

Dark Liquidity Guide

Toronto Stock Exchange

TSX Venture Exchange

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1 Overview

TMX Group is pleased to offer Dark mid-point and Dark limit orders, referred to as “Dark Order types”, on the Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV). These Dark orders are fully integrated into the existing visible order book on each Exchange, meaning these new Dark orders will interact and trade with displayed as well as other Dark orders.

Integrating Dark liquidity with Canada's most extensive displayed order book in a manner that preserves the fairness and integrity of the market provides tremendous benefits to market participants by providing additional trade execution choices, meaningful price improvement opportunities, and valuable liquidity-seeking opportunities.

1.1 Purpose

The purpose of the product guide is to ensure the reader leaves with a firm understanding of our Dark orders, with respect to:

- Dark order tags and values
- When Dark orders are authorized to be submitted and when they may trade
- How Dark orders are initially priced
- When and how are Dark orders re-priced
- How Dark orders interact with displayed orders
- Order entry and feed variations specific to Dark orders
- When Dark order functionality may be disabled

1.2 Glossary

Term	Definition
ABBO	The best away market quote
ABB	ATS Best Bid
ABO	ATS Best Offer
ATS	Alternative trading system
Continuous Trading	Trading activity that occurs during the Post Open and MOC Imbalance market states. (9:30 – 16:00)

Executable price	The price at which the Dark order is eligible to trade respecting the trade through obligations of not trading through away markets
Executable state	The order state in which a Dark order is eligible to trade.
Limit price	A client or system assigned upper or lower limit which a Dark order may have its executable price assigned to.
LSP	TSX last sale price
NBBO	National Best Bid/Offer
NBB	National Best bid
NBO	National Best Offer
Non-executable state	The order state in which a Dark order is in eligible to trade.
TBBO	TSX Best Bid/Offer
Trading increment	The price interval at which an order may be submitted and trade

1.3 Dark order types overview

The Toronto Stock Exchange and TSX Venture Exchange’s current offering of Dark order types include Dark mid-point orders and Dark limit orders. These orders types are introduced as native order features available in our displayed order book and can be entered using two new tags to the FIX and STAMP order entry protocols.

Dark mid-point orders always provide meaningful price improvement of at least a full trading increment unless the NBBO spread is one trading increment. In this case the price improvement provided will be half a trading increment. Dark limit orders will generally offer price improvement however may trade at the NBBO.

Dark orders interact with displayed orders as well as other Dark orders through one allocation sequence according to price-visibility-broker-time priority, ensuring the priority of displayed orders over Dark orders.

There is no pre-trade transparency of Dark orders meaning order responses and changes in order attributes are not disseminated publicly. All order responses are fully encrypted in the Broadcast feed. There is full post-trade transparency of Dark execution prices which will update the last sale price and be provided to the TMX information processor’s Consolidated Last Sale (CLS) feed, however all Dark tag details are classified as private content and therefore fully encrypted. As Dark orders are fully hidden they do not contribute to the symbol’s quote.

The TSX/TSXV securities that are enabled to accept Dark orders are identified based on information communicated by TSX/TSXV through notices to Participants/Members, as well as designations on a daily basis within the symbol status message distributed on

TMX market data feeds. During the trading day, a symbol may become ineligible to accept and trade Dark orders due to market issues such as price volatility triggering a market quality safeguard or technical issues such as an ATS sending erroneous quote data. Any change to a symbol's eligibility will be communicated to all participants through a stock status message which will have the Accept Undisplayed tag set to "N". Once the issue has been addressed that symbol may have its eligibility reinstated. When this occurs a stock status message will be disseminated with the Accept Undisplayed tag set to "Y". These events will be followed by external notification by TSX/TSXV Trading Support serving as further notification of the event.

