# MIAX Futures Onyx

# User Manual

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# 1. Introduction

MIAX Futures Exchange ("the Exchange") created this User Manual to assist Market Participants on the MIAX Futures Onyx Trading Platform (the Platform) in understanding the operations of the Platform. The User Manual discusses, and in some cases, summarizes various MIAX Futures Rules. The MIAX Futures complete and official Rulebook is available at MIAX Exchange Rulebook. In the event of a conflict between the User Manual and the Rules set forth in the official Rulebook, the Rulebook shall prevail.

MIAX Futures Exchange will operate a fully automated electronic futures trading platform for the purpose of buying and selling outright futures contracts and complex futures spreads with a continuous, automated matching function. MIAX Futures Onyx uses a FIFO (First-In, First-Out) allocation model.

MIAX Futures Onyx supports both a binary and FIX order entry interface, with parity in functionality supported on both. Liquidity is derived from orders to buy and sell. Orders are submitted to the Platform electronically by Market Participants. MIAX Futures Onyx does not maintain a physical trading floor. Market Participants may access Onyx directly or indirectly as outlined in Section 2. Additionally, Market Participants may be eligible to receive discounted rates on transactions as detailed in Section 3.

Rates for executions and services on the Platform will be set forth in the Fee Schedule. The complete MIAX Futures Onyx Fee Schedule will be available on the MIAX Futures Exchange's website under the Fee Summary.

# 2. How to Access MIAX Futures Onyx

Market Participants may access MIAX Futures Onyx directly or indirectly.

## Direct Access

Direct access requires a direct connection to Onyx. Market Participants with a direct access to Onyx must apply and be approved by the Exchange as an Onyx Direct Access Participant ("ODAP)." Market Participants directly connecting may not transact on the Exchange until they are approved as an ODAP. Information on how to apply is available on the Website.

## Indirect Access

Indirect access occurs through an Independent Software Vendor ("ISV"). Market Participants accessing Onyx indirectly must connect to an ISV approved by their Clearing Member. Those with indirect access to the Exchange are not required to apply and be approved by the Exchange.

Market Participants accessing the Exchange via Indirect Access must comply with all applicable Rules of the Exchange governing the entry, execution, reporting, clearing and settling of orders in Instruments eligible for trading on the Exchange.

## All Market Participants

Regardless of the type of access used, Market Participants may trade Futures Instruments for their own proprietary accounts or, if authorized to do so under applicable law and CFTC rules and regulations, may conduct business on behalf of customers.

Market Participants will be assigned a list of Market Participant Identifiers (MPIDs) that can be used for order entry. Market Participants are allowed to use one or more of these MPIDs to send orders via their sessions. Each session may be permissioned for one or more MPIDs.

All trades by all Market Participants must ultimately be guaranteed by a MIAX Futures Clearing Member. This may be established through a Market Participant maintaining a customer account agreement with a Clearing Member or through one or more Futures Commission Merchants who ultimately have a relationship with a Clearing Member. A Market Participant who exclusively trades through an omnibus account is not required to sign a customer account agreement with their Clearing Member. Market Participants may be eligible to apply for or otherwise be approved to receive special rates on trading activity as described in Section 3 below.

Further information on accessing MIAX Futures Onyx is available on the MIAX Futures Exchange's website.

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# 3. Fee Programs/Designations

## Preferred Rate Program

Market Participants may apply to the Preferred Rate Program ("PRP") to receive reduced fees on their trading of proprietary accounts for a certain Product Group on the Platform. Note that all Onyx Direct Access Participants will be automatically enrolled in the Preferred Rate Program upon their approval as an ODAP and therefore are not required to submit a PRP application. Information on how to apply for the PRP is available on the Website.

A Market Participant must apply to become a PRP Participant for a Product Group on MIAX Futures Onyx. Registration as a PRP will become effective on the day the application is approved by the Exchange. The PRP Designation will be at the MPID level. Thus, if an MPID with PRP Designation for a given Product Group sends an order for an instrument in that Product Group, the order will be marked as having PRP Designation and eligible for any applicable PRP transaction fees.

There will be no trading or volume requirements associated with the PRP Program. As PRP Designation is at a Product Group level, it will not be possible for Market Participants to become a PRP Participant in either 1) a single instrument, or 2) a subset of instruments for a given Product Group.

## Retail Designation

The Exchange may, at its discretion, designate certain Market Participants to receive a Retail Designation for discounted transaction fees.

# 4. System Architecture, Interfaces, and Connectivity

## Architecture

The MIAX Futures Onyx trading architecture is highly scalable and consists of multiple Matching Engines. The Exchange supports a software and hardware architecture that results in minimizing the demands on power, space and cooling while allowing for rapid scalability, standard setting resiliency and superior fault isolation.

Each Matching Engine handles trading for a set of futures instruments. The sets of instruments will be assigned based on the nature of the underlying asset associated with a given futures instrument. Instrument assignments are expected to be static in terms of allocation to a Matching Engine. However, if reallocation of symbols across Matching Engines is needed, such changes would be communicated to the firms with ample notice prior to the actual implementation.

In addition to state-of-the-art monitoring and systems security, the MIAX Futures Onyx System uses a next-generation highly-automated Quality Assurance platform that runs a full battery of tests against the System every night to ensure a high level of reliability and unprecedented confidence in System updates.

## Order Entry Interfaces

Clearing Members and Market Participants can use two interfaces for the transmission of orders and other messages to and from the Exchange:

- **FIX Order Interface (FOI):** Participants may connect to Onyx via the FIX Order Interface (FOI) gateway using the industry standard FIX protocol with Onyx-specific extensions for the transmission of orders and other messages to and from the Platform. FOI validates incoming orders and forwards them to the appropriate matching engine. Executions and cancellation notifications are provided through each FOI interface.

- **Futures Express Orders Interface (FEI):** FEI is a binary interface that provides clients order entry capabilities to all MIAX Futures Onyx Matching Engines. Participants have flexibility in setting up FEI ports to cater to their architecture. The FEI protocol is proprietary to MIAX Futures Onyx.

Firms are assigned backup FEI ports on backup infrastructure. These are slated to be used in the event of failure of primary FEI infrastructure. These backup FEI ports do not accept any messages while operating in the backup mode and are solely used for connection verification while in this mode. Please note: Backup ports have separate IP addresses from the primary ports.

For additional details about FOI and FEI, please refer to the relevant MIAX Futures Onyx Interface Specifications.

## Drop Copy

MIAX Futures Onyx FIX Drop (FXD) is a messaging interface that provides real-time order activities of firms' FEI as well as FOI orders. Two types of FIX Drop Ports are supported: Standard FIX Drop and FIX Order by Order Drop. Neither port type accepts orders.

- **Standard FIX Drop Port**
  - Sends only trade information including Execution Reports and Trade Cancel/Correct messages.

- **FIX Order by Order Drop Port**
  - Sends all order activities including Execution Reports, Trade Cancel/Correct messages, and optionally order rejects.

MIAX Futures Onyx will support the following auto-cancel functionalities for open orders if the FXD session's connection is disturbed:

- **Auto-Cancel on Disconnect (ACOD)**
- **Auto-Cancel on System/Matching Engine Failure (ACOSF)**

For details on ACOD and ACOSF, please refer to Section 8. *Risk Protections* in this User Manual.

