

tvONE

# CORIOmatrix / CORIOmatrix mini

Manual

Version 1.0.2

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# Disclaimer/Safety

#### Disclaimer

This product is intended for professional use. This product is not intended for use in a medical environment and does not have the required certifications for such use. Similarly, use aboard any aircraft or spacecraft while in flight or as an adjunct to any surface, airborne or marine navigation system or any offshore marine activity, including control of any watercraft, or any use similar to those specifically herein mentioned is prohibited. Use in the aforementioned circumstances would require additional testing and certification.

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#### Intellectual property

Some IC chips in this product include confidential and/or trade secret property. Therefore you may not copy, modify, adapt, translate, distribute, reverse engineer, reverse assemble or decompile the contents thereof.

# Regulatory Agency Acceptance European 'CE' Mark Statement

#### **Emissions:**

Radiated magnetic interference, 50 Hz to 50 kHz EN 55103-1:2009 Environment E1, E2, E3, & E4

Radiated disturbance EN 55103-1:2009 Environment E4

Conducted disturbance, AC and signal ports EN 55103-1:2009 Environment E4

Radiated disturbance, 1000 to 4000 MHz FCC/CFR 47; Part 15: 2009 | Canadian Standard ICES-003: Issue 4

Immunity:

Electrostatic discharge

Radiated RF disturbance

Magnetic LF disturbance, 50 Hz to 10 kHz

Fast transient bursts, AC port and signal ports EN 55103-2:2009 Environment E1, E2, E3, E4

Conducted RF field, AC port and signal ports

Surges AC port

Dips and outages

For Low Voltage Directive (LVD): EN 60065:2002 + Amd 1:2006 + Amd 11:2008

#### **FCC Statement**

Class A Device: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution: This equipment is intended for use in the manner prescribed in the Instruction Manual. Any user changes or modifications not expressly approved by tvONE could void the user's authority to operate the equipment. Connecting this equipment to external devices requires appropriate cabling for FCC compliance. The Instruction Manual shows or describes the proper connection of this equipment for operation that insures FCC compliance.

Direct all inquiries regarding FCC compliance to:

tvONE 2791 Circleport Drive Erlanger, KY 41018 USA Tel 859-282-7303 Fax 859-282-8225

# End User License Agreement

#### FOR TV ONE CORIOmatrix WEB INTERFACE SOFTWARE

BY DOWNLOADING, INSTALLING OR USING THE SOFTWARE, YOU AGREE TO BE BOUND BY THIS END USER LICENSE AGREEMENT (the "Agreement"). IF YOU DO NOT AGREE, DO NOT INSTALL, COPY OR USE THE SOFTWARE; YOU MUST DELETE OR DESTROY ANY COPY IN YOUR POSSESSION OR CONTROL. This Agreement is between you ("you" or "your") and TV One Ltd, a limited company incorporated in England and Wales (registration number 1973948) having its registered office at Continental Approach, Westwood Ind. Est, Margate, Kent CT9 4JG ("Licensor") for CORIOmatrix software that accompanies this Agreement, including all associated media, printed or electronic documentation (collectively, the "Software").

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- **8. U.S. Government License Rights**. Software provided to the U.S. Government pursuant to solicitations issued on or after December 1, 1995 is provided with the commercial license rights and restrictions described in this Agreement. Software provided to the U.S. Government pursuant to solicitations issued prior to December 1, 1995 is provided with "Restricted Rights" as provided for in FAR, 48 CFR 52.227-14 (JUNE 1987) or DFAR, 48 CFR 252.227-7013 (OCT 1988), as applicable.
- **9. Compliance with Law; Export Restrictions**. You will comply with all applicable international and national laws, rules and regulations that apply to the Software and your use of the Software, including the U.S. Export Administration Regulations, as well as end user, end use, and destination restrictions issued by U.S. or other governments.
- **10. Governing Law and Jurisdiction**. This Agreement will be construed and controlled by Delaware law, without giving effect to its conflict of law provisions. Each party consents to exclusive jurisdiction and venue in the state and federal courts in Kenton County, KY for any and all disputes, claims and actions arising from or in connection with the Software and this Agreement. The United Nations Convention on Contracts for the International Sale of Goods does not apply to this Agreement.
- **11. General.** The section titles in this Agreement are used solely for the parties' convenience and have no legal or contractual significance. Any list of examples following "including" or "e.g.," is illustrative and not exhaustive, unless qualified by terms like "only" or "solely." Licensor's failure to act with respect to a breach by you or others does not waive its right to act with respect to subsequent or similar breaches. No waiver of any provision of this Agreement will be effective unless it is in a signed writing, and no waiver will constitute a waiver of any other provision(s) or of the same provision on another occasion. If a court of competent jurisdiction holds any term, covenant or restriction of this Agreement to be illegal, invalid or unenforceable, in whole or in part, the remaining terms, covenants and restrictions will remain in full force and effect and will in no way be affected, impaired or invalidated. You may not assign, transfer or sublicense this Agreement or your rights (if any) under this Agreement. This Agreement will be binding upon all successors and assigns. This Agreement constitutes the entire agreement between you and Licensor with respect to the Software (including support services (if any)) and merges all prior and contemporaneous communications and proposals, whether electronic, oral or written, between you and Licensor with respect to the Software.

#### **Patent Pending**

#### **CONTACT INFORMATION**

If you have any questions about this Agreement, or want to contact Licensor for any reason, please direct all correspondence to:

TV ONE Limited Legal Department

Continental Approach,

Westwood Ind. Est,

Margate, Kent CT9 4JG

For **Customer Support** please contact:

 $\underline{\text{tech.usa@tvone.com}} \text{ or } \underline{\text{tech.europe@tvone.com}} \text{ or refer to } \underline{\text{http://www.tvone.com/contact\_info.shtml}}$ 

#### Safety Instructions

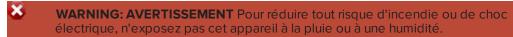
To insure the best from this product, please read this manual carefully.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- · Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized
  plug has two blades with one wider than the other. A grounding type plug has two blades
  and a third grounding prong. The wide blade or third prong are provided for your safety.
  If the provided plug does not fit into your outlet, consult an electrician for replacement of
  the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- This unit must be connected to a mains socket outlet with a protective earth connection.
- The AC wall outlet should be installed near to the unit and be easily accessible.
- Only use attachments / accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified servicing personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
  - **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The AC power cord or adapter furnished with the unit should conform to the type in use in your country. Please compare the plug on your cord or adapter with the power socket where the unit will be installed.
  - If you did not receive the correct plug, DO NOT attempt to modify it. Instead, immediately contact your dealer or contact tvONE at the sales office nearest to your geographic location and request the proper plug.

#### CONSIGNE IMPORTANTE DE SECURITE

Pour obtenir les meilleures performances avec ce produit, nous vous demandons de lire soigneusement ce manuel.

- Lisez ces consignes
- Conservez ces consignes
- Respectez tous les avertissements
- Respectez toutes les consignes
- N'utilisez pas cet appareil à proximité d'eau
- Nettoyez-le en utilisant uniquement un chiffon sec
- Ne bloquez pas les ouvertures de ventilation. Installez cet appareil en respectant les consignes du constructeur
- Ne procédez pas à une installation à proximité de sources de chaleur, quelles qu'elles soient, (radiateurs, registres calorifiques, fours, etc.) ou d'autres appareils (dont des amplificateurs) qui produisent de la chaleur
- Ne cherchez pas à détourner l'objectif de la prise électrique à polarisation ou à mise à la masse. Une prise électrique polarisée comporte deux lames de largeurs différentes. Une prise à mise à la masse a deux lames et une broche de mise à la masse. La lame la plus large ou la troisième broche ont pour but de vous protéger. Si la prise fournie ne correspond pas à la prise murale, consultez un électricien pour remplacer l'élément obsolète
- Protégez le cordon électrique pour éviter que l'on ne marche dessus ou qu'on ne le coince, en particulier au niveau des prises mâles ou des prises murales et au niveau de l'appareil
- Il faut brancher l'appareil sur une prise du secteur disposant d'une mise à la terre.
- La prise murale de courant doit être installée près de l'unité et aisément accessible.
- Utilisez uniquement les fixations et accessoires spécifiés par le fabricant
- Débranchez cet appareil durant les orages électriques ou pendant les périodes prolongées d'inactivité
- Confiez toutes les interventions d'entretien à un personnel qualifié spécialisé dans l'entretien. Une intervention d'entretien s'avère nécessaire lorsque cet appareil a été endommagé, d'une façon ou d'une autre, par exemple lorsque le cordon d'alimentation électrique ou sa prise est endommagé, lorsqu'il y a eu un épanchement de liquide ou lorsque des objets sont tombés sur cet appareil, voire même lorsque cet appareil a été exposé à de la pluie ou une humidité, ne fonctionne pas normalement ou est tombé.



Le câble d'alimentation secteur ou l'adaptateur remis avec cet appareil doit être conforme au type employé dans votre pays. Veuillez comparer la prise de votre cordon électrique ou de votre adaptateur à la prise murale de l'emplacement où doit être installé votre appareil.

Si vous n'avez pas reçu la bonne prise, **N'ESSAYEZ PAS** de la modifier. Vous devez au contraire immédiatement contacter votre revendeur ou le bureau de vente TV One le plus proche de chez vous pour demander la bonne prise.

#### Propriété intellectuelle

Certaines puces à circuits imprimés de ce produit contiennent des données confidentielles et (ou) des secrets professionnels. Par conséquent, vous ne pouvez pas recopier, modifier, adapter, traduire ou distribuer son contenu ou procéder à une ingénierie inverse ou à une décompilation de ce contenu.

#### WICHTIGE SICHERHEITSANWEISUNGEN

Lesen Sie diese Bedienungsanleitung sorgfältig, um zu gewährleisten, dass Sie den optimalen Nutzen aus diesem Produkt ziehen.

- Lesen Sie diese Anweisungen.
- Bewahren Sie diese Anweisungen auf.
- Beachten Sie alle Warnhinweise.
- Befolgen Sie alle Anweisungen.
- Verwenden Sie dieses Gerät nicht in der Nähe von Wasser.
- Verwenden Sie zur Reinigung nur ein trockenes Tuch.
- Blockieren Sie keine Lüftungsöffnungen. Installieren Sie das Gerät nach den Anweisungen des Herstellers.
- Stellen Sie das Gerät nicht in der Nähe von Wärmequellen wie etwa Heizkörpern, Heizklappen, Öfen oder anderen Wärme erzeugenden Geräten (einschließlich Verstärkern) auf.
- Setzen Sie den Sicherheitszweck von unvertauschbaren Steckern oder Erdungssteckern nicht außer Kraft. Ein unvertauschbarer Stecker besitzt zwei Messerkontakte, von denen einer breiter als der andere ist. Ein Erdungsstecker besitzt zwei Messerkontakte und einen dritten Erdungskontakt. Der breitere Messerkontakt oder der Erdungskontakt dient Ihrer Sicherheit. Falls der mitgelieferte Stecker nicht an eine Steckdose angeschlossen werden kann, beauftragen Sie einen Elektriker, die veraltete Steckdose auszutauschen.
- Schützen Sie das Netzkabel, so dass niemand auf das Netzkabel treten kann oder es insbesondere an Steckern, Steckdosen und an der Stelle, an der das Netzkabel aus dem Gerät geführt wird, nicht eingeklemmt werden kann.
- Verwenden Sie nur Zusatzgeräte/Zubehör, die/das der Hersteller angibt.
- Ziehen Sie den Netzstecker dieses Geräts bei Gewittern und auch dann ab, wenn es über einen längeren Zeitraum nicht betrieben wird.

Lassen Sie Reparaturen nur von qualifiziertem Wartungspersonal durchführen. Reparaturen sind erforderlich, wenn das Gerät in irgendeiner Form beschädigt wurde, beispielsweise das Netzkabel oder der Stecker beschädigt wurde, Flüssigkeit auf dem Gerät verschüttet wurde oder Objekte in das Gerät gefallen sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, nicht normal arbeitet oder fallen gelassen wurde.

WARNING: WARNUNG: Setzen Sie das Gerät weder Regen noch Feuchtigkeit aus, um die Gefahr eines Brandes oder elektrischen Schlags zu minimieren.

 Das mitgelieferte Netzkabel oder der mitgelieferte Adapter müssen dem in Ihrem Land verwendeten Typ entsprechen. Vergleichen Sie den Netzstecker oder Adapter mit der Netzsteckdose, an die das Gerät angeschlossen wird.

Falls Sie nicht den richtigen Stecker erhalten haben, versuchen Sie **NICHT**, ihn zu ändern. Setzen Sie sich stattdessen mit Ihrem Fachhändler oder der Verkaufsniederlassung von TV One in Verbindung, die sich am nächsten an Ihrem Wohnort befindet, und fordern Sie den richtigen Stecker an.

#### Geistiges Eigentum

Einige IC-Chips in diesem Produkt enthalten vertrauliche Informationen und/oder Geschäftsgeheimnisse. Aus diesem Grund dürfen Sie deren Inhalt nicht kopieren, ändern, anpassen, übersetzen, verteilen zurückentwickeln oder dekompilieren.