2 Dark Order Types – Features and Functionality

2.1 Dark Midpoint Orders

- Dark mid-point orders are pegged to execute at the floating mid-point of the NBBO with an optional client assigned limit price.
- Upon entry Dark mid-point orders are eligible to trade against contra Dark mid-point orders and Dark limit orders.
- Resting Dark mid-point orders may trade with active visible, Dark limit and Dark mid-point orders.
- Dark mid-point orders will only execute at the NBBO mid-point.
- Dark mid-point orders are not executable when the NBBO is locked or crossed.
- Dark mid-point executions are protected in the form of existing TSX/TSXV freeze parameters and bid/ask tick limits.
- Mid-point rounded last sale price and non-rounded trade price will both be reported publicly.
- Can result in a trade price which is an invalid trading increment, in which case the reported Last Sale Price will always round up to the next valid trading increment, but the reported trade price for clearing/settlement will always be the non-rounded price.
- If the NBBO mid-point is beyond the range of the limit price, the mid-point order will not execute but remain queued retaining priority. When the NBBO mid-point floats back within range of the order's limit price, the order will become executable, attempt to trade and if unsuccessful will reenter the book and maintain its time priority.

2.2 Dark Limit Orders

- Dark limit orders are entered with a full tick limit price, or a market price. TSX/TSXV may assign a limit price based on the original limit or the existing bid/ask tick limits.
- Upon entry Dark limit orders are eligible to trade against contra Dark limit orders, Dark mid-point orders and visible orders.
- Resting Dark limit orders may trade with active visible, Dark limit and Dark mid-point orders.
- Dark limit executions are protected in the form of existing freeze parameters and bid/ask tick limits.

- TSX/TSXV automatically protects these orders from unintentional trade-throughs by only executing these orders at prices at or inside the ABBO. When the ABBO changes a resting Dark limit order may be re-priced to ensure it does not trade through the consolidated away market’s best contra price. When the Dark limit order is re-priced it may execute against a contra order if it’s determined to be tradable. (Please see Sec 5.3)

2.3 Tag identifiers

The following tags must be present on the order to be recognized as a Dark limit or Dark mid-point order:

Dark order type	STAMP	TSX-FIX
Dark Limit	Undisplayed (604) =Y	TSX Undisplayed (7726) =Y
Dark Mid-point	Undisplayed (604) =Y PegType (597) = M	TSX Undisplayed (7726) =Y TSX PegType (7723) = M

2.4 Dark order tag combinations

The following order attribute values are not be permitted on Dark orders:

Order attributes	Unauthorized Value
Price	MBF
Volume	Odd Lot, Mixed Lot
Bypass	Y
Post Only	ExecInst = 0, or 9
Item Number	-
MGF Candidate	Y
MOC	Y
Non Resident	Y
Settlement Terms	"Cash", "CT" "Date", "MS", "MN"

2.5 Dark order messages and Market states

New Dark orders and CFOs may be entered in the Pre-Open market state and during Continuous Trading. Cancels will also be permitted in these states as well as during the Extended hours trading session.

Dark orders will not participate in the Opening or Closing calls and may only trade during Continuous Trading.

2.6 Assigning the Limit Price and Executable Price to Dark orders

2.6.1 Assigning a limit price to a Dark order

Dark orders may be submitted with a limit or market price. The system will retain the limit price of the order and ensure that the order will not execute outside of that limit price. Aggressive limit priced orders and market priced orders will have a limit price assigned by the trading system based on the bid/ask tick limit for that symbol and price level.

The bid/ask tick limit is a TMX Market Quality safeguard that prevents Market or Better Price limit orders from trading deep into the book, and thus causing large anomalous price swings. The bid/ask tick limit is currently applied to visible orders and will be applied to Dark orders.

The limit price whether assigned by the client or assigned by the trading system will constrain the executable price of the Dark order. The limit price assigned to the Dark order will not change unless CFO'd by the trader.

2.6.2 Executable Price

A system assigned price at which the Dark order is eligible to trade. The executable price may be reassigned by the trading system when either the mid-point of the NBBO changes for a symbol or the ABBO changes for a symbol.

