an Ikan tally light.
- Outputs carry both program (red) and preview (green) tally for their channel.

Enclosure	Black ABS plastic, 105 × 78 × 40 mm (4.13" × 3.07" × 1.57")
Markings	White silk-screen — Ikan logo, "TALLY INTERFACE", "MADE IN USA"
Tally protocol	Open collector

4 · How It Works

The interface taps the tally signal your Ross switcher already produces and distributes it to up to four Ikan tally lights over ordinary Ethernet cable — no software, drivers, or network configuration.



● Program / live (red) ● Preview / next (green) ● Transition (amber)

Signal path: switcher tally output → 3-ft switcher cable → OC-4 interface → four Ethernet runs → Ikan tally lights.

Each output corresponds to one camera. When a camera is taken to **program** the matching light turns **red**; when it is selected on **preview** the light turns **green**. During a mix or wipe a switcher may briefly assert both, which appears as an **amber** (red + green) indication.

OPEN COLLECTOR, IN ONE LINE

An open-collector tally output switches each signal to ground to turn a light on. It is fast and low-current — ideal for live production — and shares a common ground with the switcher, which is why the OC-4 connects directly to the dedicated Ross tally port.

5 · Installation & Quick Start

Most Ross installations are running in a few minutes. Follow these steps, then complete the switcher-side setup in Section 6.

- 1 Connect the switcher cable.** Plug the included DB9-to-DB25 cable into the OC-4 **DB9 INPUT**, and the other end into your Ross switcher's **TALLY** port. Seat both connectors fully and hand-tighten the thumbscrews.
- 2 Connect power.** Plug the 5VDC adapter into the OC-4 barrel jack and into a wall outlet or power strip.
- 3 Run Ethernet to your tally lights.** Connect a standard Ethernet cable from each output — **OUT 1-4** — to an Ikan tally light. Use one output per camera position.
- 4 Match outputs to cameras.** OUT 1 should feed the light for the camera on the switcher's tally channel 1, OUT 2 for channel 2, and so on. Keep this mapping consistent across your studio.
- 5 Configure the switcher (if required).** Complete the Ross tally setup in Section 6. Datavideo switchers need no menu setup; Roland and Ross switchers may require you to confirm or assign tally outputs.
- 6 Test.** Take each camera to program and confirm the matching light turns red; select it on preview and confirm green. See Section 7.

MORE THAN FOUR CAMERAS?

Each interface drives up to four Ikan tally lights. For larger studios, use an additional interface fed from a second tally output on your switcher, or contact Ikan about IP-based tally distribution.

6 · Ross Switcher Tally Setup

Ross switchers provide tally on a female DB25 connector, but the tally pins are **not pre-assigned**. You configure each tally in DashBoard (or the switcher menu) and map it to a bus: red comes from the On-Air/program bus, and **green appears only after you assign a tally to the On-Preview (OnPrv/PV) bus**. This release includes two Ross variants.

Which cable does my switcher use?

Switcher	Bundle / cable	Tally connector
Carbonite Ultra, Carbonite Ultra Solo, Carbonite Ultra 60, Graphite, Ultrix, Ultrix Acuity	TI-OC-ROS-25-4 TI-CBL-OC-ROS25M	DB25, standard 1-to-1 pinout
Acuity (standalone)	TI-OC-ROS-25A-4 TI-CBL-OC-ROS25M-A	DB25, unique 2-bank pinout

Setup — Carbonite & Ultrix (example: Ultrix)

Ultrix and Carbonite switchers provide 24 fully configurable tallies on each female DB25 connector (rated 24VAC(rms)/40VDC, 120mA), with a straight 1-to-1 pinout (pins 1-24 = tally 1-24, pin 25 = common). Assign the tallies in DashBoard:

- 1 Open **DashBoard** and connect to the switcher. (On a Carbonite panel, press **MENU** → **CONFIG** → **NEXT** → **Tally**.)
- 2 Add a new tally.
- 3 Select the **tally output number** to set up (this is the tally number, not the connector pin).
- 4 Select the **Input** (video source) you want to tally.
- 5 Select the **Output** bus that triggers it — **OnAir** for red/program, **OnPrv** for green/preview. (PGM, PV, CLN, Aux and MiniME buses are also available.)
- 6 Repeat for each camera's program and preview tally.
- 7 Save. The assigned tallies now drive the matching OC-4 outputs.

EXAMPLE — FOUR CAMERAS, RED + GREEN

Assign tally 1 = Cam 1 / OnAir, tally 2 = Cam 1 / OnPrv, tally 3 = Cam 2 / OnAir, tally 4 = Cam 2 / OnPrv, and so on. Then connect the tally outputs to OUT 1-4 to match your camera positions.

Models that need special attention**ACUITY (STANDALONE) — DEDICATED CABLE & UNIQUE PINOUT**

Standalone Acuity tally uses a female DB25 (solid-state contact closure, 100VDC, 120mA) arranged in **two banks** — odd-numbered tallies on pins 1-9, even-numbered tallies on pins 14-22, with commons on pins 10-13 and 23-25. Because this differs from the Carbonite/Ultrix 1-to-1 layout, Acuity **requires the Acuity bundle (TI-OC-ROS-25A-4 with the TI-CBL-OC-ROS25M-A cable)**. Configure the tallies in DashBoard exactly as above.

