

## DEALER ADVISORY #031717

DATE: March 17, 2017
TO: All Exmark Distributors, Dealers, RSM's and TM's Sales and Service Department Managers
FROM: Tom Person, Sr. Technical Service Representative
SUBJECT: Electrical Connectors and Terminals

In addition to the previously communicated dealer advisories, Exmark is proud to announce the release of several new electrical connector bodies and terminals.

## **CONNECTOR BODIES:**

Key switch connector: 32160-014 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

PTO switch connector: 32160-007 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Clutch Connector: 32160-057 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Motion control/seat switch connector: 32160-016 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)







Seat switch receptacle, 2 pin: 32160-045 Specific use or notes: none, universal **Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

Hour meter/brake module connector: 32160-189 Specific use or notes: Lazer 2009+, Navigator 200x+, TTX 2015+, Quest E and S 2011-2016 (excludes QSS models) **Terminal(s):** 32170-215

Brake/seat switch connector: 32160-017 **Specific use or notes:** Lazer 2009+ **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Fuse block: 32160-258 **Specific use or notes:** Lazer 2009+ **Terminal(s):** 32170-186

Fuse Block: 32160-005 Specific use or notes: TTS/TTX, Vantage **Terminal(s):** 32170-186

Fuse block: 32160-054 Specific use or notes: single fuse holder **Terminal(s):** 32170-214

Relay base: 32160-001 Specific use or notes: none, universal **Terminal(s):** 32170-001 (one wire), 32170-003 (two wire)















Engine plug, 6 pin Packard: 32160-152

**Specific use or notes:** black rectangular connector with flat terminals **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Engine receptacle, 6 pin Packard: 32160-138 **Specific use or notes:** black rectangular connector with flat terminals **Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

Engine Plug, 6 pin Mate-N-Lok: 32160-175 **Specific use or notes:** white square connector with round terminals **Terminal(s):** 32170-216 or 32170-217, check existing connector

Engine receptacle, 6 pin Mate-N-Lok: 32160-200 **Specific use or notes:** white square connector with round terminals **Terminal(s):** 32170-216 or 32170-217, check existing connector

Engine receptacle w/lock, 4 pin: 32160-090 **Specific use or notes: Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

T-style connector plug, 2 pin: 32160-139 **Specific use or notes:** none, universal **Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

T-style connector receptacle, 2 pin : 32160-516 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)















Hour meter: 32160-024

**Specific use or notes:** connector for Hobbs hour meter **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Brake switch connector plug, 4 pin: 32160-015 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

PTO Toggle switch 2 pin plug: 32160-125 3 pin plug: 32160-024 **Specific use or notes:** Lazer **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

New interlock plug: 32160-012 **Specific use or notes: Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Safety interlock receptacle, 6 pin: 32160-517 **Specific use or notes:** none, universal **Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

Safety interlock plug, 6 pin: 32160-518 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)











Seat delay plug, 3 pin : 32160-121 **Specific use or notes:** none, universal **Terminal(s):** 32170-055 (one wire), 32170-184 (two wire)

Seat delay receptacle, 3 pin : 32160-053 **Specific use or notes:** none, universal **Terminal(s):** 32170-181 (one wire), 32170-183 (two wire)

## **TERMINALS:**

Packard one wire male: 32170-181 Use/notes: general purpose, for <u>single wire</u> connection

Packard two wire male: 32170-183 Use/notes: general purpose, for two wire connection

Packard one wire female: 32170-055 Use/notes: general purpose, for <u>single wire</u> connection

Packard two wire female: 32170-184 Use/notes: general purpose, for two wire connection

Fuse block terminal: 32170-186 Use/notes: Used on <u>multi-fuse</u> fuse block, Lazer, Vantage, TTS/TTX

Fuse block terminal: 32170-214 Use/notes: Used on <u>single</u> fuse holder, Lazer, TTX/TTS, LZD













Relay base terminal, one wire: 32170-001 **Use/notes:** general purpose, for one wire connection

Relay base terminal, two wire: 32170-003 Use/notes: general purpose, for two wire connection

Hour meter/brake module terminal: 32170-215 **Use/notes:** fits all hour meters and QTS/QTE brake modules

Mate-N-Lok female: 32170-216 Use/notes: fits only the white 6 pin Mate-N-Lok connectors

Mate-N-Lok male: 32170-217 Use/notes: fits only the white 6 pin Mate-N-Lok connectors

As many of you have already experienced, having access to the correct connector bodies and terminals is only part of the challenge of repairing a damaged electrical harness, having the correct crimper is just as important. In order to correctly crimp the Packard or Molex terminals and ensure that the repair is permanent, it is recommended that you order a F-type terminal crimper. I was able to find a set of crimpers that will crimp both the one wire and two wire terminals at http://www.americanautowire.com/shop/american-autowire/tools/crimper-spliceclip-6744, item 510587, \$149. The advantage of this set is that it contains the two wire crimper that is required for two wire terminals. Exmark will not stock crimpers, but they can be found easily by searching for F-type crimper. You can order any of these electrical connectors or terminals through normal parts channels.

On occasion, we've all encountered a wire that has chaffed or broken and needs to be soldered and re-sealed to prevent corrosion or simply to prevent it from contacting other components. Heat shrink tubing is ideal for this type of repair, but not all heat shrink tubing is created equal. The primary difference is if the shrink tubing is 'single walled' (without an internal adhesive) versus 'dual walled' (with adhesive). By far, the dual wall heat shrink tubing is superior to single walled









shrink tubing. The adhesive melts at the same temperature as the tubing shrinks and creates a water-tight seal as it shrinks and cools. The Exmark Test Lab has been using dual wall heat shrink for many years to repair test stands and has found a low-cost source. We purchase our tubing from Allied Electronic (www.alliedelec.com). Follow the link and search for Q5-3X-RK1 or click on this link: <u>http://www.alliedelec.com/search/results.aspx?term=q5+3x+rk1</u>. While there may be other sources of low-cost dual wall heat shrink, we have been pleased with the performance (and cost) of the Qualtek Electronics shrink tubing.

As always, if you have any questions, please don't hesitate to call us at 402-223-6397.