Dark mid-point executable price

When assigning an executable price to Dark mid-point orders, the system will take into consideration the Dark mid-point order's limit price and the mid-point of the symbol's NBBO. If the mid-point of the symbol violates the limit price of the Dark mid-point order, the Dark mid-point order will be placed in a non-executable state. Once in a non-executable state the Dark order will be ineligible to trade. When the NBBO mid-point for the symbol floats back to a price which does not violate the limit price of the Dark mid-point order, the trading system will transition the Dark mid-point order into an executable state retaining the time priority it previously held, assign the new executable price to the order and attempt to trade the order.

Please see Sec 5.2 for an example of reassigning the executable price of a Dark mid-point order.

Other conditions where Dark mid-point orders may be placed in a non-executable state include:

1. National Best Bid = National Best Offer (locked market)
2. National Best Bid > National Best Offer (crossed market).
3. Either the National Bid or the National Offer = 0

Dark limit executable price

When assigning an executable price to Dark limit orders, the system will take into consideration the limit price and the symbol's ABBO.

A buy Dark limit order's executable price will be the lesser of the order's limit price and the ABO. A sell Dark limit order's executable price will be the greater of the order's limit price and the ABB.

To protect against unintentional trade-throughs, when a new ABBO quote is determined it may result in a new executable price being assigned to the Dark limit order which could then execute.

Please see Sec 5.3 for an example of a Dark limit order's executable price being reassigned and trading.

2.6.3 Identifying a Delayed Active assignment

When a Dark order is assigned a new executable price it has the potential to trade. If assigned the active leg of the trade, the trade report will be flagged with "A" (Delayed Active) in position seven of the Exchange Admin tag. This identifier will give full transparency to the trader that the order has been assigned as the active side of a trade. Please note that this new identifier will not be exclusive to Dark Orders, and will be available to applicable displayed orders as well (triggered on-stops, price assigned short sell orders). Please see Sec 4.1.4 for the Delayed Active specification details.

2.7 CFOing a Dark order

Traders will be able to CFO all currently permissible tags (ex. Limit price, Volume) on a Dark order with the exception of the Undisplayed tag. Once an order has been entered as Dark it may not be changed to a visible order. The Dark order would first need to be cancelled and a new order submitted.

2.8 Rounding the Last Sale Price for Dark Mid-point orders

A mid-point execution can result in a trade price at an invalid trading increment. When this occurs the last sale price will be rounded up to the next valid trading increment but the reported trade price for clearing/settlement will always be the non-rounded price.

Please see Sec 5.1 for an example of when the last sale price will be rounded up to the next valid trading increment

2.9 Allocation Priority and Order Matching

Dark orders will be allocated in two distinct phases:

Phase 1: Board lot allocation

Throughout the board lot allocation fully visible orders and both the disclosed and undisclosed volume of iceberg orders will have priority over Dark orders at the same price. At each price level the allocation will adhere to the following sequence:

1. Displayed portions of orders in time priority with broker preferencing
2. Undisplayed portions of icebergs in time priority
3. Dark orders in time priority with broker preferencing
4. Remaining Dark orders in time priority

Phase 2: Re-pricing of Dark mid-point orders

After the board lot allocation, a new NBBO may be realized which will result in the reassignment of the executable price for all eligible Dark mid-point orders. Eligibility will be determined based on the limit of the Dark mid-point order. When this occurs the system will attempt to allocate the re-priced Dark mid-point orders according to the steps noted in Phase 1: Board lot allocation.

Please note that Dark mid-point orders will always be matched and executed at the mid-point of the NBBO.

2.10 Dark short sell orders

Dark short sell orders are held to the same short sale down tick rule as displayed short sell orders. Dark short sell price assignments will occur after displayed short sells have been price assigned, maintaining the priority of displayed orders ahead of Dark orders.