GRAPHITE — 16 TALLIES ON THE ABM1 BREAKOUT

Graphite exposes 16 tallies on a female DB25 (ABM1 breakout). Use the standard **TI-CBL-OC-ROS25M** cable and configure the tallies in DashBoard.

ULTRIX ACUITY VS. STANDALONE ACUITY

An Ultrix frame running Acuity software uses the standard Ultrix 24-tally DB25 pinout — so it takes the **standard TI-CBL-OC-ROS25M** cable, not the standalone-Acuity cable. Match your hardware carefully.

CARBONITE BLACK IS NOT SUPPORTED

The Carbonite Black frame outputs tally on a 34-pin female **DB37** connector, which neither DB25 cable fits. It is not part of this release — contact Ikan if you need a DB37 solution.

7 · Verifying Operation

With the switcher configured and lights connected, confirm correct behavior before going live.

Switcher action	Expected tally light
Camera taken to Program (on air)	RED on that camera's light
Camera selected on Preview / Next	GREEN on that camera's light
Mix / wipe transition in progress	Brief amber (red + green) on the sources involved
Camera not selected on any bus	Light off

GREEN REQUIRES A PREVIEW ASSIGNMENT

Ross delivers green/preview only after you assign a tally to the On-Preview (OnPrv/PV) bus in DashBoard. If you configured On-Air tallies only, red will work but green will not — that is expected until preview tallies are added.

8 · Troubleshooting

Symptom	Check
No tally lights at all	Confirm the 5VDC adapter is connected and powered. Re-seat the DB9 cable at both ends. Verify the cable matches your switcher's tally connector (Section 6) and that the switcher's tally output is active.
Red works, but no green (preview)	In DashBoard, add a tally for each camera mapped to the OnPrv (or PV) bus. Ross does not output preview tally until it is explicitly assigned.
Only some outputs work	Swap the Ethernet cable and the tally light to isolate the fault. Confirm the camera is assigned to that tally channel on the switcher.
Wrong light illuminates	Your output-to-camera mapping does not match the switcher's tally numbering. Re-map OUT 1-4 to the correct cameras (Section 5, step 4).
A light stays on constantly	Check for a tally assignment left on a bus (aux or clean feed) on the switcher. Confirm the source is not permanently selected.
Acuity lights are scrambled or wrong	Confirm you are using the Acuity bundle (TI-CBL-OC-ROS25M-A). The standalone Acuity pinout differs from Carbonite/Ultrix and needs the dedicated cable.
Carbonite Black won't connect	Carbonite Black uses a DB37 tally connector and is not supported by these DB25 bundles.
Intermittent or flickering tally	Re-seat connectors and replace any suspect Ethernet cable. Keep tally runs away from high-power cabling.

9 · Specifications

Bundle SKUs (Ross)

Bundle SKU	Included cable	Switcher connector
TI-OC-ROS-25-4	TI-CBL-OC-ROS25M	DB25 (Carbonite/Ultrix)
TI-OC-ROS-25A-4	TI-CBL-OC-ROS25M-A	DB25 (Acuity pinout)

Interface (shared across all bundles)

Input connector	DB9 female
Outputs	4 × RJ45 (standard Ethernet to Ikan tally lights)
Tally type	Open collector — program (red) & preview (green) per output
Switcher cable	36" (3 ft), DB9-to-DB25
Power supply	5VDC 750mA, 5.5 mm barrel jack
Enclosure	ABS plastic, 105 × 78 × 40 mm (4.13" × 3.07" × 1.57")
Product weight	~1 lb
Shipping weight / size	2 lb, 7 × 7 × 7 in carton
Warranty	1-year limited
Country of origin	United States

10 · Safety & Regulatory

Safety

- Use only the supplied 5VDC power adapter. Operate indoors in a dry location within normal room-temperature conditions.
- Do not open the enclosure. There are no user-serviceable parts inside; opening it voids the warranty.
- Route Ethernet and tally cabling away from mains power and high-current runs to avoid interference.
- The open-collector output shares a common ground with the switcher. Connect the interface only to a compatible Ross tally port and to Ikan tally lights.
- Observe normal ESD precautions when handling connectors.

Regulatory

These units are configured and sold for use in the United States. CE marking is not included on this release; contact Ikan before deploying in markets that require CE conformity.

Limited warranty

The interface, cable, and power adapter are covered by a 1-year limited warranty against defects in materials and workmanship from the date of purchase. The warranty does not cover damage from misuse, unauthorized modification, or connection to incompatible equipment.

Appendix A · Ross Compatibility

Tally behavior verified against the Ross Video help portal. All Ross tallies are user-assignable in DashBoard — green/preview appears only after a tally is mapped to the OnPrv/PV bus.

Switcher	Tally port	Tally	Bundle
Carbonite Ultra / Ultra Solo / Ultra 60	DB25, 24 tallies, 1-to-1	Red + Green*	TI-OC-ROS-25-4
Ultrix / Ultrix Acuity	DB25, 24 tallies, 1-to-1	Red + Green*	TI-OC-ROS-25-4
Graphite	DB25, 16 tallies (ABM1)	Red + Green*	TI-OC-ROS-25-4
Acuity (standalone)	DB25, 2-bank pinout	Red + Green*	TI-OC-ROS-25A-4
Carbonite Black	DB37, 34 tallies	Not supported	—

*Configurable — assign On-Air (red) and On-Preview (green) tallies in DashBoard.

— END OF MANUAL —