#### INSTRUCCIONES IMPORTANTES DE SEGURIDAD

Para garantizar el máximo rendimiento de este producto, lea cuidadosamente este manual.

- · Lea estas instrucciones
- Guarde estas instrucciones
- Respete todas las advertencias
- Siga todas las instrucciones
- No use este aparato cerca del agua
- · Límpielo sólo con un paño seco
- No bloquee ninguna abertura de ventilación. Instálelo de acuerdo con las instrucciones del fabricante
- No lo instale cerca de fuentes de calor como radiadores, salidas de aire caliente, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.
- Respete la finalidad de seguridad de las clavijas polarizadas o con toma de tierra. Una clavija polarizada tiene dos cuchillas, una más ancha que la otra. Una clavija del tipo de puesta a tierra tiene dos cuchillas y un tercer borne para puesta a tierra. La cuchilla más ancha o el tercer borne son para su seguridad. Si la clavija suministrada no se adapta a su toma de corriente, consulte a un electricista para que cambie la toma obsoleta.

- Proteja el cable de alimentación para que no se pueda pisar ni pellizcar, especialmente junto a las clavijas, tomas de corriente, y en el punto de salida de las mismas en el aparato.
- Use sólo accesorios / elementos especificados por el fabricante
- Desenchufe el aparato durante las tormentas eléctricas o si no va a usarlo durante un largo período de tiempo.
- Consulte con personal cualificado cualquier tipo de servicio. Se necesitará servicio cuando el aparato haya sufrido daños de cualquier tipo, como daños en el cable de alimentación o en las clavijas, haya entrado líquido o se hayan caído objetos dentro del aparato, haya estado expuesto a la lluvia o humedad, no funcione normalmente o se haya caído.
  - WARNING: ADVERTENCIA: Para reducir el riesgo de incendio o electrocución, no exponga el aparato a la lluvia ni la humedad.
- El cable de alimentación de C.A o el adaptador suministrado con la unidad debe ser conforme al tipo usado en su país. Compare la clavija en su cable o adaptador con la toma de corriente donde vaya a instalar la unidad.

Si no ha recibido la clavija correcta, **NO** intente modificarla. Póngase inmediatamente en contacto con su distribuidor o con TV One en la oficina de ventas más cercana a su localización geográfica y solicite la clavija adecuada.

#### Propiedad intelectual

Algunos chips con circuitos integrados presentes en este producto incluyen propiedad confidencial y/o secreta del sector. Por lo tanto, usted no puede copiar, modificar, adaptar, traducir, distribuir, diseñar a la inversa, montar a la inversa o descompilar el contenido de los mismos.

#### BELANGRIJKE VEILIGHEIDSINSTRUCTIE

Om dit product optimaal te kunnen gebruiken, dient u deze handleiding aandacht te lezen.

- Lees deze instructies
- Bewaar deze instructies
- Let op alle waarschuwingen
- Volg alle instructies
- Gebruik dit apparaat niet in de nabijheid van water
- · Reinig het apparaat alleen met een droge doek
- Blokkeer geen ventilatieopeningen. Installeer het apparaat volgens de instructies van de fabrikant

- Plaats het apparaat niet in de nabijheid van warmtebronnen zoals radiatoren, kachels, warmtesensoren zoals thermometers, of andere apparaten (waaronder versterkers) die warmte afgeven.
- Omzeil het beveiligingsoogmerk van de gepolariseerde of geaarde stekker niet. Een gepolariseerde stekker heeft twee pinnen, waarvan de een breder is dan de ander. Een geaarde stekker heeft twee pinnen, en een derde pin; een zogeheten aardlekpin. De bredere pin of aardlekpin is er voor uw veiligheid. Als de geleverde stekker niet in het stopcontact past, vraag dan een elektricien om het verouderde stopcontact te vervangen.
- Bescherm de netspanningkabel zodanig dat er niet op kan worden gelopen en dat er geen kink in kan komen, vooral bij de stekker, pinnen, en bij de aansluiting op het apparaat
- Gebruik alleen de accessoires en onderdelen die door de fabrikant worden aanbevolen
- Haal de stekker van dit apparaat bij onweer uit het stopcontact. Doe dit ook wanneer het apparaat lange tijd niet wordt gebruikt.
- Laat alle onderhoud over aan gekwalificeerd personeel. Onderhoud is vereist wanneer
  het apparaat op enigerlei wijze is beschadigd, bijvoorbeeld in het geval van een
  beschadigd netsnoer of een beschadigde stekker, wanneer er vloeistof op het apparaat
  is gemorst, of wanneer er een voorwerp in het apparaat is gevallen, wanneer het apparaat is blootgesteld aan regen of vocht, niet normaal functioneert, of is gevallen.
  - **WARNING: WAARSCHUWING** Om het risico op brand of een elektrische schok te verkleinen, dient u dit apparaat niet bloot te stellen aan regen of vocht.
- Het type wisselspanningkabel of adapter dat met deze eenheid is geleverd, dient overeen te komen met wat in uw land wordt gebruikt. Vergelijk de stekker van de kabel of adapter met het stopcontact waarop de eenheid wordt aangesloten.

Als u niet de juiste stekker hebt ontvangen, breng dan zelf **GEEN** wijzigingen aan. Neem in plaats daarvan direct contact op met uw dealer of met de afdeling verkoop van TV One die zich het dichtst bij u in de buurt bevindt en vraag om de juiste stekker.

#### Intellectueel eigendom

In bepaalde IC-chips in dit product zijn vertrouwelijke informatie en/of geheime handelseigendommen opgenomen. Het is u daarom niet toegestaan om de inhoud ervan te kopiëren, wijzigen, aanpassen, vertalen, verspreiden, te onderwerpen aan reverse engineering, reverse assembling, of te decompileren.

#### VIKTIGA SÄKERHETSANVISNINGAR

För att få ut det bästa av din produkt bör du läsa denna bruksanvisning noggrant.

- Läs dessa anvisningar
- Spara dessa anvisningar

- Rätta dig efter alla varningar
- · Följ alla instruktioner
- Använd inte enheten nära vatten
- Rengör enheten endast med torr trasa
- Blockera inte ventilationsöppningarna. Installera enheten enligt tillverkarens anvisningar
- Placera inte enheten nära värmekällor, som värmeelement, varmluftsintag, spisar eller annan utrustning (inklusive förstärkare) som producerar värme.
- Försök inte använda en stickkontakt i ett uttag som den inte är utformad att användas i.
   En polariserad kontakt har två blad det ena bredare än det andra. En jordad kontakt har två blad och ett tredje jordstift. Det breda bladet eller jordstiftet är till för din säkerhet.
   Om den medföljande stickkontakten inte passar i ditt eluttag måste du kontakta en elektriker för att få eluttaget utbytt.
- Skydda nätsladden så att man inte kan trampa på den eller klämma den, särskilt intill stickkontakten, vid grenuttag och där den kommer ut från enheten.
- Använd bara anslutningar och tillbehör som specificeras av tillverkaren.
- Dra ur nätsladden före åskväder eller när enheten inte ska användas en längre tid.
- Överlåt all service åt kvalificerad servicepersonal. Service krävs när enheten är skadad på något sätt, t.ex. om nätsladden eller stickkontakten har skadats, om vätska eller främmande föremål har kommit in i enheten, om enheten har utsatts för regn eller fukt, om den inte fungerar normalt eller om den har tappats i golvet.
  - WARNING: VARNING Med tanke på risken för brand och elchock får enheten inte utsättas för regn eller fukt.
- Den medföljande nätsladden eller adaptorn måste vara av den typ som används i ditt land. Jämför stickkontakten på nätsladden eller adaptorn med eluttaget där enheten ska installeras.

Om du inte fick rätt stickkontakt **FÅR DU INTE** försöka anpassa den. Kontakta i stället omedelbart butiken eller TV Ones närmaste försäljningsställe och be att få rätt stickkontakt.

#### Intellektuell egendom

Vissa IC-chip i denna produkt innehåller konfidentiellt material och/eller företagshemligheter. Du får därför inte kopiera, modifiera, anpassa, översätta eller distribuera innehållet eller använda reverse engineering, assemblering eller dekompilering på det.

#### VIKTIGE SIKKERHETSANVISNINGER

For at du skal få mest mulig ut av dette produktet, ber vi deg lese denne håndboken nøye.

- Les disse anvisningene.
- Ta vare på disse anvisningene.

- Vær oppmerksom på alle anvisningene.
- Følg alle anvisningene.
- Ikke bruk dette apparatet i nærheten av vann.
- Må bare rengjøres med en tørr klut.
- Ikke blokker ventilasjonsåpningene. Må installeres i overensstemmelse med produsentens anvisninger.
- Må ikke installeres i nærheten av varmekilder som radiatorer, varmeapparater, komfyrer eller andre apparater (også forsterkere) som produserer varme.
- Ikke sett sikkerhetsinnretningen til det polariserte eller jordete støpselet ut av funksjon.
  Et polarisert støpsel har to pinner, hvor den ene er bredere enn den andre. Et jordet
  støpsel har to pinner pluss en tredje jordingspinne. Den brede pinnen eller tredje pinnen
  er der av hensyn til sikkerheten. Hvis støpselet som følger med ikke passer i kontakten,
  må du kontakte en elektriker for å få skiftet ut kontakten.
- Beskytt ledningen mot å bli tråkket på eller klemt, spesielt ved støpselet, stikkontakten og punktet hvor den kommer ut av apparatet.
- Ikke bruk andre typer tilbehør enn det som er angitt av produsenten.
- Koble apparatet fra strømforsyningen i tordenvær eller når det ikke skal brukes over en lengre periode.
- Overlat all service til kvalifisert servicepersonell. Apparatet trenger service hvis det på en eller annen måte har fått en skade, for eksempel at ledningen eller støpselet er ødelagt, det er blitt sølt væske på eller gjenstander har falt inn i apparatet, apparatet har vært utsatt for regn eller fuktighet, ikke fungerer som det skal eller har falt i gulvet.
  - WARNING: ADVARSEL For å redusere faren for brann eller elektrisk støt, må apparatet ikke utsettes for regn eller fuktighet.
- Strømledningen (vekselstrøm) eller adapteren som følger med enheten må tilsvare den typen som brukes i landet der du bor. Sammenlign støpselet på ledningen eller adapteren med stikkontakten der hvor enheten skal installeres.

Hvis du har fått feil støpsel, må du **IKKE** forsøke å modifisere det. I stedet må du straks kontakte forhandleren eller nærmeste salgskontor for TV One og be om riktig type støpsel.

#### Opphavsrett

Noen av IC-brikkene i dette produktet inneholder fortrolig informasjon og/eller fabrikkhemmeligheter. Du må derfor ikke kopiere, endre, tilpasse, oversette, distribuere, rekonstruere kildekodene til eller dekompilere noe av dette innholdet.

#### TÄRKEITÄ TURVALLISUUSOHJEITA

Lue tämä opaskirja huolellisesti, jotta saat parhaan hyödyn tästä tuotteesta.

- · Lue nämä ohjeet
- Säilytä nämä ohjeet
- Ota kaikki varoitukset huomioon
- Noudata kaikkia ohjeita
- Älä käytä tätä laitetta veden lähellä
- Puhdista vain kuivalla kankaalla
- Älä tuki ilma-aukkoja. Asenna laite valmistajan ohjeiden mukaisesti.
- Älä asenna laitetta lähelle lämpölähteitä, kuten esim. lämpöpatteria, lämmitintä, uunia tai muita lämpöä tuottavia laitteita (vahvistimet mukaan lukien).
- Älä tee tyhjäksi polarisoidun tai maadoitetun pistokkeen turvallisuustarkoitusta. Polarisoidussa pistokkeessa on kaksi kosketuspiikkiä, joista toinen on leveämpi.
   Maadoitetussa pistokkeessa on kaksi kosketuspiikkiä ja kolmas maattokosketin. Leveä kosketuspiikki tai kolmas maattokosketin on turvallisuusominaisuus. Jos toimitettu pistoke ei sovi pistorasiaan, pyydä sähköasentajaa asentamaan uusi pistorasia.
- Varmista, että verkkojohdon yli ei kävellä eikä se jää puristuksiin etenkin pistokeja liitinkohdista sekä laitteesta ulostulevista kohdista.
- Käytä vain valmistajan määrittämiä lisälaitteita/lisävarusteita.
- Kytke laite irti verkkovirrasta ukkosmyrskyn aikana tai silloin, kun sitä ei käytetä pitkään aikaan.
- Jätä kaikki huoltotoimenpiteet pätevän huoltohenkilöstön suoritettavaksi. Laite on toimitettava huoltoon, jos se on vahingoittunut jotenkin, kuten esim. verkkojohto tai pistoke on vioittunut, laitteeseen on joutunut nestettä tai laitteen päälle on pudonnut esineitä, laite on altistunut sateelle tai kosteudelle, laite ei toimi normaalisti tai se on pudonnut.
  - WARNING: VAROITUS! Älä altista tätä laitetta sateelle tai kosteudelle tulipalon tai sähköiskun vaaran vähentämiseksi
- Laitteen mukana tulevan verkkojohdon tai sovittimen tulee olla yhdenmukainen maassa jo käytössä olevien kanssa. Tarkasta, että verkkojohdon pistoke tai sovitin sopii asennuspaikassa olevaan pistorasiaan.