Price assigning of Dark short sell orders will occur according to the following rules:

Dark mid-point short sell orders:

Executable price = Mid-point price if \geq Limit price and \geq LSP, otherwise non-executable

Dark limit short sell orders:

Executable price = the greater of the Limit price, ABB or LSP

Please note that when Dark short sell orders are assigned a new executable price, a price assigned message will not be disseminated.

2.11 Disabling and Re-enabling Dark orders

Dark orders may be manually disabled (sec 2.11.1) by TSX at the symbol or market level. Disabling may also occur automatically (sec 2.11.2) through system functionality at the symbol level if certain conditions arise. Once Dark orders have been disabled, all Dark orders will be transitioned into a non-executable state maintaining their priority timestamp. New Dark orders and CFO's will be rejected by the system however Dark orders previously accepted by the system may be cancelled.

2.11.1 Manual disabling Dark orders

Market or technical issues may require Dark orders to be disabled by TSX/TSXV Trading Support at the symbol or market level due to market issues such as price volatility triggering a market quality safeguard or technical issues such as an ATS sending erroneous quote data. When Dark orders have been disabled at the symbol level, all Dark orders for that symbol will be transitioned into a non-executable state and a stock status notification will be disseminated with the Accept Undisplayed value set to "N". This will be followed by a General message being disseminated by TSX/TSXV Trading Support as further notification of the action.

When Dark orders are disabled by TSX/TSXV Trading Support at the market level, all Dark orders on the market will be transitioned into a non-executable state. This will be followed by a General message and an email being disseminated by TSX/TSXV Trading Support as notification of the action.

2.11.2 Automatically disabling Dark orders

Dark orders may be disabled automatically by the system if the following conditions occur:

Predefined mid-point and last sale price volatility parameters have been exceeded. When this occurs the symbol's Accept Undisplayed status will be set to "N" and a stock status notification message will be disseminated.

Once the Dark orders have been disabled for a symbol or the market they may only be re-enabled by TSX/TSXV Trading Support. Notification of this action will be disseminated through a General message and once complete a stock status notification message.

2.11.3 Re-enabling Dark orders

Symbol level

Once Dark orders have been disabled at the symbol level they may be re-enabled intra-day by TSX/TSXV Trading Support. Once re-enabled a stock status notification message will be disseminated with the Accept Undisplayed tag set to 'Y'. This will be followed

by a General message being disseminated by TSX/TSXV Trading Support as further notification of the action.

Market level

When Dark orders have been disabled at the market level they may re-enabled be prior to, or after the continuous trading session by TSX/TSXV Trading Support. This will be followed by a General message being disseminated by TSX/TSXV Trading Support.

3 Visible and Dark Order Interaction

3.1 Interacting with Dark Orders

All participants of the Toronto Stock Exchange and TSX Venture Exchange will be able to submit and interact with Dark orders through their current order entry sessions. There is no need to “Opt in” to receive the benefits of interacting with Dark liquidity.

Visible orders will always seek price improvement opportunities by attempting to trade against a Dark order as per the order allocation sequence described in Section 2.9 - Allocation priority and Order matching. Once all price improvement fills have been exhausted, visible and Dark volume will be allocated up or down to the order’s limit.

3.2 Seeking Dark liquidity without interacting with visible volume

Participants executing a trading strategy to seek price improvement fills offered by Dark orders can either:

- Enter their orders with a limit one tick off of the contra TSX/TSXV quote accompanied with order duration of IOC.
- Enter a Dark Mid-point order

3.3 Seeking the best price without trading through an away market

Participants who desire to receive price improvement fills and ensure they do not trade through an away market’s better visible price may use the Order protection features on TSX/TSXV, where the order will receive the price improvement fills offered by Dark volume and execute only against TSX/TSXV volume posted at prices up to and including the price of the best away market quote. Depending on the feature selected the remaining volume will either book one tick off of the contra away market best price or be killed. This strategy allows participants to avoid latency and opportunity costs associated through pre-routing an order, and to send orders directly to TSX/TSXV for the opportunity to receive price improvement and reduced transaction costs, while continuing to be exposed to any best prices on TSX/TSXV with trade-through protection.

