

CHAPTER 12

PARTS

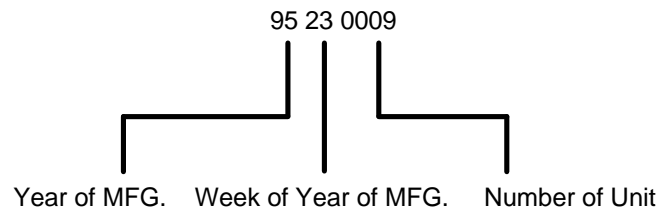
GENERAL

This chapter describes assemblies, subassemblies and parts considered replaceable in field situations.

NOTE: *The following is a breakdown description for the serial number.*

Serial # Location - Back side of unit next to the main leadset connector.

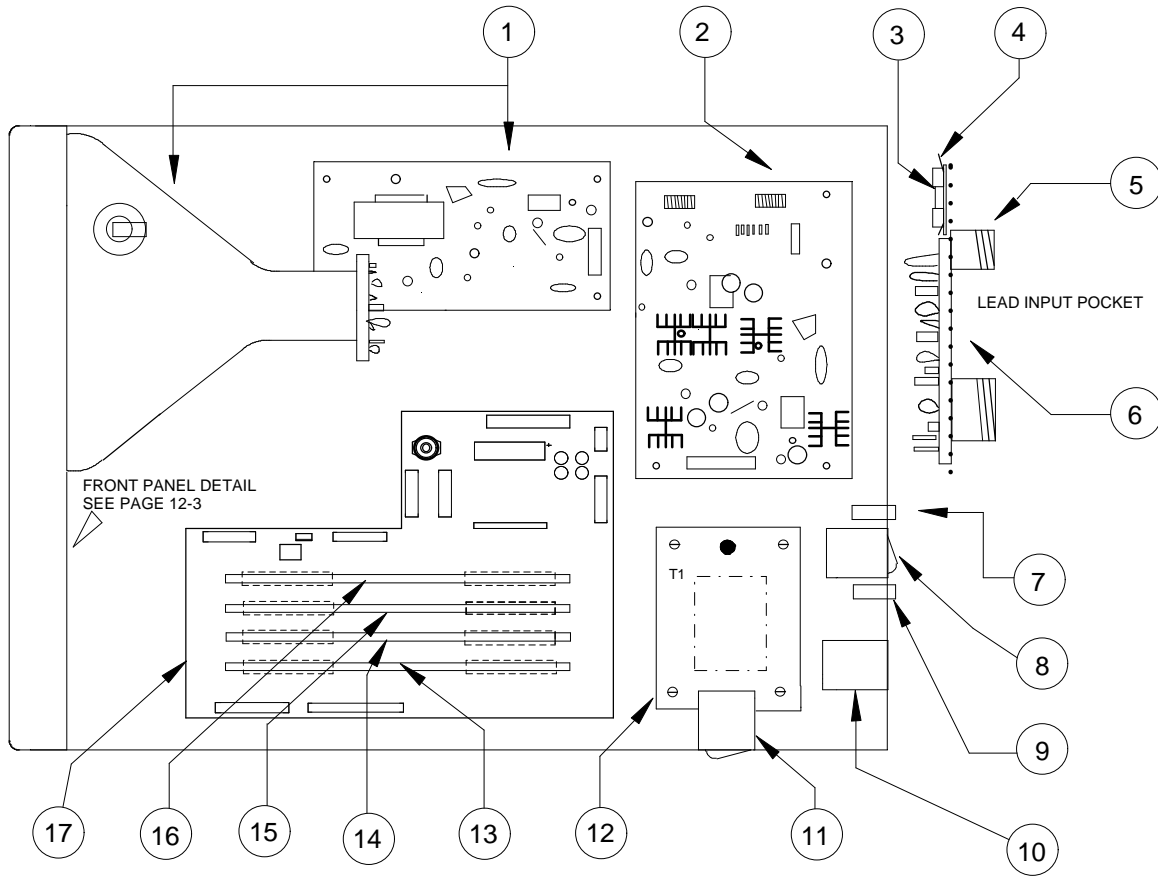
Example:



NS: NOT SHOWN IN PICTORIAL

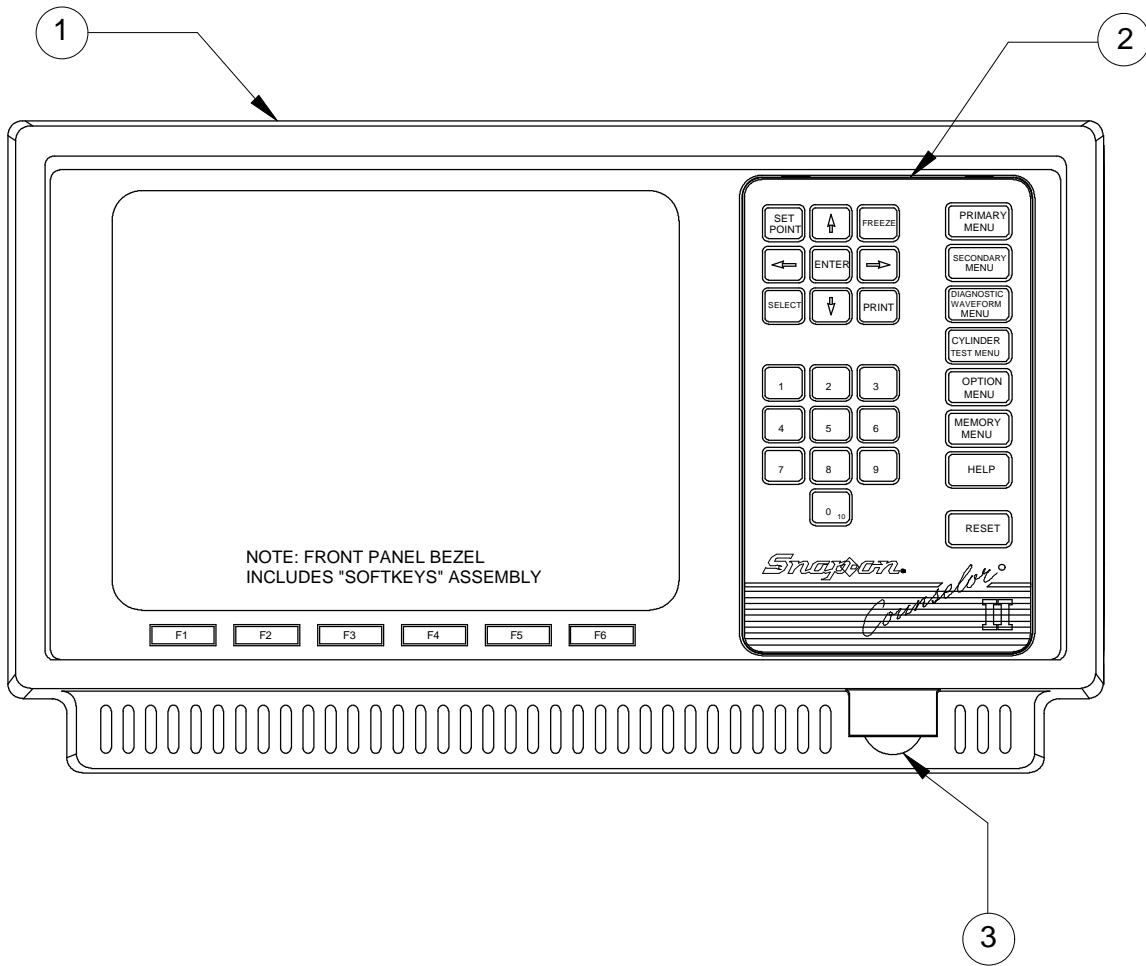
PARTS BY PICTORIAL

TOP VIEW



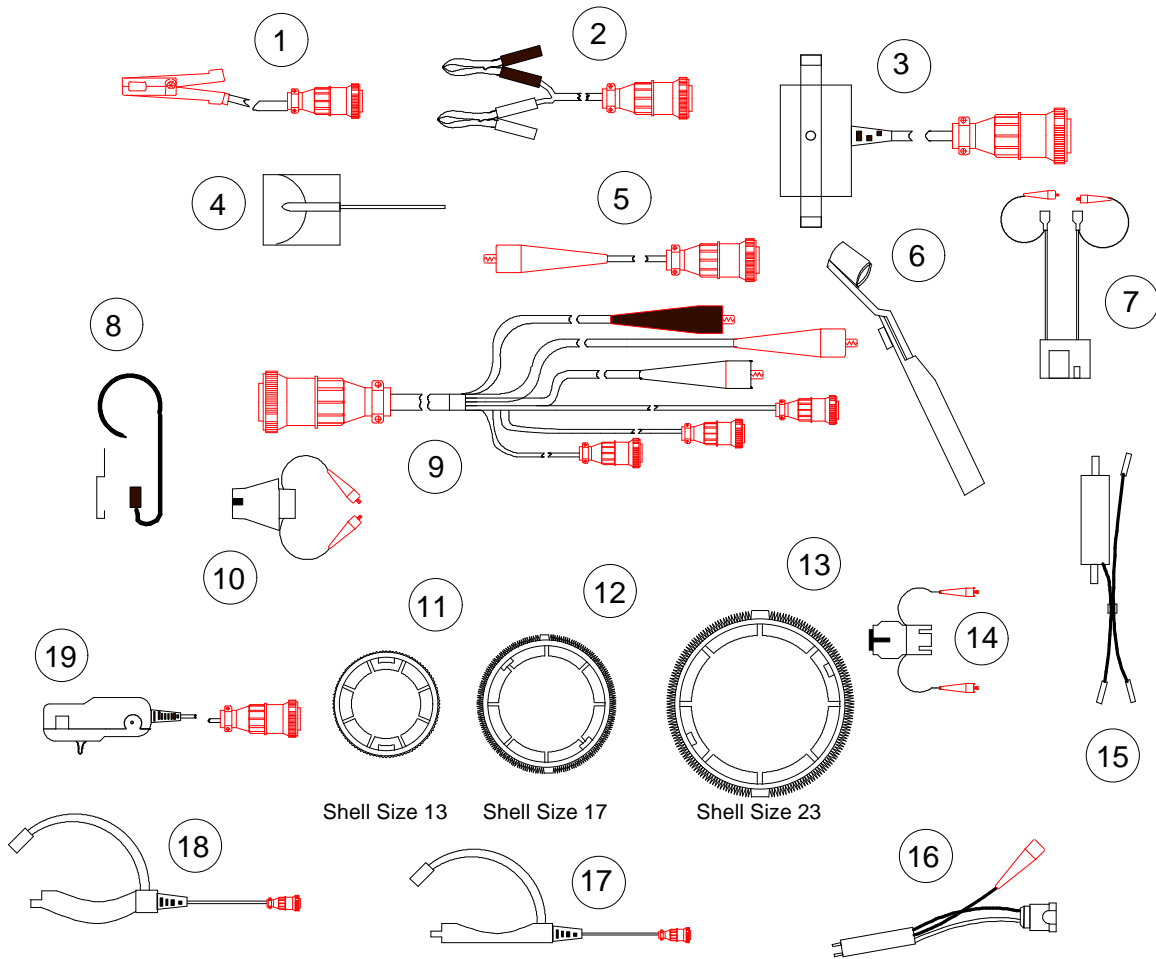
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Monitor Assy	MT3000500A	13	Board, Analog	MT3000A1100
2	Board, Power Supply	MT3000A1700A	14a	Board, Digital (MT3000A)	MT3000A1300
3	Fuse, 20A 32V	210551	14b	Board, Digital (MT3000)	MT3000-1300
4	Fuse Holder	210951	15a	Board, Video (MT3000A)	MT3000A1400A
5	Connector, 12V	212748	15b	Board, Video (MT3000)	MT3000-1400
6	Board, Input Protection	MT3000A1800	16a	Board, Communications (MT3000A)	MT3000A1600A
7	Circuit Breaker, 15 Amp	28851	16b	Board, Communications (MT3000)	MT3000-1600
8	Switch, Power Select	28758	17	Board, Backplane	MT3000A1000A
9	Circuit Breaker, 3 Amp	28751	NS	Rectifier, Bridge	27240
10	Assembly, Line Filter	210751	NS	Mounts, Rubber	85018
11	Switch, ON / OFF	28658	NS	Handle, Cord Wrap	85633
12	Transformer, T1	711401	NS	Cord, Line	62421