Jos laitteen pistoke on väärä, <u>ÄLÄ</u> yritä muunnella sitä. Ota heti yhteys jälleenmyyjään tai lähimpään TV One -myyntikonttoriin ja pyydä oikeaa pistoketta.

#### Immateriaaliomaisuus

Jotkut tässä tuotteessa olevat IC-sirut sisältävät luottamuksellista ja/tai liikesalaisuusomaisuutta. Sen tähden sisältöä ei saa kopioida, muokata, kääntää, jakaa, takaisinmallintaa, mallintaa symbolisella konekielellä tai kääntää takaisin.

# Introduction

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# **Shipping Carton**

Your CORIOmatrix will arrive boxed with internal foam inserts for maximum protection during shipping. You are encouraged to retain the box and all packing material so the unit can be returned in the unlikely event that repairs should ever become necessary.

## **Important Safety Instructions**

The AC power cable furnished with the unit should conform to the type in use in your country. Please compare the plug on your cable with the power socket where the unit will be installed.

If you did not receive the correct cable, **DO NOT** attempt to modify it. Instead, immediately contact your dealer or contact tvONE at the sales office nearest to your geographic location and request the proper cable.

Installation should be made such that the system fans are not blocked by other pieces of equipment, and such that they may not be accidentally touched by users.

## Connecting the PC to the CORIOmatrix

The physical connection between PC and CORIOmatrix is the same as with previous tvONE products. The CORIOmatrix can be connected to the PC through an Ethernet network, or by a serial (RS-232) cable.

By default, a CORIOmatrix running up-to-date firmware will be set to accept a DHCP-assigned IP address. If you do not know what this IP address is, use the CORIOdiscover application to configure the unit.

If you prefer not to use Ethernet, you can connect using a serial cable and use a third-party controller. (Crestron and AMX modules are available, or use a terminal emulator.)

For more information on configuring the connection, see "Configure Connection via Ethernet" on page 32 or "Configure Connection via Serial" on page 35.

# **Initial Operation Check**

This product can be operated via multiple methods, but this manual will address use of the device using an Ethernet connection and the CORIOmatrix web UI that is provided with the firmware. Although the unit can be controlled using an RS-232 serial connection and Crestron or AMX controllers, their use is not outlined here - to use those products, please see the documentation that is provided with that software.

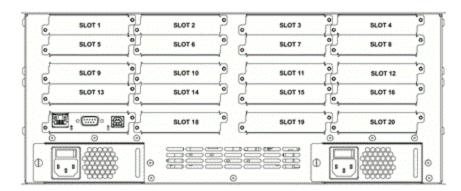
If you have problems using the unit as described in this document, see the "Troubleshooting" on page 136 section.

#### Connections

The rear of the CORIOmatrix has Universal DVI (DVI-U) input and output connectors. DVI-I signals can be connected directly using DVI-I cables. Due to the large number of connectors that may be attached, it is important to use fully screened cables with built-in Ferrite chokes to meet the emission standards.

The DVI-U port can use adapters (available from tvONE) to attach HDMI, composite video or analog signals to the DVI-U connector.

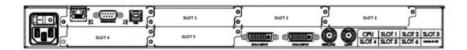
Below is a diagram of the rear of the CORIOmatrix. DVI-U cards can be placed in slots 1-16.



INPUT cards are painted black with white writing. They are placed in the unit from slot 1 onwards. The top row can only be inputs; remaining rows can be either inputs or outputs. Best practice is to add inputs in a left-to-right, top-to-bottom direction, while putting the first output card in slot 16 and working backwards.

OUTPUT cards are painted white with black writing. Output cards are placed after input cards; slot 5 is the first slot that will accept an output card. These outputs can do resolution conversion and can genlock to a separate input.

On a CORIOmatrix mini, there are six slots, and the sixth slot is a fixed DVI-U slot. Slots 1 through 5 can be filled with any combination of input and output cards, although it is still best practice to put inputs above and left of outputs. Below is a diagram of the rear of the CORIOmatrix mini.

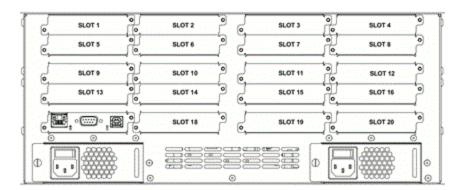


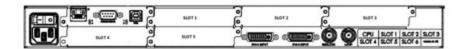


**Note:** Your CORIOmatrix or CORIOmatrix mini comes with various modules installed. CORIOmatrix mini modules are factory installed and cannot be replaced in the field by end users. CORIOmatrix module replacement should only be carried out by an authorized installer.

## Modularity

The CORIOmatrix and CORIOmatrix mini frames come as standard with a CPU module and an inbuilt Universal DVI card (with two inputs) and a single Power Supply Unit.





The video modules available for these units are **Universal DVI**, **3G-SDI**, **HD-SDI** and **HDBaseT**. You can also get an audio module and a monitor card.

Universal DVI <sup>1</sup>	CM-DVIU-2IN	CM-DVIU-SC-2OUT
3G-SDI	CM-3GSDI-2IN	CM-3GSDI-SC-2OUT
HD-SDI	CM-HDSDI-4IN <sup>2</sup>	
HDBaseT		CM-HDBT-SC-2OUT- 1ETH <sup>3</sup>

 $<sup>^1</sup>$ Universal DVI allows the connection of a number of different adapters for HDMI, VGA, Y/C, Composite, etc.

<sup>&</sup>lt;sup>2</sup>Although other modules have two connections, the HD-SDI card allows the connection of four HD-SDI connections.

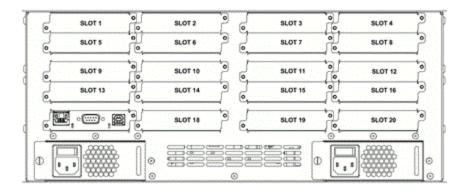
<sup>&</sup>lt;sup>3</sup>The HDBaseT module allows for transmission of uncompressed, HDMI-quality video, audio and LAN up to 100m with good quality cabling. The card has two independent HDBaseT outputs and a single LAN input, supporting 100Base-T.

#### Input and Output Naming Convention

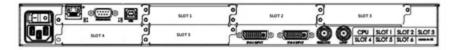
The CORIOmatrix protocol uses a fixed naming convention. You can create aliases within the control software but it is helpful to understand the default naming convention.

The naming is defined by the position of modules within the CORIOmatrix product. The figure below shows the unit as viewed from the rear. Each location in which a module can be placed is called a slot and each slot is numbered from the top left, going across then down.

The first slot is numbered 1; the last is 20. Slot 17 is a special slot holding the CPU card and slots 18,19 and 20 only work with data, not video signals.



On a CORIOmatrix mini, slots are also numbered left-to-right, but there are a total of six slots; slot six is already filled with DVI-U connectors. The CPU card is to the left of Slot 1.



The fixed label for slot 1 is Slots.slot1

The video modules have inputs and outputs. Most cards have two connectors per slot or per module that slides into the slot.

Inputs are addressed by in1 and in2; outputs are addressed by out1 and out2. HD-SDI input cards also have in3 and in4.

Like the slot numbering system, they are numbered from left to right when you are facing the rear of the CORIOmax.

The fixed label for the left-most input on slot 1 is Slots.slot1.in1

The fixed label for the left-most output on slot 13 is Slots.slot13.out1

The input numbering starts from 1 and continues to the number of inputs on that card. Likewise, the output numbering starts at 1 and continues to the number of outputs on that card. So an input

card in the first slot with four connectors would be slot1.in1, slot1.in2, slot1.in3, and slot1.in4, while an output in slot 14 with two connectors would be slot14.out1 and slot14.out2, labeled from left to right.

These names may also be abbreviated to the first initial, so in the examples above, the inputs could also be s1i1, s1i2, s1i3 and s1i4 while the outputs would be s14o1 and s14o2. These are the default labels in the software unless you change them.

# **Supported Browsers**

The CORIOmatrix web UI has been written for and tested in certain select browsers. If you attempt to access your CORIOmatrix web UI through an unsupported browser, it may not perform as expected. Symptoms range from inability to access the UI past the login page to graphical anomalies or functional loss of features.

The browsers which are supported for use with the CORIOmatrix web UI are the Windows, Mac or Linux versions of:

- Firefox version 28 or newer
- Chrome version 34 or newer
- Safari version 6 or newer
- Internet Explorer version 10 or newer

## Configure Connection via Ethernet

If you wish to connect to a CORIOmatrix using an Ethernet connection, the process should be simple, as any CORIOmatrix with up-to-date firmware (M300 or later) defaults to DHCP and should be discoverable on your network. tvONE recommends that you change any CORIOmatrix device in a fixed networked installation to a static IP address.

Initially, your CORIOmatrix will acquire an IP address via DHCP. Use the CORIOdiscover application provided on the USB memory stick included in the box to find and configure your CORIOmatrix.

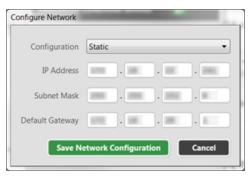


As well as installing the CORIOdiscover application, make sure your computer and the CORIOmatrix are on the same Ethernet network. If you do not want the CORIOmatrix on your network yet, you can connect the computer directly to the CORIOmatrix via Ethernet and configure it with this direct IP connection.

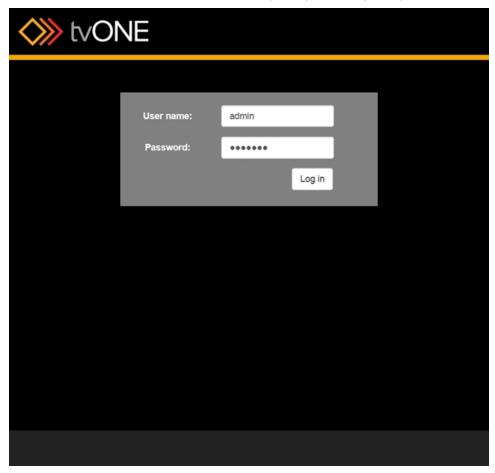
1. Once the CORIOmatrix and your PC are on the same network or directly connected, open the CORIOdiscover application which automatically scans for any CORIO devices. The application automatically refreshes data every few seconds and any changes will appear within ten seconds. If you wish to re-scan on demand, click the green refresh button at the top right.



- 2. If you have multiple devices on the network, identify the specific CORIOmatrix you wish to configure by verifying the serial number in the application (the serial number is located on a sticker underneath the unit).
- 3. Click the corresponding line to highlight the CORIOmatrix and click the Configure button.
- 4. In the resulting pop-up window, you can change the configuration to Static and enter the appropriate network settings for the CORIOmatrix as determined by your systems administrator.



- 5. Click the Save Network Configuration button to commit your changes and restart the unit. The window closes, and CORIOdiscover scans the network again, allowing you to confirm the network settings on the unit. While the unit is restarting, it appears as "Offline" in the device. Once the reboot is completed, you can select the appropriate line.
- 6. Select the unit in CORIOdiscover and click the Open button to open the device in your default web browser<sup>1</sup>. Alternatively, in the web browser of your choice, type the IP address of the CORIOmatrix into the address bar and press return.
- 7. The CORIOmatrix serves a web interface, beginning with a login page.



8. Type the appropriate username and password into the fields (default username is admin and password is adminpw) and click Log in.

<sup>1</sup>For a list of supported browsers, see "Supported Browsers" on page 31

### Configure Connection via Serial

By default, any new CORIOmatrix defaults to a DHCP network connection. If you wish to connect to a CORIOmatrix using a serial (RS-232) connection, you need to use a third-party controller such as those provided by Crestron or AMX. These third-party products use a series of API commands to control the unit, or you can use a HyperTerminal application; if you want to control the unit manually, you can download a manual of API commands from the tvONE website.

If you wish to simply connect to the CORIOmatrix in order to configure network settings, follow these steps:

- 1. Connect your control computer directly to the CORIOmatrix using a serial (RS-232) cable.
- 2. Using a HyperTerminal application, connect to the CORIOmatrix (instructions will vary depending on software used). Once connected, you can use the command line to log in and configure network settings as needed:
- 3. Once the CORIOmatrix is responding, type login (admin, adminpw) and press Return to connect and authenticate. The response, if successful, is !Info: User admin Logged In.
- 4. There are two potential IP address settings the static IP settings and the DHCP settings. If you want to configure a static IP, you need to disable DHCP as those settings will override static IP settings. Type System.Comms.Ethernet.DHCP.Enabled = Off to disable DHCP. The system will echo the command if it was successful.
- 5. Configure your static IP and other network settings by using the following commands, using the Return key after each command:
  - System.Comms.Ethernet.IP Address = <enteryour static IP address>
  - System.Comms.Ethernet.IP Subnet Mask = <entersubnet mask>
  - System.Comms.Ethernet.IP\_Gateway = <entergateway address>
- 6. Type System.Comms.Ethernet and press Return; this command will return all Ethernet settings and you can verify the addresses you just input.
- 7. When you have the settings as desired, type <code>System.SaveAllSettings()</code> (including the open and close parentheses at the end) and press Return to save your changes to the <code>CORIOmatrix</code> memory.
- 8. In order to make the network settings active, restart the CORIOmatrix. The easiest way to do this via the command line is to type System.Reset () and press Return. You are disconnected from the unit while it restarts, but after it restarts you can access it via the static IP you configured.