3.4 Not interacting with Dark volume

Bypass orders

Orders that have an obligation to trade against the displayed best price while trading on multiple venues can mark their orders bypass to avoid the price improvement fills that would normally be provided by Dark orders and bypass the undisclosed volume of iceberg orders.

Post Only orders

Marking orders as Post-only will prevent interactions with Dark orders for fee-sensitive participants that prefer to display their liquidity by improving on displayed prices.

4 Feed messages

The following sections highlight some notable messaging variations specific to Dark orders.

4.1.1 Order Entry

Dark orders may be submitted through either the STAMP or TSX-FIX protocols: Securities Trading and Message Access Protocol (STAMP) Specification, TSX-FIX Specification and Business Design Guide.

- When a Dark order is booked the limit price will be reported in the Price field of the order confirmation.
- When a trader CFOs the price of a Dark order this will result in a new limit price being assigned.

4.1.2 Broadcast Feed

- All pre-trade messages generated as a result of a Dark order will be fully encrypted.
- There will not be a public indicator that a trade involves a Dark order.
- The Price and Public price fields on the Order/Cancel confirmation report will be populated with the limit price not the executable price.
- The trade report may have a rounded last sale price and non-rounded trade price if the trade occurred at an invalid trading increment.
- All trade reports involving a Dark order will have the public display volume tag set to zero for the side of the trade the Dark order participated. To determine the remaining volume of the Dark order the remaining volume tag must be referenced. As a result of this feature more than one trade report may have the same order number with a display volume of zero.
- All trade reports involving a Dark order will have a unique public order number for the side of the trade that was Dark. The first trade will contain the original public order number. Each subsequent trade will have a randomly generated public order number, however the private order number will be maintained. This feature will enhance the anonymity of Dark orders by masking the pattern of fills for any given Dark order.
- Re-priced dark orders that are assigned the active leg of a trade will have position seven of the Exchange Admin tag populated with an “A” in the trade report. Please note that this new identifier will not be exclusive to Dark Orders, and will be available to applicable displayed orders as well (triggered on-stops, price assigned short sell orders)

4.1.3 Reconciliation Feed

The reconciliation feed primarily disseminates messages to aid in end of day reconciliation processes and start of day activities. It is important to note that Order Book and Order status messages for Dark orders will be fully encrypted in the feed. The limit price of Dark orders will populate the Public Price and Price fields in these respective messages.

4.1.4 Summary of Order Entry and Market Data Feed Specification Changes

The table below summarizes the order entry and data feed specification changes associated with the introduction of Dark Orders.

Feature	Description	FIX OE	STAMP OE	Broadcast Feed	TL1	TL2	TQL1 (Quantum Feeds)	TQL2 (Quantum Feeds)
Dark Mid-Point order	An order with full pre-trade anonymity which will only execute at the mid-point of the NBBO	<p>TSXUndisplayed (7726)=Y</p> <p>Indicates the order is completely non-displayed</p> <p>TSXPegType (7723)=M</p> <p>Indicates order is priced at the National Best Bid/Offer mid-point</p>	<p>Undisplayed (604)=Y</p> <p>Indicates the order is completely non-displayed</p> <p>PegType (597)=M</p> <p>Indicates order is priced at the National Best Bid/Offer mid-point</p>	<p>Order responses:</p> <p>Fully encrypted</p> <p>Trade Report:</p> <p>Undisplayed (604) and PegType (597)</p> <p>Added to private content</p> <p>LastSale (114)</p> <p>The rounded price when the trade occurs at an invalid tick increment</p> <p>Price (41)</p> <p>The non-rounded trade price</p> <p>Display volume (150)</p> <p>Set to 0 for the side which is dark</p>	<p>Message type A: Equity Trade:</p> <p>Trade Price will be a rounded price when the trade occurs at an invalid tick increment</p> <p>Message type H: Equity Trade Cancellation:</p> <p>Trade Price will be a rounded price when the trade occurs at an invalid tick increment</p>	<p>Trade Report:</p> <p>LastSale (114)</p> <p>A rounded price when the trade occurs at an invalid tick increment</p> <p>Price (41)</p> <p>The non-rounded trade price</p> <p>Display volume (150)</p> <p>Set to zero for the side which is dark</p> <p>Symbol Status:</p> <p>LastSale (114)</p> <p>A rounded price when the last trade occurred at an invalid tick increment</p>	<p>Equity Trade:</p> <p>LastSale</p> <p>A rounded price when the trade occurs at an invalid tick increment</p> <p>Price</p> <p>The non-rounded trade price</p> <p>Equity Trade Cancelled:</p> <p>LastSale</p> <p>A rounded price when the trade occurs at an invalid tick increment</p>	<p>Trade Report:</p> <p>LastSale</p> <p>A rounded price when the trade occurs at an invalid tick increment</p> <p>Price</p> <p>The non-rounded trade price</p> <p>Buy Display Volume</p> <p>Set to zero if side is dark</p> <p>Sell Display volume</p> <p>Set to zero if side is dark</p>