FRONT PANEL



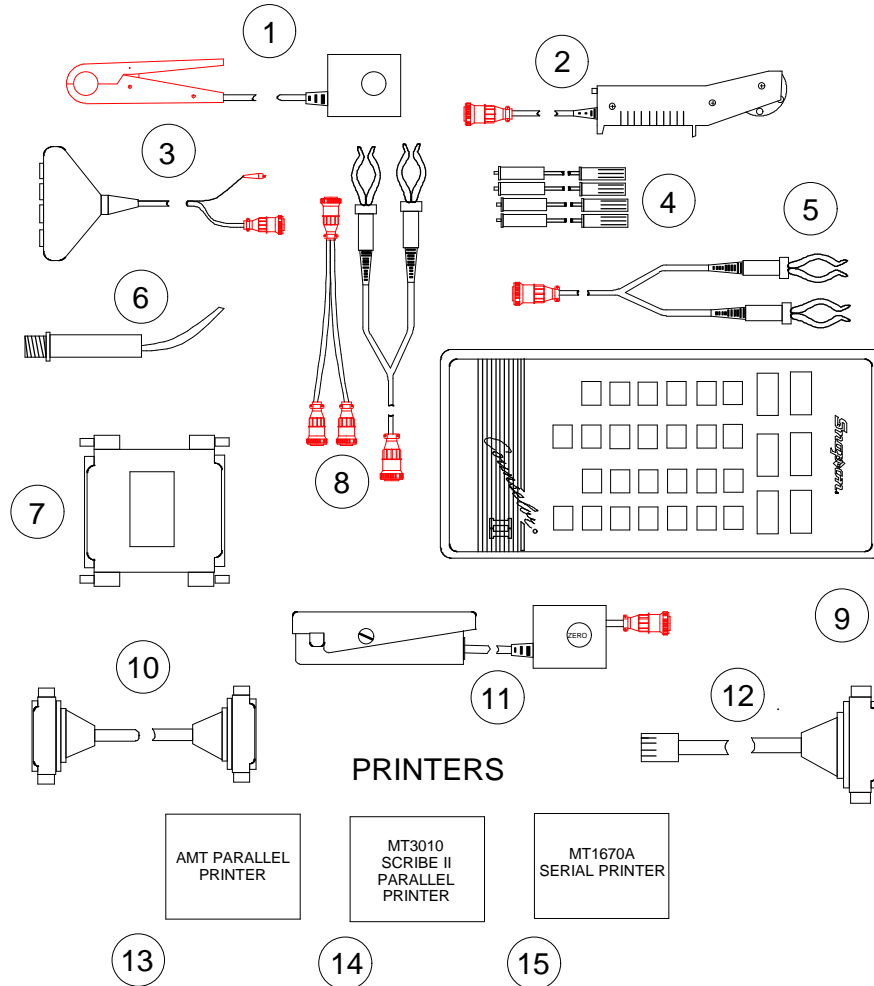
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Front Panel Bezel, with Softkeys Assembly	MT3000A700	3	POT, Brightness	MT300016A
2	Main Keyboard Assembly	MT3000A60	3a	Knob, Brightness	MT30005A