## Proprietary Market Data Feeds

MIAX Futures Onyx offers two proprietary market data feeds:

- **Depth of Market (DoM):** MIAX Futures Onyx Depth of Market Feed (DoM) is a data feed that allows subscribers to receive real-time updates of the following information from MIAX Futures Exchange:
  - Orders posting to the MIAX Futures Onyx Order Book:
    - Price and Size updates
  - Order executions (trades)
  - Trade Busts
  - Anticipated Opening Price Update
  - Simple Instrument and Complex Strategy Definitions
  - MIAX Futures Exchange System Status
  - Instrument Trading Status
  - Settlement Price Update
  - Open Interest Update
  - Traded Volume Update

DoM real time data feed is disseminated across one feed channel. Recipients can subscribe to two identical feeds ("DoM A" and "DoM B") per feed channel for the purpose of redundancy.

- **Top of Market (ToM):** MIAX Futures Onyx Top of Market (ToM) is a data feed that allows subscribers to receive real-time updates of the following information from MIAX Futures Onyx:
  - MIAX Futures Onyx Best Bid and Offer
    - Best Bid and Offer Price and Size
  - MIAX Futures Onyx Last Sale (trades)
  - Trade Busts
  - Simple Instrument and Complex Strategy Definitions
  - Instrument Trading Status
  - MIAX Futures Exchange System Status

ToM real-time data feed is disseminated across one feed channel. Recipients can subscribe to two identical feeds ("ToM A" and "ToM B") per feed channel for the purpose of redundancy.

For additional details about ToM and DoM, please see the MIAX Futures Onyx Interface Specifications.

## Network Infrastructure

The MIAX Futures Onyx network was designed to complement the MIAX Futures Onyx Trading System and was built from the ground up to address the performance and security needs of a high speed trading platform. The MIAX Futures Onyx network infrastructure utilizes fully diverse and redundant 40Gbps backbones and 10/40Gbps switch technology for maximum throughput and minimal latency.

## Data Center Services

MIAX Futures Onyx has partnered with Equinix, a world-class provider of data center services, to host the Trading System's data center infrastructure in the following locations:

- **Primary Data Center:**
  - **Minneapolis Hard Red Spring Wheat Products**: CH4 in Chicago, IL
  - **Equity Index Products**: NY5 in Secaucus, NJ

- **Disaster Recovery Data Center:**
  - **Minneapolis Hard Red Spring Wheat Products**: NY5 in Secaucus, NJ
  - **Equity Index Products**: CH2 in Chicago, IL; Point of Presence (POP) in CH4 in Chicago, IL

Customers with very low latency demands can cross-connect to the MIAX Futures Onyx System from elsewhere within the Equinix NY5 and CH4 facilities. All MIAX Futures Onyx cross-connects in NY5 and CH4 are latency equalized to ensure each participant's cross-connect is the same physical distance from the MIAX Futures Onyx Trading System regardless of their location in the Equinix facility in NY5 or CH4.

- **Notable Data Center Services**
  - SSAE16 compliant Data Centers
  - Redundant power feed sourced from district substations
  - Redundant power and cooling distribution paths within the facility
  - Concurrently maintainable (N+1 for greater resiliency)
  - On-site backup power generation

- **Enhanced Security Services**
  - State of the art security
  - Hand Scanners
  - Card Readers
  - Cameras
  - Buildings designed to withstand fires, earthquakes, hurricanes and other environmental threats
  - Manned 24/7

## Connectivity Choices

MIAX Futures Onyx offers truly diverse, redundant 10 Gigabit ULL connectivity options in data center facilities and supports direct attachment of customer/provider network equipment or direct attached host systems. The 1 Gigabit ULL connectivity option is available for order entry purposes, but MIAX Futures Onyx market data will not be available on 1 Gigabit cross connects. Users are strongly encouraged to establish a minimum of dual cross connects to the primary facility in NY5 or CH4 and connection to the disaster recovery systems to minimize the possibility of service disruption. Clearing Members of MIAX Futures may have mandatory participation requirements in the Exchange's annual Disaster Recovery (DR) test and will therefore be required to establish a connection to the disaster recovery systems. MIAX Futures Onyx supports the following connectivity options:

- **Cross-Connect**
  - Users that are located in the primary Equinix data centers can connect to MIAX Futures Onyx via a latency equalized cross-connect. Users that are located in other Equinix IBX campus locations can connect via Equinix IBX inter campus cross connects.
- **Point-to-point**
  - Users may connect point-to-point using leased lines or via third-party providers.
- **Metro Ethernet/Dark Fiber**
  - Users may connect via Metro Ethernet or a dark fiber provider.

## Historical Data

Historical Data is a data product that offers historical Futures market data for orders entered into the System upon request. To request Historical Data, please contact MIAX Futures Onyx Trading Operations at: MIAXFuturesTradingOperations@miaxglobal.com.

# Information and Performance Reports

MIAX Futures Onyx Information and Performance Reports provide firms with details of their trading and activities on the Exchange. Reports include key information about transaction fees, MBBO (MIAX Futures Onyx Best Bid and Offer) at the time of transaction, as well as volume, clearing and risk protection thresholds. This information is intended to assist firms in monitoring and evaluating their trading activity on MIAX Futures Onyx.

Further information on the availability of MIAX Futures Onyx Information and Performance Reports can be obtained by contacting MIAX Futures Onyx Trading Operations at:
MIAXFuturesTradingOperations@miaxglobal.com.

# 5. Available Order Types and Instructions

## Order Types

The following order types are supported by MIAX Futures Onyx:

- **Limit Orders**
  - A Limit Order is an order to buy or sell a stated number of contracts at or better than the order's specified Limit Price.

- **Market Order**
  - A Market Order is an order to buy or sell a stated number of contracts at the best available price in the market.

- **Stop-Limit Orders**
  - A Stop-Limit Order is submitted with a Limit Price and a Trigger Price; once triggered, the order will become a Limit Order with a Time-in-Force of Day.
    - Stop-Limit Orders will not be supported for Complex Futures, i.e. Stop-Limit Orders will only be supported for Outright Futures.

- **Stop-Market Orders**
  - A Stop-Market Order is submitted with a Trigger Price and no Limit Price; once triggered, the order will become a Market Order with a Time-in-Force of IOC.
    - Stop-Market Orders will not be supported for Complex Futures, i.e. Stop-Market Orders will only be supported for Outright Futures.

## Time in Force (TIF) Instructions

TIFs specify how long an order remains in effect. The following TIFs are supported by MIAX Futures Onyx:

- **Immediate or Cancel (IOC)**
  - An order with an Immediate or Cancel ("IOC") TIF will be executed or cancelled in whole or in part as soon as the order is received by MIAX Futures Onyx.

- **Fill or Kill (FOK)**
  - An order with a Fill or Kill ("FOK") TIF must be executed in whole as soon as the order is received by MIAX Futures Onyx, otherwise the entire order will be cancelled back to the participant immediately in full without resting on the order book.
    - The FOK TIF will not be supported for Complex Futures, i.e. the FOK TIF will only be supported for Outright Futures.

- **Day**
  - An order with a Day TIF can execute in whole or in part upon entry. Any portion of the order that is not executed will be posted to the order book and will remain until the end of the last Trading Session for the product on the day that the order was entered, at which time it will automatically expire.