							Price The non-rounded trade price	
Dark Limit order	An order with full pre-trade anonymity which will only execute at or inside the NBBO	TSXUndisplayed (7726)=Y Indicates the order is completely non-displayed	Undisplayed (604)=Y Indicates the order is completely non-displayed	Order responses: Fully encrypted Trade Report: Undisplayed (604) and PegType (597) Added to private content LastSale (114) The rounded price when trade occurs at an invalid tick increment Price (41) The non-rounded trade price Display volume (150) Set to zero for the side which is dark	Message type A: Equity Trade: Trade Price will be a rounded price when the trade occurs at an invalid tick increment Message type H: Equity Trade Cancellation: Trade Price will be a rounded price when the trade occurs at an invalid tick increment	Trade Report: LastSale (114) A rounded price when the trade occurs at an invalid tick increment Price (41) The non-rounded trade price Display volume (150) Set to zero for the side which is dark Symbol Status: LastSale (114) A rounded price when the last trade occurred at an invalid tick increment	Equity Trade: LastSale A rounded price when the trade occurs at an invalid tick increment Price The non-rounded trade price Equity Trade Cancelled: LastSale A rounded price when the trade occurs at an invalid tick increment Price The non-rounded trade price	Trade Report: LastSale A rounded price when the trade occurs at an invalid tick increment Price The non-rounded trade price Buy Display Volume Set to zero if side is dark Sell Display volume Set to zero if side is dark

Dark order eligibility	Notification of dark eligibility for the symbol	No impact	No impact	Symbol status: AcceptUndisplayed (605)=Y Indicates if the symbol is eligible to trade dark orders Stock status: AcceptUndisplayed (605)=Y Intraday notification if the dark eligibility for the symbol has changed	No impact	Symbol status: AcceptUndisplayed (605)=Y Indicates if the symbol is eligible to trade dark orders Stock status: AcceptUndisplayed (605)=Y Intraday notification if the dark eligibility for the symbol has changed	No impact	No impact
Delayed Active Identifier	An identifier to notify the participant that they were assigned the active side of the trade due to a repricing or triggering mechanism	No impact	No impact	Trade Report: Exchange-Admin (380) Position 7: 'A' Delayed Active	No impact	No impact	No impact	No impact
Enhancing Dark Order Anonymity	An additional feature to minimize disclosure of dark order intentions	No impact	No impact	Trade Report: Order Number (40) Unique after the first fill Private order number	No impact	Trade Report: Order Number (40) Unique after the first fill	No impact	Trade Report: Buy Order ID: Unique is side was dark Sell Order ID:

	After the first fill of a dark order a unique public order number will be assigned to any subsequent fills.			(214) Original order number for the dark order				Unique is side was dark
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5 Examples

5.1 Determining the price for a Dark mid-point trade.

Starting values:

NBBO = (10.00, 10.03)

NBBO mid-point = 10.015

Bid/Ask tick parameter: \$0.50

TSX Order book

Vol	Bid		Offer	Vol
100	10.00		10.01	100
100	9.95		10.03	100
			10.04	100

Dark limit

A Dark mid-point order to Buy 100 @ MKT is entered.