STANDARD LEADS AND ACCESSORIES



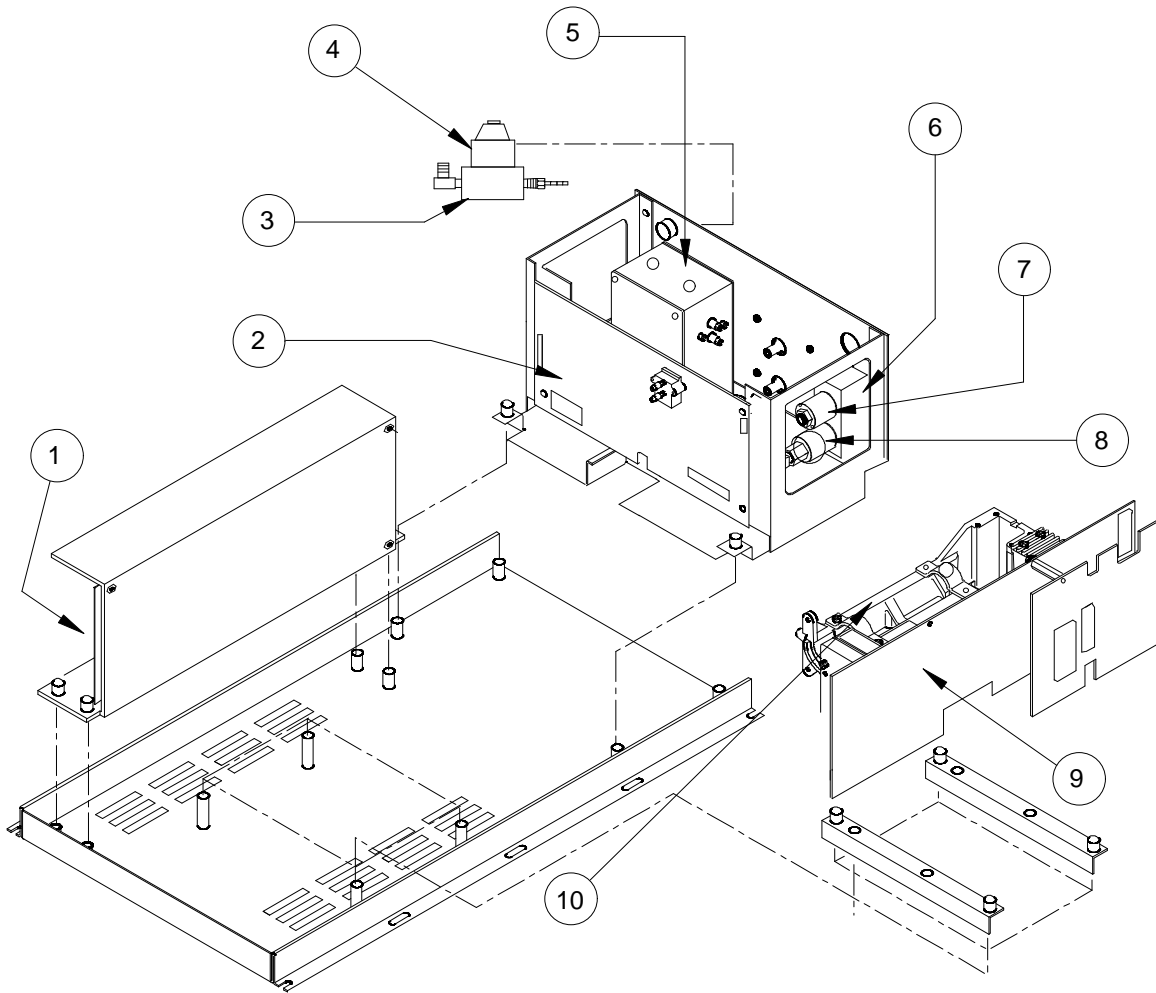
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Lead Assembly, Secondary	MT3000320	11	Ring, Connector Coupling, Small	213248
2	Lead Assembly, 12 volt Power	MT3000210A	12	Ring, Connector Coupling, Medium	213348
3	Adapter, GM HEI	MT3000300A	13	Ring, Connector Coupling, Large	213448
4	Adapter, Backprobe	MT3000430A	14	Adapter, Ford TFI	0552-0043
5	Lead Assembly, Lab	MT3000230	15	Adapter, GM TBI	MT166560
6	Pliers, Spark Plug Boot	YA824-B	16	Adapter, Bosch FI	MT166570
7	Adapter, GM External Coil	0552-0044	17	Adapter, Honda	MT3000310B
8	Adapter Set, GM and Ford	YA859	18	Adapter, Toyota	MT3000330
9	Lead Assembly, Main	MT3000A200	19	Lead Assembly, Inductive, #1 Trigger	MT60A08R
10	Adapter, GM Micropak	0552-0045			