- **Good 'til Cancel (GTC)**
  - An order with a Good 'til Cancel ("GTC") TIF can execute in whole or in part upon entry. Any portion of the order that is not executed upon entry will remain on the order book until it is cancelled by the participant or until the end of the last Trading Session on the trading day that the instrument expires.

- **Good 'til Date (GTD)**
  - An order with a Good 'til Date ("GTD") TIF can execute in whole or in part upon entry. Any portion of the order that is not executed upon entry will remain until it is cancelled or until the end of the last Trading Session on the trading day that is the specific date ("Expire Date") specified by the participant on the order.

## Additional Order Instructions

The following Order Attributes are supported by MIAX Futures Onyx:

- **Minimum Quantity**
  - Upon entry, an order with a Minimum Quantity instruction will only execute if a specified minimum quantity of contracts can be filled, either by trading with an individual or multiple contra side orders, at one or multiple price levels.
    - If the minimum number of contracts cannot be filled upon entry, the order will be cancelled back to the participant in full.
    - If the minimum number of contracts can be filled upon entry, any remaining quantity will post to the order book.
  - The Minimum Quantity instruction will not be supported for Complex Futures, i.e. Minimum Quantity will only be supported for Outright Futures.
  - If a Minimum Quantity instruction is provided on an order with a TIF of FOK, the order will be rejected.
  - If a Minimum Quantity instruction is provided on either a Stop-Limit Order or a Stop-Market Order, the order will be rejected.

## Product Types

MIAX Futures Onyx offers the following **Product Types**:

- **Outright Futures**
    - o These will be supported for all Futures Products at MIAX Futures Onyx.

- **Complex Futures – Standard Calendar Spreads**
    - o These will only be supported for Minneapolis Hard Red Spring Wheat Futures Products.

- **Complex Futures – Equity Calendar Spreads**
    - o These will only be supported for Equity Index Futures Products.

- **Complex Futures – Butterfly Spreads**
    - o These will only be supported for Minneapolis Hard Red Spring Wheat Futures Products.

| Product Types | Minneapolis Hard Red Spring Wheat Products | Equity Index Products |
|---|---|---|
| Outright Futures | Supported | Supported |
| Complex Futures- Standard Calendar Spreads | Supported | Not Supported |
| Complex Futures- Equity Calendar Spreads | Not Supported | Supported |
| Complex Futures- Butterfly Spreads | Supported | Not Supported |

## Spreads at MIAX Futures Onyx

MIAX Futures Onyx supports **User-Defined Spreads** and **Exchange Auto-Generated Spreads**. User Defined spreads may be created by any participant while the Live Order Window is open and can be created in both FEI and FOI. A User-Defined Spread can take the form of any of the three Complex Futures categories as described above. There are two possible ways that a User-Defined Spread may execute:

- **Book Matching**
  - When a complex order book matches, it will fully execute against another order on the complex book.

- **Legging**
  - The two or more instruments comprising the Spread will execute individually (i.e. leg) against orders on the simple books for each Outright Future in the spread. Note, legging of a Spread can include a trade that was prompted by a derived order created by the Spread.

## Exchange Auto-Generated Spreads

MIAX Futures Onyx will create Exchange Auto-Generated Spreads for the following Spread types:

- **Standard Calendar Spreads**
  - For all available expiries of an Outright Futures Product Group for consecutive months and two months out.
    - I.e.
      - Buy First Month, Sell Second Month
      - Buy First Month, Sell Third Month
      - Etc.
- **Equity Calendar Spreads**
  - For all available expiries of an Outright Futures Product Group for consecutive months and two months out.
    - I.e.
      - Sell First Month, Buy Second Month
      - Sell First Month, Buy Third Month
      - Etc.
- **Butterfly Spreads**
  - For all of the first 4 available expiries of an Outright Futures Product Group for consecutive months and two months out.
    - I.e.
      - Buy First Month, Sell 2 Second Month, Buy Third Month
      - Buy Second Month, Sell 2 Third Month, Buy Fourth Month
      - Etc.

## Product Identifiers

MIAX Futures Onyx assigns a Product Group Code for each individual product traded on the Platform. The Product Group Code is a concatenation of a Product's Underlying Asset Code and Deliverable Code:

- **Underlying Asset Code**
    - The Underlying Asset Code represents the specific asset that must be delivered when the futures contract expires. The code for the Underlying Asset is an alphabetical identifier up to 4 characters in length (e.g. MW is the Underlying Asset Code for Minneapolis Hard Red Spring Wheat).

- **Deliverable Code**
    - The Deliverable Code represents the quantity of the Underlying Asset that must be delivered when the futures contract expires. The code is an alphabetical identifier up to 2 characters in length (e.g. E is the Deliverable Code for 5,000 bushels of wheat).

In the above example, MWE is the Product Group Code for Minneapolis Hard Red Spring Wheat futures, for which the deliverable is 5,000 bushels.

Instruments of a Product Group will be assigned a numeric Instrument ID that will persist for the life of the Futures Instrument. The Instrument ID will be shown on all order updates and will be disseminated on all order and trade updates on the MIAX Futures Onyx market data feeds. Instrument IDs will be assigned to both Simple Instruments and Complex Strategies. Instrument IDs will not be re-used for a minimum of one calendar year after a Product's Expiration.

# 6. Hours of Operation

## Overview

**Normal Trading Hours**

MIAX Futures Onyx will be open for order entry Sunday through Friday. Onyx will begin accepting orders on Sunday at 5:00 PM ET and stop accepting orders on Friday at 5:00 PM ET.

On each trading day, there will be a Recycle Window from 5:05 PM ET to 5:40 PM ET, during which the system will come down and FOI and FEI APIs will be disconnected for firms. Once the Recycle Window concludes, the system will come back up. Firms can re-connect via FOI and FEI at the end of the Recycle Window. Order entry will re-commence when the Live Order Window (LOW) opens at 5:45 PM ET. Note, the Recycle Period that begins on Friday at 5:05 PM ET will conclude at 4:55 PM ET on Sunday at which point, FOI and FEI connectivity can begin.

The trading schedule for a futures instrument at MIAX Futures Onyx is determined by the underlying asset associated with that futures instrument.

For special trading hours on holidays, please refer to the trading calendar on the MIAX Trading Hours & Calendar here.

**Live Order Window**

The Live Order Window (LOW) is the period of time during which participants may send orders to MIAX Futures Onyx. New orders, Order Modification Requests, Order Cancellation Requests, and User-Defined Spread Requests will all be accepted and processed by the system while the LOW is open.

The LOW will be the same for all products traded at MIAX Futures Onyx.
- The LOW will begin at 5:45 PM ET and will conclude at 5:00 PM ET on the following day with the exception of Sunday when the LOW begins at 5:00 PM ET and conclude at 5:00 PM ET on the follow day.

## Trading Sessions

All MIAX Futures Onyx markets cycle through the daily order entry states. Below are the descriptions and normal hours of operation for the pre-defined sessions.

**First Pre-Opening System Availability (Order Entry Only)**

The Pre-Opening Session will be the period of time during which the LOW will be open for order entry, modification, or cancellation before the start of trading. The Pre-Opening period will be configured as follows for products on MIAX Futures Onyx.