# **Getting Started**

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## Configuring Inputs and Outputs

When you begin to use the Routing Page, the software will automatically retrieve information on the cards that are installed in your unit. Inputs appear vertically down the left side of the page; outputs appear horizontally across the top of the page.

When you have logged in to the CORIOmatrix web interface, the first screen you see is the routing table. This is the default, with Video and Audio both selected. Upon loading, the software automatically retrieves information on the cards that are installed in your unit. Inputs appear vertically down the left side of the page; outputs appear horizontally across the top of the page.



You can configure Input settings by clicking the gear icon next to the input's alias. In the

right-hand pane, Input Settings appears and allows you to modify the alias (the name which appears in the Routing table) or view the full name and status. From this pane, you can also click the Configure button to access more settings for a video input card; no additional settings are available for audio input cards. See "Configuring Input Settings" on page 68 for more information.

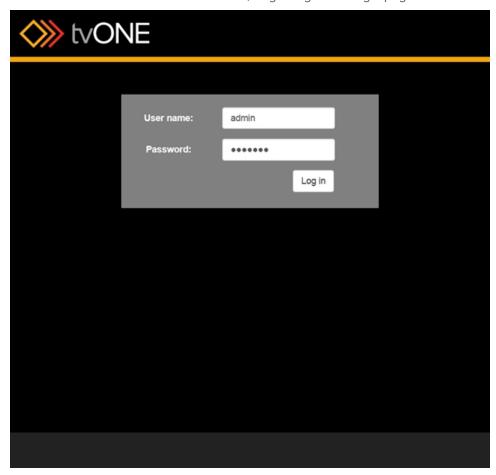




## Log In

Assuming you have already configured the CORIOmatrix, these instructions tell you how to log in to the web interface on the unit. If you still need to configure the CORIOmatrix for your network, see "Configure Connection via Ethernet" on page 32.

- 1. Select the unit in CORIOdiscover and click the Open button to open the device in your default web browser. Alternatively, in the web browser of your choice, type the IP address of the CORIOmatrix into the address bar and press return.
- 2. The CORIOmatrix serves a web interface, beginning with a login page.



3. Type the appropriate username and password into the fields (default username is admin and password is adminpw) and click Log in.

# Log Out

When you have finished configuring or using the CORIOmatrix, tvONE recommends that you log out of your session and close the browser window, for security reasons.

To log out of the CORIOmatrix web interface, click the **Logout** button in the top right corner of the Routing Page:



## **Restoring Previous Settings**

If you have a CORIOmatrix that has been running previous versions of tvONE software and you are now upgrading the firmware on the unit to use the web interface, you are likely to want to retain your settings. If this is the case, be sure to follow these steps to transfer your configuration data to the new UI.

#### Backing Up Settings

To back up your existing settings to internal memory:

- Connect via RS-232 or Ethernet using the control interface or a HyperTerminal-type program.
- 2. In the command line, once you are logged in, type System.BackupToSDCard()
  The unit returns ! Done system.BackupToSDCard which indicates the command has been accepted but not yet completed. The system then displays feedback showing data backing up to the internal memory.
  When the backup is complete, the display shows Backup: Complete.

#### **Updating Firmware**

The CORIOmax family has been designed to update both software and firmware easily, to enable new facilities to be easily incorporated into units in the field. After powering up the unit and logging in using the RS-232 port, the new firmware is uploaded from a PC connected via the unit's rear USB connector, as follows:

#### Connecting a PC to the CORIOmatrix and Transferring Files

- 3. Connect a PC to the CORIOmatrix via the unit's rear USB port. The PC locates an external drive called TVONE, which is the internal SD card on the CORIOmatrix.
- 4. In order to update the firmware, you need to drop two files into the root directory of this drive.
  - a. The first file is a PLSBOOT file which is a 12-character long file that defines which of the firmware files to load (the PLSBOOT file can also be directly edited on the drive if necessary.)
  - b. The second is the firmware file, which contains all the sub-files required to load the system. There can be any number of firmware files in the directory; the PLSBOOT file will tell the system which to use during startup. The name of the firmware file varies depending on the model of the unit and the version of firmware. (Mxxx refers to the version number.)

Model of unit	Firmware file
CORIOmatrix	M <sub>XXX_yy</sub> s.dat
CORIOmatrix mini	M <sub>XXX_yy</sub> R.dat
CORIOmaster	M <sub>XXX_yy</sub> M.dat

CORIOmaster mini Mxxx\_yyL.dat

5. Be sure you have copied the new firmware file and PLSBOOT file into the root directory of the TVONE drive.

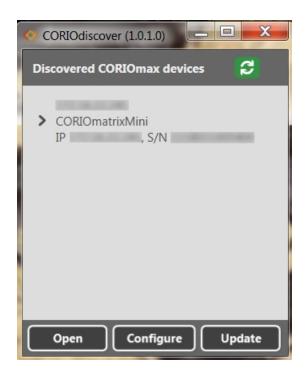
#### Running the Firmware Update

- 6. After transferring the new firmware and PLSBOOT files, eject the TVONE drive, disconnect the USB cable and return to the RS-232 control.
- 7. From the command line, type, <code>Coriomax.Software\_Update()</code>
  The reply shows that the <code>PLSBOOT</code> file has been found and that it is loading the <code>Mxxx\_yyZ.dat</code> file. The process checks the file for integrity and starts erasing the flash files, deleting and replacing the contents. When the process is complete, a message appears stating <code>Update successful</code> followed by an automatic system reboot. If the update fails at any stage, a command prompt appears: <code>TVONE></code> If this happens, start the update process again at step 3 above.

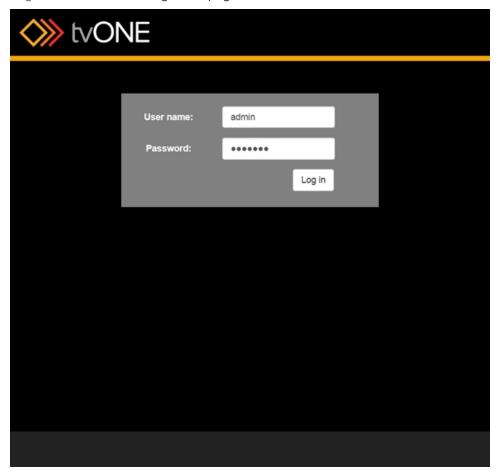
#### Restoring Backed-Up Settings

Once you have installed the new firmware that includes the CORIOmatrix web controls, you can restore your settings from backed-up memory:

8. Use the CORIOdiscover app to find your unit on the network, and open it in a web browser.



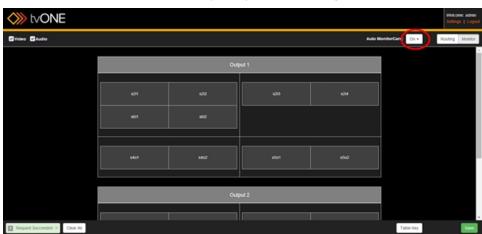
9. Log in as described in "Log In" on page 39.



10. If you have a Monitor card in your CORIOmatrix and have already configured monitor settings you wish to restore, click on the **Monitor** button in the top right corner

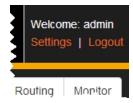


and change the Auto MonitorCard: settings to Off. If you do not have a Monitor card, the

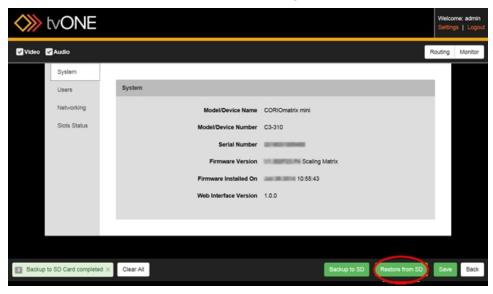


Monitor button does not appear on your system, so disregard this step.

11. Click the **Settings** button in the top right corner.



12. At the bottom of the Settings page, click the **Restore from SD card** button, and follow the steps described in "Restore from SD Card" on page 58.



# Settings

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# Settings

To access the settings of your CORIOmatrix, log in as the administrator and click the Settings button in the top right corner of the Routing Page.



From the Settings area, you can access <u>information</u> about your CORIOmatrix, <u>change passwords</u>, <u>configure networking</u>, <u>review or adjust slot configurations</u>, <u>back up to an onboard SD card</u>, or <u>restore from the onboard SD card</u>.

# System

From the Settings window, you can make various changes to the CORIOmatrix, and you can find information about the unit.

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.



2. Choose the System option in the left sidebar.



In the right-hand pane, you see various information including the device name, model number, serial number, firmware version, and the date the firmware was installed. None of this information is editable but it is provided for informational purposes.

3. If you wish to exit Settings, click the Back button in the bottom right to return to the Routing Page.

#### Users

The CORIOmatrix web UI has two user roles, in order to streamline privileges.

**Admin**, the administrator, can do everything including changing routing settings, saving Presets, and resetting passwords for other users.

**Users** can switch between Presets and change the password for that user.

When a user creates a password, the password is stored securely on the device, and is not displayed during transmission over the API. Only the administrator can reset another user's password.

To change passwords, follow these steps:

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.





2. Choose the Users option in the left sidebar.

In the right-hand pane, note sections for each user - the Admin and Users 1-4. User names are not modifiable but you can change the password for any user by entering the new password twice and clicking the Update button to the right of the text fields. If the Update button doesn't become available, the text in the two password fields does not match.

- 3. Check the notifications in the bottom left corner of the screen to make sure the password change was successful. If it was unsuccessful, the notification box will change from green to red.
- 4. If you wish to exit Settings, click the Back button at the bottom right to return to the Routing Page.

## **Networking**

From the Settings window, you can make various changes to the CORIOmatrix, including adjusting the network settings.

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.



2. Choose the Networking option in the left sidebar.



In the right-hand pane, you see various options that allow you to choose a static or dynamic IP address as well as configure subnet mask and gateway details.

- 3. On the top line, Configuration, choose from the drop-down whether you will be using a Static IP address or if the address will be configured by DHCP. (If you choose DHCP, neither IP Address nor Subnet Mask will be configurable.)
- 4. If you chose Static:
  - 1. In the second field, enter the appropriate IP Address.
  - 2. In the third field, enter the appropriate Default Gateway .
  - 3. In the fourth field, enter the appropriate Subnet Mask.
- 5. Click the Update button to save this information.
- 6. An authentication window may require you to re-confirm the admin user credentials to verify the change. Enter the administrator username and password and click Log In.

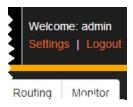
7. If you wish to exit Settings, click the Back button in the bottom right to return to the Routing Page.

For assistance with configuring network settings on first boot, see "Configure Connection via Ethernet" on page 32 and "Configure Connection via Serial" on page 35.

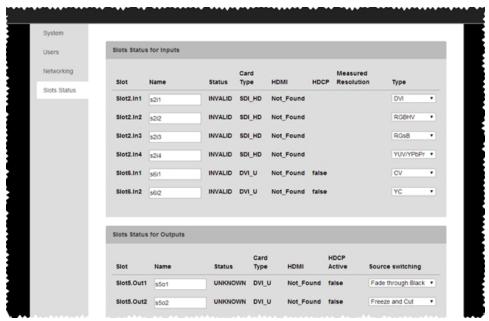
### Slots Status

From the Settings window, you can make various changes to the CORIOmatrix, and you can modify settings for the input and output slots. Be aware that any change you make is saved as soon as you exit the field, so there is no need to save changes once you finish making modifications.

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.



2. Choose the Slots Status option in the left sidebar.



In the right-hand pane, you see various information about the inputs, another section for outputs, a third section for audio inputs, and a fourth section for audio outputs. Editable fields are identified by text boxes or drop-down menus.

- 3. Specify the name for any inputs or outputs you wish to modify. These names can be up to 19 characters, must start with a letter, and contain letters, numbers, or the underscore "\_" symbol.
  - For inputs, you can specify the video type by selecting from the drop-down list. Choices

- are DVI, RGBHV, RGsB, YUV/YPbPr, CV or YC. For outputs, you can specify the way to handle source switching. Choices are Fade through Black or Freeze and Cut.
- 4. If you wish to exit Settings, click the Back button in the bottom right to return to the Routing Page. Remember that changes are committed as soon as you exit the field or select the drop-down, so there is no need to save changes before leaving the page.