OPTIONAL LEADS AND ACCESSORIES



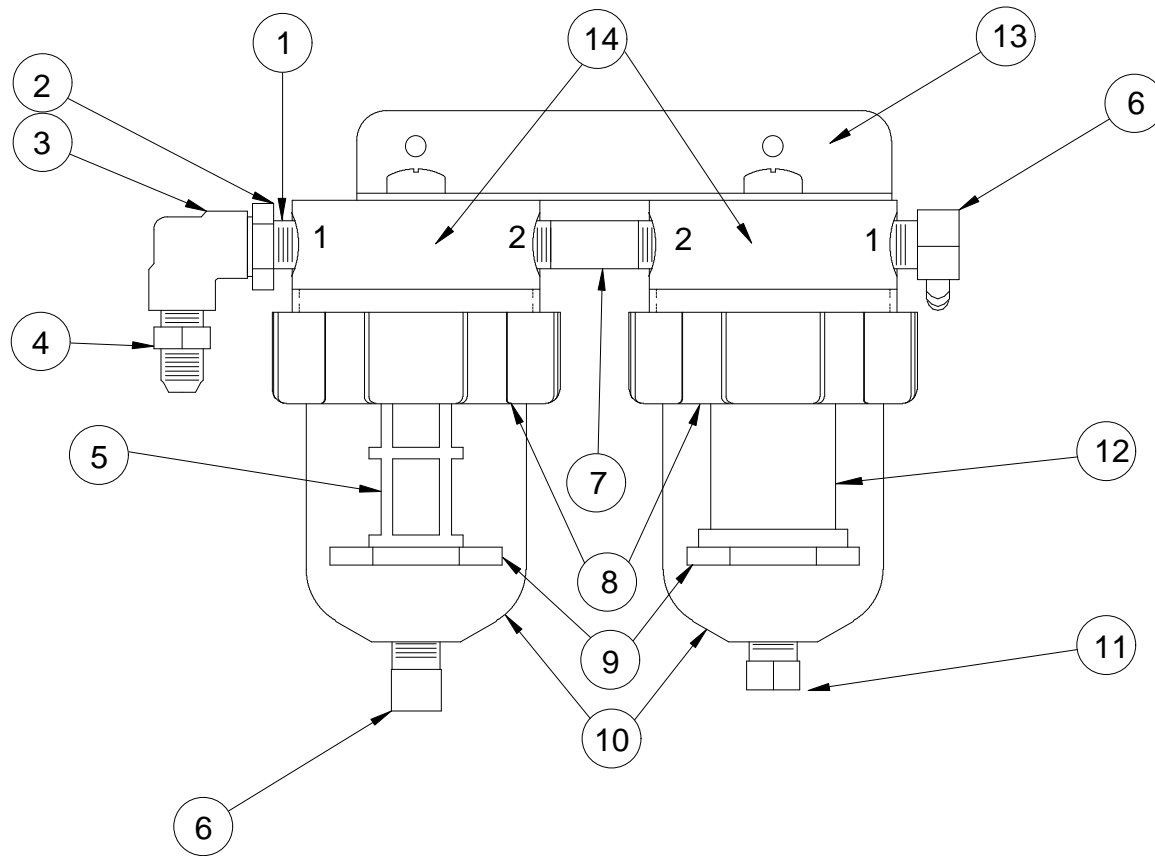
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Probe, Amps	MT3000410AM	11	Probe, Low Amps	MT3000A440M
2	Probe, Power Balance	MT3000420AM	12	Cable, RS232 Serial	MT3000240
3	Pickup, DI Pickup Assembly	MT3000345A	13	Printer, AMT Parallel, 110 v	0528-0029-01
4	Harness, Ignition System Diagnostic Harness	YA3601	14	Printer, AMT Parallel, 220 v	0528-0029-02
5	Pickup, DI	MT1658200B	15	Printer, Scribe II Parallel, 110 v	MT3010
6	Probe, Vacuum	MT3000400B	16	Printer, Serial	MT1670A
7	Adapter, Null Modem Gender Changer	MT300034	NS	Paper, Printer	0528-0994
8	Leads, DI Expander Set	MT3000341A	NS	Ribbon, AMT Printer	0528-1065-01
9	Remote Control	MT3000-600	NS	Ribbon, Scribe II Printer	MT3010-3
10	Cable, Parallel Printer	6004-0707-01	NS	Ribbon, Serial Printer	2-7366-2

GAS ANALYZER, BLOWUP VIEW



ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Board, Power Supply	MT3100-09A	N/S	Hose, Sample	MT310020
2a	Board, Pneumatics (MT3100A)	MT3100-06A	N/S	Handle, Sample Probe	MT31007
2b	Board, Pneumatics (MT3100A[C])	MT3100-63	N/S	Probe, Sample	MT310018
3	Sensor Block, O2	MT31008	N/S	Cap, Sample Probe	MT310032
4	Sensor, O2	7049-0004-01	N/S	Fitting, Cal Gas	15680
5a	Pump, Sample (MT3100A)	MT3100 04B	N/S	Cord, Power	MT3100-22
5b	Pump, Sample (MT3100A[C])	MT3500A-21	N/S	Harness, O2 Wiring	MT3100-25
6	Block, Solenoid	MT3100-27	N/S	2 Amp Circuit Breaker	MT3100-37
7	Solenoid, Two Way	MT3100-29	N/S	Switch, On/Off	MT3100-36
8	Solenoid, Three Way	MT3100-28	N/S	Transformer	MT310010A
9	IR Bench	MT3100-46	N/S	Cable, Interface	MT3100-23
10	Sample Cell	MT3100-02A	N/S	Probe, Needle Adapter	MT310019
N/S	Fitting, 90° Brass Male	113780	N/S	Cap, Needle Probe Adapter	MT310033
N/S	Fitting, Brass Pipe	113480			

FILTER ASSEMBLY



ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
1	Fitting, Brass Nipple	0647030101	8	Nut, Bowl	0301094801
2	Nut, Brass Seal	0647030201	9	Nut, Element Retainer	0301094601
3	Fitting, Brass Elbow	0647030301	10	Bowl, Filter	0301094701
4	Fitting, Brass Flare	113380	11	Plug, Nylon	06470138
5	Filter Element, Primary	0301094401	12	Filter Element, Sec.	0301094501
6	Fitting, Brass 90° Barb	113680	13	Bracket, Filter	MT3500A9
7	Fitting, Brass Pipe	113480	14	Filter Housing	0301094201