- **Minneapolis Hard Red Spring Wheat Products** – 5:45 PM ET to 8:00 PM ET
- **Equity Index Products** – 5:45 PM ET to 6:00 PM ET

## Extended 1 Trading Session

MIAX Futures Onyx will support an Extended 1 Trading Session during which orders may begin to execute before Regular Trading Hours. Extended 1 Trading Session will be configured as follows for products traded on MIAX Futures Onyx.

- **Minneapolis Hard Red Spring Wheat Products** – 8:00 PM ET to 8:45 AM ET
- **Equity Index Products** – 6:00 PM ET to 9:30 AM ET

## Second Pre-Opening System Availability (Order Entry Only)

MIAX Futures Onyx will support a second Pre-Opening period for Minneapolis Hard Red Spring Wheat Products. The system behavior will be the same as during the first Pre-Opening Session at Onyx (i.e. orders for Minneapolis Hard Red Spring Wheat Products may be entered, modified, or cancelled before the start of the subsequent trading session).

- **Minneapolis Hard Red Spring Wheat Products** – 8:45 AM ET to 9:30 AM ET
- **Equity Index Products** – Not Applicable

## Regular Trading Session

MIAX Futures Onyx will support a Regular Hours Trading Session that will be configured as follows for products at Onyx.

- **Minneapolis Hard Red Spring Wheat Products** – 9:30 AM ET to 2:20 PM ET
- **Equity Index Products** – 9:30 AM ET to 4:00 PM ET

## Extended 2 Trading Session

MIAX Futures Onyx will support an Extended 2 Trading Session during which orders may continue to execute after Regular Trading Hours. Extended 2 Trading Session will be configured as follows for products at MIAX Futures Onyx.

- **Minneapolis Hard Red Spring Wheat Products** – Not Applicable
- **Equity Index Products** – 4:00 PM ET to 5:00 PM ET

## Opening Process

**Order Entry Prior to the Opening Process**

As described above, MIAX Futures Onyx will begin accepting orders during the Pre-Opening System Availability period, during which orders with a TIF of DAY, GTD, and GTC may be queued for the Opening Process.

- The following orders will be rejected before the Opening Process has completed:
  - All orders with a TIF instruction of IOC or FOK
  - All orders with a Minimum Quantity Instruction
- Stop Orders will be accepted before the Opening Process but will not be included in the determination of the Anticipating Opening Price as described below and will only be eligible for triggering after the opening trade has been conducted as outlined in this section.
- All orders will be evaluated against Trading Collar and Daily Trading Limits during the Pre-Opening. Please refer to *Section 9. Risk Protections* in this User Manual for more details on Daily Trading Limits.
- MIAX Futures Onyx will have a 30-second freeze period directly before the start of the Opening Process. During this 30-second period, all order modification and cancellation requests will be rejected.

**Anticipated Opening Price**

Before the Opening Process is conducted for any instrument on MIAX Futures Onyx, an Anticipated Opening Price will be calculated for the given instrument. The Anticipated Opening Price is the price level at which the Opening Match (i.e. the opening trade as described below) will occur.

The Anticipated Opening Price will be calculated as the price level that matches the greatest possible number of contracts with the fewest amount of non-matched contracts possible. If there are multiple prices satisfying this, the price closest to the previous trading day's Settlement Price will be the Anticipated Opening Price.

**Performing the Opening Process**

When the market state transitions out of the Pre-Opening state and into a trading state, MIAX Futures Onyx will conduct the Opening Process for all eligible orders that have been received during the Pre-Opening. This will happen at the following trading session transitions:

- First Pre-Opening to Extended 1 Trading Session *(All Products)*
- Second Pre-Opening to Regular Trading Session *(Minneapolis Hard Red Spring Wheat Products Only)*

When the market transitions from pre-opening to trading, the following events will occur as part of a single transaction:

- The Opening Match will take place at the Anticipated Opening Price
- Any Stop Order that is eligible to be introduced based on the Opening Match price will become immediately available and eligible to either trade or post to the order book.
- The MIAX Best Bid and Offer (MBBO) will be updated to reflect the Opening Match and new orders posted to the order book.

## Trading Halts and Re-Opening Process

MIAX Futures Onyx will automatically halt trading of an Instrument if a Daily Trading Limit configured for an Automatic Halt protection is hit in an Instrument for which an equity index is the underlying asset.

Additionally, all Instruments for which the underlying asset is an equity index will be automatically halted when a Level 1 or Level 2 Market-Wide Circuit Breaker (MWCB) is triggered. Please refer to *Section 9. Risk Protections* in this User Manual for more details on Daily Trading Limits.

While an Instrument is subject to a halt, the System will accept orders for queuing prior to the resumption of trading in the security for participation in the Re-Opening Process.

The Re-Opening Process will occur in the same manner as the Opening Process as described above, with one exception:

- The reference price for the initial Trading Collar in the re-opening will be the last trade price bound by the MBBO.

# 7. Trading on MIAX Futures Onyx

## Priority of Orders

All non-marketable orders are ranked and maintained in the MIAX Futures Onyx Order Book according to FIFO (First-In, First-Out) Priority. Specifically, order priority will be determined in the following manner: (1) Price; (2) Priority Category; (3) Time.

- **Price**
  - All orders are ranked based on the Limit Price of an order. Orders to buy are ranked from highest Limit Price to lowest Limit Price. Orders to sell are ranked from lowest Limit Price to highest Limit Price. If the Limit Price of an order changes, the price priority of the order changes.

- **Priority Category**
  - Within each priority category, where orders to buy (sell) are entered into the System and resting on the MIAX Futures Onyx Order Book at the same price, the order clearly established as the first entered into the System at such particular price shall have precedence at that price, up to the number of contracts specified in the order. The System shall rank equally priced trading interest within each priority category in time priority in the following order:

      - Non-Derived Orders: Non-Marketable limit orders that are entered by the user and not created by the System as described below.
      - Derived Orders: Non-Marketable simple limit orders created by the System as the result of a complex order being received on the Order Book.

- **Time**
  - Within each priority category, orders are ranked based on time priority.
      - An order is assigned a timestamp based on its original entry time, which is the time when an order is first placed in the MIAX Futures Onyx Order Book.
      - An order is assigned a new timestamp if either:
        - The user sends a modification request to change the Limit Price of the order
        - The user sends a modification request to increase the size of the order

## Stop Orders – Introduction & Triggering

A Stop Order is an order which, when accepted, does not immediately trade or post to the Order Book, but must be triggered by a trade in the market at the price level (i.e. Trigger Price) submitted with the order. There are two types of Stop Orders:

- **Stop-Limit Orders**
  - Submitted with a Limit Price and a Trigger Price

- **Stop-Market Orders**
  - Submitted with a Trigger Price and no Limit Price

The Trigger Price will be evaluated for both Stop-Limit Orders and Stop-Market Orders upon entry to ensure that it has been correctly entered. The Trigger Price for a buy (sell) Stop Order must be greater (less) than the last trade price for the given futures instrument. If upon entry, the trigger price fails this check, the order will be rejected.

For Stop-Limit Orders, the Limit Price will be additionally evaluated upon entry to ensure that it has been validly entered. The Limit Price for a buy (sell) Stop-Order must be greater (less) than or equal to the Trigger Price specified on the order, provided that the Trigger Price has been correctly entered. If upon-entry, the Limit Price fails this check, the order will be rejected.