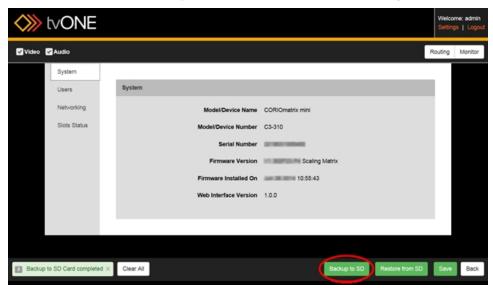
## Backup to SD Card

From the Settings window, you can back all of your current configuration up to the internal SD card within the CORIOmatrix. If you wish to do this:

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.



2. At the bottom of the window, you can see various buttons, including **Backup to SD**.



If you have made any changes, be sure to click the **Save** button before backing up, to ensure that the backup includes the most current modifications.

3. Click the Backup to SD button. A progress bar appears, asking you to please wait.



4. When the backup is finished, the progress bar disappears and the notification area informs you that the backup was successful:



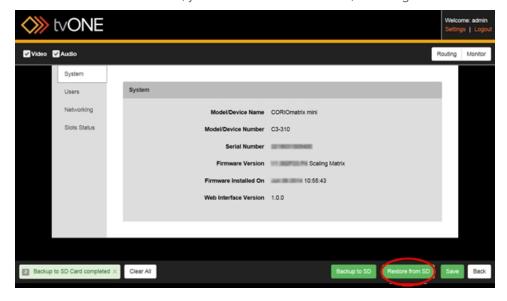
### Restore from SD Card

From the Settings window, you can restore your saved configuration that has been previously saved on the internal SD card within the CORIOmatrix. If you wish to do this:

1. While connected to a CORIOmatrix as the administrator, click the Settings button in the top right corner.



2. At the bottom of the window, you can see various buttons, including **Restore from SD**.



3. Click the **Restore from SD** button. A confirmation window appears, asking you to verify your choice.





**Caution:** If you choose to restore from the SD card, you will delete the active configuration.

4. If you are sure you want to restore the settings, click the **OK** button. A series of two progress bars appear. The first says "Please wait" while settings copy from the SD card:

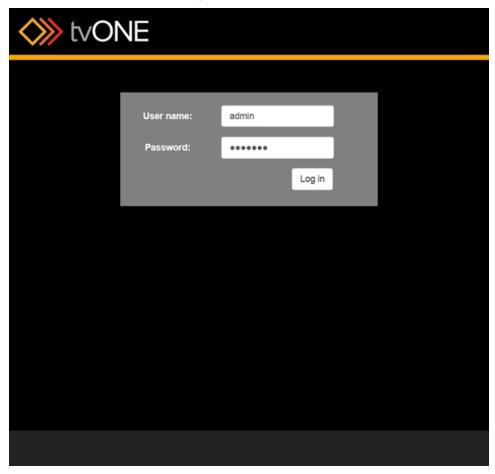


The second progress bar indicates that the CORIOmatrix is restarting with the restored settings:



5. When the CORIOmatrix has completed rebooting and the web interface is available again, your browser window will return to the login page of the web interface. Log in and

proceed with the restored settings.



If you have any issues following these steps while using Chrome, Firefox or Safari, please see "Troubleshooting - Doesn't Reconnect After Restore" on page 139.

# Routing

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## **Routing Overview**

The Routing page is the first page you see after you log in. This is the main page of the web interface, from which you access all other pages.



The first time you log in to your CORIOmatrix as an administrator, the page will look like the screenshot above - input and output aliases set to default, no routing information, no presets defined, and the interface defaulting to Synchronised.

The main part of the page is a table showing inputs listed vertically on the left and outputs listed horizontally across the top.

To configure routing, find the cell that is the intersection of the desired input and the desired output, and select that cell. More details are available in "Setting routing options" on page 67.

The interface is also made up of several other components, outlined here:

- The "Welcome corner" on the next page in the top right corner shows which user you are logged in as, and allows you to log out or access settings.
- The "Notification box" on page 65 in the bottom left corner indicates what responses have been received from the unit.
- The "Presets pane" on page 66 at the right shows presets by default but can also be an input/output configuration pane.

## Welcome corner



In the top right corner of the Routing page are the words "Welcome: admin" if you are logged in as the administrator. If you log in as a user, the username is shown in the top right corner, and some of the options available to administrators such as settings, defining presets, and monitor card access are not available when you are logged in as a user. The rest of this document will generally assume that you are logged in as the administrator; if you are logged in as a user and do not see a feature described in this documentation, it may not be available to a non-admin-

istrator. Log out and log back in as the admin user in order to take advantage of all features.

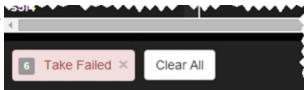
Below the greeting are two links, for **Settings** and **Logout**. Click the **"Settings" on page 48** button to see and edit various configurable options. Click **Logout** if you wish to exit the CORIOmatrix Web Interface.

#### Notification box



A notification in the bottom left corner of the Routing page reads "Request Succeeded" when you first log in, to indicate that your login was successful. This notification area is green when commands sent to the CORIOmatrix have been successful.

If a command has failed, the notification area turns red and gives a brief textual indicator of the issue. This can be the result of a variety of symptoms but the most common issue to check is that the CORIOmatrix is still on and connected to the network. If the connection to the CORIOmatrix is broken,



you may still seem to be connected to the web interface, but no commands are reaching the unit. If the unit is no longer connected, an error message is returned within 60 seconds of the unsuccessful command being sent.

The number on the far left of this area, in a gray box, shows how many messages are queued. Click the gray X on the right side of the notification box  $\mathbf{x}$  to dismiss a single message and see

the previous message, or click the **Clear All** button to dismiss all messages. If you have dismissed all notifications, this area of the window will remain blank until the next request is made that generates a success or failure notification from the CORIOmatrix. For more information on the commands being sent between the web interface and the CORIOmatrix, see the API documentation available from the tvONE **website**.

# Presets pane



The far right of the Routing page screen contains a contextual pane. If nothing else has been selected, it shows the Presets. You can add, edit, or delete presets from this pane. (See "About Presets" on page 123 for more information.) If you select an input or output to configure, this pane becomes a settings pane for that input or output.

## Setting routing options

The main part of the Routing page is a table showing inputs listed vertically on the left and outputs listed horizontally across the top. A checkbox above the table allows you to select only video, only audio, or both. For the purposes of this manual, we generally use a table showing both video and audio options.

To configure routing, find the cell that is the intersection of the desired input and the desired output, and select that cell. The options available depend on what sort of input and output are detected/configured.

If video is an option for the given cards, clicking into a cell sets the video routing for that input to that output. (That cell of the table shows a blue lozenge to indicate the pairing.) A drop-down menu in the cell allows you to choose audio configuration options from **Off**, **AFV** (audio follow video), **BreakAway**, or **Configure...**. The top option, **Remove**, can be used if you want to delete the configurations that have been made in that cell.



**AFV** or Audio Follow Video indicates that the audio routing is defined at the input. This often means that the audio comes from that source, but it can mean that any time that video source is selected, the audio is defined as coming from another input. AFV audio sources are the default embedded source or any audio input, embedded or external AES. AFV audio channels are configured in the Input Settings or from the **Configure...** menu option in the cell's drop-down menu.. See "Routing Audio with Input (AFV)" on page 114 for more information.

**BreakAway** indicates that the audio routing is defined at the output. By default, breakaway audio uses the same source for video and audio input, but it can mean that anytime that output is selected, the audio is configured to come from a different source. BreakAway audio channels are configured from the **Configure...** menu option in the cell's drop-down menu. See "Routing Audio with Output (BreakAway)" on page 119 for more information.

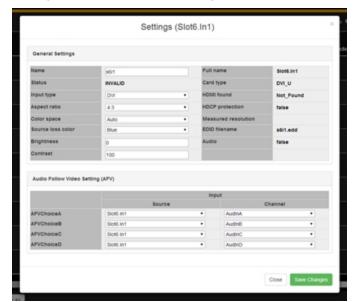
# **Configuring Input Settings**

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. To do this:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:



From this pane, you can change the alias, if you wish to rename the slot to something more memorable, such as "BluRay". The alias must begin with a letter and contain only letters, numbers, and underscores (no spaces), maximum 19 characters. If this is all you wish to modify, press the **Done** button and return to the Routing page.



3. If you wish to configure more than simply the alias, click the **Configure** button in the bottom right hand corner of the settings pane. A new window pops up:

- 4. From this window, you can again adjust the alias, as above; you can set the aspect ratio, adjust the color space, define the source loss color, and define brightness and contrast for the slot. This window also tells you details about the slot such as name, detected card type, HDMI status and HDCP protection, measured resolution, the EDID filename and whether audio is detected. Some of these items are only available on DVI cards; the input settings for SDI cards will have blank fields for inapplicable options such as EDID filename, HDMI and HDCP.
  In addition, you can configure the AFV (Audio Follow Video) in this section. From here, you can define the AFV settings for this input on a per-channel basis, both slot and chan-
- nel.

  When you have finished configuring the input to your requirements, click the **Save**.
- 5. When you have finished configuring the input to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

# **Configuring Input Alias**

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. There are two ways to configure the alias of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot. If you only wish to change the alias of the input, you can type it into the text field here the name must begin with a letter and be a maximum of 19 alphanumeric characters (no spaces, but an underscore "\_" is fine):



If that is all you wish to change, be sure to click the **Done** button to commit the change and the **Save** button to save changes.

3. If you wish to modify more than just the alias, click the **Configure** button in the bottom right hand corner of the settings pane. A new window pops up:



- 4. From this window, **Name** (same as **Alias**) is in the left column, at the top. You can type into this text field to set an alias, just as above.
- 5. When you have finished configuring the input to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

# Configuring Input Aspect Ratio

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

The signal coming in to the CORIOmatrix can be in a variety of possible aspect ratios. You can configure the desired aspect ratio in the input settings.

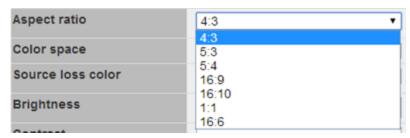
To configure the aspect ratio of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





4. From this window, **Aspect ratio** is in the left column, halfway down. Click on the drop-down menu to choose the aspect ratio you prefer from such options as 4:3, 5:3, 5:4, 16:9, 16:10, 1:1, and 16:6.



#### **Configuring Input Brightness**

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

You can adjust the brightness and contrast of the incoming signal, which may be useful when you are switching between and matching sources of varying brightness and contrast levels.

To configure the brightness of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





- 4. From this window, **Brightness** is in the left column, towards the bottom. Click into the text box and type an integer between -30 and 30. The default value is 0.
- 5. When you have finished configuring the input to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

# Configuring Input Color Space

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. To configure the color space of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





4. From this window, **Color space** is in the left column, halfway down. Click on the drop-down menu to choose the color space you prefer. Options depend on what the input type is, but may include Auto (automatically selects based on source type), Black (blanks the input), RGB (for RGB inputs), YUV (defaults to 709 for 720p/1080i/1080p resolutions; defaults to 601 for all other resolutions)), YUV\_601, and YUV\_709 (both specific options within the YUV color space).



5. When you have finished configuring the input to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.



**Note:** Selecting the color space does not affect the configured Output Display Type. To adjust the Output Display Type, see "Configuring Output Display Type" on page 96.

# **Configuring Input Contrast**

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

You can adjust the brightness and contrast of the incoming signal, which may be useful when you are switching between and matching sources of varying brightness and contrast levels.

To configure the contrast of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





- 4. From this window, **Contrast** is in the left column, at the bottom. Click into the text field and select a value (as a percentage) between 30 and 130. The default value is 100%.
- 5. When you have finished configuring the input to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

# Configuring Input Type

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

A Universal DVI (DVI-U) input is capable of receiving a number of different signals, and you can configure the input to the expected signal type.

To configure the input type of the input:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





4. From this window, **Input type** is in the left column, halfway down. Click on the drop-down menu to choose the appropriate input type. Choices include DVI (the digital option - choose this for HDMI input); RGBHV (analog RGB with HV, separate horizontal and vertical sync); RGsB (Analog RGB with sync on Green); YUV/YPbPr (YUV with sync on Y - use this also for YPbPr component analog); CV (Composite Video); and YC (Luminance and Chrominance).



# Configuring Source Loss Color

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

If the input source is disconnected, the video feed will switch to a blank screen. You can configure the color you would like the screen to show in the event that there is no video feed coming in.

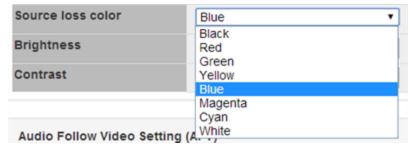
To configure the source loss color:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





4. From this window, **Source loss color** is in the left column, halfway down. Click on the drop-down menu to choose the color you prefer to display if there is no input signal. Choices include black, red, green, yellow, blue, magenta, cyan and white. If you do not configure this setting, the default color is blue.



# Reading Input Values from Input Settings

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. Some information is not configurable, but you can check what the settings are in the Input Settings window.