The trading system calculates the limit price and executable price to be assigned to the Dark mid-point order

Limit Price = TSX offer + 0.50
 = 10.53

Executable price = NBBO mid-point if < Limit price, otherwise non-executable
 = 10.015

The Dark mid-point order will trade with the Dark limit order for 100 shares. The trade report will contain the un-rounded trade price (Tag 41 = 10.015) and the rounded Last sale price (Tag 114 = 10.02).

5.2 Reassigning the executable price of a Dark mid-point order

Starting values:

ABBO= (9.99, 10.03)

TBBO= (10.00, 10.03)

NBBO= (10.00, 10.03)

NBBO Mid-point = 10.015

Bid/Ask tick parameter: \$0.50

TSX Order book

Vol	Bid		Offer	Vol
100	10.00		10.03	100
100	9.98		10.04	100
100	9.97			

A Dark mid-point order to Sell 500 @ MKT is entered.

The trading system calculates the limit price and executable price to be assigned to the Dark mid-point order

Limit Price = TSX bid - 0.50
= 9.50

Executable price = NBBO mid-point if > Limit price, otherwise non executable
= 10.015

The system books the Dark mid-point order at the executable price (10.015)

Resulting TSX Order book

Vol	Bid		Offer	Vol
100	10.00		10.015	500
100	9.98		10.03	100
100	9.97		10.04	100

Dark mid-point

(The example continues on the next page)

An order to Sell 100 @ 10.00 is entered and trades with the 10.00 bid.

The resulting TSX quote (9.98, 10.03) is compared against the ABBO quote (9.99, 10.03) to determine if the mid-point of the NBBO has changed.

NBBO (9.99, 10.03)

NBBO Mid-point = 10.01

The new NBBO mid-point does not violate the limit assigned to the Dark mid-point Sell order therefore the executable price of the Dark mid-point order is reassigned to 10.01.

Resulting TSX Order book

Vol	Bid		Offer	Vol
100	9.98		10.01	500
100	9.97		10.03	100
			10.04	100

Dark mid-point

(Please note when a Dark mid-point order has its executable price reassigned a price assigned message will not be disseminated.)

5.3 Reassigning the executable price of a Dark limit order

Starting values:

ABBO= (9.99, 10.03)

TBBO= (10.00, 10.03)

NBBO= (10.00, 10.03)

Bid/Ask tick parameter: \$0.50

TSX Order book

Vol	Bid		Offer	Vol
100	10.00		10.03	100
100	9.98		10.04	100
100	9.97			

Dark limit order to Sell 500 @ MKT is entered

The trading system calculates the limit price and executable price to be assigned to the Dark limit order

Limit Price = TSX bid - 0.50
= 9.50

Executable price = the greater of the Limit price and the ABB
= 9.99

The Dark limit order trades 100 shares at the visible bid (10.00) and books the remaining volume at the executable price.

Resulting TSX Order book

Vol	Bid		Offer	Vol
100	9.98		9.99	400
100	9.97		10.03	100
			10.04	100

Dark limit

The ABBO changes to (9.98, 10.03)

The system determines that ABB does not violate the limit of 9.50 and reassigns the executable price to 9.98. The Dark limit trades the 100 shares at the visible bid (9.98) and

books the remaining volume at the new executable price, maintaining its priority timestamp.

Resulting TSX Order book

Vol	Bid		Offer	Vol
100	9.97		9.98	300
			10.03	100
			10.04	100

Dark limit

(Please note when a Dark limit order has its executable price reassigned a price assigned message will not be disseminated.)