PARTS IN ALPHABETICAL ORDER

DESCRIPTION	PART NUMBER	COMMENTS
Adapter, Backprobe	MT3000430	Connectors used for "back-probing".
Adapter, Bosch Fuel Injector	MT166570	Bosch Fuel Injector Adapter
Adapter, Coil, Ford, TFI	0552-0043	Adapter for Ford TFI coil adapter
Adapter, Coil, GM Micropak	0552-0045	Provides connections to primary of Micropak ignition systems
Adapter, Coil, GM, External	0552-0044	Coil Adapter, GM, External connections
Adapter, Coil, GM, Ford	YA859	Coil Adapter Set, GM and Ford
Adapter, Coil, Honda	MT3000310B	Secondary pickup for Honda ignition systems
Adapter, Coil, Toyota, Chevrolet, Nova IIA	MT3000330	Coil Adapter for Toyota, Chevrolet, Nova IIA, requires calibration, see chapter 3.
Adapter, GM TBI	MT166560	Adapter for GM TBI systems
Adapter, HEI	MT3000300A	GM HEI pattern pickup with lead connector
Adapter, Null Modem Changer	MT300034	25 pin DIN Gender Changer
Assembly, Line Filter	210751	Houses 20 amp fuse, Line Filter and AC connector
Bench, IR	MT3100-46	Infrared Bench assembly
Bezel, Front Panel	MT3000A700	Includes Softkeys (F1 - F6)
Board, Analog	MT3000A1100	Analog processing and calibration
Board, Backplane	MT3000A1000A	Four main boards connect into this board
Board, Communications	MT3000A1600A	Used on MT3000A
Board, Communications	MT3000-1600	Used on MT3000
Board, Digital	MT3000A1300	Used on MT3000A
Board, Digital	MT3000-1300	Used on MT3000
Board, Input Protection	MT3000A1800	
Board, Main Key	MT3000A60	Main functions
Board, Pneumatics	MT3100-06A	Pneumatics control for MT3100A
Board, Pneumatics	MT3100-63	Pneumatics control for MT3100A(C)
Board, Power Supply	MT3100-09A	Power supply for MT-3100
Board, Power Supply	MT3000A1700A	Power supply for MT-3000
Board, Video (MT3000A)	MT3000A1400A	Used on MT3000A
Board, Video	MT3000-1400	Used on MT3000
Cable, Interface	MT3100-23	Interface cable from MT3100 to MT-3000
Cable, Parallel Printer	6004-0707-01	
Cable, RS232 Serial	MT3000240	
Cap, Sample Probe	MT310032	Used during leak test
Cap, Sample, Needle Adapter	MT310033	Used to leak test Needle Adapter
Circuit Breaker, 2 Amp	MT3100-37	Circuit breaker for MT-3100
Circuit Breaker, 3 Amp	28751	Ground Fault Breaker
Circuit Breaker, 15 Amp	28851	Main Breaker
Connector, 12 VDC	212748	3 Pin connector at back of tester
Cord, Line	62421	110 Volt line cord
Cord, Power (MT-3100)	MT3100-22	Power cord for MT-3100
Filter, Assembly, Primary	0301013601	Complete Primary filter assembly
Filter, Assembly, Secondary	0301094201	Complete secondary filter assembly
Filter Bowl	0301094701	Filter Bowl for both Primary and Secondary filters
Filter Housing,	0301094201	Housing for both Primary and Secondary filters
Filter, Primary	0301094401	Primary Filter
Filter, Secondary	0301094501	Secondary Filter
Fitting, Brass Elbow	0647030201	
Fitting, Brass Flare	113380	Connection for Sample Hose
Fitting, Brass Nipple	06470030101	Connects to sample hose
Fitting, Brass Pipe	113480	Connects Primary Filter Housing to Secondary Filter
Fitting, 90° Barb	113680	Bottom of Primary Filter Bowl and outlet of Secondary Filter Housing
Fitting, Cal Gas Inlet	15680	