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that input, including the full name, the alias, and the status of the slot:





- 4. In Status on the left column and the entire right-hand column, you are shown settings that are detected by the system. These are not configurable but may be useful for troubleshooting purposes. From this page, you can learn the status of the current input connection, the full name of the slot in question, what type of card is detected, whether HDMI is detected (options are "Found" or "Not\_Found"), whether HDCP is enabled, the measured resolution of the input signal, the location of the EDID file for this input, and whether input audio is detected. The options available here will vary depending on type of module; if an option is not relevant for a certain module, it will not be shown in this window.
- 5. As there are no modifiable values discussed here, click **Close** to exit back to the Routing table. (If you have made any changes to modifiable fields, click the **Save changes** button first, or you will lose the changes when you close the window.)

# **Configuring Output Settings**

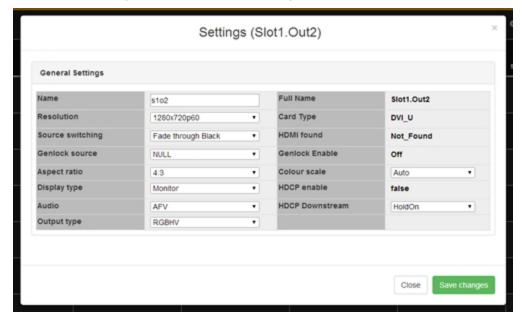
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. To do this:

- 1. Click on the gear icon  $\mathbf{Q}$  next to the output you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, and the status of the slot:



From this pane, you can change the alias, if you wish to rename the slot to something more memorable, such as "Main\_LCD". The alias must begin with a letter and contain only letters, numbers, and underscores (no spaces). You can also adjust the resolution of the output from the drop-down list of selections. If this is all you wish to modify, press the **Done** button and return to the Routing page.

3. If you wish to configure more than simply the alias or resolution, click the **Configure** button in the bottom right hand corner of the settings pane. A new window pops up:



- 4. From this window, you can again adjust the alias and resolution, as above; you can set the source switching method, identify a genlock source, set the aspect ratio, define the display type, select the audio option, define the output type, set color scale and toggle HDCP downstream settings for the slot. This window also tells you details about the slot such as name, detected card type, measured resolution, and whether audio is detected. Some of these items are only available on DVI cards; the output settings for SDI cards will have blank fields for inapplicable options.
- 5. When you have finished configuring the output to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

#### **Configuring Output Alias**

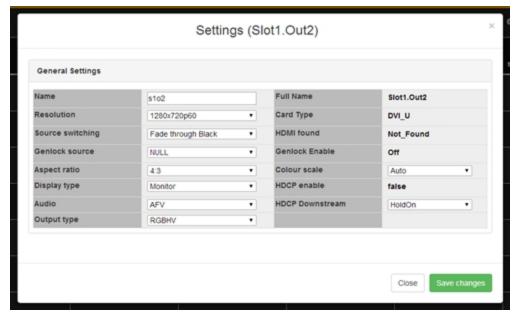
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. There are two ways to configure the alias of the output:

- 1. Click on the gear icon  $\bigcirc$  next to the output you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot and the resolution. If you only wish to change the alias of the output, you can type it into the text field here the name must begin with a letter and be a maximum of 19 alphanumeric characters (no spaces, but an underscore "\_" is fine):



If that is all you wish to change, be sure to click the **Done** button to commit the change and the **Save** button to save changes.

3. If you wish to modify more than just the alias, click the **Configure** button in the bottom right hand corner of the settings pane. A new window pops up:



- 4. From this window, **Name** (same as **Alias**) is in the left column, at the top. You can type into this text field to set an alias, just as above.
- 5. When you have finished configuring the output to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.

#### Configuring Output Aspect Ratio

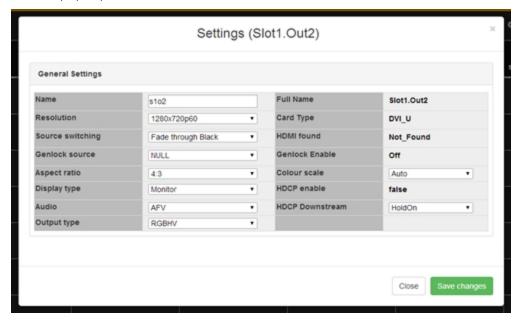
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

The signal going out of the CORIOmatrix can be in a variety of possible aspect ratios. You can configure the desired aspect ratio in the output settings.

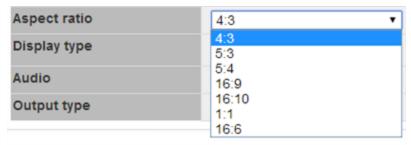
To configure the aspect ratio of the output:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Aspect ratio** is in the left column, halfway down. Click on the drop-down menu to choose the aspect ratio you prefer from such options as 4:3, 5:3, 5:4, 16:9, 16:10, 1:1, and 16:6.



# **Configuring Output Audio**

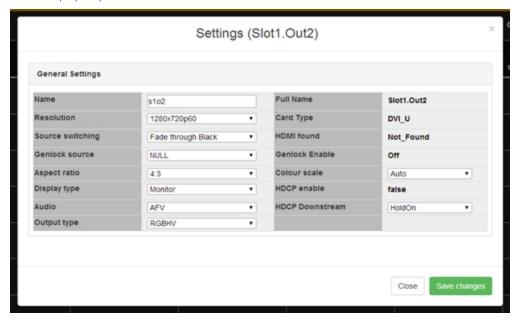
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

The audio on each output is displayed graphically in the routing table (see "Routing Audio with Output (BreakAway)" on page 119) and can be configured directly from the cell in the routing table, but you can also configure an output's audio from the settings for that particular output.

To configure the audio of the output from within the output settings:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Audio** is in the left column, towards the bottom. Click on the drop-down menu to choose the audio you prefer - Off, AFV or BreakAway. Note that setting the AFV or BreakAway preference here does NOT define which input the audio is coming from, it simply sets a preferred default state for this output.



5. When you have finished configuring the output to your requirements, click the **Save changes** button and the window closes, returning you to the Routing table.



**Note:** For more details on audio routing within the routing table, see "Routing Audio with Input (AFV)" on page 114 and "Routing Audio with Output (BreakAway)" on page 119.

#### Configuring Output Color Scale

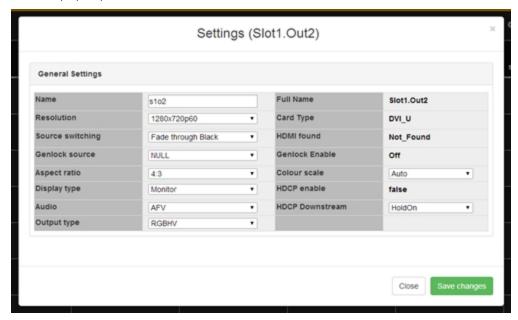
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

A Universal DVI (DVI-U) output is capable of sending a number of different signals, and you can configure the output to the expected signal type.

To configure the color scale of the output:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Color scale** is in the right column, halfway down. Click on the drop-down menu to choose the color scale you prefer. Options may vary, but may include Auto, Black, RGB, YUV, YUV\_601, and YUV\_709.

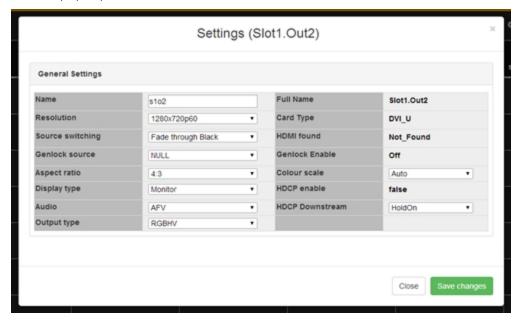


# Configuring Output Display Type

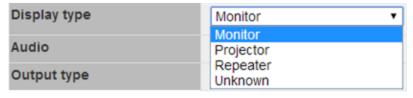
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. To configure the display type of the output:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Display type** is in the left column, halfway down. Click on the drop-down menu to choose the display type you prefer, from such choices as Monitor, Projector, Repeater, and Unknown.



#### Configuring Output Genlock Source

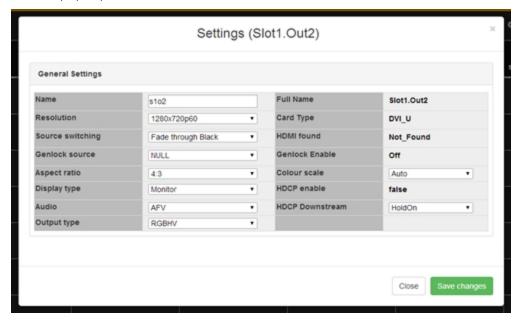
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

Genlock allows you to synchronize one or more outputs to a compatible input. Note that in order to genlock, the resolution and frame rate of the output and input must match exactly. If they do not match exactly, despite having selected a source, the Output setting "Genlock enable" will show "Off" to indicate that genlock was not achieved. If this is the case, check available resolutions and frame rates of both output and input to try to find a match.

To configure the genlock source of the output:

- 1. Click on the gear icon next to the output you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Genlock source** is in the left column, halfway down. Click on the drop-down menu to choose the source you would like to genlock to.



#### Configuring Output HDCP Downstream

The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

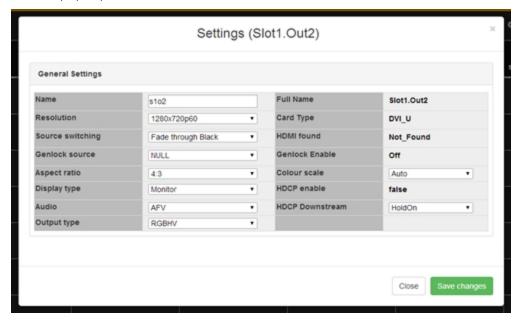
The HDCP Downstream feature gives you the ability to change the way each output handles "HDCP Downstream" communications.

- In the default setting, "Hold On", the Output is permanently HDCP enabled and will work if the display device is HDCP compliant.
- The "Keep Off" option disables HDCP on the Output, meaning that only non-HDCP sources will work on the Output.
- The "Follow Sources" option turns the HDCP on the output on or off depending on source stream - if HDCP is present on the source stream, it will require HDCP compliance from downstream devices.

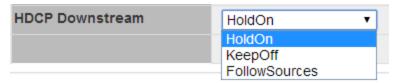
To configure the HDCP settings of the output:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





 From this window, HDCP Downstream is in the right column, at the bottom. Click on the drop-down menu to choose the HDCP settings you prefer- HoldOn, KeepOff or FollowSources.



#### **Configuring Output Resolution**

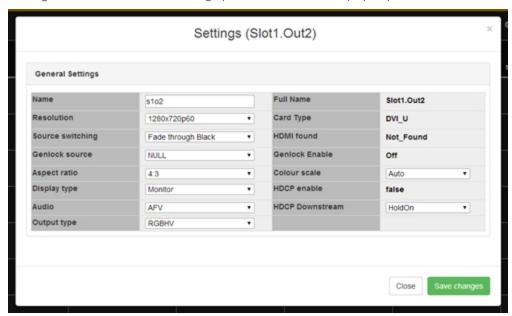
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information. There are two ways to configure the resolution of the output:

- 1. Click on the gear icon  $\bigcirc$  next to the output you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution. If you only wish to change the resolution of the output, you can choose your preferred resolution from the drop-down list here:

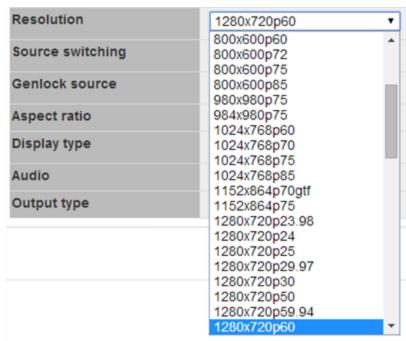


If that is all you wish to change, be sure to click the  $\bf Done$  button to commit the change and the  $\bf Save$  button to save changes.

3. If you wish to modify more than just the resolution, click the **Configure** button in the bottom right hand corner of the settings pane. A new window pops up:



4. From this window, **Resolution** is in the left column, near the top. Click on the drop-down menu to choose the resolution you prefer.



#### Configuring Source Switching

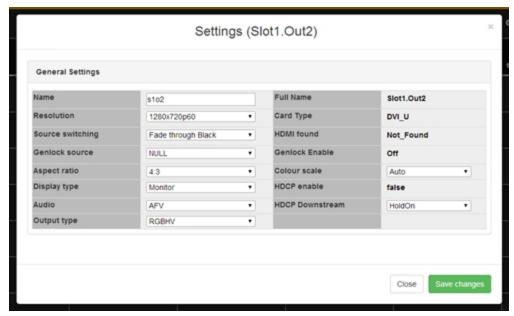
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

On occasions, you may find you want to quickly switch between inputs. There are two methods provided for this. **Fade through Black**, the default, fades a source out to black and fades the incoming source from black, giving a smooth transmission. **Freeze and Cut** freezes the first source and cuts the incoming source in from the frozen image.