If the Stop Order meets the above checks, it will immediately become unavailable i.e. it will not be evaluated for trade opportunity or be eligible to post to the order book. The Stop Order will become available at the point in time when a trade occurs on MIAX Futures Onyx such that the trade price is greater (less) than or equal to the Trigger Price on the buy (sell) Stop Order. Once available,

- A **Stop-Limit Order** will be converted to a Limit Order with a Time-in-Force of Day and will be eligible to trade with all interest on the order book up to its Limit Price.

- A **Stop-Market Order** will be converted to a Market Order with a Time-in-Force of IOC and will be eligible to trade will interest within the order's trading collar (see *9. Risk Protections* below). Any portion of the order that does not trade immediately upon being triggered will be canceled back to the participant.

# 8. Risk Protections

## Overview

MIAX Futures Onyx provides a number of per order, cumulative and trade risk metrics to firms to help manage their exposure. These risk protections are highly customizable. Additionally, risk protections are latency equalized i.e. there is no latency penalty for a participant when opting into and leveraging a risk protection available on the exchange when entering an order as compared to a participant not opting into the risk protection when entering an order.

Firms can configure different attributes for each of their order entry ports/sessions for MIAX Futures Onyx. Changes can be requested for each attribute by doing one of the following:

- **Via the Firm Portal User Interface (UI)**
    - o Updates made via the UI will be processed for the next trading day. However, updates to a select group of risk protections will be effective immediately. For further details, please refer to the details provided when making a change to a configuration via the Member Firm Portal User Manual.

- **By contacting Trading Operations at** MIAXFuturesTradingOperations@miaxglobal.com.

As standard practice, all requests submitted to Trading Operations for changes to risk configurations will be processed for the next trading day. However, intra-day changes can be supported on a case-by-case basis. Please contact Trading Operations for additional details in the case of such a request.

## System Settings

All current system settings are located in the MIAX Futures Onyx Product Reference Guide, which can be found here.

Changes to system settings are also published by MIAX Futures as either Alerts or Circulars, as required.

## Per Order Risk Metrics

**Maximum Order Size**
- Background
    - o Maximum Order Size is the maximum total size of an order in contracts permitted. If the total size of an order or an Order Modification Request exceeds its Maximum Order Size threshold, then the order will be rejected upon entry into the system with an appropriate reason code (e.g. "Maximum Order Size Exceeded").
- Configurability
    - o While this is an optional protection, participants will have the option to set up custom Maximum Order Size thresholds. The custom Maximum Order Size threshold set by

the participant can exceed the Exchange default or be more conservative than the Exchange default.

- Scopes
    - o  Product - Set by Onyx Futures Trading Operations
    - o  Session + Product - Set by the participant
    - o  MPID + Product - Set by the participant

**Minimum Order Size**

- Background
    - o  Minimum Order Size is the minimum total size of an order in contracts permitted by the exchange. If the total size of an Order or Order Modification Request is less than the Minimum Order Size threshold, then the order will be rejected upon entry into the system with an appropriate reason code (e.g. "Less than Minimum Order Size").
- Configurability
    - o  No configurability is supported for this protection as it is set by MIAX Futures Onyx. This protection is mandatory.
- Scopes
    - o  N/A

**Size Increment Check**

- Background
    - o  Orders and Order Modification Requests must be entered in sizes that are in multiples of 1 contract. Orders and Order Modification Requests submitted at any other size increment will be rejected with an appropriate reason code (e.g. "Invalid Size Increment").
- Configurability
    - o  No configurability is supported for this protection as it is set by MIAX Futures Onyx. This protection is mandatory.
- Scopes
    - o  N/A

**Maximum Order Price**

- Background
    - o  Orders and Order Modification Requests with a Limit Price or Trigger Price that is greater than the Maximum Order Price will be rejected upon arrival with an appropriate reason code (e.g. "Limit Price greater than Maximum Order Price" or "Stop Trigger Price greater than Maximum Order Price").
- Configurability
    - o  Maximum Order Price cannot be configured by participants and will be set at the Exchange level. This protection is mandatory.
- Scopes
    - o  Product - Set by Onyx Futures Trading Operations.

**Minimum Order Price**
- Background
  - o Orders and Order Modification Requests with a Limit Price or Trigger Price that is less than the Minimum Order Price will be rejected upon arrival with an appropriate reason code (e.g. "Limit Price lower than Minimum Order Price" or "Stop Trigger Price lower than Minimum Order Price").
- Configurability
  - o Minimum Order Price cannot be configured by participants and will be set at the Exchange level. This protection is mandatory.
- Scopes
  - o Product - Set by Onyx Futures Trading Operations.

**Price Tick Size Check**
- Background
  - o The valid Standard Tick for orders will be configurable by Product. Orders or Order Modification Requests submitted with a Limit Price or Trigger Price (if any) at any other price increment will be rejected with an appropriate reason code (e.g. "Invalid Price Increment").
- Configurability
  - o The Price Tick Size Check cannot be configured by participants and will be set at the Exchange level. This protection is mandatory.
- Scopes
  - o Product - Set by Onyx Futures Trading Operations.

**Market Order Reject**
- Background
  - o Participants will have the option to individually reject any Market Orders received via a particular session or MPID for a given Product with an appropriate reason code (i.e. "Market Orders not permitted for session").
- Configurability
  - o As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. By default, this protection will be disabled.
- Scopes
  - o Session + Product - Set by the participant.
  - o MPID + Product - Set by the participant.

**Stop-Market Order Reject**
- Background
  - o Participants will have the option to individually reject any Stop-Market Orders received via a particular session or MPID for a given Product with an appropriate reason code (i.e. "Stop-Market Orders not permitted for session").
- Configurability
  - o As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. By default, this protection will be disabled.
- Scopes

- o Session + Product - Set by the participant.
- o MPID + Product - Set by the participant.

## Accepted Futures Product List
- Background
  - o Participants will have the option to individually configure each of their sessions or MPIDs permit orders only in certain Products to be accepted. Any order sent in a Product not found on the list will be rejected with an appropriate reason code (i.e. "Product not permitted").
- Configurability
  - o As this is an optional protection, participants will have the ability to enable or disable this protection (i.e. configure their list of accepted products) at the applicable scope. By default, no products will be restricted.
- Scopes
  - o Session - Set by the participant.
  - o MPID - Set by the participant.

## Extended Trading Session 1 Restriction
- Background
  - o Participants will have the option to individually configure each of their order entry Sessions or MPIDs on a Product by Product basis to reject any orders received during the Extended Trading Session 1 for that Product, with an appropriate reason code (i.e. "Extended Trading Session 1 Restriction").
- Configurability
  - o As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. By default, this protection will be disabled.
- Scopes
  - o Session + Product - Set by the participant.
  - o MPID + Product - Set by the participant.

## Extended Trading Session 2 Restriction
- Background
  - o Participants will have the option to individually configure each of their order entry Sessions or MPIDs on a Product by Product basis to reject any orders received during the Extended Trading Session 2 for that Product, with an appropriate reason code (i.e. "Extended Trading Session 2 Restriction").
- Configurability
  - o As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. By default, this protection will be disabled.
- Scopes
  - o Session + Product - Set by the participant.
  - o MPID + Product - Set by the participant.