DESCRIPTION	PART NUMBER	COMMENTS
Fuse, 32 VDC, 20 Amp	210551	Backup for 8 Amp Breaker
Fuseholder	210951	
Handle, Cord Wrap	85633	
Handle, Sample Probe	MT31007	
Harness, Ignition System	YA3601	For GM Integrated Direct Ignition (IDI) System
Diagnostic Harness		
Harness, O2 Wiring	MT3100-25	Wiring harness for O2 sensor in MT-3100
Hose, Sample	MT310020	Exhaust sample hose for MT-3100
Kit, Tri-filter Retro Fit	EAK0004A00A	
Knob, Brightness	MT30005A	
Lead Assembly, +12 VDC Power	MT3000210A	Power Lead-in from battery
Lead Assembly, Lab Scope	MT3000230	Single, red clip lead
Lead Assembly, Main	MT3000A200	Main lead assembly, connected at rear of tester
Lead Assembly, Secondary	MT3000320	Secondary pattern pickup
Lead Assembly, Trigger	MT60A08A	#1 Cylinder pickup for Triggering
Lead, DI Pickup Lead	MT1658200B	
Lead, DI Lead Expander	MT3000341A	Allows testing of ten cylinder engines
Leads, Jumper	MT30124	24" jumper leads
Monitor Assembly	MT3000500A	Pre-adjusted monitor assembly, Driver Board and CRT Assembly are included as a set
Mounts, Rubber	84918	Rubber feet of tester
Nut, Bowls	0301094801	Retaining nut for filter bowls
Nut, Filters	0301094601	Retaining nut for filters
Paper, Printer	0528-0994	
Pickup, DI Pickup Assembly	MT3000345A	Secondary pickup for distributorless ignitions
Pliers, Spark Plug Boot Pliers	YA824B	Nonconductive Pliers for removing Spark Plug Boots
Plug, Nylon	06470138	Plugs bottom of Secondary Filter Bowl
Pot, Brightness	MT300016A	Includes Cable
Printer, AMT Parallel, 110 v	0528-0029-01	
Printer, AMT Parallel, 220 v	0528-0029-02	
Printer, Scribe II Parallel, 110v	MT3010	
Printer, Serial	MT1670A	
Probe, Amps, Basic	MT3000410	Inductive Amps Probe for tester
Probe, Amps, Low	MT3000A440	Reads a lower level of current flow.
Probe, Power Balance	MT3000420A	Used for cylinder analysis
Probe, Sample	MT310018	Exhaust probe for MT-3100
Probe, Sample, Needle Adapter	MT310019	Samples vehicles with diffuser in tailpipe
Probe, Vacuum	MT3000400	Vacuum sensor, no calibration
Pump, Sample	MT3100-04B	Sample pump for MT-3100A
Pump, Sample	MT3500A-21	Sample pump for MT3100A(C)
Rectifier, Bridge	27240	
Remote Control	MT3000600	Infra Red remote control
Ribbon, AMT Printer	0528-1065-01	
Ring, Connector, Large	213448	Coupling ring for Main Lead Assembly at rear of tester
Ring, Connector, Medium	213348	Coupling ring for Auxiliary Connector
Ring, Connector, Small	213148	Coupling ring for #1 Plug Connector and Secondary Pickup Connector
Ring, O	0301094301	O-ring for filter bowls
Sample Cell	MT3100-02A	Sample cell for MT-3100
Sensor Block, O2	MT3100-27	Manifold for O2 sensor
Sensor, O2	7049-0004-01	
Solenoid, 2 Way	MT3100-29	
Solenoid, 3 Way	MT3100-28	
Solenoid Block	MT3100-27	Manifold for solenoids
Switch, On/Off	MT3100-36	Power switch for MT3100
Switch, On/Off	28658	Main Power Switch

CHAPTER 12 PARTS

DESCRIPTION	PART NUMBER	COMMENTS
Switch, Power Select	28758	Selects between AC and DC power
Transformer	MT310010A	Transformer for MT-3100
Transformer, T1	711401	Transformer for MT-3000

PARTS IN NUMERICAL ORDER

PART NUMBER	DESCRIPTION	COMMENTS
06470302201	Nut, Brass Seal	
0647030301	Fitting, Brass Elbow	
0647030101	Fitting, Brass Nipple	Connects to sample hose
0301094801	Nut, Bowls	Retaining nut for filter bowls
0301094701	Filter Bowl	Filter Bowl for both Primary and Secondary filters
0301094601	Nut, Filters	Retaining nut for filters
0301094501	Filter, Secondary	Secondary Filter
0301094401	Filter, Primary	Primary Filter
0301094301	Ring, O	O-ring for filter bowls
0301094201	Filter, Assembly, Secondary	Complete secondary filter assembly
0301094201	Filter Housing,	Housing for both Primary and Secondary filters
0301013601	Filter, Assembly, Primary	Complete Primary filter assembly
06470138	Plug, Nylon	Plugs bottom of Secondary Filter Bowl
711401	Transformer, T1	Transformer for MT-3000(A)
213448	Ring, Connector Coupling, Large	Coupling ring for Main Lead Assembly at rear of tester
213348	Ring, Connector Coupling, Medium	Coupling ring for Auxiliary Connector
213248	Ring, Connector Coupling, Small	Coupling ring for #1 Plug Connector and Secondary Pickup Connector
212748	Connector, 12 VDC	3 Pin connector at back of tester
210951	Fuseholder	
210751	Assembly, Line Filter	Houses 20 amp fuse, Line Filter and AC connector
210551	Fuse, 32 VDC, 20 Amp	Backup for 8 Amp Breaker
113780	Fitting, 90° Brass, Male	
113680	Fitting, 90° Barb	Bottom of Primary Filter Bowl and outlet of Secondary Filter Housing
113480	Fitting, Brass Pipe	Connects Primary Filter Housing to Secondary Filter Housing
113380	Fitting, Brass Flare	Connection for Sample Hose
85633	Handle, Cord Wrap	
84918	Mounts, Rubber	Rubber feet of tester
62421	Cord, Line	110 Volt line cord
28851	Circuit Breaker, 15 Amp	Main Breaker
28758	Switch, Power Select	Selects between AC and DC power
28751	Circuit Breaker, 3 Amp	Ground Fault Breaker
28658	Switch, On/Off	Main Power Switch
27240	Rectifier, Bridge	
15680	Fitting, Cal Gas Inlet	
7049-0004-01	Sensor, O ₂	
6004-0707-01	Cable, Parallel Printer	
0552-0043	Adapter, Coil, Ford®, TFI	Adapter for Ford® TFI coil adapter
0552-0044	Adapter, Coil, GM, External	Coil Adapter, GM, External connections
0552-0045	Adapter, Coil, GM Micropak	Provides connections to primary of Micropak® ignition systems
0528-0029-01	Printer, AMT Parallel 110 v	
MT3100-02A	Sample Cell	Sample cell
MT3100-04B	Pump, Sample	Sample pump for MT3100A
MT3100-06A	Board, Pneumatics	Pneumatics control for MT3100A
MT3100-09A	Board, Power Supply	Power supply
MT35000A-21	Pump, Sample	DC Pump used in MT3100A(C)
MT3100-22	Cord, Power (MT-3100)	Power cord for
MT3100-23	Cable, Interface	Interface cable from MT3100 to MT3000