To configure the behavior of source switching for the output:

- 1. Click on the gear icon next to the output you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





4. From this window, **Source switching** is in the left column, halfway down. Click on the drop-down menu to choose the source switching transition you prefer - Fade through Black or Freeze and Cut.



# Configuring Output Type

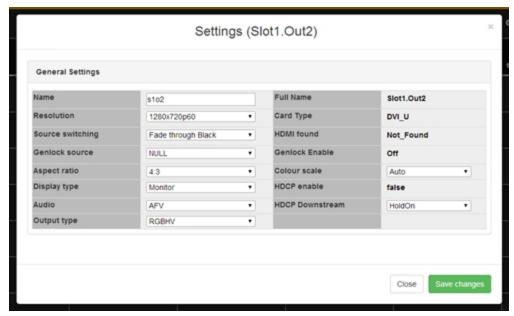
The CORIOmatrix web interface automatically populates with some data about your input and output cards. There are some aspects that you can configure in addition to the default information.

A Universal DVI (DVI-U) output is capable of supporting a number of different connection formats, and you can configure the output to the appropriate signal type.

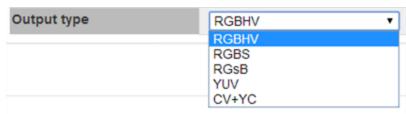
To configure the type of the output:

- 1. Click on the gear icon next to the input you wish to configure.
- 2. The right-hand pane shows some information about that output, including the full name, the alias, the status of the slot, and the resolution:





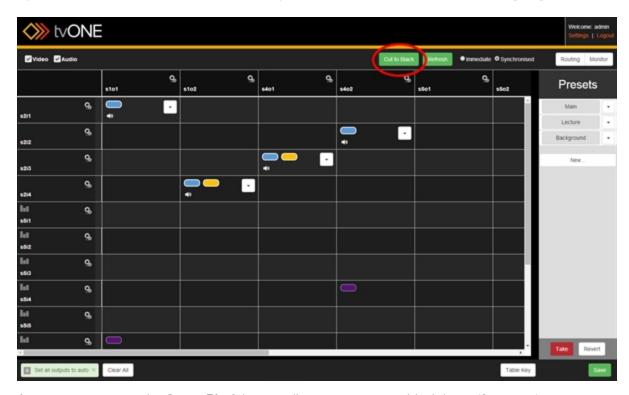
4. From this window, **Output type** is in the left column, at the bottom. Click on the drop-down menu to choose the output type you prefer. Choices may vary but include RGBHV (analog and digital), RGBS, RGsB, YUV, and CV + YC.



#### Cut to Black

In some cases, in a live setting, you may want to cut all outputs to a black background, or cut the video in from black.

If you wish to use the Cut to Black functionality, use the button at the top of the Routing page:



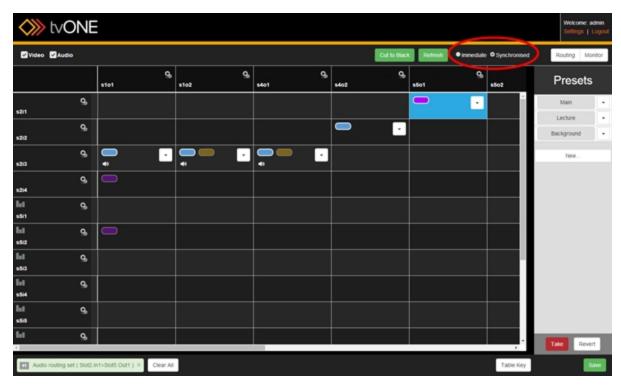
As soon as you press the **Cut to Black** button, all outputs are set to black (even if you are in Synchronized mode - you do not have to press the **Take** button). You can tell **Cut to Black** has been implemented because the notification area shows the message "Set all outputs to black" and the **Cut to Black** button is a deeper green, indicating that it is currently in a pressed state. See below for a comparison of the inactive and active button states.



To reverse this, press the **Cut to Black** button a second time. Video and audio outputs are set back to their previous configuration. The notification area says "Set all outputs to auto" and the **Cut to Black** button returns to its original color.

# Immediate vs Synchronized

There are two modes in which the Routing page functions - Immediate and Synchronized.



In **Immediate** mode, any action you take is committed individually by the web interface. Each step is live as soon as it has been committed.



**Caution:** If you are changing from **Synchronized** to **Immediate** mode and you have queued steps in Synchronized mode, be sure to click **Take** before changing to Immediate mode, as any uncommitted changes will be abandoned when changing to Immediate mode.

In **Synchronized** mode, actions are only committed when you initiate a **Take**. You can queue up a number of changes and commit them all at once by making multiple changes before pressing the **Take** button. In this mode, be sure to click the **Take** button before you refresh, disconnect or otherwise abandon your changes.

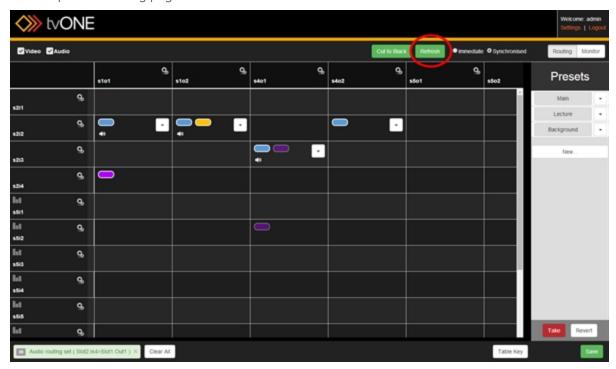
If you are in Synchronized mode, any queued but not-yet-committed changes are indicated by a blue cell. In the screenshot above, s2i1 (slot 2, input 1) has been routed to s5o1 (slot 5, output 1) with BreakAway audio, but until the **Take** button is pressed, the change is not live.

If you decide to abandon your changes, use the **Revert** button to remove queued commands and refresh the routing table to the current live configuration.

# **Refreshing Routing Information**

To keep the interface quick and responsive, the system was designed so that it does not regularly poll the CORIOmatrix for slot data. The system pulls information when the routing page is loaded, and it subsequently sends commands to the CORIOmatrix, but it does not regularly refresh the web UI with the current state of the CORIOmatrix.

If you are working in the routing page and wish to poll the CORIOmatrix for slot configuration information, to make sure what it has saved is what you expect, you can click the Refresh button at the top of the routing page.

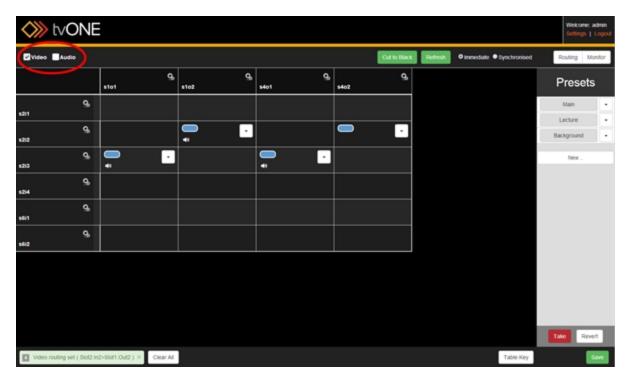


## **Routing Video**

If the system detects that the input for the row you are selecting and the output for the column you are selecting are both appropriate, video-enabled slots, when you click on the cell intersecting the two, a blue lozenge will appear, indicating that the video feed for that input is now routed to that output.

You can confirm this by checking the Notification window - if successful, the notification will say something like "Video routing set (Slot2.In2>Slot1.Out2)".

If you would like to simplify the routing table to look specifically at the video routing, uncheck the Audio box in the top left corner. The table will decrease to show only cards with video options, and selecting a cell will configure only the video portion of the routing. (An audio icon appears in a cell if audio is configured for that routing, but in this view it doesn't specify what the audio routing is.)



# Routing Audio with Input (AFV)

When you are configuring audio routing, you have three options.

**AFV** or Audio Follow Video indicates that the audio routing is defined at the input. This often means that the audio comes from that source, but it can mean that any time that video source is selected, the audio is defined as coming from another input. AFV audio sources are the default embedded source or any audio input, embedded or external AES. AFV audio channels are configured in the Input Settings or from the **Configure...** menu option in the cell's drop-down menu.

**BreakAway** indicates that the audio routing is defined at the output. By default, breakaway audio uses the same source for video and audio input, but it can mean that anytime that output is selected, the audio is configured to come from a different source. BreakAway audio channels are configured from the **Configure...** menu option in the cell's drop-down menu.

Off, the third option, disables audio for that routing.

#### Configuring AFV from the Input

To configure AFV (Audio Follow Video), follow these steps:

- 1. In the left-hand cell for the input you wish to configure, click the gear cicon.
- 2. On the right side of the routing table, the sidebar will show some details of that input including its name and status. Click the **Configure** button in the bottom right corner.





3. In the resulting pop-up window, look in the lower section, labelled Audio Follow Video Setting (AFV).

- 4. The four potential channels are shown as **AFVChoiceA**, **AFVChoiceB**, **AFVChoiceC** and **AFVChoiceD**. To the right of each of these, you can choose an audio source from any of your audio input options. Simply select the appropriate slot and input number in the first column and the appropriate channel from that card in the second column.
- 5. When you have configured all available audio channels as you wish, click the **Save changes** button in the bottom right corner. You are returned to the routing page, and any time you select that input for an output, the table will show a yellow lozenge (or multiple yellow lozenges, if audio is split between multiple inputs) in the appropriate cell intersecting that output with whichever input is the audio source.



**Note:** This section shows four channels even if the video card only supports two channels, such as an HD-SDI input module. In this case, the selections for **AFVChoiceC** and **AFVChoiceD** will be ignored. If you are unsure how many channels are available for that input and you have a monitor card, check the number of audio bars associated with the input in the Monitor section.



**Note:** All audio for a given routing must come from the same card - if you try to select multiple cards as sources, you will see an alert message notifying you that your inputs must all be co-timed.

#### Configuring AFV from the Routing Table Cell

Alternatively, AFV routing can be configured the same way BreakAway routing is configured:

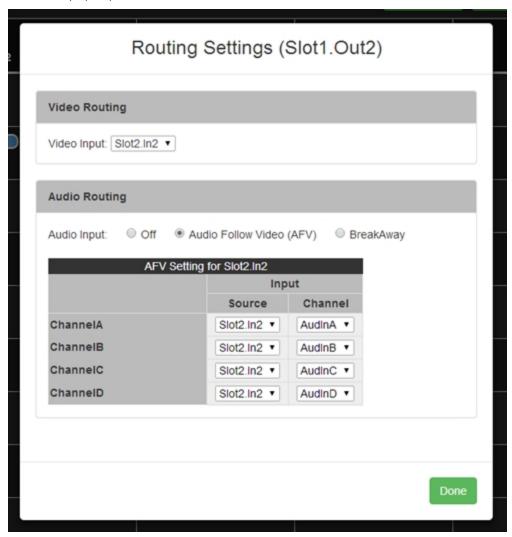
1. In the cell that shows the intersection between the desired input and desired output, click on the drop-down arrow.



2. In the resulting pop-up, choose **Configure...** 



3. A window pops up



4. The upper section shows the video input that has been chosen to correspond to this output. The lower section shows the default audio configuration. Change the Audio Input: radio button to Audio Follow Video (AFV). The four potential audio channels are shown as ChannelA, ChannelB, ChannelC and ChannelD. To the right of each of these, you can choose an audio source from any of your audio input options. Simply select the appropriate slot and input number in the first column and the appropriate channel from that card in the second column.

5. When you have configured all available audio channels as you wish, click the **Done** button in the bottom right corner. You are returned to the routing page.

## Routing Audio with Output (BreakAway)

When you are configuring audio routing, you have three options.

**AFV** or Audio Follow Video indicates that the audio routing is defined at the input. This often means that the audio comes from that source, but it can mean that any time that video source is selected, the audio is defined as coming from another input. AFV audio sources are the default embedded source or any audio input, embedded or external AES. AFV audio channels are configured in the Input Settings.

**BreakAway** indicates that the audio routing is defined at the output. By default, breakaway audio uses the same source for video and audio input, but it can mean that anytime that output is selected, the audio is configured to come from a different source. BreakAway audio channels are configured from the **Configure...** menu option in the cell's drop-down menu.

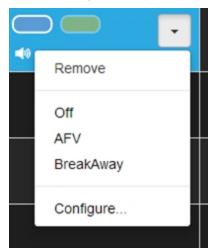
**Off**, the third option, disables audio for that routing.

To configure **BreakAway**, follow these steps:

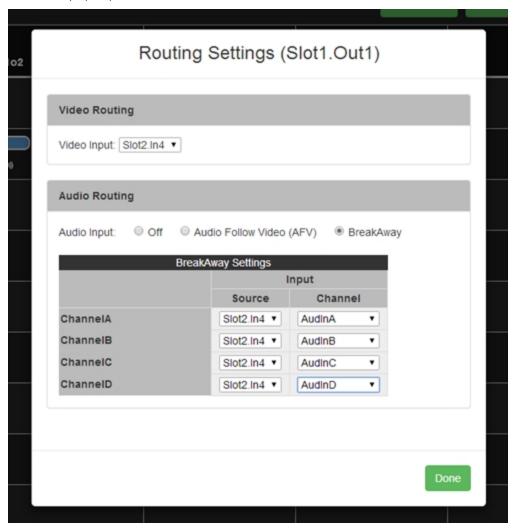
1. In the cell that shows the intersection between the desired input and desired output, click on the drop-down arrow.