## Cumulative Risk Metrics

**Overview**

Participants will have the ability to specify one or more Risk Protection Groups, which define the scope of a protection for a given Product Group. Risk Protection Groups may be configured at the following scopes:

- MPID + Product Group
- Session + Product Group
- Firm + Product Group

*Note: For the Session + Product Group configuration option, either a single or multiple sessions may be configured as part of the same group (e.g. Risk Protection Group A is configured for Product Group XYZ on Sessions ABC and BCD).*

The system will monitor activity for the defined Risk Protection Group(s). For each Risk Protection Group, the below Cumulative Risk Metrics (CRM) will be calculated automatically throughout the trading day. Each Risk Protection Group may configure a pre-defined limit representing the maximum allowed value for each below metric for that particular group:

- **Total Gross Trade and Open Credit Exposure**
  - Measured as the sum of the Credit Exposure of a participant's buy side and sell side trades as well as open orders for the day for that Risk Protection Group, i.e.
    - Total Gross Traded and Open Credit Exposure = (Long Open Order Credit Exposure Count) + (Long Traded Credit Exposure Count) + (Short Open Order Credit Exposure Count) + (Short Traded Credit Exposure Count)

- **Total Net Long Trade and Open Credit Exposure**
  - Measured as the difference between the sum of the Credit Exposure of a participant's buy side trades as well as open long orders for the day and the sum of a participant's sell side trades for the day for that Risk Protection Group, i.e.
    - Total Net Long Traded and Open Credit Exposure = [(Long Open Order Credit Exposure Count) + (Long Traded Credit Exposure Count)] – (Short Traded Credit Exposure Count)

- **Total Net Short Trade and Open Credit Exposure**
  - Measured as the difference between the sum of the Credit Exposure of a participant's sell side trades as well as open short orders for the day and the sum of a participant's buy side trades for the day for that Risk Protection Group, i.e.
    - Total Net Short Traded and Open Credit Exposure = [(Short Open Order Credit Exposure Count) + (Short Traded Credit Exposure Count)] – (Long Traded Credit Exposure Count)

If an order is received during the trading day such that one of the three credit exposure metrics above exceeds the configured limit for the Risk Protection Group, the protection will be triggered. Participants

will have the ability to select one of three possible trigger action for their Risk Protection Group(s) when the threshold has been reached:

- **Block**

    If this action is selected, all resting orders will remain posted to the order book. However, any future incoming order received, including the triggering order will be rejected back to the participant at the configured scope.

- **Block and Mass Cancel**
    - If this action is selected, all resting orders, including the triggering order, will be immediately cancelled back to the participant and any future incoming order received after the triggering order will be rejected back to the participant at the configured scope.

For each of these protections, warnings will be sent to the MIAX Futures Onyx Trading Operations team if the Risk Protection Group's activity equals or exceeds a specified percentage of the threshold for that group. Warnings will be sent if the participant's activity is greater than or equal to the following levels:

- 75% of the threshold
- 90% of the threshold
- Up to 3 optional custom warning levels configured for the Risk Protection Group (must be set in whole percent increments between 10% and 99%)

## Order Rate and Duplicate Order Protections

**Overview**

The Order Rate and Duplicate Order Protections are designed to identify any irregularity in order entry behavior, the source of which could be a malfunctioning system or erroneous business activity.

**Order Rate Protection**
- Background
    - MIAX Futures Onyx will provide participants with the ability to define custom thresholds to monitor the rate at which all incoming new Orders, Order Modification Requests and, optionally, Order Cancellation Requests are entered by the participant at the applicable scope. If the participant's threshold has been met, a warning will be generated to the MIAX Futures Trading Operations team.
- Configurability
    - As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. Participants will also have the ability to edit the parameters for this protection. By default, this protection will be disabled.
    - Participants will have the ability to set the following parameters for this protection:
        - Order Rate Time Window (in milliseconds): The rolling time window (or the look-back time period) during which the Order Count threshold must be equaled.

- **Order Count**: The Order Rate Protection is triggered when the amount of applicable messages equals the Order Count in the Order Rate Time Window.
- **Order Count Excludes Cancels (No/Yes)**: For the Order Rate Check with Manual Reset, participants will have the ability to select whether Order Cancellation Requests should be included in the Order Count for each scope. The default behavior will be to include cancels in the Order Count.

- Scopes
    - Session - Set by the participant
    - MPID - Set by the participant
    - Session + Product - Set by the participant
    - MPID + Product - Set by the participant

**Duplicate Order Check**
- Background
    - The Duplicate Order Check will provide all participants with the ability to limit potentially erroneous duplicative orders sent from the same MPID or Session from being live on the exchange. A duplicate order is defined as a new order with the same signature: with the same Side, Order Type, Price, Quantity, and Instrument as the order sent before it by the participant. Participants will have the ability to define a trigger action that will occur if and when the protection is triggered.
- Configurability
    - As this is an optional protection, participants have the ability to enable or disable this protection at the applicable scope. Participants will also have the ability to edit the parameters for this protection. By default, this protection will be disabled.
    - Participants will have the ability to set the following parameters for this protection:
        - **Duplicate Order Time Window (in milliseconds)**: The rolling time window (or the look-back time period) during which the Duplicate Order Count threshold must be hit.
        - **Duplicate Order Count**: The number of duplicate orders received during the Duplicate Order Time Window triggers the protection.
        - **Duplicate Order Trigger Action**: The action that would be enforced when the protection is triggered, one of the following must be selected:
            - **Reject**: If this trigger action is selected, all new orders received at the applicable scope that triggered the protection will be rejected for the remainder of the rolling Duplicate Order Time Window
                - **Note**: the Reject Action may take effect up to one full second after the protection triggers.
            - **Disable**: If this trigger action is selected, all new orders received at the applicable scope that triggered the protection will be rejected until a request is submitted to MIAX Futures Trading Operations team, or via the Member Firm Portal UI, to reset the risk control at that scope.
- Scopes
    - Session - Set by the participant
    - MPID - Set by the participant

## Trade Risk Metrics

**Trading Collar**
- Background
  - o The Trading Collar is a mandatory protection that is designed to prevent orders from executing at prices that are too far through the current market upon entry.
  - o A buy (sell) order will be prevented from trading at a price that is higher (lower) than the last trade price (bound by the MBBO) by a specified dollar or percentage value.
  - o Trading Collar applies to all Order Types as follows:
    - Limit Orders: an order to buy (sell) with a Limit Price that is above (below) the Upper (Lower) Bound of the Trading Collar will be rejected.
    - Market Orders: any portion of a Market Order to buy (sell) that would execute at a price above (below) the Upper (Lower) Bound of the Trading Collar will be cancelled back to the participant.
    - Stop-Limit Orders: Trading Collar will only be applied to a Stop-Limit Order once the order is introduced to the order book. A Stop Limit order to buy (sell) with a Limit Price that is above (below) the Upper (Lower) Bound of the Trading Collar will be cancelled back to the participant.
    - Stop-Market Orders: Trading Collar will only be applied to a Stop-Market Order once the order is introduced to the order book. Any portion of a Stop-Market order to buy (sell) that would execute at a price above (below) the Upper (Lower) Bound of the Trading Collar will be cancelled back to the participant.
- Configurability
  - o For the purposes of calculating the Trading Collar, MIAX Futures Onyx will configure one of the two possible below values for each product:
    - Default Dollar Collar Value
    - Default Collar Percentage Value
  - o On an order-by-order basis, participants may provide a Trading Collar Custom Dollar Value. The Custom Dollar Value will only be applied if the Custom Dollar Value results in a Trading Collar that is more conservative than the Product's exchange-set Trading Collar.
- Trading Collar Calculation:
  - o **Trading Collar Upper Bound** (For a buy order):
    - Trading Collar Reference Price +
    - Lesser of
      - Custom Dollar Value on the order if specified
      - Product Default Dollar or Percentage Value
  - o **Trading Collar Lower Bound** (For a sell order):
    - Trading Collar Reference Price –
    - Lesser of
      - Custom Dollar Value on the order if specified
      - Futures Product Default Dollar or Percentage Value