CHAPTER 12 PARTS

PART NUMBER	DESCRIPTION	COMMENTS
MT3100-25	Harness, O2 Wiring	Wiring harness for O2 sensor
MT3100-27	Solenoid Block	Manifold for solenoids
MY3100-27	Sensor Block, O2	Manifold for O2 sensor
MT3100-28	Solenoid, 3 Way	
MT3100-29	Solenoid, 2 Way	
MT3100-36	Switch, On/Off	Power switch
MT3100-37	Circuit Breaker, 2 Amp	Circuit breaker
MT3100-46	Bench, IR	Infrared Bench assembly
MT3100-63	Board, Pneumatics	Used in MT3100A(C)
0528-0994	Paper, Printer	
0528-1065-01	Ribbon, AMT Printer	
MT3000-1300	Board, Digital	Used in MT3000
MT3000-1400	Board, Video	Used in MT3000
MT300-1600	Board, Communications	Used in MT3000
EAK0004A00A	Kit, Tri-filter Retro Fit	
MT1658200B	Lead, DI Pickup Lead	
MT166560	Adapter, GM® TBI	Adapter for GM TBI systems
MT166570	Adapter, Bosch®	Bosch® Fuel Injector Adapter
MT1670A	Printer, Serial	
MT300016A	POT, Brightness	Includes Cable
MT3000210A	Lead Assembly, +12 VDC Power	Power Lead-in from battery
MT3000230	Lead Assembly, Lab Scope	Single, red clip lead
MT3000240	Cable, RS232 Serial	
MT3000300A	Adapter, HEI	GM HEI pattern pickup with lead connector
MT3000310B	Adapter, Coil, Honda®	Secondary pickup for Honda® ignition systems
MT3000320	Lead Assembly, Secondary	Secondary pattern pickup
MT3000330	Adapter, Coil, Toyota®, Chevrolet®, Nova® IIA	Coil Adapter for Toyota®, Chevrolet®, Nova® IIA, requires calibration, see chapter 3.
MT300034	Adapter, Null Modem Gender Changer	25 pin DIN Gender Changer
MT3000341A	Lead, DI Lead Expander	Allows testing of ten cylinder engines
MT3000345A	Pickup, DI Pickup Assembly	Secondary pickup for distributorless ignitions
MT3000400	Probe, Vacuum	Vacuum sensor, no calibration
MT3000410A	Probe, Amps, Basic	Inductive Amps Probe for tester
MT3000420A	Probe, Power Balance	Used for cylinder analysis
MT3000430	Adapter, Backprobe	Connectors used for "back-probing".
MT3000500A	Monitor Assembly	Pre-adjusted monitor assembly, Driver Board and CRT Assembly are included as a set
MT30005A	Knob, Brightness	
MT3000600	Remote Control	Infra Red remote control
MT3000A1000A	Board, Backplane	
MT3000A1100	Board, Analog	Analog processing and calibration
MT3000A1300	Board, Digital	Used in MT3000A
MT3000A1400A	Board, Video	Used in MT3000A
MT3000A1600A	Board, Communications	Used in MT3000A
MT3000A1700A	Board, Power Supply	Power supply for MT-3000A
MT3000A1800	Board, Input Protection	
MT3000A200	Lead Assembly, Main	Main lead assembly, connected at rear of tester
MT3000A440	Probe, Amps, Low	Reads a lower level of current flow.
MT3000A60	Board, Main Key	Main functions
MT3000A700	Bezel, Front Panel	Includes Softkeys (F1 - F6)
MT3010	Printer, Scribe II Parallel, 110v	
MT30124	Leads, Jumper	24" jumper leads
MT310010A	Transformer	Transformer for MT3100A

PART NUMBER	DESCRIPTION	COMMENTS
MT310018	Probe, Sample	Exhaust probe
MT310020	Hose, Sample	Exhaust sample hose
MT310019	Probe, Sample, Needle Adapter	Samples vehicles with diffuser in tailpipe
MT310032	Cap, Sample Probe	Used during leak test
MT310033	Cap, Sample, Needle Adapter	Used to leak test Needle Adapter
MT31007	Handle, Sample Probe	
MT60A08R	Lead Assembly, Trigger	#1 Cylinder pickup for Triggering
YA3601	Harness, Ignition System Diagnostic Harness	For GM® Integrated Direct Ignition (IDI) System
YA824A	Pliers, Spark Plug Boot Pliers	Nonconductive Pliers for removing Spark Plug Boots
YA859	Adapter, Coil, GM®, Ford®	Coil Adapter Set, GM® and Ford®