2. In the resulting pop-up, choose Configure...



#### 3. A window pops up



4. The upper section shows the video input that has been chosen to correspond to this output. The lower section shows the default audio configuration.

(If no audio configuration has been modified yet, the default setting is to route audio directly with video. If the input has been configured with AFV settings, the default shows the AFV settings that were defined in the input settings. These defaults can be overridden from this page.)

The four potential BreakAway audio channels are shown as **ChannelA**, **ChannelB**, **ChannelC** and **ChannelD**. To the right of each of these, you can choose an audio source from

- any of your audio input options. Simply select the appropriate slot and input number in the first column and the appropriate channel from that card in the second column.
- When you have configured all available audio channels as you wish, click the **Done** button in the bottom right corner. You are returned to the routing page.
   Be aware that, unlike the AFV settings (which are stored in connection with an input), BreakAway settings are specific to that output.



**Note:** This section shows four channels even if the video card only supports two channels, such as an HD-SDI input module. In this case, the selections for **ChannelC** and **ChannelD** will be ignored. If you are unsure how many channels are available for that output and you have a monitor card, check the number of audio bars associated with the output in the Monitor section.



**Note:** All audio for a given routing must come from the same card - if you try to select multiple cards as sources, you will see an alert message notifying you that your inputs must all be co-timed.

# Presets

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# **About Presets**

#### What is a Preset?

A preset, at its simplest, is a saved routing configuration. Configure the routing table with the inputs and outputs that you wish - you can then save this as a Preset. Rearrange the routing, press Take and save again as another Preset. When you have multiple Presets saved, you can flip between Presets on-the-fly in your live environment.

#### Why would I use Presets?

Presets are useful if, for example, you want to do a presentation and swap between several preconfigured routing arrangements of your inputs and outputs. In this example, your first preset may be a single camera input shown on all displays, with audio from the camera as output. Your second preset may be a media presentation - some displays showing a presentation slide, some showing the original camera image, and audio coming from the presentation. You can configure all the different routing settings beforehand, save them as Presets, then swap between the saved Presets in real time simply by clicking on the name of the desired preset.

#### **Create Preset**

If you want to create a new Preset, follow these steps.

- 1. If you are in Synchronized mode, click the **Take** button to make sure the routing settings are applied.
- In the routing wall's right-hand Preset pane, click the New button below any existing presets.



3. A new preset will appear at the bottom of the list of presets, named "presetx" where x is a number (incremented from the previous saved preset). You may want to immediately "Rename Preset" on page 127 to a more intuitive name.

#### **Edit Preset**

If you want to change the routing settings on an existing Preset, follow these steps.

- 1. If you are in Synchronized mode, click the **Take** button to make sure the routing settings are applied.
- 2. In the routing wall's right-hand Preset pane, click the drop-down icon to the right of the appropriate preset.



3. In the drop-down menu, choose **Save** from the list.



This will save the current configuration to the selected Preset.

#### Rename Preset

If you want to rename an existing Preset, follow these steps.

1. In the routing wall's right-hand Preset pane, click the drop-down icon to the right of the appropriate preset.



2. In the drop-down menu, choose **Rename** from the list.



3. A window pops up. Click in the text field and type the new name for the preset.



4. Click the Save button. The window closes and the newly-renamed preset appears in the list in the Preset pane.

#### **Delete Preset**

If you want to delete an existing Preset, follow these steps.

1. In the routing wall's right-hand Preset pane, click the drop-down icon to the right of the appropriate preset.



2. In the drop-down menu, choose **Delete** from the list.



3. The selected preset disappears from the list of available presets in the Preset pane.



**Caution:** If you delete a preset, it cannot be retrieved unless you have backed up your data, and this is a complex recovery that is not outlined in this manual. Do not delete a preset unless you have no wish to retain that routing data.

# **Using Presets**

If you have presets configured and saved, using them in a live environment is fairly straightforward.

To load or activate a preset, click the button with that preset's name.



As soon as you have pressed the button, those settings become active (regardless of whether you are in **Immediate** or **Synchronized** mode).



**Note:** The button for an active preset turns green. If you change any settings from the saved configuration, the green color disappears, indicating that the live settings do not match a saved preset.

If you want to swap to a different preset, simply press the appropriate button for that preset. Swap between presets as many times as you need to do so. If you wish to cut all to black, see "Cut to Black" on page 109 for information.

# Monitor

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## **About Monitoring**

If your CORIOmatrix has a monitor card installed, you can see a **Monitor** option in the top right corner of the Routing page. (If you do not see this button, you do not have a monitor card or it is installed incorrectly.)



When the CORIOmatrix is in use, each small rectangle shows the video going through that input or output, and small green lines in the bottom left corner show audio channel activity.

Each input is shown in the top section, in order, with slot 1 input 1 at the top left, continuing across and then down. Outputs are shown in the lower half, similarly ordered. (Output 1 and Output 2 show exactly the same content.)

From the Monitor page, you can observe the content coming in to the inputs and the content going out through the outputs. If you wish to change anything, use the Routing page to reassign the routing.

To return from the Monitor settings to the Routing page, click on the Routing button in the top right corner.

More information:

- "Auto MonitorCard settings" on the next page
- "Monitoring Audio" on page 135

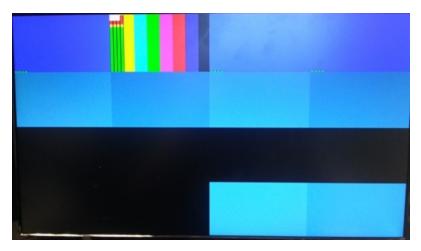
# Auto MonitorCard settings



If you have upgraded an older CORIOmatrix which has a custom monitoring configuration saved, select **Off** in the **Auto MonitorCard:** dropdown at the top, and follow the instructions in "Restoring Previous Settings" on page 41 to ensure that your previous monitor card configuration is available.

As of the current version of the CORIOmatrix web control software, the only configuration available is the automatic configuration of monitor settings. Unless you have prior settings saved, leave the **Auto MonitorCard:** settings to **On**.

## **Monitoring Audio**



When you are monitoring your inputs and outputs, you can see the video signals in real-time on each input and output. On the display you are using to see the monitor card output, you can see the embedded audio visually monitored in the corner of its associated video.

To indicate audio tracks, each video stream on the display has small green lines in the bottom left corner as a live audio meter indicating number of channels and level of each channel. If audio is going through that input or output, the green lines increase and decrease vertically as each channel's levels vary.

Some connection types provide two audio channels; some provide four. The monitor card will indicate the number of channels available from your particular card. (This may not be reflected in the Routing page - if there is a discrepancy between number of channels in the Routing page and number of channels in the Monitor page, the Monitor page is correct.)

# Troubleshooting

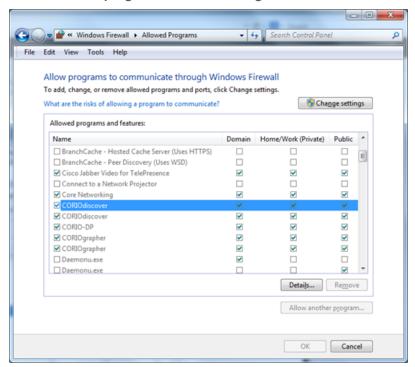
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## Troubleshooting - CORIOdiscover Doesn't See Device

The CORIOdiscover program finds any CORIOmatrix units located on the same subnet (even if the network is just your PC and the CORIOmatrix connected directly by an Ethernet cable).

If you are trying to connect to your CORIOmatrix using the CORIOdiscover application but your CORIOmatrix does not appear in the list of discovered devices, follow these steps to troubleshoot the issue.

- 1. If possible, verify that the CORIOmatrix you are trying to connect to is running the latest firmware. If the unit is running older firmware, it will not be compatible with the CORIOdiscover application. Install the most recent available firmware on the CORIOmatrix and then connect it to the network again.
- 2. Ensure that both the computer and the CORIOmatrix are on the same subnet, and that your router is not blocking any UDP ports as these are needed for communications with the device.
- 3. Check your Windows Firewall settings and make sure that CORIOdiscover is not blocked. To do this:
  - 1. Go to Control Panel > Windows Firewall.
  - 2. Choose Allow a program or feature through Windows Firewall.



- 3. Find CORIOdiscover in the list and put a checkmark to allow it.
- 4. Click OK to save changes.
- 4. If you are connecting directly to the CORIOmatrix with just an Ethernet cable, make sure your computer's Ethernet port is autosensing (has Auto MDI-X capability) and does not require an Ethernet crossover cable.

## Troubleshooting - Doesn't Reconnect After Restore

Normally when you restore your settings from the SD card, the unit will load the settings and restart with the new settings in place. (See "Restore from SD Card" on page 58 for details.)

In some cases, when you are restoring settings from a backup on the SD card, have the unit configured to use a DHCP address and you are using Chrome, Firefox, or Safari, the login page does not appear and instead the browser tells you it cannot access that IP address.

If this happens, the process goes as expected up to the point that the unit restarts:



After sitting at this progress bar for a while, your browser reports that it couldn't connect to the IP address. You may note that the IP address is not the DHCP IP address the unit had been using previously; it is a self-assigned IP address such as 192.168.0.10.

If this occurs, you need to type the DHCP IP address of the CORIOmatrix into the address bar of your browser. Once you point your browser at the correct IP address, you will be able to connect as expected to the unit, which now has restored settings.

# Troubleshooting - Website Looks Wrong

If you log in to the CORIOmatrix Web UI and find that it doesn't display correctly, there are a number of steps to take to resolve the issue. Try these in order - if the first step does not resolve the issue, go to the next step, and so forth.

- Make sure you are using a supported browser. See "Supported Browsers" on page 31 for a complete list. Unsupported browsers will perform in unpredictable ways; some may not let you log in at all; some may display the login page but not progress to the Routing page; some may show the routing page but other elements of the interface may not perform correctly.
- 2. If you are using a supported browser but the Routing page still does not display correctly, reload the page by using the F5 key or the Reload button in the address bar.
- 3. If a simple refresh does not resolve the issue, force refresh the page by using the Ctrl-F5 combination or hold down the Shift key while pressing the Reload button (Control key plus Reload button in Internet Explorer) in the address bar.
- 4. If none of the above steps resolves the issue, try using a different supported browser to see if the issue persists.

The above steps resolve the vast majority of login issues. If none of these steps help, please contact tvONE Technical Support for assistance.

## Troubleshooting - No monitor card output

If your CORIOmatrix has a monitor card installed, you have a Monitor button in the top right corner of the Routing page, next to the Routing button:



If you have connected a display to your monitor card and are not seeing any output, try these steps, in order, to resolve the issue:

- 1. Check the web interface to make sure you can see a Monitor button on the routing page, and can access the Monitor page. If this button is not visible, the card may be incorrectly installed or defective as it is not recognised by the system.
- If the monitor card is present and the Monitor page seems to be working fine, check your cable connection to the display and power to the display to make sure signal is going out.
- 3. If the display is a known good display and has power, the monitor card is a known good card and is recognized by the system, you may need to change the output settings to something that is compatible with the display. This cannot be done through the web interface, but follow the instructions below to change the output settings.

#### Changing Monitor Card Output Settings

#### Pre-work:

- Ensure you have a terminal-style application (HyperTerminal or an alternative) in order to access the CORIOmatrix via command line.
- Identify which slot contains the monitor card. See "Input and Output Naming Convention" on page 29 for information about slot names and physical locations. Additionally, identify which output on the card is connected to the display.
- Determine the default resolution and refresh rate for the monitor you are attempting to connect to.

When you have the necessary information and terminal application installed, follow these steps:

Connect to the CORIOmatrix via IP (each application has its own methodology of configuring a connection - for assistance, see the documentation provided with that program).

2. When you are connected, you will receive the following from the CORIOmatrix:

3. Log in by typing the following:

login(admin, adminpw)

and press Return or Enter.

(If you have changed the administrator password, use the appropriate password in place of the text adminpw above.)

- 4. In the command line in your terminal application, below the words "!Info: User admin Logged In", type the command to change resolution for the appropriate output slot. In the example below, the monitor card is in slot 6 and we are using output 1, changing the resolution to the monitor's default of  $720 \times 576 p$  50. Replace the slot and output number and resolution with the appropriate information for your configuration:  $slot6.out1.resolution = 720 \times 576 p$ 50
- 5. After typing this and pressing return, the system will return a line starting with !Done.
- 6. To save this change, type System.SaveAllSettings() and press Return or Enter. The system returns "!Done System.SaveAllSettings()". At this point you can disconnect from the command-line connection and the monitor card will be using the resolution you just configured.