- o **Trading Collar Reference Price** will be determined as follows:
  - The <u>Last Sale Price</u> in the Product from the current trading day will be used as the reference price if available, with the following exceptions:
    - If the Last Sale Price is below the MIAX Best Bid (MBB), the MBB will be used as the reference price
    - If the Last Sale Price is above the MIAX Best Offer (MBO), the MBO will be used as the reference price
    - The above two exceptions apply for both simple and complex instruments.
  - If there are no Last Sale Prices for that product in the current trading day, the reference price will instead be the previous day's <u>Settlement Price</u>.
- o **Extended Trading Session Multiplier**
  - MIAX Futures Onyx will be able to specify an Extended Trading Session Multiplier, which will be in effect when calculating the Trading Collar during the Extended 1 Trading Session, Extended 2 Trading Session, and the Pre-Opening Market State.
  - The Multiplier will be applied to both the percentage value and dollar value when calculating the Trading Collar by multiplying the value set in the calculation.
  - For example, if the Extended Trading Session Multiplier is set to 2,
    - If the Exchange Default Dollar Value for Product ABCD is $0.10, the Dollar Value during the Extended 1 Trading Session will become $0.20 when calculating the Trading Collar.
    - If the Exchange Default Percentage Value for Product EFGH is 10%, the Dollar Value during the Extended 2 Trading Session will become 20% when calculating the Trading Collar.
- <u>Scopes</u>
  - o Product - Set by Onyx Futures Trading Operations
  - o Order-by-Order Basis - Set by the participant

**Self-Trade Protection**
- <u>Background</u>
  - o Self-Trade Protection (STP) is a risk management tool that participants may use to protect themselves from trading with their own orders.
  - o Participants have the ability to opt into STP on an order-by-order basis or at the overall session level.
  - o STP will not be applied as part of the Opening Match
  - o This is an optional protection and will be disabled by default.
- <u>Configurability</u>
  - o To enable STP, a participant is required to specify an STP Level and STP Instruction. The participant may also optionally specify a Self-Trade Protection Group.
    - **Self-Trade Protection Level**
      - <u>MPID Level</u>: an order from a specific MPID will not execute against an order sent from the same MPID where both such orders have opted into Self-Trade Protection.
      - <u>Firm Level</u>: if the STP Level is Firm, an order from that Firm will not execute against another order from the same Firm

- Parent Group Level: Parent Group Protection will allow a participant to aggregate multiple associated Firms under one parent umbrella. If the STP Level is Parent Group, an order from that Parent Group will not execute against another order from the same Parent Group
  - **Self-Trade Protection Instruction**
    - Cancel Newest: If a self-trade is about to occur, MIAX Futures Onyx will cancel the newer order as a result.
    - Cancel Oldest: If a self-trade is about to occur, MIAX Futures Onyx will cancel the older order as a result.
    - Cancel Both: If a self-trade is about to occur, MIAX Futures Onyx will cancel both the buy and sell orders as a result.
    - Decrement and Cancel: If a self-trade is about to occur, MIAX Futures Onyx will cancel the open size of the smaller order back to the user and decrement the size of the larger order by a size equivalent to the open size of the smaller order.
  - **Self-Trade Protection Group**
    - In addition to the STP Level, a user has the option to designate a Self-Trade Protection Group on the order. Specifying a Self-Trade Protection Group provides a way to create a more granular group within the same Parent Group, Firm or MPID.
    - If the Self-Trade Protection Group is not empty the one or two characters can be used that must be assigned as a value A" to "Z", "a" to "z" or an integer from 0 to 9. Space will not be permitted.
- Scopes
  - Session - Set by the participant
  - Order - Set by the participant

## Mass Cancel Capabilities

**Mass Cancel Request**
- Background
  - A participant can use the Mass Cancel functionality to manage risk for themselves. When the Mass Cancel Request is placed, the configured trigger action will immediately take place at the particular scope at which the request was sent.
  - As described below, participants will optionally be able to specify a Purge Group on their orders, which will be indicated on the order as a single character value between "A" to "Z", "a" to "z", or an integer from 0 to 9. If a Mass Cancel Request is placed at either the MPID + Purge Group scope or the Session + Purge Group scope as described below, only orders with the Purge Group specified in the Mass Cancel Request will be subject to the trigger action.
  - Per the list of scopes below, MIAX Futures Onyx supports mass cancel actions at the "Bulk MPID" Level, wherein all orders submitted from any of the selected MPIDs in the request, either from the same firm or a different firm from any Session, will be subject to the Mass Cancel Action.
- Configurability

- Participants will have the ability to enable one of the three below trigger actions:
  - <u>Block Only</u>: The system will reject all subsequent new orders received from the specified scope. Existing orders on the order book are not impacted. While in a blocked state, any attempts to modify an open order will be rejected with an appropriate reason code; the resting order will be canceled back to the participant.
  - <u>Mass Cancel Only</u>: The system will cancel all open orders on the exchange for the specified scope. The mass cancelling will be on a best efforts basis, prioritizing price and order entry time. However, the system will not reject any subsequent new orders from the specified scope.
  - <u>Block and Mass Cancel</u>: The system will reject all subsequent new orders and cancel all open orders on the exchange for the specified scope.
  - Note:
    - If a trigger action of either "Block Only" or "Block and Mass Cancel" is selected. The participant must reset the block either through the Member Firm Portal or through a request to the MIAX Futures Onyx Trading Operations Team.
- <u>Scopes</u>
  - The Mass Cancel Action may be performed at the one of the scopes specified below (via Trading Operations, MFP UI, or FOI/FEI port):
    - Session
    - Session + Purge Group
    - MPID
    - MPID + Purge Group
    - MPID + Product Group
    - MPID + Product Group + Purge Group
    - MPID + Product Group + Product Type
    - MPID + Product Group + Product Type + Purge Group
  - The Mass Cancel Action may be performed at the one of the scopes specified below (via Trading Operations or MFP UI):
    - Bulk MPID
    - Bulk MPID + Purge Group
    - Bulk MPID + Product Group
    - Bulk MPID + Product Group + Purge Group
    - Bulk MPID + Product Group + Product Type
    - Bulk MPID + Product Group + Product Type + Purge Group

**Auto-Cancel on Disconnect ("ACOD")**
- <u>Background</u>
  - In the event that a participant's session with the exchange is disconnected, certain orders submitted via that order entry session that are open on the order book can be cancelled automatically upon disconnect. Orders sent via any of the participant's other sessions will not be affected.
  - ACOD is also available to Order FIX Drops (oFXD) and regular FIX Drops (FXD) that have an entitlement of one or more sessions. Once the disconnected Drop reconnects, the protection will automatically be reset.

- o  This is an optional protection.
- Configurability
  - o  If enabled, participants will have the ability to choose between the following trigger actions:
    - **Cancel All Non GTC/GTD Open Orders**:
      - All orders that were sent through this order entry session and are open will be cancelled upon session disconnect, with the exception of any open orders with a TIF of GTC or GTD.
    - **Do Not Cancel All Open Orders**:
      - This will disable Auto Cancel on Disconnect. If the participant does not opt in to ACOD, MIAX Futures Onyx will not cancel any orders.
- Scopes
  - o  Session

## Auto-Cancel on Matching Engine/System Failure ("ACOSF")

- Background
  - o  In the event of a MIAX Futures Onyx system failure, participants may request that their open orders be cancelled automatically. Orders sent via any of the participant's other sessions will not be affected.
  - o  ACOSF is also available to Order FIX Drops (oFXD) and regular FIX Drops (FXD) that have an entitlement of one or more sessions. Once the disconnected Drop reconnects, the protection will automatically be reset.
  - o  This is an optional protection.
- Configurability
  - o  If enabled, participants will have the ability to choose between the following trigger actions:
    - **Cancel All Non GTC/GTD Open Orders**:
      - All orders that were sent through this order entry session to the impacted matching engine(s) and are open will be automatically cancelled upon system failure, with the exception of any open orders with a TIF of GTC or GTD
    - **Do Not Cancel All Open Orders**:
      - This will disable this protection. If the participant does not opt in to Auto Cancel on System Failure, MIAX Futures Onyx will not automatically cancel any open orders upon a system failure.
- Scopes
  - o  Session

## Daily Price Limits

A Daily Trading Limit Range is the maximum price range that a Futures Instrument will be permitted to trade within a given Trading Day. This is a mandatory protection that will be configured for each outright futures product. There will be one set of Daily Trading Limits configured for Minneapolis Hard Red Spring Wheat Products and one set of Daily Trading Limits configured for Equity Index Products. The specific handling for when a Daily Trading Limit is hit is outlined below.

**Daily Price Limits for Minneapolis Hard Red Spring Wheat Products**

For simple instruments with an underlying of Minneapolis Hard Red Spring Wheat, the Daily Trading Limit will be the instrument's Prior Day Settlement Price + a pre-defined Dollar Value. The Dollar Value is product-dependent and can be found in the MIAX Futures Onyx Product Reference Guide here.

If an order is received that breaches the Daily Price Limit for a given instrument, the exact handling will be based on the order type of the breaching order, as outlined below:

- **Limit Order**
    - A Limit Order to buy (sell) that is entered with a Limit Price greater(less) than the Daily Trading Limit Upper (Lower) Band will be rejected.
- **Market Order**
    - A Market Order to buy (sell) will be allowed to trade opposite side interest at prices levels up (down) to and including the Daily Trading Limit Upper (Lower) Band. Any residual interest outside will be canceled.
- **Stop-Limit Order**
    - A Stop-Limit Order to buy (sell) that is entered with a Limit Price greater (less) than the Daily Trading Limit Upper (Lower) Band will be canceled after being introduced to the order book.
- **Stop-Market Order**
    - A Stop-Market Order to buy (sell) will be allowed to trade opposite side interest at prices levels up (down) to and including the Daily Trading Limit Upper (Lower) Band after being introduced to the order book. Any residual interest outside will be canceled.

**Daily Price Limits for Equity Index Products**

Each product will have either Up Protection (i.e. Upper Limit), Down Protection (i.e. Lower Limit), or Up and Down Protection (i.e. Upper and Lower Limits), depending on both the product and the market state in effect. The Daily Trading Limits will be configured once at the start of the trading day:

| Daily Price Limits | Pre-Opening | Extended 1 Trading Session | Regular Trading Session | Extended 2 Trading Session |
|---|---|---|---|---|
| **Level 1** | 3.5% Up and Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* | 3.5% Up and Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Automatic Halt* | 7% Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* | 7% Up and Down from the Last Trade Price<br><br>***Trigger:*** *Order Entry Protection* |
| **Level 2** | n/a | 7.0% Up and Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* | 13% Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* | 20% Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* |
| **Level 3** | n/a | n/a | 20% Down from the Prior Day Settlement Price<br><br>***Trigger:*** *Order Entry Protection* | n/a |

If the Daily Trading Limits for an instrument is breached for a given level and trading session, the specified trigger action will occur based on the above grid:

- **Order Entry Protection**
  - The breaching order will be handled in the same manner as outlined above for Minneapolis Hard Red Spring Wheat Products, i.e. the exact outcome for the breaching order will be determined based on its order type.

- **Automatic Halt**
  - An Automatic Halt will be triggered in the following scenarios:
    - Either a trade or MBBO update occurs that causes the Level 1 Daily Trading Limit to be breached during the Extended 1 Trading Session.
    - Either a Level 1 or 2 Market-Wide Circuit Breaker (MWCB) update is received via one of the Securities Information Processors (SIPs, i.e. UTP or CTA). A Level 3 MWCB update will lead to all Equity Index Instruments Closing for the remainder of the Trading day.
  - For exact order handling during Automatic Halts, please refer to "Trading Halts and Re-Opening Process" in *Section 7. Hours of Operation* above.

Complex Strategies will not have Daily Trading Limits applied directly. The range in which Complex Strategies will trade will be limited based on the Daily Trading Limits of the Components of the Strategy.

# 9. Member Firm Portal User Interface

The Member Firm Portal User Interface is a member-facing application available via the internet that provides members with the tools needed to view and manage their connectivity, sessions, risk protection configurations, orders and trades. Order and trade data is available for current day.

To request access to the Member Firm Portal User Interface, please contact Trading Operations.

# 10. MIAX Futures Exchange Rules

A copy of the complete MIAX Futures Rulebook is available in the Regulatory Section of the Exchange's website here.

Throughout this User Manual, reference is made to MIAX Futures Rules. In the event of any conflict between a description or discussion of a Rule in this User Manual and the Rules set forth in the MIAX Futures Rulebook, the Rulebook shall prevail.

# 11. MIAX Futures Onyx Fees

A link to a copy of the complete MIAX Futures Onyx Fee Schedule is available on the Exchange's website under the Fee Summary tab here.

# 12. MIAX Futures Regulatory

A request for a trade to be reviewed must be made to the Exchange via telephone within eight minutes of the execution of the trade. The MIAX Onyx Futures Regulatory Operations team will have the ability to take corrective actions accordingly (i.e. Regulatory Operations will have the ability to bust the trade if the criteria for cancellation are met). For more information, please refer to the MIAX Futures Exchange Rulebook and Error Trade Policy here.

# 13. Contact MIAX Futures Exchange

- **Address:**
  - 7 Roszel Road, 1st Floor
  - Princeton, NJ 08540
- **Phone:**
  - (609) 897-7300

| Area of Interest | Department | Email |
|---|---|---|
| Investor Inquiries | Investor Relations | Investor.Relations@miaxglobal.com |
| Business Development | Business Development | Futures@miaxglobal.com |
| Regulatory | Regulatory | Regulatory@miaxglobal.com |
| Membership | Membership | Membership@miaxglobal.com |
| Market Operations | Trading Operations | MiaxFuturesTradingOperations@miaxglobal.com |
| Connectivity | Trading Operations | MiaxFuturesTradingOperations@miaxglobal.com |
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